

DRAFT
POND SITING REPORT

Florida Department of Transportation

District 7

Project Title: Interstate 75 (State Road 93A) Project Development and Environment Study

Limits of Project: From south of US 301/State Road 43 to north of Bruce B. Downs
Boulevard/County Road 581

Hillsborough County, Florida

Financial Management Number: 419235-3

ETDM Number: 8002 & 14267

Date: January 2022

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



Draft Pond Siting Report

Interstate 75 (State Road 93A) Project Development and Environment Study

**From south of US 301/State Road 43 to north of Bruce B. Downs
Boulevard/County Road 581**

Hillsborough County, Florida

WPI Segment Number: 419235-3

ETDM Numbers: 8002 & 14267

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. Code (U.S.C.) §327 and a Memorandum of Understanding (MOU) dated December 14, 2016 and executed by Federal Highway Administration and FDOT.

January 2022



Draft Pond Siting Report

Interstate 75 (State Road 93A) Project Development and Environment Study

**From south of US 301/State Road 43 to north of Bruce B. Downs
Boulevard/County Road 581**

Hillsborough County, Florida

WPI Segment Number: 419235-3

ETDM Numbers: 8002 & 14267

Prepared by:
WSP, Inc.
Tampa, Florida

January 2022

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along approximately 18.0 miles of Interstate 75 (I-75) (State Road (SR) 93A) from south of US 301 (SR 43) to north of Bruce B. Downs (BBD) Boulevard in Hillsborough County, Florida. Refer to the project location map found in **Figure 1**. The design year for the improvements is 2045.

This PD&E Study is being conducted concurrently with the PD&E Study for the portion of I-75 that extends from Moccasin Wallow Road in Manatee County to south of US 301 (SR 43) in Hillsborough County (WPI Segment No. 419235-2).

The objective of the PD&E Study is to assist the FDOT and the Office of Environmental Management in reaching a decision on the type, location, and conceptual design of the necessary improvements for I-75 to safely and efficiently accommodate future travel demand. This PD&E Study will document the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives including elements such as proposed typical sections, special designation of travel lanes, preliminary horizontal alignments, and interchange enhancement alternatives. The anticipated social, physical, and natural environmental effects and costs of these improvements will be identified. The alternatives will be evaluated and compared based on a variety of parameters utilizing a matrix format. This process will identify the alternative that will best balance the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs).

The PD&E Study satisfies all applicable requirements, including the National Environmental Policy Act, to qualify for federal-aid funding of subsequent development phases (design, right-of-way acquisition, and construction). To initiate agency coordination, the project has been screened through the Programming Screen of the FDOT's Efficient Transportation Decision Making (ETDM) process as project 8002. An ETDM *Programming Screen Summary Report* was published on March 29, 2007, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. Based on the ETAT comments, the FHWA determined that this project qualified as a Type 2 Categorical Exclusion. It should be noted that ETDM also identifies the project as No. 14267. An Advance Notification package was sent on February 29, 2016 under this number for the project limit change from north of Fletcher Avenue to north of Bruce B. Downs Boulevard.

This Pond Siting Report (PSR) has been prepared as part of this PD&E Study to document stormwater treatment and attenuation requirements for the proposed improvements. This report identifies up to three (3) Stormwater Management Facility (SMF) alternatives per basin along with the required Floodplain Compensation (FPC) site(s). The SMF's were sized to provide treatment and attenuation for the additional impervious area including the two (2) proposed 12-foot express lanes in both the northbound and southbound direction. This study analyzed pond site alternatives that are hydraulically feasible and environmentally permissible based on the best available information.

The project study area was sub-divided into 34 roadway drainage basins. The first 25 basins referred to as Basin 1 through Basin 25 were analyzed in this report. For I-75, Basin A through

Basin EF were previously permitted to provide treatment and attenuation for the ultimate interstate typical which consists of 324 feet of impervious surface within the right-of-way. The interstate north of Bruce B. Downs has been permitted to treat and attenuate from right-of-way to right-of-way. Under the proposed improvements, the widening will consist of approximately 270 feet of impervious surface with the right-of-way. At the interchange of I-75 and Bruce B. Downs, calculations have been performed to demonstrate the existing stormwater facilities can accommodate the proposed widening project. For the basins on I-4, Basins H and I, the existing ponds provide treatment and attenuation for the existing interstate.

The SMF and FPC recommendations for Basin 1 through Basin 25 are based on a variety of factors and are summarized in the Stormwater Evaluation Matrix included in **Section 7.0** of the report. The matrix was developed using environmental and cultural assessments, construction costs and right-of-way costs. The preferred SMF's and FPC's for the entire project are summarized in **Table 1**.

Table 1: Preferred SMF's and FPC's

| Basin | Receiving Water Body | Preferred SMF | FPC Site |
|-------|---|------------------------------------|-------------------------|
| 1 | Archie Creek Tributary B | SMF 1C | - |
| 2 | North Archie Creek | SMF 2/3 | - |
| 3 | | | - |
| 4 | Unnamed Tributary On North Archie Creek | SMF 4/5 | - |
| 5 | | | - |
| 6 | | | SMF 6A |
| 7 | Delaney Creek | SMF 7/8 | FPC 7 |
| 8 | | | |
| 9 | Tampa Bypass Canal Tributary 2 South Branch | SMF 9 | - |
| 10 | | SMF 10C | - |
| 11 | | SMF 11A | - |
| 12 | Tampa Bypass Canal Tributary 2 | SMF 12/13C | FPC 12/13R & FPC 12/13L |
| 13 | | | |
| 14 | Tampa Bypass Canal Tributary 1 South Branch 2.1 | SMF 14A | FPC 14 |
| 15 | Tampa Bypass Canal Tributary 1 | SMF 15/16 | - |
| 16 | | | - |
| 17 | Tampa Bypass Canal Main Ditch | SMF 17A | FPC 17/18 |
| 18 | | SMF 18A | |
| 19 | | SMF 19A, SMF 19B, SMF 19C, SMF 19D | FPC 19A & FPC 19B |
| 20 | | SMF 20A | FPC 20 |
| 21 | Unnamed Tributary to Tampa Bypass Canal | SMF 21B | FPC 21B |
| 22 | Tampa Bypass Canal | SMF 22/23 | - |
| 23 | | | - |
| 24 | | SMF 24B | - |
| 25 | | SMF 25A | - |
| A | Cowhouse Creek | Existing Ponds A2 & A4 | - |
| B | | Existing Ponds B2 & B3 | - |
| C | Hillsborough River | Existing Ponds C2 & C5 | FPC CD |

| | | | |
|---------------------------|--------------------|--|---|
| D | | Existing Pond D | - |
| EF | | Existing Pond EF | - |
| 1B, 1C, Ramp 1 Infield | | Existing Ponds 1B, 1C, Ramp 1 Infield | - |
| G | Cypress Creek | Existing Ponds G1A & G1B, 1A, G2, G3 | - |
| H (I-4) | Tampa Bypass Canal | Existing Pond 5-1 | - |
| I (I-4) | | Existing Pond 7 | - |

DRAFT

TABLE OF CONTENTS

| | |
|--|-----------|
| EXECUTIVE SUMMARY | 1 |
| 1.0 SUMMARY OF PROJECT | 1 |
| 1.1 Description of Proposed Action | 1 |
| 1.2 Existing Facility | 3 |
| 1.3 Project Purpose and Need | 4 |
| 1.4 Report Purpose | 4 |
| 2.0 IMPROVEMENT ALTERNATIVES | 4 |
| 2.1 No-Build Alternative | 4 |
| 2.2 Mainline and Interchange Build Alternatives | 4 |
| 2.3 Preferred Alternative | 5 |
| 3.0 EXISTING CONDITIONS | 6 |
| 3.1 Topography & Hydrologic Features | 6 |
| 3.2 Soil Characteristics | 8 |
| 3.3 Existing Drainage Systems | 8 |
| 3.4 Existing Stormwater Facilities | 8 |
| 3.5 Cross Drains | 10 |
| 3.6 Existing Bridges and Bridge Culverts | 11 |
| 4.0 FLOODPLAINS AND FLOODWAYS | 11 |
| 4.1 Floodplains | 11 |
| Note: Impacts and compensation based on plan view area | 12 |
| 4.2 Floodways | 12 |
| 5.0 SCOPE AND DESIGN CRITERIA | 15 |
| 5.1 Purpose | 15 |
| 5.2 Drainage System | 15 |
| 5.3 Receiving Waters | 15 |
| 5.4 Outstanding Florida Water (OFW) | 16 |
| 5.5 SHWT Establishment | 16 |
| 5.6 DHW Establishment | 16 |
| 5.7 Regulatory Issues and Design Criteria | 16 |
| 5.7.1 Water Quality | 16 |
| 5.7.2 Water Quantity | 16 |
| 5.8 SMF Geometry Layout | 17 |
| 5.9 FPC Site Sizing | 17 |

| | | |
|------------|---|-----------|
| 6.0 | SITE SELECTION AND DESIGN APPROACH | 17 |
| 7.0 | PROPOSED CONDITIONS | 18 |
| 7.1 | Basin 1 | 18 |
| 7.2 | Basin 2/3 | 19 |
| 7.3 | Basin 4/5 | 19 |
| 7.4 | Basin 6 | 19 |
| 7.5 | Basin 7/8 | 19 |
| 7.6 | Basin 9 | 20 |
| 7.7 | Basin 10 | 20 |
| 7.8 | Basin 11 | 20 |
| 7.9 | Basin 12/13 | 21 |
| 7.10 | Basin 14 | 21 |
| 7.11 | Basin 15/16 | 21 |
| 7.12 | Basin 17 | 22 |
| 7.13 | Basin 18 | 22 |
| 7.14 | Basin 19 | 22 |
| 7.15 | Basin 20 | 22 |
| 7.16 | Basin 21 | 23 |
| 7.17 | Basin 22/23 | 23 |
| 7.18 | Basin 24 | 24 |
| 7.19 | Basin 25 | 24 |
| 7.20 | Basin A | 24 |
| 7.21 | Basin B | 24 |
| 7.22 | Basin C | 25 |
| 7.23 | Basin D | 25 |
| 7.24 | Basin EF | 25 |
| 7.25 | Basin 1B, 1C, & Ramp 1 Infield | 25 |
| 7.26 | Basin G | 26 |
| 8.0 | FDEP IMPAIRED WATER BODY | 30 |
| 9.0 | REFERENCES | 31 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1: Project Location Map..... | 2 |
| Figure 2: Existing I-75 Mainline Typical Sections..... | 3 |
| Figure 3: I-75 Preferred Build Alternative Typical Section..... | 5 |
| Figure 4: Regional Drainage Basin Map | 7 |
| Figure 5: FEMA Floodplain Map (Sheet 1 of 2)..... | 13 |
| Figure 6: FEMA Floodplain Map (Sheet 2 of 2)..... | 14 |

LIST OF TABLES

| | |
|---|----|
| Table 1: Preferred SMF's and FPC's..... | 2 |
| Table 2: Summary of Existing Ponds from Fowler Ave. to Bruce B. Downs Blvd..... | 9 |
| Table 3: I-75 Cross Drain Summary | 10 |
| Table 4: 100-yr Floodplain Impact and Compensation Summary..... | 12 |
| Table 5: Stormwater Evaluation Matrix..... | 27 |
| Table 6: FDEP Impaired Waterbodies | 30 |

LIST OF APPENDICIES

| | |
|--|--|
| Appendix A NRCS Soil Data | |
| Appendix B Existing Permits | |
| Appendix C Drainage Map | |
| Appendix D FEMA Firmette Maps | |
| Appendix E Coordination & Meeting Minutes | |
| Appendix F Proposed Pond Sizing Calculations | |
| Appendix G FDOT Right-of-Way Cost Estimates | |
| Appendix H Assessments | |
| Appendix I FDEP Verified Impaired List | |

1.0 SUMMARY OF PROJECT

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along approximately 18 miles of Interstate 75 (I-75) (State Road (SR) 93A) from south of US 301 (SR 43) to north of Bruce B. Downs (BBD) Boulevard in Hillsborough County, Florida. Refer to the project location map found in **Figure 1**. The design year for the improvements is 2045. This PD&E Study is being conducted concurrently with the PD&E Study for the section of I-75 that extends from Moccasin Wallow Road in Manatee County to south of US 301 in Hillsborough County, Florida (WPI Segment No. 419235-2).

The objective of this PD&E Study is to assist the FDOT and the Office of Environmental Management in reaching a decision on the type, location, and conceptual design of the necessary improvements for I-75 to safely and efficiently accommodate future travel demand. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives, including elements such as proposed typical sections, preliminary horizontal alignments, and interchange enhancement alternatives.

This Pond Siting Report (PSR) is an engineering tool used to identify potential stormwater pond sites and floodplain compensation sites. The information presented in this document is subject to change throughout the preliminary engineering and project design phases.

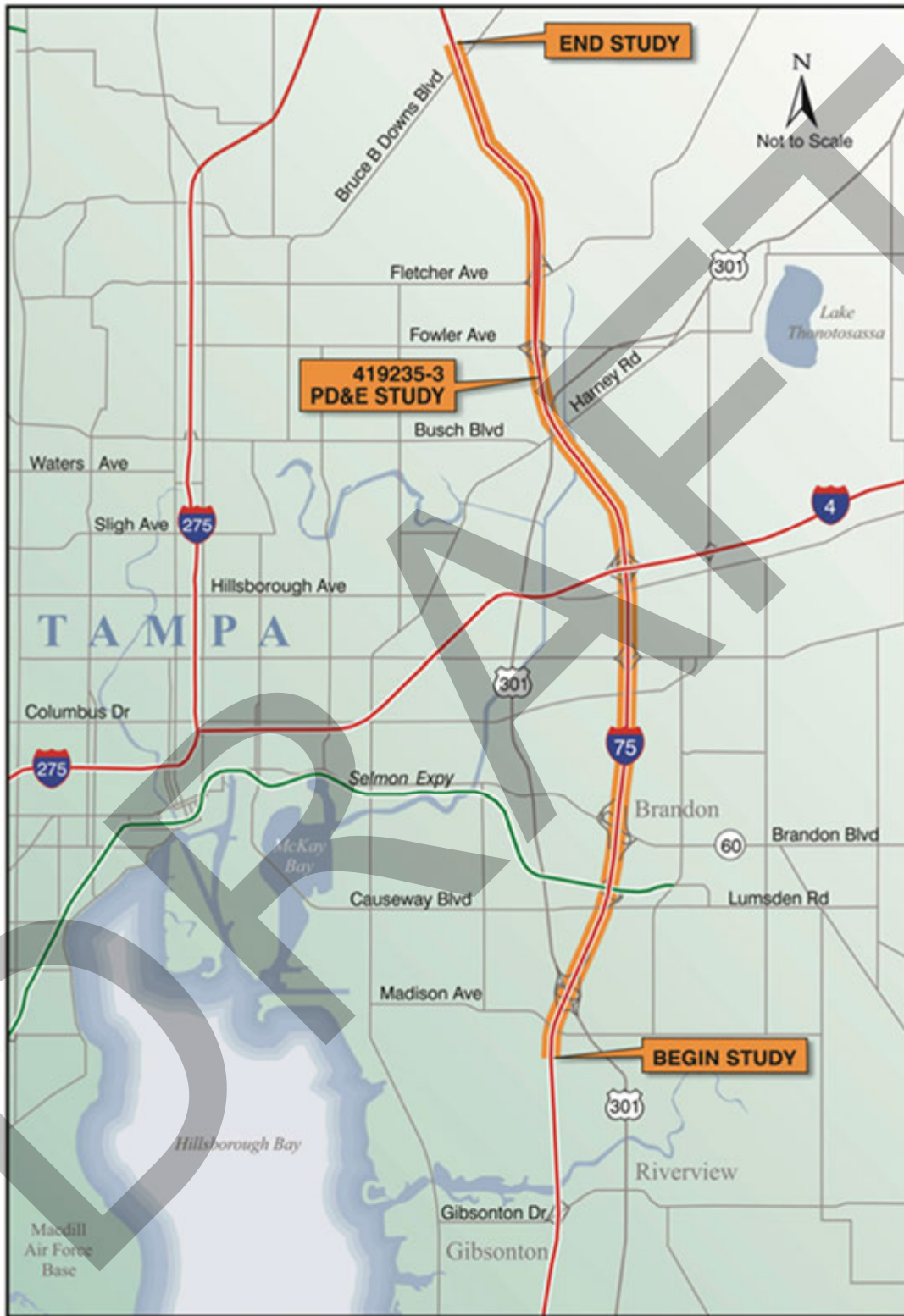
The vertical datum used for this project and documented in this report is the North American Vertical Datum 1988 (NAVD 88).

1.1 Description of Proposed Action

The proposed action evaluates the need to provide capacity and operational improvements along approximately 18 miles of I-75 from south of US 301 to north of BBD Boulevard in Hillsborough County, Florida, refer to **Figure 1**. This evaluation considers the operational and highway safety benefits of implementing capacity improvements and compares them to the cost savings and minimization of adverse impacts associated with a No-Build Alternative. An evaluation matrix compares the No-Build and Build Alternative on a variety of factors. This process identifies the alternative that best balances the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs).

The Build Alternative includes widening I-75 within the existing median to include two Express Lanes (EL) in each direction along with operational improvements. The improvements would be constructed on the existing alignment. Right-of-way will be required for some interchange improvements, slip ramps to provide access between the general use lanes (GULs) and ELs, stormwater management facilities, and floodplain compensation sites.

Figure 1: Project Location Map



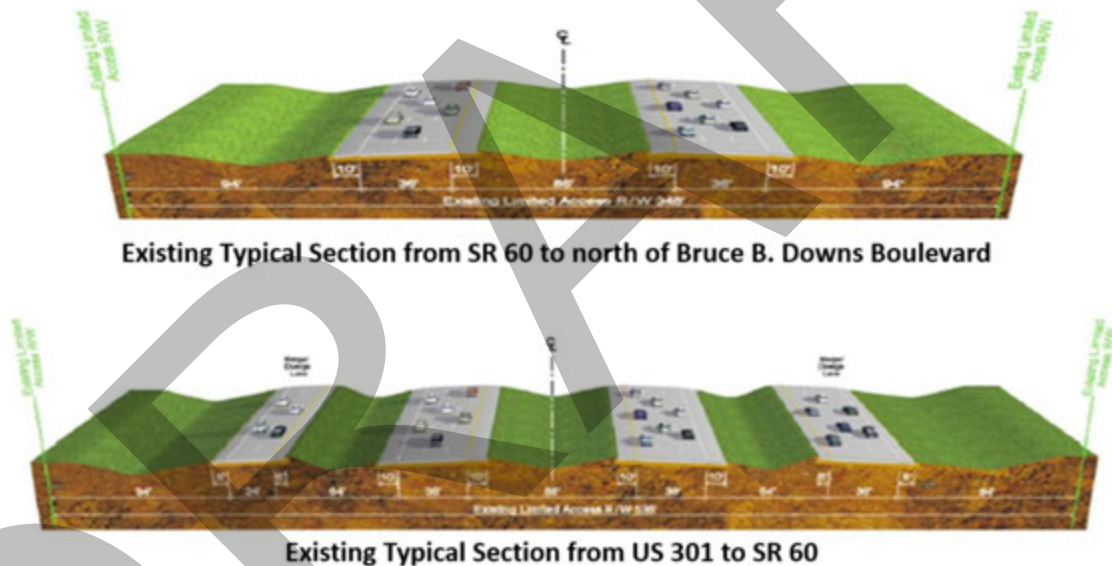
1.2 Existing Facility

I-75 is a limited access freeway that travels in a generally south-north direction from a southern terminus at SR 826 (Palmetto Expressway) in Hialeah, Florida, to a northern terminus in Sault Sainte Marie, Michigan, near the border with Canada.

In Florida, I-75 is included in the State Highway System (SHS), designated as SR 93A; the Florida Intrastate Highway System (FIHS); the Strategic Intermodal System (SIS); and the Federal Aid Interstate System. I-75 serves as a major evacuation route throughout the state

The portion of I-75 located within the project limits was opened to traffic in 1985, linking existing segments of I-75 to the north and south and completing the Tampa Bay Bypass. This portion of I-75 is classified as an Urban Principal Arterial – Interstate. Its mainline generally provides a six-lane, divided, limited access, rural typical section with auxiliary lanes and CD roadways in sections. Refer to **Figure 2** for existing I-75 mainline typical sections.

Figure 2: Existing I-75 Mainline Typical Sections



The (limited access) right-of-way along I-75 ranges from a minimum of 348 feet between SR 60 and Fowler Avenue to a maximum of 636 feet between US 301 and the Selmon Expressway. The posted speed limit is 70 miles per hour (mph).

There are eight interchanges along I-75 within the project limits. They are located at US 301, Selmon Expressway, SR 60, Martin Luther King Jr. Boulevard, I-4, Fowler Avenue, Fletcher Avenue, and BBD Boulevard. The study area also includes 67 bridges, including crossings over the Hillsborough River, Memorial Gardens Slough, Mango Lake Drainage Canal, Harney Flats Canal, Tampa Bypass Canal, and Cowhouse Creek.

1.3 Project Purpose and Need

The purpose of the project is to evaluate alternatives to address the corridor's capacity and relieve congestion. These improvements are expected to enhance the overall safety and improve the operating conditions of the facility within the project limits.

I-75 is a south-north interstate highway that is a major trade and tourism corridor. I-75 is part of the highway network that provides access to regional intermodal facilities such as several general aviation airports, MacDill Air Force Base, several seaports, transit stations, cruise ship terminals and major CSX intermodal rail facilities. It is part of the Strategic Intermodal System (SIS) and is a vital link in the transportation network that connects the Tampa Bay region to the remainder of the state and the nation.

I-75 is a critical evacuation route as shown on the Florida Division of Emergency Management's evacuation route network. Improvements to I-75 will improve evacuation efforts, when needed, will enhance access to activity centers in the area, and movement of goods and freight in the greater Tampa Bay region.

Statewide and regional transportation plans and studies by FDOT and the Hillsborough County Metropolitan Planning Organization (MPO) identify the need for interstate improvements.

1.4 Report Purpose

This Pond Siting Report is one of several documents that will be prepared as part of this PD&E Study. This report documents the preferred SMF and FPC for each roadway drainage basin.

2.0 IMPROVEMENT ALTERNATIVES

2.1 No-Build Alternative

The No-Build Alternative assumes that the existing conditions would remain for I-75 within the project limits and only routine maintenance activities would occur, except for currently planned or programmed projects already committed. The advantages to the No-Build Alternative include no new costs for design and construction, no effects to existing land uses and natural resources, and no disruption to the public during construction. However, the No-Build Alternative would not address the travelers' needs and would result in increased congestion and user costs. The traffic analyses for this alternative indicated that by the year 2045 a significant portion of the I-75 mainline, merge/diverge areas, and ramp termini intersections would operate below acceptable LOS.

This alternative remains under consideration as a viable alternative throughout the PD&E Study process.

2.2 Mainline and Interchange Build Alternatives

The original PD&E study began in 2008 and considered two mainline build alternatives, with the recommended build alternative shown at the joint public hearing held May 6, 2010. Refer to the project's 2020 *Preliminary Engineering Report* (PER) for additional project background.

After the 2010 Public Hearing, the FDOT put the study on hold until the Tampa Bay Express (TBX) Master Plan was complete. The TBX program was developed to provide guidance for improvements to the Tampa Bay interstate system and identified freeway segments (including this segment of I-75) for the addition of tolled express lanes. In 2017, FDOT District Seven reset TBX to Tampa Bay Next (TBNNext) to demonstrate its commitment to comprehensive, integrated transportation planning and development. Since the Public Hearing in 2010, the FDOT is revising the number of managed lanes from six Special Use Lanes (SULs) to four ELs, two in each direction, along the I-75 corridor. This PD&E study limit will be extended north of Bruce B. Downs Boulevard.

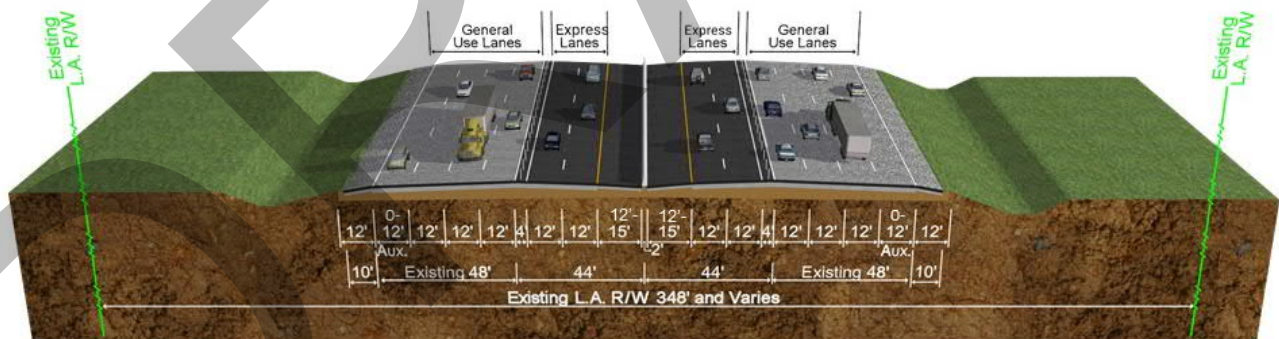
2.3 Preferred Alternative

All alternatives have been evaluated with regard to costs, operational factors, and environmental impacts. Based on these evaluations, a preferred build alternative utilizing one typical section was identified for the I-75 mainline and the interchanges within the study area.

The Preferred Build Alternative Typical Section includes three 12-foot GULs with auxiliary lanes, in each direction. Inside and outside shoulders will be 12-feet wide. Adjacent to the GULs, within the median, two 12-foot ELs with 12-foot inside and outside shoulders will be included in each direction. Refer to **Figure 3** for a graphic of this typical section.

Should a multimodal envelope be added to the typical section, it would be placed to the outside on either side of I-75.

Figure 3: I-75 Preferred Build Alternative Typical Section



Interchange improvements will occur at all eight interchanges in the project corridor. While the I-75 at I-4 interchange will see extensive improvements, the remaining the interchanges will see minor adjustments to accommodate the preferred build alternative.

3.0 EXISTING CONDITIONS

3.1 Topography & Hydrologic Features

The study area involves four major watersheds; Delaney/Archie Creek, Tampa Bypass Canal, Hillsborough River, and Cypress Creek. The Delaney/Archie Creek Watershed's primary receiving water bodies are North Archie Creek and its tributaries toward the south and Delaney Creek toward the north end of the watershed. The Tampa Bypass Canal Watershed drains toward the Tampa Bypass Canal either directly or by means of several tributary systems. Finally, the Hillsborough River Watershed's primary receiving water body is the Hillsborough River. All four watersheds generally flow from east to west and ultimately outfall into either Hillsborough Bay or McKay Bay. A Regional Drainage Basin Map which includes the watersheds is provided in **Figure 4**.

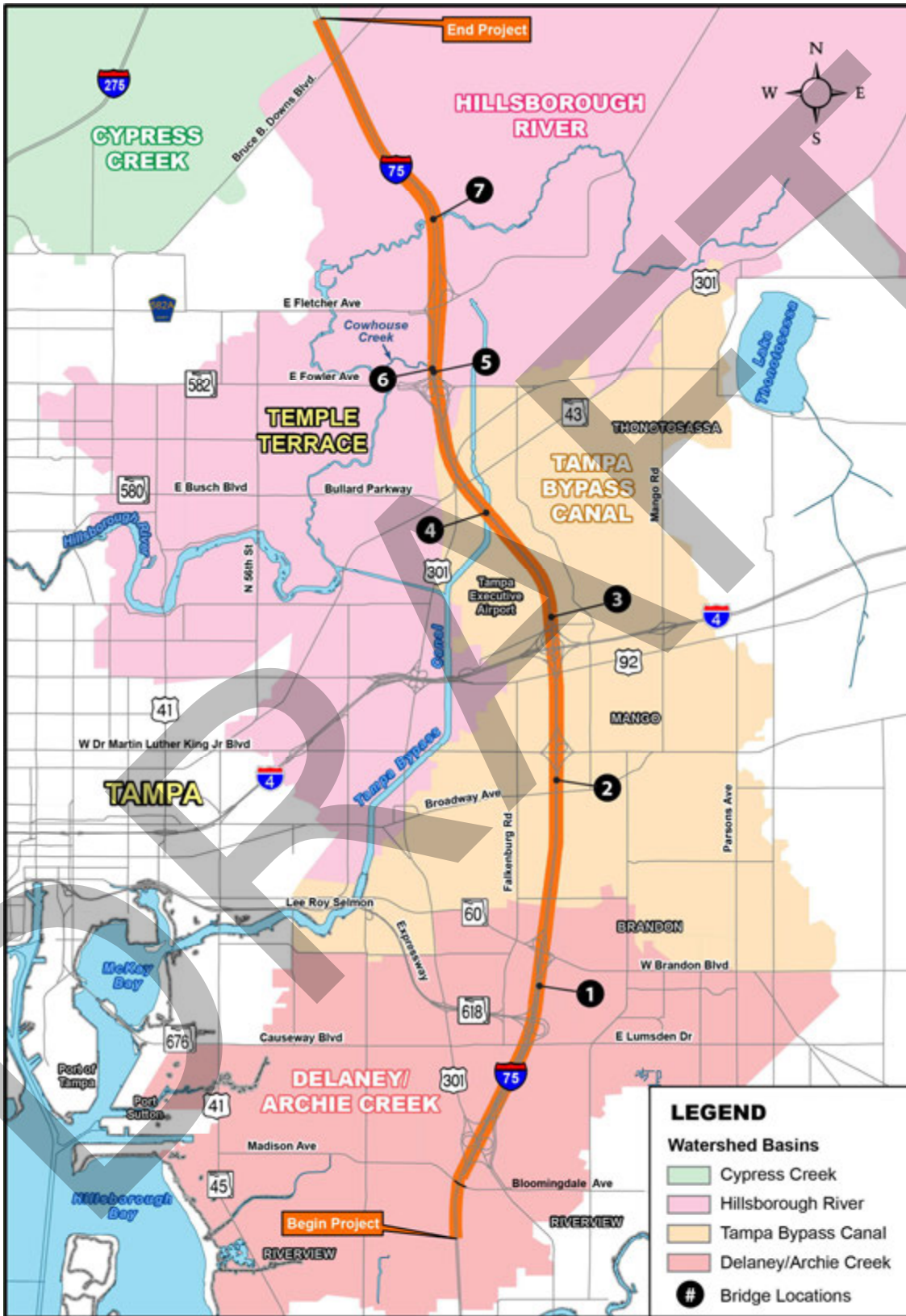
The Delaney/Archie Creek Watershed boundary starts south of the project begin and extend to north of the I-75 and State Road 60 interchange. This watershed is extensively developed with flat terrain and a high groundwater table. The basin typically flows in a southwest direction and ultimately outfalls to Hillsborough Bay through a series of ditches and canals.

The Tampa Bypass Canal Watershed extends from north of the I-75 and State Road 60 interchange to the Tampa Bypass Canal crossing south of the I-75 and Fowler Avenue interchange. The predominant land use in this watershed is urban with some agricultural. The watershed's primary conveyance system is the 14-mile long Tampa Bypass Canal. The Tampa Bypass Canal was originally constructed as a flood control project and is operated by the SWFWMD.

The Hillsborough River Watershed boundary begins at the Tampa Bypass Canal crossing and extends to just north of Bruce B. Downs Boulevard. The basins between Fletcher Avenue and Bruce B. Downs Boulevard discharge to the Hillsborough River which is a designated Outstanding Florida Water (OFW). This area between Fletcher Avenue and Bruce B. Downs Boulevard has been previously designed and permitted as part of ERP No. 21639.

The Cypress Creek Watershed boundary begins just north of Bruce B. Downs Boulevard and extends north to just south of State Road 52. The watershed flows southerly into Big Cypress Swamp and ultimately to the Hillsborough River. The land use consists of large residential units and swamp.

Figure 4: Regional Drainage Basin Map



3.2 Soil Characteristics

A general assessment was conducted of the surface to near-surface conditions of the soils within the study limits based on a review of existing data and reference materials included in the Natural Resources Conservation Service (NRCS) web soil survey, SWFWMD soil shape files, and current aerial imagery. NRCS soil maps and depth to water table maps are provided to illustrate the soil characteristics within and adjacent to the study limits and can be found in **Appendix A**

In general, the soils within the project limits are fine sands with 0% to 2% slopes. The predominant soil type is Myakka fine sands. Candler, Malabar, Ona, Pomello, and Smyrna fine sands were also identified.

3.3 Existing Drainage Systems

The existing interstate mainline is a divided rural typical section consisting of a drainage system of open ditches along each side of the roadway as well as in the median. Stormwater runoff from the interstate is conveyed by this system of open ditches to points of discharge as it leaves the right-of way. These point discharges generally consist of either cross drains or wetland systems. Except for isolated improvements at the Selmon Expressway, I-75 at the MLK interchange, and I-75 from I-4 to the Tampa Bypass Canal, none of the existing stormwater runoff from I-75 between Progress Boulevard to south of Fowler Avenue is currently being treated or attenuated before leaving the right-of-way. From south of Fowler Avenue to south of Bruce B. Downs, improvements to the interstate were previously permitted and constructed under ERP No. 21639.

3.4 Existing Stormwater Facilities

The original design and construction of I-75 did not include stormwater management. However, the recent improvements discussed in **Section 3.3** do include stormwater management systems for those specific roadway projects. The stormwater management facilities from south of Fowler Avenue to south of Bruce B. Downs were designed to provide treatment and attenuation for an ultimate interstate condition. The ultimate interstate condition assumes 324 feet of impervious surface within the right-of-way. Under the proposed improvements, the widening consists of approximately 270 feet of impervious surface within the right-of-way and therefore will not require modification of the existing ponds.

At the interchange at I-75 and Bruce B. Downs, calculations were performed to demonstrate that treatment and attenuation due to the proposed widening can be accomplished in the Ramp 1 Infield pond. Additional discussion regarding the calculations is provided in **Section 7.25**.

The interstate north of Bruce B. Downs has been permitted to provide treatment and attenuation from right-of-way to right-of-way. The existing ponds from south of Fowler Avenue to north of Bruce B. Downs are summarized in the **Table 2**. Select pages from the permits are included in **Appendix B** of this report.

Table 2: Summary of Existing Ponds from Fowler Ave. to Bruce B. Downs Blvd.

| Pond Name | Location (Lt./Rt.) | Size (Ac.) | Treatment Volume (Ac-Ft) | | Attenuation Volume (Ac-Ft) | | Receiving Water Body |
|----------------|--------------------|------------|--------------------------|----------|----------------------------|-------|----------------------|
| | | | Required | Provided | Pre | Post | |
| Pond A2 | 1907+00 Rt. | 5.94 | 7.44 | 7.46 | 355.6 | 150.2 | Cowhouse Creek |
| Pond A4 | 1907+00 Lt. | 6.05 | 7.87 | 7.88 | | | |
| Pond B2 | 1933+00 Rt. | 2.63 | 2.71 | 2.71 | 137.9 | 108.0 | Cowhouse Creek |
| Pond B3 | 1963+00 Lt. | 3.11 | 3.13 | 3.13 | | | |
| Pond C2 | 1971+00 Lt. | 6.75 | 7.19 | 7.22 | 175.0 | 141.1 | Hillsborough River |
| Pond C5 | 1985+00 Rt. | 10.32 | 11.75 | 13.08 | | | |
| FPC CD | 2027+00 Rt. | 2.13 | N/A | N/A | N/A | N/A | Hillsborough River |
| Pond D | 2070+00 Rt. | 8.00 | 6.77 | 6.91 | 376.4 | 331.0 | Hillsborough River |
| Pond EF | 2115+00 Lt. | 32.30 | 5.84 | 17.70 | | | |
| Pond 1C | 2169+00 Lt. | 0.55 | 0.13 | 0.17 | 10.19 | 8.77 | Hillsborough River |
| Ramp 1 Infield | 2170+00 Rt. | 4.70 | 0.16 | 0.18 | 12.86 | 8.33 | Hillsborough River |
| Pond 1B | 2171+00 Lt. | 0.66 | 1.30 | 1.42 | 14.29 | 12.75 | Hillsborough River |
| Pond G1A & G1B | 2180+00 Lt. | 2.04 | 1.66 | 2.07 | 71.7 | 41.6 | Cypress Creek |
| Pond 1A | 2183+00 Rt. | 3.41 | 0.52 | 0.60 | 46.60 | 25.60 | Cypress Creek |
| Pond G2 | 2227+00 Lt. | 1.08 | 0.64 | 0.76 | 23.7 | 14.5 | Cypress Creek |
| Pond G3 | 2236+00 Lt. | 4.29 | 2.24 | 2.67 | 63.9 | 33.8 | Cypress Creek |
| Pond 5-1 | I-4 Rt. | 1.06 | - | - | - | - | Tampa Bypass Canal |
| Pond 7 | I-4 Lt. | 5.78 | - | - | - | - | Tampa Bypass Canal |

3.5 Cross Drains

A review of the existing FDOT as-built construction plans, drainage maps, permit research, and SLD's for Hillsborough County indicates that there are 37 existing cross drains within the limits of the I-75 PD&E study area. Hydraulic equivalency for replacement or modification of the existing cross drains will be determined during the subsequent design phase of this project. The station, size and material of the existing cross drains are summarized in **Table 3**. The cross drain locations are also shown on the Drainage Maps in **Appendix C**.

Table 3: I-75 Cross Drain Summary

| Station (CL of Const.) | Basin No. | Description | Receiving Water Body |
|------------------------|-----------|-----------------------|----------------------|
| 1267+90.76 | 1 | 6' x 4' CBC | Archie Creek |
| 1291+53.13 | 1 | 5' x 4' CBC | Archie Creek |
| 1302+11.23 | 3 | Double 9' x 7' CBC | Archie Creek |
| 1354+00.00 | 4 | 7' x 10' CBC | Archie Creek |
| 1375+61.73 | 5 | 18" RCP | Archie Creek |
| 1409+48.14 | 7 | 18" RCP | Delaney Creek |
| 1460+00.00 | 8 | 6' x 4' CBC | Delaney Creek |
| 1463+48.75 | 9 | 18" RCP | Delaney Creek |
| 1492+78.75 | 9 | 54" RCP | Delaney Creek |
| 1495+00.00 | 10 | 15" RCP | Delaney Creek |
| 1499+03.75 | 10 | 15" RCP | Delaney Creek |
| 1502+00.00 | 10 | 15" RCP | Delaney Creek |
| 1506+77.75 | 10 | 36" RCP | Delaney Creek |
| 1512+67.93 | 11 | (2) 15" & (1) 18" RCP | Tampa Bypass Canal |
| 1517+00.00 | 12 | 15" RCP | Tampa Bypass Canal |
| 1525+00.00 | 12 | 24" RCP | Tampa Bypass Canal |
| 1527+61.74 | 12 | 30" RCP | Tampa Bypass Canal |
| 1543+07.15 | 12 | 9' x 5' CBC | Tampa Bypass Canal |
| 1564+38.95 | 14 | 8' x 4' RCP | Tampa Bypass Canal |
| 1572+06.90 | 14 | 4' x 6' CBC | Tampa Bypass Canal |
| 1581+97.53 | 14 | 6' x 4' CBC | Tampa Bypass Canal |
| 1588+55.44 | 14 | 36" RCP | Tampa Bypass Canal |
| 1667+47.69 | 17 | 54" RCP | Tampa Bypass Canal |
| 1676+00.00 | 18 | 15" & 24" RCP | Tampa Bypass Canal |
| 1748+01.11 | 20 | 42" RCP | Tampa Bypass Canal |
| 1757+00.00 | 21 | Double 48" RCP | Tampa Bypass Canal |
| 1775+48.59 | 21 | Double 42" RCP | Tampa Bypass Canal |
| 1794+91.84 | 22 | 48" RCP | Tampa Bypass Canal |
| 1823+01.31 | 23 | 48" RCP | Tampa Bypass Canal |
| 1859+00.00 | 25 | 48" RCP | Tampa Bypass Canal |
| 2077+87.78 | D | 12' x 5' CBC | Hillsborough River |
| 2096+00.00 | EF | 24" RCP | Hillsborough River |
| 2106+00.00 | EF | 24" RCP | Hillsborough River |

| | | | |
|------------|----|---------|--------------------|
| 2114+00.00 | EF | 42" RCP | Hillsborough River |
| 2128+00.00 | EF | 42" RCP | Hillsborough River |
| 2195+00.00 | G | 36" RCP | Cypress Creek |
| 2208+00.00 | G | 42" RCP | Cypress Creek |

3.6 Existing Bridges and Bridge Culverts

The I-75 corridor contains seventeen (17) bridges, four (4) of which span major waterways. The following briefly describes the bridge and bridge culverts that span existing waterways along the I-75 corridor.

- 1) **I-75 Bridge Culvert at Memorial Garden Slough** (Bridge No. 100421) Triple 12-foot by 8-foot concrete box culvert.
- 2) **I-75 Bridge Culvert at Mango Lake Drainage Canal** (Bridge No. 100437): Double 10-foot by 6-foot concrete box culvert.
- 3) **I-75 Bridge Culvert at Harvey Flats Canal** (Bridge No. 100418): Quadruple 11-foot by 10-foot concrete box culvert.
- 4) **I-75 Bridges over Tampa Bypass Canal** (Bridge No. 100473 SB, Bridge No. 100474 NB): Two twelve-span structures over the Tampa Bypass Canal. Both bridges are 828 feet long with a clear roadway width of 56 feet.
- 5) **I-75 Bridges over Cowhouse Creek** (Bridge No. 100481 SB, Bridge No. 100482 NB): Two four-span structures over Cowhouse Creek. The overall length of the SB bridge is 340 feet and has a roadway clear width of 68 feet. The overall length of the NB bridge is 350 feet long with a roadway clear width of 80 feet.
- 6) **I-75 Ramp C Bridge over Cowhouse Creek** (Bridge No. 100480): One four-span structure over Cowhouse Creek. The overall length of the bridge is 340 feet and has a roadway clear width of 27 feet.
- 7) **I-75 Bridges over Hillsborough River** (Bridge No. 100387 SB, Bridge No. 100388 NB): Two seven-span structures over Hillsborough River. The overall length of the SB bridge is 438 feet and has a roadway clear width of 68 feet. The overall length of the NB bridge is 458 feet long with a roadway clear width of 68 feet.

4.0 FLOODPLAINS AND FLOODWAYS

4.1 Floodplains

Information obtained from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) shows the proposed roadway improvements will impact the 100-year floodplain at several locations along the project corridor. An overview of the project corridor with the 100-year floodplain is shown on **Figure 5** and **Figure 6**. FEMA Firmettes are included in **Appendix D** which show where the impacts to the 100-year floodplain will occur along with the floodplain compensation site locations. The 100-year floodplain and

floodplain compensation sites are also included on the Drainage Maps in **Appendix C**. The impacts to the 100-year floodplain and compensation are summarized in **Table 4**.

Table 4: 100-yr Floodplain Impact and Compensation Summary

| Basin | Floodplain Compensation Site Name | Location | Base Flood Elevation (ft) | Impact (Ac) | Required Compensation (Ac) | Provided Compensation (Ac) |
|-------|-----------------------------------|------------|---------------------------|-------------|----------------------------|----------------------------|
| 6 | FPC 6R | 1360+00 RT | 28.7 | 2.64 | 3.17 | 4.67 |
| 7 | FPC 7 | 1437+00 LT | 27.0 | 1.02 | 1.22 | 1.26 |
| 12/13 | FPC 12/13R | 1542+00 RT | 43.2 | 0.76 | 0.91 | 1.11 |
| 12/13 | FPC 12/13L | 1543+00 LT | 43.2 | 0.88 | 1.06 | 1.63 |
| 14 | FPC 14 | 1579+00 RT | 39.8 | 0.32 | 0.39 | 0.77 |
| 18 | FPC 17/18 | 1670+00 LT | 35.3 | 1.77 | 2.12 | 2.44 |
| 19 | FPC 19A | 1705+00 LT | 19.0 | 1.82 | 2.18 | 2.34 |
| | FPC 19B | 1711+00 LT | | | | |
| 20 | FPC 20 | 1735+00 LT | 22.0 | 1.30 | 1.56 | 1.57 |
| 21 | FPC 21 B | 1755+00 LT | 22.0 | 1.38 | 1.65 | 1.66 |

Note: Impacts and compensation based on plan view area.

4.2 Floodways

Based on the FEMA flood maps, there are 5 locations where the interstate crosses a regulated floodway. These include the interstate crossings at Archie Creek, Delaney Creek, the Tampa Bypass Canal, Cowhouse Creek, and the Hillsborough River. The floodway locations along the project corridor are shown on **Figure 5** and **Figure 6**. The floodways are also shown on the FEMA Firmettes included in **Appendix D**.

Figure 5: FEMA Floodplain Map (Sheet 1 of 2)

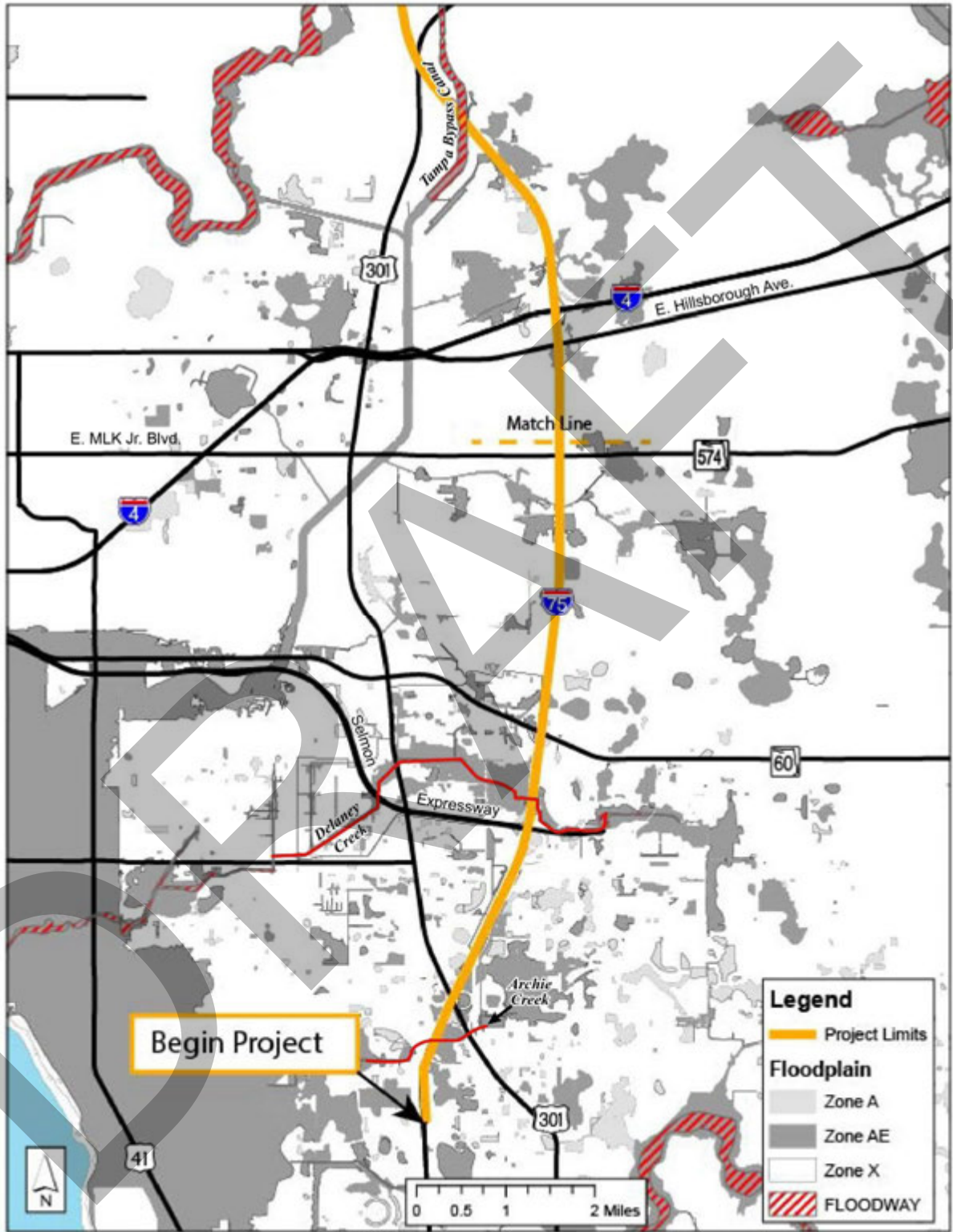
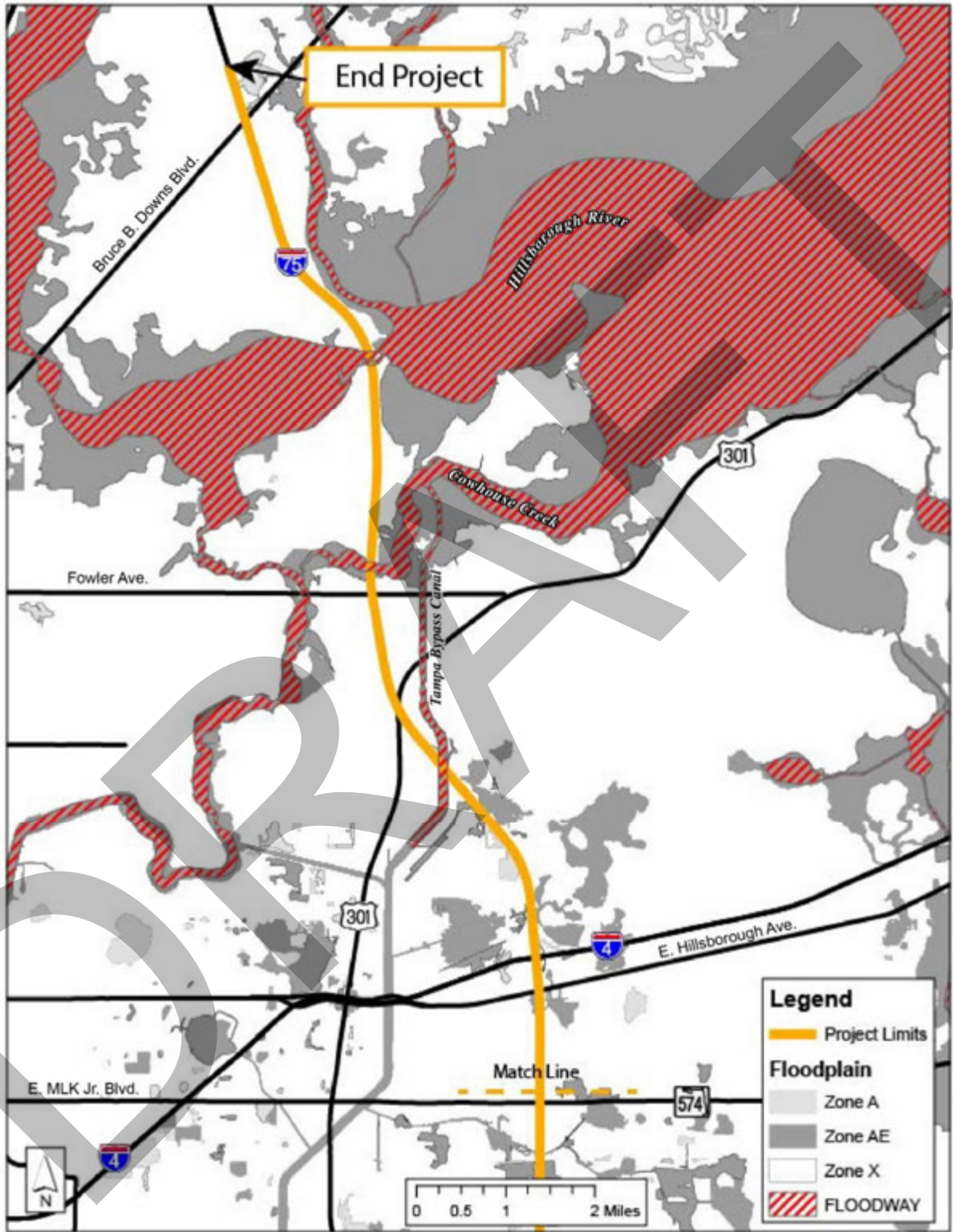


Figure 6: FEMA Floodplain Map (Sheet 2 of 2)



5.0 SCOPE AND DESIGN CRITERIA

5.1 Purpose

The purpose of this Pond Siting Report is to identify one preferred pond site per basin. The preferred pond sites identified in this report are hydraulically feasible and meet the SWFWMD and the Department's criteria. The report also identifies floodplain impacts and compensation sites associated with the roadway improvements.

The project study area was sub-divided into 34 roadway drainage basins. The first 25 basins referred to as Basin 1 through Basin 25 were analyzed in this report. Basin A through Basin EF were previously permitted to provide treatment and attenuation for the ultimate interstate typical which consists of 324 feet of impervious surface within the right-of-way. The interstate north of Bruce B. Downs has been permitted to treat and attenuate from right-of-way to right-of-way. Under the proposed improvements, the widening will consist of approximately 270 feet of impervious surface with the right-of-way. At the interchange of I-75 and Bruce B. Downs, calculations have been performed to demonstrate the existing stormwater facilities can accommodate the proposed widening project. For the basins on I-4, Basins H and I, the existing ponds will provide treatment and attenuation for the proposed improvements. A bridge has been proposed to span Pond 5-1 so it can remain in the proposed condition.

The analysis performed in this report includes a preliminary drainage design to determine pond sizes and outfall locations necessary for stormwater treatment and attenuation. The preferred pond sites and alternatives were sized to accommodate the new impervious area including the addition of two express lanes in each direction. Meeting minutes regarding the coordination with SWFWMD are provided in **Appendix E**.

5.2 Drainage System

The existing I-75 mainline is a divided rural typical section consisting of a drainage system of open ditches along each side of the roadway as well as in the median. Stormwater runoff from the interstate is conveyed by this system of open ditches to points of discharge as it leaves the right-of way. These discharge points generally consist of either cross drains or wetland systems. With the exception of the isolated roadway improvements discussed in **Section 3.3** and **Section 3.4**, none of the existing stormwater runoff within the project limits is being treated or attenuated before leaving the right-of-way. The proposed drainage system will consist of open ditches and closed piped systems to convey stormwater runoff from each project basin to a proposed stormwater management facility. Runoff from each basin will be treated and attenuated in a preferred pond site prior to discharging off-site.

5.3 Receiving Waters

The SMF's will discharge to the historical outfall in the basin and therefore will not alter historical drainage patterns.

5.4 Outstanding Florida Water (OFW)

The Hillsborough River Watershed at the I-75 crossing has been designated as an Outstanding Florida Water (OFW).

5.5 SHWT Establishment

The seasonal high water table (SHWT) for each pond was estimated using the National Resources Conservation Service (NRCS) soil data, existing SWFWMD permits, and aerial imagery. In areas where ponds were adjacent to existing wetlands or other surface water systems, SHWT's were set equal to the approximate SHWT elevations of the adjacent systems.

5.6 DHW Establishment

The ponds were designed for the SWFWMD 25-Year/24-Hour storm event since all basins are open with no known historical flooding issues. The design high water (DHW) for each pond was generally limited to three feet above the SHWT. One foot of freeboard has been provided between the inside berm and the SWFWMD 25-Year/24-Hour storm event. The ponds were also designed to provide one foot of clearance between the low edge of pavement and the FDOT 10-Year/24-Hour storm event.

5.7 Regulatory Issues and Design Criteria

The design of the SMF's is governed by the rules and criteria set forth in the State Wide Environmental Resource Permit (ERP) Applicants Handbook (2018) Volumes I and II, the FDOT Drainage Manual (January 2020) and the FDOT Drainage Design Guide, Stormwater Management Facility (January 2020).

A pre-application meeting was conducted with SWFWMD on Wednesday, April 25th, 2018. Based on the meeting, the project will be required to meeting the following criteria:

5.7.1 Water Quality

- Treat one inch of rainfall from either the existing co-mingled or new impervious area (DCIA) for wet detention systems.
- Provide 50 percent additional treatment for any direct discharges to an OFW.
- Provide a net environmental improvement for discharges to an impaired water body.

5.7.2 Water Quantity

- Detention of the post-development peak discharge rate to the pre-development peak discharge rate for the SWFWMD 25-Year/24-Hour storm event.

The pre-application meeting minutes with the SWFWMD are included in **Appendix E**.

5.8 SMF Geometry Layout

The stormwater ponds were sized based on criteria established in the FDOT Drainage Manual 2020. The size of the SMFs identified in this report includes the area required to store the treatment and attenuation volume with one foot of freeboard above the SWFWMD 25-Year/24-Hour storm event and the inside maintenance berm. The SMF's area was designed to include a minimum 15-foot wide maintenance berm with at least 1:8 slope or flatter around the perimeter of the facility and to have 1:4 side slopes from the inside berm to the pond bottom. The outside berm was designed to tie into the existing ground at a 1:4 slope and the radii of the inside edge of the maintenance berm was designed to be at least 30 feet.

5.9 FPC Site Sizing

The 100-year floodplain impacts, and compensation sites are calculated based on a plan view area (footprint). This mythology was presented and agreed during the Long List Meeting on June 7, 2019. Both the impacts and compensation sites were estimated using FEMA 100-year contours, 100-year elevations from the FEMA FIRM's, and SWFWMD LiDAR Contours. All proposed compensation sites have been designed to be hydraulically connected to the area of impact. The meeting minutes and presentation from the Long List Meeting are included in **Appendix E**.

6.0 SITE SELECTION AND DESIGN APPROACH

The initial considerations for the SMF site locations were based on the Project Development and Environmental (PD&E) study from July 2010 referred to as Alternative Stormwater Management Facilities Report (ASMFR). The ASMFR considered one (1) pond per basin for the ultimate condition and included an analysis for two (2) separate typical sections. The typical sections evaluated in the ASMFR are for the Recommended PD&E and for a 324-foot wide impervious section. The project was divided into 30 onsite roadway drainage basins referred to as Basins 1 through 25 and Basins A through EF.

Under the current project, the pond sites identified in the ASMFR were reviewed for their viability. Any pond sites that could be constructed within the existing right-of-way were given priority. Otherwise, two (2) to three (3) off-site alternatives were developed for each basin. The data collection used to size the pond sites is based on 1-foot contours from Geographic Information System (GIS) Lidar, existing SWFWMD permits and National Resources Conservation Service (NRCS) soils data. The wetlands were identified using GIS National Wetland Inventory, floodplains were identified using GIS FEMA maps from 2008 and 2013, and impaired waters were identified using FDEP water body identification (WBID) maps. Other factors considered in the pond design included selecting parcels which were vacant, government owned or impacted due to the proposed roadway improvements.

The pond site alternatives were then presented to the FDOT during the Long List Meeting on June 7, 2019. During the meeting, both the existing and proposed typical sections for the I-75 mainline were presented. The existing typical section for I-75 consists of three (3) General Use Lanes with auxiliary lanes in each direction. In addition to the general use lanes and auxiliary lanes, the proposed typical will also include two (2) Express Lanes (EL) in each direction. The presentation also explained that the ponds were designed to only accommodate the additional runoff from the proposed Express Lanes. Recommendations

were made by the Department regarding the pond alternatives and easement locations. These recommendations were implemented and resubmitted to the Department for preliminary assessments and right-of-way costs. The meeting minutes and presentation from the Long List Meeting is included in **Appendix E**.

A second meeting, referred to as the Short List Meeting was conducted on September 27, 2019. The purpose of the meeting was to confirm the recommendations from the Long List Meeting and identify the preferred pond site alternatives. An evaluation matrix was developed to identify the preferred pond sites by comparing cost and preliminary assessment findings. A more comprehensive assessment was later performed for each preferred pond site alternative to further identify any potential risks or impacts. The final costs and assessments for the alternative and preferred pond sites have been summarized in the Stormwater Evaluation Matrix which is included in **Table 5**. The presentation from the Short List Meeting is included in **Appendix E**.

7.0 PROPOSED CONDITIONS

The study area contains 25 proposed roadway drainage basins from the beginning of the project limits to just south of Fowler Avenue. The basin boundaries are based on the location of the existing cross drains and the location of I-75 bridges over intersecting roadways. Stormwater runoff from each basin will be collected by a stormsewer system and conveyed to a proposed pond. The ponds are numbered from south to north with one or more recommended alternative per drainage basin. Each alternative has been designed to provide treatment and attenuation for the additional impervious area due to the proposed roadway improvements. All existing basin outfalls will be maintained following the construction of the roadway improvements. The pond sizing calculations and drainage maps are provided in **Appendix F** and **Appendix C**, respectively. A matrix has been developed to select a preferred alternative pond site and is provided in **Table 5**. All preferred pond alternatives selected are based on total cost. The right-of-way cost estimates for all pond alternatives is included in **Appendix G**.

In addition to the 25 proposed roadway drainage basins, there are 7 existing roadway drainage basins from south of Fowler Avenue to north of Bruce B. Downs Boulevard. These drainage facilities were designed for the ultimate condition as discussed in **Section 5.1** of this report.

7.1 Basin 1

Basin 1 begins south of Progress Boulevard at station 1267+89 and extends north to station 1293+55 where Progress Boulevard crosses I-75. The roadway drainage basin is located in the Archie Creek regional basin which outfalls to Hillsborough Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 1A, SMF 1B, and SMF 1C. The preferred alternative for this basin is SMF 1C which is a wet detention facility designed to provide treatment and attenuation for 6.84 acres of additional impervious area. The pond site is 2.37 acres and will impact nine (9) existing parcels in total, eight of which are Single Family Residential parcels and one parcel that is owned by the Home Owners Association. There are no anticipated floodplain impacts due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.2 Basin 2/3

Basin 2 begins at station 1293+55, where Progress Boulevard crosses I-75, and extends north to station 1302+00. Basin 3 begins at station 1302+00 and extends north to station 1327+00. Both basins discharge to Archie Creek which ultimately outfalls to Hillsborough Bay. Runoff from both Basin 2 and Basin 3 discharge to a proposed pond site referred to as SMF 2/3 which is located in the infield of the U.S. 301 and I-75 interchange. The pond is a wet-detention facility and has been designed to provide treatment and attenuation for 10.25 acres of additional impervious area. The pond site is 7.57 acres and is the preferred pond since it is located the existing right-of-way. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.3 Basin 4/5

Basin 4 begins at station 1327+00, where U.S. 301 crosses I-75, and extends north to station 1354+00. Basin 5 begins at station 1354+00 and continues north to station 1376+00. Both basins discharge to Archie Creek which ultimately outfalls to Hillsborough Bay. Runoff from both Basin 4 and Basin 5 discharge to a proposed pond site referred to as SMF 4/5 which is located in the infield of the U.S. 301 and I-75 interchange. The pond is a wet-detention facility and has been designed to provide treatment and attenuation for 25.15 acres of additional impervious area. The pond site is 10.47 acres and is the preferred pond since it is located within the existing right-of-way. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.4 Basin 6

Basin 6 begins north of U.S. 301 at station 1376+00 and extends north to station 1406+18. The roadway drainage basin is located in the Archie Creek regional basin which outfalls to Hillsborough Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 6A and SMF 6B. The preferred alternative for this basin is SMF 6A which is a wet detention facility designed to provide treatment and attenuation for 14.16 acres of additional impervious area. The pond site is 3.31 acres and will impact one (1) parcel with a land use designation of Office Multistory A (Off Multi-Sty A). The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a proposed floodplain compensation site referred to as FPC 6R. The floodplain compensation site is 4.67 acres and is located within the existing right-of-way.

7.5 Basin 7/8

Basin 7 begins at station 1406+18, where Causeway Boulevard intersects with I-75 and extends north to station 1440+00. Basin 8 begins at station 1440+00 and extends north to station 1460+00. Both roadway drainage basins are located in the Delaney Creek regional basin which outfalls to Hillsborough Bay.

Three alternative SMF's were considered for Basin 7 and two alternatives were considered for Basin 8. The alternatives for Basin 7 are referred to as SMF 7A, SMF 7B and SMF 7C. The alternatives for Basin 8 are referred to as SMF 8A and SMF 8B. The alternative pond sites for Basin 7 and Basin 8 were designed as wet detention facilities that provide treatment and attenuation for 12.64 acres and 8.07 acres of additional impervious area, respectively.

Following the procurement of right-of-way cost estimates, it was determined that combining the treatment and attenuation for Basin 7 and Basin 8 into a single pond referred to as SMF 7/8 is a less expensive option than providing treatment and attenuation separately. Therefore, SMF 7/8 is the preferred alternative for Basin 7 and Basin 8. SMF 7/8 is a wet detention facility designed to provide treatment and attenuation for 20.71 acres of additional impervious area. The pond is 5.55 acres and will impact one (1) parcel with a land use designation of Vacant Commercial. SMF 7/8 located adjacent to the interstate will not require an easement acquisition. The anticipated floodplain impacts due to the proposed roadway improvements will be provided in a floodplain compensation site referred to as FPC 7. The floodplain impacts occur along the southbound exit ramp onto the Selmon Expressway in Basin 7. The compensation site is 1.26 acres and is partially located within FDOT right-of-way and will also impact two (2) additional parcels both of which have a land use designation of FDOT Vacant. The floodplain compensation site is required for all pond site options in Basin 7 and the preferred alternative SMF 7/8.

7.6 Basin 9

Basin 9 begins at station 1460+00, just south of the intersection of State Road 60 and I-75, and extends north to station 1492+00. This basin discharges to Delaney Creek which ultimately outfalls to Hillsborough Bay. Runoff from Basin 9 will discharge to a proposed pond site referred to as SMF 9. The pond is a wet detention facility designed to provide treatment and attenuation for 17.86 acres of additional impervious area. The pond site is 2.87 acres and is located within the infield at the interchange of State Road 60 and I-75. Since SMF 9 is located within the existing right-of-way it is the preferred pond site. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements.

7.7 Basin 10

Basin 10 begins north of State Road 60 at station 1492+00 and extends north to the railroad overpass bridge at station 1506+48. The roadway drainage basin is located in the Delaney Creek regional basin which outfalls to Hillsborough Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 10A, SMF 10B, and SMF 10C. The preferred alternative is SMF 10C which is a wet detention facility designed to provide treatment and attenuation for 8.79 acres of additional impervious area. The pond site is 2.47 acres and will impact one (1) parcel which has a land use designation of Vacant Industrial. There are no anticipated floodplain impacts due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.8 Basin 11

Basin 11 begins at the railroad overpass bridge at station 1506+48 and extends north to the intersection of Woodberry Road and I-75 at station 1514+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 11A and SMF 11B. The preferred alternative is SMF 11A which is a wet detention facility designed to provide treatment and attenuation for 4.70 acres of additional impervious area. The pond site is 1.32 acres and will impact two (2) parcels, one of which has a land use designation of Warehouse B and the other is designated as County Vacant. There are no anticipated floodplain impacts

due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.9 Basin 12/13

Basin 12 begins at station 1514+00, where Woodberry Road intersects with I-75 and extends north to station 1543+00. Basin 13 begins at station 1543+00 and extends north to station 1551+00. The roadway drainage basins are located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 12/13A, SMF 12/13B, and SMF 12/13C. The preferred alternative is SMF 12/13C which is a wet detention facility designed to provide treatment and attenuation for 21.47 acres of additional impervious area. The pond site is 7.35 acres and will impact two (2) parcels, one (1) designated as Pasture and one (1) designated as Vacant Residential. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in two floodplain compensations sites referred to as FPC 12/13R and FPC 12/13L, both of which are required for all alternatives within this basin. FPC 12/13R is 1.11-acre site that will impact one (1) parcel with a land designation of Pasture. FPC 12/13L is a 1.63-acre site that will impact two (2) parcels with a land use designation of Mobile Home and Flex Serv C. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.10 Basin 14

Basin 14 begins at station 1551+00 and extends north to station 1590+00, where East Broadway Boulevard intersects with I-75. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 14A and SMF 14B. The preferred alternative is SMF 14A which is a wet detention facility designed to provide treatment and attenuation for 13.80 acres of additional impervious area. The pond site is 5.72 acres and will impact one (1) parcel which has a land use designation of Vacant Commercial. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 14, which is required for all alternatives within this basin. The compensation site is 0.77 acres and impacts one (1) parcel with a land designation of Vacant Commercial. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.11 Basin 15/16

Basin 15 begins where East Broadway Boulevard intersects with I-75 at station 1590+00 and extends north to station 1603+00. Basin 16 begins at station 1603+00 and extends to just north of where East Martin Luther King Jr. Boulevard intersects with I-75 at station 1643+00. Both basins discharge to the Tampa Bypass Canal which ultimately outfalls to McKay Bay. Runoff from both Basin 15 and Basin 16 discharge to a proposed pond site referred to as SMF 15/16. SMF 15/16 is a wet detention facility designed to provide treatment and attenuation for 20.34 acres of additional impervious area. The pond site is 6.27 acres and is located in the infield at the interchange of East Martin Luther King Jr. Boulevard and I-75. Since SMF 15/16 is located within the existing right-of-way it is the preferred pond site. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.12 Basin 17

Basin 17 begins just north of the intersection of East Martin Luther King Jr. Boulevard and I-75 at station 1643+00 and extends north to station 1668+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 17A and SMF 17B. The preferred alternative for this basin is SMF 17A which is a wet detention facility designed to provide treatment and attenuation for 11.99 acres of additional impervious area. The pond site is 3.93 acres and will impact two (2) parcels, both with a land use designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 17/18 which provides floodplain compensation for both Basin 17 and Basin 18. The compensation site is 2.44 acres and will impact one (1) parcel with a land designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.13 Basin 18

Basin 18 begins at station 1668+00 and extends north to where East Hillsborough Avenue intersects with I-75 at station 1678+50. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 18A and SMF 18B. The preferred alternative is SMF 18A which is a wet detention facility designed to provide treatment and attenuation for 5.51 acres of additional impervious area. The pond site is 2.19 acres and will impact one (1) parcel with a land use designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be provided in FPC 17/18. The preferred SMF will require an easement acquisition of 0.52 acres.

7.14 Basin 19

Basin 19 begins where East Hillsborough Avenue intersects with I-75 at station 1678+50 and extends north of the interchange of I-4 and I-75 to station 1725+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Four SMF's were designed for the basin and are referred to as SMF 19A, SMF 19B, SMF 19C and SMF 19D. The pond sites have been designed as wet detention facilities that will provide treatment and attenuation for 31.30 acres of additional impervious area. Cumulatively, the pond sites total 11.01 acres and are located within the exiting right-of-way of the I-4 and I-75 interchange. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in two proposed floodplain compensation sites referred to as FPC 19A and FPC 19B which are 1.44 acres and 0.90 acres, respectively.

7.15 Basin 20

Basin 20 begins north of the I-4 and I-75 interchange at station 1725+00 and extends north to station 1754+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 20A and SMF 20B. The preferred alternative is SMF 20A which is a wet detention facility designed to provide treatment and attenuation for 12.46 acres of additional impervious area. The pond site is 7.56 acres and will impact two (2) parcels, one of which has a land designation of Pasture, the other parcel has a land designation of Vacant

Acreage. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 20, which is required for all alternatives within this basin. The compensation site is 1.57 acres and will impact one (1) parcel with a land use designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.16 Basin 21

Basin 21 begins at station 1754+00 and extends north to station 1784+00 near the Tampa Executive Airport. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 21A and SMF 21B. The preferred alternative is SMF 21B which is a wet detention facility designed to provide treatment and attenuation for 10.42 acres of additional impervious area. The pond site is 6.70 acres and is will impact one (1) parcel which has a land designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 21B. The compensation site is 1.66 acres and will impact one (1) existing parcel with a land designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.17 Basin 22/23

Basin 22 begins at station 1784+00, near the Tampa Executive Airport and extends north to the Tampa Bypass Canal at station 1810+00. Basin 23 begins at the Tampa Bypass Canal at station 1810+00 and extends north to station 1835+00 where Harney Road intersects with I-75. Both roadway drainage basins are located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay.

One pond site alternative was considered for Basin 22 and is referred to as SMF 22A. Two alternatives were considered for Basin 23 and are referred to as SMF 23A and SMF 23B. The ponds in Basin 22 and Basin 23 were designed to provide treatment and attenuation in a wet detention facility for 8.62 acres and 9.00 acres of additional impervious area, respectively. A second pond site alternative was considered for Basin 22 and presented during the Long List Meeting. This option was dismissed during the meeting due to the significant impact to multiple property owners. The option is referred to as SMF 22A and is shown on Sheet Number 13 for the Alternative Pond Sites from the Long List Meeting presentation. The presentation and meeting minutes from the Long List Meeting, which includes Sheet Number 13, are included in **Appendix E**.

A cost comparison indicates that combining the treatment and attenuation for Basin 22 and Basin 23 into a single pond referred to as SMF 22/23 is a less expensive option than providing treatment and attenuation separately. Therefore, SMF 22/23 is the preferred alternative for Basin 22 and Basin 23. SMF 22/23 is a wet detention facility designed to provide treatment and attenuation for 17.62 acres of additional impervious area. The pond site is 4.36 acres and will impact three (3) parcels, two of which have land use designations of Poultry/Bees/Fish and the third is designated as Dairies/Feed lots. There are no anticipated floodplain impacts in either Basin 22 or Basin 23 due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.18 Basin 24

Basin 24 begins at station 1835+00 where Harney Road intersects with I-75 and extends north to station 1847+00 where U.S. 301 intersects with I-75. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 24A and SMF 24B. The preferred alternative is SMF 24B which is a wet detention facility designed to provide treatment and attenuation for 3.78 acres of additional impervious area. The pond site is 1.98 acres and will impact three (3) parcels, one of which is designated FDOT Vacant and the other two with a land use designation of Vacant Commercial. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.19 Basin 25

Basin 25 begins at station 1847+00 where U.S. 301 intersects with I-75 and extends north to station 1874+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 25A, SMF 25B, and SMF 25C-1 and 2. The preferred alternative is SMF 25A which is a wet detention facility designed to provide treatment and attenuation for 10.71 acres of additional impervious area. The pond site is 1.86 acres and will impact four (4) existing parcels, two of which have a land use designation of FDOT Vacant and the other two with a land use designation of Single-Family Residences. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.20 Basin A

Basin A begins at station 1874+00 and extends north of East Fowler Avenue to station 1923+00. There are two existing wet detention ponds within the basin limits referred to as Pond A2 and Pond A4. The ponds are located in the infield at station 1907+00, where East Fowler Avenue crosses I-75. Pond A2 is 5.94 acres and is on the right side of I-75 and Pond A4 is 6.05 acres and is on the left side of I-75. Both ponds outfall to Cowhouse Creek and were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.21 Basin B

Basin B begins at station 1923+00 and extends north to station 1967+00 where East Fletcher Avenue intersects with I-75. There are two existing ponds within the basin limits referred to as Pond B2 and Pond B3. Pond B2 is an existing 2.63-acre wet detention facility located at station 1933+00 (Rt). Pond B3 is an existing 3.11-acre wet detention facility located in the infield at station 1963+00 (Lt). Both ponds outfall to Cowhouse Creek and were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.22 Basin C

Basin C begins at station 1967+00 where East Fletcher Avenue intersects with I-75 and extends north to the Hillsborough River at station 2029+00. There are two existing ponds and a floodplain compensation site within the basin limits referred to as Pond C2, Pond C5 and FPC CD, respectively. Pond C2 is an existing 6.75-acre wet detention facility located in the infield at station 1971+00 (Lt). Pond C5 is an existing 10.32-acre wet detention facility located in the infield at station 1985+00 (Rt). FPC CD is an existing 2.30-acre floodplain compensation site that is directly connected to the Hillsborough River on the east side of the I-75 bridge crossing over the Hillsborough River. Both ponds outfall to the Hillsborough River. Both the ponds and the FPC were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.23 Basin D

Basin D begins at station 2029+00 where the Hillsborough River crosses under I-75 and extends to station 2080+00. There is one existing pond within the basin limits referred to as Pond D. Pond D is an existing 8.00-acre wet detention facility which outfalls to Hillsborough River. The pond is located at station 2057+00 (Rt) and was permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing pond will not require modification due to the proposed roadway improvements.

7.24 Basin EF

Basin EF begins at station 2080+00 and extends north to the I-75 ramps for Bruce B. Downs Boulevard at station 2157+00. The basin also includes the grass median along I-75 between the ramps and I-75 bridge over Bruce B. Downs Boulevard. There is one existing pond within the basin limits referred to as Pond EF. Pond EF is an existing 32.30-acre wet detention facility located at station 2115+00 (Lt). The pond discharges to a wetland system which ultimately outfalls to the Hillsborough River. The existing pond was permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing pond will not require modification due to the proposed roadway improvements.

7.25 Basin 1B, 1C, & Ramp 1 Infield

Basin 1B, 1C, and Ramp 1 Infield begins at station 2157+00 south of Bruce B. Downs Boulevard and extends north to station 2175+35. There are three (3) existing ponds within the basin limits referred to as Pond 1B, Pond 1C, and Pond Ramp 1 Infield. Currently, treatment and attenuation for the runoff from northbound I-75 and the exit ramp is provided in Pond Ramp 1 Infield. The pond is located in the southeast quadrant of I-75 and Bruce B. Downs Boulevard and provides treatment for the entire Ramp 1 Infield basin. The proposed widening along northbound I-75 occurs within the basin limits of Ramp 1 Infield and therefore will not require additional treatment. The treatment for the southbound widening along I-75 will also be provided in Pond Ramp 1 Infield. The pond currently has additional treatment capacity and is therefore able to accommodate the treatment requirements for the southbound widening. Calculations were performed to demonstrate that treatment and attenuation due to the proposed widening can be accomplished in the Ramp 1 Infield pond. The modified pond calculations which demonstrate that the existing pond is able to accommodate the additional

runoff from the I-75 widening is included in **Appendix F**. The existing ponds were permitted under ERP No. 44021369.007 and selected sheets from the Drainage Design Document are provided in **Appendix B**.

Walls along the southbound widening will minimize impacts to the existing ponds referred to as Pond 1B and Pond 1C.

7.26 Basin G

Basin G begins at station 2175+35 and extends north to station 2246+00. There are three (3) existing ponds within the basin limits referred to as Pond G1A and G1B, Pond G2, and Pond G3. Pond G1A and G1B are located in the northwest infield of the I-75 and Bruce B. Downs Boulevard intersection and are hydraulically connected and considered to be a single pond. Ponds G2 and G3 are located on the west side of I-75 approximately 5,200 and 6,000 feet north of Bruce B. Downs Boulevard, respectively. The ponds within Basin G were designed for the ultimate condition and provide treatment and attenuation from right-of-way to right-of-way within the basin limits. The existing ponds were permitted and constructed under ERP No. 43033020.004 with selected sheets from the approved permit included in **Appendix B**. A drainage map with a graphical representation of the size and location of the ponds is provided in **Appendix C**.

Within the limits for Basin G, runoff from the northeast quadrant of I-75 and Bruce B. Downs Boulevard is collected and conveyed to a separate pond referred to as Pond 1A. The pond is located in the northeast infield of I-75 and Bruce B. Downs Boulevard and was permitted under ERP No. 43021639.001. Pond 1A collects runoff from the highpoint on the flyover bridge east to Bruce B. Downs Boulevard. The pond also treats and attenuates runoff from segments of I-75 which discharges directly into the northeast infield area. The proposed widening to the outside will require a wall to avoid impacting this existing pond. Since the ponds in basin G have been designed to provide treatment and attenuation for the ultimate condition, modification to Pond 1A will not be required due to the proposed roadway widening. Selected sheets from the approved permit are included in **Appendix B**. The existing pond is also shown on the Drainage Maps provided in **Appendix C**.

Table 5: Stormwater Evaluation Matrix

| SMF/FPC Site Alternative | Pond/FPC Size (acres) | Easement Size (acres) | Wetland Impact Estimate (acres) | Mitigation Assumption | Protected Species Ranking | Potential Species* | Contamination and Hazardous Material Rating | Cultural Resource Potential | | | Wetland Mitigation Cost Estimate ^ | Right-of-Way Cost Estimate | Pond/FPC Construction Cost** | Total Cost | SMF Site Ranking |
|--------------------------|-----------------------|-----------------------|---------------------------------|---------------------------|---------------------------|--|---|-----------------------------|----------|------------|------------------------------------|----------------------------|------------------------------|--------------|------------------|
| | | | | | | | | Prehistoric | Historic | Historical | | | | | |
| SMF 1A | 2.75 | 0 | 0.01 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$780 | \$25,047,300 | \$330,000 | \$25,378,080 | 3 |
| SMF 1B | 3.47 | 0 | 0.04 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$3,120 | \$18,652,600 | \$416,400 | \$19,072,120 | 2 |
| SMF 1C | 2.37 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$5,669,700 | \$284,400 | \$5,954,100 | 1 |
| SMF 2/3 | 7.57 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | LOW | LOW | LOW | \$0 | \$0 | \$908,400 | \$908,400 | 1 |
| SMF 4/5 | 10.47 | 0 | 1.18 | Tampa Bay Mitigation Bank | MEDIUM | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | HIGH | LOW | LOW | \$92,040 | \$0 | \$1,256,400 | \$1,348,440 | 1 |
| SMF 6A | 3.31 | 0.09 | 0 | N/A | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$4,004,400 | \$408,000 | \$4,412,400 | 1 |
| SMF 6B | 3.43 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$6,323,000 | \$411,600 | \$6,734,600 | 2 |
| FPC 6R | 4.67 | 0 | 0.46 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$35,880 | \$0 | \$560,400 | \$596,280 | 1 |
| SMF 7A | 3.16 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$28,083,600 | \$379,200 | \$28,626,480 | 4 |
| FPC 7 | 1.26 | 0 | 0.16 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$12,480 | \$0 | \$151,200 | | |
| SMF 7B | 2.00 | 0.17 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$5,771,900 | \$260,400 | \$6,032,300 | 2 |
| SMF 7C | 8.82 | 0 | 0.66 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | MED | LOW | LOW | LOW | \$51,480 | \$23,828,700 | \$1,058,400 | \$24,938,580 | 3 |
| SMF 8A | 2.65 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | NO DATA | NO DATA | NO DATA | \$0 | \$4,924,400 | \$318,000 | \$5,242,400 | 2 |
| SMF 8B | 3.58 | 0.9 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$5,905,200 | \$721,200 | \$6,626,400 | 3 |
| SMF 7/8 | 5.55 | 0 | 0.14 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$10,920 | \$8,584,200 | \$666,000 | \$9,261,120 | 1 |
| SMF 9 | 2.87 | 0 | 0 | N/A | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$0 | \$344,400 | \$344,400 | 1 |
| SMF 10A | 3.28 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | MODERATE | LOW | MODERATE | \$0 | \$1,357,700 | \$393,600 | \$1,751,300 | 2 |
| SMF 10B | 4.53 | 0.83 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | LOW/MODERATE | LOW | LOW | \$0 | \$3,899,600 | \$848,400 | \$4,748,000 | 3 |
| SMF 10C | 2.47 | 0 | 1.83 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | MED | MODERATE | LOW | LOW | \$142,740 | \$990,100 | \$296,400 | \$1,429,240 | 1 |
| SMF 11A | 1.32 | 0 | 0.08 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | MODERATE | LOW | MODERATE | \$6,240 | \$765,300 | \$158,400 | \$929,940 | 1 |
| SMF 11B | 1.55 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | MODERATE | LOW | MODERATE | \$0 | \$3,204,100 | \$186,000 | \$3,390,100 | 2 |
| SMF 12/13A | 5.07 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | MED | LOW | LOW | LOW | \$0 | \$6,402,500 | \$608,400 | \$7,339,700 | 3 |
| FPC 12/13L&R | 2.74 | 0 | 0.53 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | | \$328,800 | | |
| SMF 12/13B | 4.72 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$2,216,400 | \$566,400 | \$3,111,600 | 2 |
| FPC 12/13L&R | 2.74 | 0 | 0.53 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | | \$328,800 | | |
| SMF 12/13C | 7.35 | 0 | 0.01 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | MODERATE | LOW | MODERATE | \$780 | \$2,033,500 | \$685,200 | \$3,048,280 | 1 |
| FPC 12/13L&R | 2.74 | 0 | 0.53 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | | \$328,800 | | |

| SMF/FPC Site Alternative | Pond/FPC Size (acres) | Easement Size (acres) | Wetland Impact Estimate (acres) | Mitigation Assumption | Protected Species Ranking | Potential Species* | Contamination and Hazardous Material Rating | Cultural Resource Potential | | | Wetland Mitigation Cost Estimate ^ | Right-of-Way Cost Estimate | Pond/FPC Construction Cost** | Total Cost | SMF Site Ranking |
|--------------------------|-----------------------|-----------------------|---------------------------------|---------------------------|---------------------------|--|---|-----------------------------|----------|------------|------------------------------------|----------------------------|------------------------------|-------------|------------------|
| | | | | | | | | Prehistoric | Historic | Historical | | | | | |
| SMF 14A | 5.72 | 0 | 1.83 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$142,740 | \$1,758,700 | \$686,400 | \$2,680,240 | 1 |
| FPC 14 | 0.77 | 0 | 0.04 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | | \$92,400 | | |
| SMF 14B | 4.96 | 1.73 | 0.06 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$4,680 | \$2,413,700 | \$1,234,800 | \$3,745,580 | 2 |
| FPC 14 | 0.77 | 0 | 0.04 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | | \$92,400 | | |
| SMF 15/16 | 6.27 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$0 | \$752,400 | \$752,400 | 1 |
| SMF 17A | 3.93 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$973,300 | \$471,600 | \$1,444,900 | 1 |
| SMF 17B | 4.09 | 0.08 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | MODERATE | \$0 | \$1,494,900 | \$500,400 | \$1,995,300 | 2 |
| SMF 18A | 2.19 | 0.52 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$958,400 | \$404,400 | \$1,362,800 | 1 |
| SMF 18B | 2.16 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$2,202,000 | \$288,000 | \$2,490,000 | 2 |
| FPC 17/18 | 2.44 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$1,259,700 | \$292,800 | \$1,552,500 | 1 |
| SMF 19A | 1.57 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$0 | \$188,400 | \$188,400 | 1 |
| SMF 19B | 2.05 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | HIGH | LOW | LOW | \$0 | \$0 | \$246,000 | \$246,000 | 1 |
| SMF 19C | 2.80 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$0 | \$0 | \$336,000 | \$336,000 | 1 |
| SMF 19D | 4.19 | 0 | 3.57 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$278,460 | \$0 | \$502,800 | \$781,260 | 1 |
| FPC 19A | 0.67 | 0 | 0.06 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$4,680 | \$0 | \$80,400 | \$85,080 | 1 |
| FPC 19B | 0.90 | 0 | 0.77 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$60,060 | \$0 | \$108,000 | \$168,060 | 1 |
| SMF 20A | 7.56 | 0 | 0.03 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | MED | MODERATE | LOW | LOW | \$2,340 | \$319,300 | \$986,400 | \$1,589,260 | 1 |
| FPC 20 | 1.57 | 0 | 1.19 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | MED | LOW | LOW | LOW | \$92,820 | | \$188,400 | | |
| SMF 20B | 9.63 | 1.01 | 1.23 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | HIGH | LOW | MODERATE | \$95,940 | \$956,800 | \$1,390,920 | \$2,724,880 | 2 |
| FPC 20 | 1.57 | 0 | 1.19 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | MED | LOW | LOW | LOW | \$92,820 | | \$188,400 | | |
| SMF 21A | 7.77 | 0 | 2.47 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | HIGH | LOW | LOW | \$192,660 | \$336,100 | \$932,400 | \$1,890,280 | 2 |
| FPC 21A | 2.02 | 0.75 | 1.24 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | HIGH | LOW | LOW | \$96,720 | | \$332,400 | | |
| SMF 21B | 6.70 | 0 | 0.86 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | HIGH | LOW | LOW | LOW | \$67,080 | \$291,400 | \$804,000 | \$1,367,920 | 1 |
| FPC 21B | 1.66 | 0 | 0.08 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | HIGH | LOW | LOW | LOW | \$6,240 | | \$199,200 | | |
| SMF 22A | 3.94 | 0 | 0.24 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$18,720 | \$199,300 | \$472,800 | \$690,820 | 2 |
| SMF 23A | 3.15 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | MODERATE | LOW | LOW | \$0 | \$680,200 | \$378,000 | \$1,058,200 | 2 |
| SMF 23B | 2.81 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | MODERATE | LOW | LOW | \$0 | \$1,312,400 | \$337,200 | \$1,649,600 | 3 |
| SMF 22/23 | 4.36 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | MODERATE | \$0 | \$781,200 | \$523,200 | \$1,304,400 | 1 |

| SMF/FPC Site Alternative | Pond/FPC Size (acres) | Easement Size (acres) | Wetland Impact Estimate (acres) | Mitigation Assumption | Protected Species Ranking | Potential Species* | Contamination and Hazardous Material Rating | Cultural Resource Potential | | | Wetland Mitigation Cost Estimate ^ | Right-of-Way Cost Estimate | Pond/FPC Construction Cost** | Total Cost | SMF Site Ranking |
|--------------------------|-----------------------|-----------------------|---------------------------------|---------------------------|---------------------------|--|---|-----------------------------|----------|------------|------------------------------------|----------------------------|------------------------------|-------------|------------------|
| | | | | | | | | Prehistoric | Historic | Historical | | | | | |
| SMF 24A | 2.04 | 0 | 0.11 | Tampa Bay Mitigation Bank | LOW | EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB | LOW | HIGH | LOW | LOW | \$8,580 | \$1,350,600 | \$244,800 | \$1,603,980 | 2 |
| SMF 24B | 1.98 | 0 | 0.14 | Tampa Bay Mitigation Bank | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW | LOW | LOW | \$10,920 | \$1,318,000 | \$237,600 | \$1,566,520 | 1 |
| SMF 25A | 1.86 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | MODERATE | \$0 | \$985,300 | \$274,500 | \$1,259,800 | 1 |
| SMF 25B | 2.81 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | LOW/MODERATE | LOW | LOW | \$0 | \$1,573,900 | \$361,050 | \$1,934,950 | 2 |
| SMF 25C-1 | 2.07 | 0.11 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | MODERATE | LOW | MODERATE | \$0 | \$1,541,600 | \$261,600 | \$1,803,200 | 3 |
| SMF 25C-2 | 2.44 | 0 | 0 | N/A | LOW | EIS, GT, FSC, FBO, SEAK, BE, FBB | LOW | NO DATA | NO DATA | NO DATA | \$0 | \$1,712,900 | \$292,800 | \$2,005,700 | 3 |

^ = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

** Includes the associated easement acquisition costs when applicable

Notes:

SMF 4/5 is directly adjacent to bald eagle nest HLO47. Construction of this pond would likely occur within the 330ft primary buffer of the nest and require an incidental take permit.

Green shading represents archeological sites within the APE (area of potential effects)

Blue shading represents archeological sites adjacent to the APE

Yellow shading represents historic resources

* Legend

- EIS Eastern Indigo Snake
- WS Wood Stork
- GT Gopher Tortoise
- FSC Florida Sandhill Crane
- FBO Florida Burrowing Owl
- WDWB Wetland-dependant Wading Birds
- SEAK Southeastern American Kestrel
- BE Bald Eagle
- FBB Florida Black Bear
- FSJ Florida Scrub Jay



8.0 FDEP IMPAIRED WATER BODY

The project limits were evaluated for impairments as identified by the Florida Department of Environmental Protection (FDEP). Based on their Water Body Identification Numbers (WBIDs), FDEP has identified eight (8) basins with the project limits that are impaired. Pollutant loading calculations were performed for all nutrient based pollutants. Calculations were not performed for non-nutrient based impairments. A map showing the WBIDs, the verified impairment list, and the required calculations are provided in **Appendix I**. The WBIDs and the impairment are summarized in **Table 6**.

Table 6: FDEP Impaired Waterbodies

| Planning Unit | Water Body Identification | Water Segment Name | Impairment | Impaired Roadway Basins |
|------------------------------------|---------------------------|------------------------------------|-----------------------------------|-------------------------|
| Coastal Hillsborough Bay Tributary | 1628 | Archie Creek | Fecal Coliform | 1-5 |
| Coastal Hillsborough Bay Tributary | 1632 | Delaney Creek Popoff Canal | Enterococci | 5,6 |
| Coastal Hillsborough Bay Tributary | 1605 | Delaney Creek | Nutrients (Macrophytes) | 7,8 |
| Coastal Hillsborough Bay Tributary | 1536A | Unnamed Drain | Fecal Coliform | 11-13 |
| Coastal Hillsborough Bay Tributary | 1576 | Mango Drain | Dissolved Oxygen & Fecal Coliform | 14-16 |
| Coastal Hillsborough Bay Tributary | 1536C | Tampa Bypass Canal Tributary | Fecal Coliform | 17-21 |
| Coastal Hillsborough Bay Tributary | 1536B | Sixmile Creek (Tampa Bypass Canal) | Dissolved Oxygen | 22,23 |
| Hillsborough River | 1402 | Cypress Creek | Fecal Coliform | G |

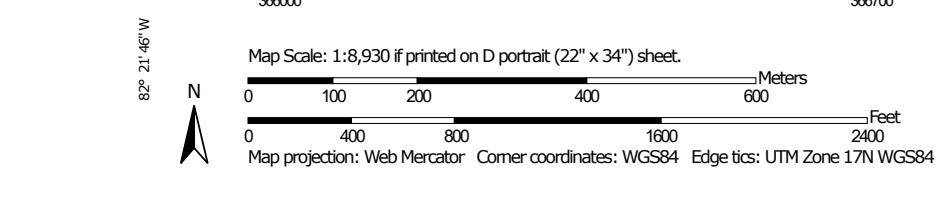
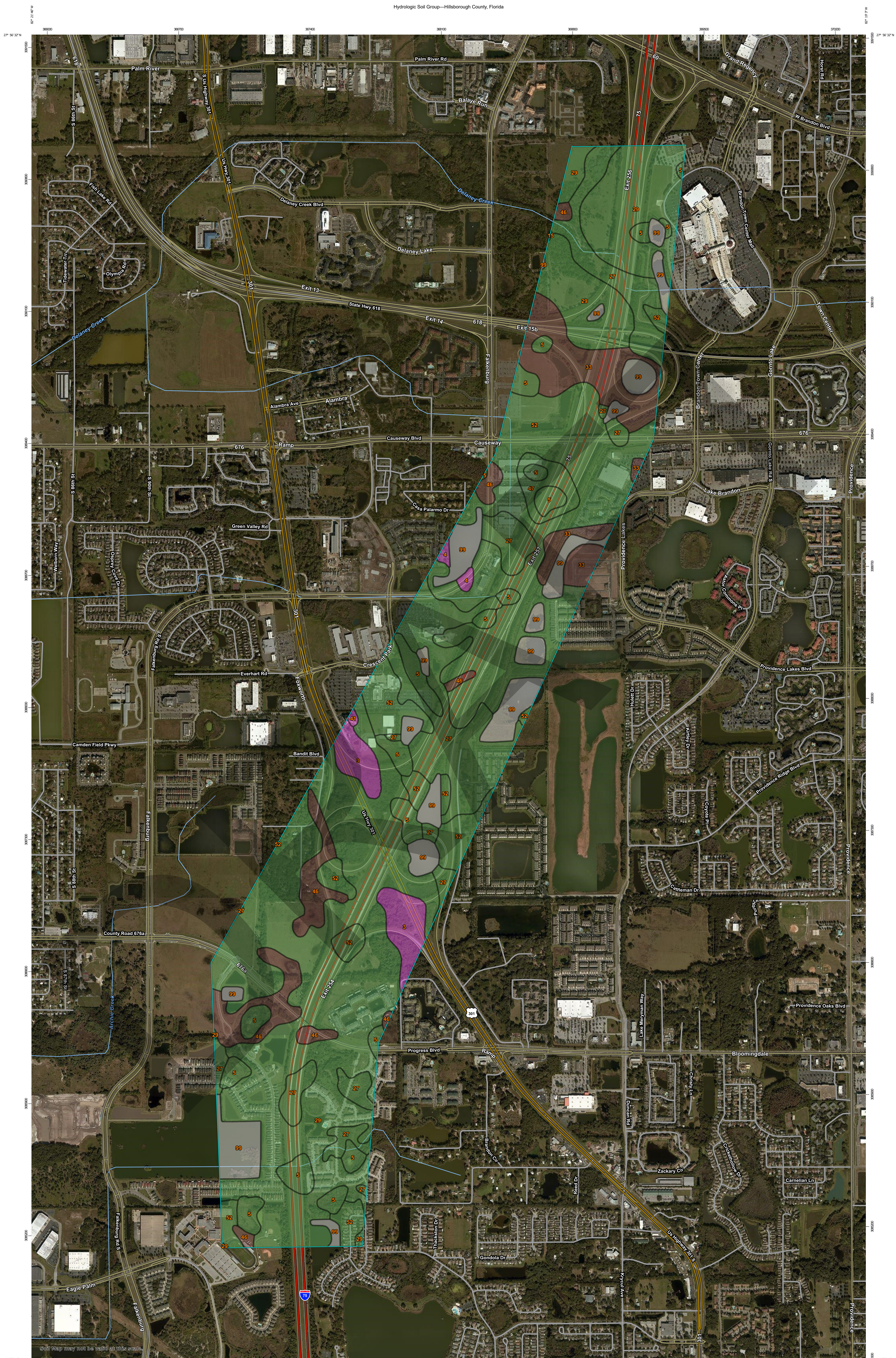
9.0 REFERENCES

1. FDOT 2020 Drainage Manual
2. FDOT 2020 Drainage Design Guide
3. SWFWMD 2018 Environmental Resource Permit Handbook, Volume I & II
4. Tampa Bay Water Atlas
5. The Florida Geographic Data library (FGDL)
6. The FEMA Flood Insurance Rate Maps (FIRMs)

DRAFT

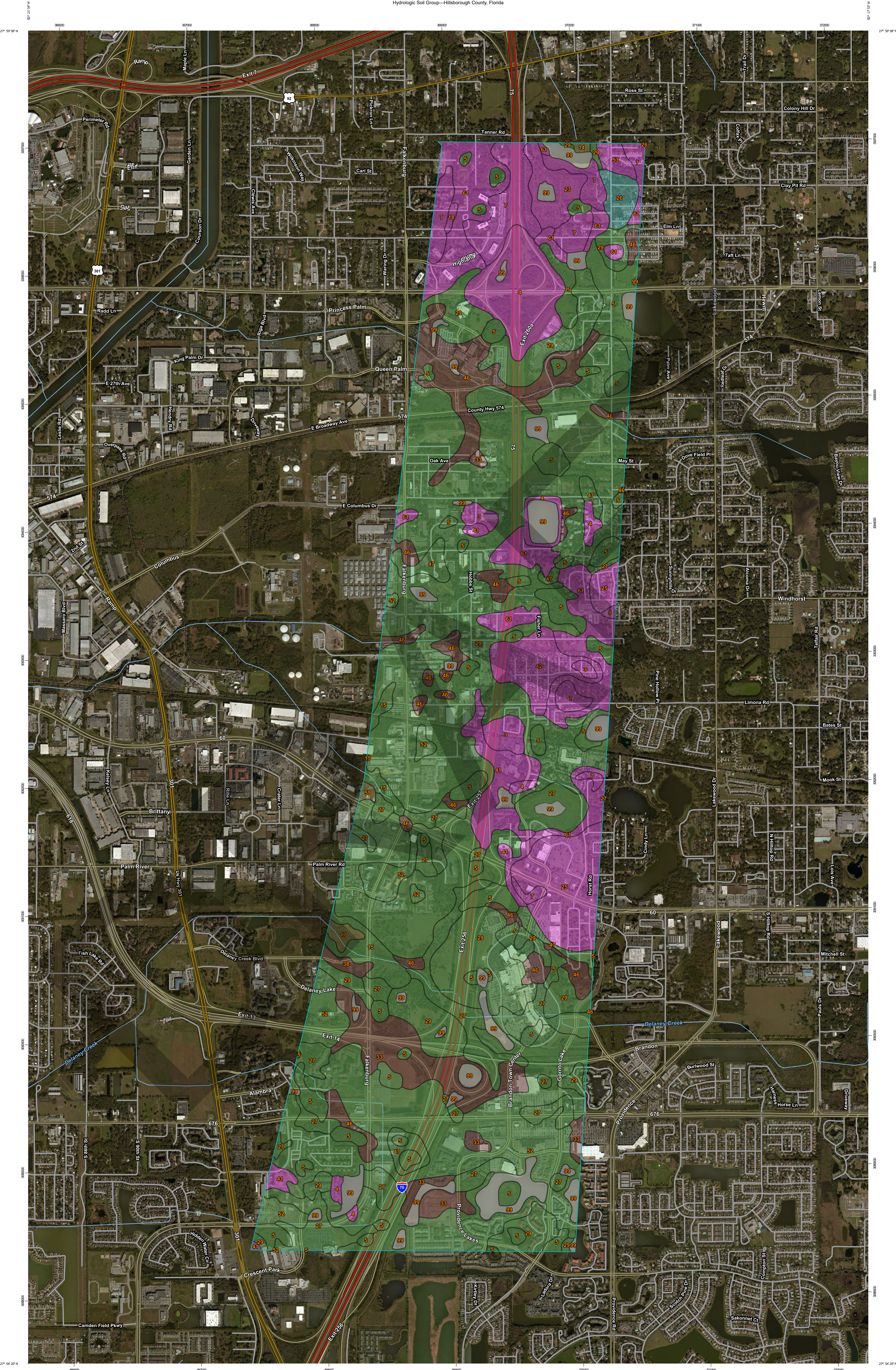
DRAFT

**Appendix A
NRCS Soil Data**



Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------|----------------|----------------|
| 3 | Archbold fine sand | A | 33.0 | 2.7% |
| 4 | Arents, nearly level | A | 3.3 | 0.3% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | A/D | 72.9 | 5.9% |
| 15 | Felda fine sand, 0 to 2 percent slopes | A/D | 0.1 | 0.0% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | A/D | 168.6 | 13.6% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | A/D | 474.2 | 38.1% |
| 33 | Ona fine sand, 0 to 2 percent slopes | B/D | 70.4 | 5.7% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | A | 0.8 | 0.1% |
| 46 | St. Johns fine sand | B/D | 55.8 | 4.5% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | A/D | 14.2 | 1.1% |
| 52 | Smyrna fine sand, 0 to 2 percent slopes | A/D | 253.0 | 20.3% |
| 99 | Water | | 97.4 | 7.8% |
| Totals for Area of Interest | | | 1,243.7 | 100.0% |



Map Scale: 1:13,200 if printed on D portrait (22" x 34") sheet.

0 150 300 450 600 750 900 Meters

0 150 300 450 600 750 900 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

USDA
Natural Resources
Conservation Service

Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|-----------------|--|--------|--------------|----------------|
| 3 | Archbold fine sand | A | 33.5 | 0.8% |
| 4 | Arents, nearly level | A | 136.3 | 3.3% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | A/D | 296.7 | 7.1% |
| 7 | Candler fine sand, 0 to 5 percent slopes | A | 151.0 | 3.6% |
| 9 | Candler-Urban land complex, 0 to 5 percent slopes | A | 1.9 | 0.0% |
| 14 | Eaton mucky sand, depressional | C/D | 2.4 | 0.1% |
| 15 | Felda fine sand, 0 to 2 percent slopes | A/D | 52.3 | 1.3% |
| 17 | Floridana fine sand, 0 to 2 percent slopes | C/D | 9.4 | 0.2% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | A | 3.2 | 0.1% |
| 23 | Kendrick fine sand, 2 to 5 percent slopes | A | 38.9 | 0.9% |
| 25 | Lake fine sand, 0 to 5 percent slopes | A | 133.4 | 3.2% |
| 26 | Lochloosa-Micanopy fine sands, 0 to 5 percent slopes | C | 24.2 | 0.6% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | A/D | 287.4 | 6.9% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | A/D | 1,410.7 | 33.8% |
| 33 | Ona fine sand, 0 to 2 percent slopes | B/D | 151.8 | 3.6% |
| 38 | Pinellas fine sand, 0 to 2 percent slopes | B/D | 10.0 | 0.2% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | A | 78.2 | 1.9% |
| 42 | Pomello-Urban land complex, 0 to 5 percent slopes | A | 66.6 | 1.6% |
| 46 | St. Johns fine sand | B/D | 219.4 | 5.3% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | A/D | 57.2 | 1.4% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------|----------------|----------------|
| 52 | Smyrna fine sand, 0 to 2 percent slopes | A/D | 568.0 | 13.6% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | A | 13.6 | 0.3% |
| 59 | Winder fine sand, 0 to 2 percent slopes | C/D | 3.6 | 0.1% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | A | 249.5 | 6.0% |
| 99 | Water | | 168.5 | 4.0% |
| Totals for Area of Interest | | | 4,167.5 | 100.0% |

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

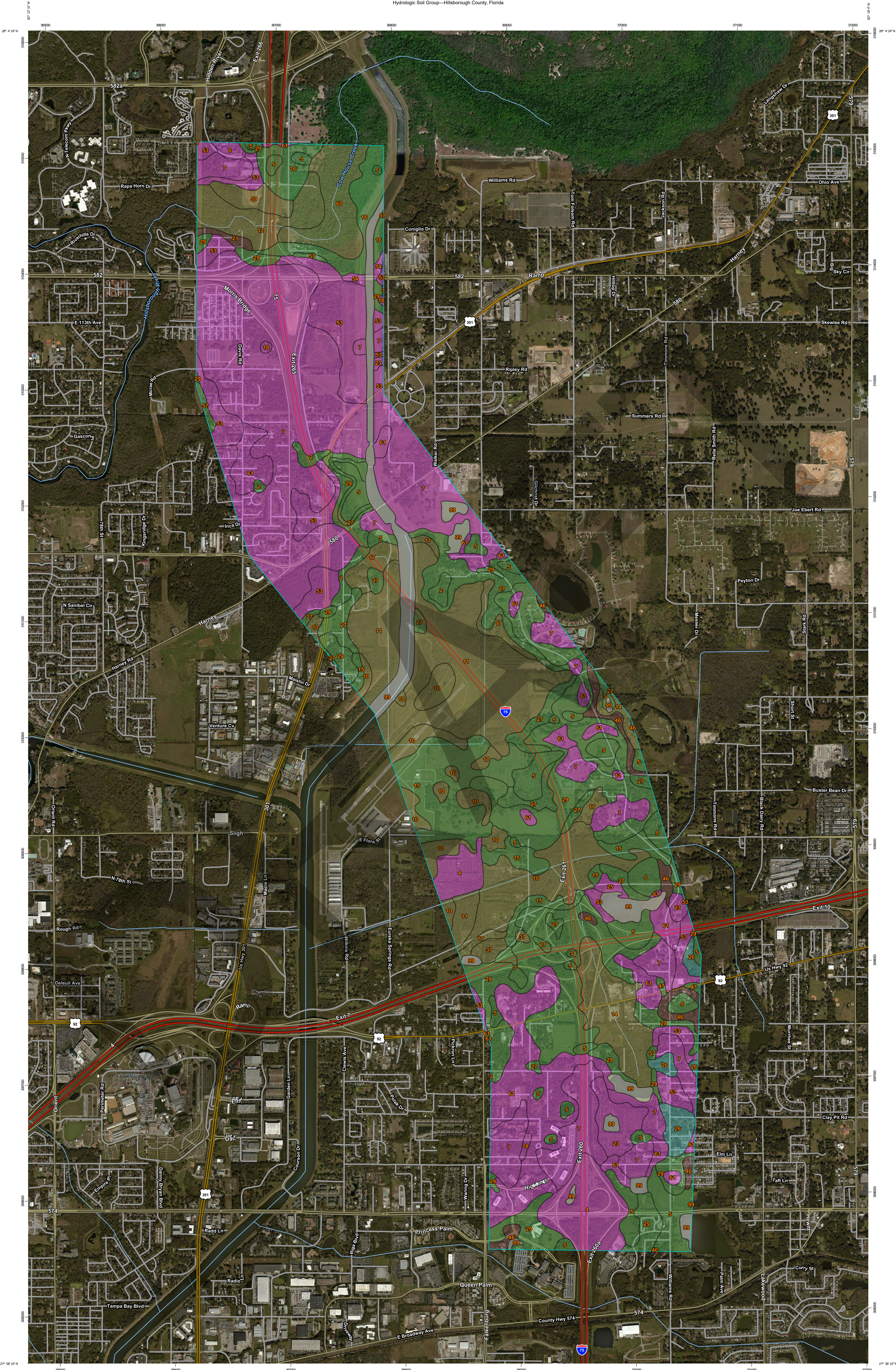
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



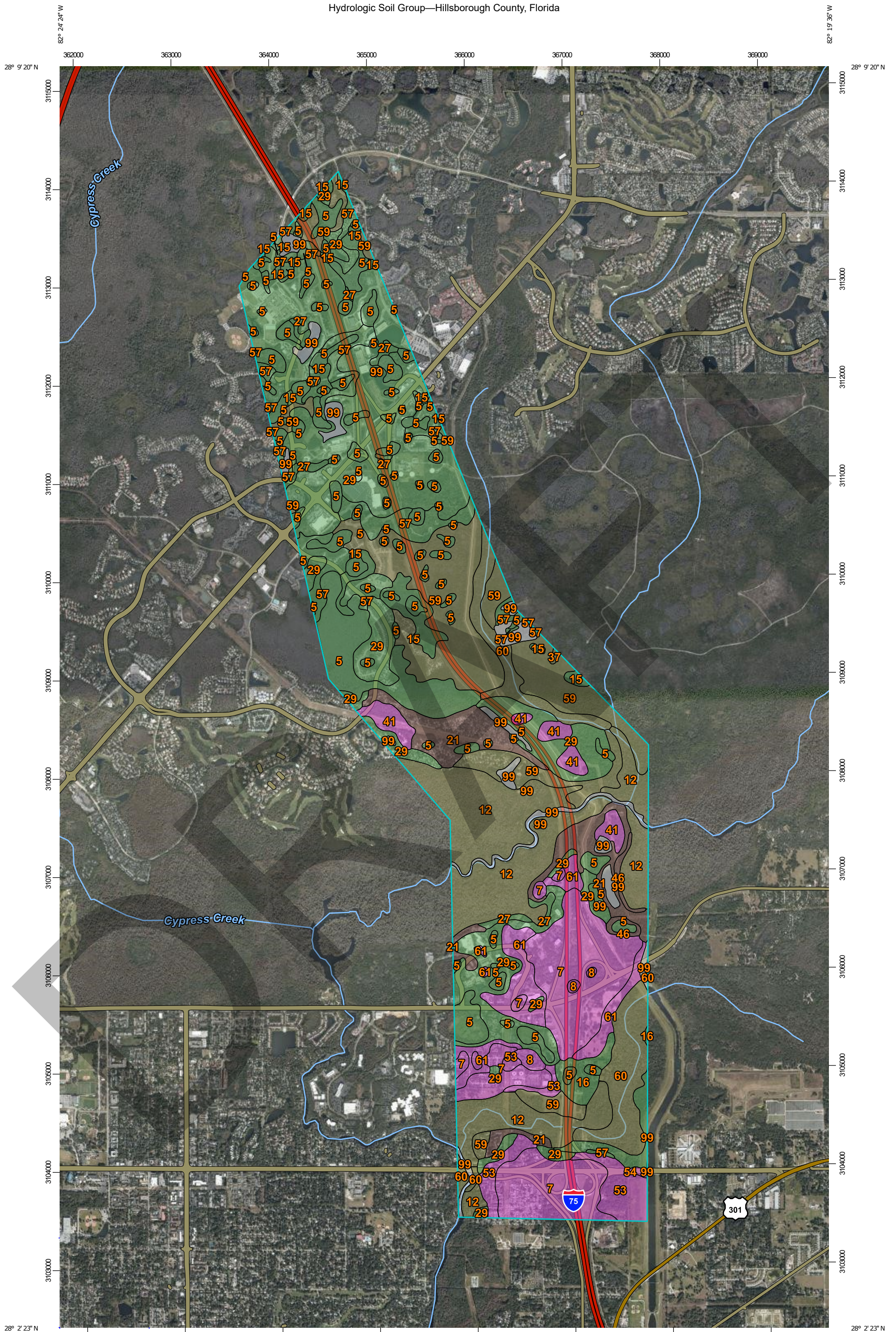
Map Scale: 1:14,600 if printed on D portrait (22" x 34") sheet.
 0 200 400 600 800 1000 1200
 Meters
 0 500 1000 2000 3000
 Feet
 Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 17N WGS84

Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|-----------------|--|--------|--------------|----------------|
| 2 | Adamsville fine sand, 0 to 2 percent slopes | A/D | 29.9 | 0.7% |
| 4 | Arents, nearly level | A | 137.4 | 3.0% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | A/D | 243.3 | 5.4% |
| 7 | Candler fine sand, 0 to 5 percent slopes | A | 1,058.1 | 23.3% |
| 8 | Candler fine sand, 5 to 12 percent slopes | A | 7.6 | 0.2% |
| 10 | Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes | C/D | 245.6 | 5.4% |
| 11 | Chobee muck, frequently ponded, 0 to 1 percent slopes | C/D | 393.9 | 8.7% |
| 12 | Chobee sandy loam, frequently flooded | C/D | 80.7 | 1.8% |
| 14 | Eaton mucky sand, depressional | C/D | 117.2 | 2.6% |
| 15 | Felda fine sand, 0 to 2 percent slopes | A/D | 201.7 | 4.4% |
| 16 | Felda fine sand, 0 to 2 percent slopes, occasionally flooded | A/D | 102.9 | 2.3% |
| 17 | Floridana fine sand, 0 to 2 percent slopes | C/D | 65.8 | 1.4% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | A | 6.0 | 0.1% |
| 21 | Immokalee fine sand, 0 to 2 percent slopes | B/D | 8.1 | 0.2% |
| 23 | Kendrick fine sand, 2 to 5 percent slopes | A | 48.5 | 1.1% |
| 25 | Lake fine sand, 0 to 5 percent slopes | A | 7.1 | 0.2% |
| 26 | Lochloosa-Micanopy fine sands, 0 to 5 percent slopes | C | 41.1 | 0.9% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | A/D | 179.7 | 4.0% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | A/D | 583.2 | 12.8% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------|----------------|----------------|
| 37 | Paisley fine sand, depressional | C/D | 13.5 | 0.3% |
| 46 | St. Johns fine sand | B/D | 56.4 | 1.2% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | A/D | 4.3 | 0.1% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | A | 272.0 | 6.0% |
| 54 | Tavares-Millhopper fine sands, 5 to 8 percent slopes | A | 6.7 | 0.1% |
| 57 | Wabasso fine sand, 0 to 2 percent slopes | A/D | 10.1 | 0.2% |
| 59 | Winder fine sand, 0 to 2 percent slopes | C/D | 29.2 | 0.6% |
| 60 | Winder fine sand, frequently flooded | C/D | 92.4 | 2.0% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | A | 324.8 | 7.1% |
| 99 | Water | | 175.7 | 3.9% |
| Totals for Area of Interest | | | 4,543.0 | 100.0% |

Hydrologic Soil Group—Hillsborough County, Florida



Map Scale: 1:36,000 if printed on B portrait (11" x 17") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|-----------------|--|--------|--------------|----------------|
| 5 | Basinger, Holopaw, and Samsula soils, depressional | A/D | 619.4 | 12.4% |
| 7 | Candler fine sand, 0 to 5 percent slopes | A | 514.0 | 10.3% |
| 8 | Candler fine sand, 5 to 12 percent slopes | A | 17.1 | 0.3% |
| 12 | Chobee sandy loam, frequently flooded | C/D | 655.8 | 13.2% |
| 15 | Felda fine sand, 0 to 2 percent slopes | A/D | 105.3 | 2.1% |
| 16 | Felda fine sand, 0 to 2 percent slopes, occasionally flooded | A/D | 82.9 | 1.7% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | A | 3.2 | 0.1% |
| 21 | Immokalee fine sand, 0 to 2 percent slopes | B/D | 222.1 | 4.5% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | A/D | 40.1 | 0.8% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | A/D | 1,089.6 | 21.9% |
| 37 | Paisley fine sand, depressional | C/D | 2.3 | 0.0% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | A | 84.5 | 1.7% |
| 46 | St. Johns fine sand | B/D | 17.8 | 0.4% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | A | 118.0 | 2.4% |
| 54 | Tavares-Millhopper fine sands, 5 to 8 percent slopes | A | 3.7 | 0.1% |
| 57 | Wabasso fine sand, 0 to 2 percent slopes | A/D | 244.8 | 4.9% |
| 59 | Winder fine sand, 0 to 2 percent slopes | C/D | 620.5 | 12.5% |
| 60 | Winder fine sand, frequently flooded | C/D | 248.3 | 5.0% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | A | 147.0 | 3.0% |
| 99 | Water | | 140.7 | 2.8% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|---------------|--------|----------------|----------------|
| Totals for Area of Interest | | | 4,977.3 | 100.0% |

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

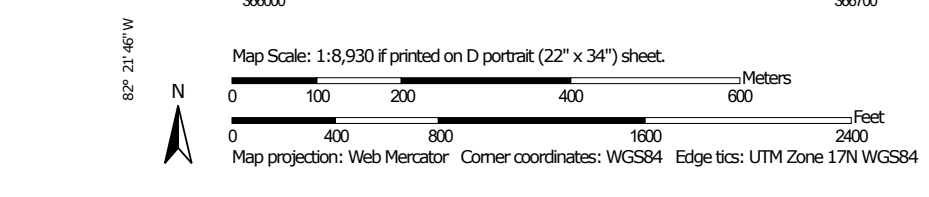
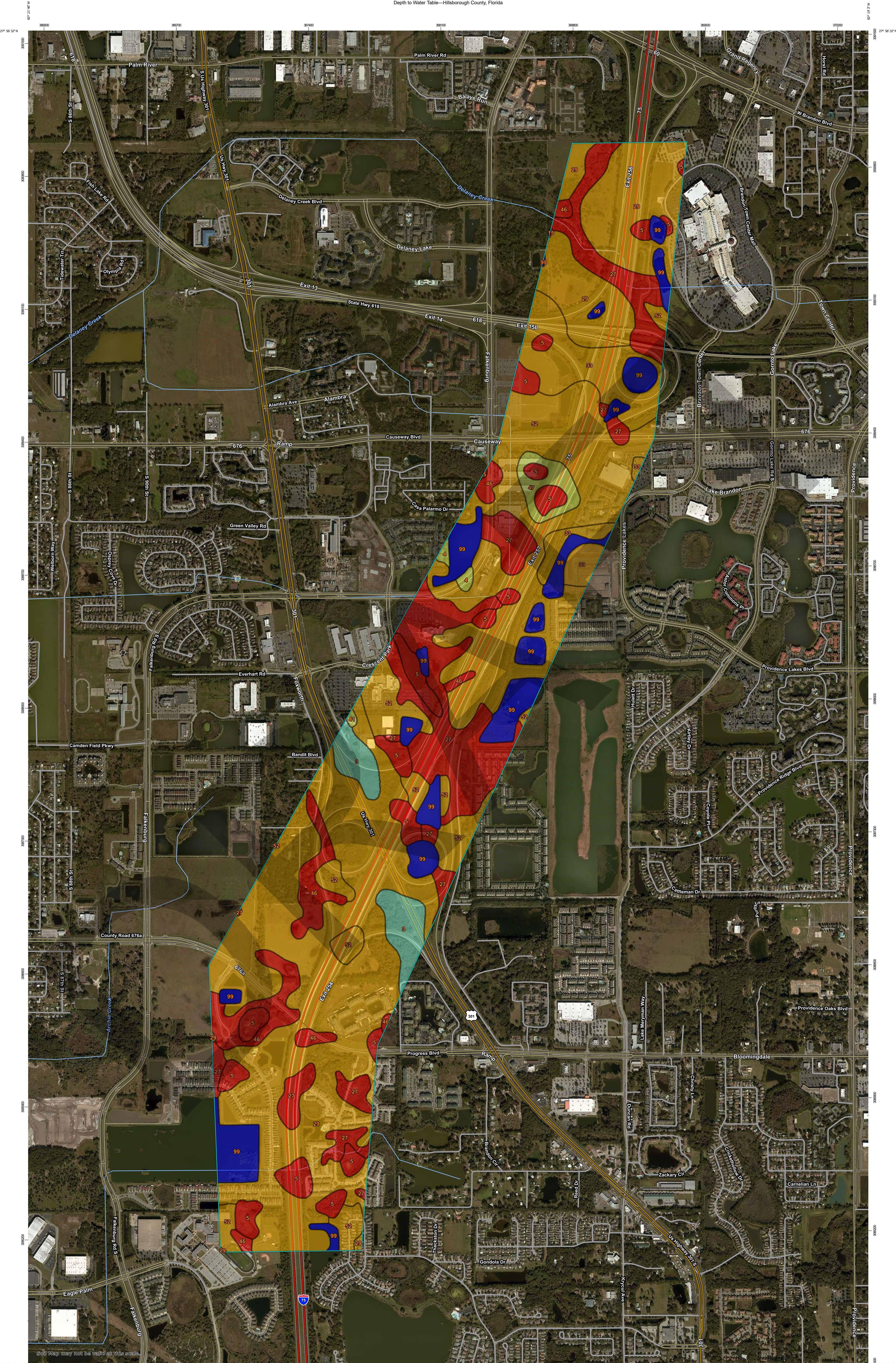
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Depth to Water Table

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|------------------------------------|--|----------------------|----------------|----------------|
| 3 | Archbold fine sand | 145 | 33.0 | 2.7% |
| 4 | Arents, nearly level | 69 | 3.3 | 0.3% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | 0 | 72.9 | 5.9% |
| 15 | Felda fine sand, 0 to 2 percent slopes | 15 | 0.1 | 0.0% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | 15 | 168.6 | 13.6% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | 30 | 474.2 | 38.1% |
| 33 | Ona fine sand, 0 to 2 percent slopes | 31 | 70.4 | 5.7% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | 84 | 0.8 | 0.1% |
| 46 | St. Johns fine sand | 15 | 55.8 | 4.5% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | 59 | 14.2 | 1.1% |
| 52 | Smyrna fine sand, 0 to 2 percent slopes | 30 | 253.0 | 20.3% |
| 99 | Water | >200 | 97.4 | 7.8% |
| Totals for Area of Interest | | | 1,243.7 | 100.0% |

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

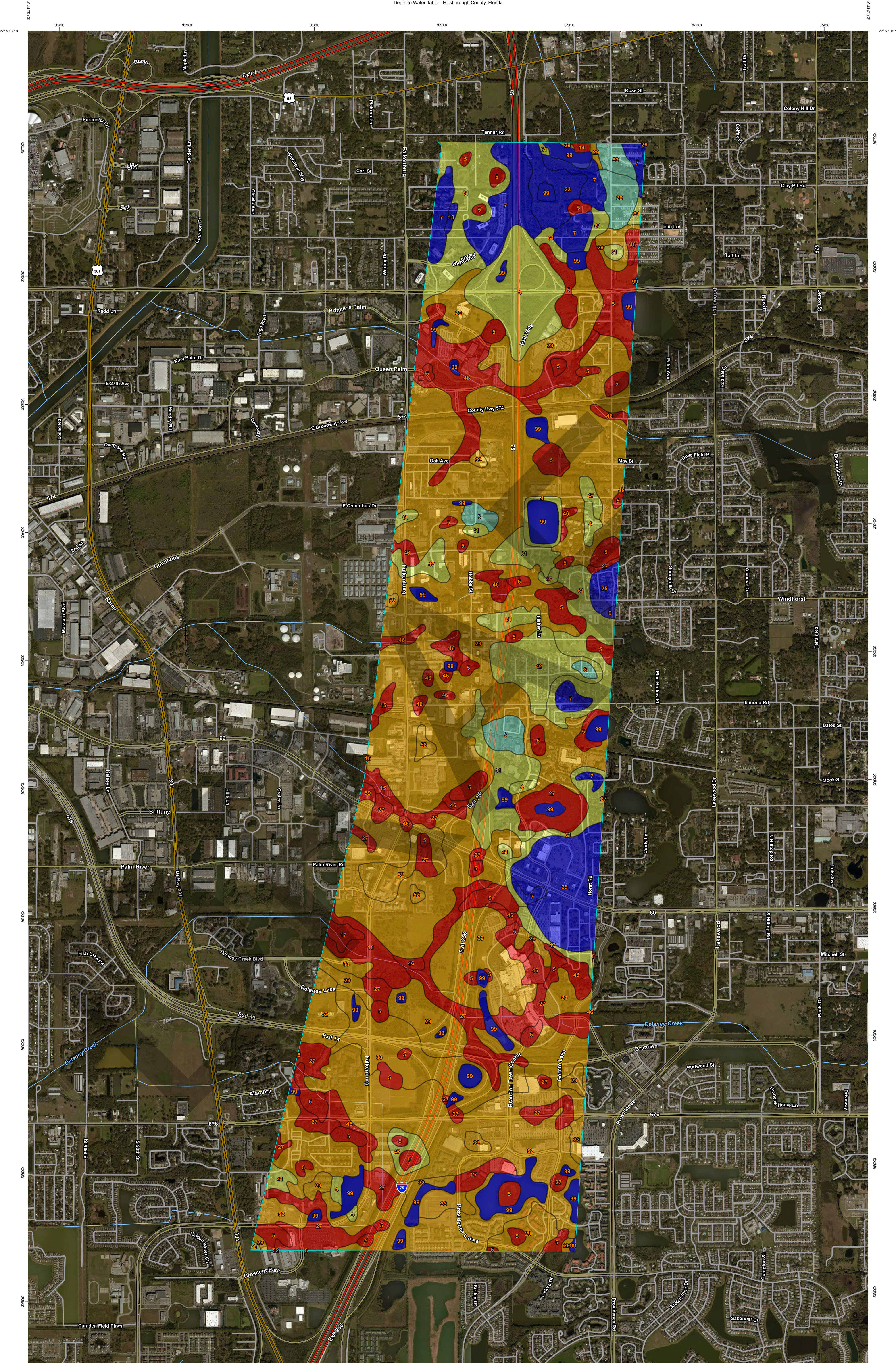
This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified



Depth to Water Table

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|-----------------|--|----------------------|--------------|----------------|
| 3 | Archbold fine sand | 145 | 33.5 | 0.8% |
| 4 | Arents, nearly level | 69 | 136.3 | 3.3% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | 0 | 296.7 | 7.1% |
| 7 | Candler fine sand, 0 to 5 percent slopes | >200 | 151.0 | 3.6% |
| 9 | Candler-Urban land complex, 0 to 5 percent slopes | >200 | 1.9 | 0.0% |
| 14 | Eaton mucky sand, depressional | 0 | 2.4 | 0.1% |
| 15 | Felda fine sand, 0 to 2 percent slopes | 15 | 52.3 | 1.3% |
| 17 | Floridana fine sand, 0 to 2 percent slopes | 8 | 9.4 | 0.2% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | >200 | 3.2 | 0.1% |
| 23 | Kendrick fine sand, 2 to 5 percent slopes | >200 | 38.9 | 0.9% |
| 25 | Lake fine sand, 0 to 5 percent slopes | >200 | 133.4 | 3.2% |
| 26 | Lochloosa-Micanopy fine sands, 0 to 5 percent slopes | 114 | 24.2 | 0.6% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | 15 | 287.4 | 6.9% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | 30 | 1,410.7 | 33.8% |
| 33 | Ona fine sand, 0 to 2 percent slopes | 31 | 151.8 | 3.6% |
| 38 | Pinellas fine sand, 0 to 2 percent slopes | 30 | 10.0 | 0.2% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | 84 | 78.2 | 1.9% |
| 42 | Pomello-Urban land complex, 0 to 5 percent slopes | 84 | 66.6 | 1.6% |
| 46 | St. Johns fine sand | 15 | 219.4 | 5.3% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | 59 | 57.2 | 1.4% |

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|------------------------------------|---|----------------------|----------------|----------------|
| 52 | Smyrna fine sand, 0 to 2 percent slopes | 30 | 568.0 | 13.6% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | 145 | 13.6 | 0.3% |
| 59 | Winder fine sand, 0 to 2 percent slopes | 15 | 3.6 | 0.1% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | 76 | 249.5 | 6.0% |
| 99 | Water | >200 | 168.5 | 4.0% |
| Totals for Area of Interest | | | 4,167.5 | 100.0% |

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

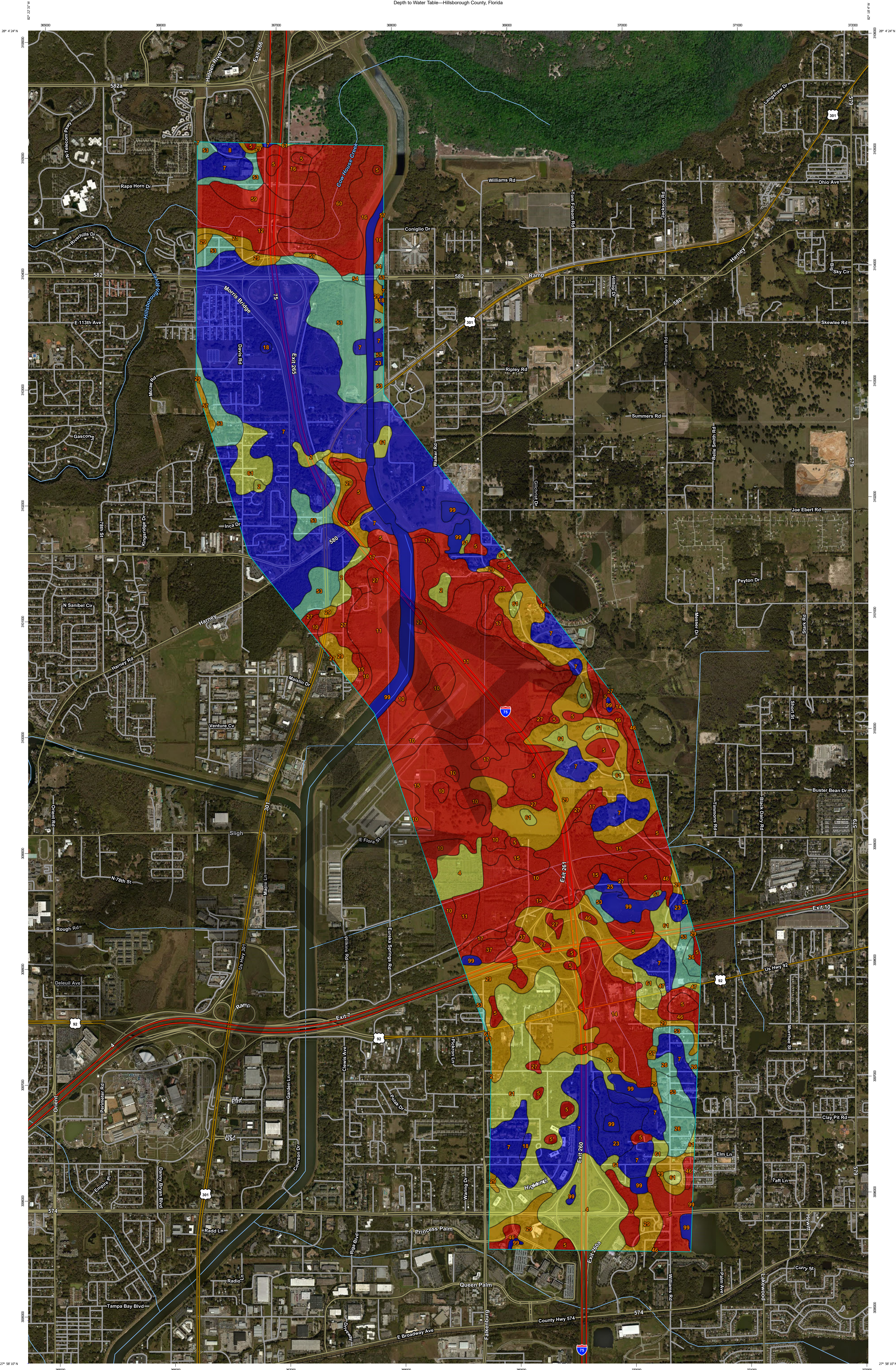
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December



Map Scale: 1:14,600 if printed on D portrait (22" x 34") sheet.
 0 200 400 600 800 1000 1200
 0 500 1000 2000 3000
 Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 17N WGS84

Depth to Water Table

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|-----------------|--|----------------------|--------------|----------------|
| 2 | Adamsville fine sand, 0 to 2 percent slopes | 51 | 29.9 | 0.7% |
| 4 | Arents, nearly level | 69 | 137.4 | 3.0% |
| 5 | Basinger, Holopaw, and Samsula soils, depressional | 0 | 243.3 | 5.4% |
| 7 | Candler fine sand, 0 to 5 percent slopes | >200 | 1,058.1 | 23.3% |
| 8 | Candler fine sand, 5 to 12 percent slopes | >200 | 7.6 | 0.2% |
| 10 | Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes | 8 | 245.6 | 5.4% |
| 11 | Chobee muck, frequently ponded, 0 to 1 percent slopes | 8 | 393.9 | 8.7% |
| 12 | Chobee sandy loam, frequently flooded | 0 | 80.7 | 1.8% |
| 14 | Eaton mucky sand, depressional | 0 | 117.2 | 2.6% |
| 15 | Felda fine sand, 0 to 2 percent slopes | 15 | 201.7 | 4.4% |
| 16 | Felda fine sand, 0 to 2 percent slopes, occasionally flooded | 15 | 102.9 | 2.3% |
| 17 | Floridana fine sand, 0 to 2 percent slopes | 8 | 65.8 | 1.4% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | >200 | 6.0 | 0.1% |
| 21 | Immokalee fine sand, 0 to 2 percent slopes | 30 | 8.1 | 0.2% |
| 23 | Kendrick fine sand, 2 to 5 percent slopes | >200 | 48.5 | 1.1% |
| 25 | Lake fine sand, 0 to 5 percent slopes | >200 | 7.1 | 0.2% |
| 26 | Lochloosa-Micanopy fine sands, 0 to 5 percent slopes | 114 | 41.1 | 0.9% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | 15 | 179.7 | 4.0% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | 30 | 583.2 | 12.8% |

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|------------------------------------|--|----------------------|----------------|----------------|
| 37 | Paisley fine sand, depressional | 0 | 13.5 | 0.3% |
| 46 | St. Johns fine sand | 15 | 56.4 | 1.2% |
| 47 | Seffner fine sand, 0 to 2 percent slopes | 59 | 4.3 | 0.1% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | 145 | 272.0 | 6.0% |
| 54 | Tavares-Millhopper fine sands, 5 to 8 percent slopes | 145 | 6.7 | 0.1% |
| 57 | Wabasso fine sand, 0 to 2 percent slopes | 30 | 10.1 | 0.2% |
| 59 | Winder fine sand, 0 to 2 percent slopes | 15 | 29.2 | 0.6% |
| 60 | Winder fine sand, frequently flooded | 0 | 92.4 | 2.0% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | 76 | 324.8 | 7.1% |
| 99 | Water | >200 | 175.7 | 3.9% |
| Totals for Area of Interest | | | 4,543.0 | 100.0% |

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

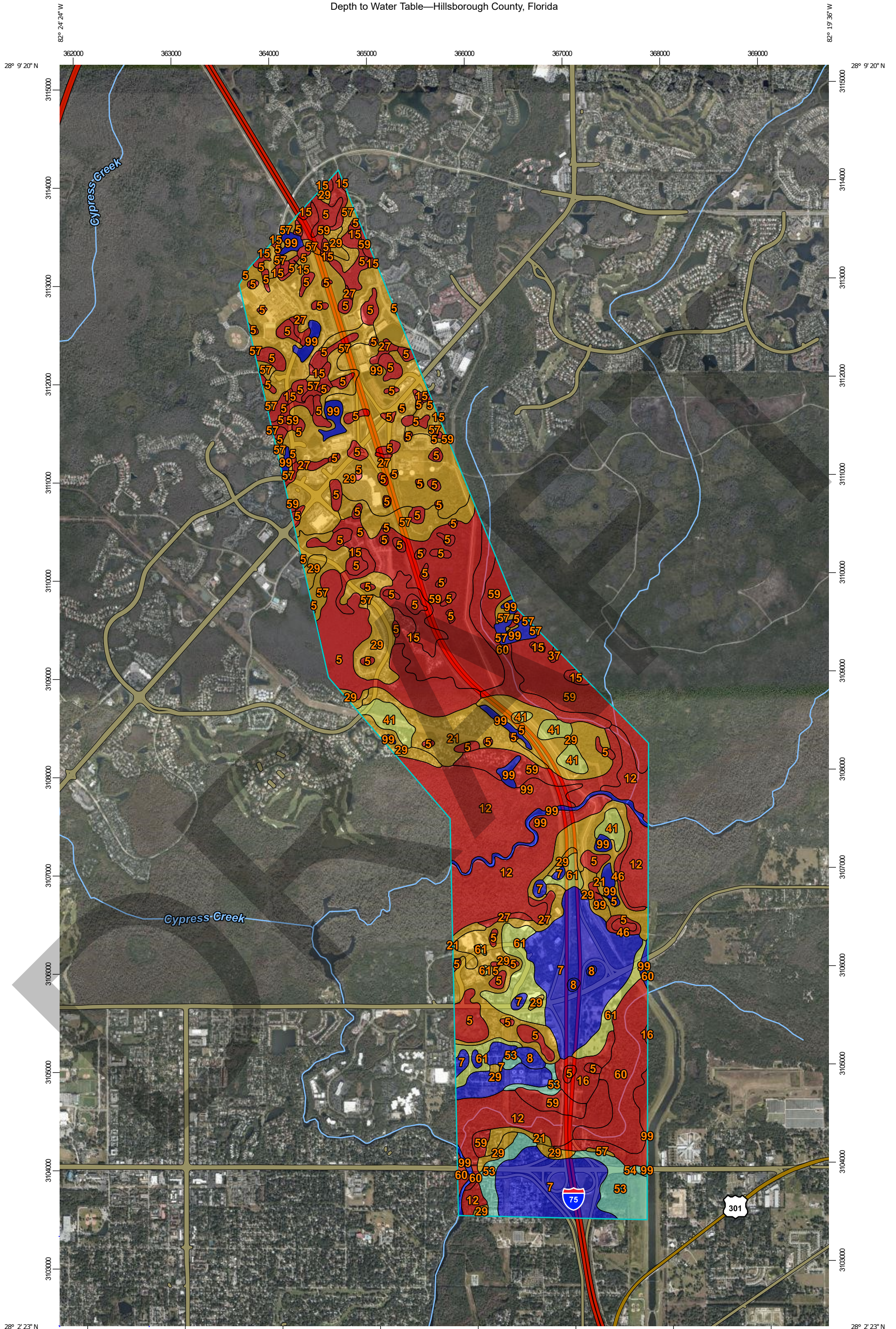
Interpret Nulls as Zero: No

Beginning Month: January

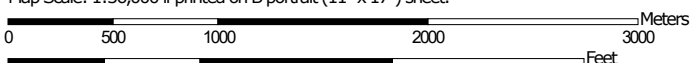
Ending Month: December



Depth to Water Table—Hillsborough County, Florida



Map Scale: 1:36,000 if printed on B portrait (11" x 17") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Depth to Water Table

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|-----------------|--|----------------------|--------------|----------------|
| 5 | Basinger, Holopaw, and Samsula soils, depressional | 0 | 619.4 | 12.4% |
| 7 | Candler fine sand, 0 to 5 percent slopes | >200 | 514.0 | 10.3% |
| 8 | Candler fine sand, 5 to 12 percent slopes | >200 | 17.1 | 0.3% |
| 12 | Chobee sandy loam, frequently flooded | 0 | 655.8 | 13.2% |
| 15 | Felda fine sand, 0 to 2 percent slopes | 15 | 105.3 | 2.1% |
| 16 | Felda fine sand, 0 to 2 percent slopes, occasionally flooded | 15 | 82.9 | 1.7% |
| 18 | Fort Meade loamy fine sand, 0 to 5 percent slopes | >200 | 3.2 | 0.1% |
| 21 | Immokalee fine sand, 0 to 2 percent slopes | 31 | 222.1 | 4.5% |
| 27 | Malabar fine sand, 0 to 2 percent slopes | 15 | 40.1 | 0.8% |
| 29 | Myakka fine sand, 0 to 2 percent slopes | 31 | 1,089.6 | 21.9% |
| 37 | Paisley fine sand, depressional | 0 | 2.3 | 0.0% |
| 41 | Pomello fine sand, 0 to 5 percent slopes | 84 | 84.5 | 1.7% |
| 46 | St. Johns fine sand | 15 | 17.8 | 0.4% |
| 53 | Tavares-Millhopper complex, 0 to 5 percent slopes | 145 | 118.0 | 2.4% |
| 54 | Tavares-Millhopper fine sands, 5 to 8 percent slopes | 145 | 3.7 | 0.1% |
| 57 | Wabasso fine sand, 0 to 2 percent slopes | 31 | 244.8 | 4.9% |
| 59 | Winder fine sand, 0 to 2 percent slopes | 15 | 620.5 | 12.5% |
| 60 | Winder fine sand, frequently flooded | 0 | 248.3 | 5.0% |
| 61 | Zolfo fine sand, 0 to 2 percent slopes | 76 | 147.0 | 3.0% |
| 99 | Water | >200 | 140.7 | 2.8% |

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|------------------------------------|---------------|----------------------|----------------|----------------|
| Totals for Area of Interest | | | 4,977.3 | 100.0% |

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

DRAFT

**Appendix B
Existing Permits**

ERP# 43021639.006

Existing Permits

Basins A-EF

DESIGN

I-75 (SR 93A)

**from south of Fowler Avenue to north
of Bruce B. Downs Blvd. (CR 581)**

Drainage Design Documentation

Volume 1 of 5

FPN 408459-2-52-01

Submitted to
**Florida Department
of Transportation
District Seven**

Submitted by
PB Americas, Inc.

Prepared by
ICON Consultant Group, Inc.

March 2011





An Equal Opportunity Employer

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

TDD only: 1-800-231-6103 (FL only)

On the Internet at WaterMatters.org

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

- Ronald E. Oakley**
Chair, Pasco
- Hugh M. Gramling**
Vice Chair, Hillsborough
- H. Paul Senft, Jr.**
Secretary, Polk
- Douglas B. Tharp**
Treasurer, Sumter
- Nell Combee**
Former Chair, Polk
- Todd Pressman**
Former Chair, Pinellas
- Judith C. Whitehead**
Former Chair, Hernando
- Jeffrey M. Adams**
Pinellas
- Carlos Beruff**
Manatee
- Bryan K. Beswick**
DeSoto
- Jennifer E. Closshey**
Hillsborough
- Albert G. Joerger**
Sarasota
- Maritza Rovira-Forlino**
Hillsborough
- David L. Moore**
Executive Director
- William S. Bilenky**
General Counsel

November 30, 2010

Sally A. Prescott
Florida Department of Transportation
11201 North McKinley Drive, MS 7-820
Tampa, FL 33612-6456

Subject: Final Agency Action Transmittal Letter
ERP Individual Construction
Permit No.: 43021639.006/637474
Project Name: FDOT - I-75 (State Road 93A) from Fowler Avenue to Bruce B. Downs Boulevard
County: Hillsborough
Sec/Twp/Rge: 06, 07, 18, 19/28S/20E; 14, 23,25,26,36/27S/19E; 01,12,13/28S/19E

Dear Ms. Prescott:

This letter constitutes notice of Final Agency Action for **approval** of the permit referenced above. Final approval is contingent upon no objection to the District's action being received by the District within the time frames described below.

You or any person whose substantial interests are affected by the District's action regarding a permit may request an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes, (F.S.), and Chapter 28-106, Florida Administrative Code, (F.A.C.), of the Uniform Rules of Procedure. *A request for hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's action, or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no disputed facts, and (3) otherwise comply with Chapter 28-106, F.A.C.* Copies of Sections 28-106.201 and 28-106.301, F.A.C. are enclosed for your reference. A request for hearing must be filed with (received by) the Agency Clerk of the District at the District's Brooksville address within 21 days of receipt of this notice. Receipt is deemed to be the fifth day after the date on which this notice is deposited in the United States mail. Failure to file a request for hearing within this time period shall constitute a waiver of any right you or such person may have to request a hearing under Sections 120.569 and 120.57, F.S. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding the District's action in this matter is not available prior to the filing of a request for hearing.

Enclosed is a "Noticing Packet" that provides information regarding the District Rule 40D-1.1010, F.A.C., which addresses the notification of persons whose substantial interests may be affected by the District's action in this matter. The packet contains guidelines on how to provide notice of the District's action, and a notice that you may use.

The enclosed approved construction plans are part of the permit, and construction must be in accordance with these plans.

If you have questions concerning the permit, please contact Robin L. McGill, P.E., at the Tampa Service Office, extension 2072. For assistance with environmental concerns, please contact Lisa L. Cartwright, extension 2227.

Sincerely,



Alba E. Más, P.E., Director
Tampa Regulation Department

AEM:RLM:LLC:gjn

Enclosures: Approved Permit w/Conditions Attached
 Approved Construction Drawings
 Statement of Completion
 Notice of Authorization to Commence Construction
 Noticing Packet (42.00-039)
 Sections 28-106.201 and 28-106.301, F.A.C.

cc/enc: File of Record 43021639.006/637474
 Michael E. Mills, P.E., ICON Consultant Group, Inc.
 US Army Corps of Engineers

DRAFT

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
INDIVIDUAL CONSTRUCTION MODIFICATION
PERMIT NO. 43021639.006/637474

Expiration Date: November 30, 2015

PERMIT ISSUE DATE: November 30, 2010

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME: FDOT - I-75 (State Road 93A) from Fowler Avenue to Bruce B. Downs Boulevard

GRANTED TO: Florida Department of Transportation
11201 North McKinley Drive, MS 7-820
Tampa, FL 33612-6456

ABSTRACT: This Individual permit authorization is for the construction of a new surface water management system serving roadway improvements to I-75 (State Road 93A) from south of Fowler Avenue to north of Bruce B. Downs Boulevard. The proposed improvements traverse approximately 6.54 miles. The project area is approximately 595.80 acres. The site lies within: Sections 14, 23, 25, 26, and 36, Township 27 South, and Range 19 East; Sections 1, 12 & 13, Township 28 South and Range 19 East; and Sections 06, 07, 18 and 19, Township 28 South, and Range 20 East, in Hillsborough County. The existing facility is a four-lane limited access highway. The improvements design addressed the surface water management requirements for two scenarios: Proposed Widening (Interim – widening to 8-lanes) and Future Ultimate Interstate Section. The proposed construction shall include the addition of two travel lanes in each direction, additional through and turn lanes on Fowler Avenue, westbound, interchange improvements and bridge widening over Cow House Creek and Hillsborough River. The future ultimate 10-lane interstate typical section developed by FDOT was utilized as the basis for the stormwater management facility designs. This modification is for the redesign of the approved interim 6-lane typical to the 8-lane typical. It also includes some additional improvements to westbound Fowler Avenue. All other drainage design calculations are essentially the same as previously approved under ERP No. 43021639.004.

Improvements to Fowler Avenue are to be done only to the westbound portion of the roadway, which will include the replacement of the westbound bridge over Hillsborough River and the widening from 3 to 5 lanes. Conveyance of drainage will continue to be via ditches and directed to the river. Due to the right-of-way constraints, compensatory treatment in a roadside area adjacent to Fowler Avenue east of I-75 is proposed.

The project has been divided into seven basins that correspond to the watershed limits. The surface water management facilities have been sized to accommodate the future ultimate interstate typical section. This design assumes 324' of impervious right-of-way throughout the entire project limits. Pond A2, Pond A4, Pond B2, Pond B3, Pond C2 and Pond C5 are new wet detention ponds that will be constructed to provide water quality treatment and attenuation for their respective basins. The project proposes to modify an existing linear swale system within Basin D that is owned and maintained by the District.

ERP# 44021639.007

Existing Permits

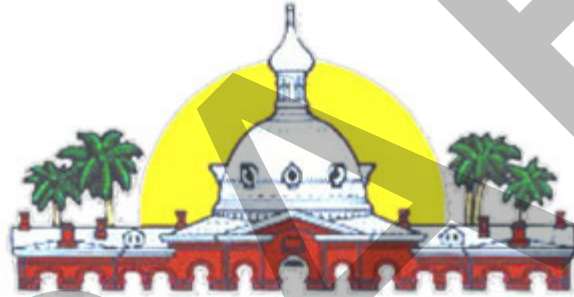
Basin 1B, 1C, Ramp 1 Infield

DRAINAGE DESIGN DOCUMENTATION

CR 581 (Bruce B. Downs Blvd) at SR 93A (I-75)

Hillsborough County, Florida

County CIP No: 61044

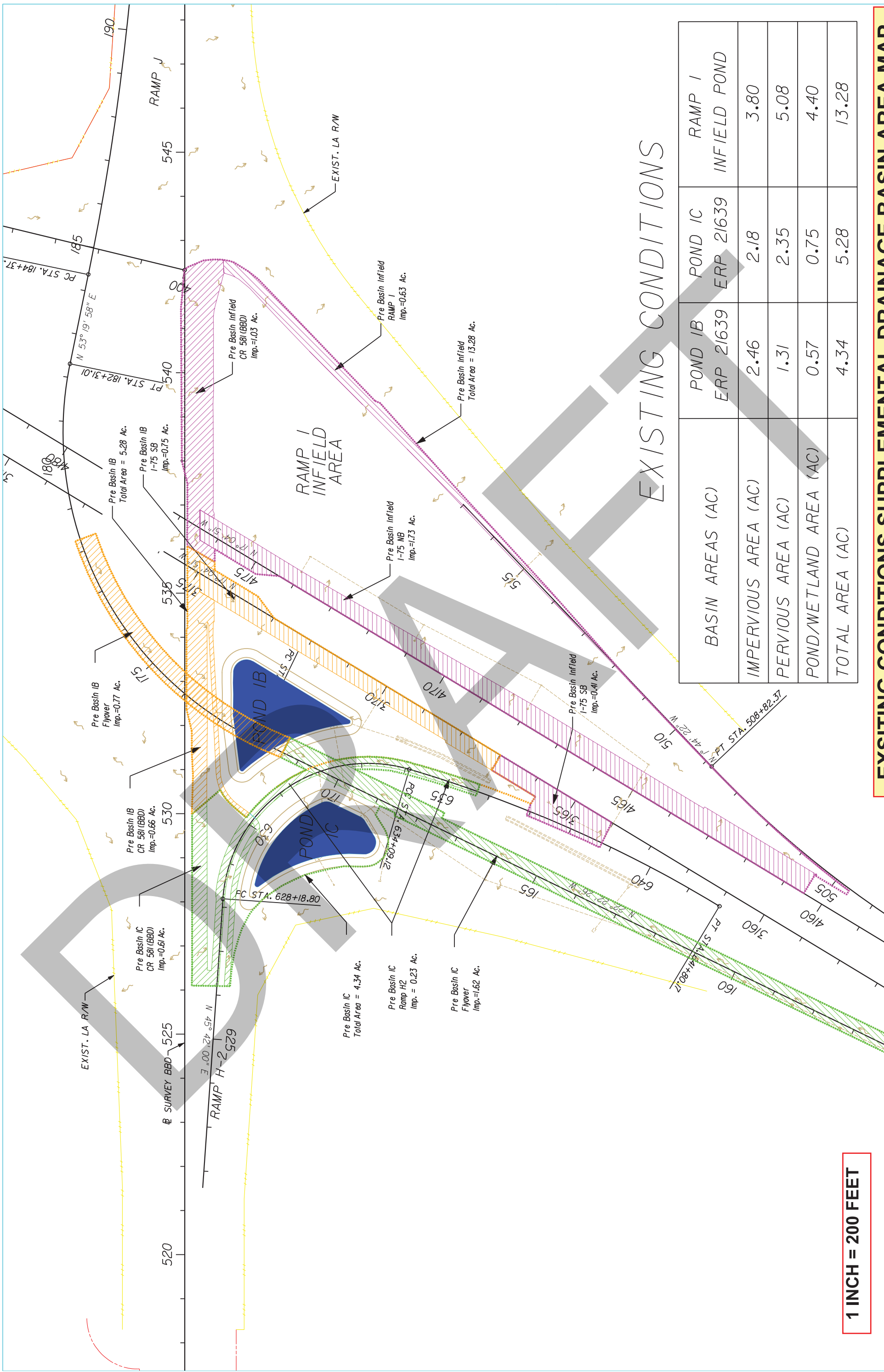


**Hillsborough County,
Florida**

**Prepared For:
HILLSBOROUGH COUNTY**

**Prepared By:
HNTB Corporation
10210 Highland Manor Drive, Suite 140
Tampa, FL 33610
Florida Certificate of Authorization No. 6500**

**February, 2011
Permit Modification Submittal**

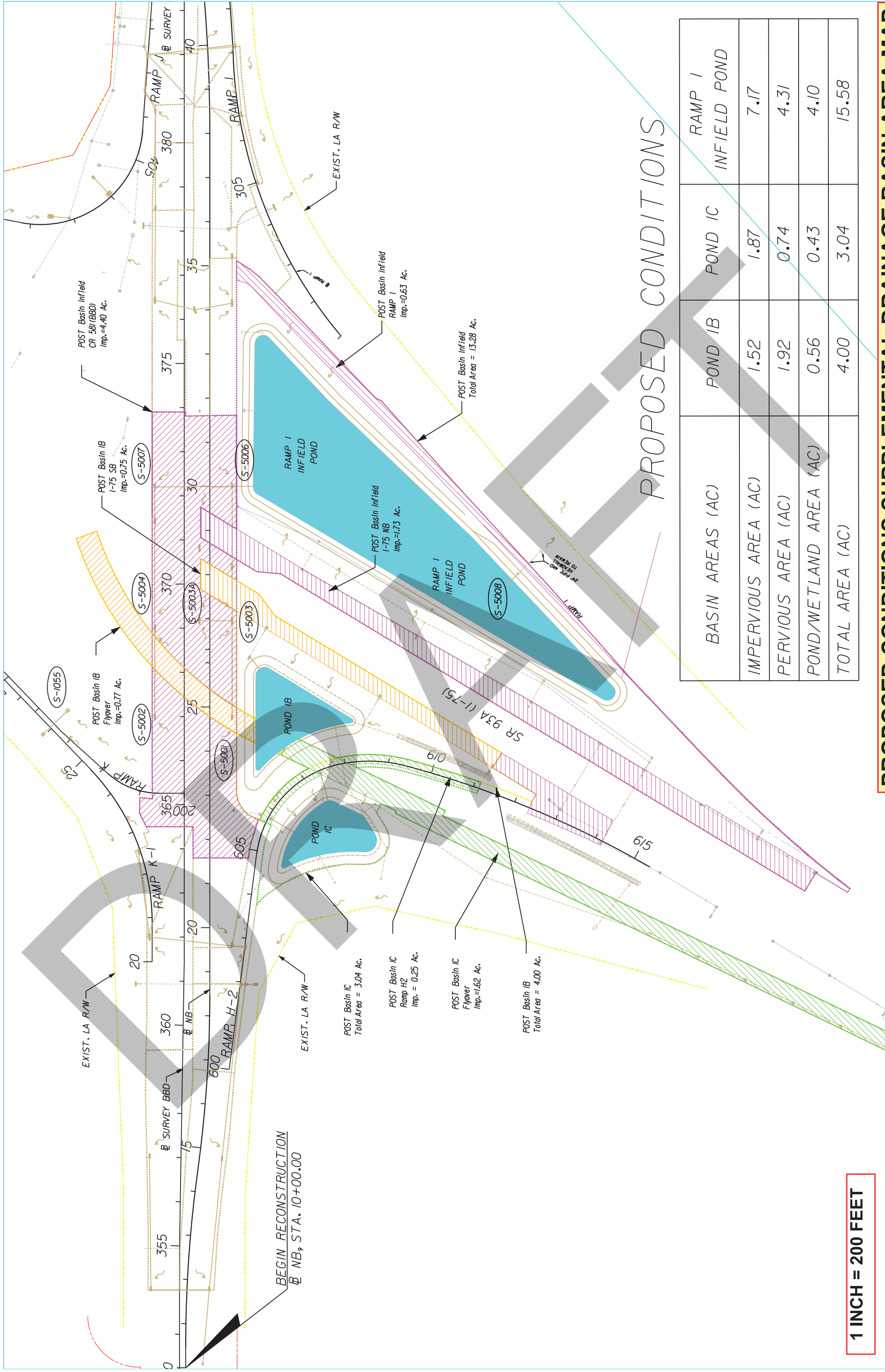


EXISTING CONDITIONS

| BASIN AREAS (AC) | POND IB ERP 21639 | POND IC ERP 21639 | RAMP I INFIELD POND |
|------------------------|----------------------|----------------------|------------------------|
| IMPERVIOUS AREA (AC) | 2.46 | 2.18 | 3.80 |
| PERVIOUS AREA (AC) | 1.31 | 2.35 | 5.08 |
| POND/WETLAND AREA (AC) | 0.57 | 0.75 | 4.40 |
| TOTAL AREA (AC) | 4.34 | 5.28 | 13.28 |

1 INCH = 200 FEET

EXISTING CONDITIONS SUPPLEMENTAL DRAINAGE BASIN AREA MAP



1 INCH = 200 FEET

| BASIN AREAS (AC) | POND IB | POND IC | RAMP I INFIELD POND |
|------------------------|---------|---------|------------------------|
| IMPERVIOUS AREA (AC) | 1.52 | 1.87 | 7.17 |
| PERVIOUS AREA (AC) | 1.92 | 0.74 | 4.31 |
| POND/WETLAND AREA (AC) | 0.56 | 0.43 | 4.10 |
| TOTAL AREA (AC) | 4.00 | 3.04 | 15.58 |

PROPOSED CONDITIONS SUPPLEMENTAL DRAINAGE BASIN AREA MAP

SWFWMD ENGINEERING WORKSHEET

PERMIT NO. _____

Page ____ Of ____

PERMIT NAME _____

| | | | | | | | | TOTALS | | |
|----------------------|---------------------------------|----------------------|-------------------|---------------|---------------|---|------|--------|--|---|
| BASIN NO. – POND NO. | | Q OR C | SMF - Infield | SMF 1B | SMF 1C | | | | | |
| POND DATA | POND BOTTOM ELEVATION | | 37.0 | 36.6 | 36.3 | | | | | 1 |
| | SEASONAL HIGH WATER ELEVATION | | 42.5 | 42.7 | 42.3 | | | | | |
| | CONTROL DEVICE ELEVATION | | 42.5 | 42.7 | 42.3 | | | | | |
| | DESIGN LOW WATER ELEVATION | | 42.75 | 43.0 | 42.7 | | | | | |
| | WEIR INVERT ELEVATION | | 42.85 | 43.0 | 42.7 | | | | | |
| | DESIGN HIGH WATER ELEVATION | | 44.19 | 44.00 | 43.72 | | | | | |
| | TOP OF BANK ELEVATION | | 45.5 | 44.1 | 44.5 | | | | | |
| | AREA AT TOP OF BANK (AC) | | 4.7 | 0.66 | 0.55 | | | | | 2 |
| | VOLUME AT DHW (AC-FT) | | 7.10 | 0.79 | 0.68 | | | | | |
| | VOLUME AT TOB (AC-FT) | | 13.08 | 0.86 | 1.08 | | | | | |
| QUANTITY | 25YR/24HR DISCHARGE RATES | WEIR WIDTH (FT) | 3.0 | 4.08 | 3.0 | | | | | |
| | | PRE-DEVELOPED (CFS) | 12.86 | 14.29 | 10.19 | | | | | |
| | | POST-DEVELOPED (CFS) | 8.33 | 12.75 | 8.77 | | | | | |
| | 100YR/24HR RETENTION VOLUMES | PROVIDED (AC-FT) | N/A | N/A | N/A | | | | | |
| | | REQUIRED (AC-FT) | N/A | N/A | N/A | | | | | |
| QUALITY | TREATMENT AREA (AC) | OFW? Y OR N | 16.06 | N | 1.48 | N | 1.92 | N | | |
| | TREATMENT VOL. REQUIRED (AC-FT) | | 1.30 | 0.13 | 0.16 | | | | | |
| | TREATMENT VOL. PROVIDED (AC-FT) | | 1.42 | 0.17 | 0.18 | | | | | |
| | METHOD OF TREATMENT | | Wet Detention | Wet Detention | Wet Detention | | | | | 3 |
| | CONTROL DEVICE TYPE | | V-Notch | Orifice | Orifice | | | | | |
| | CONTROL DEVICE DIMENSIONS | | 0.35' Ht x 90 deg | 1.25" Dia | 1.25" Dia | | | | | |
| | RECOVERY TIME (HRS) | | >120 hrs | 146 hrs | 130 hrs | | | | | |
| 100 YEAR FLOODPLAIN | ENCROACHMENT (AC-FT) | | N/A | N/A | N/A | | | | | 4 |
| | COMPENSATION (AC-FT) | | N/A | N/A | N/A | | | | | 5 |

Comments: _____

Evaluator: _____

Supervisor: _____

| | | | | | |
|-------------------------|--------------------------|--|----------|----------|----------------|
| HNTB Computation | | HNTB Proj. No. | 32916.00 | FPID No. | 405492-8-56-01 |
| Project: | I-75 / BBD | Computed: | DJB | Date: | 18-Jan-11 |
| Subject: | SCS Curve Numbers | Checked: | MJJ | Date: | |
| Description: | Ramp I, Infield | BBD, I-75 NB, I-75 SB, I-75 Off Ramp, & Infield Pond | | | |

PRE-DEVELOPED - WEIGHTED CN CALCULATIONS

| | |
|-----------------------|------------------|
| PRE Basin Area | 13.28 Ac. |
|-----------------------|------------------|

| LAND USE | SOILS | AREA (AC) | CN | PRODUCT |
|---|------------------|--------------|-----|---------------|
| Roadway Impervious | | | | |
| Bruce B. Downs | N/A | 1.03 | 98 | 100.9 |
| I-75 NB/SB | N/A | 2.14 | 98 | 209.7 |
| I-75 Off-Ramp (Ramp I) | N/A | 0.63 | 98 | 61.7 |
| | | | | |
| Pervious (Grass Good) | B/D | 5.08 | 80 | 406.4 |
| Pond Site (NWL / Wetland) | B/D | 4.40 | 100 | 440.0 |
| * Based on PB & URS Basin Data See Permit No. 43021639.001 | SUBTOTALS | 13.28 | | 1218.8 |
| TOTAL WEIGHTED CN = | | | | 91.8 |

POST DEVELOPED - WEIGHTED CN CALCULATIONS

| | |
|------------------------|------------------|
| POST Basin Area | 15.58 Ac. |
|------------------------|------------------|

| LAND USE | SOILS | AREA (AC) | CN | PRODUCT |
|---|-----------------|--------------|-----|---------------|
| Roadway Impervious | | | | |
| Bruce B. Downs | N/A | 4.40 | 98 | 431.2 |
| I-75 NB/SB | N/A | 2.14 | 98 | 209.7 |
| I-75 Off-Ramp (Ramp I) | N/A | 0.63 | 98 | 61.7 |
| | | | | |
| Pervious (Grass Good) | B/D | 4.31 | 80 | 345.2 |
| Pond Site (NWL / Wetland) | B/D | 4.10 | 100 | 409.5 |
| * Based on PB & URS Basin Data See Permit No. 43021639.001 | SUBTOTAL | 15.58 | | 1457.4 |
| TOTAL WEIGHTED CN = | | | | 93.5 |

| | | | | | |
|-------------------------|--|----------------|----------|----------|----------------|
| HNTB Computation | | HNTB Proj. No. | 32916.00 | FPID No. | 405492-8-56-01 |
| Project: | I-75 / BBD | Computed: | DJB | Date: | 18-Jan-11 |
| Subject: | Pond Stage-Storage Data - CADD File Data | Checked: | MJJ | Date: | |
| Description: | Infield Pond | Sheet: | | Of: | |

REQUIRED TREATMENT VOLUME:

* See URS permitted computations

Treatment Vol. = (1" Runoff over Basin)
* OFW Criteria Does Not Apply

15.58 Ac. Area * (1"/12) = 1.30 ac-ft

| Pond Design Elevations: | | |
|-------------------------|------------|--------------|
| Pond Bottom Elevation: | 37.0 feet | 76666 Sq-ft |
| Grade Break Elev: | 40.5 feet | 155509 Sq-ft |
| NWL Elev: | 42.5 feet | 174899 Sq-ft |
| PAV / WEIR Elev: | 42.85 feet | 178397 Sq-ft |
| Inside Berm TOB Elev: | 45.5 feet | 204884 Sq-ft |
| Outside Berm TOB Elev: | 46.5 feet | 243500 Sq-ft |

| | |
|----------------------|----------|
| Total Pond R/W Area: | 1.06 Ac. |
|----------------------|----------|

| | |
|-----------------------|--------|
| 0.14 | |
| Dead Pool Side Slope: | 1:2 |
| 3.7 | 1:4 |
| 1.3 | 1:20 |
| 4.4 | Varies |

| Infield Pond | | | | | | |
|----------------------|-------------|-------|--------------|---------|-------------|---------------------|
| Stage / Storage Data | | | | | | |
| STAGE (ELEV.) | POND AREA | | POND VOLUMES | | | NOTES |
| | Incremental | | Incremental | | Cummulative | |
| | (ft^2) | (Ac.) | (CU-FT) | (Ac-Ft) | (Ac-ft) | |
| 37.0 | 76666 | 1.76 | | | | Pond bottom |
| 38.8 | 107098 | 2.46 | 160793 | 3.69 | 3.69 | |
| 40.5 | 155509 | 3.57 | 229781 | 5.28 | 8.97 | Grade Break |
| 42.5 | 174899 | 4.02 | 330408 | 7.59 | 16.55 | NWL |
| 42.5 | 174899 | 4.02 | | | | NWL |
| 42.6 | 175599 | 4.03 | 12267 | 0.28 | 0.28 | |
| 42.6 | 176298 | 4.05 | 12316 | 0.28 | 0.56 | |
| 42.71 | 176998 | 4.06 | 12365 | 0.28 | 0.85 | |
| 42.8 | 177698 | 4.08 | 12414 | 0.28 | 1.13 | |
| 42.85 | 178397 | 4.10 | 12463 | 0.29 | 1.42 | PAV / Weir |
| 43.38 | 183695 | 4.22 | 95954 | 2.20 | 3.62 | |
| 43.91 | 188992 | 4.34 | 98762 | 2.27 | 5.89 | |
| 44.44 | 194289 | 4.46 | 101570 | 2.33 | 8.22 | |
| 44.97 | 199587 | 4.58 | 104377 | 2.40 | 10.62 | |
| 45.50 | 204884 | 4.70 | 107185 | 2.46 | 13.08 | Inside Top of Berm |
| 45.70 | 212607 | 4.88 | 41749 | 0.96 | 14.04 | |
| 45.90 | 220331 | 5.06 | 43294 | 0.99 | 15.03 | |
| 46.10 | 228054 | 5.24 | 44838 | 1.03 | 16.06 | |
| 46.30 | 235777 | 5.41 | 46383 | 1.06 | 17.12 | |
| 46.50 | 243500 | 5.59 | 47928 | 1.10 | 18.22 | Outside Top of Berm |

Permanent Pool Volume Provided
Pond Storage Volume Provided

Elevations in NGVD 1929

INFIELD POND - ICPR INPUT REPORT

POST - DEVELOPED

Basins

```

Name: I75-BBD                      Node: Infield                      Status: Onsite
Group: BASE                          Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                Peaking Factor: 256.0
Rainfall File: Flmod                  Storm Duration(hrs): 24.00
Rainfall Amount(in): 8.200            Time of Conc(min): 15.00
Area(ac): 15.580                      Time Shift(hrs): 0.00
Curve Number: 93.50                  Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00
    
```

Nodes

```

Name: Infield                      Base Flow(cfs): 0.000          Init Stage(ft): 42.750
Group: BASE                          Warn Stage(ft): 44.500
Type: Stage/Area
    
```

Stage/Area from Pond Plan Sheet
 Initial Stage = SHW = 42.75 from SWEFMD worksheet for V-notch drawdown calculations
 Warning Stage = 45.5 = I-75 NB Off-Ramp shoulder elevation - no history of overtopping
 = 44.5 for 1' of freeboard below the lowest maintenance berm elevation
 (which provides 2' for freeboard overall)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 42.500 | 4.0200 |
| 45.500 | 4.7000 |

```

Name: IW                            Base Flow(cfs): 0.000          Init Stage(ft): 42.500
Group: BASE                          Warn Stage(ft): 45.000
Type: Time/Stage
    
```

EL 42.5 IS SHW IN WETLAND AT DISCHARGE
 DHW = 43.18 for Detention Pond 3 of different ERP that discharges to same wetland system
 EL 45.5 Shoulder Elevation of I-75 NB Off-Ramp with no history of overtopping.

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.00 | 42.500 |
| 12.50 | 43.000 |
| 24.00 | 42.500 |
| 240.00 | 42.500 |

POST - DEVELOPED

Drop Structures

Name: Type-D From Node: Infield Length(ft): 120.00
Group: BASE To Node: TW Count: 1

| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
|-----------------------|------------|---------------------------------------|
| Geometry: Circular | Circular | Solution Algorithm: Most Restrictive |
| Span(in): 24.00 | 24.00 | Flow: Both |
| Rise(in): 24.00 | 24.00 | Entrance Loss Coef: 0.500 |
| Invert(ft): 39.800 | 39.630 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Remove existing Type C and replace with Type D Control Structure

***** Weir 1 of 4 for Drop Structure Type-D *****

| | TABLE |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Vertical: Mavis | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 12.00 | Invert(ft): 42.850 |
| Rise(in): 9.00 | Control Elev(ft): 42.850 |

***** Weir 2 of 4 for Drop Structure Type-D *****

| | TABLE |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Vertical: Mavis | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 43.600 |
| Rise(in): 10.80 | Control Elev(ft): 43.600 |

***** Weir 3 of 4 for Drop Structure Type-D *****

| | TABLE |
|-------------------------|------------------------------|
| Count: 1 | Bottom Clip(ft): 0.000 |
| Type: Vertical: Mavis | Top Clip(ft): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Trapezoidal | Orifice Disc Coef: 0.600 |
| Bottom Width(ft): 0.01 | Invert(ft): 42.500 |
| Left Sd Slp(h/v): 1.00 | Control Elev(ft): 42.500 |
| Right Sd Slp(h/v): 1.00 | Struct Opening Dim(ft): 0.35 |

***** Weir 4 of 4 for Drop Structure Type-D *****

| | TABLE |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 44.500 |
| Rise(in): 49.00 | Control Elev(ft): 44.500 |

POST - DEVELOPED

==== Hydrology Simulations =====

Name: 100Y001H
Filename: C:\ICPR_Infield\Proposed\100Y001H.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: FDOT-1
Rainfall Amount(in): 4.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 2.000 | 2.50 |

Name: 100Y002H
Filename: C:\ICPR_Infield\Proposed\100Y002H.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: FDOT-2
Rainfall Amount(in): 6.00

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 3.000 | 2.50 |

Name: 100Y004H
Filename: C:\ICPR_Infield\Proposed\100Y004H.R32

Override Defaults: Yes
Storm Duration(hrs): 4.00
Rainfall File: FDOT-4
Rainfall Amount(in): 7.30

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 5.000 | 5.00 |

Name: 100Y008H
Filename: C:\ICPR_Infield\Proposed\100Y008H.R32

Override Defaults: Yes
Storm Duration(hrs): 8.00
Rainfall File: FDOT-8
Rainfall Amount(in): 9.20

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 9.000 | 5.00 |

POST - DEVELOPED

Name: 100Y024H
Filename: C:\ICPR_Infield\Proposed\100Y024H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: FDOT-24
Rainfall Amount(in): 13.00

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 25.000 | 5.00 |

Name: 100Y072H
Filename: C:\ICPR_Infield\Proposed\100Y072H.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: FDOT-72
Rainfall Amount(in): 15.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 73.000 | 5.00 |

Name: 100Y168H
Filename: C:\ICPR_Infield\Proposed\100Y168H.R32

Override Defaults: Yes
Storm Duration(hrs): 168.00
Rainfall File: FDOT-168
Rainfall Amount(in): 20.00

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 169.000 | 5.00 |

Name: 100Y240H
Filename: C:\ICPR_Infield\Proposed\100Y240H.R32

Override Defaults: Yes
Storm Duration(hrs): 240.00
Rainfall File: FDOT-240
Rainfall Amount(in): 24.00

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 241.000 | 15.00 |

Name: SWFWMD
Filename: C:\ICPR_Infield\Proposed\SWFWMD.R32

Override Defaults: No

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000 | 2.50 |

POST - DEVELOPED

=====
==== Routing Simulations =====
=====

Name: 100Y001H Hydrology Sim: 100Y001H
Filename: C:\ICPR_Infield\Proposed\100Y001H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 2.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

100 yr / 001 hr
Time(hrs) Print Inc(min)

2.000 2.500

Group Run

BASE Yes

Name: 100Y002H Hydrology Sim: 100Y002H
Filename: C:\ICPR_Infield\Proposed\100Y002H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 3.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

100 yr / 002 hr
Time(hrs) Print Inc(min)

3.000 2.500

Group Run

BASE Yes

Name: 100Y004H Hydrology Sim: 100Y004H
Filename: C:\ICPR_Infield\Proposed\100Y004H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 5.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

100 yr / 004 hr
Time(hrs) Print Inc(min)

5.000 5.000

Group Run

BASE Yes

POST - DEVELOPED

Name: 100Y008H Hydrology Sim: 100Y008H
Filename: C:\ICPR_Infield\Proposed\100Y008H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.1000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
100 yr / 008 hr

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 72.000 | 5.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

Name: 100Y024H Hydrology Sim: 100Y024H
Filename: C:\ICPR_Infield\Proposed\100Y024H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 25.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
100 yr / 024 hr

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 25.000 | 5.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

Name: 100Y072H Hydrology Sim: 100Y072H
Filename: C:\ICPR_Infield\Proposed\100Y072H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 73.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
100 yr / 072 hr

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 73.000 | 5.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

POST - DEVELOPED

Name: 100Y168H Hydrology Sim: 100Y168H
Filename: C:\ICPR_Infield\Proposed\100Y168H.I32

Execute: Yes Restart: No Patch: No Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 169.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
100 yr / 168 hr

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 169.000 | 5.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

Name: 100Y240H Hydrology Sim: 100Y240H
Filename: C:\ICPR_Infield\Proposed\100Y240H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 241.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
100 yr / 240 hr

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 241.000 | 15.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

Name: SWFWMD Hydrology Sim: SWFWMD
Filename: C:\ICPR_Infield\Proposed\SWFWMD.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 0.05 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 0.1000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:
SWFWMD 25YR / 24HR

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000 | 2.500 |

| Group | Run |
|-------|-----|
| BASE | Yes |

SWFWMD ENGINEERING WORKSHEET

PERMIT NUMBER: 44021639.007
 PERMIT NAME: FDOT I-75 at CR 581 (BBD) Interchange

| BASIN NO. – POND NO. | | Open or Closed Basin? | Pond 1B | O | Pond 1C | O | Infield Pond | O | TOTALS | |
|--|-------------------------------------|-----------------------|------------------|---|------------------|---|--------------------|-----|--------|------|
| P O N D D A T A | POND BOTTOM ELEVATION | | 36.60 | | 36.30 | | 37.00 | | | |
| | SEASONAL HIGH WATER ELEVATION | | 42.70 | | 42.30 | | 42.30 | | | |
| | CONTROL DEVICE ELEVATION | | 42.70 | | 42.30 | | 42.30 | | | |
| | DESIGN LOW WATER ELEVATION | | 43.00 | | 42.70 | | 42.70 | | | |
| | WEIR INVERT ELEVATION | | 43.00 | | 43.72 | | 43.72 | | | |
| | DESIGN HIGH WATER ELEVATION | | 44.00 | | 44.19 | | 44.19 | | | |
| | TOP OF BANK ELEVATION | | 44.10 | | 44.50 | | 45.50 | | | |
| | AREA AT TOP OF BANK (Ac.) | | 0.66 | | 0.55 | | 4.70 | | | 5.91 |
| | VOLUME AT DHW (Ac.-Ft.) | | 0.79 | | 0.68 | | 7.10 | | | |
| | VOLUME AT TOB (Ac.-Ft.) | | 0.86 | | 1.08 | | 13.08 | | | |
| Q U A N T I T Y | 25 YR/24 HR DISCHARGE RATES | WEIR WIDTH (ft) | 4.08 | | 3.00 | | 3.00 | | | |
| | | PRE-DEVELOPED (cfs) | 14.29 | | 10.19 | | 12.86 | | | |
| | | POST-DEVELOPED (cfs) | 12.75 | | 8.77 | | 8.33 | | | |
| | 100YR/24 HR RETENTION VOLUMES | PROVIDED (Ac.-Ft.) | N/A | | n/a | | n/a | | | |
| | | REQUIRED (Ac.-Ft.) | N/A | | n/a | | n/a | | | |
| Q U A L I T Y | TREATMENT AREA (Ac) | OFW? Y/N | 1.52 | N | 1.87 | N | 7.17 | N | | |
| | TREATMENT VOLUME REQUIRED (Ac.-Ft.) | | 0.13 | | 0.16 | | 1.30 * | | | |
| | TREATMENT VOLUME PROVIDED (Ac.-Ft.) | | 0.17 | | 0.18 | | 1.42 | | | |
| | METHOD OF TREATMENT | | Wet detention | | Wet detention | | Wet detention | | | |
| | CONTROL DEVICE TYPE | | Circular orifice | | Circular orifice | | v-notch | | | |
| | CONTROL DEVICE DIMENSIONS | | 1.25" dia | | 1.25" dia. | | 0.35' ht x 90 deg. | | | |
| | RECOVERY TIMES (Hrs) | | > 120 | | > 120 | | > 120 | | | |
| 100 YEAR FLOODPLAIN | ENCROACHMENT (Ac.-Ft.) | | N/A | | n/a | | n/a | n/a | | |
| | COMPENSATION (Ac.-Ft.) | | N/A | | n/a | | n/a | n/a | | |
| | COMPENSATION TYPE | | N/A | | n/a | | n/a | n/a | | |
| | ENCROACHMENT RESULT (ft) | | N/A | | n/a | | n/a | n/a | | |

COMMENTS: ❶ * Impaired waters treatment volume derived from District nutrient loading spreadsheet. ❷ ❸ ❹
 RLM 4/18/11

COMPONENTS OF CONTRACT PLANS SET

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS (NOT INCLUDED)
ITS PLANS (NOT INCLUDED)
LANDSCAPING PLANS (NOT INCLUDED)

A DETAILED INDEX APPEARS ON THE
KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

| SHEET NO. | SHEET DESCRIPTION |
|-----------|---|
| 1 | * KEY SHEET SUMMARY OF PAY ITEMS |
| 2-3 | * DRAINAGE MAP |
| 4-5 | * TYPICAL SECTION OPTIONAL MATERIALS TABULATION |
| 6 | * PROJECT LAYOUT |
| 7-9 | * GENERAL NOTES |
| 9-91 | * ROADWAY PLAN |
| 22-43 | * ROADWAY PROFILE |
| 44-48 | * RAMP TERMINAL DETAILS |
| 49-50 | * INTERSECTION DETAILS |
| 51-67 | * DRAINAGE STRUCTURES |
| 68-73 | * POND PLAN / DETAIL SHEETS |
| 74-78 | * POND CROSS SECTIONS |
| 79-142 | * ROADWAY SOIL SURVEY CROSS SECTIONS |
| 143-152 | * STORMWATER POLLUTION PREVENTION PLAN TRAMP-FIP-CONFORMANCE PLANS |
| 153-166 | * UTILITY ADJUSTMENTS |

Not Included

* INCLUDED IN THIS SUBMITTAL

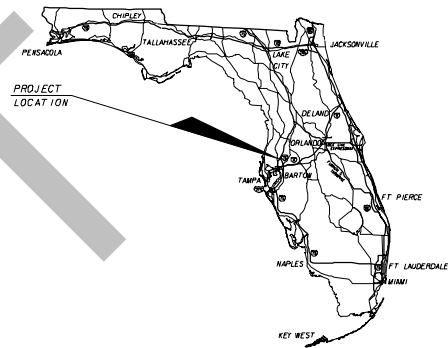
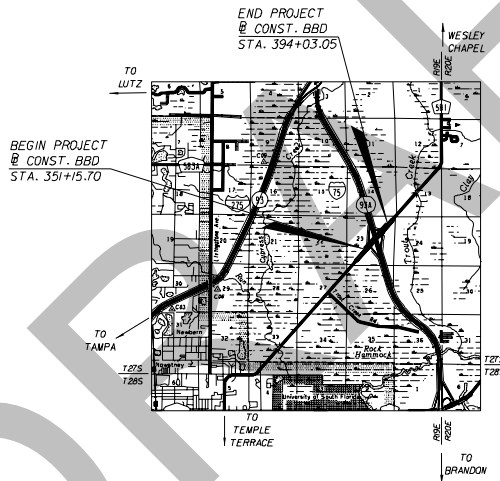
GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2001,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2001,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 07/01/2001
For Design Standards Modifications click on
"Design Standards" at the following web site:
<http://www.dot.state.fl.us/roadsign/>

STATE OF FLORIDA
HILLSBOROUGH COUNTY

CONTRACT PLANS

FINANCIAL PROJECT ID 405492-8-56-01
CIP #61044
HILLSBOROUGH COUNTY (10075)
CR 581 (BRUCE B. DOWNS BLVD.) AT SR 93A (I-75)



ROADWAY SHOP DRAWINGS
TO BE SUBMITTED TO:
MARK W. MULLER, P.E.
HNTB CORPORATION
201 N. FRANKLIN STREET
SUITE 550
TAMPA, FL 33602
PHONE: (813) 402-4150

PLANS PREPARED BY:

HNTB

201 N. FRANKLIN STREET
SUITE 550
TAMPA, FL 33602
PHONE: (813) 402-4150
CERT. OF AUTH. NO. 6500

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

REVISIONS

PROJECT LENGTH IS BASED ON @ CONST. BBD

| LENGTH OF PROJECT | | |
|-------------------------|-------------|-------|
| | LINEAR FEET | MILES |
| ROADWAY | 4287.35 | 0.812 |
| BRIDGES | 0.00 | 0.000 |
| NET LENGTH OF PROJECT | 4287.35 | 0.812 |
| EXCEPTIONS | 0.00 | 0.000 |
| GROSS LENGTH OF PROJECT | 4287.35 | 0.812 |

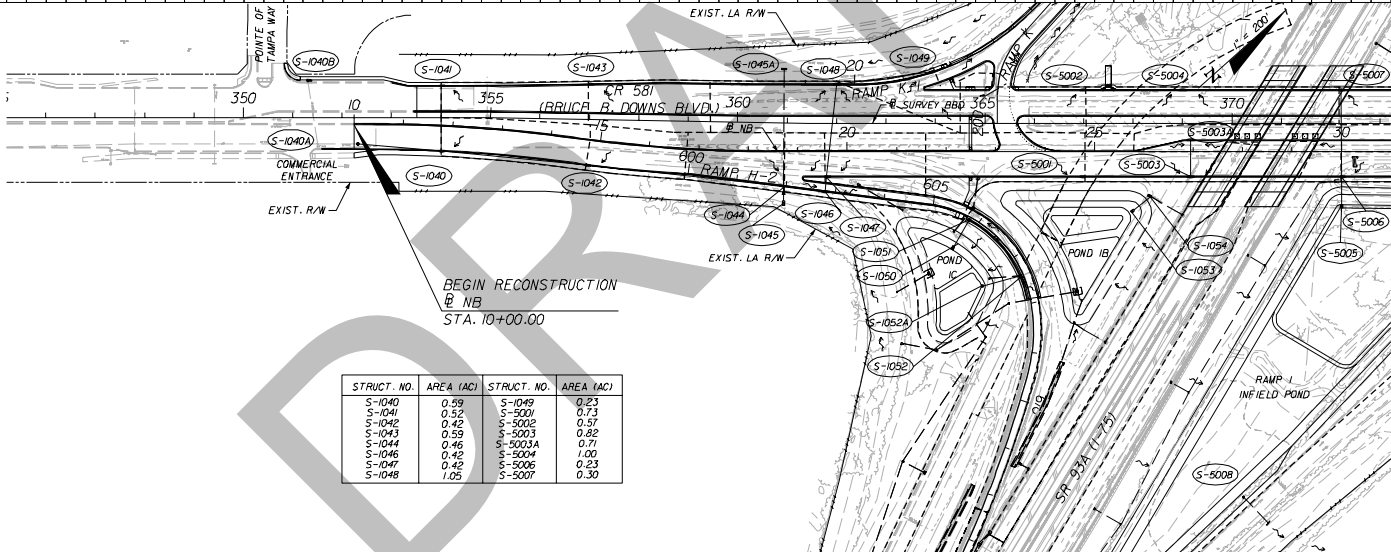
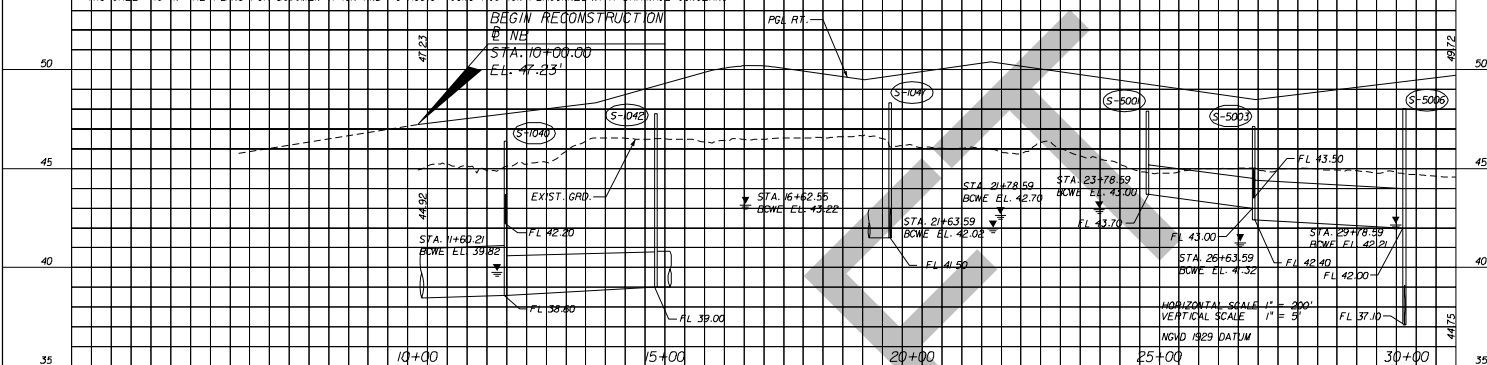
HILLSBOROUGH COUNTY PROJECT MANAGER: WILLIAM ALFORD
FDOT PROJECT MANAGER: AMY N. NEIDRINGHAUS, P.E.

| KEY SHEET REVISIONS | |
|---------------------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

ROADWAY PLANS
ENGINEER OF RECORD: MARK W. MULLER, P.E.
P.E. NO. # 64023

| FISCAL YEAR | SHEET NO. |
|-------------|-----------|
| 11 | 1 |

DO NOT USE THE INFORMATION ON THIS SHEET FOR DOCUMENTATION PURPOSES.
 THIS SHEET IS IN THE PLANS FOR DOCUMENTATION AND TO ASSIST CONSTRUCTION PERSONNEL WITH DRAINAGE CONCERNS.



| STRUCT. NO. | AREA (AC) | STRUCT. NO. | AREA (AC) |
|-------------|-----------|-------------|-----------|
| S-1040 | 0.59 | S-1049 | 0.23 |
| S-1041 | 0.52 | S-5001 | 0.13 |
| S-1042 | 0.42 | S-5002 | 0.57 |
| S-1043 | 0.59 | S-5003 | 0.82 |
| S-1044 | 0.46 | S-5003A | 0.71 |
| S-1046 | 0.42 | S-5004 | 1.00 |
| S-1047 | 0.42 | S-5006 | 0.23 |
| S-1048 | 1.05 | S-5007 | 0.30 |

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |

HNTB
 201 N. FRANKLIN STREET
 SUITE 550
 TAMPA, FL 33602
 (813) 402-4150
 CERT. OF AUTH. NO. 6500
 M. CRISTINA GONZALEZ, P.E. NO. 71435

STATE OF FLORIDA
HILLSBOROUGH COUNTY

ROAD NO. CR 581 COUNTY HILLSBOROUGH FINANCIAL PROJECT ID 405492-8-56-01

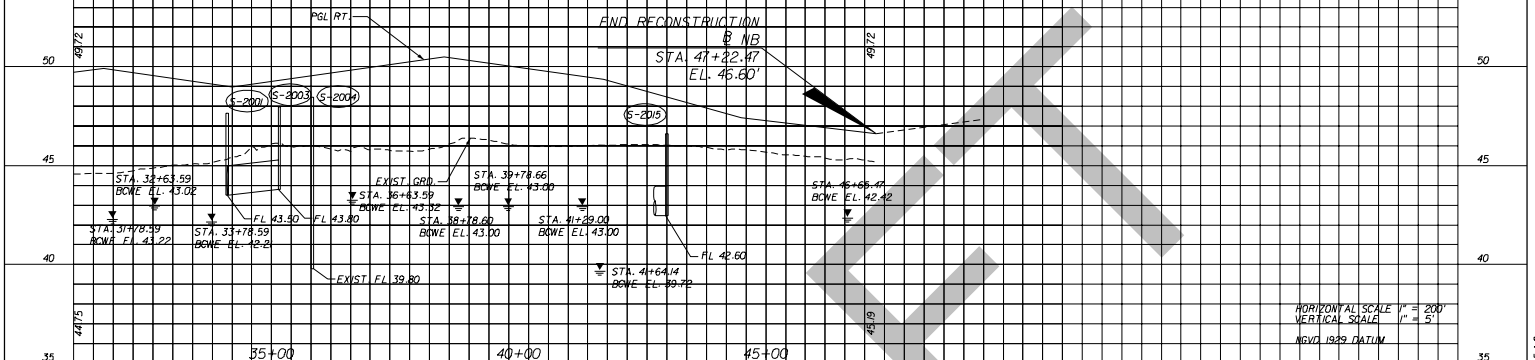
DRAINAGE MAP (01)

SHEET NO. 2

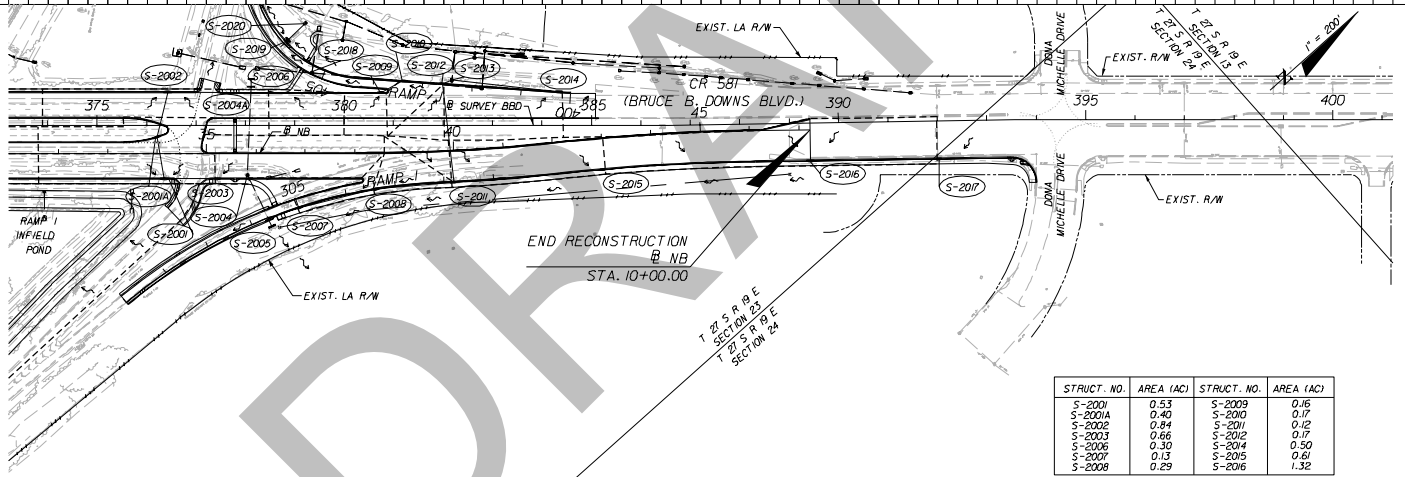
2/2/2011 11:56:48 AM \\vow001\proj\11\jobs\39126-00\scope-P\cadd\405492\2000\01\drainage\01\MP001.DWG

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 68G-23.003, F.A.C.

DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES.
 THIS SHEET IS IN THE PLANS FOR DOCUMENTATION AND TO ASSIST CONSTRUCTION PERSONNEL WITH DRAINAGE CONCERNS.



HORIZONTAL SCALE 1" = 200'
 VERTICAL SCALE 1" = 5'
 NGVD 1929 DATUM



| STRUCT. NO. | AREA (AC) | STRUCT. NO. | AREA (AC) |
|-------------|-----------|-------------|-----------|
| S-2001 | 0.53 | S-2009 | 0.16 |
| S-2001A | 0.40 | S-2010 | 0.17 |
| S-2002 | 0.84 | S-2011 | 0.12 |
| S-2003 | 0.66 | S-2012 | 0.17 |
| S-2006 | 0.30 | S-2014 | 0.50 |
| S-2007 | 0.13 | S-2015 | 0.61 |
| S-2008 | 0.29 | S-2016 | 1.32 |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

HNTB
 201 N. FRANKLIN STREET
 SUITE 550
 TAMPA, FL 33602
 (813) 402-4150
 CERT. OF AUTH. NO. 6500
 M. CRISTINA GONZALEZ, P.E. NO. 7435

STATE OF FLORIDA
HILLSBOROUGH COUNTY

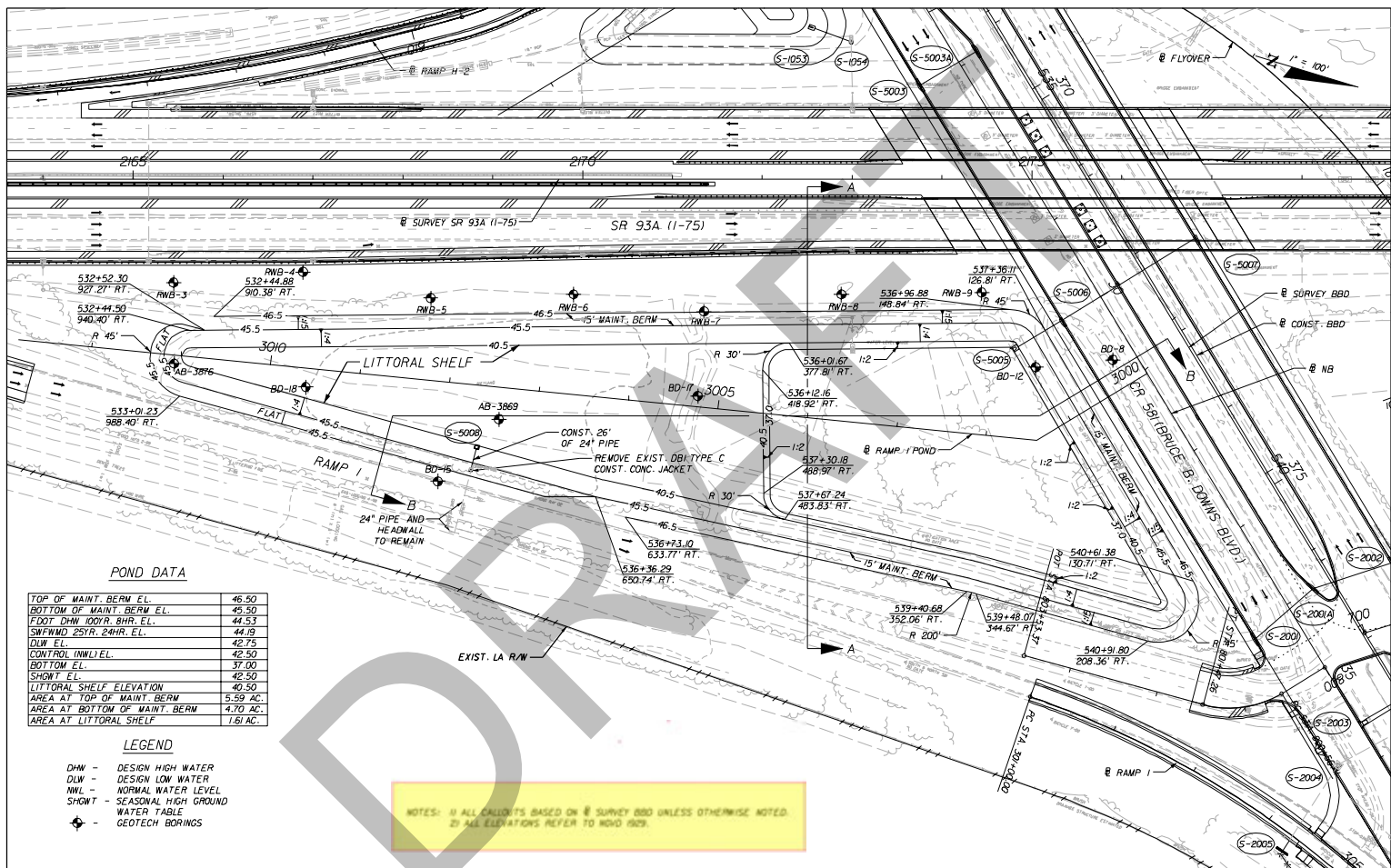
| | | |
|----------|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| CR 581 | HILLSBOROUGH | 405492-8-56-01 |

DRAINAGE MAP (02)

SHEET NO. 3

2/2/2011 11:56:52 AM \\wms02\pwr\1\jobs\3926-scope-2\cadd\405492\000\4\change\DWG\PROJ2.DWG

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 68B-23.003, F.A.C.



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 68B-23.003, F.A.C.

POND DATA

| | |
|-------------------------------|----------|
| TOP OF MAINT. BERM EL. | 46.50 |
| BOTTOM OF MAINT. BERM EL. | 45.40 |
| FDOT DWM 100'R. BHR. EL. | 44.53 |
| SFWMD 25'R. 24HR. EL. | 44.19 |
| DWV EL. | 42.75 |
| CONTROL INW/LEL. | 42.50 |
| BOTTOM EL. | 37.00 |
| SHOWT EL. | 42.50 |
| LITTORAL SHELF ELEVATION | 40.50 |
| AREA AT TOP OF MAINT. BERM | 5.59 AC. |
| AREA AT BOTTOM OF MAINT. BERM | 4.70 AC. |
| AREA AT LITTORAL SHELF | 1.81 AC. |

LEGEND

- DHW - DESIGN HIGH WATER
- DWV - DESIGN LOW WATER
- NWL - NORMAL WATER LEVEL
- SHOWT - SEASONAL HIGH GROUND
- WATER TABLE
- ◆ - GEOTECH BORINGS

NOTES: 1) ALL CALCULATIONS BASED ON @ SURVEY BBD UNLESS OTHERWISE NOTED.
2) ALL ELEVATIONS REFER TO MVD 1069.

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

HNTB
 201 N. FRANKLIN STREET
 SUITE 550
 TAMPA, FL 33602
 (813) 402-4150
 CERT. OF AUTH. NO. 6500
 MICHAEL J. JAROCK, P.E. NO. 48951

| STATE OF FLORIDA HILLSBOROUGH COUNTY | | |
|---|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| CR 581 | HILLSBOROUGH | 405492-8-56-01 |

POND PLAN SHEET
RAMP I INFIELD POND

SHEET NO.
68

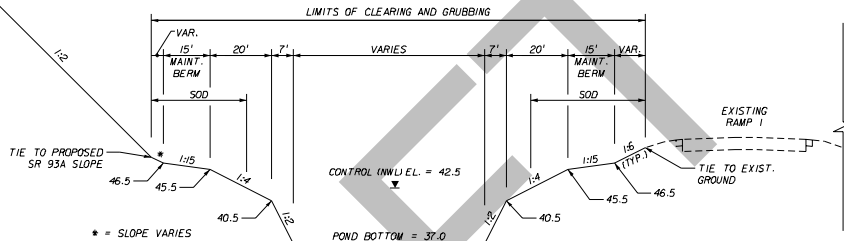
2/8/2011 3:46:11 PM \\mvd02\pwr\1\jobs\3926-scope-P\cadd\404492800-cr\ridge\POP\RD01.DGN

POND DATA

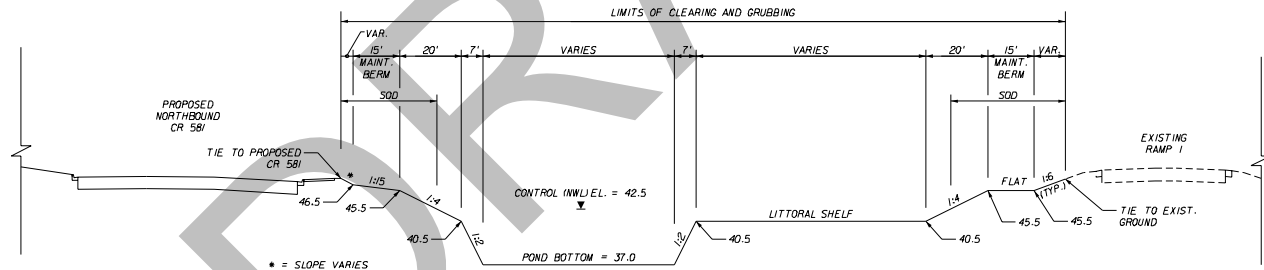
| | |
|-------------------------------|----------|
| TOP OF MAINT. BERM EL. | 46.50 |
| BOTTOM OF MAINT. BERM EL. | 45.50 |
| FOOT DHW 100% R. BHR. EL. | 44.53 |
| SWFWD 25% R. 24HR. EL. | 44.19 |
| DLW EL. | 42.75 |
| CONTROL INWJ EL. | 42.50 |
| BOTTOM EL. | 37.00 |
| SHOWT EL. | 42.50 |
| LITTORAL SHELF ELEVATION | 40.50 |
| AREA AT TOP OF MAINT. BERM | 5.59 AC. |
| AREA AT BOTTOM OF MAINT. BERM | 4.70 AC. |
| AREA AT LITTORAL SHELF | 1.61 AC. |

LEGEND

- DHW - DESIGN HIGH WATER
- DLW - DESIGN LOW WATER
- NWL - NORMAL WATER LEVEL
- SHOWT - SEASONAL HIGH GROUND WATER TABLE



SECTION A-A
NTS



SECTION B-B
NTS

ALL ELEVATIONS REFER TO NGVD 1929

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

HNTB
 201 N. FRANKLIN STREET
 SUITE 550
 TAMPA, FL 33602
 (813) 402-4150
 CERT. OF AUTH. NO. 6500
 MICHAEL J. JAROCK, P.E. NO. 48951

| STATE OF FLORIDA HILLSBOROUGH COUNTY | | |
|---|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| CR 581 | HILLSBOROUGH | 405492-8-56-01 |

POND DETAIL
RAMP 1 INFIELD POND (01)

| | |
|-----------|----|
| SHEET NO. | 69 |
|-----------|----|

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.

ERP# 43021639.001

Existing Permits

Basin 1A

DRAFT

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
INDIVIDUAL CONSTRUCTION
PERMIT NO. 43021639.001

Expiration Date: August 30, 2010

PERMIT ISSUE DATE: August 30, 2005

This permit is issued under the provisions of Chapter 373, Florida Statutes (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME: FDOT - I-75 at CR 581 (Bruce B. Downs Boulevard) Interchange Flyover

GRANTED TO: Florida Department of Transportation, District VII
11201 North McKinley Drive, MS 7-800
Tampa, FL 33612-6403

ABSTRACT: This Individual Construction Permit is for the construction of a two-lane flyover ramp to accommodate the CR 581 southbound to I-75 southbound movement. Additionally, the southbound CR 581 to southbound I-75 turn lanes and median cut will be removed; the CR 581 northbound to the I-75 southbound ramp will be realigned; and the CR 581 southbound to northbound I-75 ramps will be reconfigured. The project area limits extend from Station 41+00, just north of the Hillsborough River Bridge, to Station 200+04, northeast of the I-75/CR 581 interchange.

Water quality treatment and water quantity attenuation will be provided within the existing right-of-way, the northeast and southwest infield areas of the I-75 and CR 581 interchange and the on-line retention swales that are located along the southbound lanes and median of I-75. Of the 16 surface water management areas, 3 will utilize wet detention for treatment and the remaining 13 will utilize on-line retention as the treatment method. The required treatment volume is an additional 50% for the ponds that will outfall to the Hillsborough River, an Outstanding Florida Water (OFW) at this location. It was demonstrated that the post development peak discharge rate would not exceed the pre-development peak discharge rate for the 25-year, 24-hour storm event.

OP. & MAINT. ENTITY: Florida Department of Transportation, District VII

COUNTY: Hillsborough

SEC/TWP/RGE: 23, 25, 26, 36/27S/19E

**TOTAL ACRES OWNED
OR UNDER CONTROL:** 70.00

PROJECT SIZE: 66.87 Acres

LAND USE: Road Project

DATE APPLICATION FILED: March 22, 2005

AMENDED DATE: N/A

TRANSFERRED TO
OPERATION PHASE

ERP# 43033020.004

Existing Permits

Basin G

DRAFT



An Equal Opportunity Employer

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
TDD only 1-800-231-6103 (FL only)
On the Internet at: WaterMatters.org

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Lecanto Service Office
Suite 226
3600 West Sovereign Path
Lecanto, Florida 34461-8070
(352) 527-8131

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

Neil Combee
Chair, Polk

Todd Pressman
Vice Chair, Pinellas

Jennifer E. Closshey
Secretary, Hillsborough

Ronald E. Oakley
Treasurer, Pasco

Bryan K. Beswick
DeSoto

Patricia M. Glass
Manatee

Hugh M. Gramling
Hillsborough

Albert G. Joerger
Sarasota

Sallie Parks
Pinellas

Maritza Rovira-Forino
Hillsborough

H. Paul Senft, Jr.
Polk

Douglas B. Tharp
Sumter

Judith C. Whitehead
Hernando

David L. Moore
Executive Director

William S. Bilenky
General Counsel

November 18, 2008

Sally A. Prescott
Florida Department of Transportation, District VII
11201 North McKinley Drive
Tampa, FL 33612-6403

Subject: **Notice of Final Agency Action for Approval**
ERP Individual Construction
Permit No.: 43033020.004
Project Name: FDOT - I-75 (State Road 93A) North of Bruce B. Downs to State Road 56 (Mainline Widening)
County: Hillsborough, Pasco
Sec/Twp/Rge: 03, 10, 11, 14, 23/27S/19E;
26, 27, 34/26S/19E

Dear Ms. Prescott:

The Environmental Resource permit referenced above was **approved** by the District Governing Board subject to all terms and conditions set forth in the permit.

The enclosed approved construction plans are part of the permit, and construction must be in accordance with these plans.

If you have questions concerning the permit, please contact Robin L. McGill, P.E., at the Tampa Service Office, extension 2072. For assistance with environmental concerns, please contact Rick A. Perry, P.W.S., extension 2056.

Sincerely,

Paul W. O'Neil, Jr., P.E., Department Director
Regulation Performance Management

PWO:gjn

Enclosures: Approved Permit w/Conditions Attached
Approved Construction Drawings
Statement of Completion
Notice of Authorization to Commence Construction

cc/enc: File of Record 43033020.004
Tammy Kreisle, P.E., URS Corporation Southern
US Army Corps of Engineers



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
INDIVIDUAL CONSTRUCTION
PERMIT NO. 43033020.004

Expiration Date: November 18, 2013

PERMIT ISSUE DATE: November 18, 2008

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME: FDOT - I-75 (State Road 93A) North of Bruce B. Downs to State Road 56 (Mainline Widening)

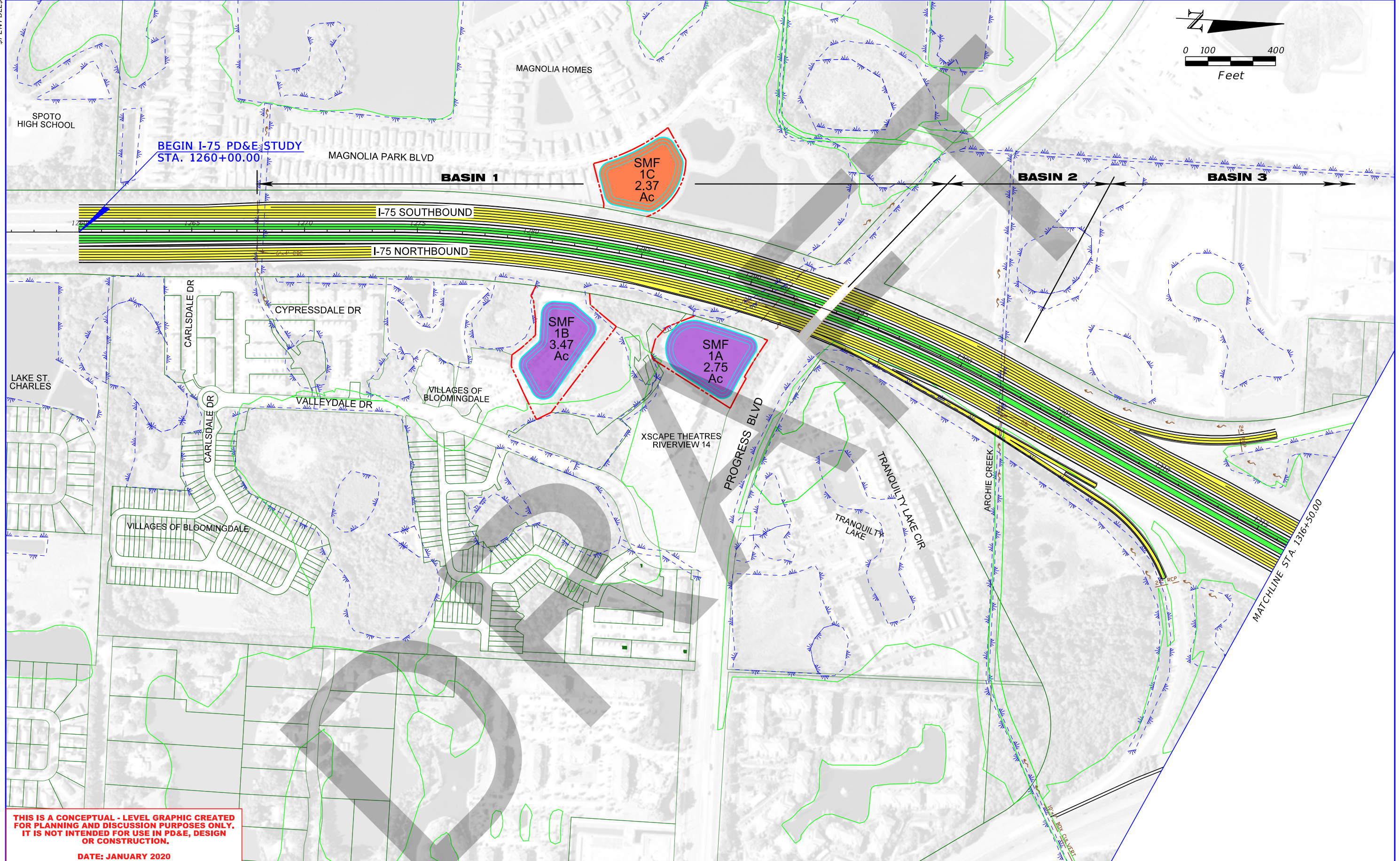
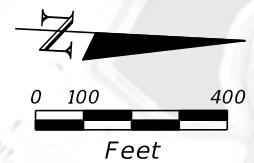
GRANTED TO: Florida Department of Transportation, District VII
11201 North McKinley Drive
Tampa, FL 33612-6403

ABSTRACT: This Individual permit authorization is for the construction of a new surface water management system for the widening of a 4.7-mile section of I-75 from Bruce B. Downs Boulevard to State Road 56. The project is located in Hillsborough and Pasco Counties. It is located in the Cypress Creek Watershed of the Hillsborough River Basin and will discharge runoff to Cypress Creek and associated wetlands. The existing bridge over Cypress Creek in Hillsborough County will be widened. The existing I-75 bridge over Cypress Creek in Pasco County will not be widened as part of this project. The design report addressed the ultimate concept. From Bruce B. Downs Boulevard to the I-75/I-275 apex, the proposed roadway typical section will consist of six 12-foot through lanes (three northbound and three southbound), 12-foot inside and outside shoulders (10 feet paved), and 64-foot median. From the I-75/I-275 apex to State Road 56, the proposed ultimate improvements will consist of ten 12-foot through lanes (four northbound and six southbound), 12-foot inside and outside shoulders (10 feet paved) and a 64-foot median.

The right-of-way width will vary between 300 feet and 364 feet. The drainage systems for the project drainage will include storm sewer and ditches for conveyance of project runoff to the four proposed stormwater management facilities (SMFs). The SMFs are sized to treat and attenuate for runoff over the right-of-way width as if it is 100% impervious as directed by FDOT. The water quality treatment method will be wet detention. The treatment volume is one inch of runoff from the contributing area for Basin G. Basin H discharges to Cypress Creek, an Outstanding Florida Water (OFW), thus the treatment volume is one and one-half inch of runoff from the contributing area. Portions of Basin H are located within the FEMA 100-year flood plain. All encroachment into the 100-year floodplain will be compensated for in FPC Site H so that there will be no net loss in historic floodplain storage. Mitigation for the permanent wetland impacts will be provided through the Districts FDOT Mitigation Program pursuant to Chapter 373.4137, F.S.

DRAFT

**Appendix C
Drainage Map**



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM1

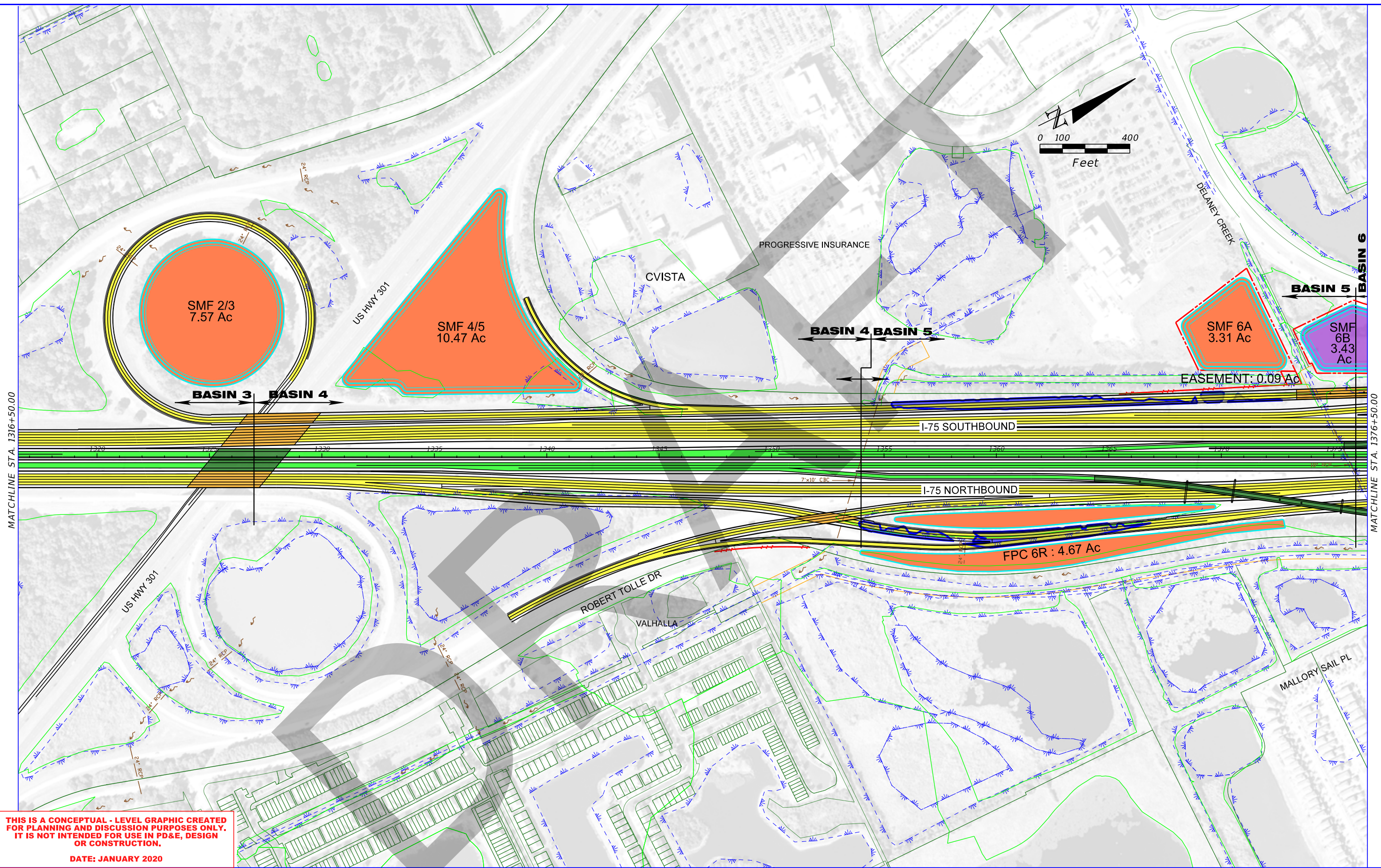
\$PLTDRVL\$

Littlec

4/6/2020 11:56:18 PM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD01.dgn

\$PENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM2 |

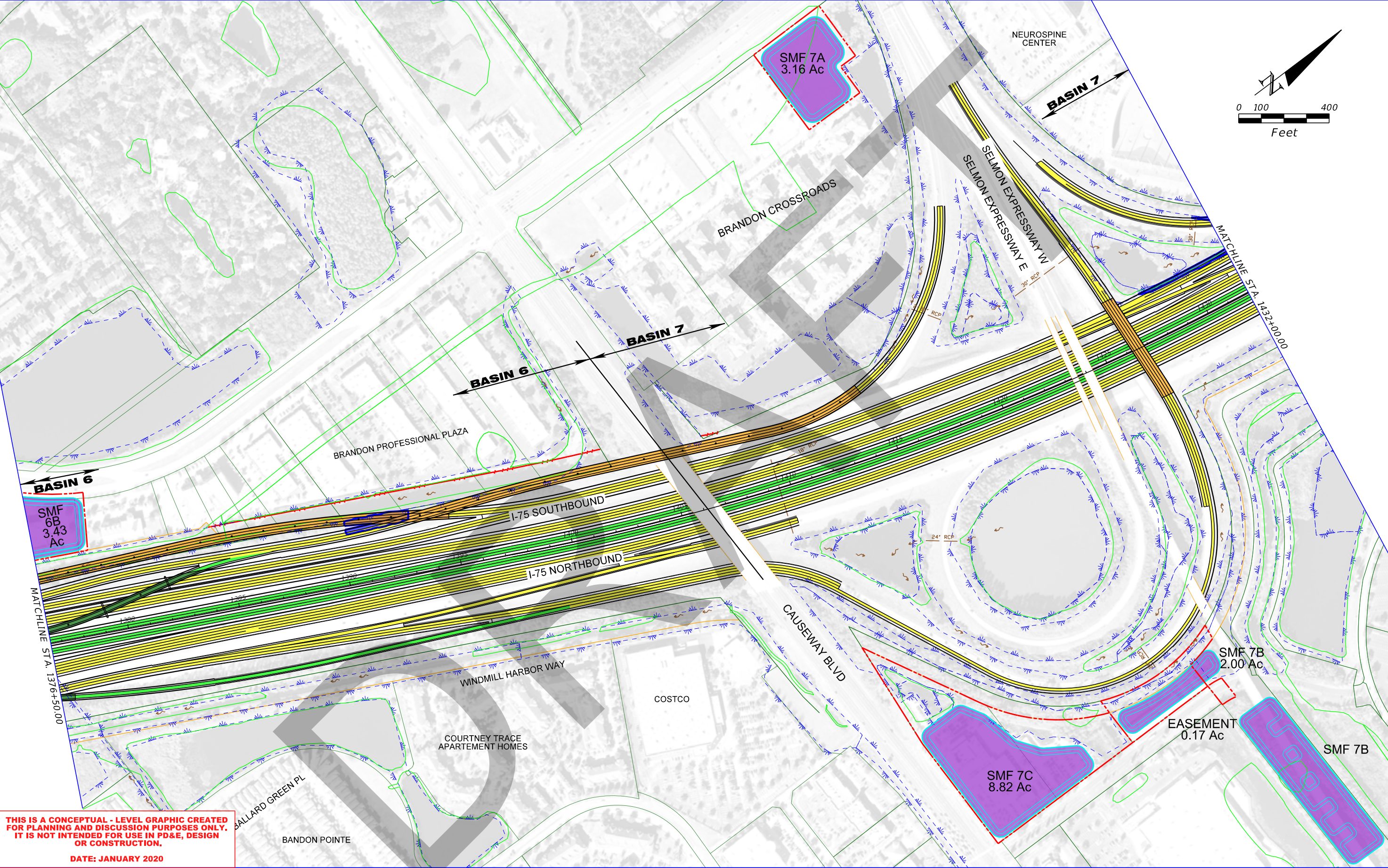
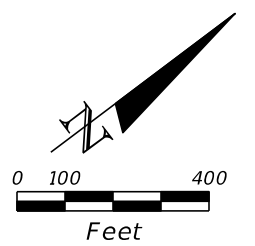
\$PLTDRVL\$

Littlec

4/7/2020 12:04:29 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD02.dgn

SPENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|-------------|--------------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line |
| | | Existing Pond | | FEMA Flood Map | | LA Right-of-Way |
| | | Preferred Pond Site | | Flow Arrow | | Proposed Right-of-Way |
| | | Alternative Pond Site | | Floodplain impacts | | Proposed LA Right-of-Way |
| | | | | | Cross Drain | |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM3 |

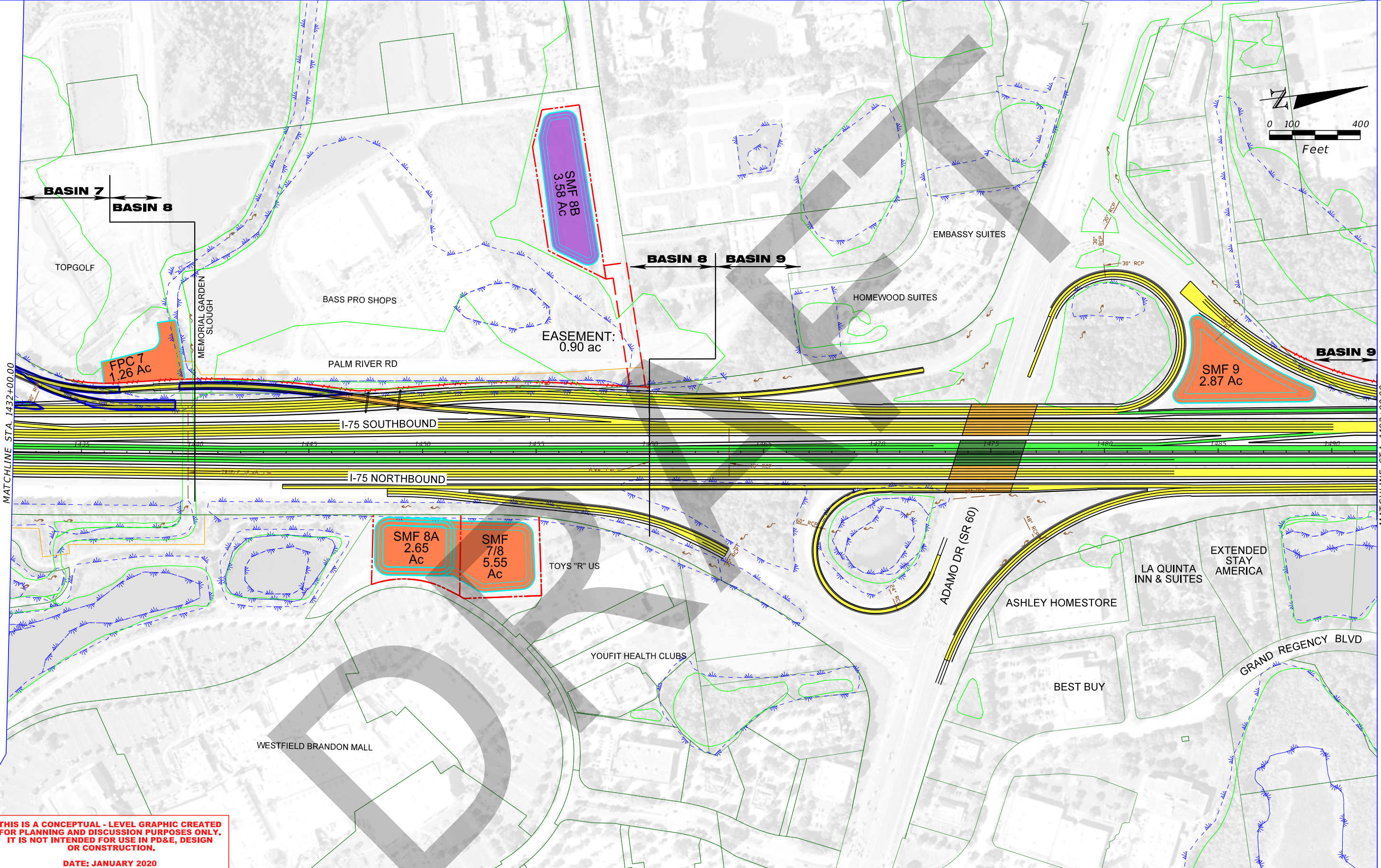
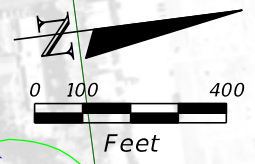
\$PLTDRVL\$

Littlec

4/7/2020 12:12:03 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD03.dgn

\$PENTBILLS



MATCHLINE STA. 1432+00.00

MATCHLINE STA. 1492+00.00

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM4 |

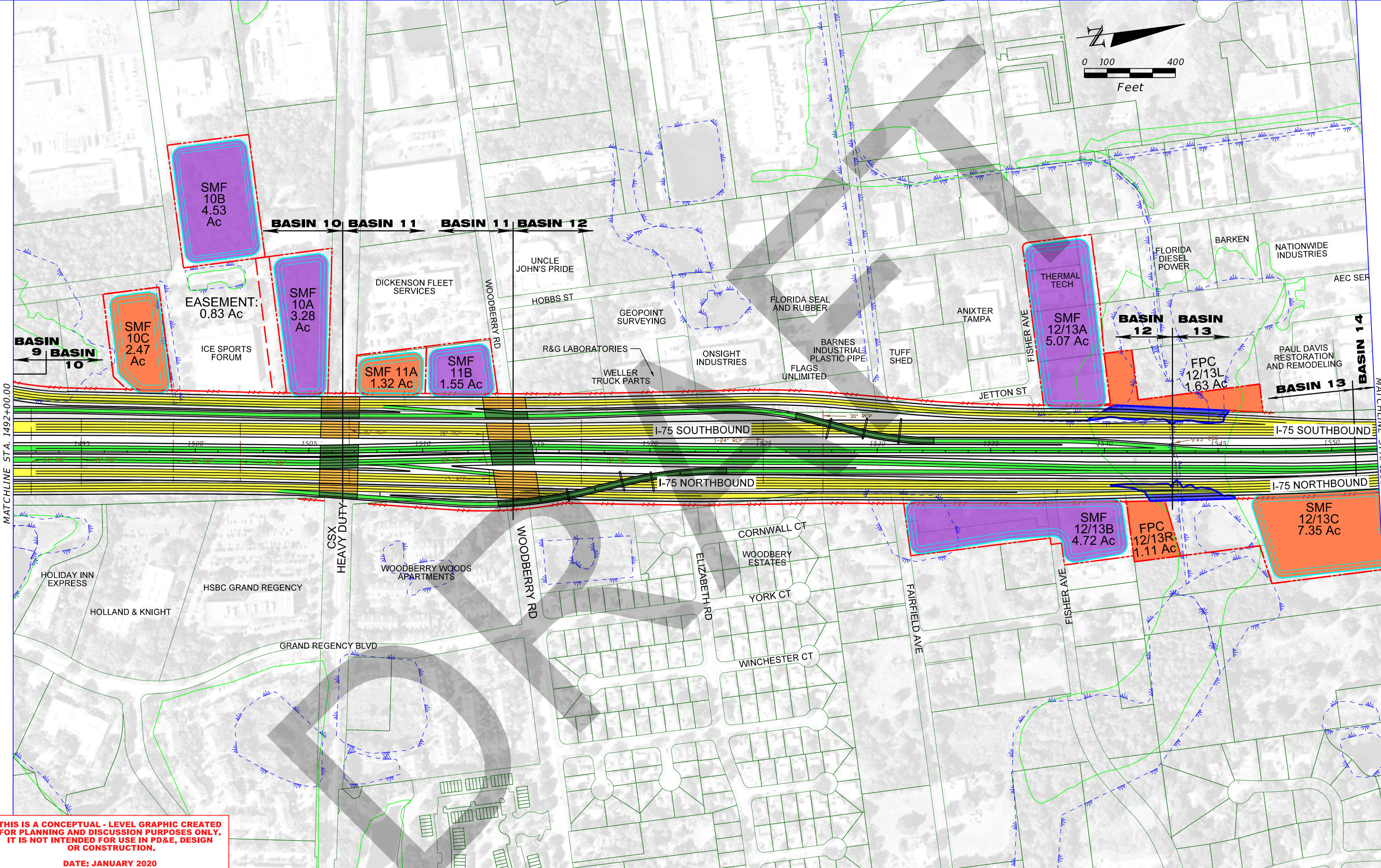
\$PLTDRVL\$

Littlec

4/7/2020 12:20:44 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD04.dgn

\$PENTBILLS



MATCHLINE STA. 1492+00.00

MATCHLINE STA. 1552+00.00

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

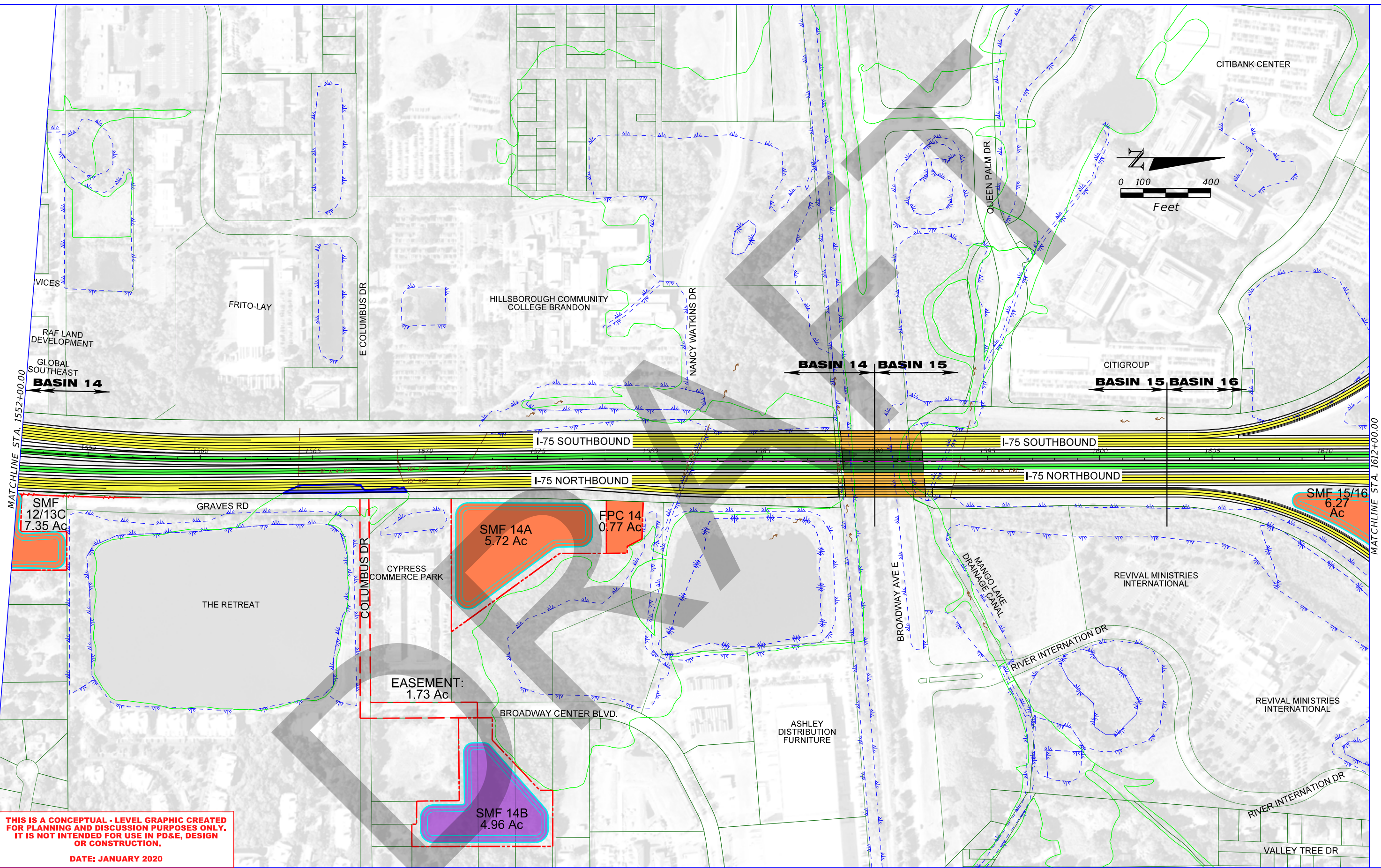
SHEET NO.
DM5

\$PLTDRVL\$

Littlec

4/27/2020 11:18:51 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD05.dgn



MATCHLINE STA. 1552+00.00

MATCHLINE STA. 1612+00.00

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



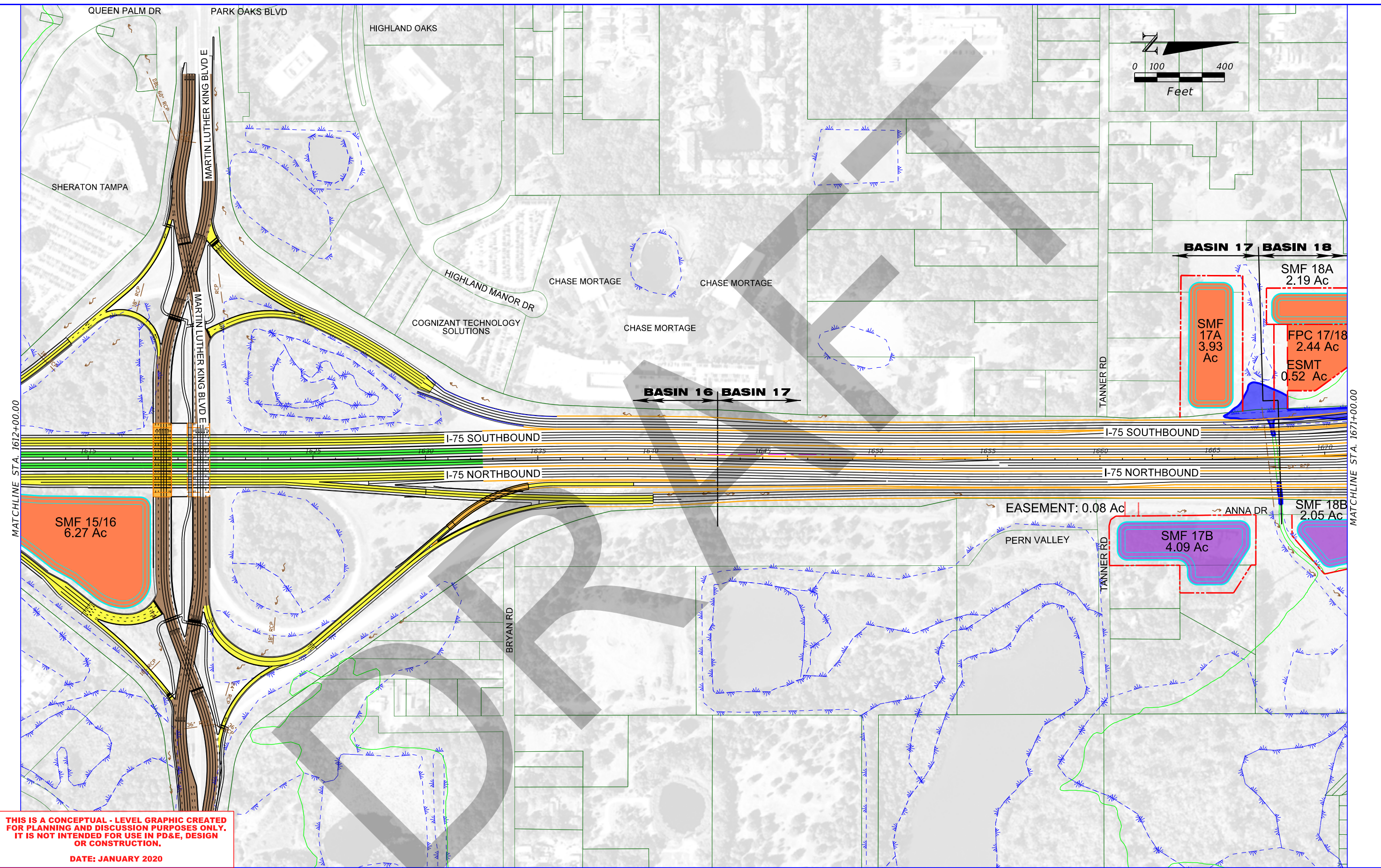
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM6 |

\$PENTBILLS

\$PLTDRVL\$



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |

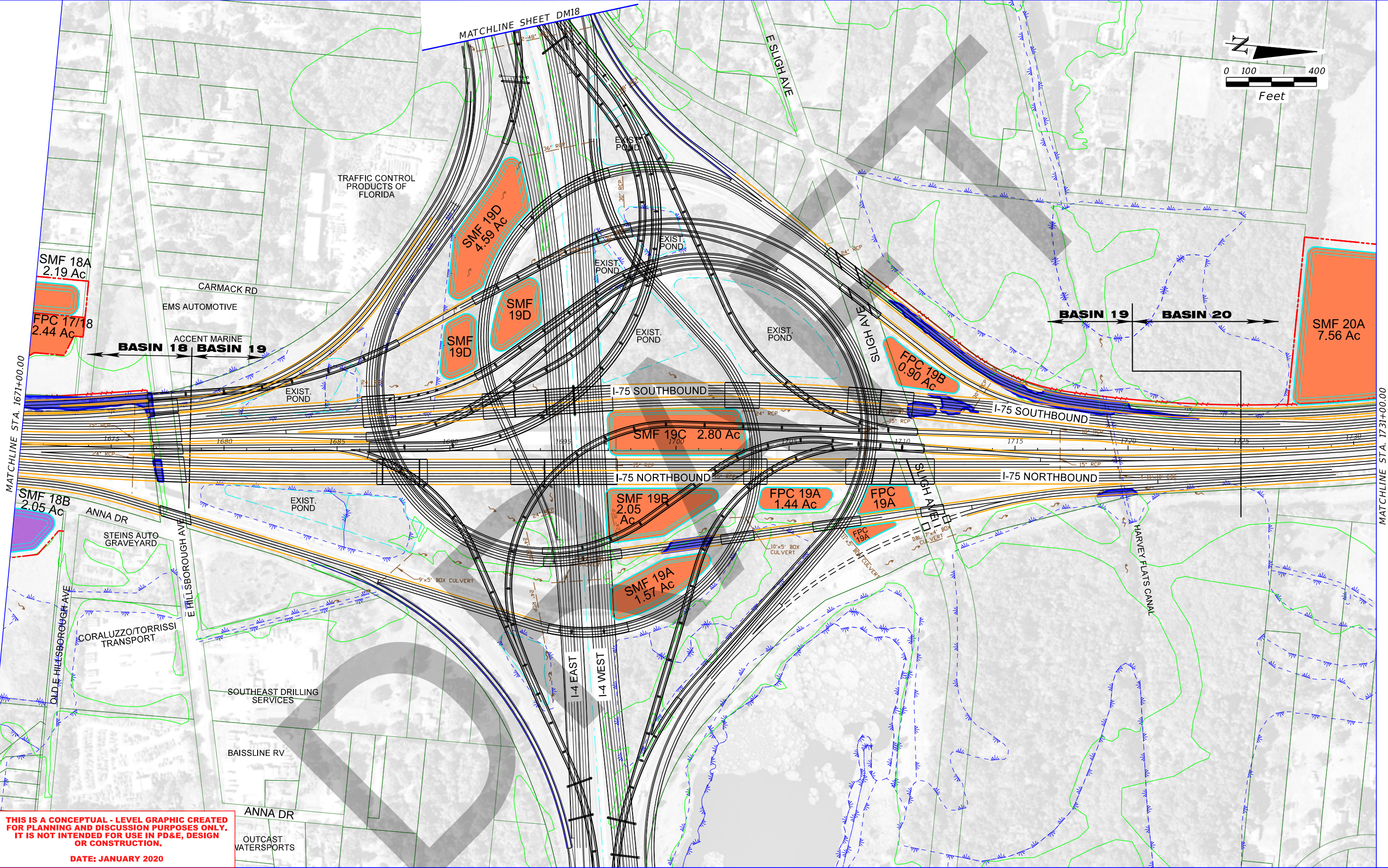
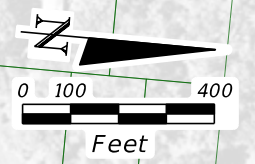


| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM7

SPENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM8 |

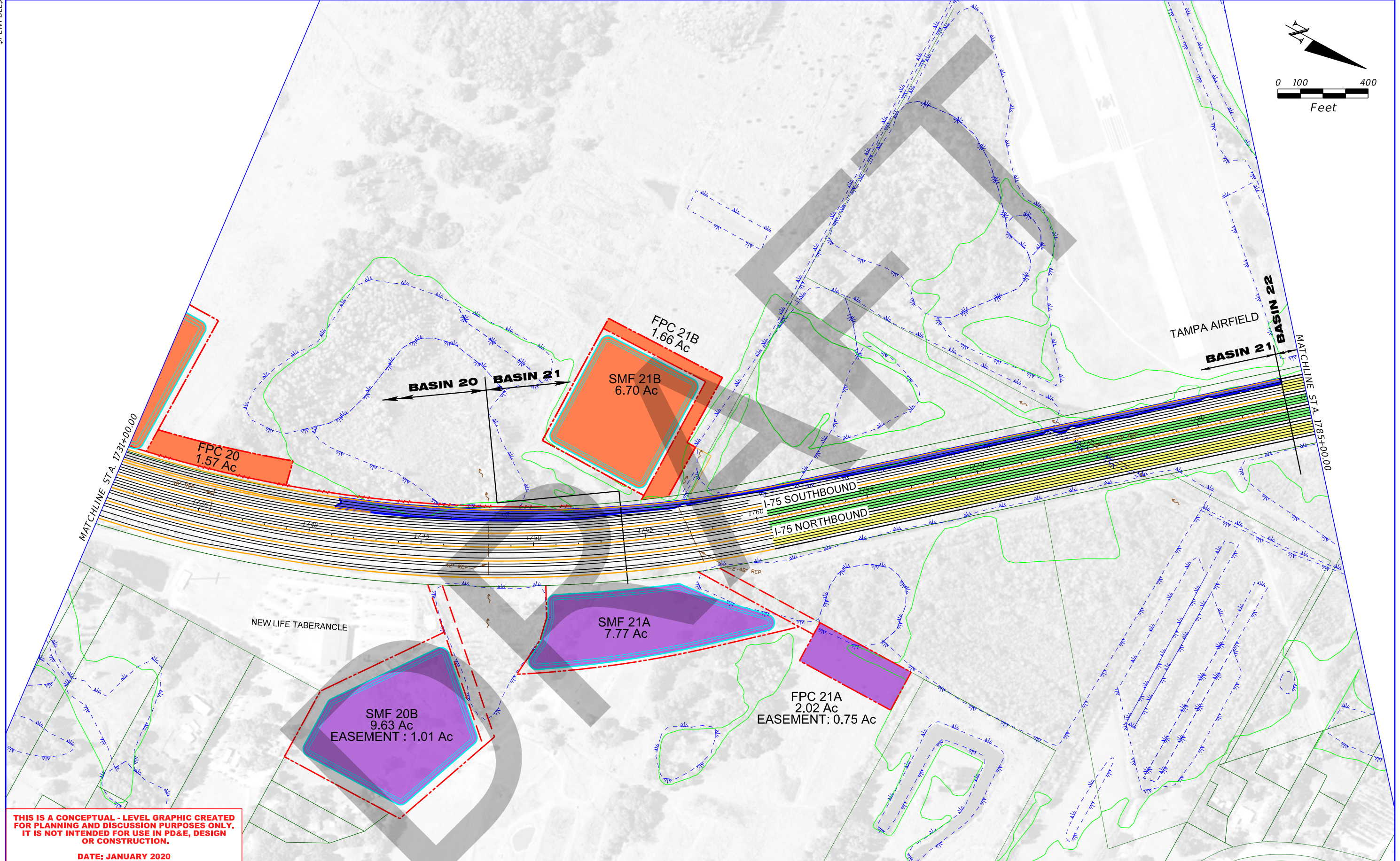
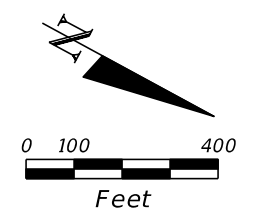
SPLITDRVL\$

Littlec

4/7/2020 12:58:58 PM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD08.dgn

\$PENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM9

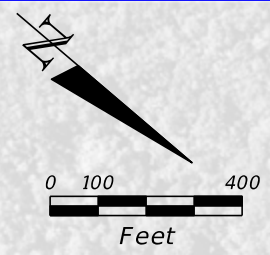
\$PLTDRVL\$

Littlec

4/7/2020 7:37:29 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD09.dgn

SPENTBILLS



MATCHLINE STA. 1785+00.00

MATCHLINE STA. 1843+00.00

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM10 |

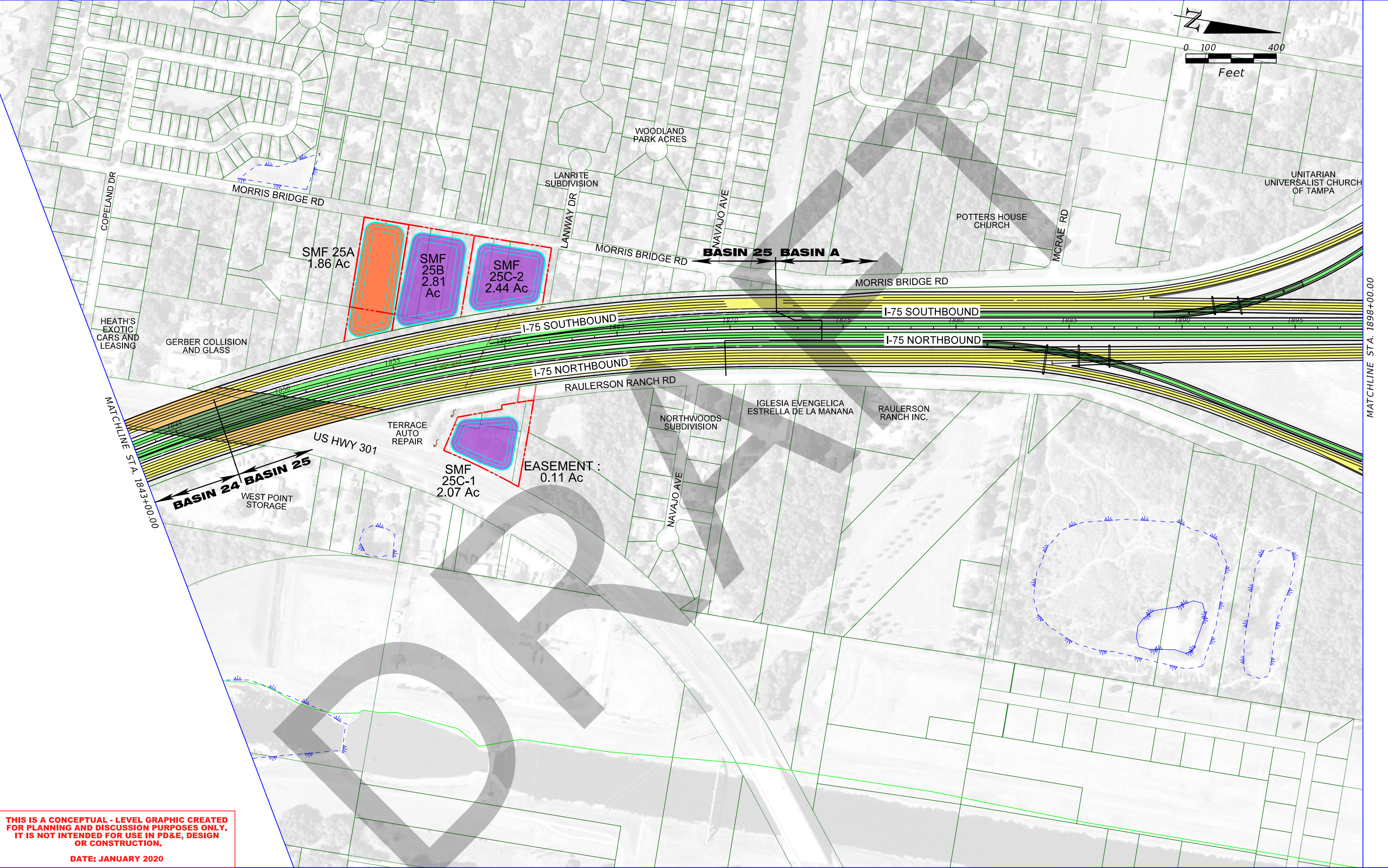
\$PLTDRVL\$

Littlec

4/7/2020 7:14:03 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD10.dgn

\$PLTDRVL\$



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM11 |

\$PLTDRVL\$

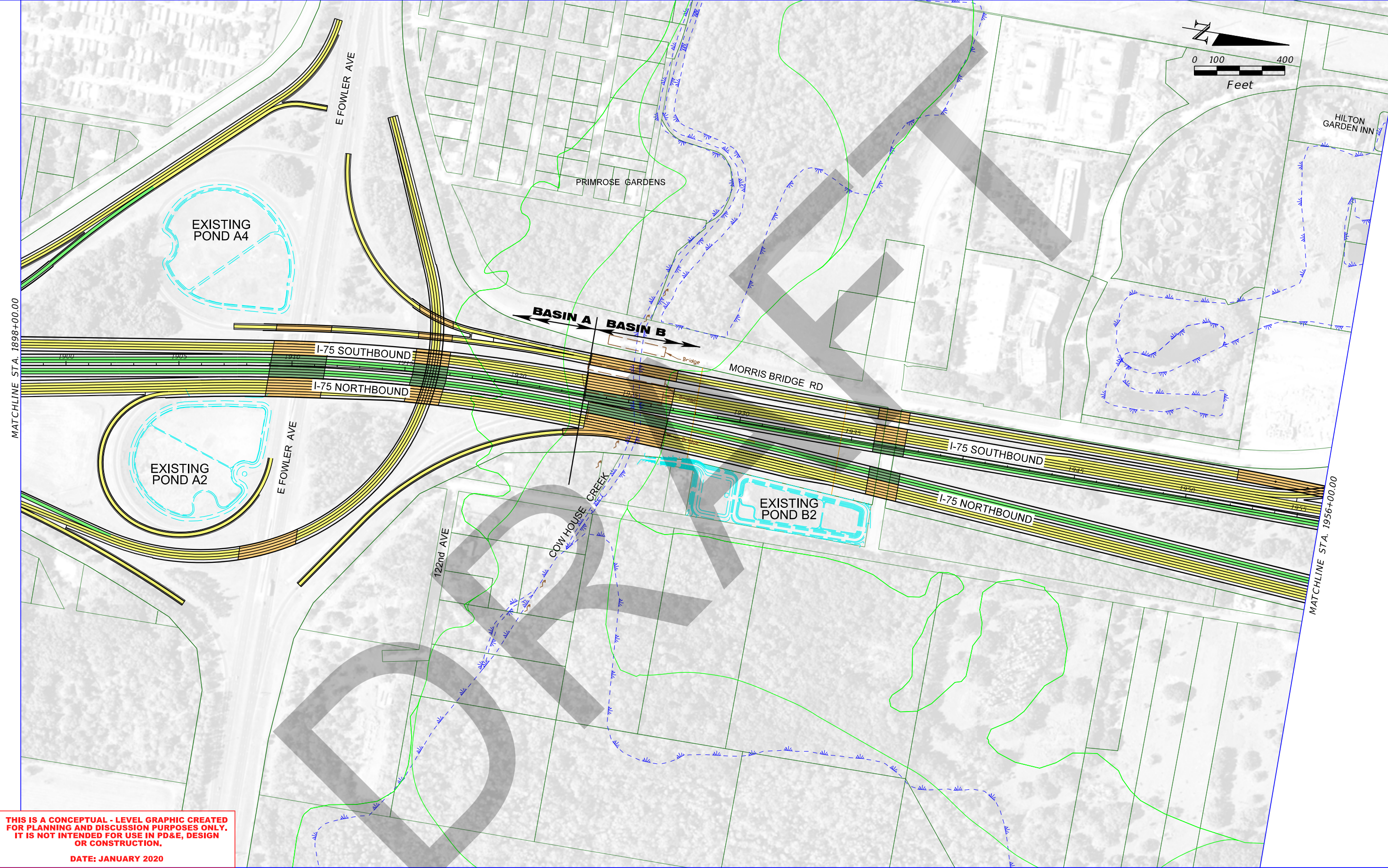
Littlec

4/7/2020 8:32:00 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD11.dgn

MATCHLINE STA. 1898+00.00

\$PENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|--|--------------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line |
| | | Existing Pond | | FEMA Flood Map | | Proposed Right-of-Way |
| | | Preferred Pond Site | | Flow Arrow | | Proposed LA Right-of-Way |
| | | Alternative Pond Site | | Floodplain impacts | | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM12

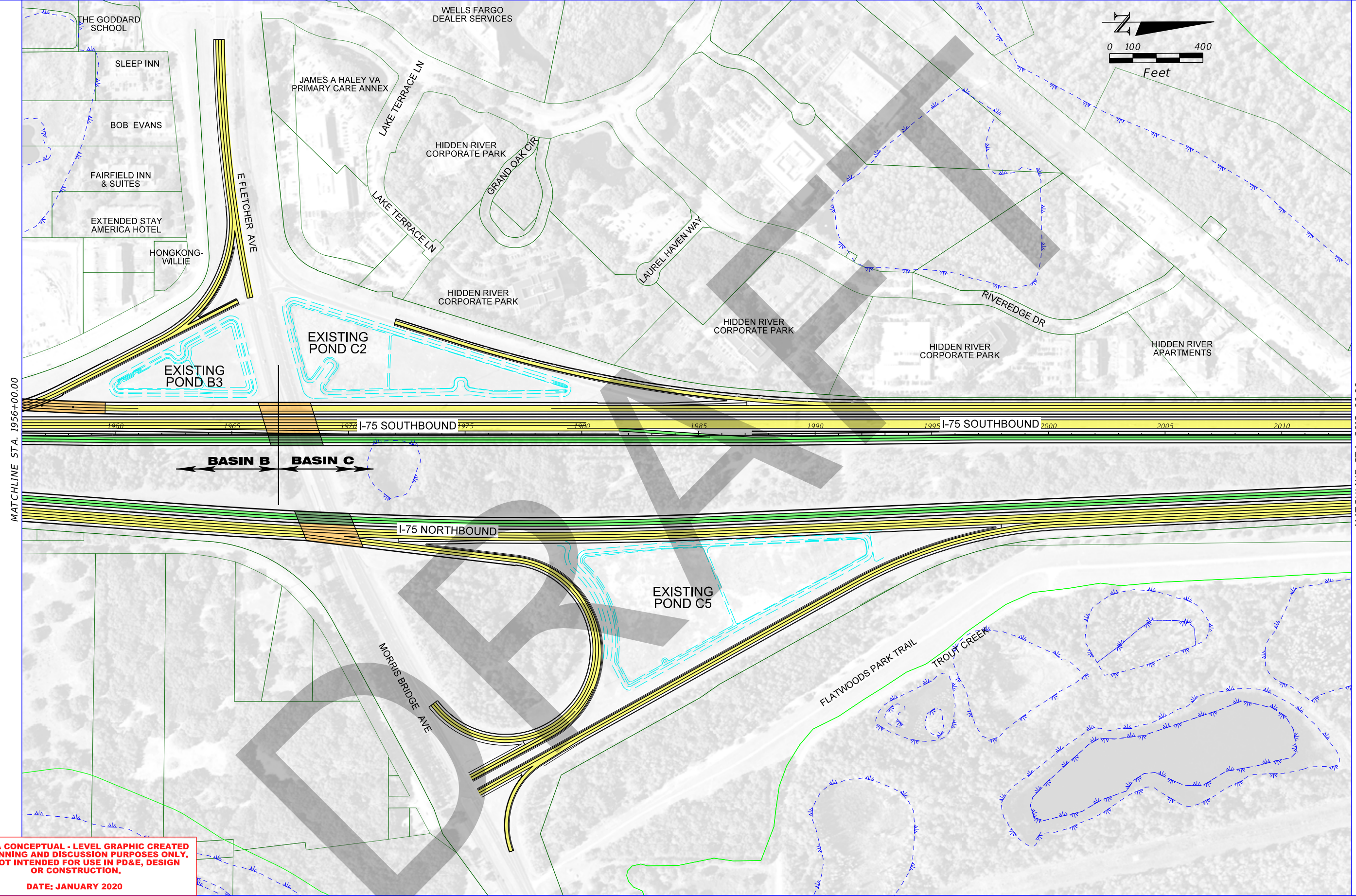
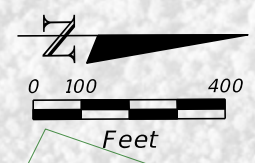
\$PLTDRVL\$

Littlec

4/7/2020 8:59:53 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD12.dgn

SPENTBILLS



MATCHLINE STA. 1956+00.00

MATCHLINE STA. 2013+00.00

← BASIN B BASIN C →

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.
DATE: JANUARY 2020

| | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|--|--------------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line |
| | | Existing Pond | | FEMA Flood Map | | Proposed Right-of-Way |
| | | Preferred Pond Site | | Flow Arrow | | Proposed LA Right-of-Way |
| | | Alternative Pond Site | | Floodplain impacts | | Cross Drain |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM13

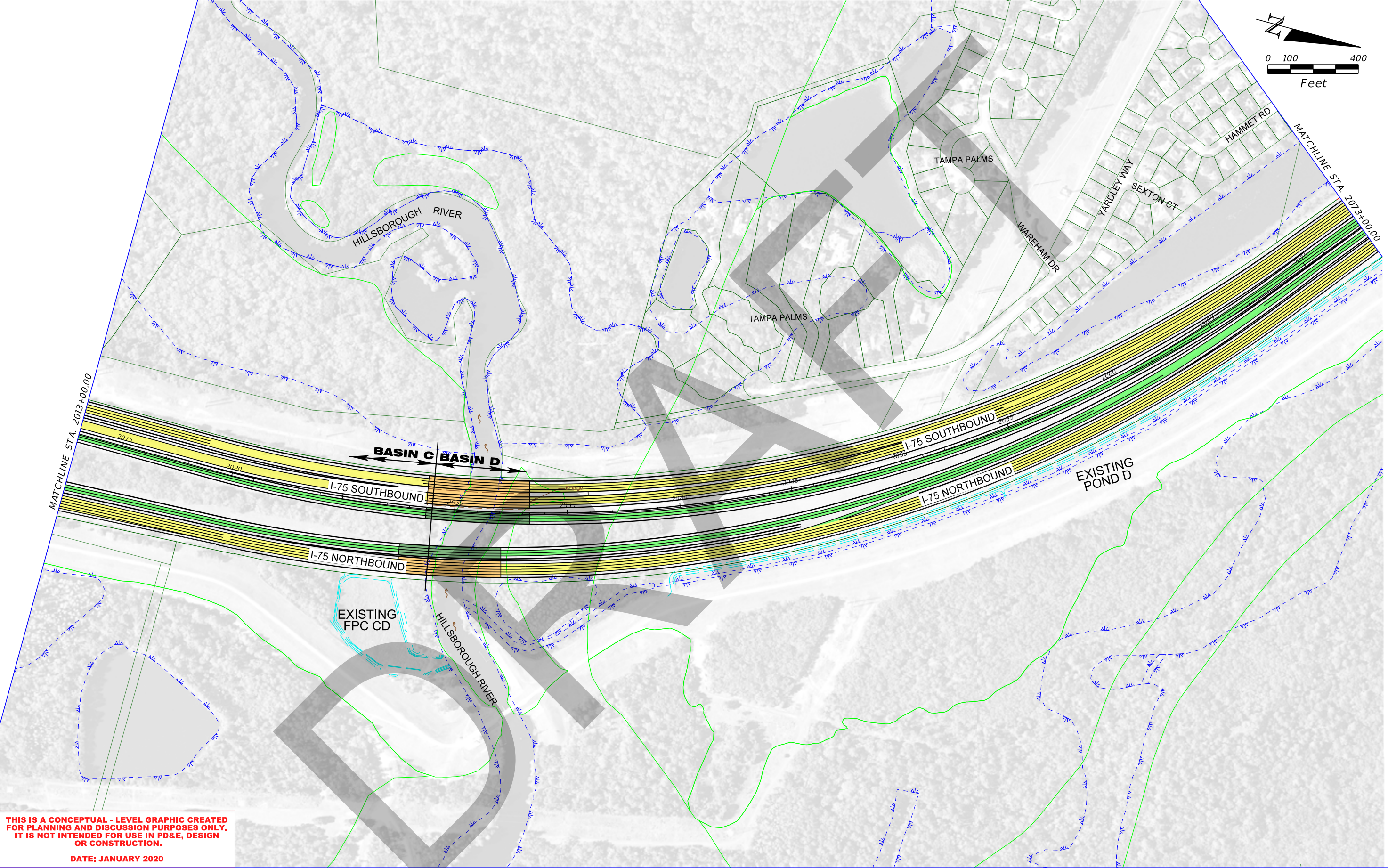
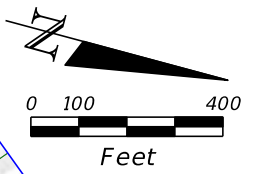
PLTDRVL\$

Littlec

4/7/2020 9:23:52 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD13.dgn

\$PLTDRVL\$



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|-------------|--------------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line |
| | | Existing Pond | | FEMA Flood Map | | LA Right-of-Way |
| | | Preferred Pond Site | | Flow Arrow | | Proposed Right-of-Way |
| | | Alternative Pond Site | | Floodplain impacts | | Proposed LA Right-of-Way |
| | | | | | Cross Drain | |



| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

| |
|-----------|
| SHEET NO. |
| DM14 |

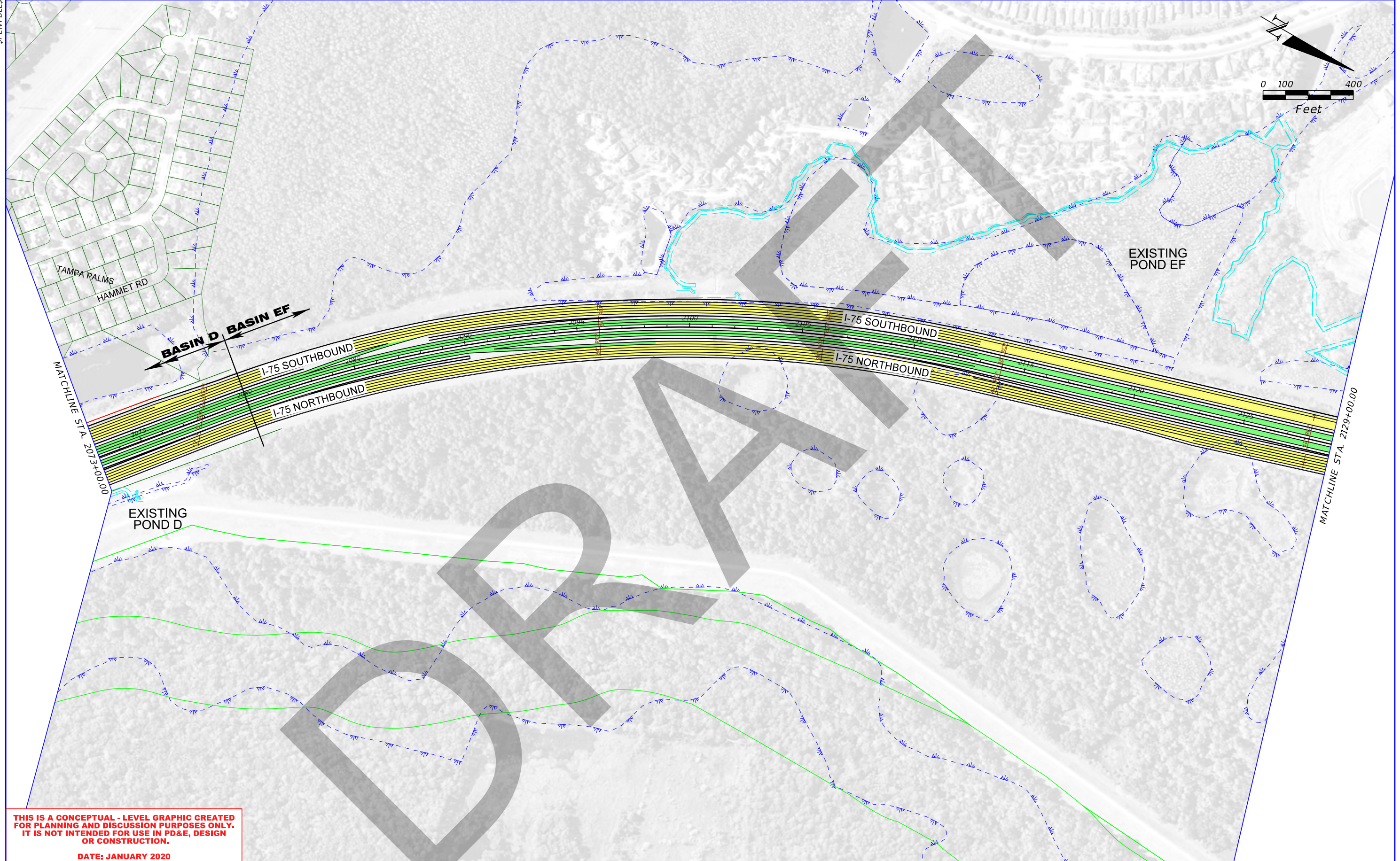
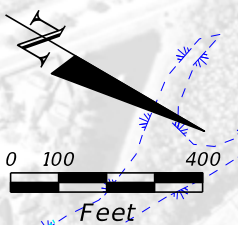
\$PLTDRVL\$

Littlec

4/7/2020 9:45:56 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD14.dgn

SPENTBILLS



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|-------------|--------------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line |
| | | Existing Pond | | FEMA Flood Map | | LA Right-of-Way |
| | | Preferred Pond Site | | Flow Arrow | | Proposed Right-of-Way |
| | | Alternative Pond Site | | Floodplain impacts | | Proposed LA Right-of-Way |
| | | | | | Cross Drain | |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM15

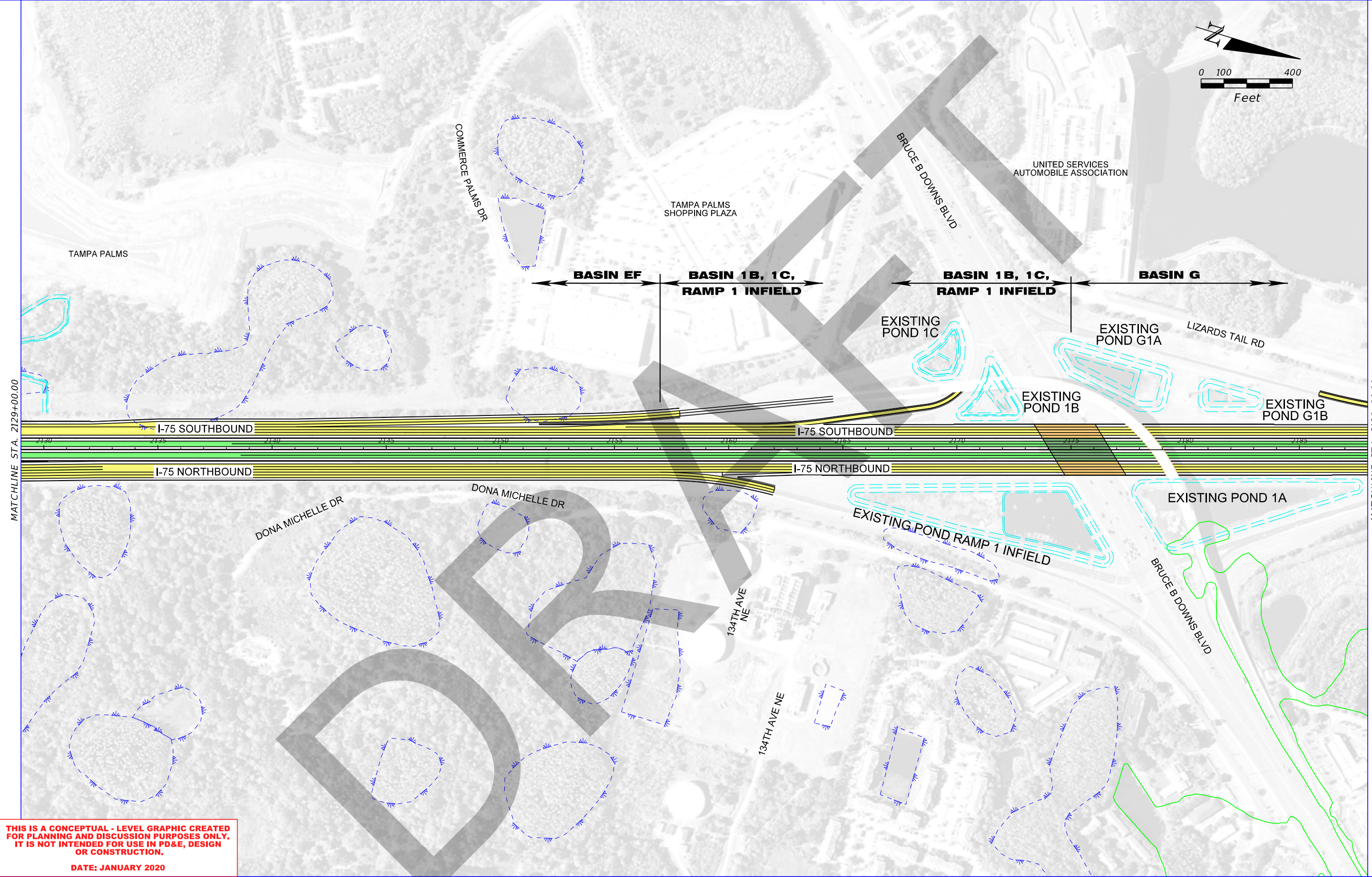
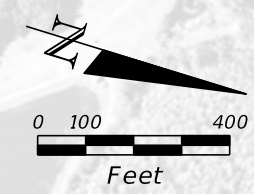
SPENTBILLS

Littlec

4/7/2020 10:09:46 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD15.dgn

\$PENTBILLS



MATCHLINE STA. 2129+00.00

MATCHLINE STA. 2189+00.00

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| | | | | | | | | | | | |
|---------------|--|--------------------------------------|--|----------------------------|--|--------------------------------------|-----|--|----------------|---------------------|----------------------|
| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line LA Right-of-Way | | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | DRAINAGE MAP | SHEET NO. |
| | | Existing Pond | | FEMA Flood Map | | Proposed Right-of-Way | | ROAD NO. | COUNTY | | FINANCIAL PROJECT ID |
| | | Preferred Pond Site | | Flow Arrow | | Proposed LA Right-of-Way | 93A | HILLSBOROUGH | 419235-3-22-01 | | |
| | | Alternative Pond Site | | Floodplain impacts | | Cross Drain | | | | | |

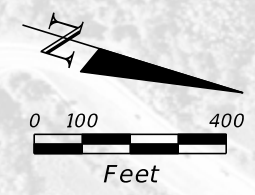
\$PLTDRVL\$

Littlec

4/7/2020 10:19:22 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD16.dgn

\$PNTBLL\$



BASIN G

PRIMROSE SCHOOL OF TAMPA PALMS

TECHNOLOGY DR

PRIMROSE LAKE CIR

EXISTING POND G2

EXISTING POND G3

END I-75 PD&E STUDY STA. 2237+04.29

MATCHLINE STA. 2188+00.00

I-75 SOUTHBOUND

I-75 NORTHBOUND

CRANE NEST DR

BERMUDA GREEN DR

CRANE NEST DR

HIGHWOODS PALM WAY

THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.

DATE: JANUARY 2020

| LEGEND | | Proposed SMF/FPC Management Facility | | National Wetland Inventory | | Property/ROW Line | | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | SHEET NO. DM17 | | |
|---------------|-----------------------|--------------------------------------|--------------------|----------------------------|--------------------------|-----------------------|-------------|--|----------|-----------------------|--------|----------------------|
| | | Existing Pond | | FEMA Flood Map | | Proposed Right-of-Way | | <table border="1"> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>93A</td> <td>HILLSBOROUGH</td> <td>419235-3-22-01</td> </tr> </table> | ROAD NO. | | COUNTY | FINANCIAL PROJECT ID |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | | | | | | | | | |
| 93A | HILLSBOROUGH | 419235-3-22-01 | | | | | | | | | | |
| | Preferred Pond Site | | Flow Arrow | | Proposed LA Right-of-Way | | Cross Drain | <i>DRAINAGE MAP</i> | | | | |
| | Alternative Pond Site | | Floodplain impacts | | | | | | | | | |

\$PLTDRVL\$

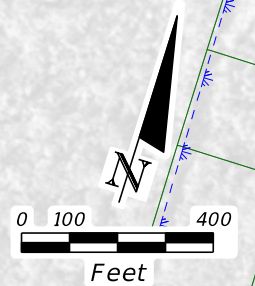
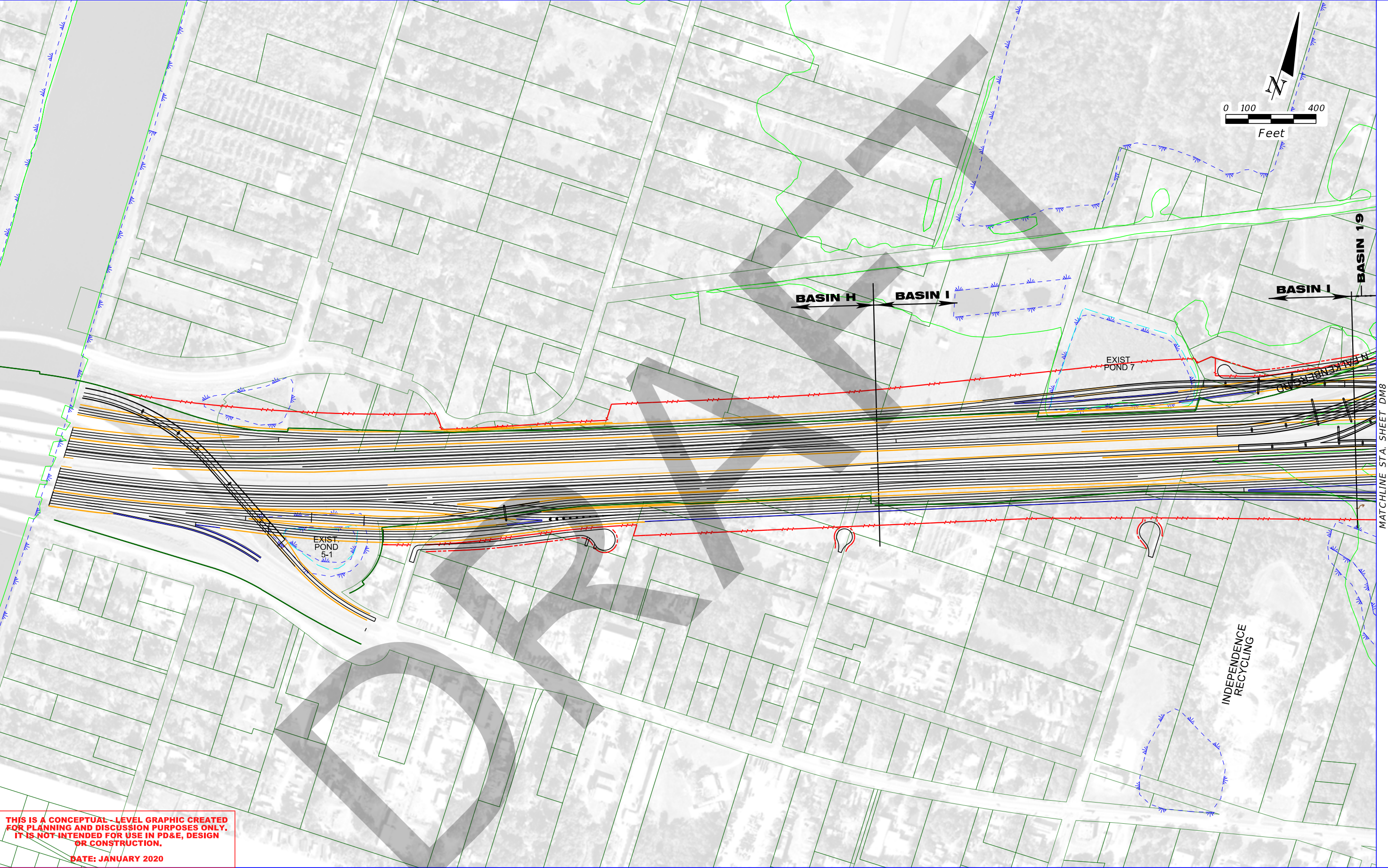
Littlec

4/7/2020 10:28:27 AM Default

T:\Sys\Projects\41923532201_PDE_I-75\drainage\DRMPRD17.dgn

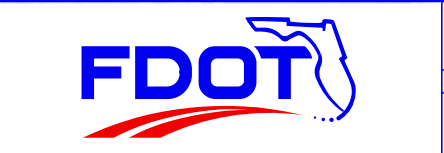
C:\Program Files (x86)\Bentley\PowerGEO\PAK_5510\PowerGEO\PAK\FDOT.tbi

C:\FDOT\5510\RESOURCES\plot\Color_FDOT.PDF.pltcfgr
fowlerry



THIS IS A CONCEPTUAL - LEVEL GRAPHIC CREATED FOR PLANNING AND DISCUSSION PURPOSES ONLY. IT IS NOT INTENDED FOR USE IN PD&E, DESIGN OR CONSTRUCTION.
DATE: JANUARY 2020

| LEGEND | |
|--------|--------------------------------------|
| | Proposed SMF/FPC Management Facility |
| | Existing Pond |
| | Preferred Pond Site |
| | Alternative Pond Site |
| | National Wetland Inventory |
| | FEMA Flood Map |
| | Flow Arrow |
| | Floodplain impacts |
| | Property/ROW Line |
| | LA Right-of-Way |
| | Proposed Right-of-Way |
| | Proposed LA Right-of-Way |
| | Cross Drain |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

DRAINAGE MAP

SHEET NO.
DM18

MATCHLINE STA. SHEET DM8

DRAFT

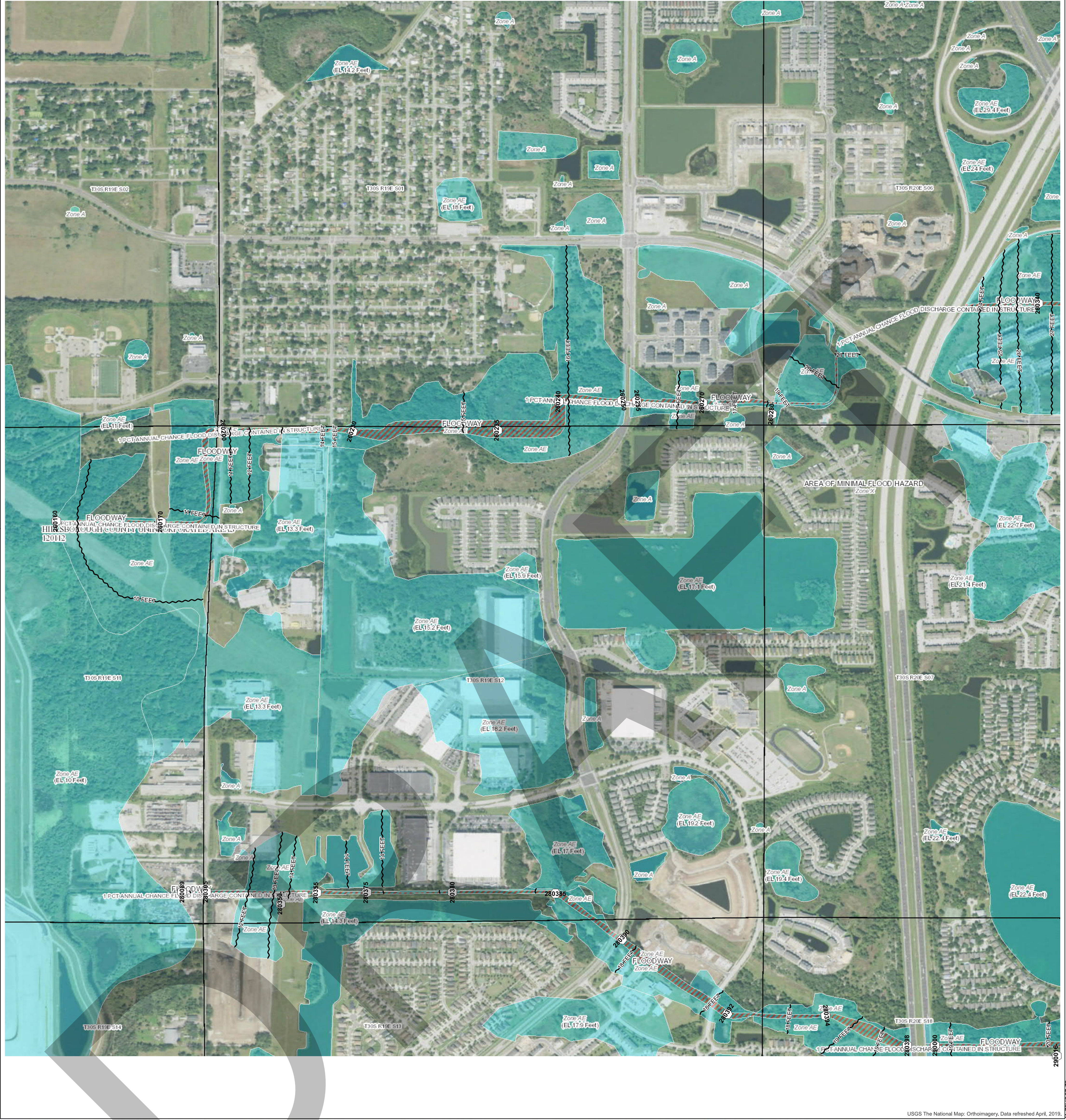
**Appendix D
FEMA Firmette Maps**

Key Sheet

Map Numbers
within Project Limits



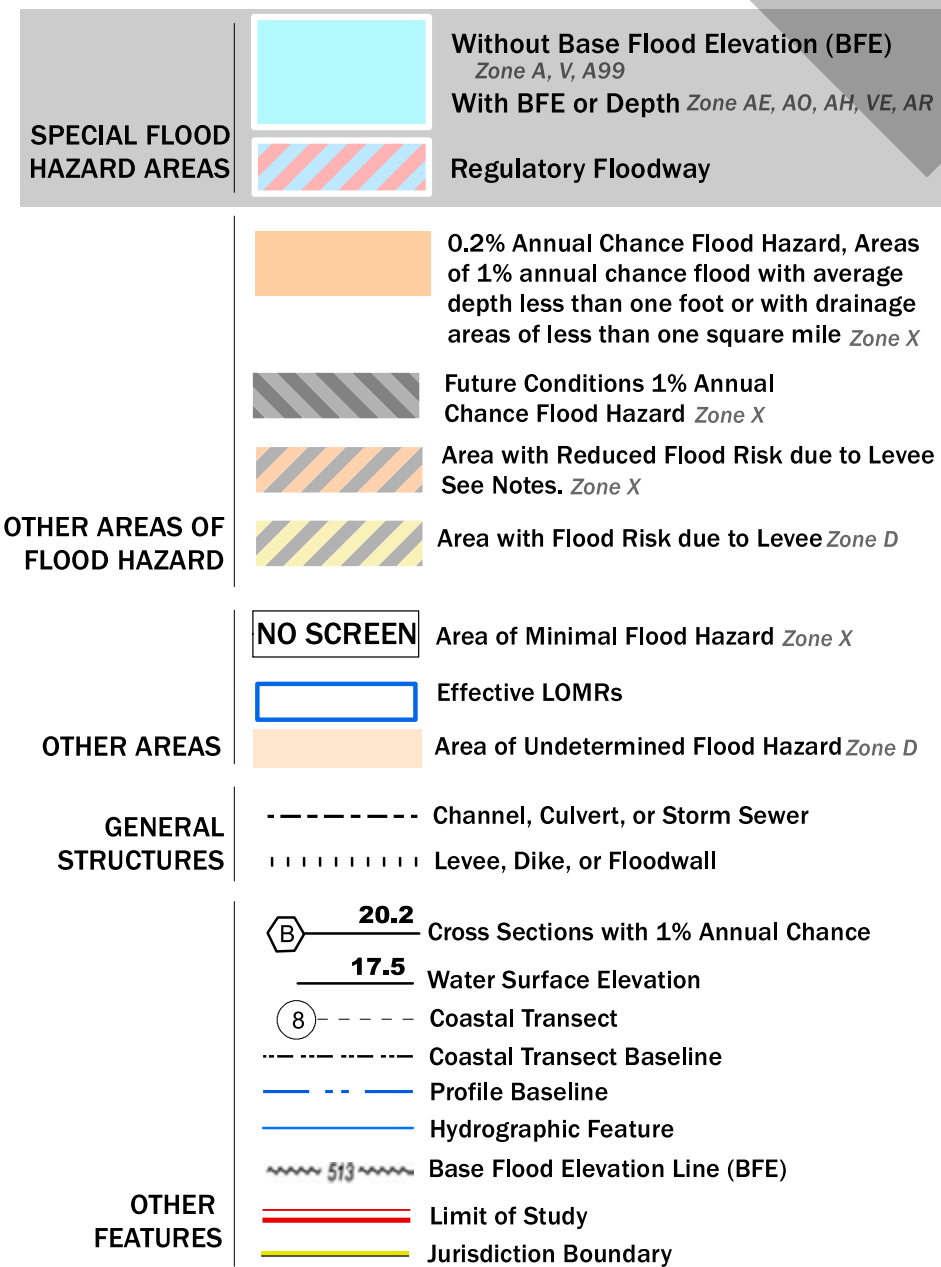
Map Number 12057C0388H



USGS The National Map: Orthimagery, Data refreshed April, 2019. 27°52'23.36"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620. This information was derived from NAIP, dated April 11, 2018.

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

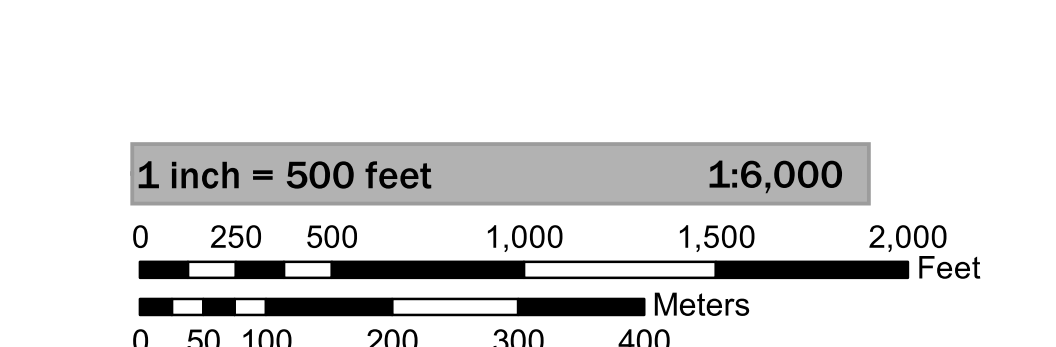
This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/23/2020 1:08:37 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection: GCS, Geodetic Reference System 1983; Vertical Datum: NAVD83
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study (FIS) Report for your community at <https://msc.fema.gov>



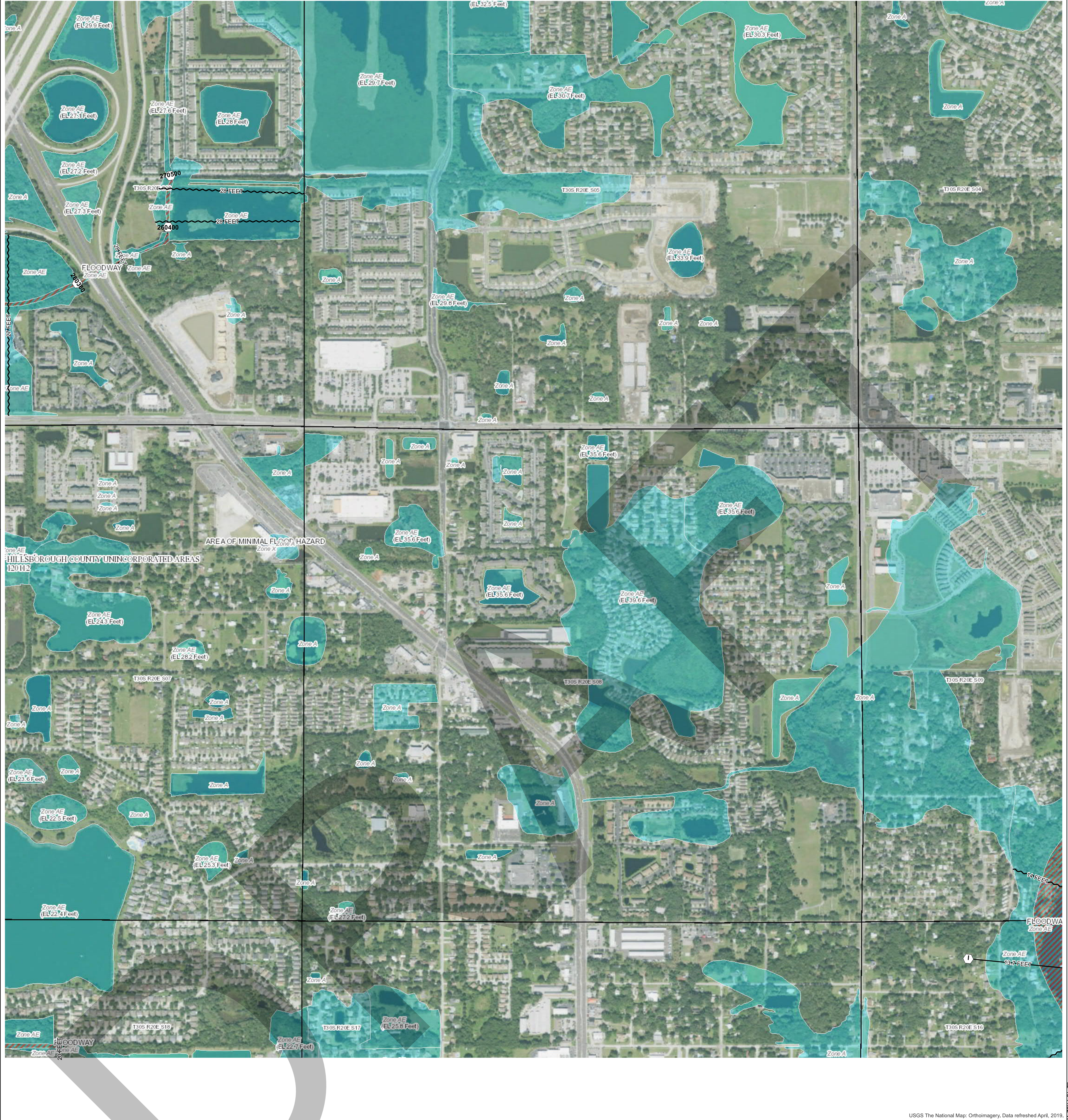
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 388 OF 759

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS FLORIDA | 120112 | 0388 |

MAP NUMBER
12057C0388H
EFFECTIVE DATE
08/28/2008

Map Number 12057C0389H



USGS The National Map: Orthoimagery, Data refreshed April, 2019. 27°52'23.36"N

FLOOD HAZARD INFORMATION

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

| | |
|--|---|
| | Without Base Flood Elevation (BFE) Zone A, V, A99 |
| | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | Regulatory Floodway |
| | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | Area with Reduced Flood Risk due to Levee See Notes, Zone X |
| | Area with Flood Risk due to Levee Zone D |
| | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | Effective LOMRs |
| | Area of Undetermined Flood Hazard Zone D |
| | Channel, Culvert, or Storm Sewer |
| | Levee, Dike, or Floodwall |
| | 20.2 Cross Sections with 1% Annual Chance |
| | 17.5 Water Surface Elevation |
| | 8 Coastal Transect |
| | Coastal Transect Baseline |
| | Profile Baseline |
| | Hydrographic Feature |
| | Base Flood Elevation Line (BFE) |
| | Limit of Study |
| | Jurisdiction Boundary |

NOTES TO USERS

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

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

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

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

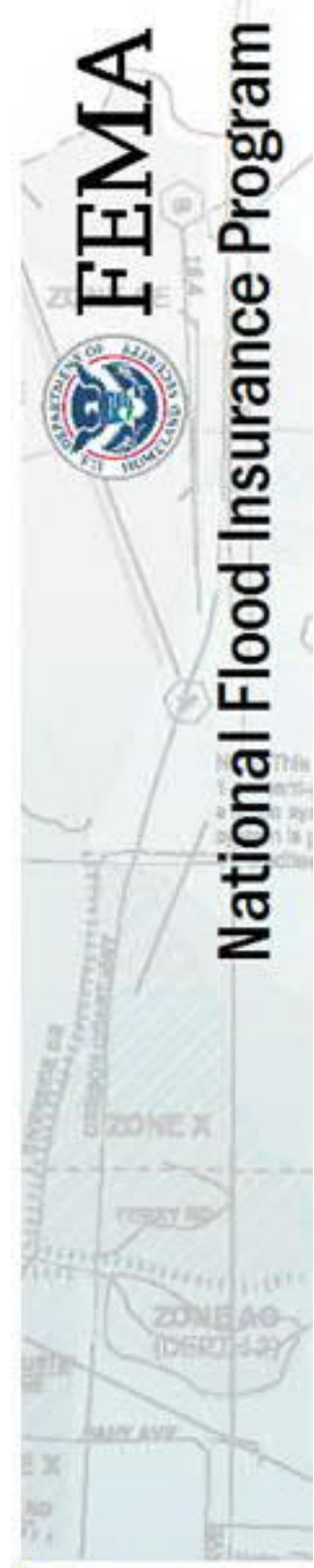
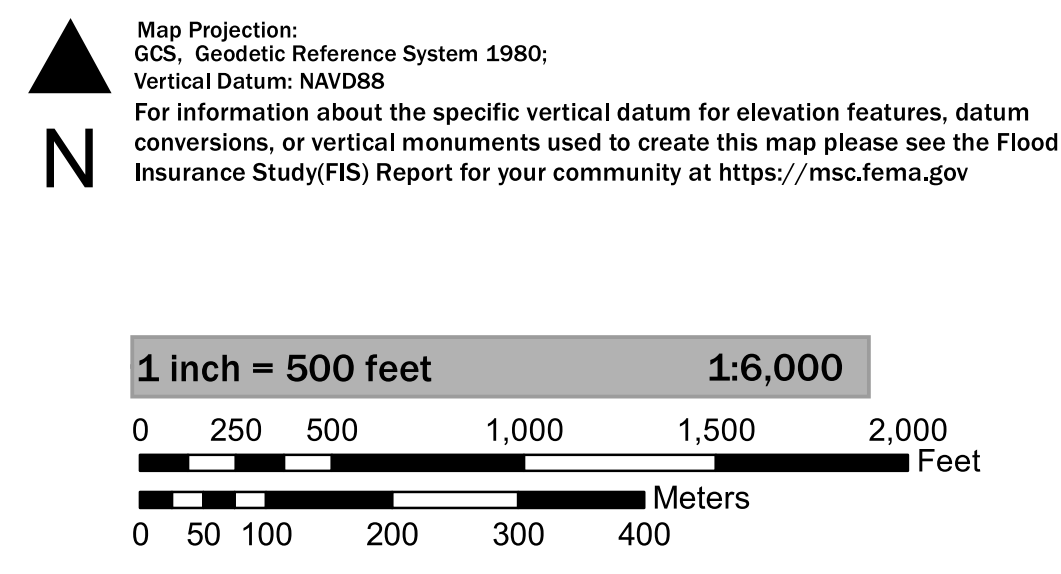
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 2:04:39 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

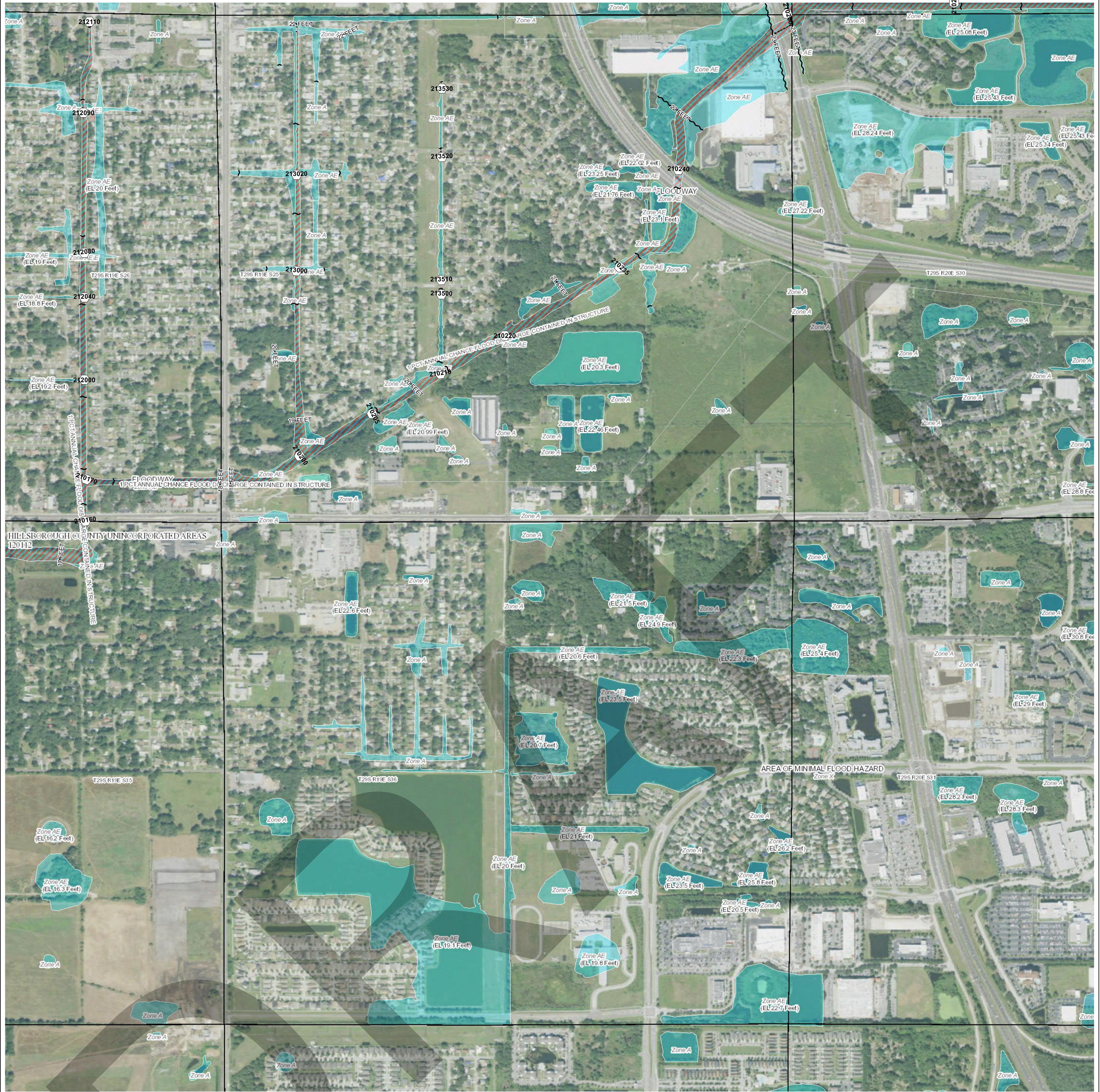
HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 389 of 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS FLORIDA | 120112 | 0389 |

MAP NUMBER
12057C0389H
EFFECTIVE DATE
08/28/2008

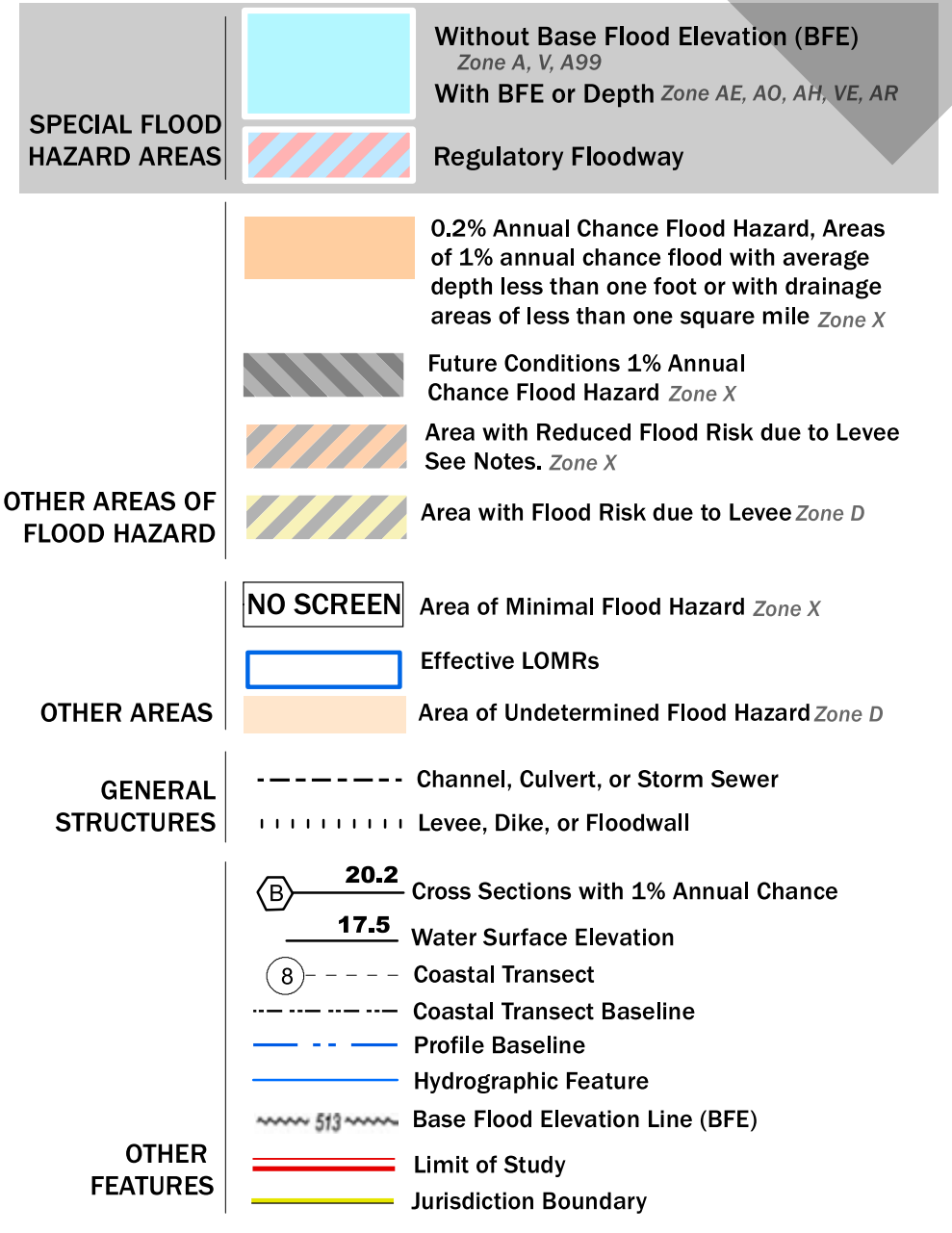
Map Number 12057C0386J



USGS The National Map: Orthoimagery, Data refreshed April, 2019. 27°54'15.86"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

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

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

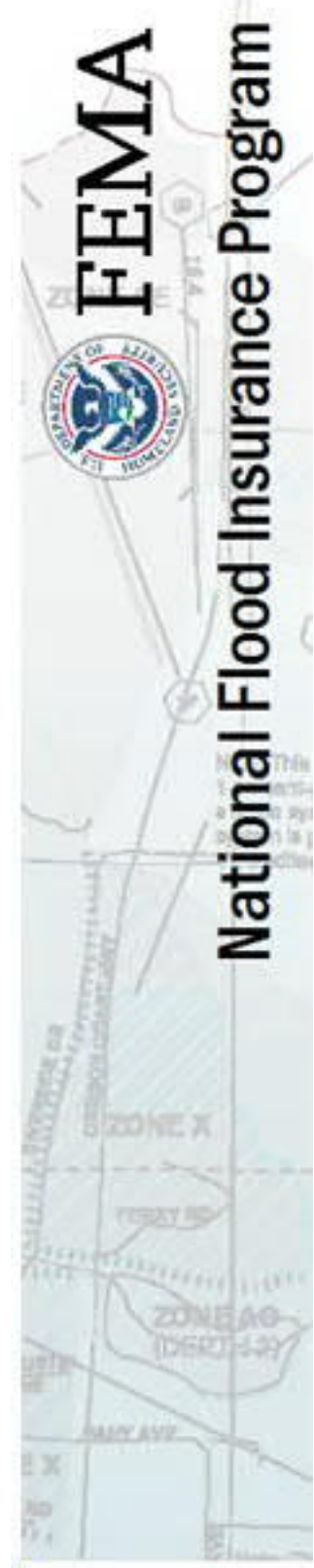
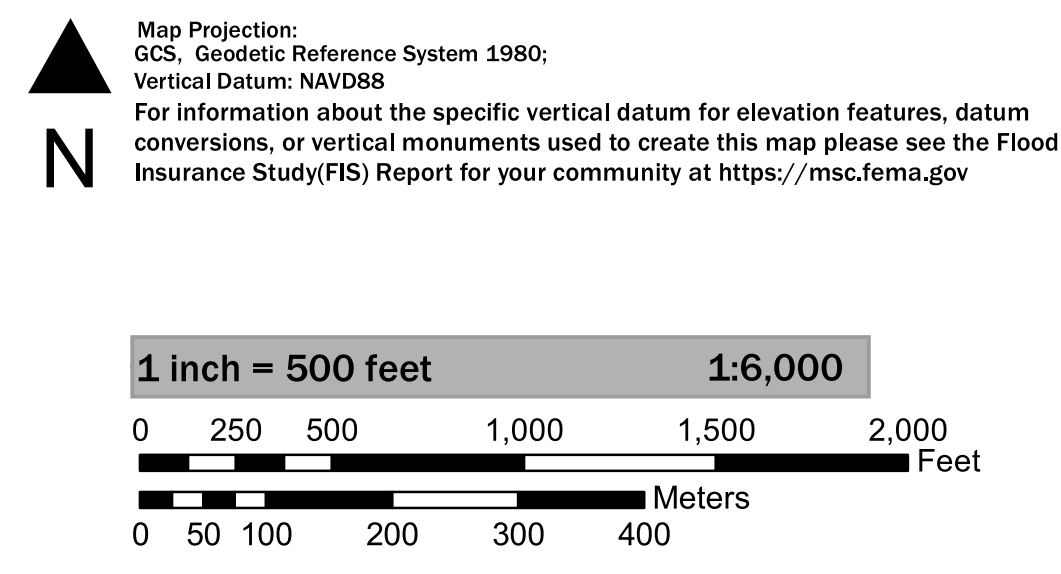
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 1:48:15 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 386 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|---|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS, FLORIDA | 120112 | 0386 |

MAP NUMBER
12057C0386J
EFFECTIVE DATE
09/27/2013

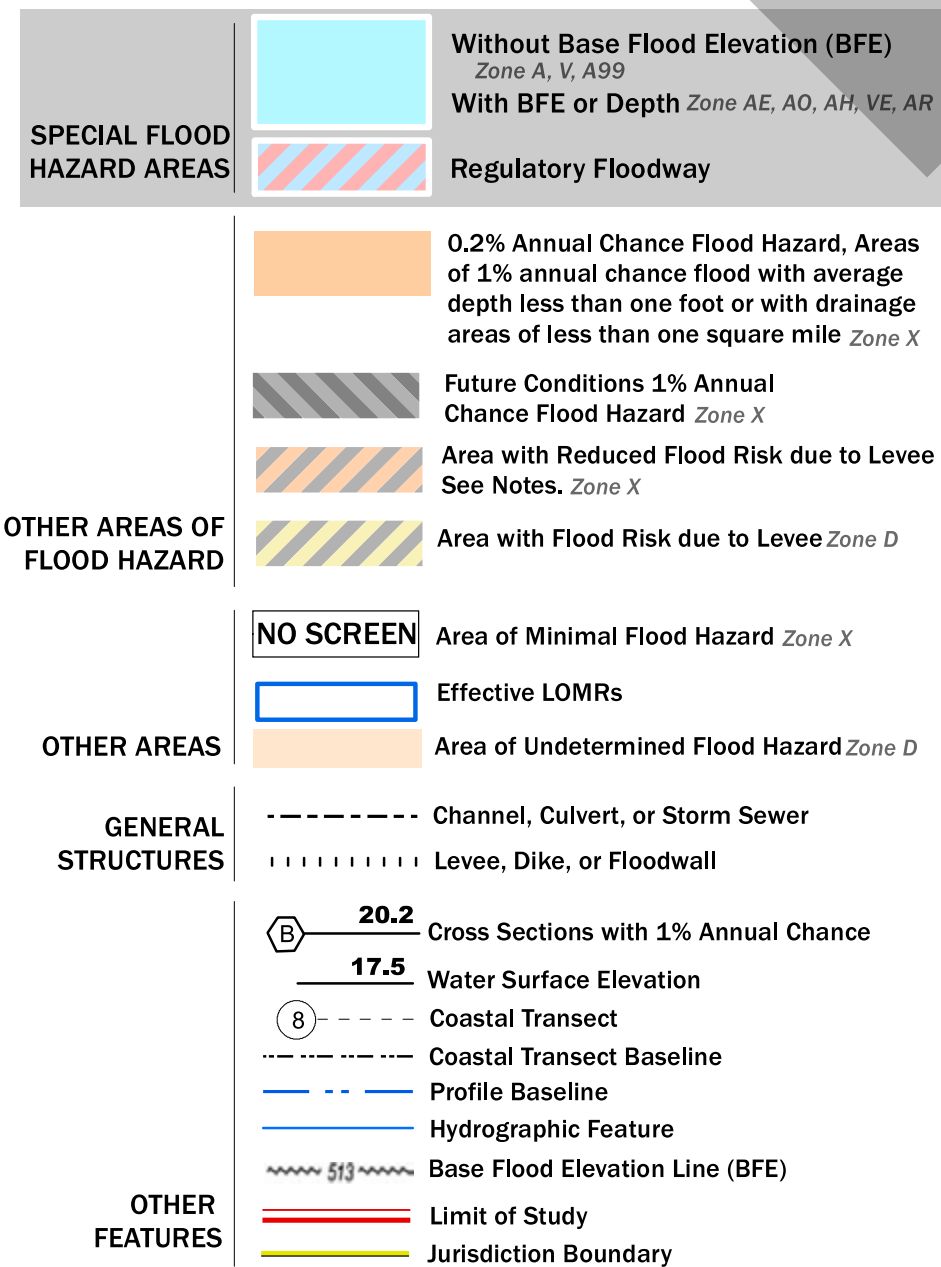
Map Number 12057C0387J



USGS The National Map: Orthimagery, Data refreshed April, 2019. 27°54'15.86"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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

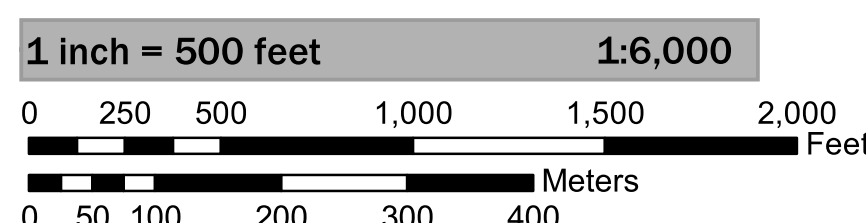
This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 1:22:17 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection: GCS, Geodetic Reference System 1983;
Vertical Datum: NAVD83
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study(FIS) Report for your community at <https://msc.fema.gov>



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 387 OF 759

Panel Contains:
COMMUNITY NUMBER PANEL
HILLSBOROUGH 120112 0387
COUNTY
UNINCORPORATED
AREAS
FLORIDA

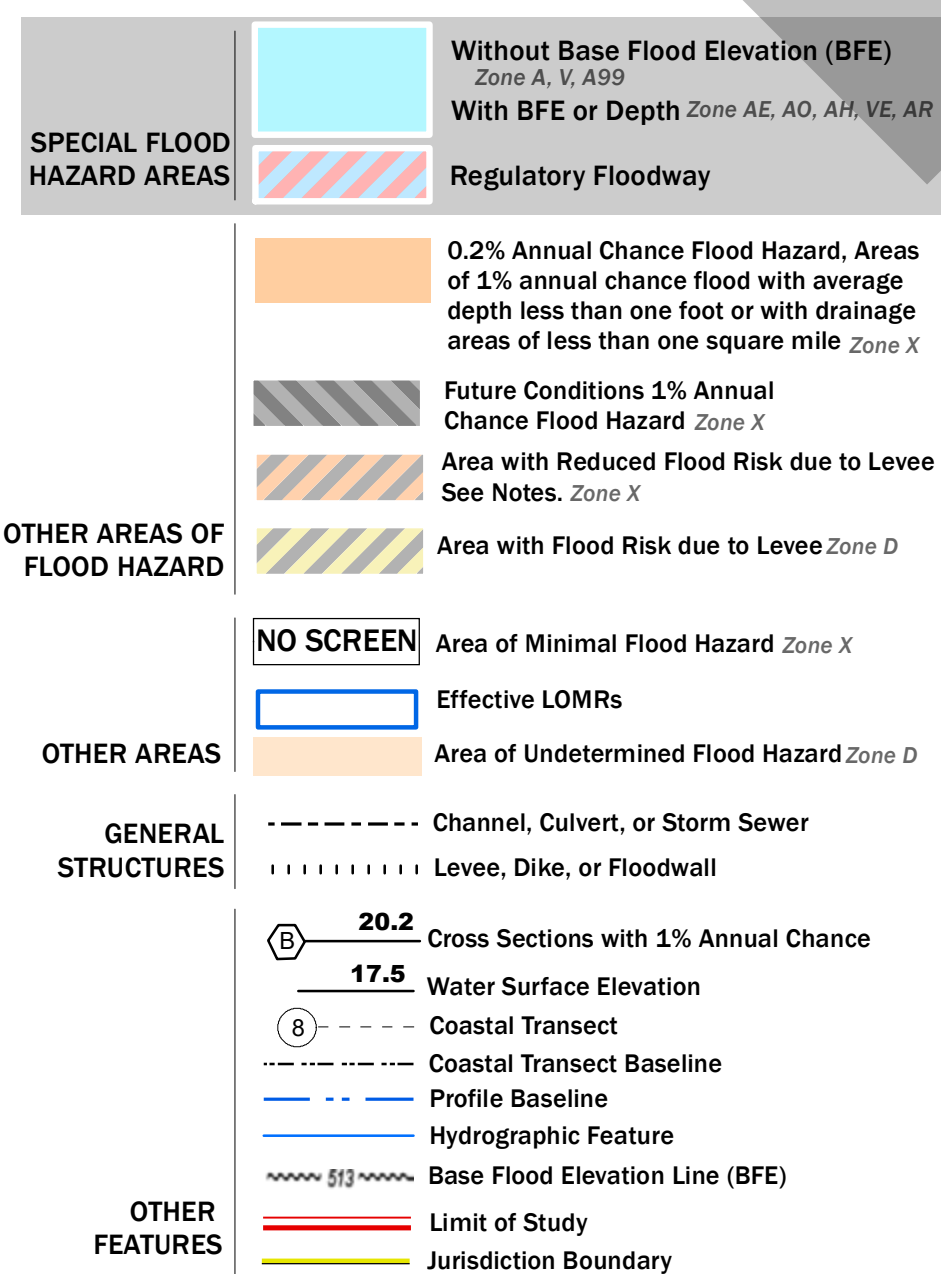
MAP NUMBER
12057C0387J
EFFECTIVE DATE
09/27/2013

Map Number 12057C0380J



FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

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

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

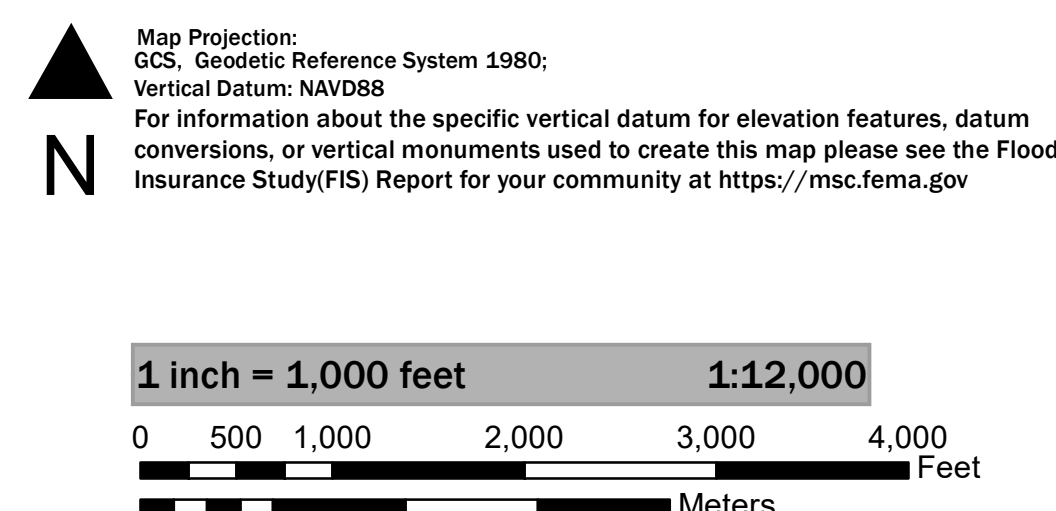
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 1/23/2020 1:18:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

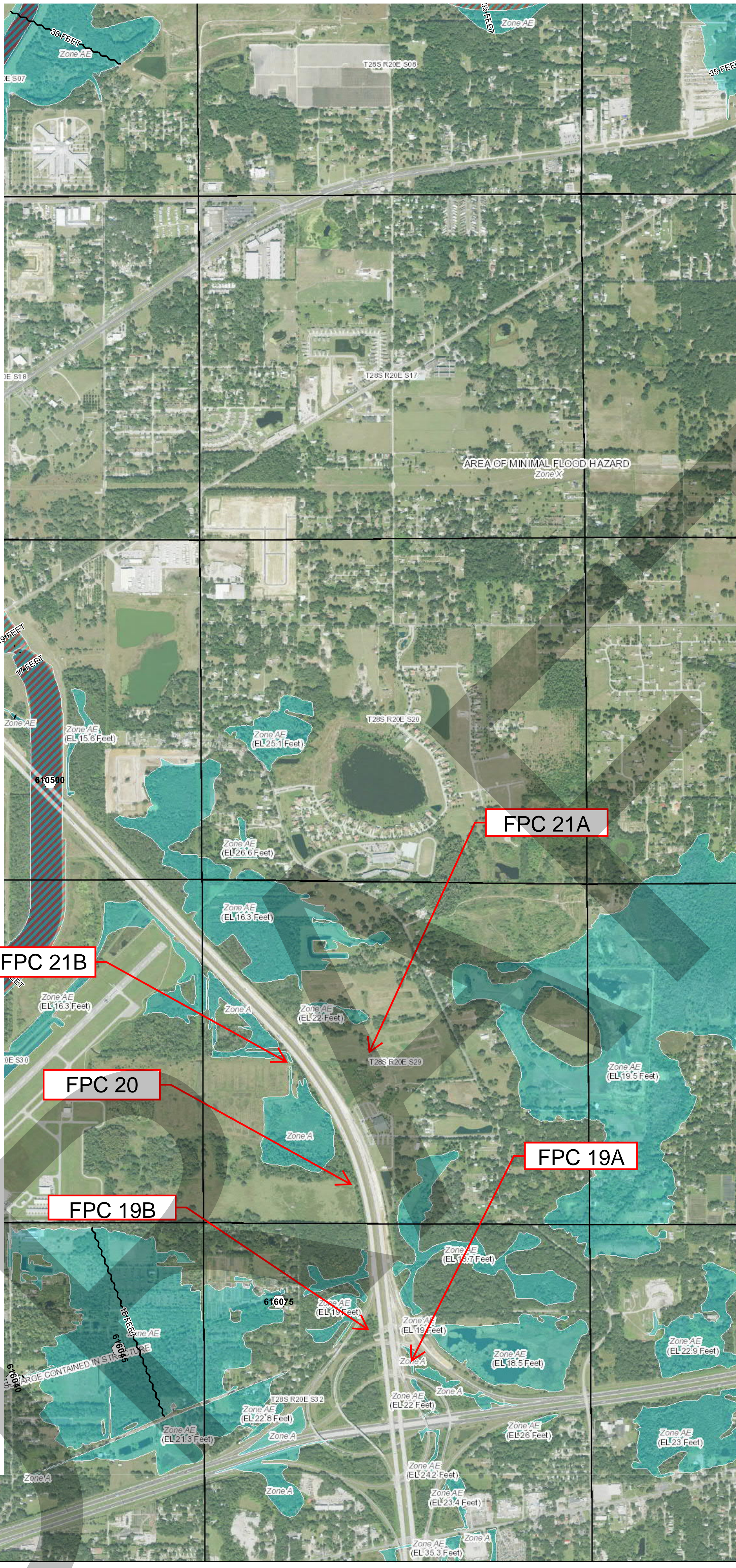
HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS

PANEL 380 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS FLORIDA | 120112 | 0380 |

Map Number
12057C0240H



FLOOD HAZARD INFORMATION

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

| | |
|--|---|
| | Without Base Flood Elevation (BFE) Zone A, V, A99 |
| | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | Regulatory Floodway |
| | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | Area with Reduced Flood Risk due to Levee See Notes, Zone X |
| | Area with Flood Risk due to Levee Zone D |
| | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | Effective LOMRs |
| | Area of Undetermined Flood Hazard Zone D |
| | Channel, Culvert, or Storm Sewer |
| | Levee, Dike, or Floodwall |
| | 20.2 Cross Sections with 1% Annual Chance |
| | 17.5 Water Surface Elevation |
| | 8 Coastal Transect |
| | Coastal Transect Baseline |
| | Profile Baseline |
| | Hydrographic Feature |
| | Base Flood Elevation Line (BFE) |
| | Limit of Study |
| | Jurisdiction Boundary |

NOTES TO USERS

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

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

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620. This information was derived from NAIP, dated April 11, 2018.

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

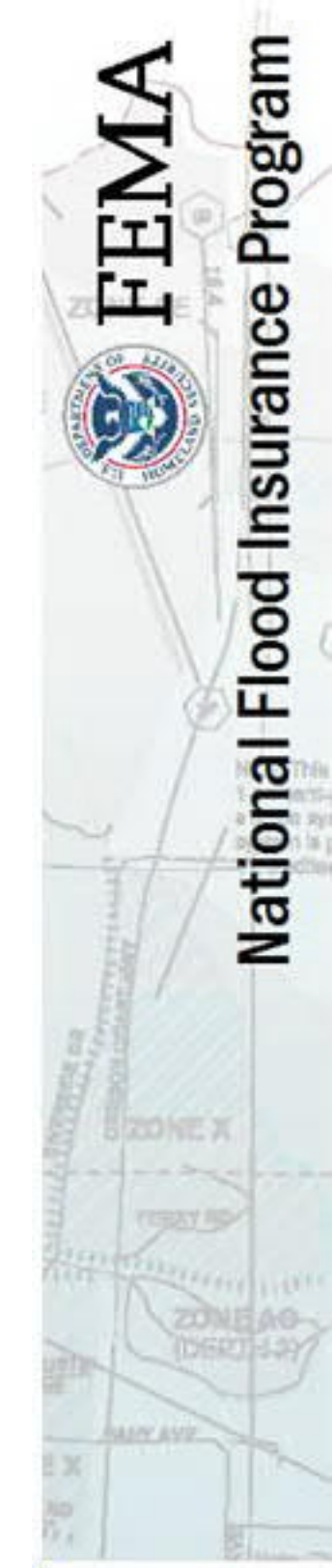
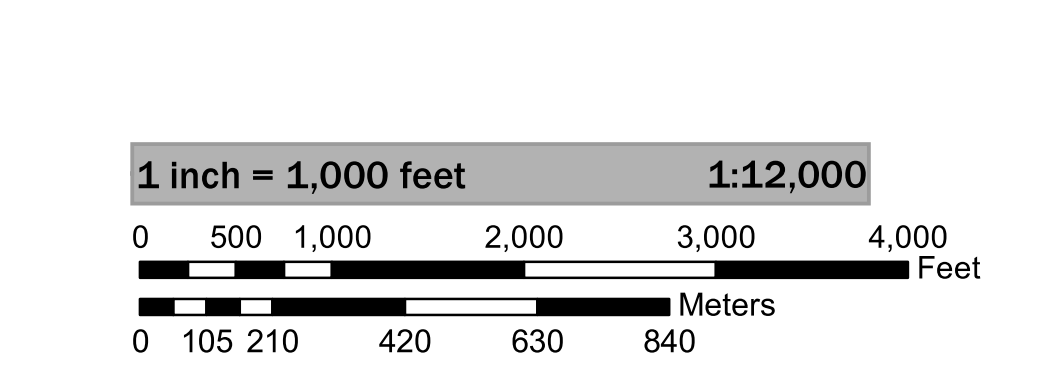
This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 1:26:24 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD83
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study(FIS) Report for your community at <https://msc.fema.gov>



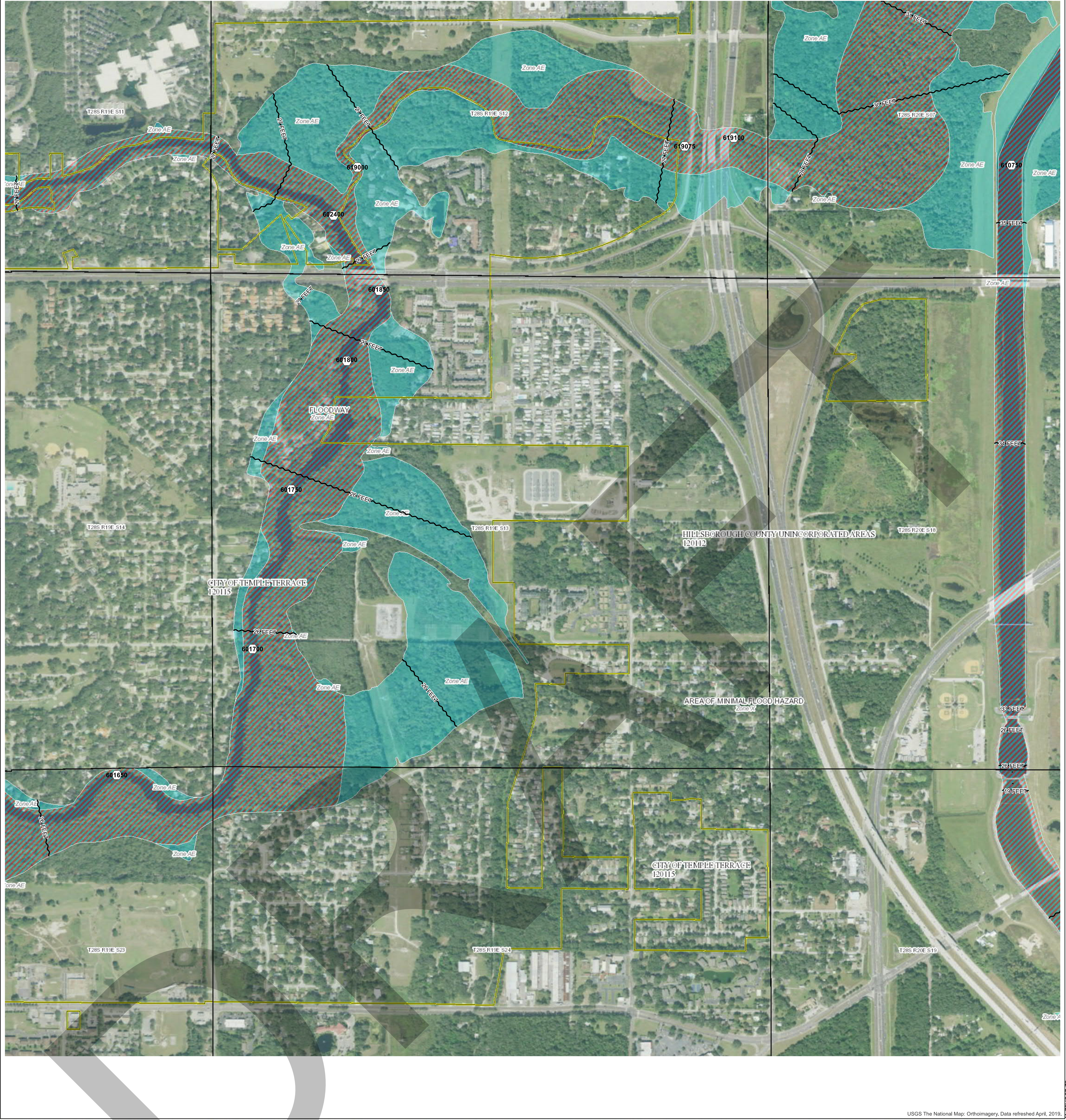
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 240 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS FLORIDA | 120112 | 0240 |

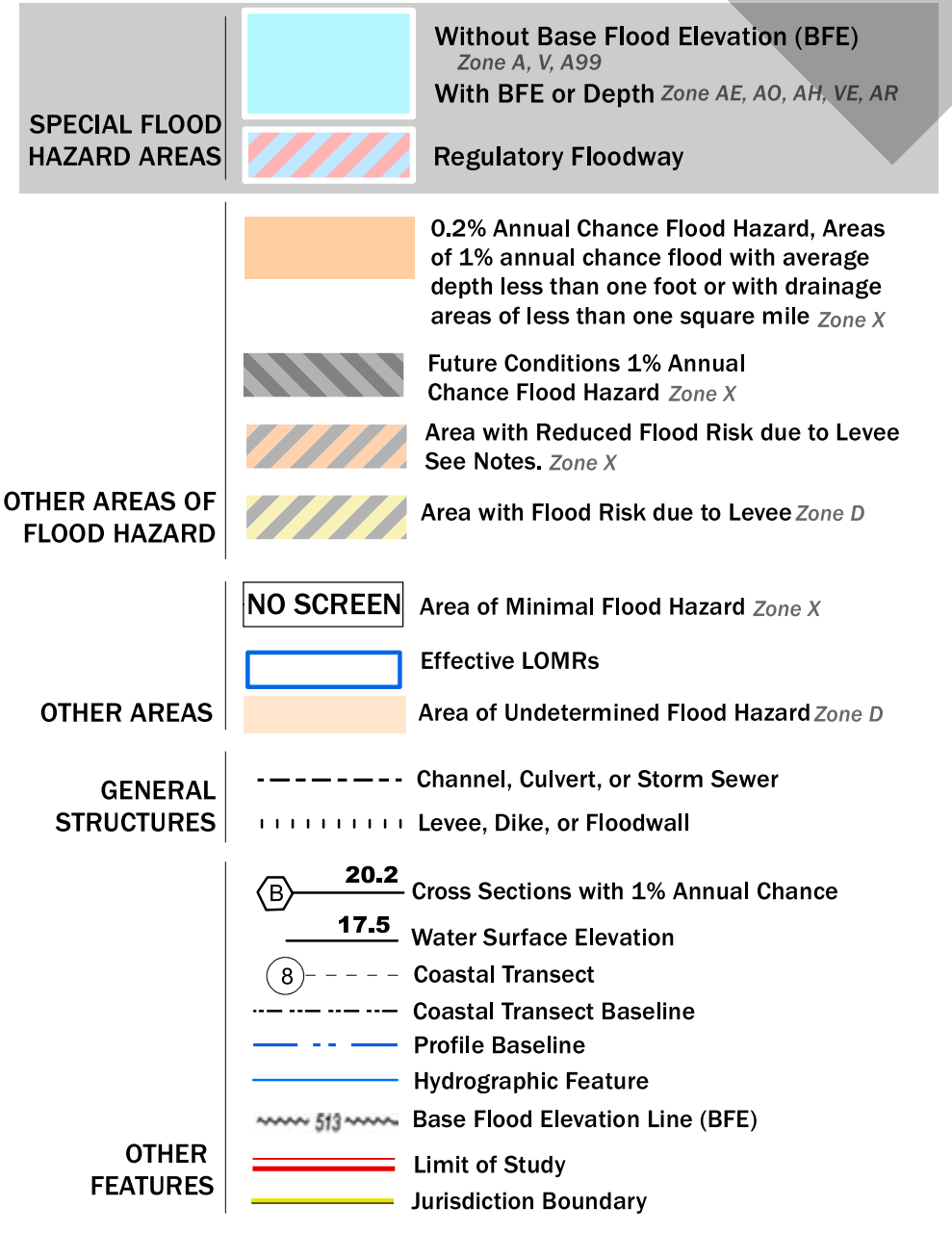
28°35'1.68"N
Map Number
12057C0236H



USGS The National Map: Orthoimagery, Data refreshed April, 2019.
 28°14'5.88"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

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

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

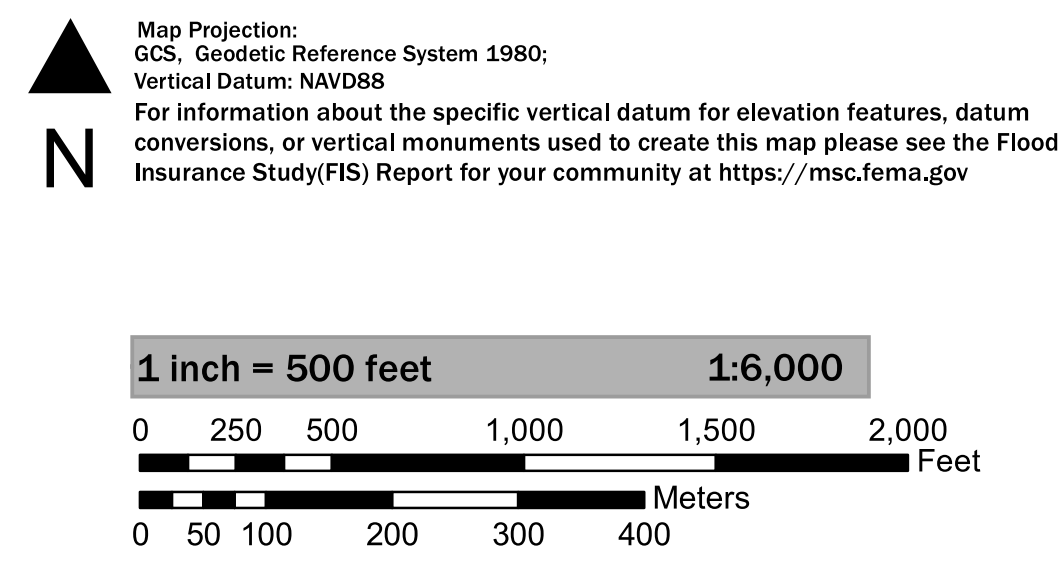
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 1:34:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
 PANEL 236 OF 759

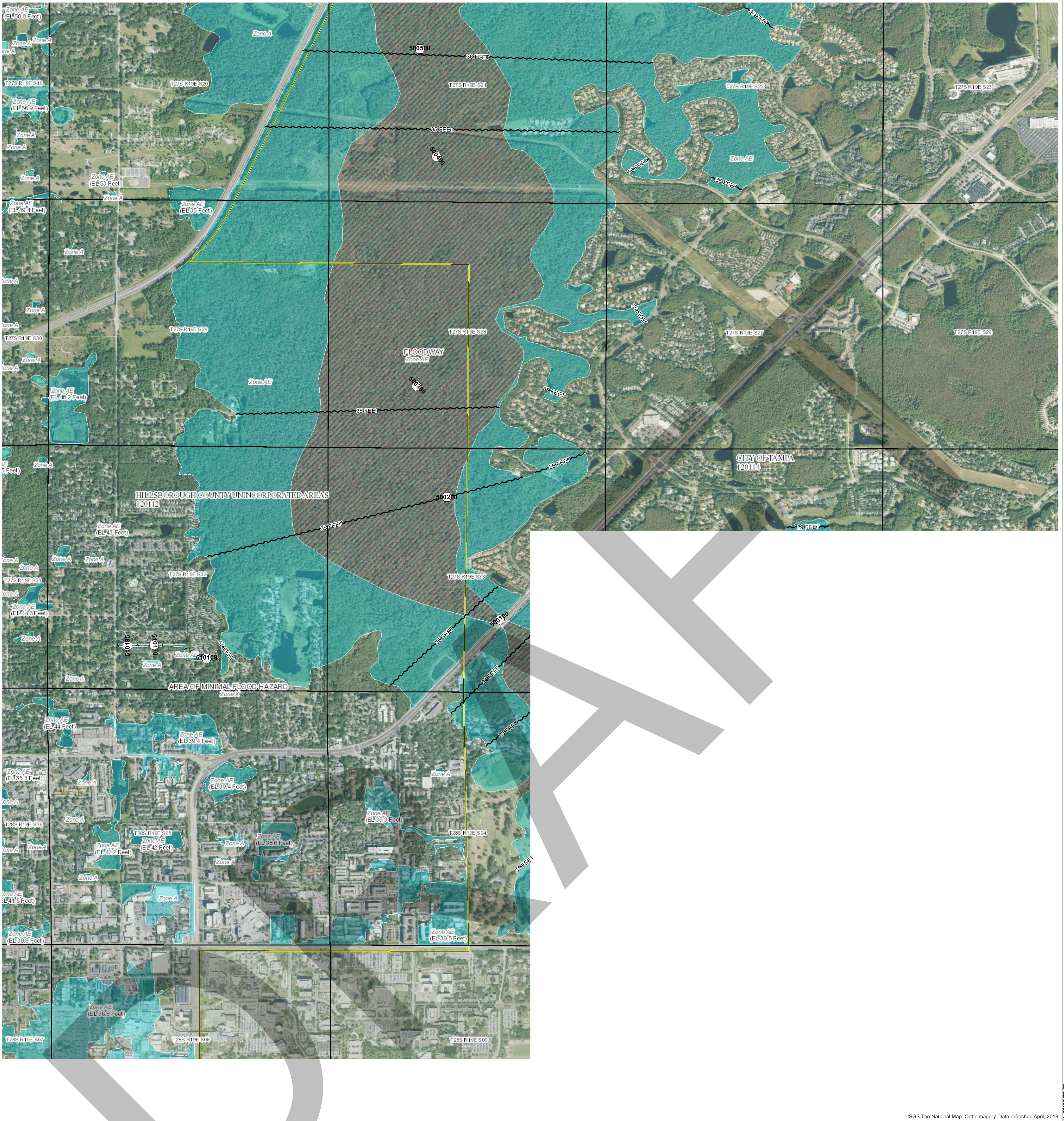
Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| CITY OF TEMPLE TERRACE FLORIDA | 120115 | 0236 |
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS FLORIDA | 120112 | 0236 |

FEMA
 National Flood Insurance Program

MAP NUMBER
12057C0236H
EFFECTIVE DATE
08/28/2008

Map Number 12057C0210H



USGS The National Map: Orthoimagery, Data refreshed April, 2019. 28°3'31.70"N

FLOOD HAZARD INFORMATION

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

| | |
|--|---|
| | Without Base Flood Elevation (BFE) Zone A, V, A99 |
| | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | Regulatory Floodway |
| | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | Area with Reduced Flood Risk due to Levee See Notes, Zone X |
| | Area with Flood Risk due to Levee Zone D |
| | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | Effective LOMRs |
| | Area of Undetermined Flood Hazard Zone D |
| | Channel, Culvert, or Storm Sewer |
| | Levee, Dike, or Floodwall |
| | 20.2 Cross Sections with 1% Annual Chance |
| | 17.5 Water Surface Elevation |
| | 8 Coastal Transect |
| | Coastal Transect Baseline |
| | Profile Baseline |
| | Hydrographic Feature |
| | Base Flood Elevation Line (BFE) |
| | Limit of Study |
| | Jurisdiction Boundary |

NOTES TO USERS

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

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

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

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

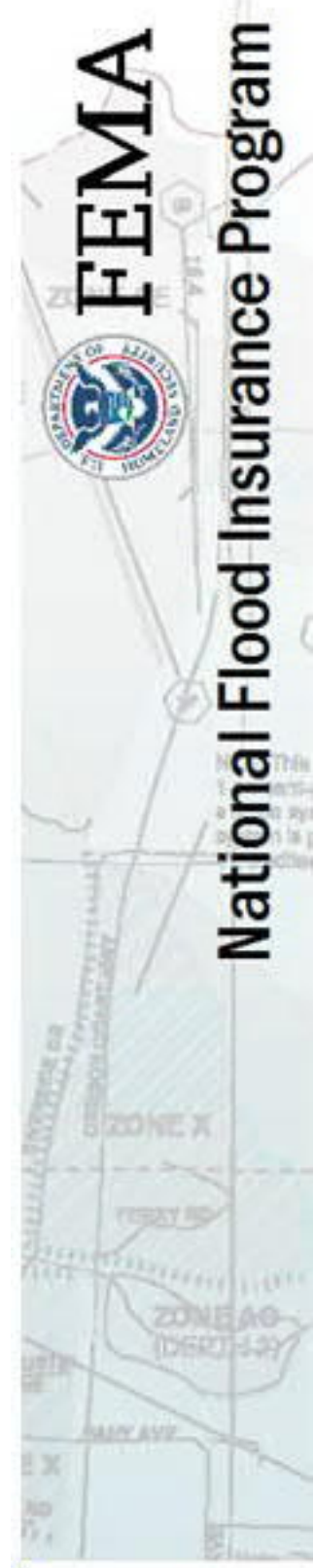
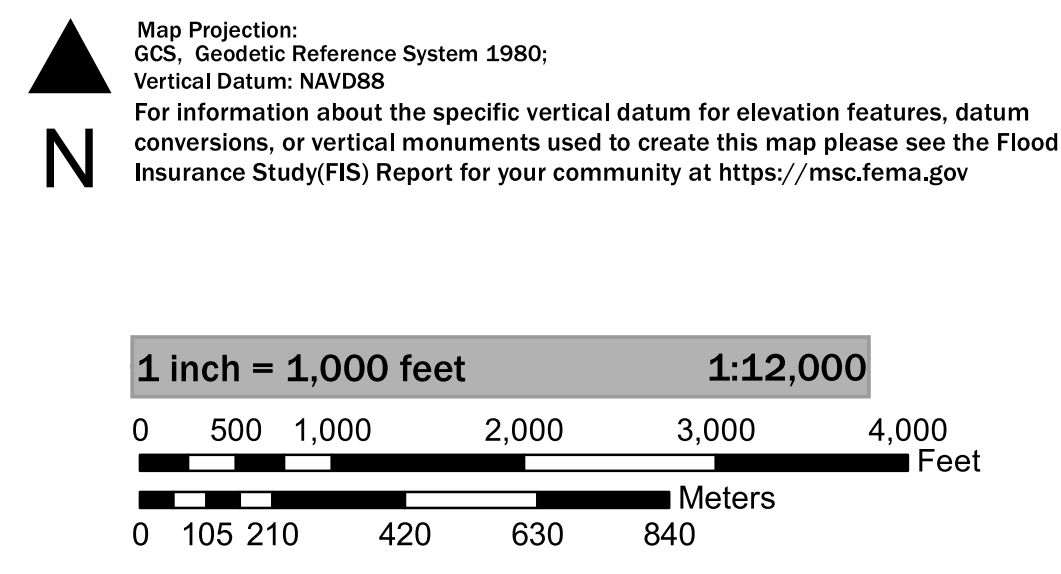
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 2:42:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

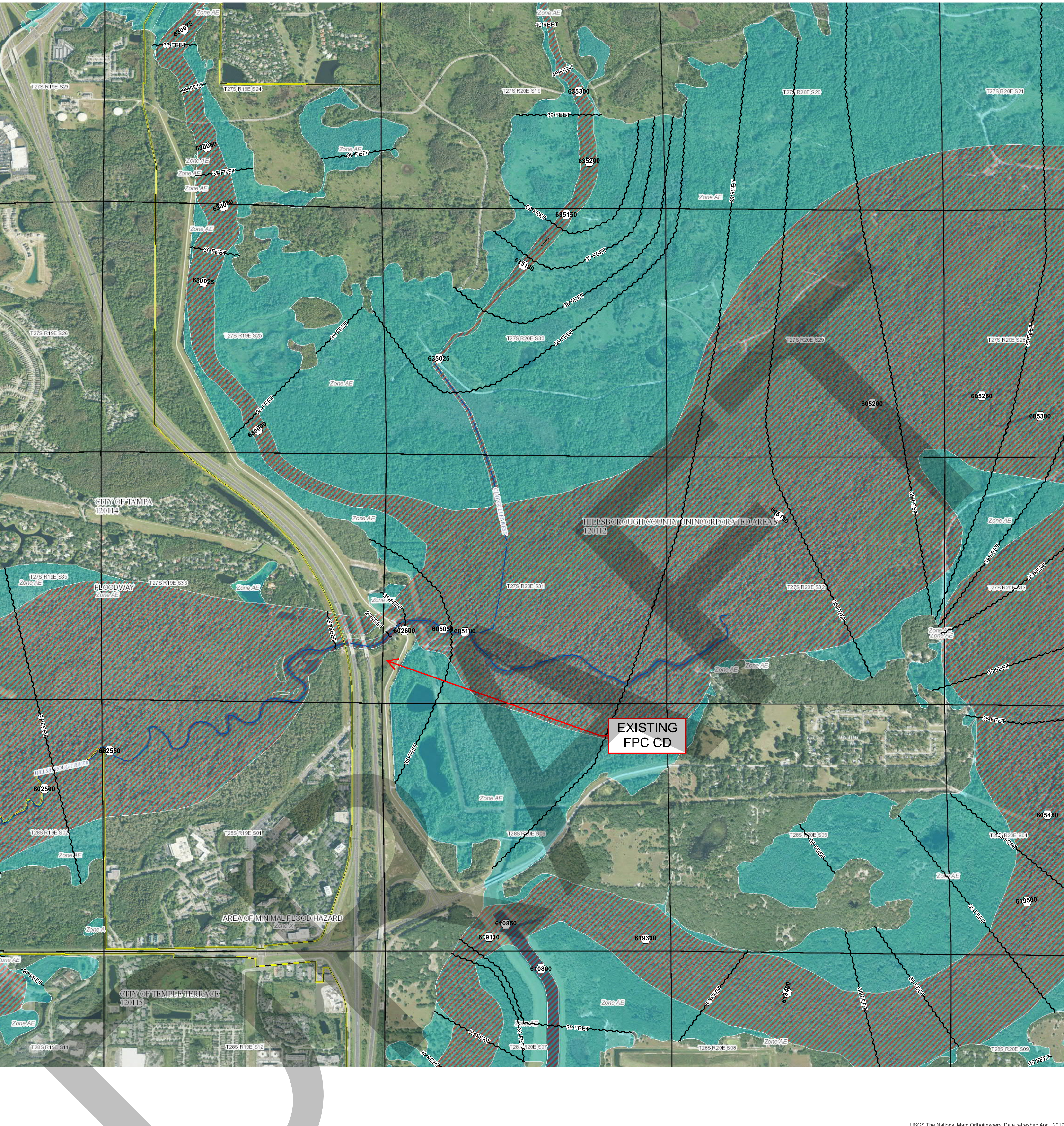
HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 210 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|---|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS, FLORIDA | 120112 | 0210 |
| CITY OF TAMPA, FLORIDA | 120114 | 0210 |

MAP NUMBER
12057C0210H
EFFECTIVE DATE
08/28/2008

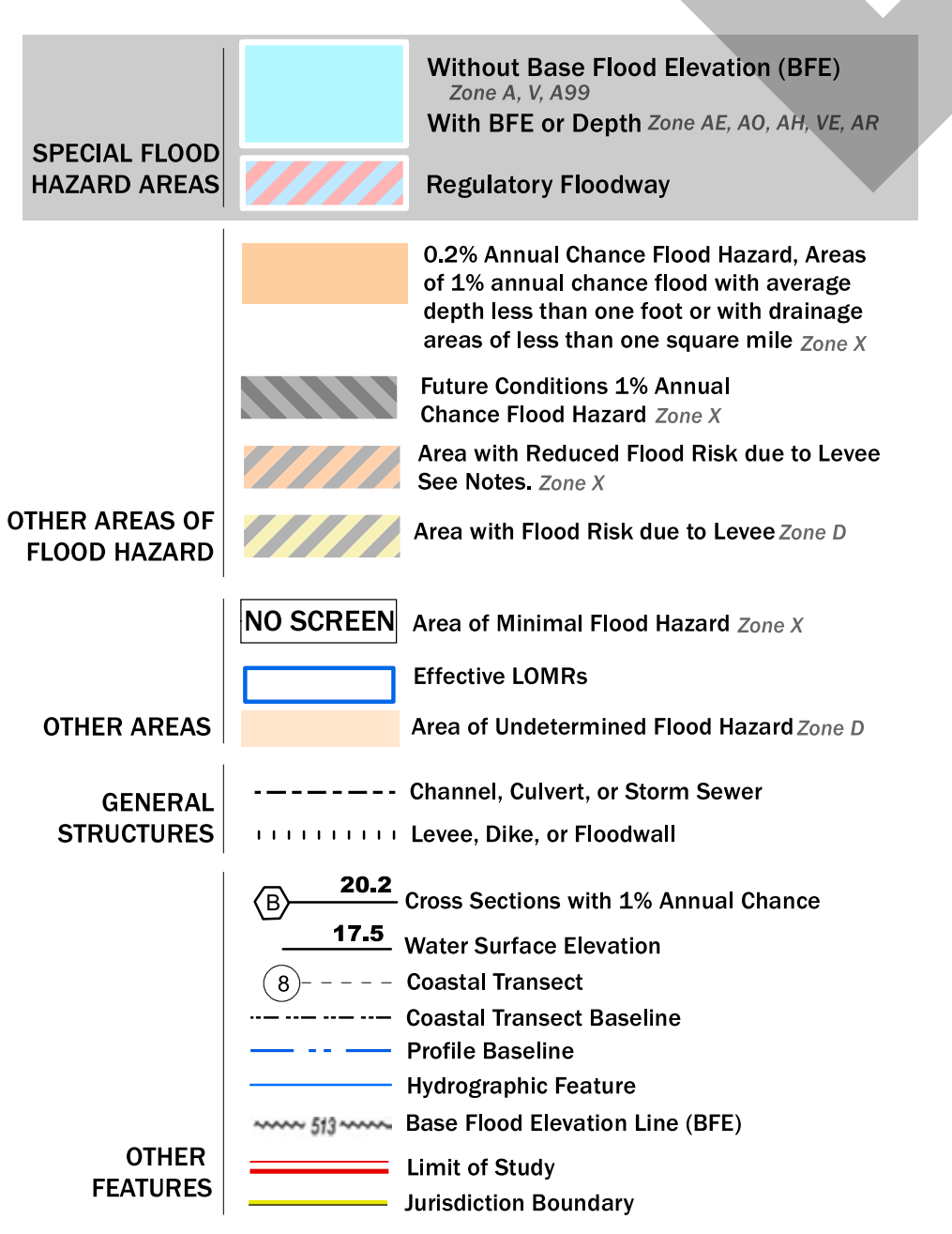
Map Number 12057C0230H



USGS The National Map: Orthimagery, Data refreshed April, 2019.
28°3'31.70"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

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

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

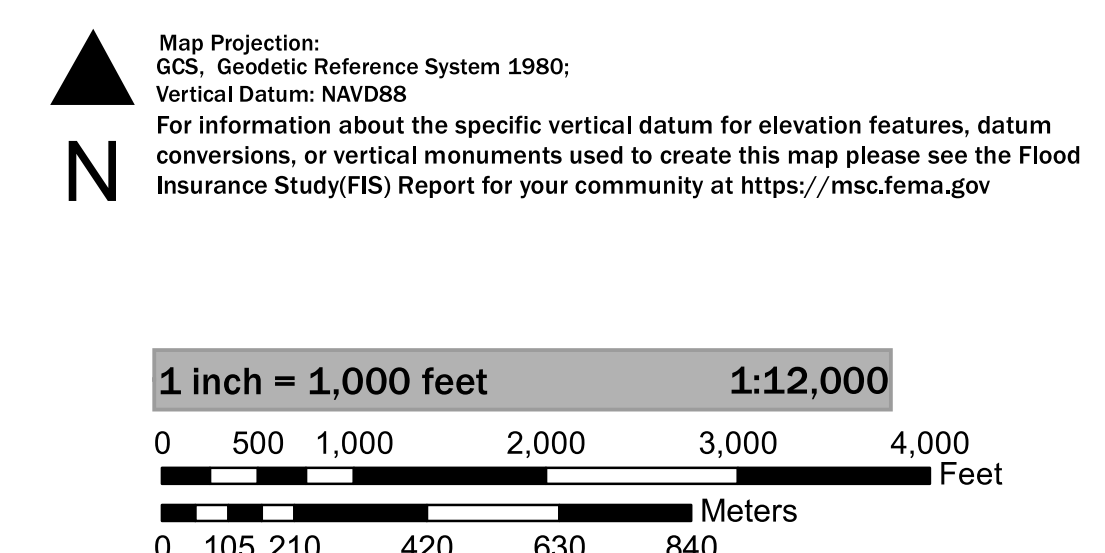
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 1:37:25 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

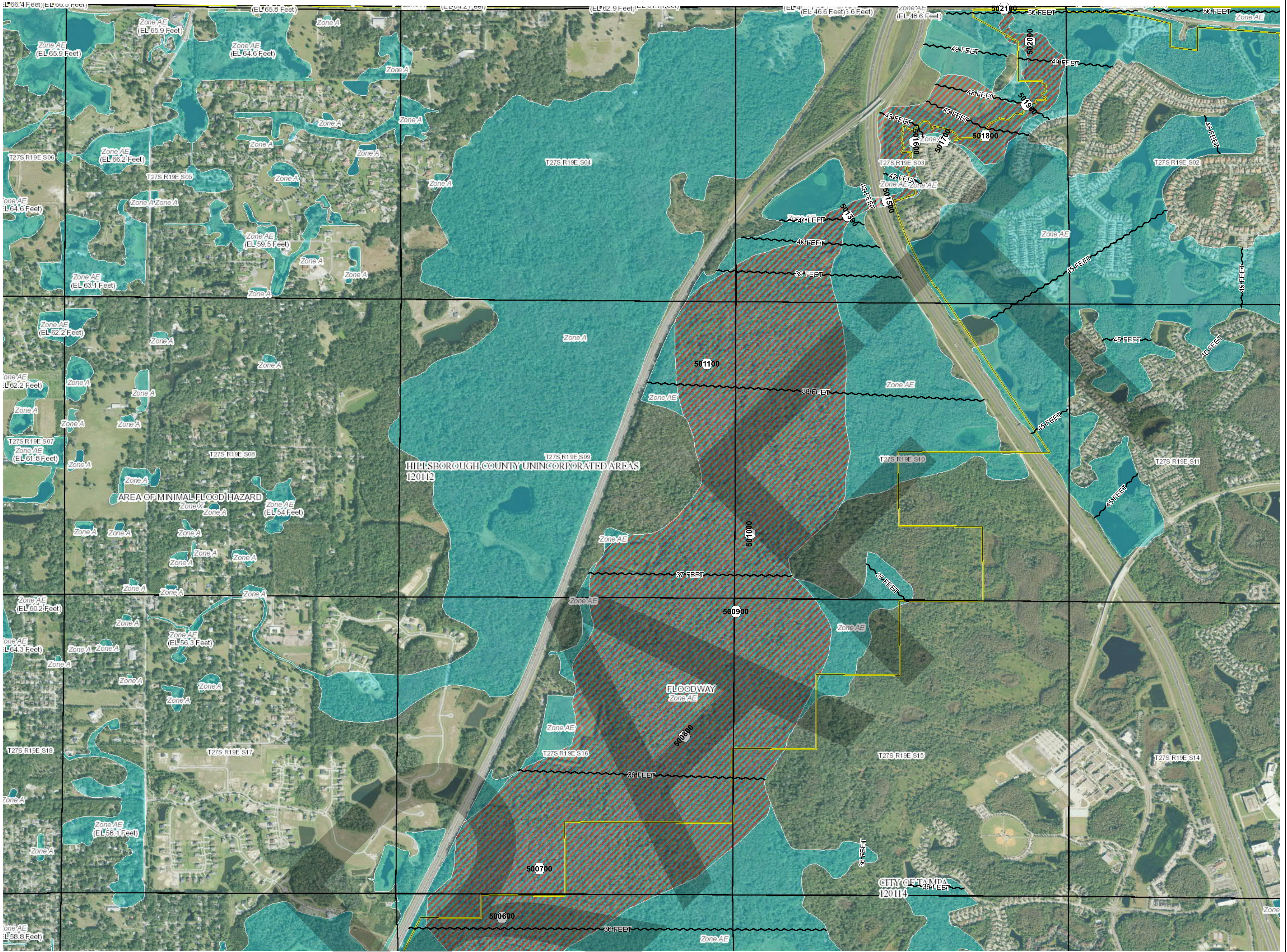
HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 230 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|---|--------|-------|
| CITY OF TAMPA | 120114 | 0230 |
| CITY OF TEMPLE TERRACE | 120115 | 0230 |
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS, FLORIDA | 120112 | 0230 |

MAP NUMBER
12057C0230H
EFFECTIVE DATE
08/28/2008

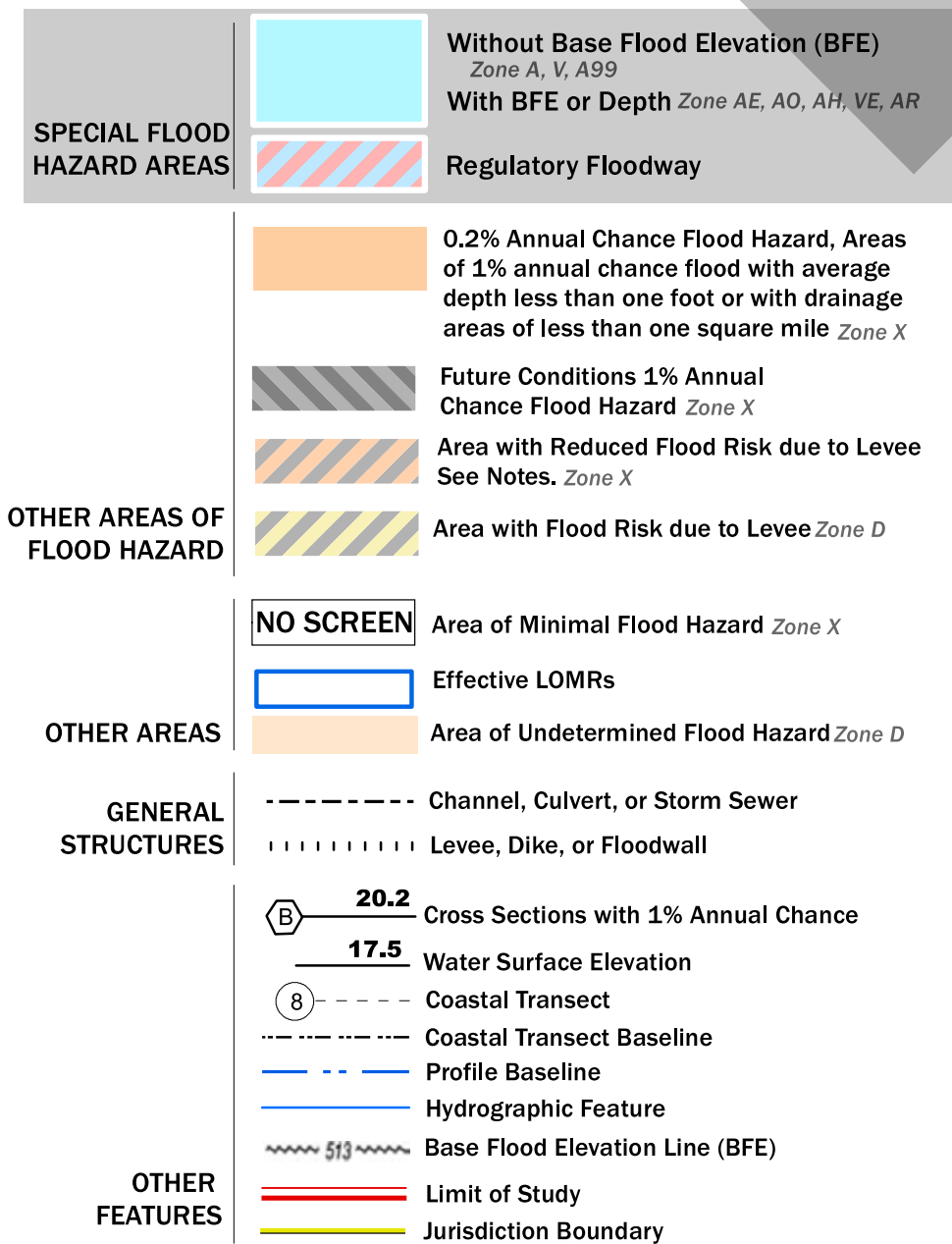
Map Number 12057C0070H



USGS The National Map: Orthoimagery, Data refreshed April, 2019.
28°6'47.84"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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

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

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

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

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

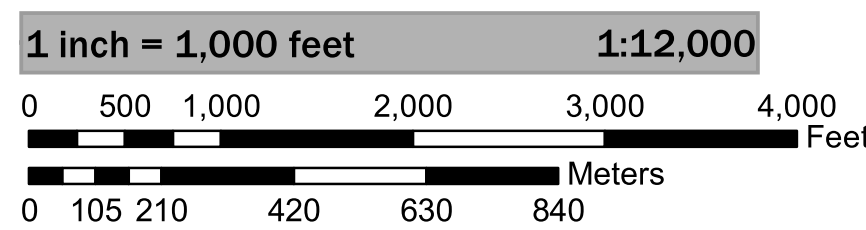
This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 2:51:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection: GCS, Geodetic Reference System 1983;
Vertical Datum: NAVD83
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study(FIS) Report for your community at <https://msc.fema.gov>



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS

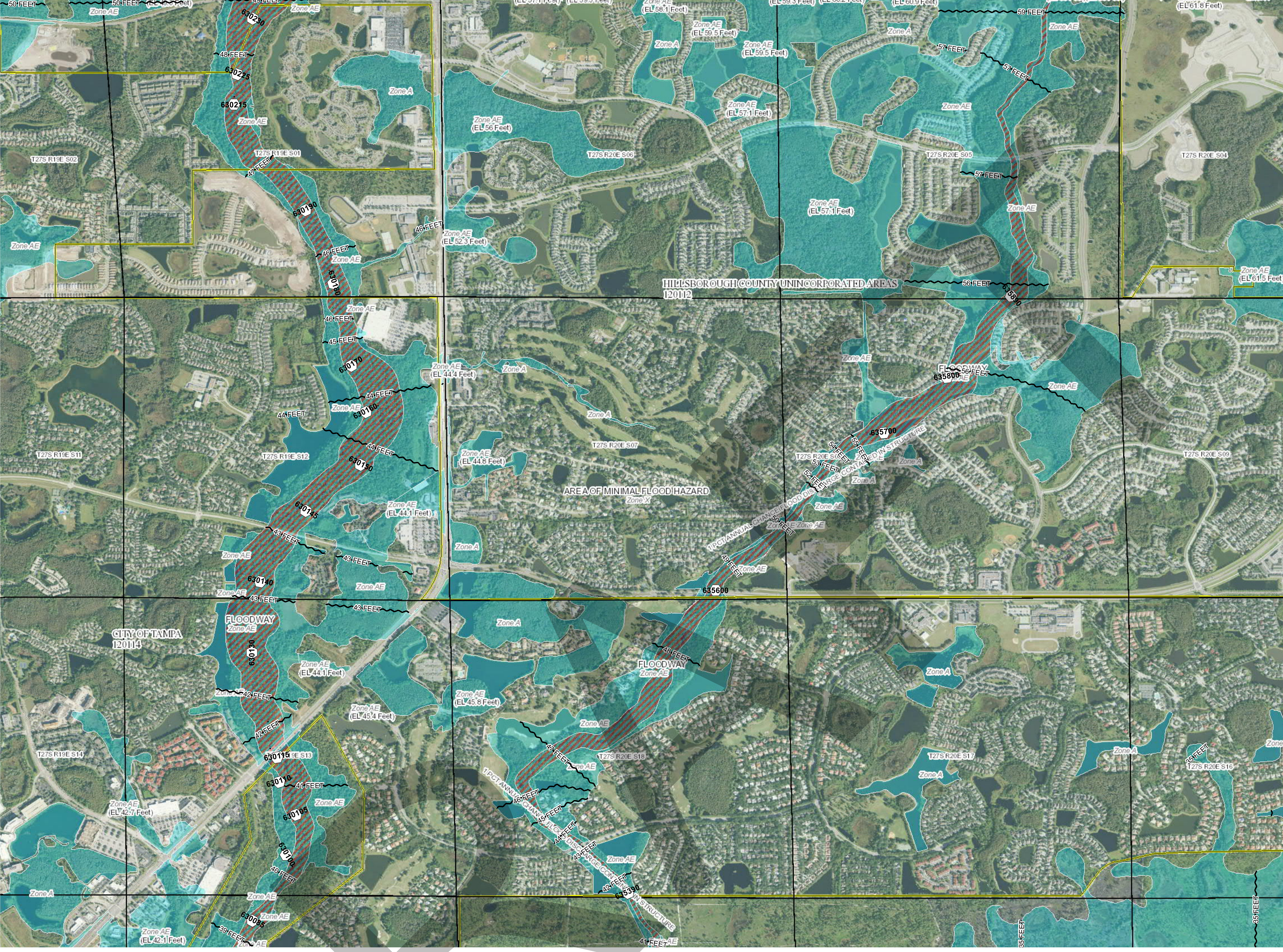
PANEL 70 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|---|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS, FLORIDA | 120112 | 0070 |
| PASCO COUNTY, FLORIDA | 120230 | 0070 |
| CITY OF TAMPA, FLORIDA | 120114 | 0070 |

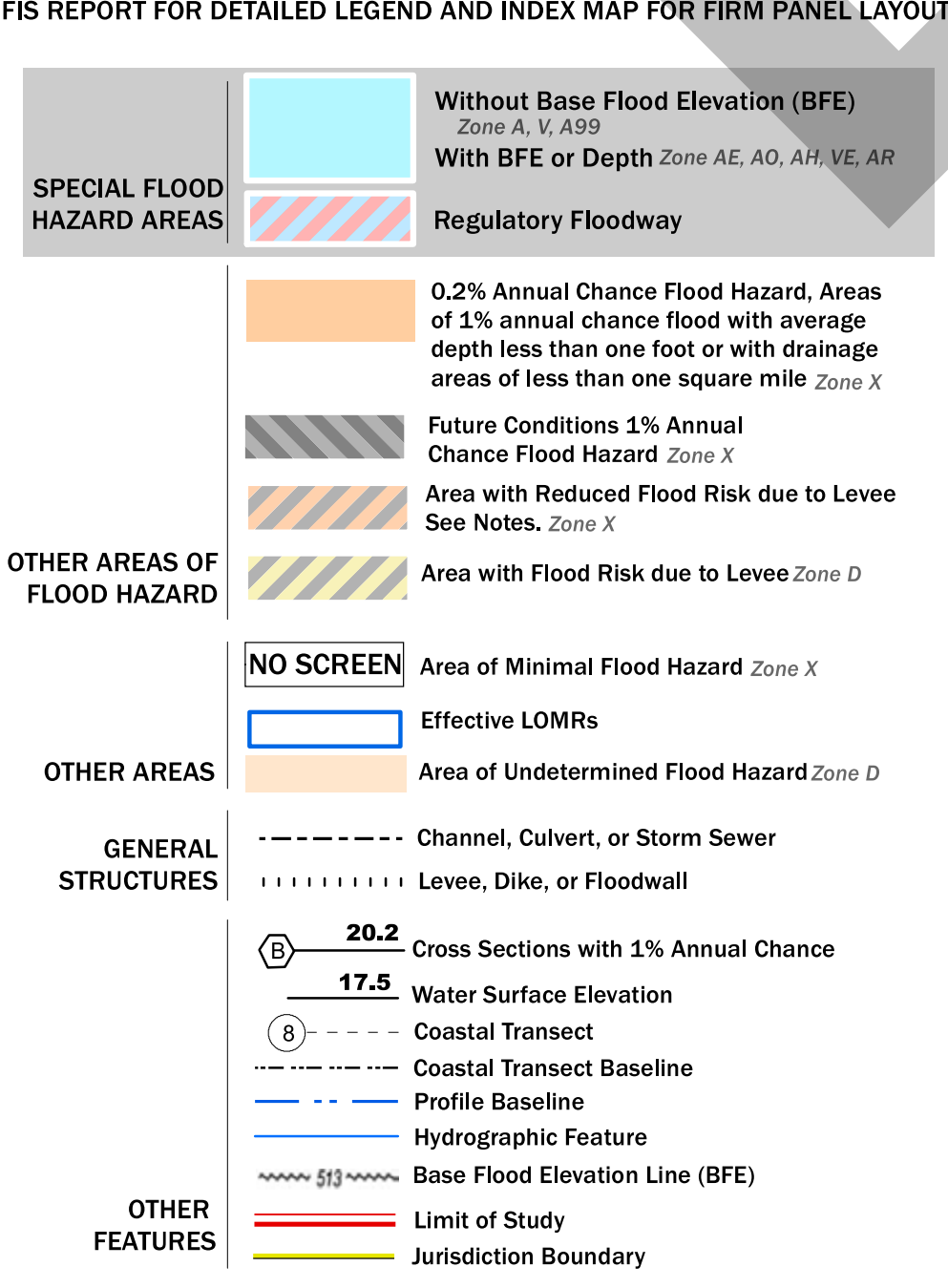
MAP NUMBER
12057C0070H
EFFECTIVE DATE
08/28/2008

Map Number 12057C0090H



USGS The National Map: Orthoimagery, Data refreshed April, 2019. 28°6'47.55"N

FLOOD HAZARD INFORMATION



NOTES TO USERS

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

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

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

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

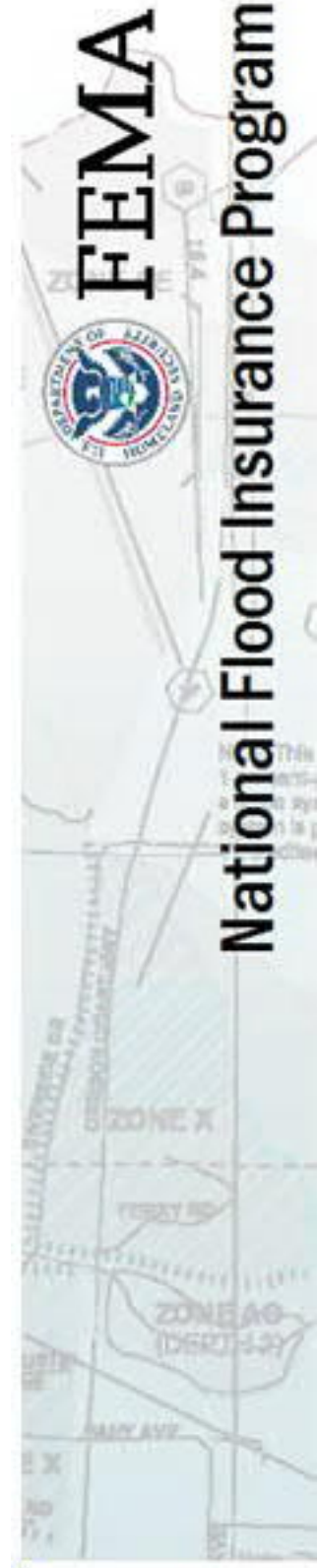
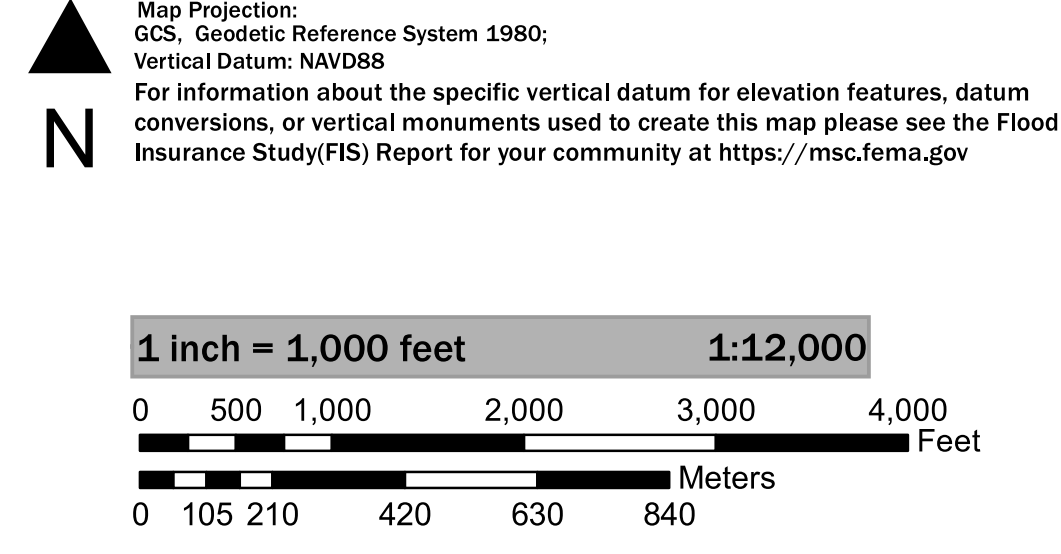
Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 12/3/2020 2:57:24 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

HILLSBOROUGH COUNTY, FLORIDA
ALL JURISDICTIONS
PANEL 90 OF 759

Panel Contains:

| COMMUNITY | NUMBER | PANEL |
|--|--------|-------|
| HILLSBOROUGH COUNTY UNINCORPORATED AREAS | 120112 | 0090 |
| FLORIDA PASCO COUNTY | 120230 | 0090 |
| CITY OF TAMPA FLORIDA | 120114 | 0090 |

DRAFT

Appendix E
Coordination & Meeting Minutes

SWFWMD Pre-Application Meeting Minutes

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.



**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
RESOURCE REGULATION DIVISION
PRE-APPLICATION MEETING NOTES**

**FILE
NUMBER:

PA 405566**

| | | | |
|----------------------------|--|-------------------------|-------------|
| Date: | 04/25/2018 | | |
| Time: | 11:00 | | |
| Project Name: | Tampa Bay Next Sections 9 and 10 | | |
| District Engineer: | David Kramer | | |
| District ES: | Lauren Greenfield, Joel Brown | | |
| Attendees: | Daniel Lauricello, Virginia Creighton, William Adams, Cristina Jackson, John Littlefield | | |
| County: | Hillsborough/Manatee | Sec/Twp/Rge: | Varies |
| Total Land Acreage: | ROW | Project Acreage: | 100++ acres |

Prior On-Site/Off-Site Permit Activity:

- Significant permitting history within and adjacent to the roadway corridor.

Project Overview:

- High level discussion regarding improvements to I75 within Hillsborough and Manatee Counties.
- Section 10: Moccasin Wallow Road (CR 6) to South of US Hwy 301 (SR 43), Manatee and Hillsborough
- Section 9: US Hwy 301 to Bruce B. Downs, Hillsborough

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- Provide the limits of surface waters and wetlands on-site.
- Provide appropriate mitigation using UMAM for impacts, if applicable.
- Demonstrate elimination and reduction of wetland impacts.
- Maintain minimum 15 foot, average 25 foot wetland conservation area setback or address secondary impacts.
- As of October 1, 2017, the District will no longer send a copy of an application that does not qualify for a State Programmatic General Permit (SPGP) to the U.S. Army Corps of Engineers. If a project does not qualify for a SPGP, you will need to apply separately to the Corps using the appropriate federal application form for activities under federal jurisdiction. Please see the Corps' Jacksonville District Regulatory Division Sourcebook for more information about federal permitting. Please call your local Corps office if you have questions about federal permitting. Link: <http://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/>

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- Project encompasses almost the entire length of Hillsborough County and a portion of Manatee County along the existing I75 corridor.
- WBIDs need to be independently verified by the consultant
- Portions of the project discharge to impaired waters.
- Portions of the project may discharge to local closed basins.
- Several OFW's within the project area including but possibly not limited to the Hillsborough and Little Manatee Rivers and the Cockroach Bay Aquatic Preserve.
- All wells within the project area should be identified and their future use/abandonment must be designated.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Project falls within many different regional and local watersheds/drainage basins.
- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- For projects or portions of projects that discharge to a closed basin, limit the post-development 100-year discharge volume to the pre-development 100-year, 24-hour volume.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).

- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Must replace treatment function of existing ditches to be filled.
- Refer to Section 4.5 A.H.V.II for Alterations to Existing Public Roadway Projects.
- Refer to Sections 4.8, 4.8.1 and 4.8.2 A.H.V.II for Compensating Stormwater Treatment, Overtreatment, and Offsite Compensation.
- All co-mingled existing & new impervious (DCIA) that is proposed to be connected to a treatment pond will require treatment (times ½" for dry treatment or 1" for wet treatment).
- However, if equivalent treatment concepts are used it is possible to strategically locate the pond(s) so that the minimum treatment requirement may be for an area equivalent to the net increase in impervious area. That is, co-mingled existing & new impervious that is not connected to a treatment pond may bypass treatment (as per Section 4.5(2), A.H.V.II) if the 'total impervious area' that is connected to the treatment pond(s) is at least equivalent to the area of new impervious. The 'total impervious area' that is connected to the pond(s) may be composed of co-mingled existing & new impervious.
- Offsite impervious not required to be treated; but may be useful to be treated when using equivalent treatment concepts or when attempting to meet net improvement.
- Provide additional 50% treatment for any direct discharges to OFW. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(f).
- Please be advised that although use of isolated wetlands for ERP treatment purposes is permissible as per Section 4.1(a)(3), A.H.V.II, use of isolated wetlands for treatment purposes may not necessarily meet US Army Corps criteria.
- In addition, if the project discharges to an impaired water body, must provide a net environmental improvement.
- Applicant must demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use.
- Discussion also included the potential for off-site compensatory treatment or "regional treatment." Most feasible/permissible regional treatment locations would be within the same Wbid, or another segment/Wbid that is part of the same contiguous water body that is located upstream of the impacts. This would allow the applicant to clearly demonstrate that the load reduction provided by the regional treatment facility provides a measurable benefit to the segment/Wbid being impacted.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- Portions of the project may be located within state owned sovereign submerged lands (SSSL). Be advised that a title determination will be required from FDEP to verify the presence and/or location of SSSL.
- If use of SSSL is proposed, authorization will be required. Refer to Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. for guidance on projects that impact SSSL and Aquatic Preserves.
- For areas over SSSL, a new easement or a modification to an existing easement may be required.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- Demonstrate ownership and control of entire project area.

Application Type and Fee Required:

- SWERP – Sections A, C and E of the ERP Application – fee to be determined based on construction permit project area.

- The group also discussed expected deliverables for design-build projects. The District has agreed to a minimum level of detail to be provided with construction permit applications for project using a design-build approach. HNTB has created a list of items that must be included, at a minimum, with future ERP applications.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.
- The plans and drainage report submitted electronically must include the appropriate information required under Rule 61G15-23.005(4)(c), F.A.C. The following text is acceptable to the Florida Board of Professional Engineers (FBPE) to meet this requirement and must appear where the signature would normally appear:

[Licensee] State of Florida, Professional Engineer, License No. X

This item has been electronically signed and sealed by [Licensee, PE] on [DATE] using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies

- Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.

DRAFT

FDOT Long List Meeting



MEETING SUMMARY

| | |
|-------------------|--|
| PROJECT NAME | I-75 (SR 93A) PD&E FROM S. OF US 301 TO N. OF BRUCE B. DOWNS BLVD. HILLSBOROUGH COUNTY FDOT DISTRICT 7 |
| PROJECT NUMBER(S) | FPID 419235-3-22-01 |
| DATE | 07 June 2019 |
| TIME | 10:30 AM |
| VENUE | FDOT D7-HQ |
| SUBJECT | POND SITING LONG LIST MEETING |
| PRESENT | See Attached Sign-In Sheet |
| DISTRIBUTION | Attendees (See Sign-In Sheet) |

KEY ITEMS OF DISCUSSION

ACTION BY

| | | |
|-----|--|--------------|
| 1.0 | PROJECT REFRESHER John Littlefield provided an overview of the project which included explanations on the project limits, typical sections and previous coordination with SWFWMD. Mr. Littlefield also provided a description of the major drainage basins within the project limits and the criteria used to design the ponds. The pond siting criteria is included in the attached Long List Meeting Presentation. The presentation also includes a summary of the pond site alternatives, floodplain compensation sites, drainage basin maps, and alternative matrix analysis for each basin. | June Meeting |
| 2.0 | DRAINAGE BASIN AND POND SUMMARY | |
| 2.1 | Basin 1: — Coordinate with American Engineering regarding additional pond treatment/attenuation capacity that may be available in the adjacent project to the south (Section 10). — Relocate pond alternative SMF 1A to the XScape Theatre. | WSP |
| 2.2 | Basin 2 through Basin 5: Pond sites are located within the existing right-of-way therefore, only one alternative evaluated for each basin. | N/A |
| 2.3 | Basin 6: FDOT requested that the drainage easement line be revised to limited access (LA) right-of-way. The right-of-way revision begins at station 1365+10 RT and extends north to station 1402+50. | WSP |
| 2.4 | Basin 7: FDOT requested that an additional pond site be included in the basin. The pond site alternative is referred to as SMF 7C and is located at the northwest corner of Causeway Blvd. and Brandon Town Center Drive. | WSP |
| 2.5 | Basin 8: Revise drainage easement to lie in the Estuary Lakes Drive right-of-way and eliminate parcel takes for current easement design. | WSP |
| 2.6 | Basin 9: Pond site is located within the existing right-of-way and therefore only one alternative was evaluated. | N/A |
| 2.7 | Basin 10: Show LA right-of-way for ponds along west side of roadway. This will require HNTB to provide the final concept with the right-of-way shown for the entire project. | WSP HNTB |
| 2.8 | Basin 11: The Department requested that SMF 11C be removed from the proposed pond site alternatives for the basin. | WSP |
| 2.9 | Basin 12 & Basin 13: No recommended revisions for the pond sites or floodplain compensation sites. | N/A |

| | | |
|------|--|-------------|
| 2.10 | Basin 14: Remove pond site alternative SMF 14C. FDOT requested that the easement be relocated to Columbus Drive and eliminate the parcel takes for the current easement design. | WSP |
| 2.11 | Basin 15 & Basin 16: Pond site located within the existing right-of-way therefore, only one alternative evaluated. | N/A |
| 2.12 | Basin 17 & Basin 18: <ul style="list-style-type: none"> — As discussed during the meeting, Crystal Geiger will investigate whether alternative SMF 17B is viable due to the historical structure located on Parcel 065069. Based on subsequent coordination, it was determined the structure has historical significance and therefore SMF 17B will be relocated along the east side for I-75 at the intersection of Anna Drive and Tanner Road. — HNTB will need to avoid impacting the Tanner property when establishing the proposed right-of-way for the project. | WSP HNTB |
| 2.13 | Basin 19: Pond sites and floodplain compensation sites are located within the existing right-of-way. | N/A |
| 2.14 | Basin 20: The easement for SMF 20A is not required and should be removed. | WSP |
| 2.15 | Basin 21: The Department requested the following revisions. <ul style="list-style-type: none"> — Eliminate SMF 21B. — Redesign FPC 21B along the east side of SMF 21A. — Rename SMF 21C and FPC 21A to SMF 21B and FPC 21B, respectively. | WSP |
| 2.16 | Basin 22 <ul style="list-style-type: none"> — Remove SMF 22A and easement due to the numerous properties required. — Redesign pond site SMF 22A on SWFWMD property adjacent to the by-pass canal. | WSP |
| 2.17 | Basin 23: No recommended revisions for the pond site alternatives. | N/A |
| 2.18 | Basin 24: No recommended revisions. | N/A |
| 2.19 | Basin 25: <ul style="list-style-type: none"> — Evaluate potential pond site on Luxury Stone site. | WSP |
| 3.0 | RIGHT-OF-WAY: <ul style="list-style-type: none"> — Six to Eight weeks for right-of-way estimates. — Include right-of-way request form with resubmittal. | N/A |
| 4.0 | ACTION ITEMS: <ul style="list-style-type: none"> — Resubmit to FDOT by July 9th, 2019. — HNTB to provide updated right-of-way requirements. — Add environmental aspects to matrix table for Short List Meeting. | WSP HNTB |
| 5.0 | SCHEDULE <ul style="list-style-type: none"> — FDOT is still anticipating a Public Hearing in December 2019. | N/A |

NEXT MEETING

An invitation will be issued for the September 2019 Short List Meeting.

POND SITING LONG LIST MEETING

I-75 (SR 93A) PD&E From S. of US
301 to N. of Bruce B. Downs Blvd.

HILLSBOROUGH COUNTY, FDOT DISTRICT 7

FPID 419235-3-22-01

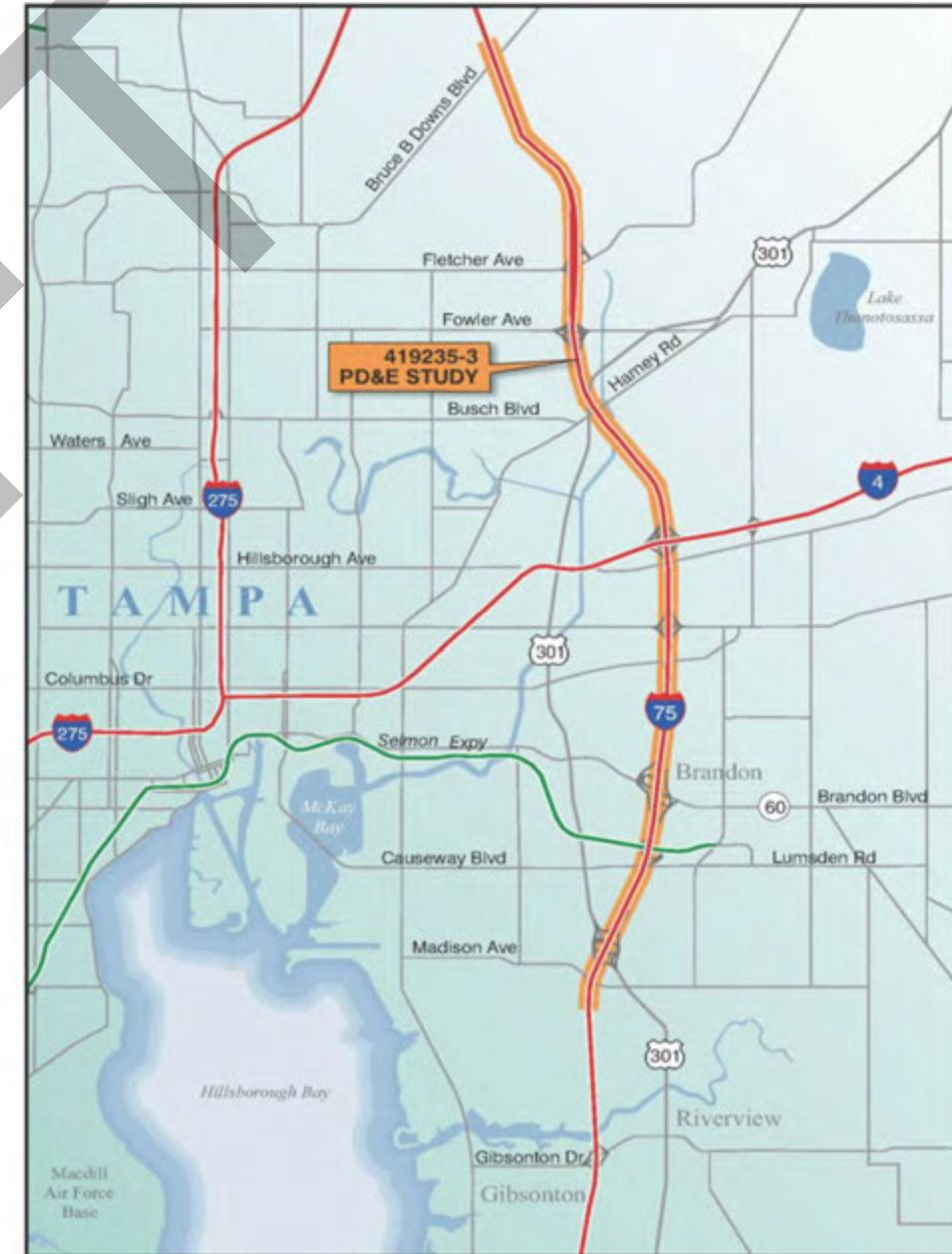
TAMPA BAY

Next



Project Refresher

- Two (2) contiguous I-75 Projects (aka. Sec. 9 & 10)
 - Section 9
 - 17.8 miles
- 8 Interchanges - Including I-4
- Existing Typical Section
 - 3-GUL's w/ auxiliary lanes
- Proposed Typical Sections
 - 3 GUL's + 2 EL's in each direction
 - EL's barrier separated
 - CD's lanes vary throughout
- SWFWMD Meeting 4/2018
 - Treat additional impervious area
 - Compensatory Treatment allowable



Drainage Refresher

- Previous Pond Siting Report (2010)
 - Project limits changed - N. of Fletcher Ave.
 - One (1) pond per basin
 - Analysis for two (2) typical sections
 - Recommended PD&E
 - 324-Foot Impervious
- Three (3) Major Basins
 - Delaney / Archie Creek
 - Tampa By-Pass Canal
 - Hillsborough River
- 30 Onsite Basins (1-25, A-EF)
- 50% increase in new pavement area



Data Collection

- Survey
 - No survey conducted
 - 1-foot GIS Lidar
 - Existing SWFWMD Permits
 - Several on-going break-out projects
- Geotechnical Data
 - No borings conducted
 - USDA / NRCS Soils
 - Mostly HSG A/D or B/D
 - SHWT depths 0 - 2.5 feet
- Wetlands
 - GIS National Wetland Inventory
- Floodplains – GIS FEMA Maps (2008 & 2013)
- FDEP – Impaired Waters



Drainage Refresher

• Water Quality

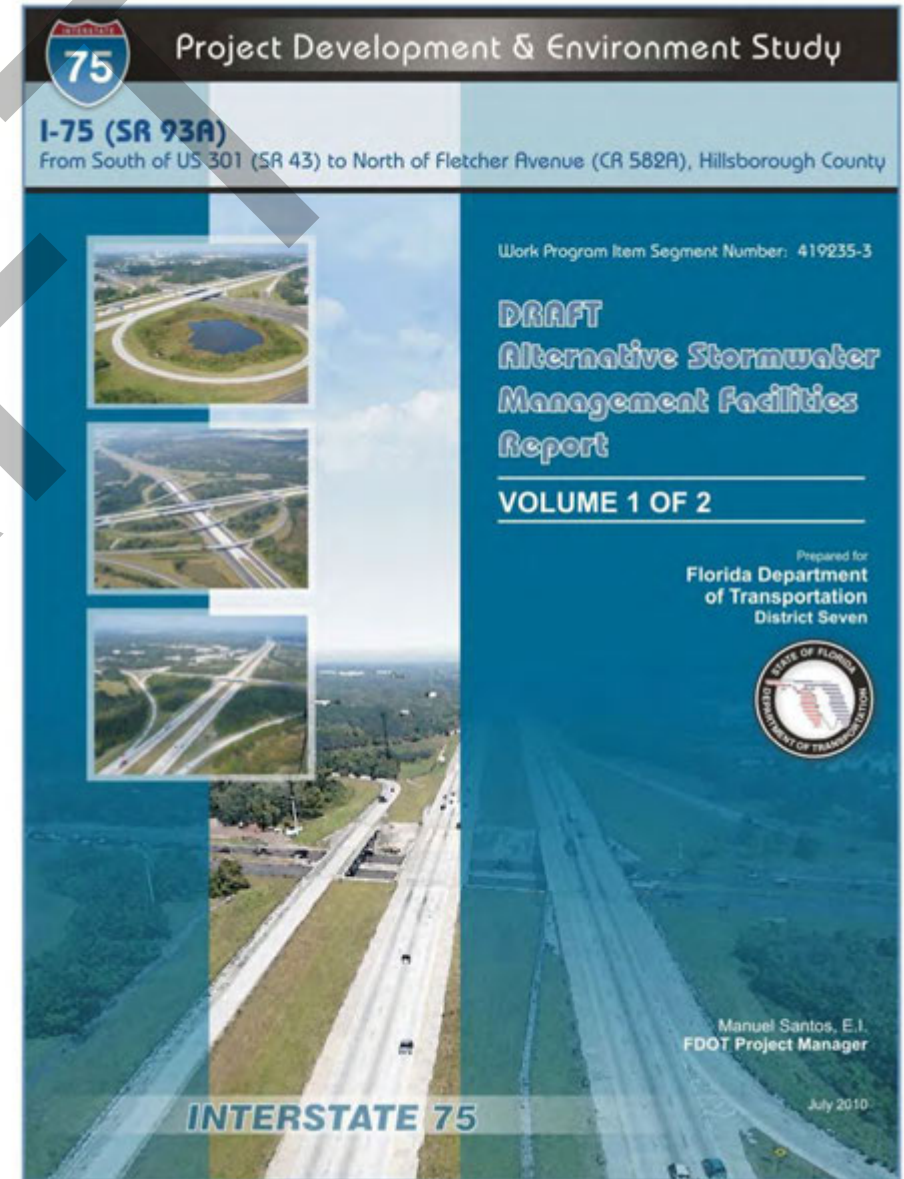
- One (1) OFW – at Hillsborough River / Cowhouse Creek
- Six (6) Impaired WBID's / Four (4) Nutrient Impaired
 - 12 Basins (7, 8, and 14-23)
- All Wet Ponds (1-inch x New Impervious Area)
- 15% of volume

• Water Quantity

- All Open Basins
- Used SWFWMD 25-yr / 24-hr Storm
- Rainfall = 8.0 inches
- SCS Method to calculate Volumes
- 85% of volume - Critical Volume

• Floodplains

- Numerous Floodplains (Zone A & Zone AE)
- Five (5) Floodways (Traverse Crossings)
- Nine (9) Basins with Floodplain Impacts
- Impact / Compensation- Area for Area plus 20%



Pond Siting Criteria

- Other Criteria
 - 1- foot freeboard (inside berm) for 25-yr / 24-hr Storm
 - 10-yr Hydraulic Check with LEOP
 - Impaired Basins – Pollutant Calculations performed
- 30 Basins
 - Last four (5) Basins – designed for ultimate
 - Remaining 25 Basins require evaluation
- Evaluated 2 or 3 alternative Pond Sites / Basin
 - Exceptions:
 - Pond within the existing ROW
 - 2 or more vacant sites were available, or
 - Other remaining parcels in wetlands or floodplains
- One FPC Site / Basin
- FDOT / County Owned R/W
- Combined Basins, where beneficial
- Compensatory Treatment

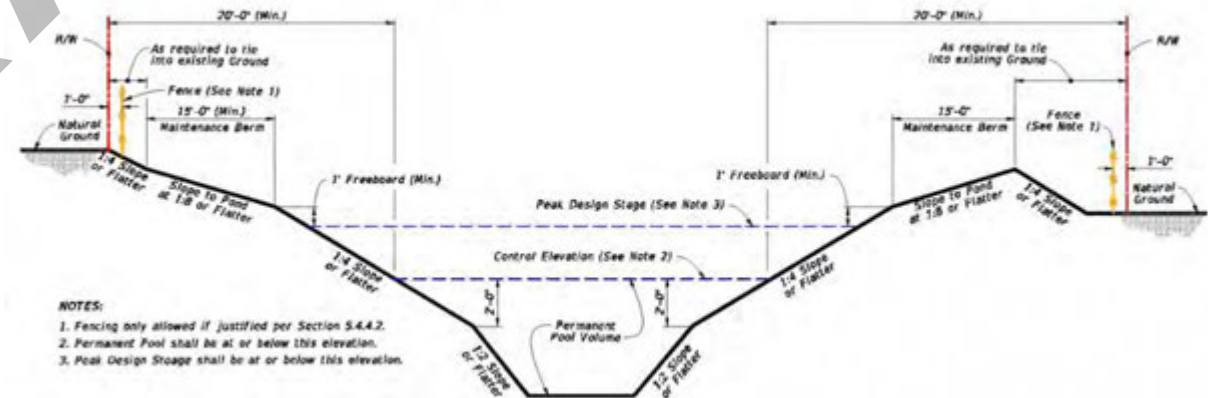
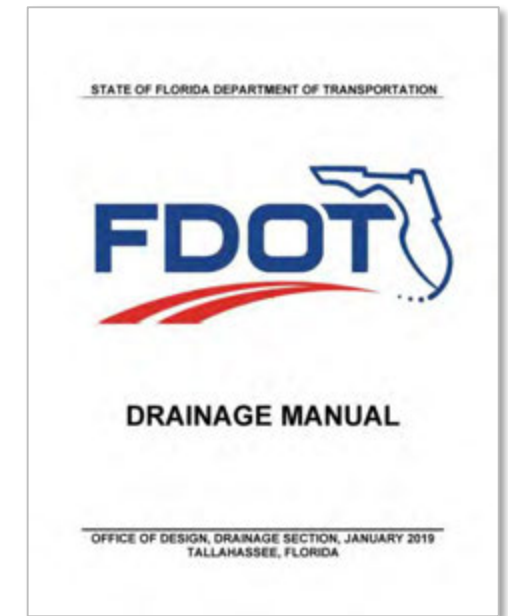
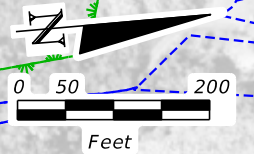
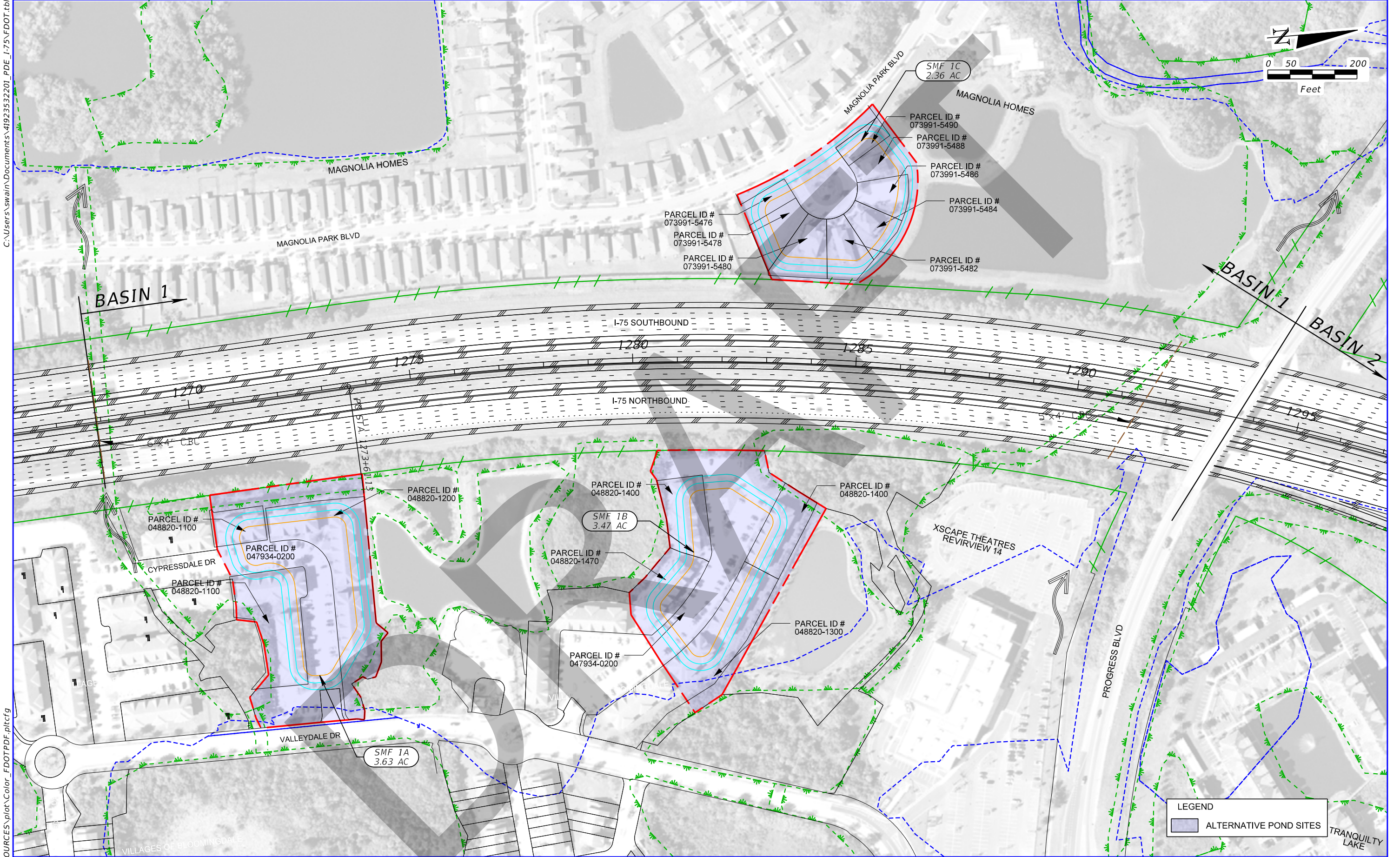


Figure 5-1: Minimum Clearance Retention-Detention Ponds

Pond Siting Long List Meeting Summary Sheet
I-75 (SR 93A) PD&E From S. of US 301 to N. of Bruce B. Downs Blvd.

| Basin | Receiving Water / Outfall | SMF Alternative Sites | FPC Sites | |
|-------|--|---------------------------------------|----------------------------|-------------------|
| 1 | Archie Creek Trib. B | SMF 1A, SMF 1B & SMF 1C | - | |
| 2 | North Archie Creek | SMF 2/3 | - | |
| 3 | | | | |
| 4 | Unnamed Trib. on North Archie Creek | SMF 4/5 | - | |
| 5 | | SMF 6A & SMF 6B | FPC 6 | |
| 6 | | | | |
| 7 | Delaney Creek | SMF 7A & SMF 7B | FPC 7 | |
| 8 | | SMF 8A, SMF 8B & SMF 8C | | |
| 9 | | | | |
| 10 | Tampa Bypass Canal Trib. 2 S. Branch | SMF 9 | - | |
| 11 | | SMF 10A, SMF 10B & SMF 10C | - | |
| 12 | | SMF 11A, SMF 11B & SMF 11C | - | |
| 13 | Tampa Bypass Canal Trib. 2 | SMF 12/13A, SMF 12/13B, & SMF 12/13C | FPC 12/13R & FPC 12/13L | |
| 14 | Tampa Bypass Canal Trib. 1 S. Branch 2.1 | SMF 14A, SMF 14B & SMF 14C | FPC 14 | |
| 15 | Tampa Bypass Canal Trib. 1 | SMF 15/16 | - | |
| 16 | Tampa Bypass Canal Trib. 1 | | | |
| 17 | Tampa Bypass Canal Main Ditch | SMF 17A & SMF 17B | - | |
| 18 | | SMF 18A & SMF 18B | FPC 17/18 | |
| 19 | | SMF 19A, SMF 19B, SMF 19C & SMF 19D | FPC 19A & FPC 19B | |
| 20 | | SMF 20A & SMF 20B | FPC 20 | |
| 21 | Unnamed trib. to Tampa Bypass Canal | SMF 21A, SMF 21B & SMF 21C | FPC 21A & FPC 21B | |
| 22 | Tampa Bypass Canal | SMF 22A, SMF 23A, SMF 23B & SMF 22/23 | - | |
| 23 | | | - | |
| 24 | | | SMF 24A & SMF 24B | - |
| 25 | | | SMF 25A, SMF 25B & SMF 25C | - |
| A | | | Cowhouse Creek | Pond A2 & Pond A4 |
| B | Pond B2 & Pond B3 | - | | |
| C | Hillsborough River | Pond C-2 & C-5 | FPC B | |
| D | | Pond D | - | |
| E & F | | Pond EF | - | |



LEGEND
 [Light Blue Box] ALTERNATIVE POND SITES

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

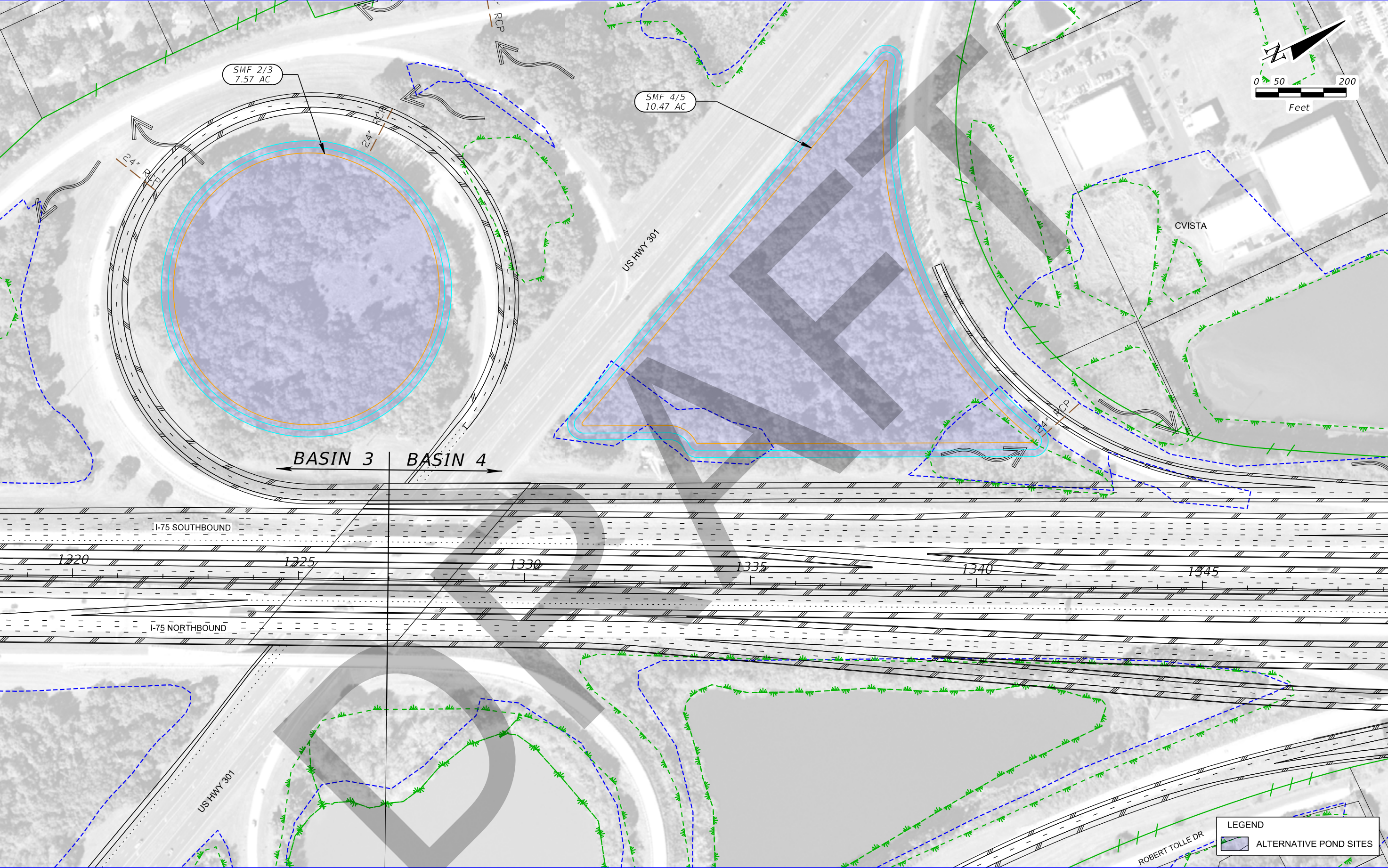
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 1
ALTERNATIVE POND SITES

SHEET NO.
 01

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



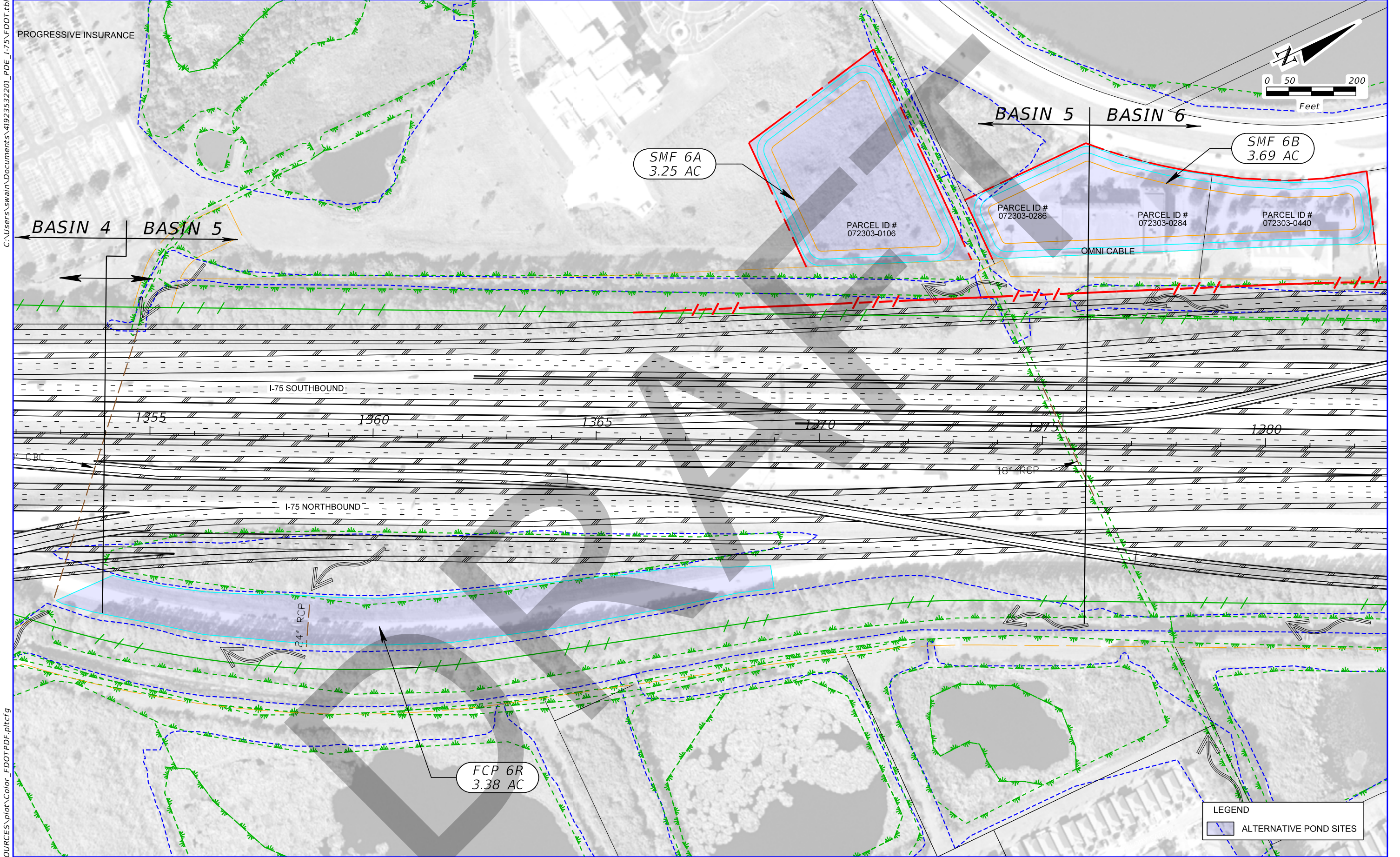
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 3 & 4
ALTERNATIVE POND SITES

SHEET NO.
02



C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

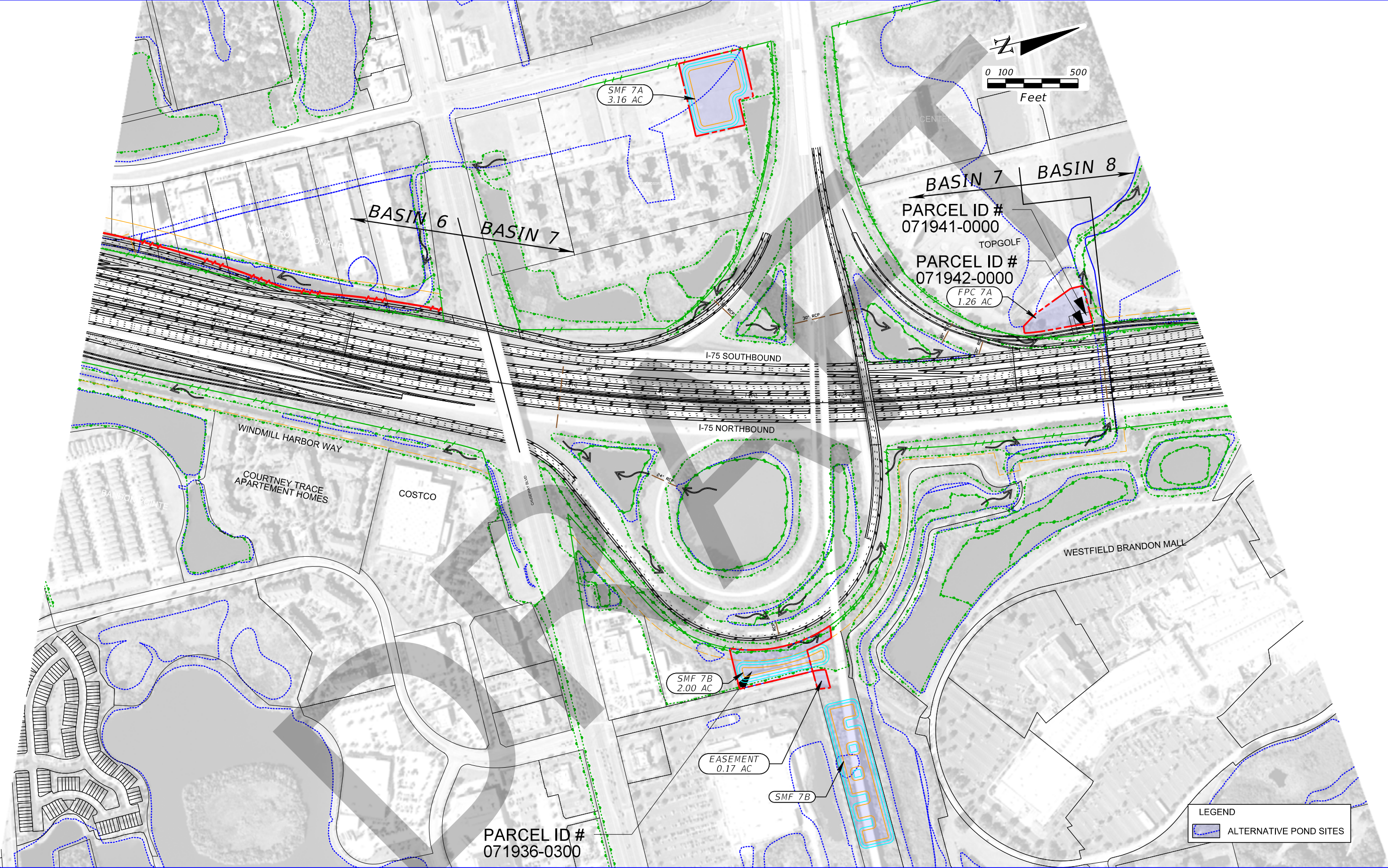
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 5 & 6
ALTERNATIVE POND SITES

SHEET NO.
03



| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

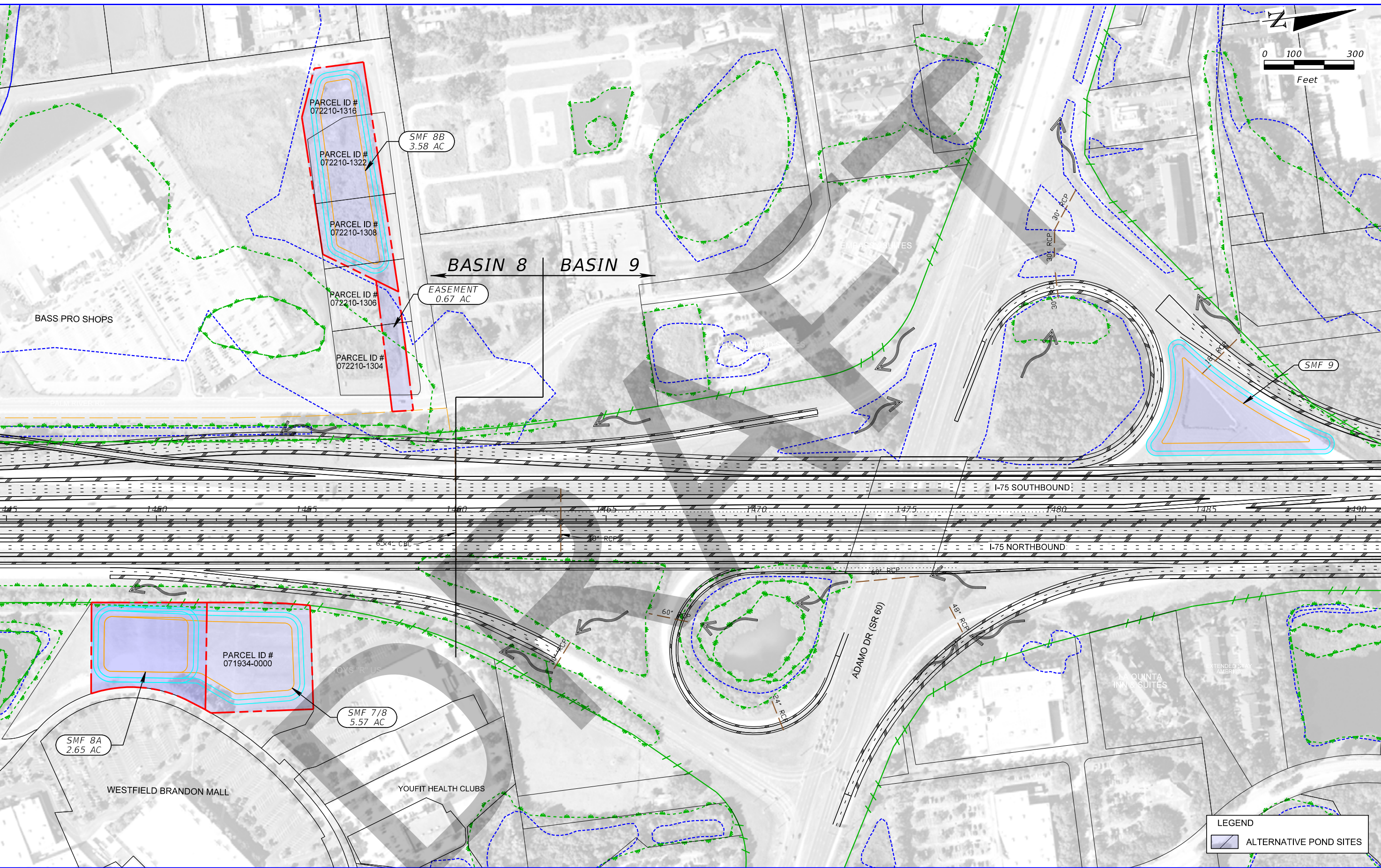
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN - 7
ALTERNATIVE POND SITES

SHEET NO.
 04

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbl

C:\FOOTSS4\RESOURCES\plot\Color_FOOTPDF.pltcfgr



| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

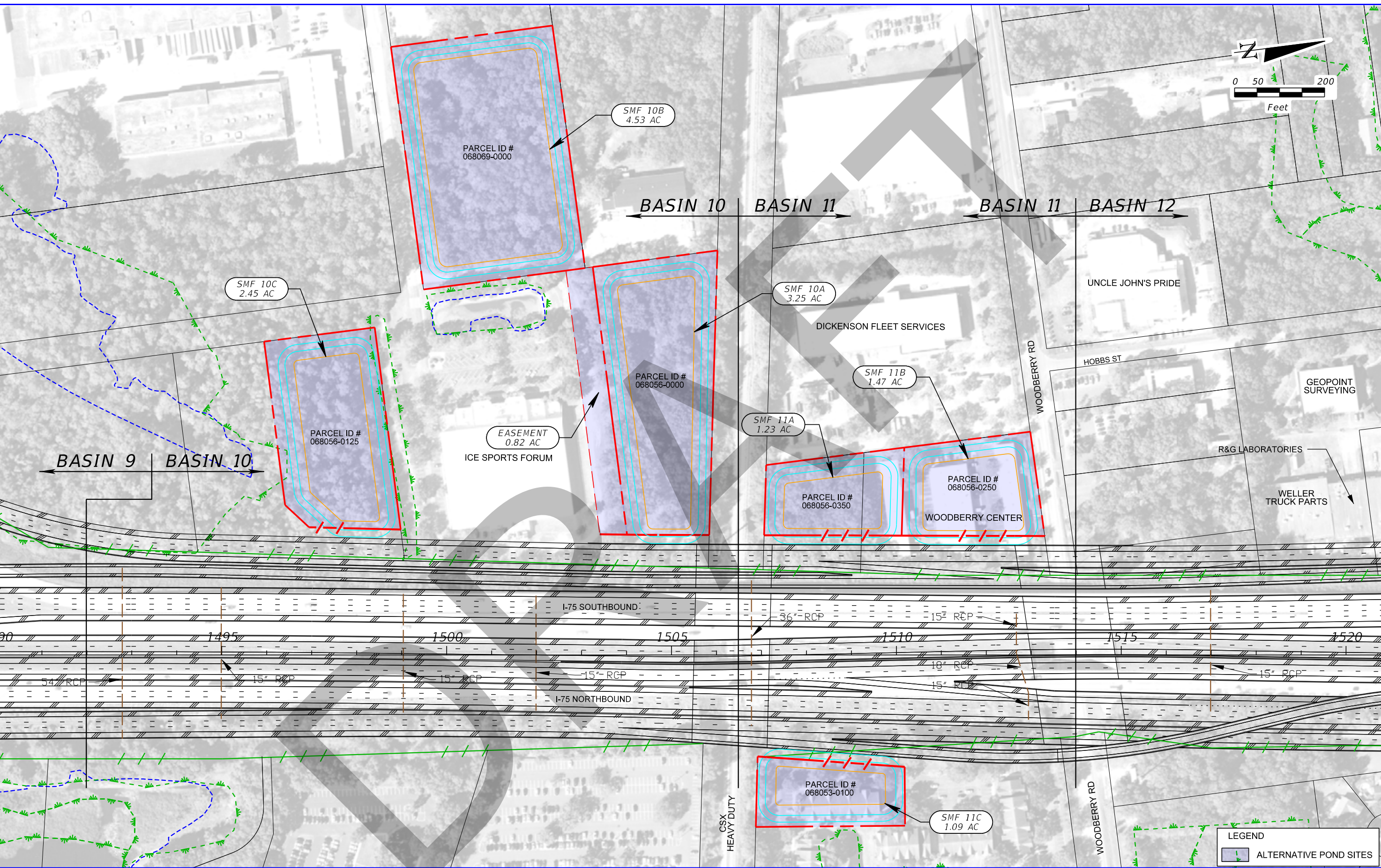
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 8-9
ALTERNATIVE POND SITES

SHEET NO.
05

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbl

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| LEGEND | |
|--------|------------------------|
| | ALTERNATIVE POND SITES |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 10-11
ALTERNATIVE POND SITES

SHEET NO.
 06

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi



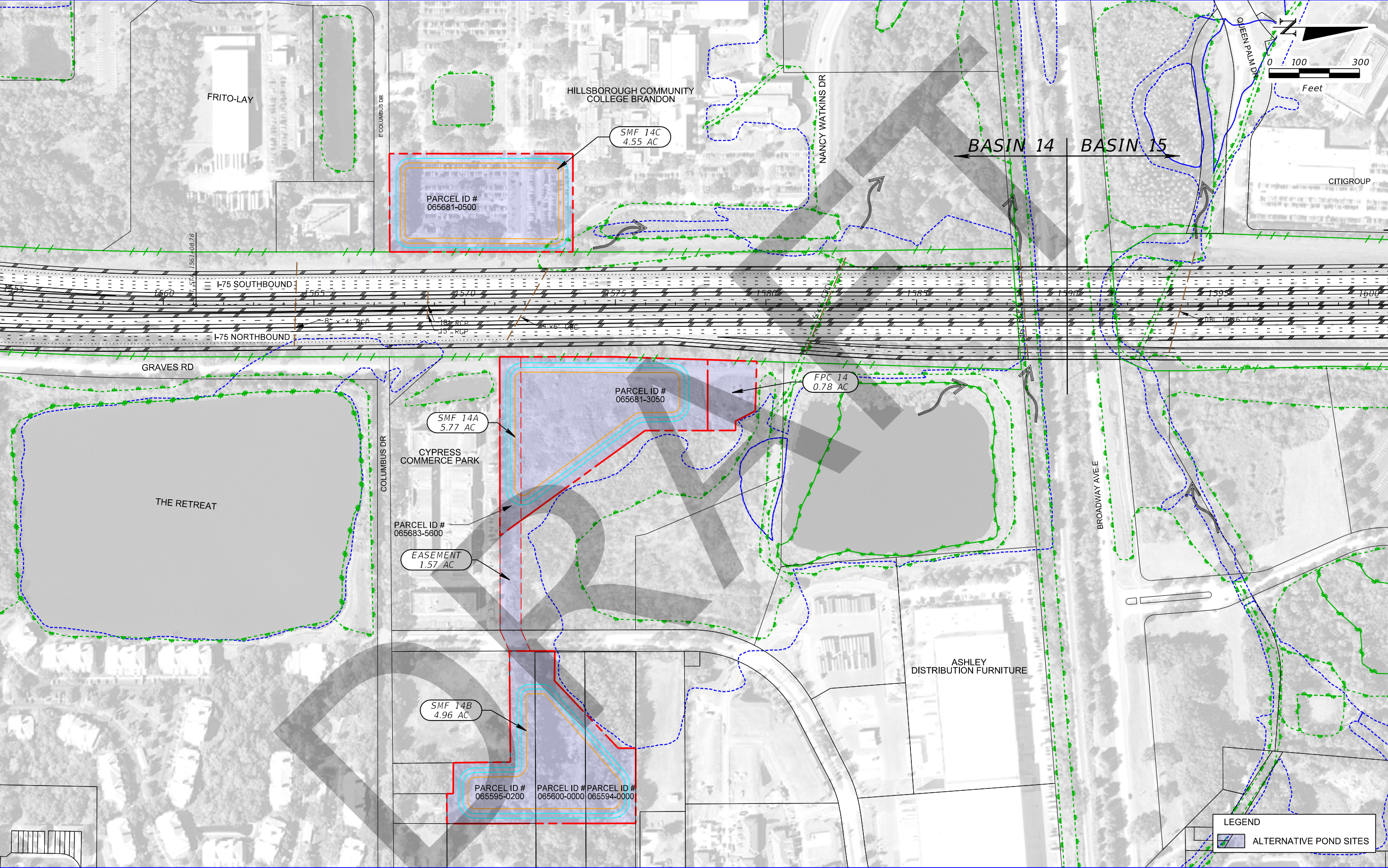
| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A BASIN 12-13
ALTERNATIVE POND SITES

SHEET NO.
07



| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

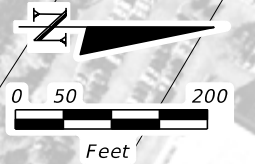
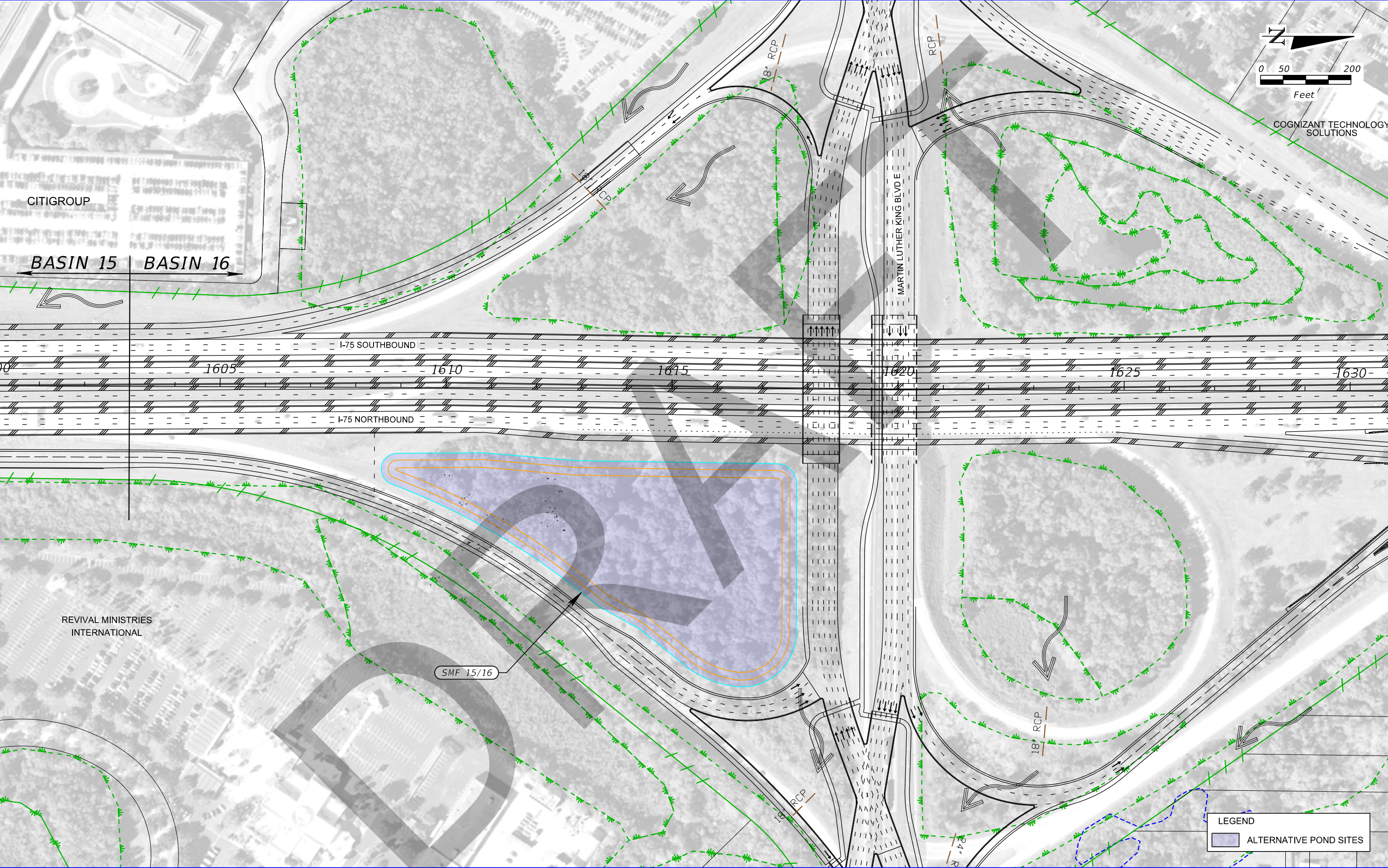
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 14-15
ALTERNATIVE POND SITES

SHEET NO.
08

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| LEGEND | |
|--|------------------------|
| | ALTERNATIVE POND SITES |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

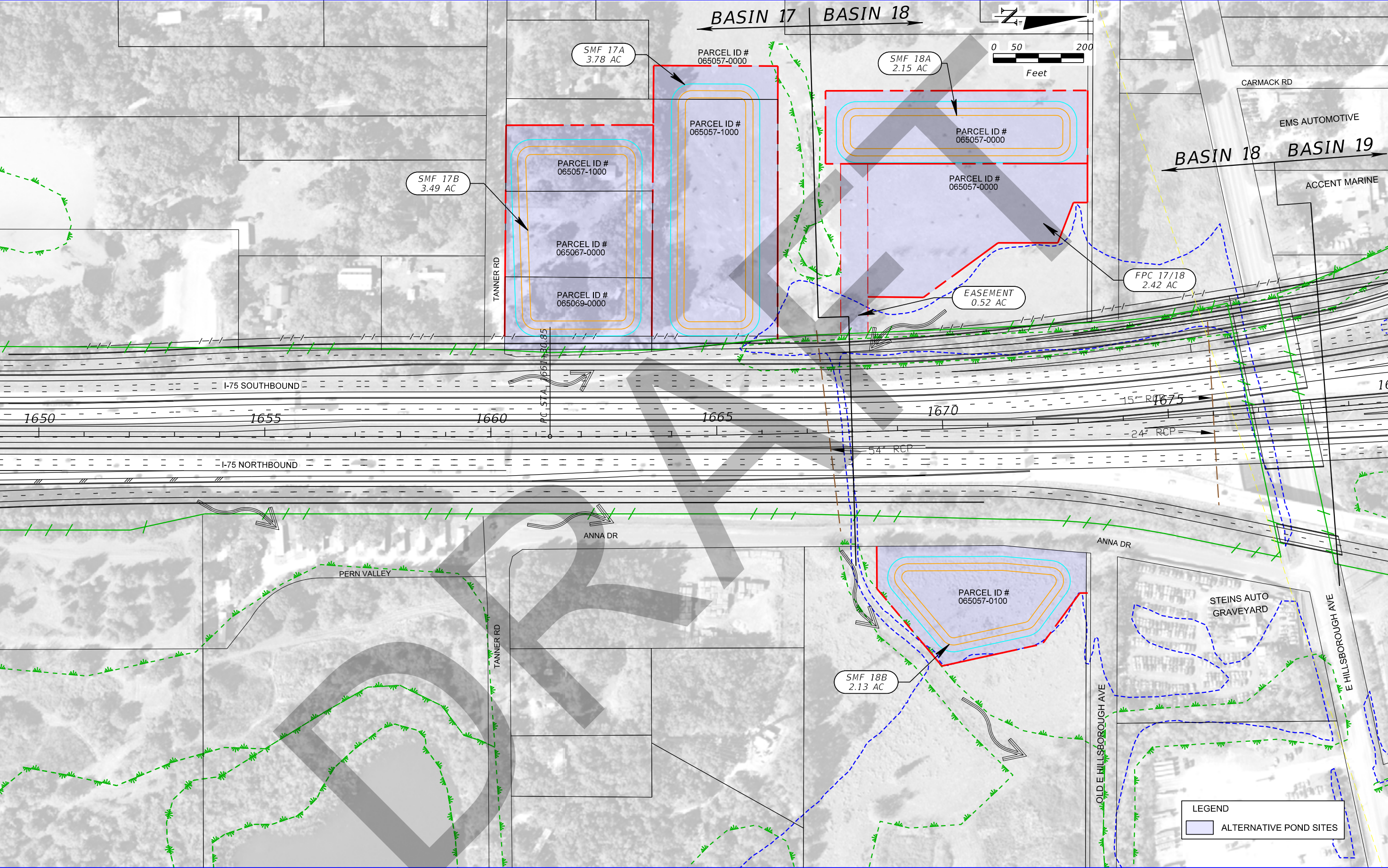
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 15-16
ALTERNATE POND SITES

SHEET NO.
 09

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



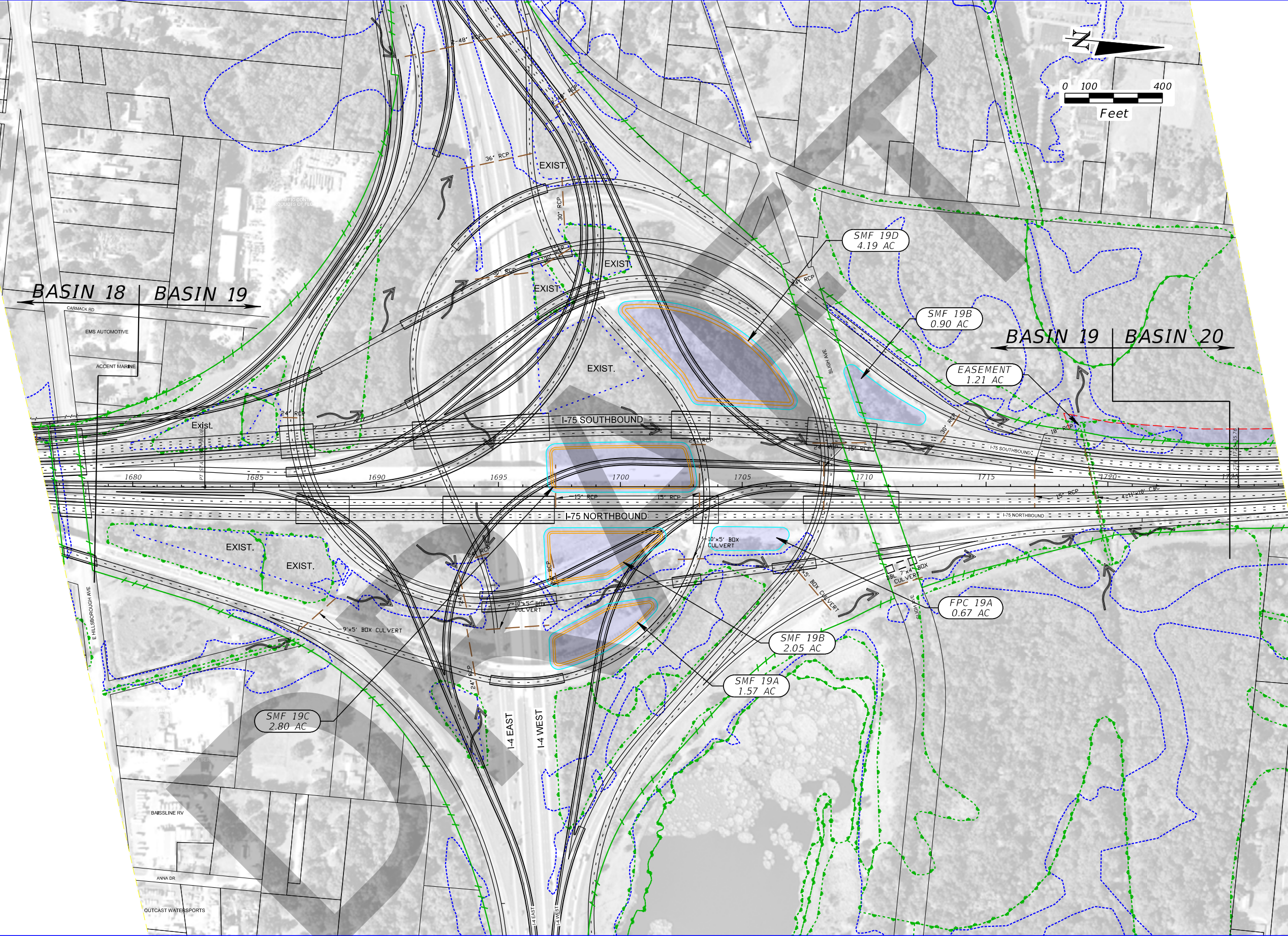
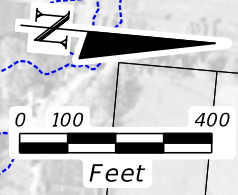
| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 17 - 18
ALTERNATE POND SITES

SHEET NO.
10



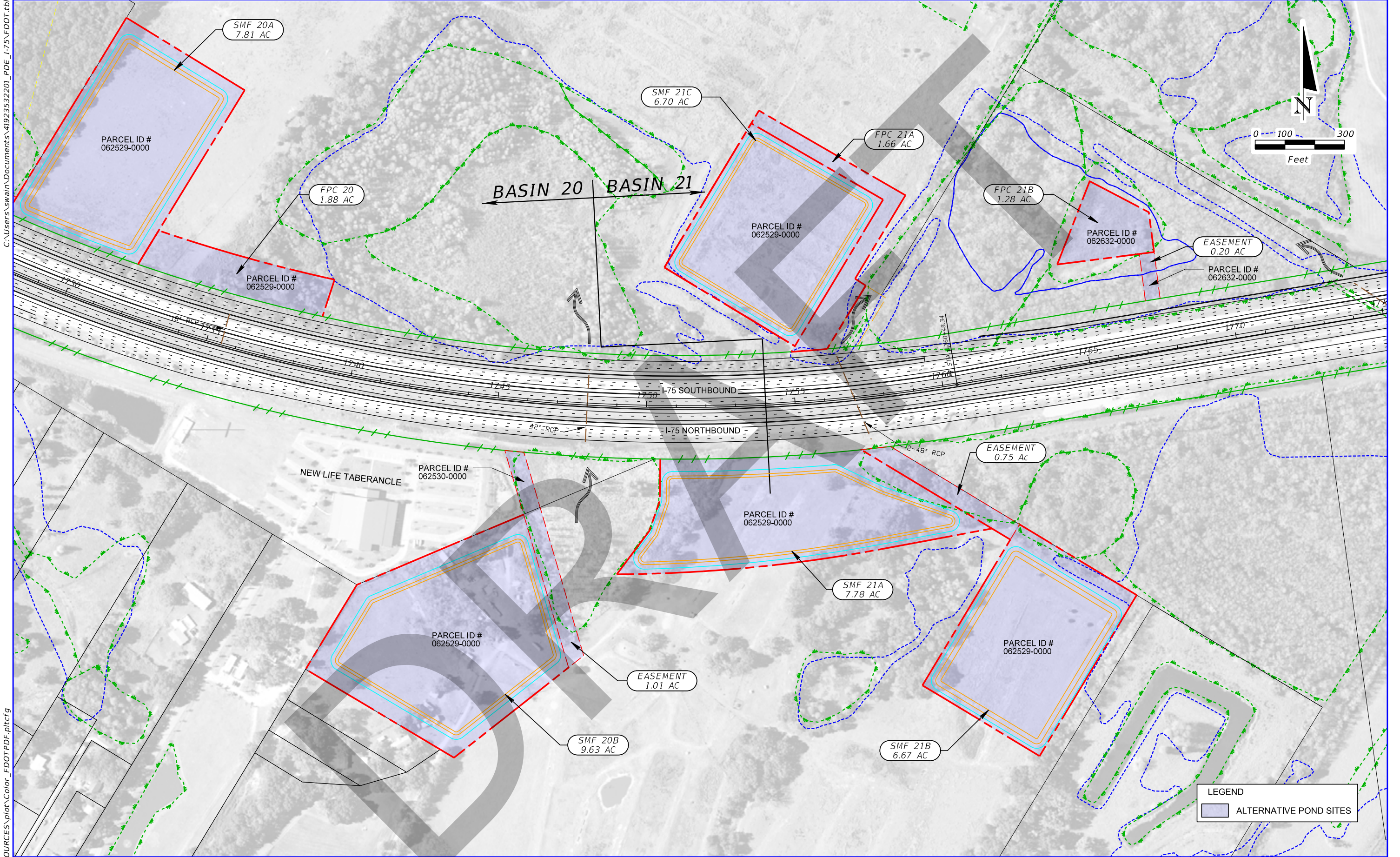
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 19
ALTERNATIVE POND SITES

SHEET NO.
 11



C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

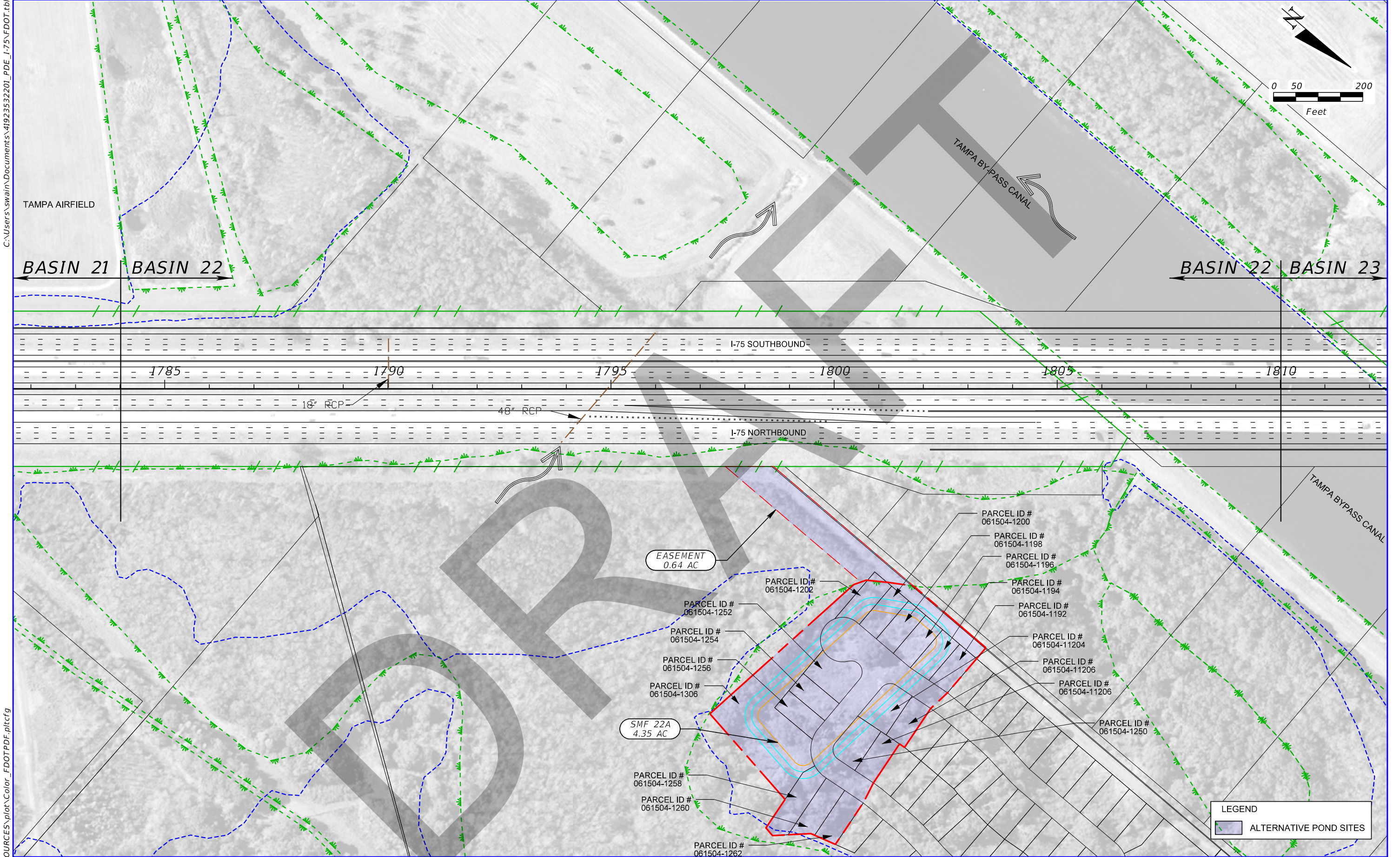
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 20 - 21
ALTERNATIVE POND SITES

SHEET NO.
12



C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FOOTSS4\RESOURCES\plot\Color_FOOTPDF.pltcfgr

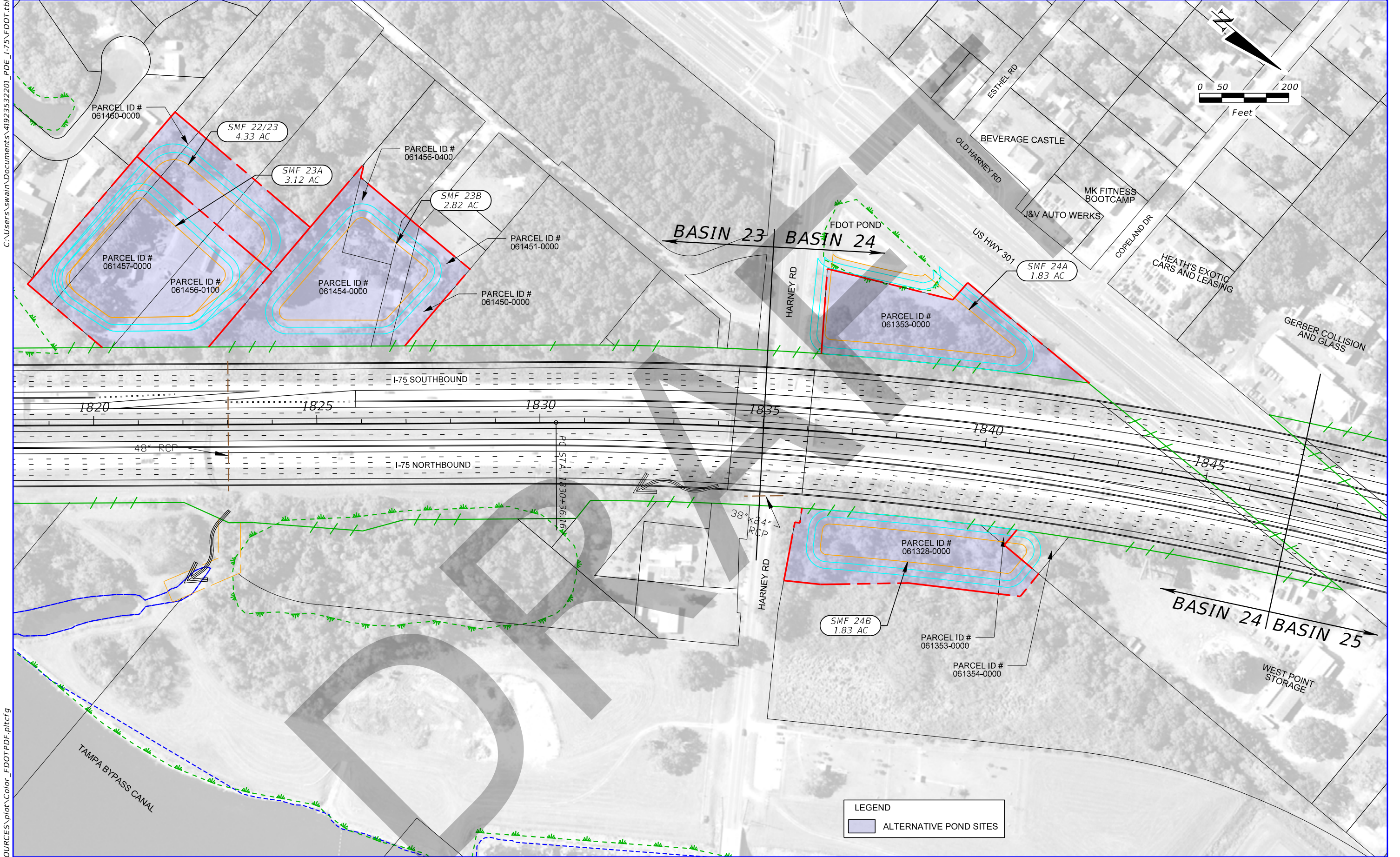
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 39A - BASIN 22
ALTERNATIVE POND SITES

SHEET NO.
13



C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbt

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

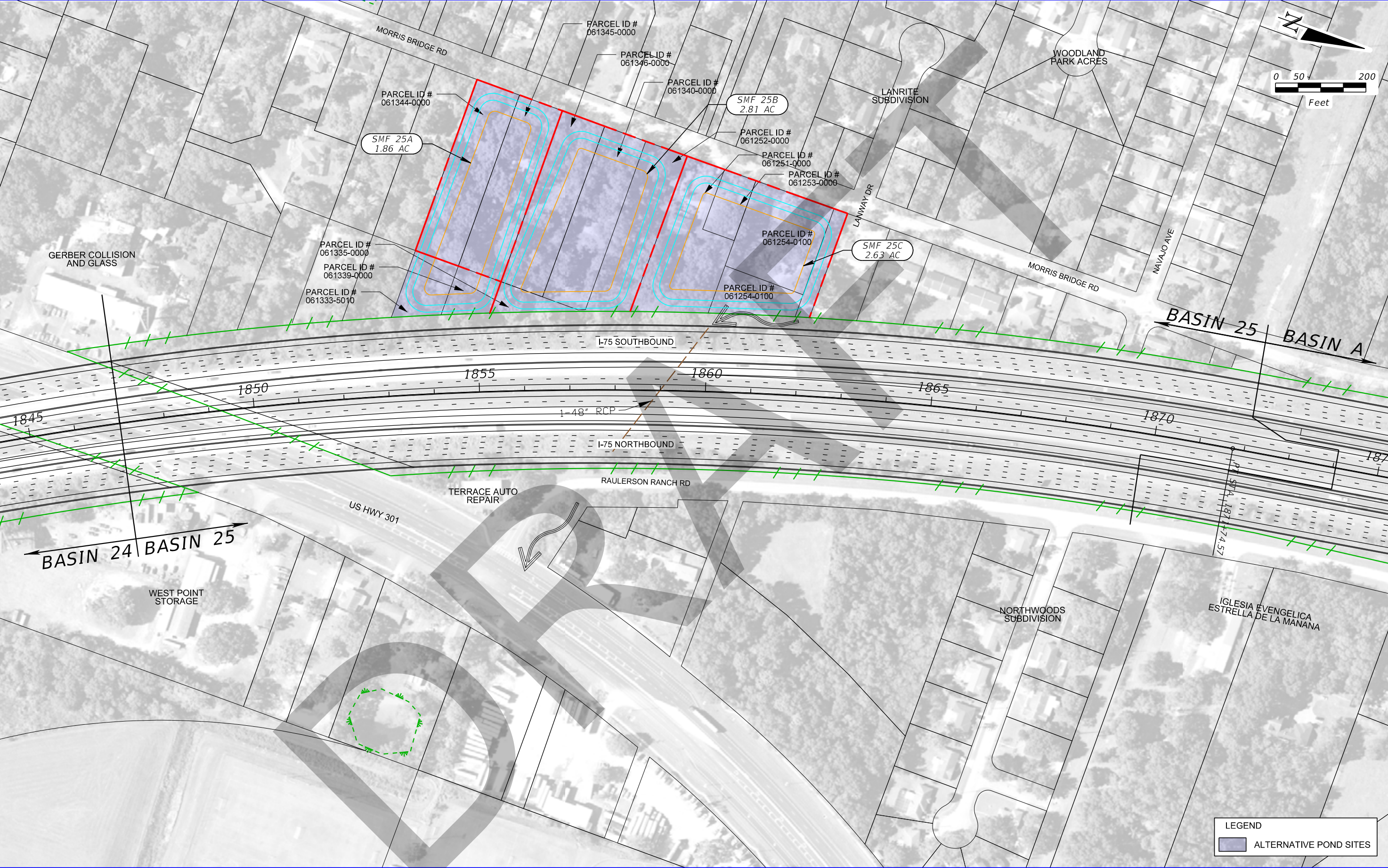
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 23 -24
ALTERNATIVE POND SITES

SHEET NO.
14

C:\Users\swain\Documents\41923532201_PDE_I-75\FDOT.tbi

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



LEGEND
 ALTERNATIVE POND SITES

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 25
ALTERNATIVE POND SITES

SHEET NO.
15

Alternative Matirx Analysis

Basin 1

| Parameter | Pond Alternative | | |
|--|---|---|--|
| | SMF 1A | SMF 1B | SMF 1C |
| Location (Station), Side | 1272+00, RT | 1282+00, RT | 1284+00, LT |
| Pond/FPC ROW Area (Ac.) | 3.63 | 3.47 | 2.36 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 3.63 | 3.47 | 2.36 |
| No. of Parcels | 4 | 5 | 9 |
| No. of Property Owners | Aprox. 30 | Aprox. 28 | 9 |
| Land Use | (3) Header (Condo) (1) Residential HOA | (4) Header (Condo) (1) Residential HOA | (8) Single Family R. (1) Homeowners HOA |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.10 | 0.10 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$12,000.00 | \$12,000.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$12,000.00 | \$12,000.00 | \$0.00 |

Alternative Matirx Analysis

Basin 2/3

| Parameter | Pond Alternative |
|--|------------------|
| | SMF 2/3 |
| Location (Station), Side | 1323+00, LT |
| Pond/FPC ROW Area (Ac.) | 0.00 |
| Easement ROW Area (Ac.) | 0.00 |
| Total ROW Area (Ac.) | 0.00 |
| No. of Parcels | 0 |
| No. of Property Owners | 0 |
| Land Use | - |
| Additional inflow Pipe Length (ft) | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 |
| Total Cost | \$0.00 |

Alternative Matirx Analysis

Basin 4/5

| Parameter | Pond Alternative |
|--|------------------|
| | SMF 4/5 |
| Location (Station), Side | 1335+00, LT |
| Pond/FPC ROW Area (Ac.) | 0.00 |
| Easement ROW Area (Ac.) | 0.00 |
| Total ROW Area (Ac.) | 0.00 |
| No. of Parcels | 0 |
| No. of Property Owners | 0 |
| Land Use | - |
| Additional inflow Pipe Length (ft) | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 |
| Total Cost | \$0.00 |

Alternative Matirx Analysis

Basin 6

| Parameter | Pond Alternative | | Floodplains |
|--|---------------------|--|-------------|
| | SMF 6A | SMF 6B | FPC 6 |
| Location (Station), Side | 1370+00, LT | 1378+00, LT | 1360+00, RT |
| Pond/FPC ROW Area (Ac.) | 3.25 | 3.69 | 0.00 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 3.25 | 3.69 | 0.00 |
| No. of Parcels | 1 | 3 | 0 |
| No. of Property Owners | 1 | 3 | 0 |
| Land Use | (1) Off Multi-Sty A | (1) Warehouse A (1) Off Multi-Sty A (1) Header | - |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$0.00 | \$0.00 |

Alternative Matirx Analysis

Basin 7

| Parameter | Pond Alternative | | Floodplains |
|--|------------------|--|-----------------|
| | SMF 7A | SMF 7B | FPC 7 |
| Location (Station), Side | 1415+70, LT | 1422+00, RT | 1437+00, LT |
| Pond/FPC ROW Area (Ac.) | 3.16 | 2.00 | 0.00 |
| Easement ROW Area (Ac.) | 0.00 | 0.17 | 0.00 |
| Total ROW Area (Ac.) | 3.16 | 2.17 | 0.00 |
| No. of Parcels | 1 | 2 | 2 |
| No. of Property Owners | 1 | 2 | 1 |
| Land Use | (1) Vacant Comm. | (1) Day Care Center A (1) FDOT Vacant | (2) FDOT Vacant |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.30 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$36,000.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$36,000.00 | \$0.00 |

Alternative Matirx Analysis

Basin 8 & 7/8

| Parameter | Pond Alternative | | |
|--|------------------|------------------|------------------|
| | SMF 8A | SMF 8B | SMF 7/8 |
| Location (Station), Side | 1450+00, RT | 1454+00, RT | 1457+00, LT |
| Pond/FPC ROW Area (Ac.) | 2.65 | 3.58 | 5.57 |
| Easement ROW Area (Ac.) | 0.00 | 0.67 | 0.00 |
| Total ROW Area (Ac.) | 2.65 | 4.25 | 5.57 |
| No. of Parcels | 1 | 5 | 1 |
| No. of Property Owners | 1 | 1 | 1 |
| Land Use | (1) Vacant Comm. | (5) Vacant Comm. | (1) Vacant Comm. |
| Additional inflow Pipe Length (ft) | 0 | 430 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$77,400.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 430 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$38,700.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.37 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$44,400.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$160,500.00 | \$0.00 |

Alternative Matirx Analysis

Basin 9

| Parameter | Pond Alternative |
|--|------------------|
| | SMF 9 |
| Location (Station), Side | 1485+00, LT |
| Pond/FPC ROW Area (Ac.) | 0.00 |
| Easement ROW Area (Ac.) | 0.00 |
| Total ROW Area (Ac.) | 0.00 |
| No. of Parcels | 0 |
| No. of Property Owners | 0 |
| Land Use | - |
| Additional inflow Pipe Length (ft) | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 |
| Total Cost | \$0.00 |

Alternative Matrix Analysis

Basin 10

| Parameter | Pond Alternative | | |
|--|--|---|-----------------------|
| | SMF 10A | SMF 10B | SMF 10C |
| Location (Station), Side | 1504+00, LT | 1500+00, LT | 1497+00, LT |
| Pond/FPC ROW Area (Ac.) | 3.25 | 4.53 | 2.45 |
| Easement ROW Area (Ac.) | 0.00 | 0.82 | 0.00 |
| Total ROW Area (Ac.) | 3.25 | 5.35 | 2.45 |
| No. of Parcels | 1 | 2 | 1 |
| No. of Property Owners | 1 | 2 | 1 |
| Land Use | (1) Bowling Alley/Skate Rink Vacant Area | (1) Bowling Alley/Skate Rink Vacant Area (1) Warehouse C | (1) Vacant Industrial |
| Additional inflow Pipe Length (ft) | 0 | 600 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$108,000.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 600 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$54,000.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.08 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$9,600.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$162,000.00 | \$9,600.00 |

Alternative Matrix Analysis

Basin 11

| Parameter | Pond Alternative | | |
|--|--------------------------------------|-----------------|-----------------------|
| | SMF 11A | SMF 11B | SMF 11C |
| Location (Station), Side | 1508+00, LT | 1512+00, LT | 1508+00, RT |
| Pond/FPC ROW Area (Ac.) | 1.23 | 1.47 | 1.09 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 1.23 | 1.47 | 1.09 |
| No. of Parcels | 2 | 1 | 1 |
| No. of Property Owners | 2 | 1 | 1 |
| Land Use | (1) Warehouse B (1) County Vacant | (1) Warehouse B | (1) LIHTC -Apartments |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$0.00 | \$0.00 |

Alternative Matrix Analysis

Basin 12/13

| Parameter | Pond Alternative | | | Floodplains | |
|--|---|---------------------------------------|------------------------------|-------------|------------------------------------|
| | SMF 12/13A | SMF 12/13B | SMF 12/13C | FPC 12/13R | FPC 12/13L |
| Location (Station), Side | 1539+00, LT | 1536+00, RT | 1550+00, RT | 1542+00, RT | 1543+00, LT |
| Pond/FPC ROW Area (Ac.) | 5.04 | 4.61 | 5.43 | 1.09 | 1.55 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 5.04 | 4.61 | 5.43 | 1.09 | 1.55 |
| No. of Parcels | 6 | 4 | 2 | 1 | 2 |
| No. of Property Owners | 6 | 4 | 2 | 1 | 2 |
| Land Use | (2) Mobile Home (1) Flex Serv C (1) Warehouse A (1) Warehouse B (1) Vacant Industrial | (3) Single Family R. (1) Vacant R. | (1) Pasture (1) Vacant R. | (1) Pasture | (1) Mobile Home (1) Flex Serv C |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 1.20 | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$144,000.00 | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$144,000.00 | \$0.00 | \$0.00 | \$0.00 |

Alternative Matrix Analysis

Basin 14

| Parameter | Pond Alternative | | | Floodplains |
|--|------------------|---|----------------------------------|------------------|
| | SMF 14A | SMF 14B | SMF 14C | FPC 14 |
| Location (Station), Side | 1575+00, RT | 1575+00, RT | 1570+00, LT | 1580+00, RT |
| Pond/FPC ROW Area (Ac.) | 5.77 | 4.96 | 4.55 | 0.78 |
| Easement ROW Area (Ac.) | 0.00 | 1.57 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 5.77 | 6.53 | 4.55 | 0.78 |
| No. of Parcels | 1 | 4 | 1 | 1 |
| No. of Property Owners | 1 | 2 | 1 | 1 |
| Land Use | (1) Vacant Comm. | (3) Single Family R. (1) Vacant R. Comm. | (1) State- School Parking Lot | (1) Vacant Comm. |
| Additional inflow Pipe Length (ft) | 0 | 1065 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$191,700.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 1065 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$95,850.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.13 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$15,600.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$287,550.00 | \$15,600.00 | \$0.00 |

Alternative Matirx Analysis

Basin 15/16

| Parameter | Pond Alternative |
|--|------------------|
| | SMF 15/16 |
| Location (Station), Side | 1615+00, RT |
| Pond/FPC ROW Area (Ac.) | 0 |
| Easement ROW Area (Ac.) | 0.00 |
| Total ROW Area (Ac.) | 0.00 |
| No. of Parcels | 0 |
| No. of Property Owners | 0 |
| Land Use | - |
| Additional inflow Pipe Length (ft) | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 |
| Total Cost | \$0.00 |

Alternative Matirx Analysis

Basin 17

| Parameter | Pond Alternative | |
|--|------------------|-------------|
| | SMF 17A | SMF 17B |
| Location (Station), Side | 1665+00, LT | 1640+00, LT |
| Pond/FPC ROW Area (Ac.) | 3.78 | 3.49 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 3.78 | 3.49 |
| No. of Parcels | 2 | 3 |
| No. of Property Owners | 1 | 1 |
| Land Use | (2) Pasture | (3) Pasture |
| Additional inflow Pipe Length (ft) | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$0.00 |

Alternative Matirx Analysis

Basin 18

| Parameter | Pond Alternative | | Floodplains |
|--|------------------|-------------|-------------|
| | SMF 18A | SMF 18B | FPC 17/18 |
| Location (Station), Side | 1670+00, LT | 1670+00, RT | 1711+00, LT |
| Pond/FPC ROW Area (Ac.) | 2.15 | 2.13 | 2.42 |
| Easement ROW Area (Ac.) | 0.52 | 0.00 | 0.22 |
| Total ROW Area (Ac.) | 2.67 | 2.13 | 2.64 |
| No. of Parcels | 1 | 1 | 1 |
| No. of Property Owners | 1 | 1 | 1 |
| Land Use | (1) Pasture | (1) Pasture | (1) Pasture |
| Additional inflow Pipe Length (ft) | 375 | 65 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$67,500.00 | \$11,700.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$67,500.00 | \$11,700.00 | \$0.00 |

Alternative Matirx Analysis

Basin 20

| Parameter | Pond Alternative | | Floodplains |
|--|-----------------------------------|---------------------------|-------------|
| | SMF 20A | SMF 20B | FPC 20 |
| Location (Station), Side | 1730+00, LT | 1745+00, RT | 1735+00, LT |
| Pond/FPC ROW Area (Ac.) | 7.81 | 9.63 | 1.88 |
| Easement ROW Area (Ac.) | 1.21 | 1.01 | 0.00 |
| Total ROW Area (Ac.) | 9.02 | 10.64 | 1.88 |
| No. of Parcels | 2 | 2 | 1 |
| No. of Property Owners | 2 | 2 | 1 |
| Land Use | (1) Pasture (1) Vacant Acerage | (1) Pasture (1) Chruch | (1) Pasture |
| Additional inflow Pipe Length (ft) | 0 | 309 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$55,620.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 880 | 650 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$79,200.00 | \$58,500.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.72 | 0.69 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$86,400.00 | \$82,800.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$165,600.00 | \$196,920.00 | \$0.00 |

Alternative Matirx Analysis

Basin 21

| Parameter | Pond Alternative | | | Floodplains | |
|--|------------------|--------------|-------------|-------------|------------------------|
| | SMF 21A | SMF 21B | SMF 21C | FPC 21A | FPC 21B |
| Location (Station), Side | 1755+00, RT | 1763+00, RT | 1752+00, LT | 1755+00, LT | 1766+00, LT |
| Pond/FPC ROW Area (Ac.) | 7.78 | 6.67 | 6.70 | 1.66 | 1.28 |
| Easement ROW Area (Ac.) | 0.00 | 0.75 | 0.00 | 0.00 | 0.20 |
| Total ROW Area (Ac.) | 7.78 | 7.42 | 6.70 | 1.66 | 1.48 |
| No. of Parcels | 1 | 1 | 1 | 1 | 1 |
| No. of Property Owners | 1 | 1 | 1 | 1 | 1 |
| Land Use | (1) Pasture | (1) Pasture | (1) Pasture | (1) Pasture | (1) Aviation Authority |
| Additional inflow Pipe Length (ft) | 0 | 540 | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$97,200.00 | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.34 | 0.96 | 0.00 | 0.00 | 0.18 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$40,800.00 | \$115,200.00 | \$0.00 | \$0.00 | \$21,600.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Cost | \$40,800.00 | \$212,400.00 | \$0.00 | \$0.00 | \$21,600.00 |

Alternative Matirx Analysis

Basin 22/23

| Parameter | Pond Alternative | | | |
|--|---|---|-----------------|---|
| | SMF 22A | SMF 23A | SMF 23B | SMF 22/23 |
| Location (Station), Side | 1798+00, LT | 1821+00, LT | 1825+00, LT | 1823+00, LT |
| Pond/FPC ROW Area (Ac.) | 4.35 | 3.12 | 2.82 | 4.33 |
| Easement ROW Area (Ac.) | 0.64 | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 4.99 | 3.12 | 2.82 | 4.33 |
| No. of Parcels | 17 | 3 | 3 | 3 |
| No. of Property Owners | 17 | 1 | 3 | 1 |
| Land Use | (16) Single Family R. (1) HO Association | (1) Dairies/Feedlts (2) Poul/Bees/Fish | (3) Mobile Home | (1) Dairies/Feedlts (2) Poul/Bees/Fish |
| Additional inflow Pipe Length (ft) | 400 | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$72,000.00 | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.64 | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$76,800.00 | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Cost | \$148,800.00 | \$0.00 | \$0.00 | \$0.00 |

Alternative Matirx Analysis

Basin 24

| Parameter | Pond Alternative | |
|--|------------------|-------------------------------------|
| | SMF 24A | SMF 24B |
| Location (Station), Side | 1838+00, LT | 1838+00, RT |
| Pond/FPC ROW Area (Ac.) | 1.83 | 1.83 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 1.83 | 1.83 |
| No. of Parcels | 1 | 3 |
| No. of Property Owners | 1 | 2 |
| Land Use | (1) Vacant Comm. | (2) Vacant Comm. (1) FDOT Vacant |
| Additional inflow Pipe Length (ft) | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 0 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$0.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 |
| Total Cost | \$0.00 | \$0.00 |

Alternative Matirx Analysis

Basin 25

| Parameter | Pond Alternative | | |
|--|---|------------------------------------|------------------------------------|
| | SMF 25A | SMF 25B | SMF 25C |
| Location (Station), Side | 1854+00, LT | 1857+00, LT | 1860+00, LT |
| Pond/FPC ROW Area (Ac.) | 1.86 | 2.81 | 2.63 |
| Easement ROW Area (Ac.) | 0.00 | 0.00 | 0.00 |
| Total ROW Area (Ac.) | 1.86 | 2.81 | 2.63 |
| No. of Parcels | 4 | 4 | 4 |
| No. of Property Owners | 2 | 3 | 4 |
| Land Use | (2) Single Family R. (2) FDOT Vacant | (3) Single Family R. (1) Vacant | (3) Single Family R. (1) Vacant |
| Additional inflow Pipe Length (ft) | 0 | 0 | 0 |
| Added Pipe Cost (48" RCP @ \$180/LF) | \$0.00 | \$0.00 | \$0.00 |
| Additional Outfall Pipe Length(ft) | 514 | 235 | 0 |
| Added Pipe Cost (24" RCP @ \$90/LF) | \$46,260.00 | \$21,150.00 | \$0.00 |
| Wetland Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Wetland Mitigation Cost (\$ 120k/acre) | \$0.00 | \$0.00 | \$0.00 |
| Floodplain Impacts (Ac.) | 0.00 | 0.00 | 0.00 |
| Total Cost | \$46,260.00 | \$21,150.00 | \$0.00 |

DRAFT

FDOT Short List Meeting

POND SITING SHORT LIST MEETING

I-75 (SR 93A) PD&E From S. of US
301 to N. of Bruce B. Downs Blvd.

HILLSBOROUGH COUNTY, FDOT DISTRICT 7

FPID 419235-3-22-01

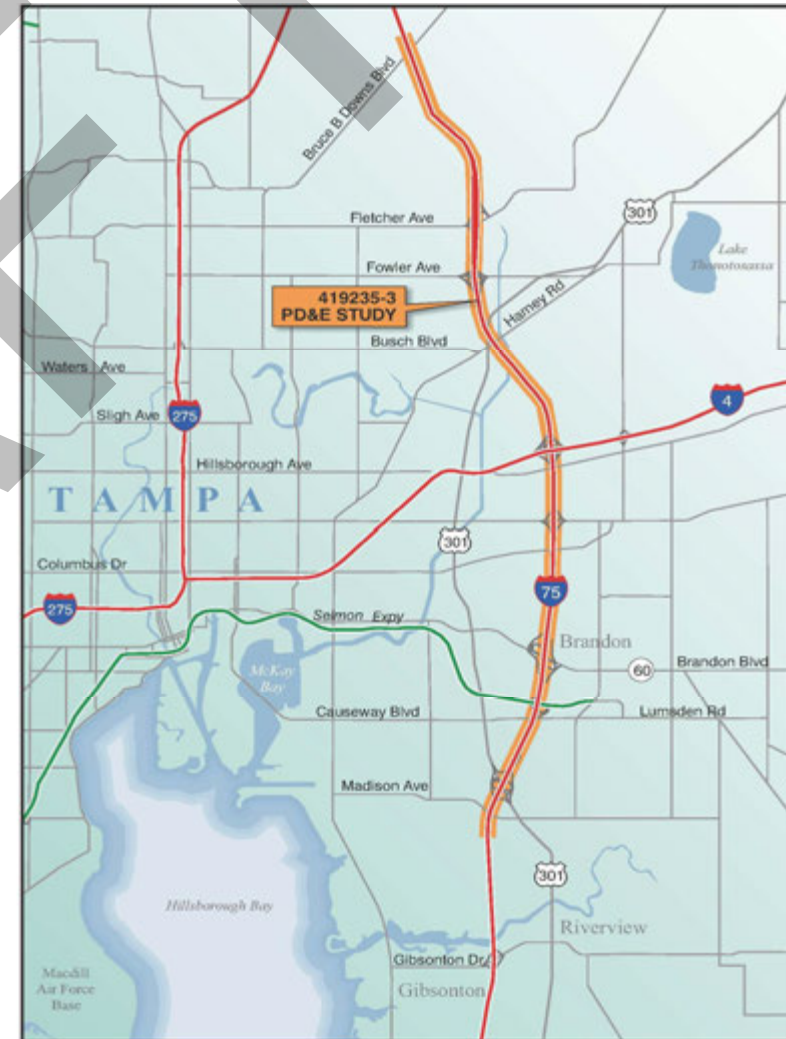


Project Refresher

- 2 contiguous I-75 Projects (aka. Sec. 9 & 10)
 - Section 9
 - 17.8 miles

Drainage Status

- Long List Meeting- 6/7/19
- Revisions Made/ R/W Cost Request- 7/3/19
- Long List Meeting Minutes- 7/8/19
- Preliminary A,B,C's start (46 Sites)- 7/10/19
- Cost Estimates Received- 9/23/19
- Short List Meeting- 9/27/19





T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

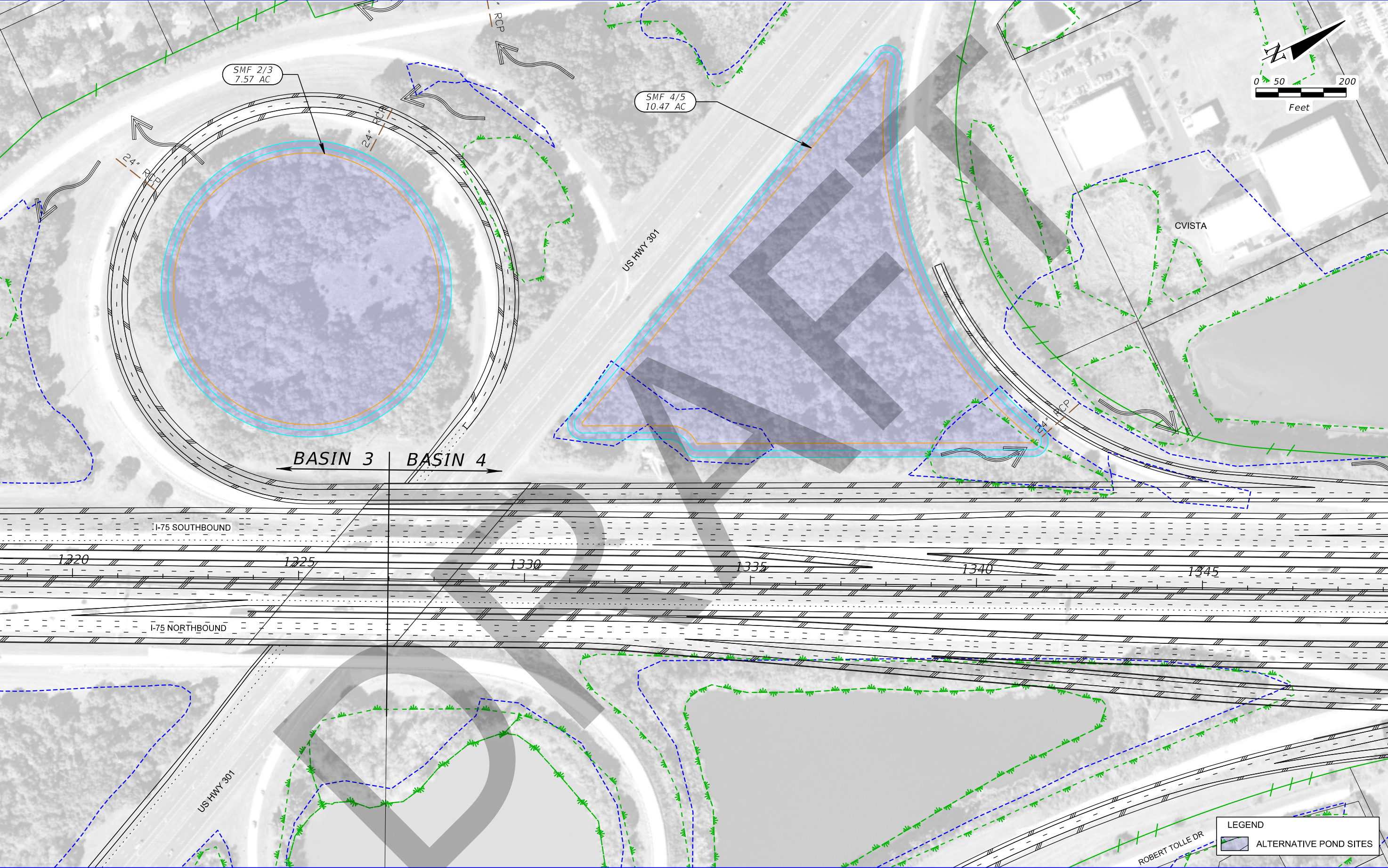
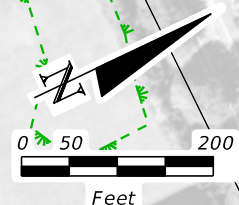
WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 1
ALTERNATIVE POND SITES

SHEET NO.
01

T:\Sys\Projects\41787835201\roadway\geopak\FDOT.tbl



C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

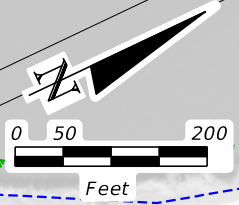
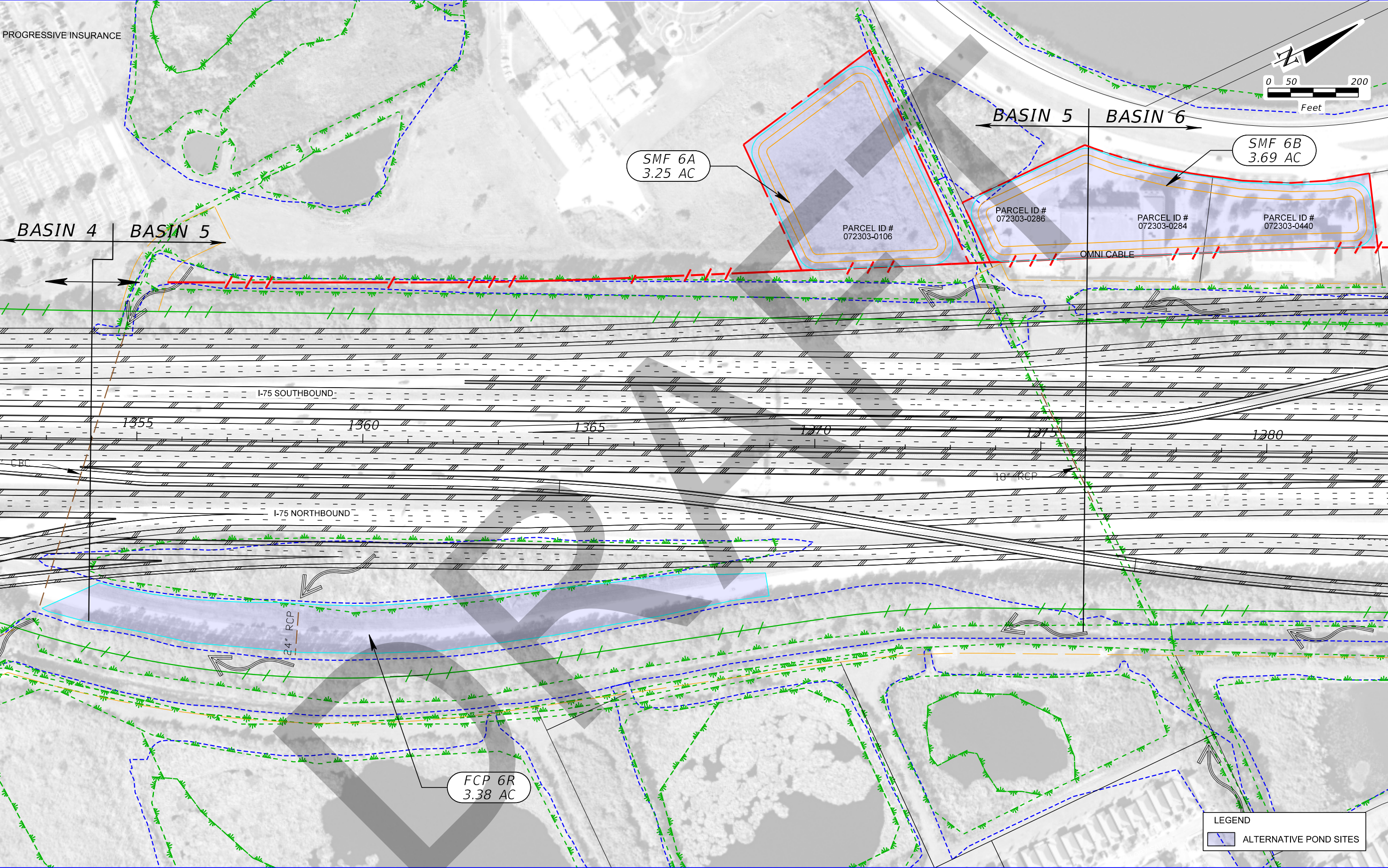
WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 3 & 4
ALTERNATIVE POND SITES

SHEET NO.
02

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl



C:\FOOTSS4\RESOURCES\plot\Color_FOOTPDF.pltcfgr

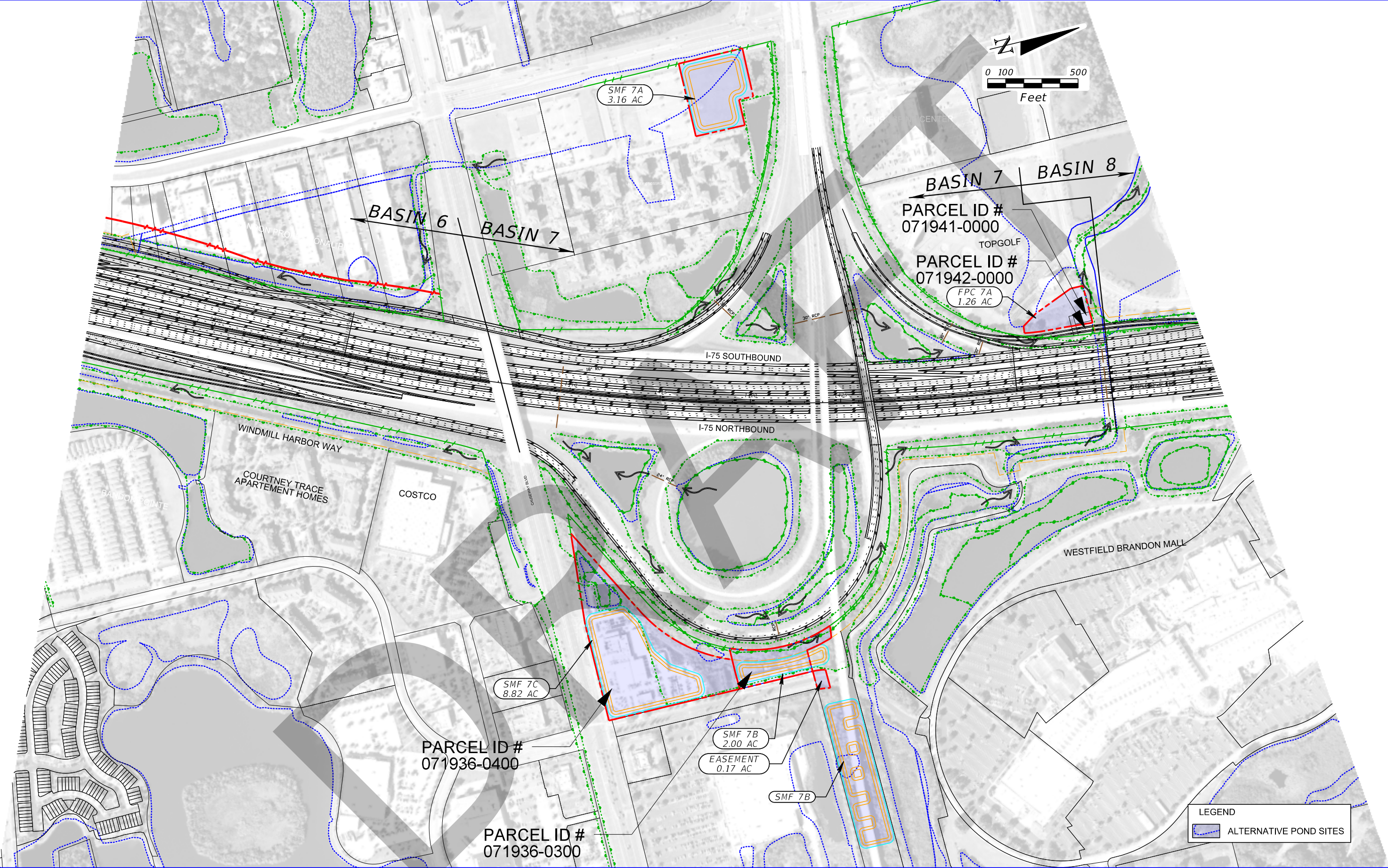
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 5 & 6
ALTERNATIVE POND SITES

SHEET NO.
03



LEGEND
 ALTERNATIVE POND SITES

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

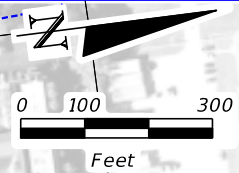
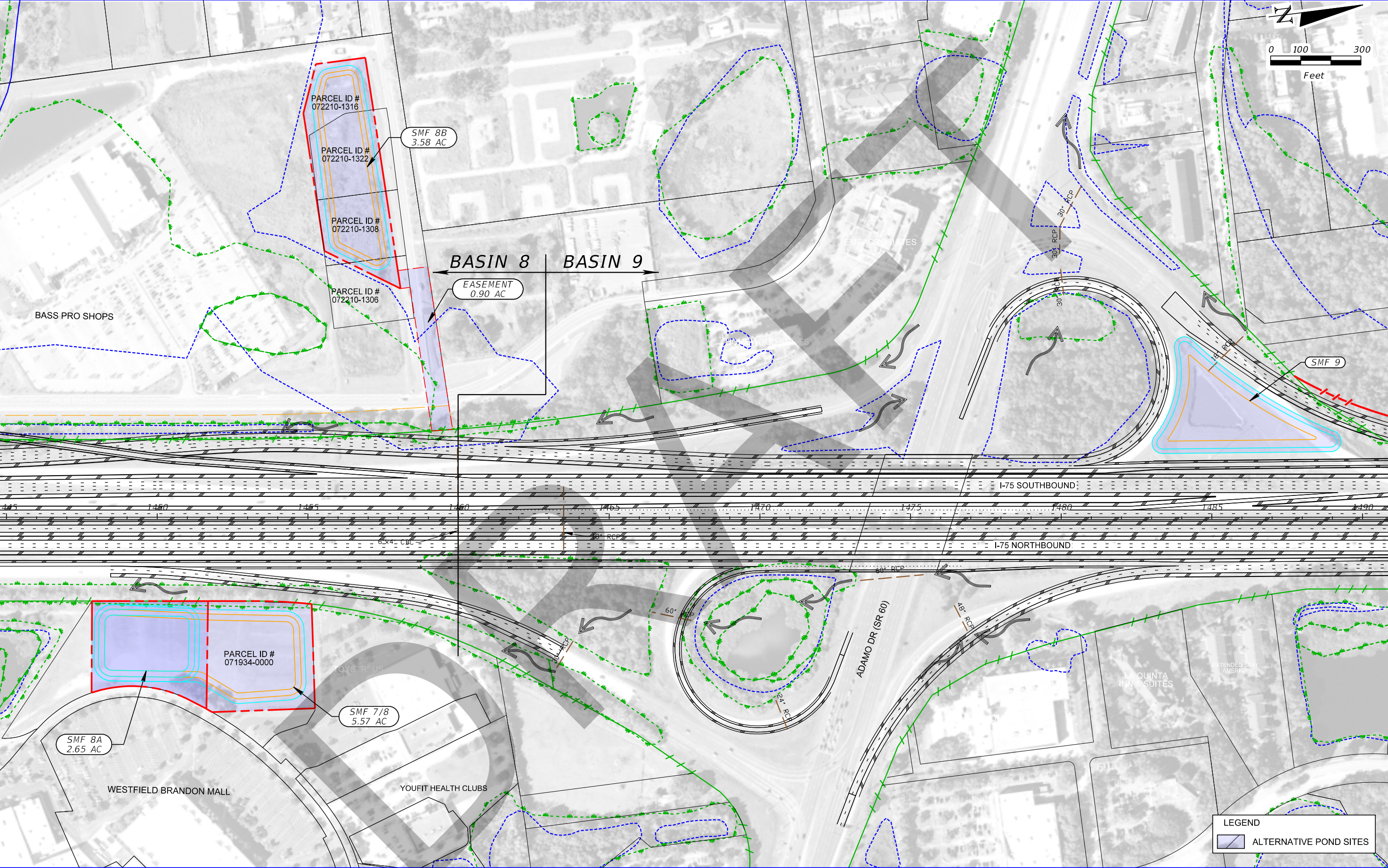
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN - 7
ALTERNATIVE POND SITES

SHEET NO.
 04

T:\Sys\Projects\41787835201\roadway\geopak\FDOT.tbl

C:\FOOTSS4\RESOURCES\plot\Color_FOOTPDF.pltcfgr



| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

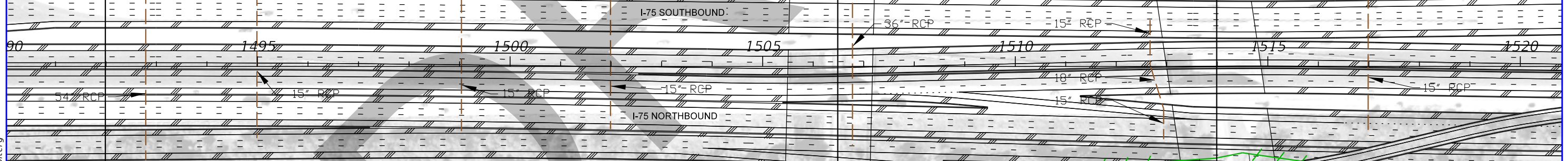
WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 8-9
ALTERNATIVE POND SITES

SHEET NO.
05

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl



| LEGEND | |
|--------|------------------------|
| | ALTERNATIVE POND SITES |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 10-11
ALTERNATIVE POND SITES

| SHEET NO. |
|-----------|
| 06 |

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

T:\Sys\Projects\41787835201\roadway\geopak\FDOT.tbl

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

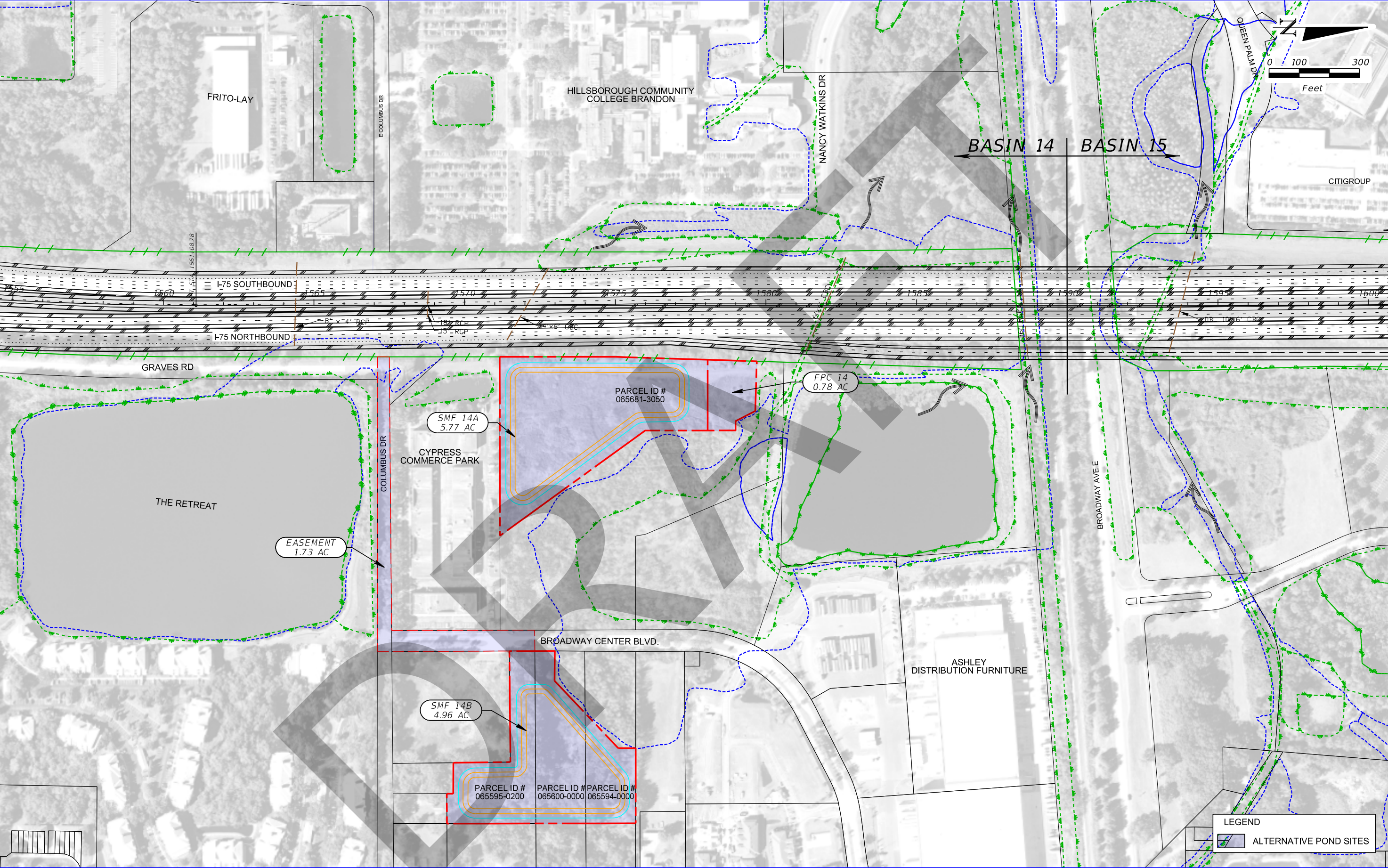
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A BASIN 12-13
ALTERNATIVE POND SITES

SHEET NO.
07

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FOOTSS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

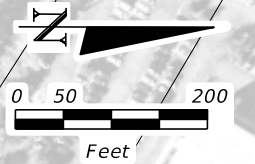
WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

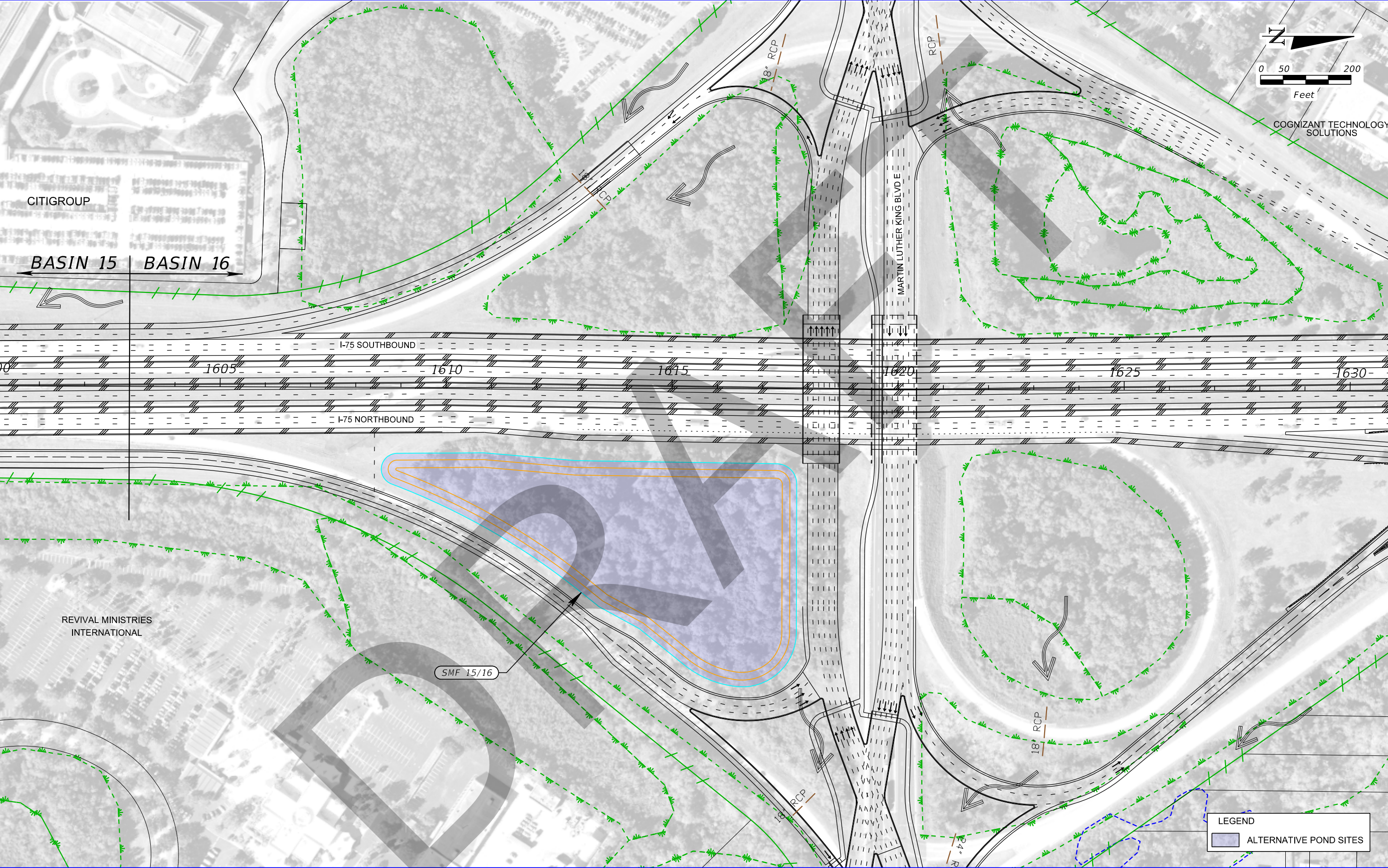
SR 93A - BASIN 14-15
ALTERNATIVE POND SITES

SHEET NO.
08

T:\Sys\Projects\41787835201\roadway\geopak\FDOT.tbi



COGNIZANT TECHNOLOGY SOLUTIONS



| LEGEND | |
|--|------------------------|
| | ALTERNATIVE POND SITES |

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

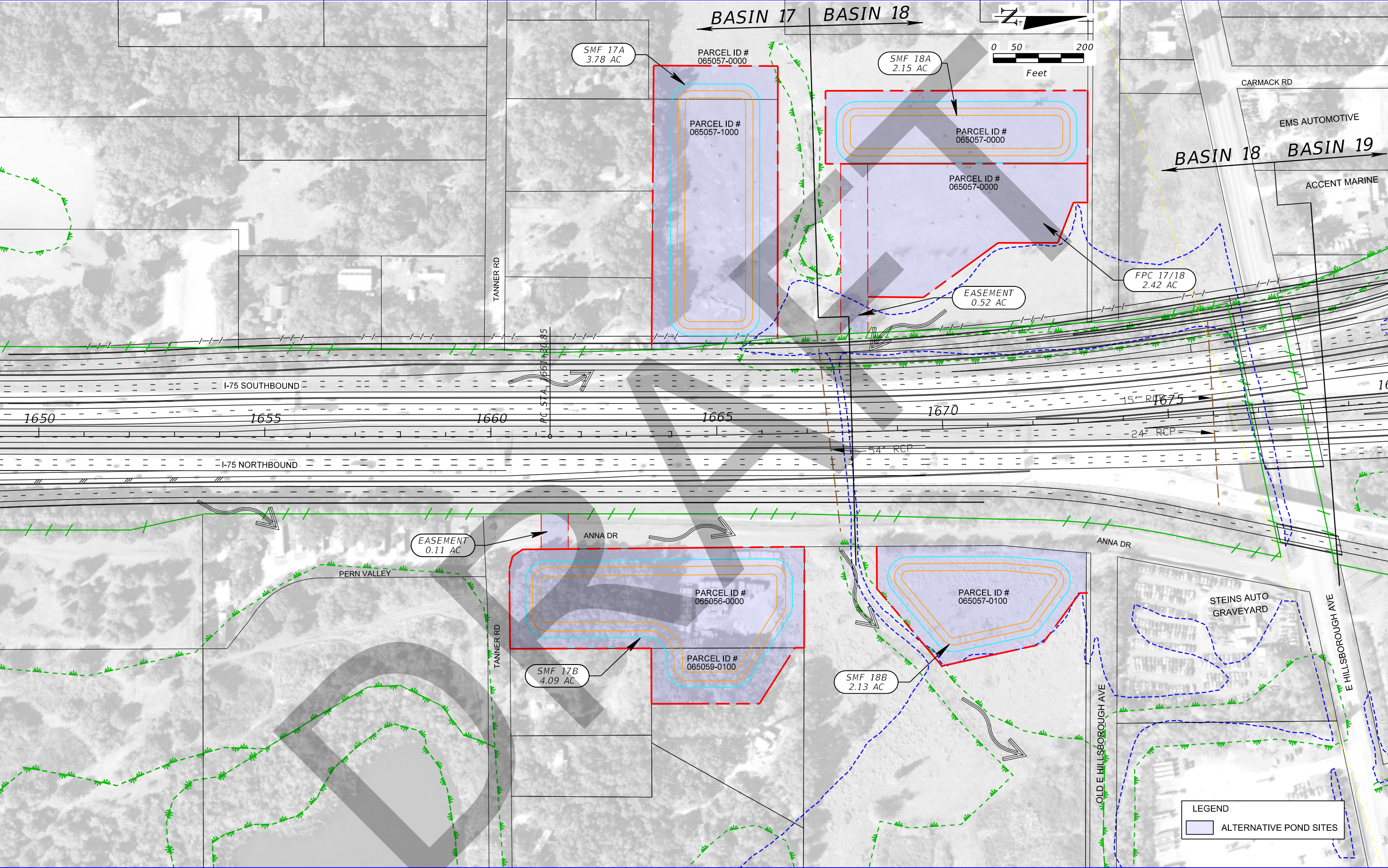
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 15-16
ALTERNATE POND SITES

SHEET NO.
09

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



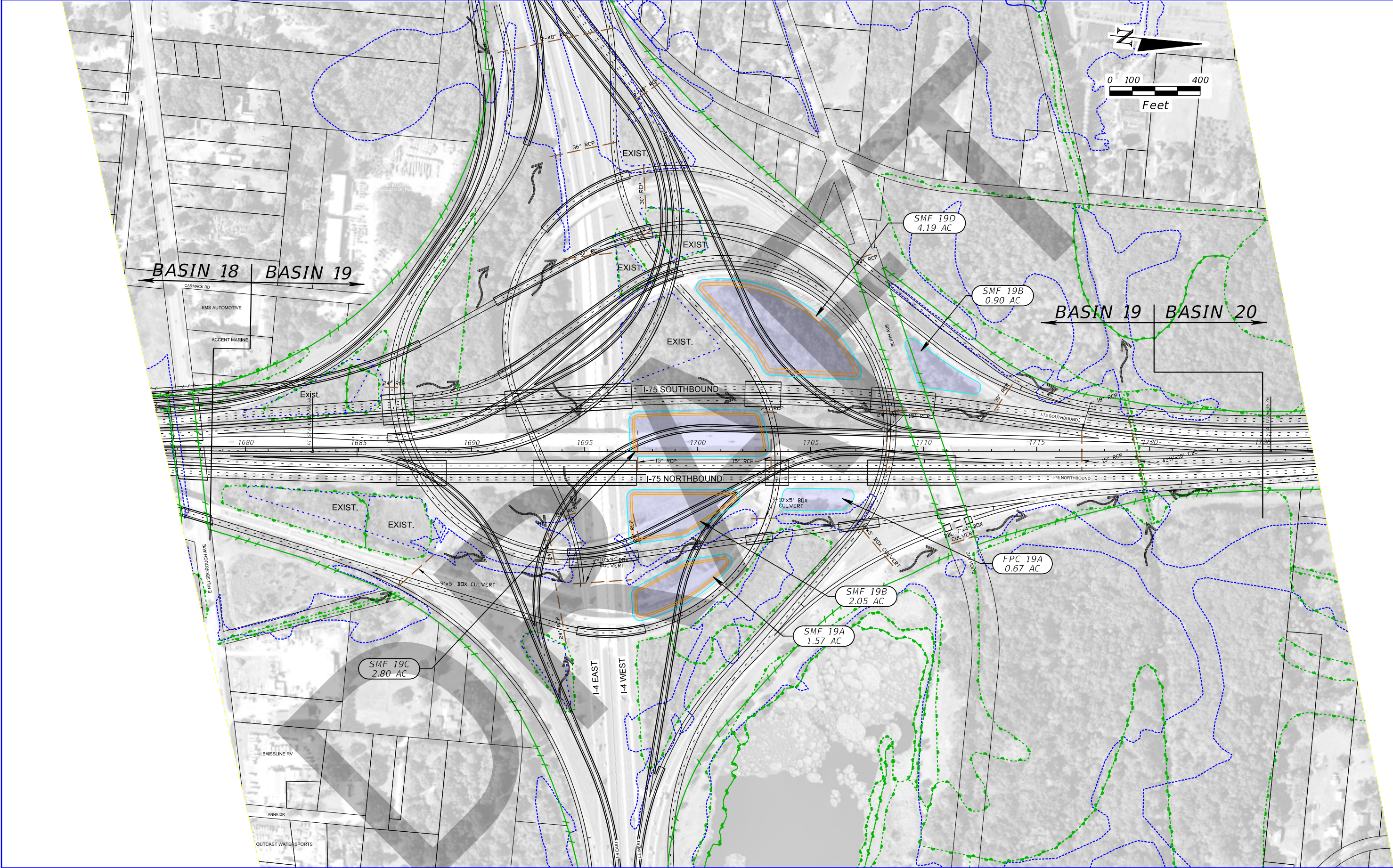
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 17 - 18
ALTERNATE POND SITES

SHEET NO.
10



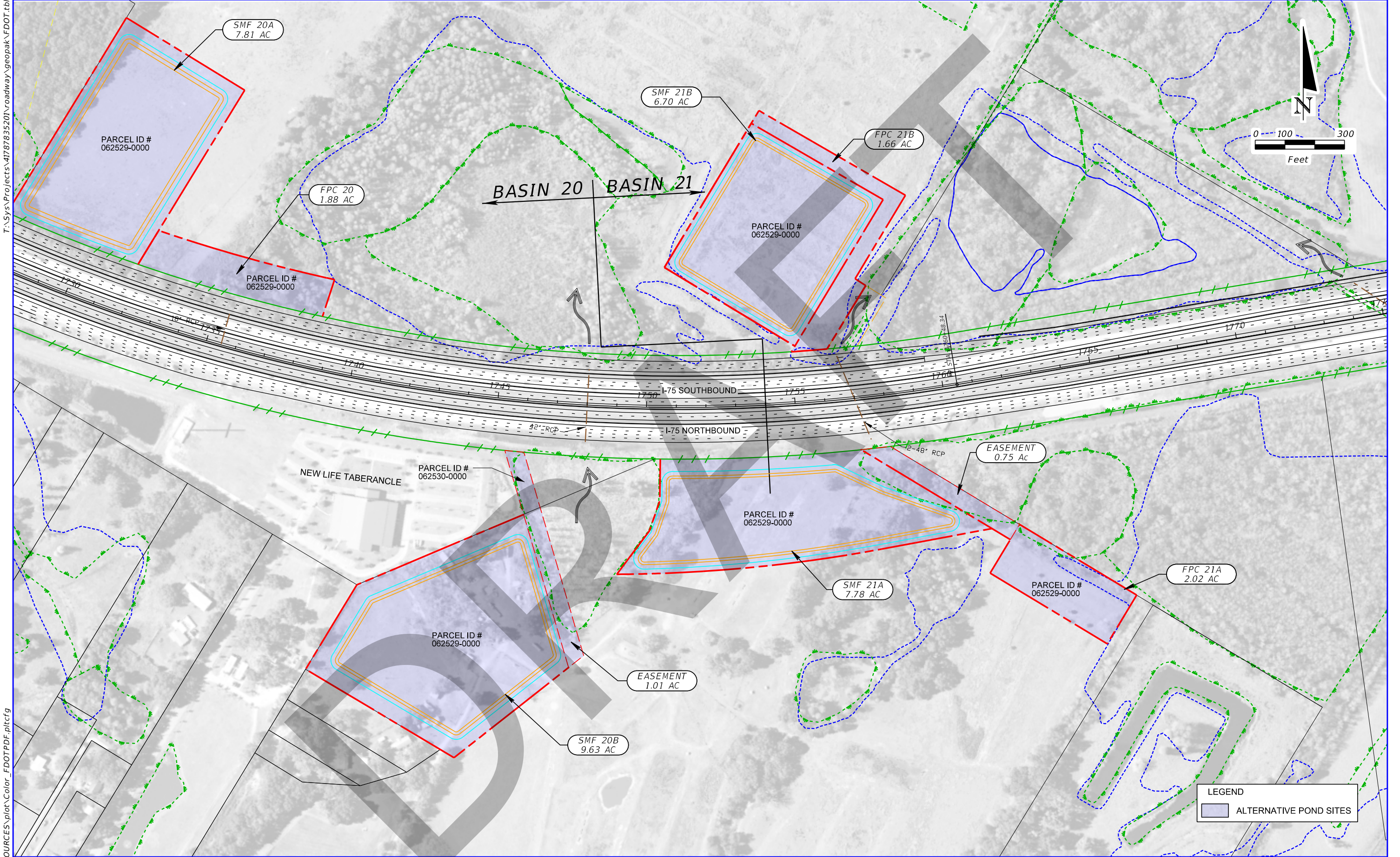
| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 19
ALTERNATIVE POND SITES

| SHEET NO. |
|-----------|
| 11 |



T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr

| REVISIONS | | REVISIONS | |
|-----------|-------------|-----------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

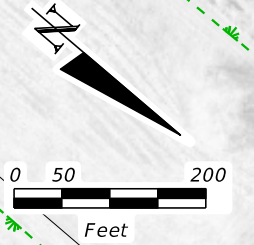
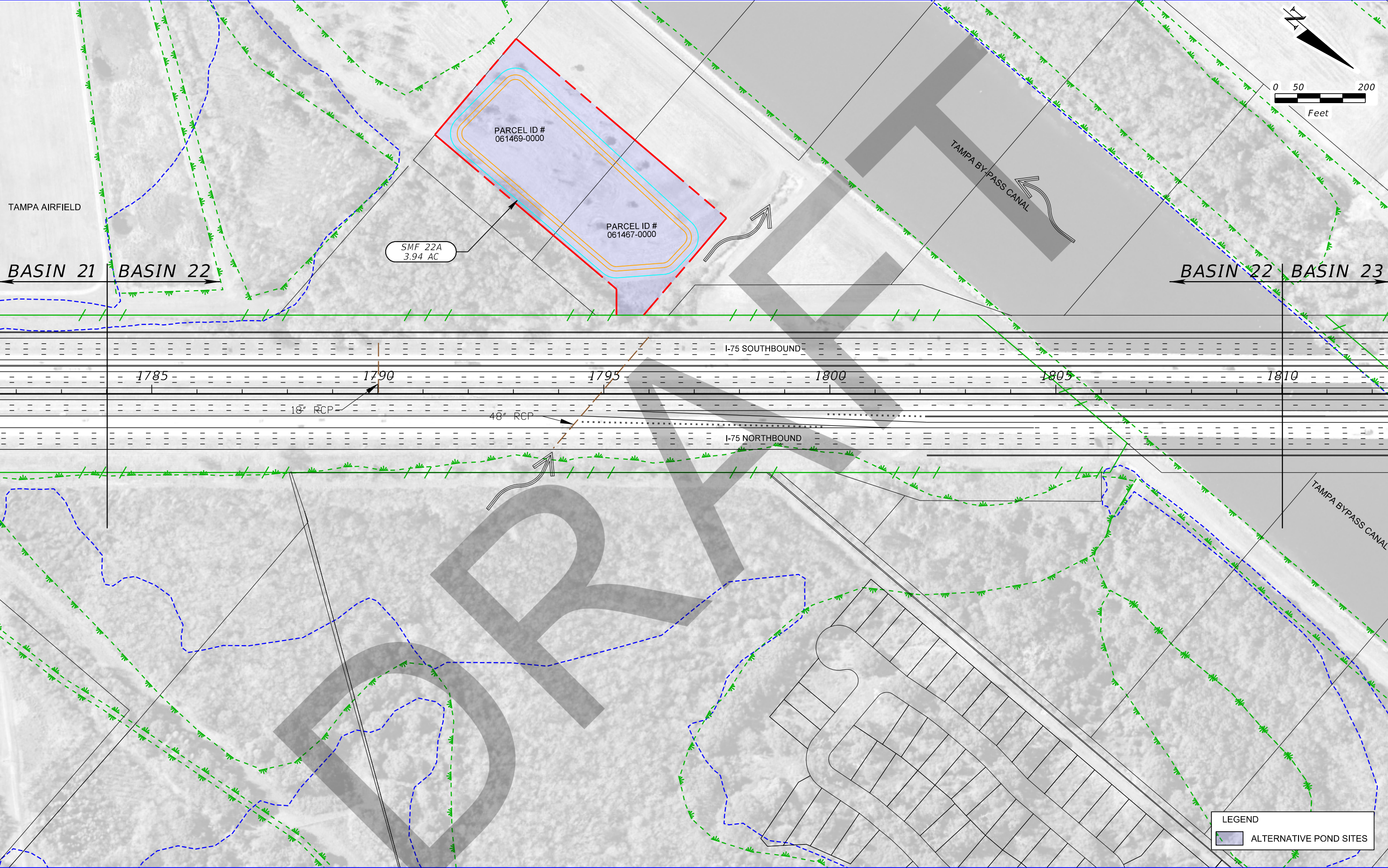
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 20 - 21
ALTERNATIVE POND SITES

SHEET NO.
12

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| LEGEND | |
|---|------------------------|
| | ALTERNATIVE POND SITES |

| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

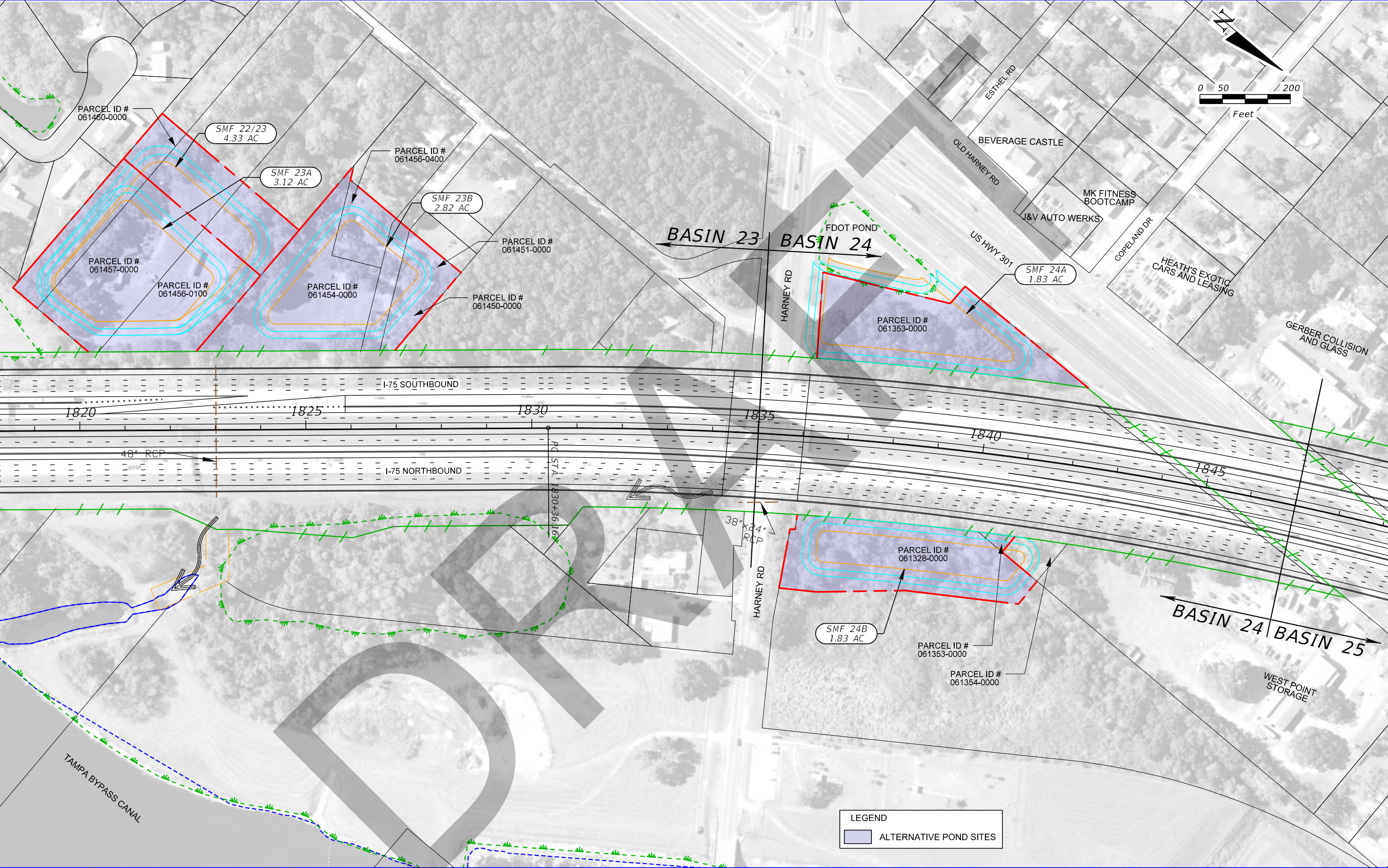
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
|--|--------------|----------------------|
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 39A - BASIN 22
ALTERNATIVE POND SITES

SHEET NO.
13

T:\Sys\Projects\41787835201\Roadway\geopak\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr Swain



| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

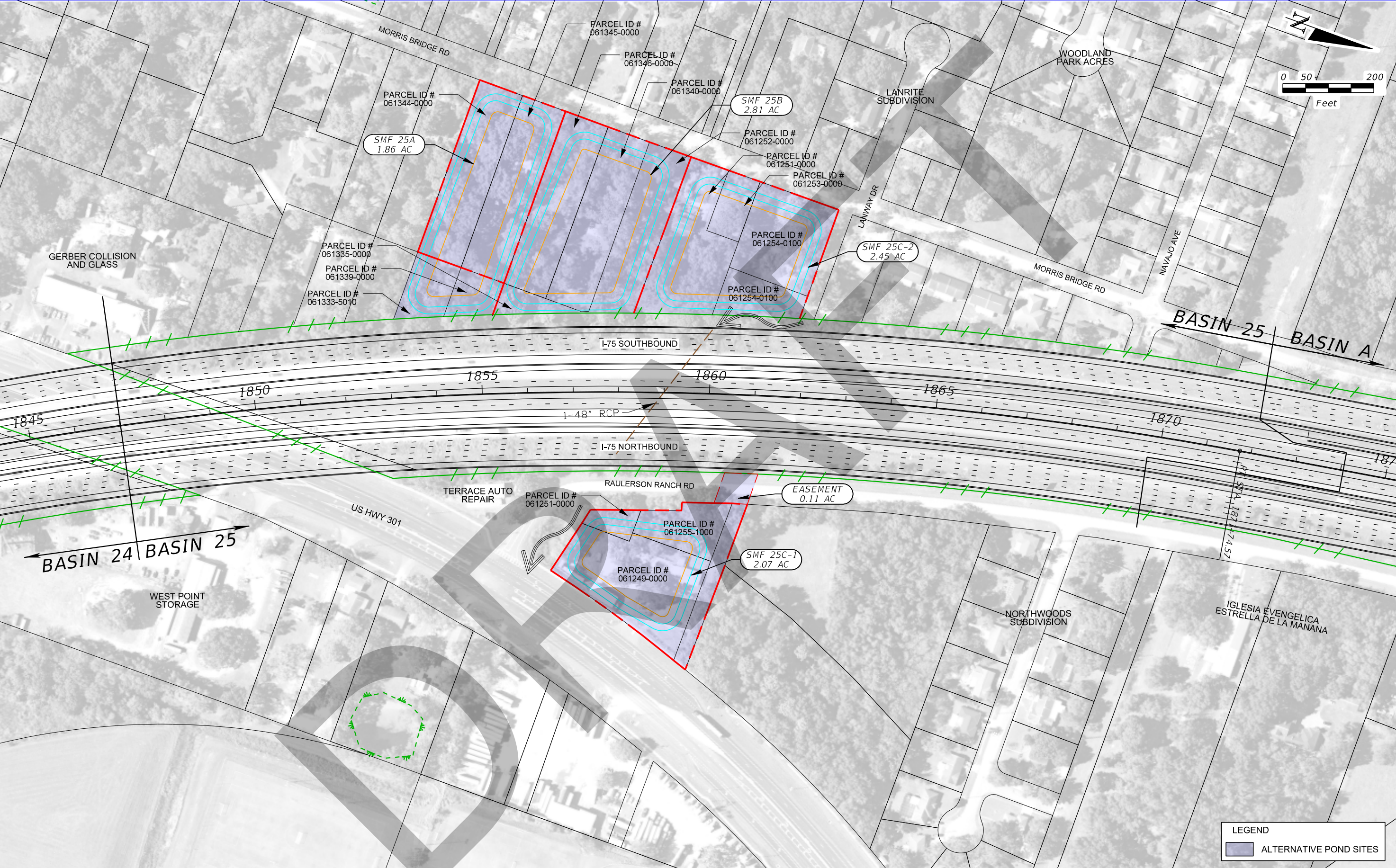
| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 23 -24
ALTERNATIVE POND SITES

SHEET NO.
14

T:\Sys\Projects\41787835201\roadway\geopak\FDOT.tbl

C:\FDOT\SS4\RESOURCES\plot\Color_FDOTPDF.pltcfgr



| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

WSP USA INC.
 2202 NORTH WEST SHORE BLVD., SUITE 300
 TAMPA, FLORIDA 33607
 (813) 520-4444
 CERT. OF AUTH. NO. 1462

| | | |
|--|--------------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 93A | HILLSBOROUGH | 419235-3-22-01 |

SR 93A - BASIN 25
ALTERNATIVE POND SITES

SHEET NO.
15

PSR Schedule

- Next Steps
 - Approximately 21 Preferred Pond/FPC Sites
 - A,B,C's on Preferred Pond Sites (mid Nov)
 - Update PSR with A,B,C's
 - Submit Draft PSR



Appendix F
Proposed Pond Sizing Calculations

DRAFT

Rainfall

Southwest Florida Water Management District

**PART D
PROJECT DESIGN AIDS**

**ENVIRONMENTAL RESOURCE PERMITTING
INFORMATION MANUAL**

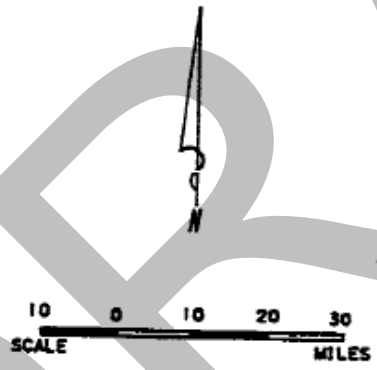


MANAGEMENT AND STORAGE OF SURFACE WATERS




JULY 1996

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

**TWENTY FOUR HOUR
TEN YEAR
RETURN PERIOD
RAINFALL MAP**



LEGEND

-  RAINFALL CONTOUR IN INCHES.
-  BOUNDARY OF THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
-  COUNTY BOUNDARY

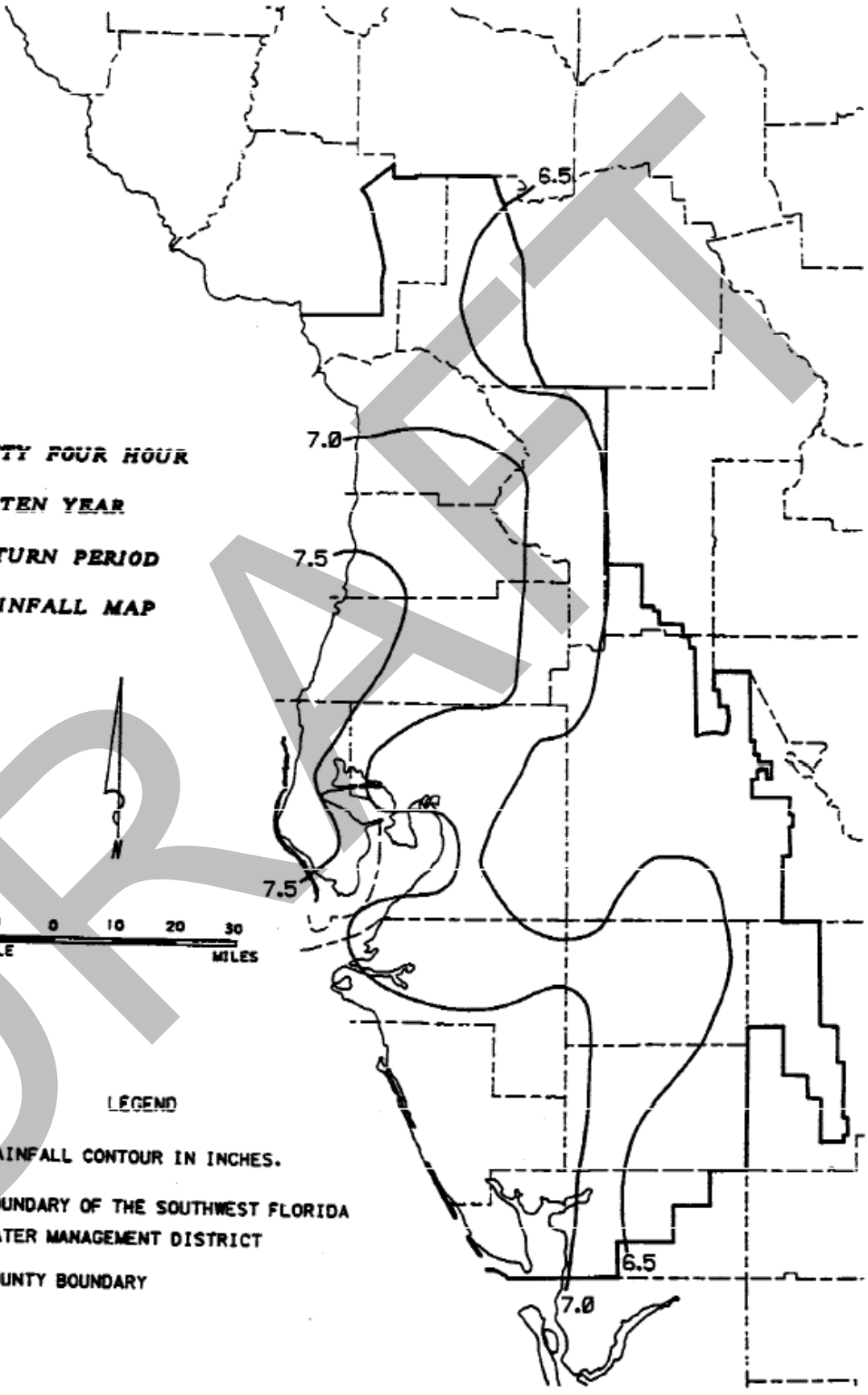


FIGURE D-4

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

TWENTY FOUR HOUR
TWENTY FIVE YEAR
RETURN PERIOD
RAINFALL MAP

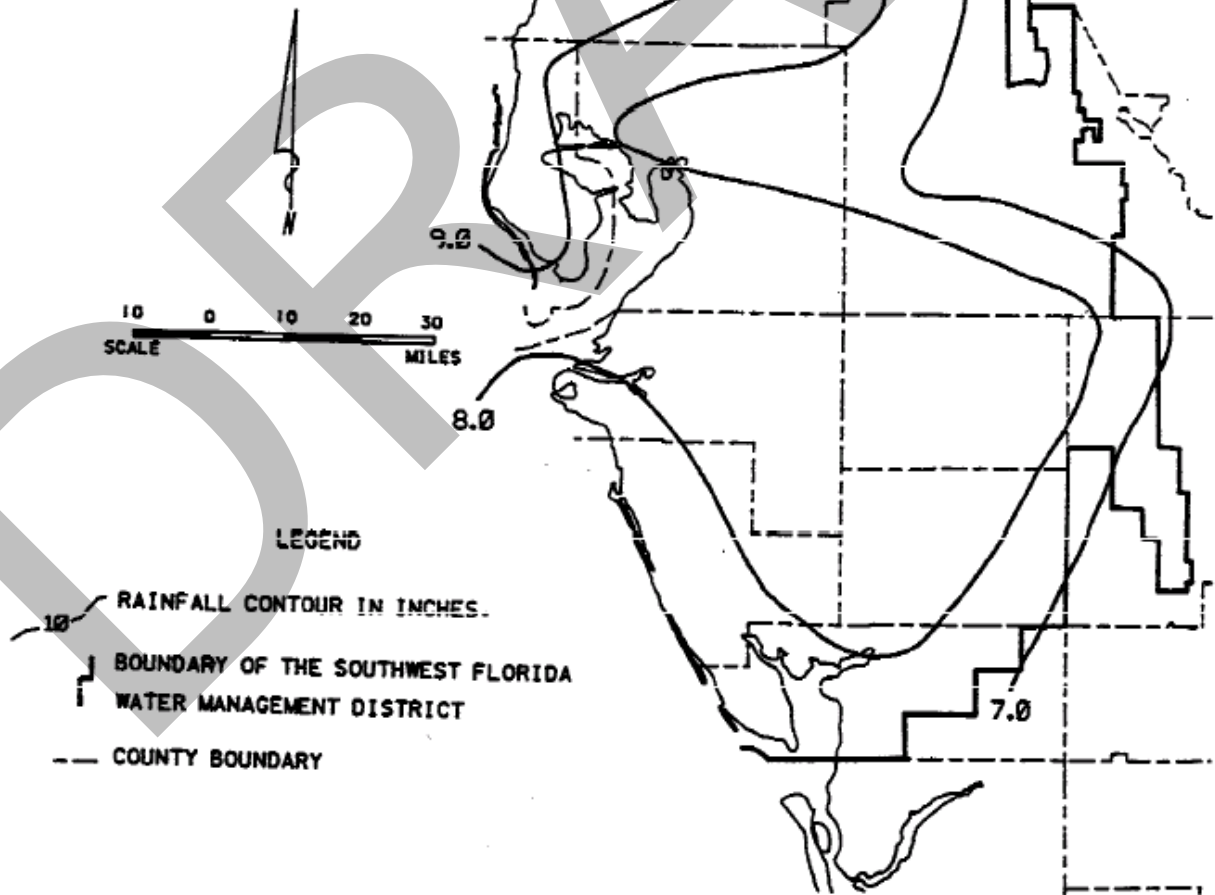


FIGURE D-5

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

**TWENTY FOUR HOUR
ONE HUNDRED YEAR
RETURN PERIOD
RAINFALL MAP**

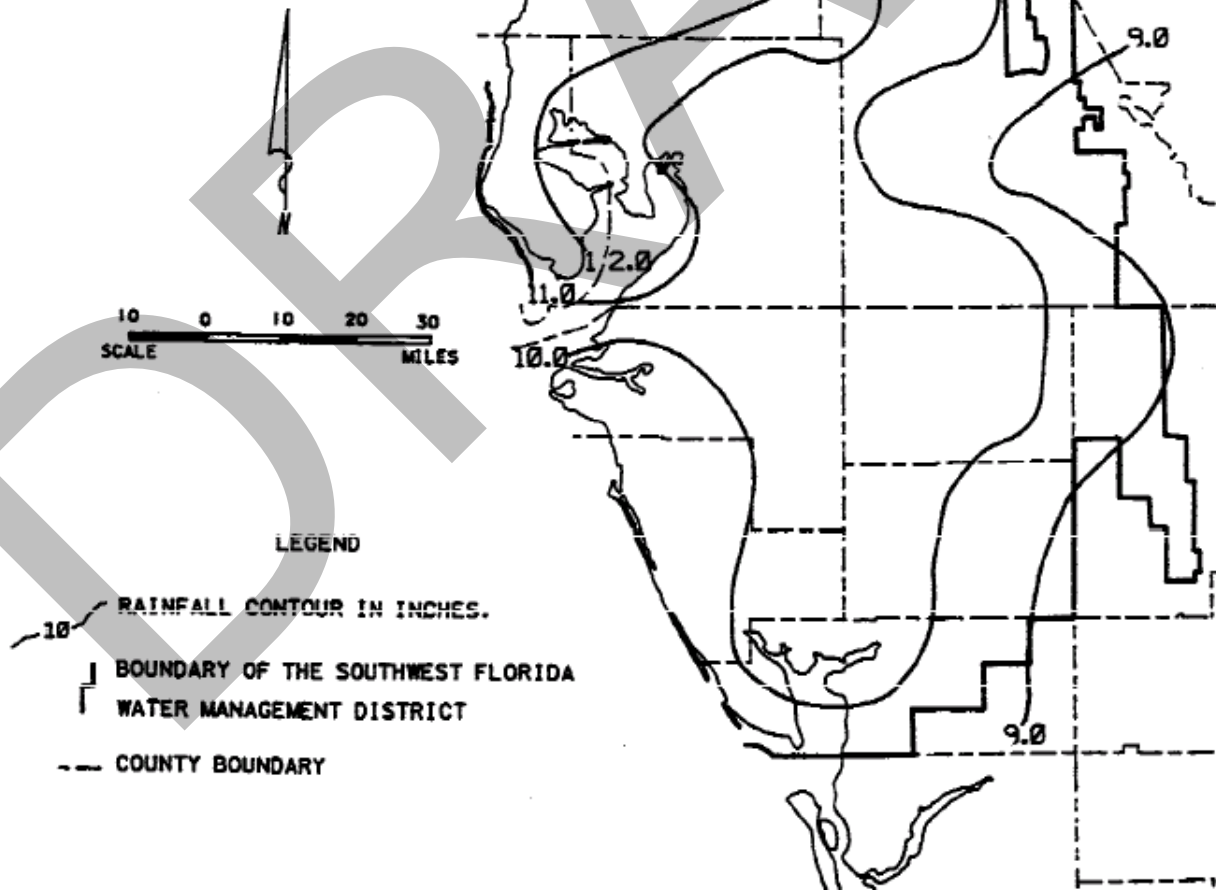


FIGURE D-7

DRAFT

Proposed Pond Calculations

Basins 1-25

Pond Volume Calcs.

Basin Name: 1

Pond Name: SMF-1A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 9.09 | 890.8 |
| Pervious Area | A/D | 49 | 12.62 | 618.4 |
| Pervious Area | B/D | 69 | 1.17 | 80.7 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 2.12 | 103.9 |
| | | | 25.00 | 67.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 15.93 | 1561.1 |
| Pervious Area | A/D | 49 | 6.36 | 311.6 |
| Pervious Area | B/D | 69 | 0.59 | 40.7 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.74 | 36.3 |
| Water at Pond | - | 100 | 1.38 | 138.0 |
| | | | 25.00 | 83.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.76 | S-post | 1.97 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.38 | 5.08 | 7.05 | 10.59 | 3.54 |
| 25-Yr / 24-Hr | 8 | 4.21 | 6.04 | 8.76 | 12.58 | 3.81 |
| 100-Yr / 24-Hr | 11 | 6.82 | 8.94 | 14.20 | 18.63 | 4.42 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 24.00 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------------------|
| Est. SHWT Elev. = | 23.00 |
| SHWT Elev. Used = | 21.58 (Permitted) |

Water Quality Calcs.

New Imp. Area = 6.84 ac 18% 4.50
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.57 ac-ft Provided Treat Area = 0.57 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 21.58 | 1.38 | 0.00 |
| Weir Crest EL. | 21.99 | 1.42 | 0.57 |
| DHW10 EL. | 23.96 | 1.60 | 3.54 |
| DHW 25 EL. | 24.12 | 1.61 | 3.81 |
| 1 foot Clearance | 24.50 | 1.65 | 4.42 |
| Inside Berm | 25.50 | 1.74 | 6.12 |
| Outside Berm | 25.50 | 2.12 | 6.12 |

Treatment Depth= 0.41

Attenuation Depth= 2.51

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 1000 ft
 Losses = 0.80 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 24.2
 10-year HGL at Pond = 24.0 Go

Pond Volume Calcs.

Basin Name: 1

Pond Name: SMF-1B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 9.09 | 890.8 |
| Pervious Area | A/D | 49 | 12.62 | 618.4 |
| Pervious Area | B/D | 69 | 1.17 | 80.7 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 1.95 | 95.6 |
| | | | 24.83 | 67.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 15.93 | 1561.1 |
| Pervious Area | A/D | 49 | 6.36 | 311.6 |
| Pervious Area | B/D | 69 | 0.59 | 40.7 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.78 | 38.2 |
| Water at Pond | - | 100 | 1.17 | 117.0 |
| | | | 24.83 | 83.3 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.73 | S-post | 2.00 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.40 | 5.06 | 7.03 | 10.48 | 3.45 |
| 25-Yr / 24-Hr | 8 | 4.22 | 6.01 | 8.74 | 12.45 | 3.71 |
| 100-Yr / 24-Hr | 11 | 6.84 | 8.92 | 14.15 | 18.45 | 4.30 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 25.50 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 24.50 |
| SHWT Elev. Used = | 21.00 |

Water Quality Calcs.

New Imp. Area = 6.84 ac 18% 4.47
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.57 ac-ft Provided Treat Area = 0.60 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 21.00 | 1.17 | 0.00 |
| Weir Crest EL. | 21.50 | 1.22 | 0.60 |
| DHW10 EL. | 23.70 | 1.43 | 3.51 |
| DHW 25 EL. | 23.90 | 1.45 | 3.79 |
| 1 foot Clearance | 24.00 | 1.46 | 3.94 |
| Inside Berm | 25.00 | 1.55 | 5.44 |
| Outside Berm | 25.00 | 1.95 | 5.44 |

Treatment Depth= 0.50

Attenuation Depth= 2.50

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 1300 ft
 Losses = 1.04 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 24.0
 10-year HGL at Pond = 23.7 Go

Pond Volume Calcs.

Basin Name: 1

Pond Name: SMF-1C

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 9.09 | 890.8 |
| Pervious Area | A/D | 49 | 12.62 | 618.4 |
| Pervious Area | B/D | 69 | 1.17 | 80.7 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 1.94 | 95.1 |
| | | | 24.82 | 67.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 15.93 | 1561.1 |
| Pervious Area | A/D | 49 | 6.36 | 311.6 |
| Pervious Area | B/D | 69 | 0.59 | 40.7 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.70 | 34.3 |
| Water at Pond | - | 100 | 1.24 | 124.0 |
| | | | 24.82 | 83.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.73 | S-post | 1.98 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.40 | 5.08 | 7.03 | 10.51 | 3.48 |
| 25-Yr / 24-Hr | 8 | 4.22 | 6.03 | 8.73 | 12.48 | 3.74 |
| 100-Yr / 24-Hr | 11 | 6.84 | 8.94 | 14.14 | 18.48 | 4.34 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 21.50 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 20.50 |
| SHWT Elev. Used = | 19.00 |

Water Quality Calcs.

New Imp. Area = 6.84 ac 18% 4.47
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.57 ac-ft Provided Treat Area = 0.63 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 19.00 | 1.24 | 0.00 |
| Weir Crest EL. | 19.50 | 1.28 | 0.63 |
| DHW10 EL. | 21.60 | 1.46 | 3.51 |
| DHW 25 EL. | 21.80 | 1.48 | 3.81 |
| 1 foot Clearance | 22.00 | 1.50 | 4.10 |
| Inside Berm | 23.00 | 1.58 | 5.64 |
| Outside Berm | 23.00 | 1.94 | 5.64 |

Treatment Depth= 0.50

Attenuation Depth= 2.50

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 1600 ft
 Losses = 1.28 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 23.7
 10-year HGL at Pond = 21.6 Go

Pond Volume Calcs.

Basin Name: 2/3

Pond Name: SMF 2/3

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 15.88 | 1556.2 |
| Pervious Area | A/D | 49 | 9.74 | 477.3 |
| Pervious Area | B/D | 80 | 0.51 | 40.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 7.57 | 370.9 |
| | | | 33.70 | 72.6 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 26.13 | 2560.7 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.21 | 59.3 |
| Water at Pond | - | 100 | 6.36 | 636.0 |
| | | | 33.70 | 96.6 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.78 | S-post | 0.35 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.89 | 6.60 | 10.92 | 18.53 | 7.61 |
| 25-Yr / 24-Hr | 8 | 4.76 | 7.59 | 13.36 | 21.33 | 7.96 |
| 100-Yr / 24-Hr | 11 | 7.48 | 10.59 | 21.01 | 29.74 | 8.73 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 28.0 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 27.0 |
| SHWT Elev. Used = | 27.0 |

Water Quality Calcs.

New Imp. Area = 10.25 ac 18% 6.07

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 0.85 ac-ft Provided Treat Area = 0.85 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.00 | 6.36 | 0.00 |
| Weir Crest EL. | 27.13 | 6.38 | 0.85 |
| DHW10 EL. | 28.18 | 6.56 | 7.63 |
| DHW 25 EL. | 28.23 | 6.57 | 7.97 |
| 1 foot Clearance | 29.00 | 6.71 | 13.07 |
| Inside Berm | 30.00 | 6.88 | 19.86 |
| Outside Berm | 30.00 | 7.57 | 19.86 |

Treatment Depth = 0.13

Attenuation Depth = 1.87

Basin Hydraulics Calc.

LEOP in Basin = 35.0
 Less 1 foot of clearance = 34.0
 Distance from LEOP to Pond = 1400 ft
 Losses = 1.12 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 32.9
 10-year HGL at Pond = 28.2 Go

Pond Volume Calcs.

Basin Name: **4&5**

Pond Name: **SMF-4/5**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 30.86 | 3024.3 |
| Pervious Area | A/D | 49 | 55.44 | 2716.6 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 0.93 | 74.4 |
| Grass at Pond | A/D | 49 | 10.47 | 513.0 |
| | | | 97.70 | 64.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 56.01 | 5489.0 |
| Pervious Area | A/D | 49 | 26.87 | 1316.6 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 4.35 | 348.0 |
| Grass at Pond | A/D | 49 | 2.22 | 108.8 |
| Water at Pond | - | 100 | 8.25 | 825.0 |
| | | | 97.70 | 82.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.44 | S-post | 2.08 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.08 | 5.00 | 25.07 | 40.73 | 15.66 |
| 25-Yr / 24-Hr | 8 | 3.87 | 5.95 | 31.50 | 48.45 | 16.96 |
| 100-Yr / 24-Hr | 11 | 6.40 | 8.85 | 52.11 | 72.01 | 19.90 |

Pond SHWT Determination

| | | | |
|---------------------|------|-------------------|------|
| Avg. Ground Elev. = | 29.5 | Est. SHWT Elev. = | 28.5 |
| Avg. SHWT Depth = | 0.98 | SHWT Elev. Used = | 27.0 |

Water Quality Calcs.

New Imp. Area = 25.15 ac 15% 14.66
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 2.10 ac-ft Provided Treat Vol. = 2.49 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.00 | 8.25 | 0.00 |
| Weir Crest EL. | 27.30 | 8.33 | 2.49 |
| DHW10 EL. | 28.90 | 8.79 | 16.18 |
| DHW 25 EL. | 29.10 | 8.84 | 17.95 |
| 1 foot Clearance | 30.00 | 9.10 | 26.02 |
| Inside Berm | 31.00 | 9.38 | 35.26 |
| Outside Berm | 31.00 | 10.47 | 35.26 |

Treatment Depth = 0.30 Attenuation Depth = 1.80

Basin Hydraulics Calc.

LEOP in Basin = 33.0
 Less 1 foot of clearance = 32.0
 Distance from LEOP to Pond = 3000 ft
 Losses = 2.40 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 29.6
 10-year HGL at Pond = 28.90 **Go**

Pond Volume Calcs.

Basin Name: **6**

Pond Name: **SMF-6A**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 16.91 | 1657.2 |
| Pervious Area | A/D | 49 | 20.22 | 990.8 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 1.28 | 102.4 |
| Grass at Pond | A/D | 49 | 2.94 | 144.1 |
| | | | 41.35 | 70.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 31.07 | 3044.9 |
| Pervious Area | A/D | 49 | 6.63 | 324.9 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 0.71 | 56.8 |
| Grass at Pond | A/D | 49 | 0.98 | 48.0 |
| Water at Pond | - | 100 | 1.96 | 196.0 |
| | | | 41.35 | 88.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.29 | S-post | 1.27 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.62 | 5.68 | 12.47 | 19.58 | 7.11 |
| 25-Yr / 24-Hr | 8 | 4.46 | 6.66 | 15.38 | 22.95 | 7.56 |
| 100-Yr / 24-Hr | 11 | 7.13 | 9.61 | 24.57 | 33.14 | 8.56 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 28.5 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 27.5 |
| SHWT Elev. Used = | 27.5 |

Water Quality Calcs.

New Imp. Area = 14.16 ac

15% 6.20

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.18 ac-ft

Provided Treat Vol. = 1.18 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.50 | 1.96 | 0.00 |
| Weir Crest EL. | 28.09 | 2.03 | 1.18 |
| DHW10 EL. | 30.80 | 2.34 | 7.10 |
| DHW 25 EL. | 31.00 | 2.36 | 7.57 |
| 1 foot Clearance | 31.00 | 2.36 | 7.57 |
| Inside Berm | 32.00 | 2.48 | 9.99 |
| Outside Berm | 32.00 | 2.94 | 9.99 |

Treatment Depth = 0.59

Attenuation Depth = 2.91

Basin Hydraulics Calc.

LEOP in Basin = 33.0
 Less 1 foot of clearance = 32.0
 Distance from LEOP to Pond = 1500 ft
 Losses = 1.20 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 30.80
 10-year HGL at Pond = 30.80 **Go**

Pond Volume Calcs.

Basin Name: **6**

Pond Name: **SMF-6B**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 16.91 | 1657.2 |
| Pervious Area | A/D | 49 | 20.22 | 990.8 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 1.28 | 102.4 |
| Grass at Pond | A/D | 49 | 2.95 | 144.6 |
| | | | 41.36 | 70.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 31.07 | 3044.9 |
| Pervious Area | A/D | 49 | 6.63 | 324.9 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | B/D | 80 | 0.71 | 56.8 |
| Grass at Pond | A/D | 49 | 0.99 | 48.5 |
| Water at Pond | - | 100 | 1.96 | 196.0 |
| | | | 41.36 | 88.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.29 | S-post | 1.27 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.62 | 5.68 | 12.47 | 19.58 | 7.11 |
| 25-Yr / 24-Hr | 8 | 4.46 | 6.66 | 15.38 | 22.95 | 7.56 |
| 100-Yr / 24-Hr | 11 | 7.13 | 9.61 | 24.57 | 33.14 | 8.56 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 28.5 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 27.5 |
| SHWT Elev. Used = | 27.5 |

Water Quality Calcs.

New Imp. Area = 14.16 ac

15% 6.20

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.18 ac-ft

Provided Treat Vol. = 1.18 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.50 | 1.96 | 0.00 |
| Weir Crest EL. | 28.09 | 2.03 | 1.18 |
| DHW10 EL. | 30.81 | 2.34 | 7.12 |
| DHW 25 EL. | 31.00 | 2.36 | 7.57 |
| 1 foot Clearance | 31.00 | 2.36 | 7.57 |
| Inside Berm | 32.00 | 2.48 | 9.99 |
| Outside Berm | 32.00 | 2.95 | 9.99 |

Treatment Depth = 0.59

Attenuation Depth = 2.91

Basin Hydraulics Calc.

LEOP in Basin = 33.0
 Less 1 foot of clearance = 32.0
 Distance from LEOP to Pond = 1000 ft
 Losses = 0.80 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 31.2
 10-year HGL at Pond = 30.81 **Go**

Floodplain Calculations

Basin Name: 6

Floodplain Name: FPC-6R

Floodplain Calculations

Total Impacts= 2.64 acres

Additional 20% Safety Factor = 0.20
Required Compensation Site = 3.17 acres

DRAFT

Pond Volume Calcs.

Basin Name: 7

Pond Name: SMF-7A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 27.36 | 2681.3 |
| Pervious Area | A/D | 49 | 55.46 | 2717.5 |
| Pervious Area | B/D | 69 | 20.51 | 1415.2 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 2.62 | 128.4 |
| | | | 105.95 | 65.5 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 40.00 | 3920.0 |
| Pervious Area | A/D | 49 | 46.23 | 2265.3 |
| Pervious Area | B/D | 69 | 17.10 | 1179.9 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.97 | 47.5 |
| Water at Pond | - | 100 | 1.65 | 165.0 |
| | | | 105.95 | 71.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.26 | S-post | 3.98 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.16 | 3.78 | 27.86 | 33.36 | 5.50 |
| 25-Yr / 24-Hr | 8 | 3.95 | 4.64 | 34.91 | 40.96 | 6.05 |
| 100-Yr / 24-Hr | 11 | 6.51 | 7.34 | 57.45 | 64.80 | 7.35 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 29.30 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 28.30 |
| SHWT Elev. Used = | 24.00 |

Water Quality Calcs.

New Imp. Area = 12.64 ac 18% 19.07

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 1.05 ac-ft Provided Treat Area = 1.18 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 24.00 | 1.65 | 0.00 |
| Weir Crest EL. | 24.70 | 1.72 | 1.18 |
| DHW10 EL. | 27.10 | 1.98 | 5.62 |
| DHW 25 EL. | 27.40 | 2.01 | 6.22 |
| 1 foot Clearance | 28.00 | 2.07 | 7.45 |
| Inside Berm | 29.00 | 2.18 | 9.58 |
| Outside Berm | 29.00 | 2.62 | 9.58 |

Treatment Depth= 0.70

Attenuation Depth= 3.30

Basin Hydraulics Calc.

LEOP in Basin = 31.0
 Less 1 foot of clearance= 30.0
 Distance from LEOP to Pond= 3500 ft
 Losses = 2.80 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 27.2
 10-year HGL at Pond = 27.1 Go

Pond Volume Calcs.

Basin Name: 7

Pond Name: SMF-7B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 27.36 | 2681.3 |
| Pervious Area | A/D | 49 | 55.46 | 2717.5 |
| Pervious Area | B/D | 69 | 20.51 | 1415.2 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 4.52 | 221.5 |
| | | | 107.85 | 65.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 40.00 | 3920.0 |
| Pervious Area | A/D | 49 | 46.23 | 2265.3 |
| Pervious Area | B/D | 69 | 17.10 | 1179.9 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 2.52 | 123.5 |
| Water at Pond | - | 100 | 2.00 | 200.0 |
| | | | 107.85 | 71.3 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.33 | S-post | 4.03 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.13 | 3.75 | 28.10 | 33.74 | 5.64 |
| 25-Yr / 24-Hr | 8 | 3.92 | 4.61 | 35.24 | 41.46 | 6.22 |
| 100-Yr / 24-Hr | 11 | 6.47 | 7.31 | 58.11 | 65.68 | 7.57 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 28.00 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 27.00 |
| SHWT Elev. Used = | 25.50 |

Water Quality Calcs.

New Imp. Area = 12.64 ac 18% 19.41

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 1.05 ac-ft Provided Treat Area = 1.25 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 25.50 | 2.00 | 0.00 |
| Weir Crest EL. | 26.10 | 2.18 | 1.25 |
| DHW10 EL. | 27.90 | 2.73 | 5.68 |
| DHW 25 EL. | 28.10 | 2.79 | 6.23 |
| 1 foot Clearance | 28.50 | 2.91 | 7.37 |
| Inside Berm | 29.50 | 3.22 | 10.44 |
| Outside Berm | 29.50 | 4.52 | 10.44 |

Treatment Depth= 0.60

Attenuation Depth= 2.40

Basin Hydraulics Calc.

LEOP in Basin = 31.0
 Less 1 foot of clearance= 30.0
 Distance from LEOP to Pond= 2500 ft
 Losses = 2.00 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 28.0
 10-year HGL at Pond = 27.9 Go

Pond Volume Calcs.

Basin Name: 7

Pond Name: SMF-7C

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 27.36 | 2681.3 |
| Pervious Area | A/D | 49 | 55.46 | 2717.5 |
| Pervious Area | B/D | 69 | 20.51 | 1415.2 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 5.16 | 252.8 |
| | | | 108.49 | 65.1 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 40.00 | 3920.0 |
| Pervious Area | A/D | 49 | 46.23 | 2265.3 |
| Pervious Area | B/D | 69 | 17.10 | 1179.9 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.37 | 67.1 |
| Water at Pond | - | 100 | 3.79 | 379.0 |
| | | | 108.49 | 72.0 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.35 | S-post | 3.89 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.12 | 3.83 | 28.18 | 34.62 | 6.44 |
| 25-Yr / 24-Hr | 8 | 3.91 | 4.69 | 35.35 | 42.44 | 7.09 |
| 100-Yr / 24-Hr | 11 | 6.45 | 7.41 | 58.33 | 66.95 | 8.62 |

Pond SHWT Determination

| | | | |
|--------------------|-------|-------------------|-------|
| Avg. Ground Elev.= | 31.00 | Est. SHWT Elev. = | 30.00 |
| Avg. SHWT Depth= | 1.00 | SHWT Elev. Used = | 27.00 |

Water Quality Calcs.

New Imp. Area = 12.64 ac 18% 19.53
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 1.05 ac-ft Provided Treat Area = 1.05 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.00 | 3.79 | 0.00 |
| Weir Crest EL. | 27.28 | 3.84 | 1.05 |
| DHW10 EL. | 28.64 | 4.07 | 6.44 |
| DHW 25 EL. | 28.80 | 4.10 | 7.09 |
| 1 foot Clearance | 30.00 | 4.31 | 12.15 |
| Inside Berm | 31.00 | 4.48 | 16.54 |
| Outside Berm | 31.00 | 5.16 | 16.54 |

Treatment Depth= 0.28 Attenuation Depth= 2.72

Basin Hydraulics Calc.

LEOP in Basin = 31.0
 Less 1 foot of clearance= 30.0
 Distance from LEOP to Pond= 1500 ft
 Losses = 1.20 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 28.8
 10-year HGL at Pond = 28.6 Go

Floodplain Calculations

Basin Name: 7

Floodplain Name: FPC-7

***Floodplain Calculations**

| | | |
|-------------------------------------|-----------------|-------------------|
| | Impacts= | 1.02 acres |
| <hr/> | | |
| Additional 20% Safety Factor = | | 0.20 |
| Required Compensation Site = | | 1.22 acres |

*Note: Impact along I-75 southbound exit rampa.
Impacts and compensation based on plan view area.

DRAFT

Pond Volume Calcs.

Basin Name: 8

Pond Name: SMF-8A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 10.07 | 986.9 |
| Pervious Area | A/D | 49 | 15.42 | 755.6 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 1.95 | 95.6 |
| | | | 27.44 | 67.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 18.14 | 1777.7 |
| Pervious Area | A/D | 49 | 7.35 | 360.2 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.79 | 38.7 |
| Water at Pond | - | 100 | 1.16 | 116.0 |
| | | | 27.44 | 83.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.93 | S-post | 1.97 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.31 | 5.09 | 7.56 | 11.64 | 4.08 |
| 25-Yr / 24-Hr | 8 | 4.12 | 6.04 | 9.42 | 13.82 | 4.40 |
| 100-Yr / 24-Hr | 11 | 6.71 | 8.95 | 15.35 | 20.46 | 5.11 |

Pond SHWT Determination

| | | | |
|---------------------|-------|-------------------|-------|
| Avg. Ground Elev. = | 30.00 | Est. SHWT Elev. = | 29.00 |
| Avg. SHWT Depth = | 1.00 | SHWT Elev. Used = | 25.00 |

Water Quality Calcs.

New Imp. Area = 8.07 ac 18% 4.94
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.67 ac-ft Provided Treat Area = 0.71 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 25.00 | 1.16 | 0.00 |
| Weir Crest EL. | 25.60 | 1.21 | 0.71 |
| DHW10 EL. | 28.20 | 1.44 | 4.15 |
| DHW 25 EL. | 28.40 | 1.45 | 4.44 |
| 1 foot Clearance | 29.00 | 1.50 | 5.33 |
| Inside Berm | 30.00 | 1.59 | 6.88 |
| Outside Berm | 30.00 | 1.95 | 6.88 |

Treatment Depth = 0.60 Attenuation Depth = 3.40

Basin Hydraulics Calc.

LEOP in Basin = 31.0
 Less 1 foot of clearance = 30.0
 Distance from LEOP to Pond = 850 ft
 Losses = 0.68 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 29.3
 10-year HGL at Pond = 28.2 Go

Pond Volume Calcs.

Basin Name: 8

Pond Name: SMF-8B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 10.07 | 986.9 |
| Pervious Area | A/D | 49 | 15.42 | 755.6 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 2.72 | 133.3 |
| | | | 28.21 | 66.5 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 18.14 | 1777.7 |
| Pervious Area | A/D | 49 | 7.35 | 360.2 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.06 | 51.9 |
| Water at Pond | - | 100 | 1.66 | 166.0 |
| | | | 28.21 | 83.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.04 | S-post | 1.97 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 5.08 | 7.65 | 11.95 | 4.30 |
| 25-Yr / 24-Hr | 8 | 4.06 | 6.04 | 9.55 | 14.19 | 4.64 |
| 100-Yr / 24-Hr | 11 | 6.64 | 8.94 | 15.61 | 21.02 | 5.40 |

Pond SHWT Determination

| | | | |
|---------------------|-------|-------------------|-------|
| Avg. Ground Elev. = | 26.50 | Est. SHWT Elev. = | 25.50 |
| Avg. SHWT Depth = | 1.00 | SHWT Elev. Used = | 24.50 |

Water Quality Calcs.

New Imp. Area = 8.07 ac 18% 5.08
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.67 ac-ft Provided Treat Area = 0.85 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 24.50 | 1.66 | 0.00 |
| Weir Crest EL. | 25.00 | 1.73 | 0.85 |
| DHW10 EL. | 26.90 | 1.98 | 4.37 |
| DHW 25 EL. | 27.10 | 2.00 | 4.76 |
| 1 foot Clearance | 27.50 | 2.06 | 5.58 |
| Inside Berm | 28.50 | 2.19 | 7.70 |
| Outside Berm | 28.50 | 2.72 | 7.70 |

Treatment Depth = 0.50 Attenuation Depth = 2.50

Basin Hydraulics Calc.

LEOP in Basin = 31.0
 Less 1 foot of clearance = 30.0
 Distance from LEOP to Pond = 1800 ft
 Losses = 1.44 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 28.6
 10-year HGL at Pond = 26.9 Go

Pond Volume Calcs.

Basin Name: 8

Pond Name: SMF-7/8

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 37.43 | 3668.1 |
| Pervious Area | A/D | 49 | 91.39 | 4478.1 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 4.28 | 209.7 |
| | | | 133.10 | 62.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 58.14 | 5697.7 |
| Pervious Area | A/D | 49 | 70.68 | 3463.3 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Pervious Area | 0 | 0 | 0.00 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.41 | 69.1 |
| Water at Pond | - | 100 | 2.87 | 287.0 |
| | | | 133.10 | 71.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.93 | S-post | 3.99 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.88 | 3.78 | 31.93 | 41.89 | 9.96 |
| 25-Yr / 24-Hr | 8 | 3.64 | 4.64 | 40.42 | 51.43 | 11.02 |
| 100-Yr / 24-Hr | 11 | 6.12 | 7.34 | 67.86 | 81.38 | 13.52 |

Pond SHWT Determination

| | | | |
|---------------------|-------|-------------------|-------|
| Avg. Ground Elev. = | 30.00 | Est. SHWT Elev. = | 29.00 |
| Avg. SHWT Depth = | 1.00 | SHWT Elev. Used = | 25.00 |

Water Quality Calcs.

New Imp. Area = 20.71 ac 18% 23.96
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 1.73 ac-ft Provided Treat Area = 1.75 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 25.00 | 2.87 | 0.00 |
| Weir Crest EL. | 25.60 | 2.96 | 1.75 |
| DHW10 EL. | 28.20 | 3.38 | 9.99 |
| DHW 25 EL. | 28.60 | 3.44 | 11.36 |
| 1 foot Clearance | 29.00 | 3.50 | 12.74 |
| Inside Berm | 30.00 | 3.66 | 16.33 |
| Outside Berm | 30.00 | 4.28 | 16.33 |

Treatment Depth = 0.60 Attenuation Depth = 3.40

Basin Hydraulics Calc.

LEOP in Basin = 31
 Less 1 foot of clearance = 30.0
 Distance from LEOP to Pond = 850 ft
 Losses = 0.68 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 29.3
 10-year HGL at Pond = 28.2 Go

Pond Volume Calcs.

Basin Name: 9

Pond Name: SMF-9

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|---------------------------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 31.63 | 3099.7 |
| Pervious Area | C/D | 79 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 65.85 | 3226.7 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond (Infield Pond) | A / A/D | 49 | 0 | 0.0 |
| | | | 97.48 | 64.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 49.49 | 4850.0 |
| Pervious Area | C/D | 79 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 45.12 | 2210.9 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.47 | 72.0 |
| Water at Pond | - | 100 | 1.40 | 140.0 |
| | | | 97.48 | 74.6 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.41 | S-post | 3.40 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.09 | 4.11 | 25.12 | 33.37 | 8.25 |
| 25-Yr / 24-Hr | 8 | 3.88 | 5.00 | 31.54 | 40.59 | 9.05 |
| 100-Yr / 24-Hr | 11 | 6.42 | 7.76 | 52.14 | 63.04 | 10.90 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 36.0 |
| Avg. SHWT Depth = | 0.98 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 35.0 |
| SHWT Elev. Used = | 35.0 |

Water Quality Calcs.

New Imp. Area = 17.86 ac 18% 17.55
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 1.49 ac-ft Provided Treat Vol. = 1.62 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 35.00 | 1.40 | 0.00 |
| Weir Crest EL. | 36.10 | 1.55 | 1.62 |
| DHW10 EL. | 39.80 | 2.06 | 8.32 |
| DHW 25 EL. | 40.20 | 2.12 | 9.15 |
| 1 foot Clearance | 40.50 | 2.16 | 9.79 |
| Inside Berm | 41.50 | 2.30 | 12.03 |
| Outside Berm | 42.56 | 2.87 | 14.77 |

Treatment Depth = 1.10

Attenuation Depth = 4.40

Basin Hydraulics Calc.

LEOP in Basin = 42.0
 Less 1 foot of clearance = 41.0
 Distance from LEOP to Pond = 1500 ft
 Losses = 1.20 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 39.8
 10-year HGL at Pond = 39.8 Go

Pond Volume Calcs.

Basin Name: 10

Pond Name: SMF-10A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 4.28 | 419.4 |
| Pervious Area | A | 49 | 5.78 | 283.2 |
| Pervious Area | A/D | 49 | 4.73 | 231.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 2.78 | 136.2 |
| | | | 17.57 | 60.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 13.07 | 1280.9 |
| Pervious Area | A | 49 | 0.95 | 46.6 |
| Pervious Area | A/D | 49 | 0.77 | 37.7 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.07 | 52.4 |
| Water at Pond | - | 100 | 1.71 | 171.0 |
| | | | 17.57 | 90.4 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.41 | S-post | 1.06 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.70 | 5.87 | 3.95 | 8.60 | 4.65 |
| 25-Yr / 24-Hr | 8 | 3.44 | 6.85 | 5.03 | 10.04 | 5.00 |
| 100-Yr / 24-Hr | 11 | 5.86 | 9.82 | 8.57 | 14.38 | 5.81 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 45.5 |
| Avg. SHWT Depth = | 2.75 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 42.8 |
| SHWT Elev. Used = | 42.8 |

Water Quality Calcs.

New Imp. Area = 8.79 ac 18% 3.16
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.73 ac-ft Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 42.75 | 1.71 | 0.00 |
| Weir Crest EL. | 43.17 | 1.76 | 0.73 |
| DHW10 EL. | 45.24 | 2.03 | 4.65 |
| DHW 25 EL. | 45.41 | 2.05 | 5.00 |
| 1 foot Clearance | 46.00 | 2.13 | 6.24 |
| Inside Berm | 47.00 | 2.26 | 8.44 |
| Outside Berm | 47.00 | 2.78 | 8.44 |

Treatment Depth = 0.42

Attenuation Depth = 2.83

Basin Hydraulics Calc.

LEOP in Basin = 66.0
 Less 1 foot of clearance = 65.0
 Distance from LEOP to Pond = 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 64.8
 10-year HGL at Pond = 45.2 Go

Pond Volume Calcs.

Basin Name: 10

Pond Name: SMF-10B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 4.28 | 419.4 |
| Pervious Area | A | 49 | 5.78 | 283.2 |
| Pervious Area | A/D | 49 | 4.73 | 231.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 3.84 | 188.2 |
| | | | 18.63 | 60.3 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 13.07 | 1280.9 |
| Pervious Area | A | 49 | 0.95 | 46.6 |
| Pervious Area | A/D | 49 | 0.77 | 37.7 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.94 | 46.1 |
| Water at Pond | - | 100 | 2.90 | 290.0 |
| | | | 18.63 | 91.3 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.60 | S-post | 1.06 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.70 | 5.87 | 3.95 | 8.60 | 4.65 |
| 25-Yr / 24-Hr | 8 | 3.44 | 6.85 | 5.03 | 10.04 | 5.00 |
| 100-Yr / 24-Hr | 11 | 5.86 | 9.82 | 8.57 | 14.38 | 5.81 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 40.0 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 39.0 |
| SHWT Elev. Used = | 39.0 |

Water Quality Calcs.

New Imp. Area = 8.79 ac 18% 3.35

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 0.73 ac-ft Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 39.00 | 2.90 | 0.00 |
| Weir Crest EL. | 39.25 | 2.93 | 0.73 |
| DHW10 EL. | 40.55 | 3.11 | 4.66 |
| DHW 25 EL. | 40.66 | 3.12 | 5.00 |
| 1 foot Clearance | 41.00 | 3.17 | 6.07 |
| Inside Berm | 42.00 | 3.30 | 9.30 |
| Outside Berm | 42.00 | 3.84 | 9.30 |

Treatment Depth= 0.25

Attenuation Depth= 1.75

Basin Hydraulics Calc.

LEOP in Basin = 66.0
 Less 1 foot of clearance= 65.0
 Distance from LEOP to Pond= 660 ft
 Losses = 0.53 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 64.5
 10-year HGL at Pond = 40.6 Go

Pond Volume Calcs.

Basin Name: 10

Pond Name: SMF-10C

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 4.28 | 419.4 |
| Pervious Area | A | 49 | 5.78 | 283.2 |
| Pervious Area | A/D | 49 | 4.73 | 231.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 2.07 | 101.4 |
| | | | 16.86 | 61.4 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 13.07 | 1280.9 |
| Pervious Area | A | 49 | 0.95 | 46.6 |
| Pervious Area | A/D | 49 | 0.77 | 37.7 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.88 | 43.1 |
| Water at Pond | - | 100 | 1.19 | 119.0 |
| | | | 16.86 | 90.6 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.28 | S-post | 1.06 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.70 | 5.87 | 3.95 | 8.60 | 4.65 |
| 25-Yr / 24-Hr | 8 | 3.44 | 6.85 | 5.03 | 10.04 | 5.00 |
| 100-Yr / 24-Hr | 11 | 5.86 | 9.82 | 8.57 | 14.38 | 5.81 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 36.0 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 35.0 |
| SHWT Elev. Used = | 35.0 |

Water Quality Calcs.

New Imp. Area = 8.79 ac 18% 3.03
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.73 ac-ft Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 35.00 | 1.19 | 0.00 |
| Weir Crest EL. | 35.60 | 1.25 | 0.73 |
| DHW10 EL. | 38.43 | 1.52 | 4.65 |
| DHW 25 EL. | 38.66 | 1.54 | 5.00 |
| 1 foot Clearance | 39.00 | 1.50 | 5.52 |
| Inside Berm | 40.00 | 1.67 | 7.10 |
| Outside Berm | 40.00 | 2.07 | 7.10 |

Treatment Depth = 0.60

Attenuation Depth = 3.40

Basin Hydraulics Calc.

LEOP in Basin = 66.0
 Less 1 foot of clearance = 65.0
 Distance from LEOP to Pond = 100 ft
 Losses = 0.08 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 64.9
 10-year HGL at Pond = 38.4 Go

Pond Volume Calcs.

Basin Name: 11

Pond Name: SMF-11A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 2.64 | 258.7 |
| Pervious Area | A | 49 | 2.35 | 115.2 |
| Pervious Area | A/D | 49 | 2.35 | 115.2 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.16 | 56.8 |
| | | | 8.50 | 64.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 7.34 | 719.3 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.60 | 29.4 |
| Water at Pond | - | 100 | 0.56 | 56.0 |
| | | | 8.50 | 94.7 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.57 | S-post | 0.56 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.02 | 6.37 | 2.14 | 4.51 | 2.37 |
| 25-Yr / 24-Hr | 8 | 3.81 | 7.36 | 2.70 | 5.21 | 2.52 |
| 100-Yr / 24-Hr | 11 | 6.32 | 10.35 | 4.48 | 7.33 | 2.85 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 49.0 |
| Avg. SHWT Depth = | 2.75 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 46.3 |
| SHWT Elev. Used = | 46.3 |

Water Quality Calcs.

New Imp. Area = 4.70 ac 18% 1.53
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.39 ac-ft Provided Treat Area = 0.39 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 46.25 | 0.56 | 0.00 |
| Weir Crest EL. | 46.92 | 0.61 | 0.39 |
| DHW10 EL. | 49.75 | 0.80 | 2.37 |
| DHW 25 EL. | 49.93 | 0.81 | 2.52 |
| 1 foot Clearance | 50.00 | 0.81 | 2.57 |
| Inside Berm | 51.00 | 0.88 | 3.42 |
| Outside Berm | 51.00 | 1.16 | 3.42 |

Treatment Depth = 0.67

Attenuation Depth = 3.08

Basin Hydraulics Calc.

LEOP in Basin = 77.0
 Less 1 foot of clearance = 76.0
 Distance from LEOP to Pond = 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 75.8
 10-year HGL at Pond = 49.8 Go

Pond Volume Calcs.

Basin Name: 11

Pond Name: SMF-11B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 2.64 | 258.7 |
| Pervious Area | A | 49 | 2.35 | 115.2 |
| Pervious Area | A/D | 49 | 2.35 | 115.2 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.36 | 66.6 |
| | | | 8.70 | 63.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 7.34 | 719.3 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Pervious Area | A/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.57 | 27.9 |
| Water at Pond | - | 100 | 0.79 | 79.0 |
| | | | 8.70 | 95.0 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.66 | S-post | 0.56 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.02 | 6.37 | 2.14 | 4.51 | 2.37 |
| 25-Yr / 24-Hr | 8 | 3.81 | 7.36 | 2.70 | 5.21 | 2.52 |
| 100-Yr / 24-Hr | 11 | 6.32 | 10.35 | 4.48 | 7.33 | 2.85 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 49.0 |
| Avg. SHWT Depth = | 1.87 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 47.1 |
| SHWT Elev. Used = | 47.1 |

Water Quality Calcs.

New Imp. Area = 4.70 ac 18% 1.57
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.39 ac-ft Provided Treat Area = 0.39 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 47.13 | 0.79 | 0.00 |
| Weir Crest EL. | 47.61 | 0.82 | 0.39 |
| DHW10 EL. | 49.81 | 0.98 | 2.37 |
| DHW 25 EL. | 49.97 | 0.99 | 2.52 |
| 1 foot Clearance | 50.00 | 0.99 | 2.55 |
| Inside Berm | 51.00 | 1.06 | 3.58 |
| Outside Berm | 51.00 | 1.36 | 3.58 |

Treatment Depth = 0.48

Attenuation Depth = 2.39

Basin Hydraulics Calc.

LEOP in Basin = 77.0
 Less 1 foot of clearance = 76.0
 Distance from LEOP to Pond = 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 75.8
 10-year HGL at Pond = 49.8 Go

Pond Volume Calcs.

Basin Name: **12/13**

Pond Name: **SMF-12/13A**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|----|-----------|---------|
| Impervious Area | - | 98 | 9.83 | 963.3 |
| Pervious Area | A / AD | 49 | 24.45 | 1198.1 |
| Pervious Area | B/D | 80 | 1.27 | 101.6 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A/D | 49 | 4.64 | 227.4 |
| | | | 40.19 | 62.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|-----|-----------|---------|
| Impervious Area | - | 98 | 31.3 | 3067.4 |
| Pervious Area | A / AD | 49 | 4.06 | 198.9 |
| Pervious Area | B/D | 80 | 0.19 | 15.2 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A/D | 49 | 1.41 | 69.1 |
| Water at Pond | - | 100 | 3.23 | 323.0 |
| | | | 40.19 | 91.4 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.14 | S-post | 0.94 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.80 | 5.99 | 9.37 | 20.05 | 10.68 |
| 25-Yr / 24-Hr | 8 | 3.55 | 6.97 | 11.90 | 23.35 | 11.46 |
| 100-Yr / 24-Hr | 11 | 6.00 | 9.95 | 20.10 | 33.31 | 13.21 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 45.0 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 44.0 |
| SHWT Elev. Used = | 44.0 |

Water Quality Calcs.

New Imp. Area = 21.47 ac 13% 5.22

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.79 ac-ft Provided Treat Vol. = 1.80 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 44.00 | 3.23 | 0.00 |
| Weir Crest EL. | 44.55 | 3.33 | 1.80 |
| DHW10 EL. | 47.06 | 3.76 | 10.70 |
| DHW 25 EL. | 47.26 | 3.80 | 11.46 |
| 1 foot Clearance | 47.30 | 3.81 | 11.61 |
| Inside Berm | 48.30 | 3.98 | 15.50 |
| Outside Berm | 48.30 | 4.64 | 15.50 |

Treatment Depth = 0.55

Attenuation Depth = 2.71

Basin Hydraulics Calc.

LEOP in Basin = 51.8
 Less 1 foot of clearance = 50.8
 Distance from LEOP to Pond = 500 ft
 Losses = 0.40 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 50.4
 10-year HGL at Pond = 47.06 Go

Pond Volume Calcs.

Basin Name: **12/13**

Pond Name: **SMF-12/13B**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|----|-----------|---------|
| Impervious Area | - | 98 | 9.83 | 963.3 |
| Pervious Area | A / AD | 49 | 24.45 | 1198.1 |
| Pervious Area | B/D | 80 | 1.27 | 101.6 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A / AD | 49 | 4.56 | 223.4 |
| | | | 40.11 | 62.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|-----|-----------|---------|
| Impervious Area | - | 98 | 31.3 | 3067.4 |
| Pervious Area | A / AD | 49 | 4.06 | 198.9 |
| Pervious Area | B/D | 80 | 0.19 | 15.2 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A / AD | 49 | 1.70 | 83.3 |
| Water at Pond | - | 100 | 2.86 | 286.0 |
| | | | 40.11 | 91.0 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.13 | S-post | 0.94 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.80 | 5.99 | 9.37 | 20.05 | 10.68 |
| 25-Yr / 24-Hr | 8 | 3.55 | 6.97 | 11.90 | 23.35 | 11.46 |
| 100-Yr / 24-Hr | 11 | 6.00 | 9.95 | 20.10 | 33.31 | 13.21 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 49.0 |
| Avg. SHWT Depth = | 2.50 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 46.5 |
| SHWT Elev. Used = | 46.5 |

Water Quality Calcs.

New Imp. Area = 21.47 ac 13% 5.21

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.79 ac-ft Provided Treat Vol. = 1.81 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 46.50 | 2.86 | 0.00 |
| Weir Crest EL. | 47.12 | 2.97 | 1.81 |
| DHW10 EL. | 49.87 | 3.48 | 10.69 |
| DHW 25 EL. | 50.09 | 3.53 | 11.46 |
| 1 foot Clearance | 50.30 | 3.56 | 12.21 |
| Inside Berm | 51.30 | 3.75 | 15.86 |
| Outside Berm | 51.30 | 4.56 | 15.86 |

Treatment Depth = 0.62

Attenuation Depth = 2.97

Basin Hydraulics Calc.

LEOP in Basin = 51.8
 Less 1 foot of clearance = 50.8
 Distance from LEOP to Pond = 400 ft
 Losses = 0.32 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 50.5
 10-year HGL at Pond = 49.87 Go

Pond Volume Calcs.

Basin Name: **12/13**

Pond Name: **SMF-12/13C**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|----|-----------|---------|
| Impervious Area | - | 98 | 9.83 | 963.3 |
| Pervious Area | A / AD | 49 | 24.45 | 1198.1 |
| Pervious Area | B/D | 80 | 1.27 | 101.6 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A / AD | 49 | 5.17 | 253.3 |
| | | | 40.72 | 61.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|-----|-----------|---------|
| Impervious Area | - | 98 | 31.3 | 3067.4 |
| Pervious Area | A / AD | 49 | 4.06 | 198.9 |
| Pervious Area | B/D | 80 | 0.19 | 15.2 |
| Pervious Area | | | | 0.0 |
| Grass at Pond | A / AD | 49 | 1.43 | 70.1 |
| Water at Pond | - | 100 | 3.74 | 374.0 |
| | | | 40.72 | 91.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.18 | S-post | 0.94 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.80 | 5.99 | 9.37 | 20.05 | 10.68 |
| 25-Yr / 24-Hr | 8 | 3.55 | 6.97 | 11.90 | 23.35 | 11.46 |
| 100-Yr / 24-Hr | 11 | 6.00 | 9.95 | 20.10 | 33.31 | 13.21 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 47.5 |
| Avg. SHWT Depth = | 2.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 45.5 |
| SHWT Elev. Used = | 45.5 |

Water Quality Calcs.

New Imp. Area = 21.47 ac 13% 5.29

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.79 ac-ft Provided Treat Vol. = 1.82 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 45.50 | 3.74 | 0.00 |
| Weir Crest EL. | 45.98 | 3.83 | 1.82 |
| DHW10 EL. | 48.18 | 4.23 | 10.68 |
| DHW 25 EL. | 48.37 | 4.26 | 11.48 |
| 1 foot Clearance | 48.40 | 4.27 | 11.61 |
| Inside Berm | 49.40 | 4.45 | 15.97 |
| Outside Berm | 49.40 | 5.17 | 15.97 |

Treatment Depth = 0.48

Attenuation Depth = 2.39

Basin Hydraulics Calc.

LEOP in Basin = 51.8
 Less 1 foot of clearance = 50.8
 Distance from LEOP to Pond = 400 ft
 Losses = 0.32 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 50.5
 10-year HGL at Pond = 48.18 Go

Floodplain Calculations

Basin Name: 12/13

Floodplain Name: FPC-12/13R

Floodplain Calculations

Total Impacts= 0.76 acres

Additional 20% Safety Factor = 0.20

Required Compensation Site = 0.91 acres

Basin Name: 12/13

Floodplain Name: FPC-12/13L

Floodplain Calculations

Total Impacts= 0.88 acres

Additional 20% Safety Factor = 0.20

Required Compensation Site = 1.06 acres

DRAFT

Pond Volume Calcs.

Basin Name: 14

Pond Name: SMF-14A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 10.23 | 1002.5 |
| Pervious Area | A/D | 49 | 17.94 | 879.1 |
| Pervious Area | A | 49 | 3.47 | 170.0 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 4.30 | 210.7 |
| | | | 35.94 | 62.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 24.03 | 2354.9 |
| Pervious Area | A/D | 49 | 6.38 | 312.6 |
| Pervious Area | A | 49 | 1.23 | 60.3 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.26 | 61.7 |
| Water at Pond | - | 100 | 3.04 | 304.0 |
| | | | 35.94 | 86.1 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.89 | S-post | 1.62 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.90 | 5.37 | 8.67 | 16.10 | 7.42 |
| 25-Yr / 24-Hr | 8 | 3.66 | 6.34 | 10.97 | 18.99 | 8.02 |
| 100-Yr / 24-Hr | 11 | 6.14 | 9.27 | 18.40 | 27.77 | 9.37 |

Pond SHWT Determination

| | | | |
|---------------------|-------|-------------------|-------|
| Avg. Ground Elev. = | 37.00 | Est. SHWT Elev. = | 36.00 |
| Avg. SHWT Depth = | 1.00 | SHWT Elev. Used = | 35.00 |

Water Quality Calcs.

New Imp. Area = 13.80 ac 18% 6.47
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 1.15 ac-ft Provided Treat Area = 2.17 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 35.00 | 3.04 | 0.00 |
| Weir Crest EL. | 35.70 | 3.15 | 2.17 |
| DHW10 EL. | 37.40 | 3.42 | 7.75 |
| DHW 25 EL. | 37.50 | 3.43 | 8.09 |
| 1 foot Clearance | 38.00 | 3.51 | 9.83 |
| Inside Berm | 39.00 | 3.67 | 13.42 |
| Outside Berm | 39.00 | 4.30 | 13.42 |

Treatment Depth = 0.70 Attenuation Depth = 2.30

Basin Hydraulics Calc.

LEOP in Basin = 40.0
 Less 1 foot of clearance = 39.0
 Distance from LEOP to Pond = 100 ft
 Losses = 0.08 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 38.9
 10-year HGL at Pond = 37.4 Go

Pond Volume Calcs.

Basin Name: 14

Pond Name: SMF-14B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 10.23 | 1002.5 |
| Pervious Area | A/D | 49 | 17.94 | 879.1 |
| Pervious Area | A | 49 | 3.47 | 170.0 |
| Pervious Area | | | | |
| Grass at Pond | A / A/D | 49 | 3.54 | 173.5 |
| | | | 35.18 | 63.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 24.03 | 2354.9 |
| Pervious Area | A/D | 49 | 6.38 | 312.6 |
| Pervious Area | A | 49 | 1.23 | 60.3 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.18 | 57.8 |
| Water at Pond | - | 100 | 2.36 | 236.0 |
| | | | 35.18 | 85.9 |

Water Quantity Calcs.

Soil Storage

| S-pre | S-post |
|-------|--------|
| 5.81 | 1.64 |

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.93 | 5.35 | 8.58 | 15.69 | 7.12 |
| 25-Yr / 24-Hr | 8 | 3.70 | 6.32 | 10.84 | 18.52 | 7.69 |
| 100-Yr / 24-Hr | 11 | 6.18 | 9.25 | 18.13 | 27.11 | 8.98 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 38.50 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 37.50 |
| SHWT Elev. Used = | 34.00 |

Water Quality Calcs.

New Imp. Area = 13.80 ac 18% 6.33
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 1.15 ac-ft Provided Treat Area = 3.71 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 34.00 | 2.36 | 0.00 |
| Weir Crest EL. | 35.50 | 2.58 | 3.71 |
| DHW10 EL. | 36.80 | 2.77 | 7.19 |
| DHW 25 EL. | 37.00 | 2.80 | 7.74 |
| 1 foot Clearance | 37.00 | 2.80 | 7.74 |
| Inside Berm | 38.00 | 2.95 | 10.62 |
| Outside Berm | 38.00 | 3.54 | 10.62 |

Treatment Depth= 1.50

Attenuation Depth= 1.50

Basin Hydraulics Calc.

LEOP in Basin = 40.0
 Less 1 foot of clearance= 39.0
 Distance from LEOP to Pond= 1200 ft
 Losses = 0.96 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 38.0
 10-year HGL at Pond = 36.8 Go

Floodplain Calculations

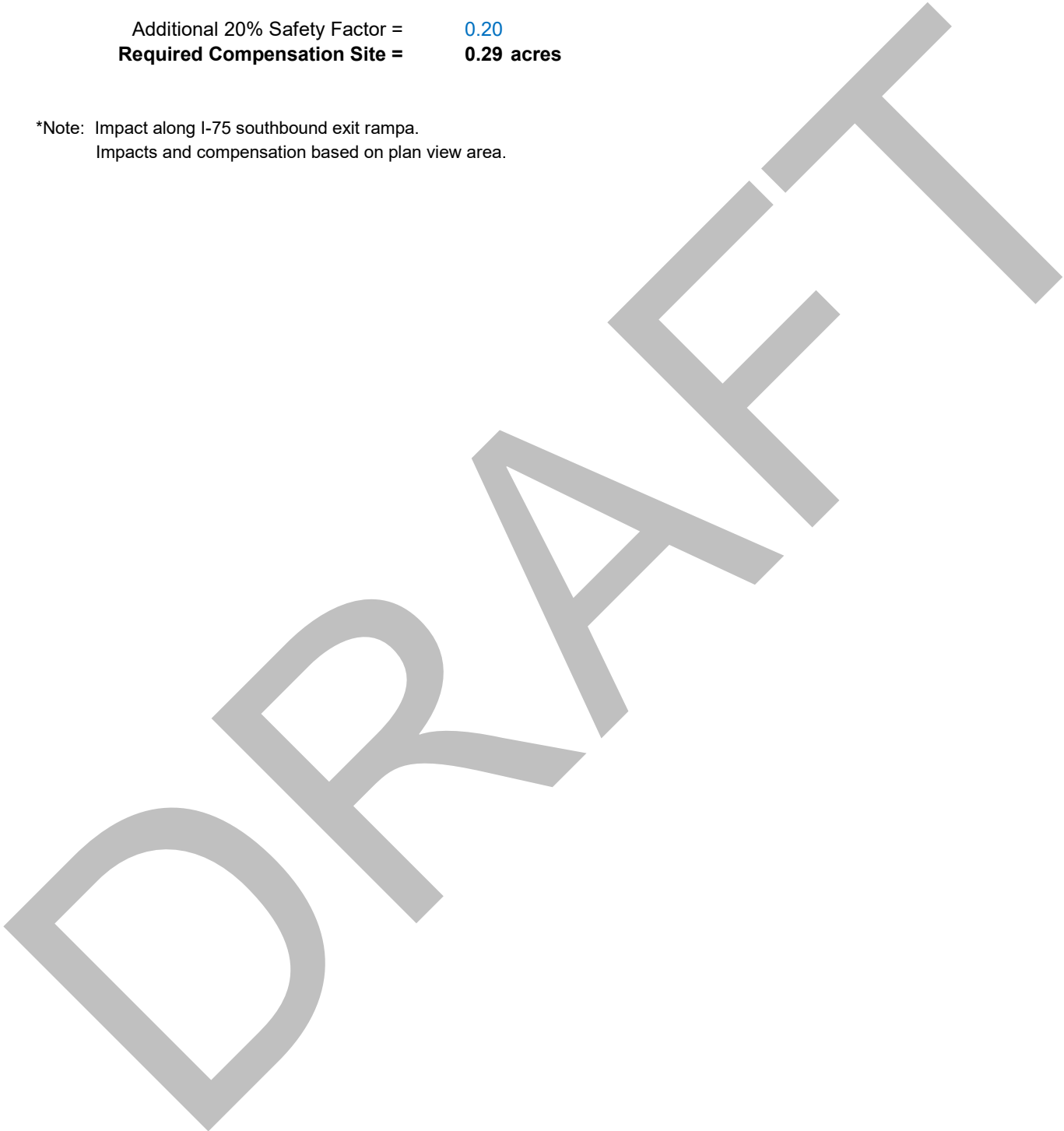
Basin Name: 14

Floodplain Name: FPC-14

***Floodplain Calculations**

| | | |
|-------------------------------------|-----------------|-------------------|
| | Impacts= | 0.24 acres |
| <hr/> | | |
| Additional 20% Safety Factor = | | 0.20 |
| Required Compensation Site = | | 0.29 acres |

*Note: Impact along I-75 southbound exit rampa.
Impacts and compensation based on plan view area.



Pond Volume Calcs.

Basin Name: 15/16

Pond Name: SMF-15/16

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|------|-----------|---------|
| Impervious Area | - | 98 | 28.01 | 2745.0 |
| Pervious Area | A/D | 49 | 1.59 | 77.9 |
| Basin 15 | | 73.4 | 10.80 | 792.7 |
| Pervious Area | A | 49 | 14.28 | 699.7 |
| Grass at Pond | A/D | 49 | 6.27 | 307.2 |
| | | | 60.95 | 75.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|------|-----------|---------|
| Impervious Area | - | 98 | 43.88 | 4300.2 |
| Basin 15 | - | 92.7 | 10.8 | 1001.2 |
| Pervious Area | C/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A/D | 49 | 1.72 | 84.3 |
| Water at Pond | - | 100 | 4.55 | 455.0 |
| | | | 60.95 | 95.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.19 | S-post | 0.44 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.24 | 6.50 | 21.54 | 33.03 | 11.49 |
| 25-Yr / 24-Hr | 8 | 5.14 | 7.50 | 26.10 | 38.09 | 11.99 |
| 100-Yr / 24-Hr | 11 | 7.93 | 10.49 | 40.26 | 53.30 | 13.04 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 37.0 |
| Avg. SHWT Depth= | 2.26 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 34.74 |
| SHWT Elev. Used = | 34.74 |

Water Quality Calcs.

Basin 15 Imp. Area = 15.87 ac
 Basin 16 Imp. Area = 4.47 ac

18% 10.97

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 1.70 ac-ft

Provided Treat Area = 1.70 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 34.74 | 4.55 | 0.00 |
| Weir Crest EL. | 35.11 | 4.63 | 1.70 |
| DHW10 EL. | 37.13 | 5.06 | 11.49 |
| DHW 25 EL. | 37.23 | 5.08 | 11.99 |
| 1 foot Clearance | 38.00 | 5.24 | 15.96 |
| Inside Berm | 39.00 | 5.45 | 21.30 |
| Outside Berm | 39.00 | 6.27 | 21.30 |

Treatment Depth= 0.37

Attenuation Depth= 2.89

Basin Hydraulics Calc.

LEOP in Basin = 39.0
 Less 1 foot of clearance= 38.0
 Distance from LEOP to Pond= 400 ft
 Losses = 0.32 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 37.7
 10-year HGL at Pond = 37.1 Go

Pond Volume Calcs.

Basin Name: 17

Pond Name: SMF-17A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 7.96 | 780.1 |
| Pervious Area | A | 49 | 11.39 | 558.1 |
| Pervious Area | A/D | 49 | 0.60 | 29.4 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 2.47 | 121.0 |
| | | | 22.42 | 66.4 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 19.95 | 1955.1 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Pervious Area | A/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.95 | 46.6 |
| Water at Pond | - | 100 | 1.52 | 152.0 |
| | | | 22.42 | 96.1 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.06 | S-post | 0.41 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 6.53 | 6.06 | 12.20 | 6.14 |
| 25-Yr / 24-Hr | 8 | 4.05 | 7.53 | 7.57 | 14.06 | 6.49 |
| 100-Yr / 24-Hr | 11 | 6.63 | 10.52 | 12.38 | 19.66 | 7.27 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 40.0 |
| Avg. SHWT Depth = | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 39.0 |
| SHWT Elev. Used = | 36.0 |

Water Quality Calcs.

New Imp. Area = 11.99 ac 18% 4.04

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 1.00 ac-ft Provided Treat Area = 1.00 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 36.00 | 1.52 | 0.00 |
| Weir Crest EL. | 36.65 | 1.58 | 1.00 |
| DHW10 EL. | 39.63 | 1.87 | 6.14 |
| DHW 25 EL. | 39.81 | 1.89 | 6.49 |
| 1 foot Clearance | 40.00 | 1.90 | 6.85 |
| Inside Berm | 41.00 | 2.00 | 8.80 |
| Outside Berm | 41.00 | 2.47 | 8.80 |

Treatment Depth = 0.65

Attenuation Depth = 3.36

Basin Hydraulics Calc.

LEOP in Basin = 60.0
 Less 1 foot of clearance = 59.0
 Distance from LEOP to Pond = 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 58.8
 10-year HGL at Pond = 39.6 Go

Pond Volume Calcs.

Basin Name: 17

Pond Name: SMF-17B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|----|-----------|---------|
| Impervious Area | - | 98 | 7.96 | 780.1 |
| Pervious Area | A | 49 | 11.39 | 558.1 |
| Pervious Area | A/D | 49 | 0.60 | 29.4 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A, A/D | 49 | 2.79 | 136.7 |
| | | | 22.74 | 66.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|--------|-----|-----------|---------|
| Impervious Area | - | 98 | 19.95 | 1955.1 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Pervious Area | A/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A, A/D | 49 | 1.14 | 55.9 |
| Water at Pond | - | 100 | 1.65 | 165.0 |
| | | | 22.74 | 95.7 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.12 | S-post | 0.41 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 6.53 | 6.06 | 12.20 | 6.14 |
| 25-Yr / 24-Hr | 8 | 4.05 | 7.53 | 7.57 | 14.06 | 6.49 |
| 100-Yr / 24-Hr | 11 | 6.63 | 10.52 | 12.38 | 19.66 | 7.27 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 39.0 |
| Avg. SHWT Depth= | 1.75 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 37.3 |
| SHWT Elev. Used = | 37.3 |

Water Quality Calcs.

New Imp. Area = 11.99 ac 18% 4.09

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 1.00 ac-ft Provided Treat Area = 1.00 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 37.25 | 1.65 | 0.00 |
| Weir Crest EL. | 37.84 | 1.73 | 1.00 |
| DHW10 EL. | 40.54 | 2.08 | 6.14 |
| DHW 25 EL. | 40.71 | 2.10 | 6.49 |
| 1 foot Clearance | 41.00 | 2.14 | 7.11 |
| Inside Berm | 42.00 | 2.27 | 9.31 |
| Outside Berm | 42.00 | 2.79 | 9.31 |

Treatment Depth= 0.59

Attenuation Depth= 3.16

Basin Hydraulics Calc.

LEOP in Basin = 60.0
 Less 1 foot of clearance= 59.0
 Distance from LEOP to Pond= 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 58.8
 10-year HGL at Pond = 40.5 Go

Pond Volume Calcs.

Basin Name: 18

Pond Name: SMF-18A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 5.25 | 514.5 |
| Pervious Area | A/D | 49 | 3.31 | 162.2 |
| Pervious Area | C/D | 74 | 2.20 | 162.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A/D | 49 | 1.61 | 78.9 |
| | | | 12.37 | 74.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 10.76 | 1054.5 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | C/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | A/D | 49 | 0.83 | 40.7 |
| Water at Pond | - | 100 | 0.78 | 78.0 |
| | | | 12.37 | 94.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.47 | S-post | 0.54 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.07 | 6.39 | 4.19 | 6.58 | 2.39 |
| 25-Yr / 24-Hr | 8 | 4.95 | 7.38 | 5.11 | 7.61 | 2.50 |
| 100-Yr / 24-Hr | 11 | 7.71 | 10.37 | 7.95 | 10.69 | 2.74 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 40.0 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 39.0 |
| SHWT Elev. Used = | 36.0 |

Water Quality Calcs.

New Imp. Area = 5.51 ac 18% 2.23

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 0.46 ac-ft Provided Treat Area = 0.46 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 36.00 | 0.78 | 0.00 |
| Weir Crest EL. | 36.57 | 0.84 | 0.46 |
| DHW10 EL. | 38.62 | 1.05 | 2.39 |
| DHW 25 EL. | 38.72 | 1.06 | 2.50 |
| 1 foot Clearance | 39.00 | 1.09 | 2.80 |
| Inside Berm | 40.00 | 1.19 | 3.94 |
| Outside Berm | 40.00 | 1.61 | 3.94 |

Treatment Depth= 0.57

Attenuation Depth= 2.43

Basin Hydraulics Calc.

LEOP in Basin = 56.0
 Less 1 foot of clearance= 55.0
 Distance from LEOP to Pond= 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 54.8
 10-year HGL at Pond = 38.6 Go

Pond Volume Calcs.

Basin Name: 18

Pond Name: SMF-18B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----------|----|-----------|---------|
| Impervious Area | - | 98 | 5.25 | 514.5 |
| Pervious Area | A/D | 49 | 3.31 | 162.2 |
| Pervious Area | C/D | 74 | 2.20 | 162.8 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | C/D & A/D | 62 | 1.46 | 90.5 |
| | | | 12.22 | 76.1 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----------|-----|-----------|---------|
| Impervious Area | - | 98 | 10.76 | 1054.5 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | C/D | 74 | 0 | 0.0 |
| Pervious Area | A | 80 | 0 | 0.0 |
| Grass at Pond | C/D & A/D | 62 | 0.65 | 40.3 |
| Water at Pond | - | 100 | 0.81 | 81.0 |
| | | | 12.22 | 96.2 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.14 | S-post | 0.54 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.07 | 6.39 | 4.19 | 6.58 | 2.39 |
| 25-Yr / 24-Hr | 8 | 4.95 | 7.38 | 5.11 | 7.61 | 2.50 |
| 100-Yr / 24-Hr | 11 | 7.71 | 10.37 | 7.95 | 10.69 | 2.74 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 40.0 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 39.0 |
| SHWT Elev. Used = | 36.0 |

Water Quality Calcs.

New Imp. Area = 5.51 ac 18% 2.20
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.46 ac-ft Provided Treat Area = 0.46 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 36.00 | 0.81 | 0.00 |
| Weir Crest EL. | 36.55 | 0.85 | 0.46 |
| DHW10 EL. | 38.61 | 1.02 | 2.39 |
| DHW 25 EL. | 38.72 | 1.03 | 2.50 |
| 1 foot Clearance | 39.00 | 1.05 | 2.79 |
| Inside Berm | 40.00 | 1.13 | 3.88 |
| Outside Berm | 40.00 | 1.46 | 3.88 |

Treatment Depth= 0.55 Attenuation Depth= 2.45

Basin Hydraulics Calc.

LEOP in Basin = 56.0
 Less 1 foot of clearance= 55.0
 Distance from LEOP to Pond= 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 54.8
 10-year HGL at Pond = 38.6 Go

Floodplain Calculations

Basin Name: 18

Floodplain Name: FPC-17/18

***Floodplain Calculations**

Impacts= 1.77 acres

Additional 20% Safety Factor = 0.20
Required Compensation Site = 2.12 acres

*Note: Includes impacts from Basin 17 and Basin 18.
Impacts and compensation based on plan view area.

DRAFT

Pond Volume Calcs.

Basin Name: 19

Pond Name: SMF-19A, SMF-19B, & SMF-19C

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 16.88 | 1653.8 |
| Pervious Area | A/D | 49 | 1.57 | 76.7 |
| Pervious Area | B/D | 80 | 0.47 | 37.6 |
| Pervious Area | C/D | 74 | 13.62 | 1007.5 |
| Grass at Pond | A/D | 49 | 6.42 | 314.6 |
| | | | 38.95 | 79.3 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 32.53 | 3187.5 |
| Pervious Area | A/D | 49 | 0.00 | 0.0 |
| Pervious Area | B/D | 80 | 0.00 | 0.0 |
| Pervious Area | C/D | 74 | 0.00 | 0.0 |
| Grass at Pond | A/D | 49 | 1.99 | 97.5 |
| Water at Pond | - | 100 | 4.43 | 443.0 |
| | | | 38.95 | 95.7 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 2.60 | S-post | 0.45 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.62 | 6.49 | 15.00 | 21.07 | 6.06 |
| 25-Yr / 24-Hr | 8 | 5.55 | 7.49 | 18.01 | 24.30 | 6.29 |
| 100-Yr / 24-Hr | 11 | 8.39 | 10.48 | 27.24 | 34.02 | 6.77 |

Pond Name: SMF-19A, SMF-19B, & SMF-19C

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 27.0 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 26.0 |
| SHWT Elev. Used = | 26.0 |

Water Quality Calcs.

New Imp. Area = 15.65 ac 18% 7.01
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 1.30 ac-ft Provided Treat Area = 1.30 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 26.00 | 4.43 | 0.00 |
| Weir Crest EL. | 26.29 | 4.53 | 1.30 |
| DHW10 EL. | 27.31 | 4.86 | 6.06 |
| DHW 25 EL. | 27.35 | 4.88 | 6.29 |
| 1 foot Clearance | 27.00 | 4.76 | 4.60 |
| Inside Berm | 28.00 | 5.09 | 9.52 |
| Outside Berm | 28.00 | 6.42 | 9.52 |

Treatment Depth= 0.29

Attenuation Depth= 0.71

Basin Hydraulics Calc.

LEOP in Basin = 35.0
 Less 1 foot of clearance= 34.0
 Distance from LEOP to Pond= 1000 ft
 Losses = 0.80 (Assume Slope = 0.0008 ft/ft)
 Allowalbe 10-year HGL at Pond = 33.2
 10-year HGL at Pond = 27.3 Go

Pond Volume Calcs.

Basin Name: 19

Pond Name: SMF-19D

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 16.88 | 1653.8 |
| Pervious Area | A/D | 49 | 1.57 | 76.7 |
| Pervious Area | B/D | 80 | 0.47 | 37.6 |
| Pervious Area | C/D | 74 | 13.62 | 1007.5 |
| Grass at Pond | A/D | 49 | 4.59 | 224.9 |
| | | | 37.12 | 80.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 32.53 | 3187.5 |
| Pervious Area | A/D | 49 | 0.00 | 0.0 |
| Pervious Area | B/D | 80 | 0.00 | 0.0 |
| Pervious Area | C/D | 74 | 0.00 | 0.0 |
| Grass at Pond | A/D | 49 | 1.82 | 89.2 |
| Water at Pond | - | 100 | 2.77 | 277.0 |
| | | | 37.12 | 95.7 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 2.37 | S-post | 0.44 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.79 | 6.49 | 14.81 | 20.08 | 5.28 |
| 25-Yr / 24-Hr | 8 | 5.72 | 7.49 | 17.70 | 23.17 | 5.46 |
| 100-Yr / 24-Hr | 11 | 8.59 | 10.48 | 26.57 | 32.43 | 5.85 |

Pond Name: SMF-19D

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 29.5 |
| Avg. SHWT Depth= | 1.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 28.5 |
| SHWT Elev. Used = | 28.5 |

Water Quality Calcs.

New Imp. Area = 15.65 ac 18% 6.68
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 1.30 ac-ft Provided Treat Area = 1.30 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 28.50 | 2.77 | 0.00 |
| Weir Crest EL. | 28.96 | 2.89 | 1.30 |
| DHW10 EL. | 30.26 | 3.23 | 5.28 |
| DHW 25 EL. | 30.32 | 3.24 | 5.47 |
| 1 foot Clearance | 30.50 | 3.29 | 6.06 |
| Inside Berm | 31.50 | 3.55 | 9.48 |
| Outside Berm | 31.50 | 4.59 | 9.48 |

Treatment Depth= 0.46

Attenuation Depth= 1.54

Basin Hydraulics Calc.

LEOP in Basin = 35.0
 Less 1 foot of clearance= 34.0
 Distance from LEOP to Pond= 1000 ft
 Losses = 0.80 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 33.2
 10-year HGL at Pond = 30.3 Go

Floodplain Calculations

Basin Name: 19

Floodplain Name: FPC-19A & FPC-19B

***Floodplain Calculations**

Impacts= 1.82 acres

Additional 20% Safety Factor = 0.20
Required Compensation Site = 2.18 acres

DRAFT

Pond Volume Calcs.

Basin Name: 20

Pond Name: SMF-20A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 7.57 | 741.9 |
| Pervious Area | C/D | 79 | 0.97 | 76.6 |
| Pervious Area | A/D | 49 | 14.64 | 717.4 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 6.43 | 315.1 |
| | | | 29.61 | 62.5 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 20.03 | 1962.9 |
| Pervious Area | C/D | 79 | 2.38 | 188.0 |
| Pervious Area | A/D | 49 | 0.77 | 37.7 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.35 | 66.2 |
| Water at Pond | - | 100 | 5.08 | 508.0 |
| | | | 29.61 | 93.3 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.00 | S-post | 0.72 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.85 | 6.21 | 7.04 | 15.32 | 8.28 |
| 25-Yr / 24-Hr | 8 | 3.61 | 7.20 | 8.92 | 17.76 | 8.85 |
| 100-Yr / 24-Hr | 11 | 6.08 | 10.18 | 15.00 | 25.13 | 10.13 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 25.0 |
| Avg. SHWT Depth = | 0.98 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 24.0 |
| SHWT Elev. Used = | 18.0 |

Water Quality Calcs.

New Imp. Area = 12.46 ac 18% 5.33
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 1.04 ac-ft Provided Treat Vol. = 1.53 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 18.00 | 5.08 | 0.00 |
| Weir Crest EL. | 18.30 | 5.13 | 1.53 |
| DHW10 EL. | 19.60 | 5.37 | 8.36 |
| DHW 25 EL. | 19.70 | 5.39 | 8.90 |
| 1 foot Clearance | 20.50 | 5.54 | 13.27 |
| Inside Berm | 21.50 | 5.72 | 18.90 |
| Outside Berm | 21.50 | 6.43 | 18.90 |

Treatment Depth = 0.30

Attenuation Depth = 2.20

Basin Hydraulics Calc.

LEOP in Basin = 23.0
 Less 1 foot of clearance = 22.0
 Distance from LEOP to Pond = 3000 ft
 Losses = 2.40 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 19.6
 10-year HGL at Pond = 19.6 Go

Pond Volume Calcs.

Basin Name: 20

Pond Name: SMF-20B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 7.57 | 741.9 |
| Pervious Area | C/D | 79 | 0.97 | 76.6 |
| Pervious Area | A/D | 49 | 14.64 | 717.4 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Grass at Pond | A / A/D | 49 | 7.38 | 361.6 |
| | | | 30.56 | 62.1 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 20.03 | 1962.9 |
| Pervious Area | C/D | 79 | 2.38 | 188.0 |
| Pervious Area | A/D | 49 | 0.77 | 37.7 |
| Pervious Area | A | 49 | 0.00 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.22 | 59.8 |
| Water at Pond | - | 100 | 6.16 | 616.0 |
| | | | 30.56 | 93.7 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 6.11 | S-post | 0.72 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 2.85 | 6.21 | 7.04 | 15.32 | 8.28 |
| 25-Yr / 24-Hr | 8 | 3.61 | 7.20 | 8.92 | 17.76 | 8.85 |
| 100-Yr / 24-Hr | 11 | 6.08 | 10.18 | 15.00 | 25.13 | 10.13 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 27.0 |
| Avg. SHWT Depth = | 6.56 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 20.4 |
| SHWT Elev. Used = | 18.5 |

Water Quality Calcs.

New Imp. Area = 12.46 ac 18% 5.50
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 1.04 ac-ft Provided Treat Vol. = 1.24 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 18.50 | 6.16 | 0.00 |
| Weir Crest EL. | 18.70 | 6.20 | 1.24 |
| DHW10 EL. | 19.90 | 6.43 | 8.81 |
| DHW 25 EL. | 19.95 | 6.44 | 9.13 |
| 1 foot Clearance | 20.00 | 6.45 | 9.46 |
| Inside Berm | 21.00 | 6.64 | 16.00 |
| Outside Berm | 21.00 | 7.38 | 16.00 |

Treatment Depth = 0.20

Attenuation Depth = 1.30

Basin Hydraulics Calc.

LEOP in Basin = 23.0
 Less 1 foot of clearance = 22.0
 Distance from LEOP to Pond = 2600 ft
 Losses = 2.08 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 19.9
 10-year HGL at Pond = 19.9 Go

Floodplain Calculations

Basin Name: 20

Floodplain Name: FPC-20

Floodplain Calculations

 Total Impacts= 1.30 acres

Additional 20% Safety Factor = 0.20
Required Compensation Site = 1.56 acres

DRAFT

Pond Volume Calcs.

Basin Name: 21

Pond Name: SMF-21A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 7.72 | 756.9 |
| Pervious Area | C/D | 79 | 12.25 | 967.8 |
| Pervious Area | A/D | 49 | 4 | 196.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 6.03 | 295.5 |
| | | | 30.00 | 73.9 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 18.15 | 1778.5 |
| Pervious Area | C/D | 79 | 4.39 | 346.8 |
| Pervious Area | A/D | 49 | 1.43 | 70.1 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.32 | 64.7 |
| Water at Pond | - | 100 | 4.71 | 471.0 |
| | | | 30.00 | 91.0 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.54 | S-post | 0.98 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.03 | 5.94 | 10.07 | 14.86 | 4.79 |
| 25-Yr / 24-Hr | 8 | 4.91 | 6.93 | 12.27 | 17.32 | 5.05 |
| 100-Yr / 24-Hr | 11 | 7.66 | 9.90 | 19.15 | 24.75 | 5.61 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 20.0 |
| Avg. SHWT Depth= | 0.98 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 19.0 |
| SHWT Elev. Used = | 18.5 |

Water Quality Calcs.

New Imp. Area = 10.42 ac 18% 5.40

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.87 ac-ft Provided Treat Vol. = 0.95 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 18.50 | 4.71 | 0.00 |
| Weir Crest EL. | 18.70 | 4.75 | 0.95 |
| DHW10 EL. | 19.50 | 4.93 | 4.82 |
| DHW 25 EL. | 19.70 | 4.97 | 5.81 |
| 1 foot Clearance | 19.70 | 4.97 | 5.81 |
| Inside Berm | 20.70 | 5.19 | 10.89 |
| Outside Berm | 20.70 | 6.03 | 10.89 |

Treatment Depth= 0.20

Attenuation Depth= 1.00

Basin Hydraulics Calc.

LEOP in Basin = 22.9
 Less 1 foot of clearance= 21.9
 Distance from LEOP to Pond= 3000 ft
 Losses = 2.40 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 19.5
 10-year HGL at Pond = 19.5 Go

Pond Volume Calcs.

Basin Name: 21

Pond Name: SMF-21B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 7.72 | 756.9 |
| Pervious Area | C/D | 79 | 12.25 | 967.8 |
| Pervious Area | A/D | 49 | 4 | 196.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 5.91 | 289.6 |
| | | | 29.88 | 74.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 18.15 | 1778.5 |
| Pervious Area | C/D | 79 | 4.47 | 353.1 |
| Pervious Area | A/D | 49 | 1.43 | 70.1 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.04 | 51.0 |
| Water at Pond | - | 100 | 4.87 | 487.0 |
| | | | 29.96 | 91.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.52 | S-post | 0.98 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.03 | 5.94 | 10.07 | 14.86 | 4.79 |
| 25-Yr / 24-Hr | 8 | 4.91 | 6.93 | 12.27 | 17.32 | 5.05 |
| 100-Yr / 24-Hr | 11 | 7.66 | 9.90 | 19.15 | 24.75 | 5.61 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 25.0 |
| Avg. SHWT Depth= | 0.49 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 24.5 |
| SHWT Elev. Used = | 18.5 |

Water Quality Calcs.

New Imp. Area = 10.42 ac 18% 5.39 ac
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Vol. = 0.87 ac-ft Provided Treat Vol. = 0.98 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 18.50 | 4.87 | 0.00 |
| Weir Crest EL. | 18.70 | 4.90 | 0.98 |
| DHW10 EL. | 19.50 | 5.04 | 4.95 |
| DHW 25 EL. | 19.70 | 5.07 | 5.97 |
| 1 foot Clearance | 19.70 | 5.07 | 5.97 |
| Inside Berm | 20.70 | 5.24 | 11.12 |
| Outside Berm | 20.70 | 5.91 | 11.12 |

Treatment Depth= 0.20

Attenuation Depth= 1.00

Basin Hydraulics Calc.

LEOP in Basin = 22.9
 Less 1 foot of clearance= 21.9
 Distance from LEOP to Pond= 3000 ft
 Losses = 2.40 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 19.5
 10-year HGL at Pond = 19.5 Go

Floodplain Calculations

Basin Name: 21

Floodplain Name: FPC-21A and FPC 21B

Floodplain Calculations

Total Impacts= 1.38 acres

Additional 20% Safety Factor = 0.20

Required Compensation Site = 1.65 acres

DRAFT

Pond Volume Calcs.

Basin Name: 22

Pond Name: SMF-22A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|----|-----------|---------|
| Impervious Area | - | 98 | 6.90 | 676.2 |
| Pervious Area | A/D | 49 | 2.15 | 105.4 |
| Pervious Area | C/D | 79 | 11.63 | 918.8 |
| Pervious Area | | | | |
| Grass at Pond | C/D | 49 | 2.81 | 137.7 |
| | | | 23.49 | 78.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|-----|-----|-----------|---------|
| Impervious Area | - | 98 | 15.52 | 1521.0 |
| Pervious Area | A/D | 49 | 0.80 | 39.2 |
| Pervious Area | C/D | 79 | 4.36 | 344.4 |
| Pervious Area | 0 | 0 | 0 | 0.0 |
| Grass at Pond | C/D | 49 | 0.81 | 39.7 |
| Water at Pond | - | 100 | 2.00 | 200.0 |
| | | | 23.49 | 91.3 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 2.78 | S-post | 0.95 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.50 | 5.97 | 8.81 | 11.69 | 2.88 |
| 25-Yr / 24-Hr | 8 | 5.42 | 6.96 | 10.61 | 13.62 | 3.01 |
| 100-Yr / 24-Hr | 11 | 8.25 | 9.93 | 16.15 | 19.44 | 3.30 |

Pond SHWT Determination

| | | | |
|---------------------|-------|-------------------|-------|
| Avg. Ground Elev. = | 17.00 | Est. SHWT Elev. = | 16.00 |
| Avg. SHWT Depth = | 1.00 | SHWT Elev. Used = | 16.00 |

Water Quality Calcs.

New Imp. Area = 8.62 ac 18% 4.23
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.72 ac-ft Provided Treat Area = 0.72 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 16.00 | 2.00 | 0.00 |
| Weir Crest EL. | 16.36 | 2.04 | 0.72 |
| DHW10 EL. | 17.38 | 2.17 | 2.88 |
| DHW 25 EL. | 17.44 | 2.18 | 3.01 |
| 1 foot Clearance | 17.50 | 2.19 | 3.14 |
| Inside Berm | 18.50 | 2.31 | 5.39 |
| Outside Berm | 18.50 | 2.81 | 5.39 |

Treatment Depth = 0.36 Attenuation Depth = 1.15

Basin Hydraulics Calc.

LEOP in Basin = 19.0
 Less 1 foot of clearance = 18.0
 Distance from LEOP to Pond = 400 ft
 Losses = 0.32 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 17.7
 10-year HGL at Pond = 17.4 Go

Pond Volume Calcs.

Basin Name: 23

Pond Name: SMF-23A

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 6.76 | 662.5 |
| Pervious Area | A/D | 49 | 4.66 | 228.3 |
| Pervious Area | C/D | 79 | 8.14 | 643.1 |
| Pervious Area | A | 49 | 1.33 | 65.2 |
| Grass at Pond | A / A/D | 49 | 2.11 | 103.4 |
| | | | 23.00 | 74.0 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 15.76 | 1544.5 |
| Pervious Area | A/D | 49 | 1.69 | 82.8 |
| Pervious Area | C/D | 79 | 2.95 | 233.1 |
| Pervious Area | A | 49 | 0.49 | 23.8 |
| Grass at Pond | A / A/D | 49 | 0.73 | 35.8 |
| Water at Pond | - | 100 | 1.38 | 138.0 |
| | | | 23.00 | 89.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.51 | S-post | 1.17 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.04 | 5.76 | 7.75 | 11.05 | 3.30 |
| 25-Yr / 24-Hr | 8 | 4.93 | 6.75 | 9.44 | 12.93 | 3.48 |
| 100-Yr / 24-Hr | 11 | 7.68 | 9.71 | 14.72 | 18.60 | 3.88 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 18.00 |
| Avg. SHWT Depth= | 0.40 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 17.60 |
| SHWT Elev. Used = | 16.00 |

SHWT based on Temple Terrace Plans

Water Quality Calcs.

New Imp. Area = 9.00 ac 18% 4.14

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 0.75 ac-ft Provided Treat Area = 0.84 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 16.00 | 1.38 | 0.00 |
| Weir Crest EL. | 16.60 | 1.43 | 0.84 |
| DHW10 EL. | 18.30 | 1.59 | 3.41 |
| DHW 25 EL. | 18.40 | 1.60 | 3.57 |
| 1 foot Clearance | 19.00 | 1.65 | 4.55 |
| Inside Berm | 20.00 | 1.74 | 6.24 |
| Outside Berm | 20.00 | 2.11 | 6.24 |

Treatment Depth= 0.60

Attenuation Depth= 2.40

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 800 ft
 Losses = 0.64 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 24.4
 10-year HGL at Pond = 18.3 Go

Pond Volume Calcs.

Basin Name: 23

Pond Name: SMF-23B

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 6.76 | 662.5 |
| Pervious Area | A/D | 49 | 4.66 | 228.3 |
| Pervious Area | C/D | 79 | 8.14 | 643.1 |
| Pervious Area | A | 49 | 1.33 | 65.2 |
| Grass at Pond | A / A/D | 49 | 1.73 | 84.8 |
| | | | 22.62 | 74.4 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 15.76 | 1544.5 |
| Pervious Area | A/D | 49 | 1.69 | 82.8 |
| Pervious Area | C/D | 79 | 2.95 | 233.1 |
| Pervious Area | A | 49 | 0.49 | 23.8 |
| Grass at Pond | A / A/D | 49 | 0.69 | 33.8 |
| Water at Pond | - | 100 | 1.04 | 104.0 |
| | | | 22.62 | 89.4 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 3.43 | S-post | 1.18 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.09 | 5.75 | 7.71 | 10.85 | 3.14 |
| 25-Yr / 24-Hr | 8 | 4.98 | 6.73 | 9.38 | 12.69 | 3.31 |
| 100-Yr / 24-Hr | 11 | 7.74 | 9.70 | 14.58 | 18.27 | 3.69 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 19.50 |
| Avg. SHWT Depth= | 0.60 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 18.90 |
| SHWT Elev. Used = | 16.00 |

SHWT based on Temple Terrace Plans

Water Quality Calcs.

New Imp. Area = 9.00 ac 18% 4.07
 N OFW (Y or N) if Y, 50% additional treatment
 Req. Treat Area = 0.75 ac-ft Provided Treat Area = 0.86 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 16.00 | 1.04 | 0.00 |
| Weir Crest EL. | 16.80 | 1.11 | 0.86 |
| DHW10 EL. | 18.80 | 1.28 | 3.25 |
| DHW 25 EL. | 18.90 | 1.29 | 3.37 |
| 1 foot Clearance | 19.00 | 1.30 | 3.50 |
| Inside Berm | 20.00 | 1.38 | 4.84 |
| Outside Berm | 20.00 | 1.73 | 4.84 |

Treatment Depth= 0.80

Attenuation Depth= 2.20

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 1200 ft
 Losses = 0.96 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 24.0
 10-year HGL at Pond = 18.8 Go

Pond Volume Calcs.

Basin Name: 23

Pond Name: SMF-22/23

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 13.66 | 1338.7 |
| Pervious Area | A/D | 49 | 6.78 | 332.2 |
| Pervious Area | C/D | 79 | 19.82 | 1565.8 |
| Pervious Area | A | 49 | 1.31 | 64.2 |
| Grass at Pond | A / A/D | 49 | 3.19 | 156.3 |
| | | | 44.76 | 77.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 31.28 | 3065.4 |
| Pervious Area | A/D | 49 | 2.50 | 122.5 |
| Pervious Area | C/D | 69 | 7.31 | 504.4 |
| Pervious Area | A | 49 | 0.48 | 23.5 |
| Grass at Pond | A / A/D | 49 | 0.92 | 45.1 |
| Water at Pond | - | 100 | 2.27 | 227.0 |
| | | | 44.76 | 89.1 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 2.95 | S-post | 1.22 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 4.39 | 5.72 | 16.38 | 21.33 | 4.95 |
| 25-Yr / 24-Hr | 8 | 5.30 | 6.70 | 19.78 | 24.98 | 5.21 |
| 100-Yr / 24-Hr | 11 | 8.11 | 9.66 | 30.26 | 36.02 | 5.75 |

Pond SHWT Determination

| | |
|--------------------|-------|
| Avg. Ground Elev.= | 18.00 |
| Avg. SHWT Depth= | 0.30 |

| | |
|-------------------|-------|
| Est. SHWT Elev. = | 17.70 |
| SHWT Elev. Used = | 16.00 |

SHWT based on Temple Terrace Plans

Water Quality Calcs.

New Imp. Area = 17.62 ac 18% 8.06

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Area = 1.47 ac-ft Provided Treat Area = 1.62 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 16.00 | 2.27 | 0.00 |
| Weir Crest EL. | 16.70 | 2.35 | 1.62 |
| DHW10 EL. | 18.40 | 2.54 | 5.77 |
| DHW 25 EL. | 18.50 | 2.55 | 6.03 |
| 1 foot Clearance | 19.00 | 2.61 | 7.32 |
| Inside Berm | 20.00 | 2.72 | 9.98 |
| Outside Berm | 20.00 | 3.19 | 9.98 |

Treatment Depth= 0.70

Attenuation Depth= 2.30

Basin Hydraulics Calc.

LEOP in Basin = 26.0
 Less 1 foot of clearance= 25.0
 Distance from LEOP to Pond= 800 ft
 Losses = 0.64 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 24.4
 10-year HGL at Pond = 18.4 Go

Pond Volume Calcs.

Basin Name: **24**

Pond Name: **SMF-24A**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-------------|-------------|
| Impervious Area | - | 98 | 4.15 | 406.7 |
| Pervious Area | A / A/D | 49 | 3.78 | 185.2 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.84 | 90.2 |
| | | | 9.77 | 69.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-------------|-------------|
| Impervious Area | - | 98 | 7.93 | 777.1 |
| Pervious Area | A / A/D | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.56 | 27.4 |
| Water at Pond | - | 100 | 1.28 | 128.0 |
| | | | 9.77 | 95.5 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.32 | S-post | 0.48 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.60 | 6.46 | 2.93 | 5.26 | 2.33 |
| 25-Yr / 24-Hr | 8 | 4.44 | 7.46 | 3.62 | 6.07 | 2.45 |
| 100-Yr / 24-Hr | 11 | 7.10 | 10.45 | 5.78 | 8.51 | 2.72 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 32.5 |
| Avg. SHWT Depth= | 5.40 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 27.1 |
| SHWT Elev. Used = | 27.1 |

Water Quality Calcs.

New Imp. Area = 3.78 ac 15% 1.47

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.32 ac-ft Provided Treat Vol. = 0.78 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 27.10 | 1.28 | 0.00 |
| Weir Crest EL. | 27.70 | 1.32 | 0.78 |
| DHW10 EL. | 28.84 | 1.41 | 2.34 |
| DHW 25 EL. | 29.32 | 1.44 | 3.02 |
| 1 foot Clearance | 30.60 | 1.54 | 4.93 |
| Inside Berm | 31.60 | 1.61 | 6.50 |
| Outside Berm | 32.10 | 1.84 | 7.37 |

Treatment Depth= 0.60

Attenuation Depth= 1.62

Basin Hydraulics Calc.

LEOP in Basin = 54.0
 Less 1 foot of clearance= 53.0
 Distance from LEOP to Pond= 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 52.8
 10-year HGL at Pond = 28.84 Go

Pond Volume Calcs.

Basin Name: **24**

Pond Name: **SMF-24B**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-------------|-------------|
| Impervious Area | - | 98 | 4.15 | 406.7 |
| Pervious Area | A / A/D | 49 | 3.78 | 185.2 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.50 | 73.5 |
| | | | 9.43 | 70.6 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-------------|-------------|
| Impervious Area | - | 98 | 7.93 | 777.1 |
| Pervious Area | A / A/D | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.79 | 38.7 |
| Water at Pond | - | 100 | 0.71 | 71.0 |
| | | | 9.43 | 94.0 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.17 | S-post | 0.48 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.60 | 6.46 | 2.93 | 5.26 | 2.33 |
| 25-Yr / 24-Hr | 8 | 4.44 | 7.46 | 3.62 | 6.07 | 2.45 |
| 100-Yr / 24-Hr | 11 | 7.10 | 10.45 | 5.78 | 8.51 | 2.72 |

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 30.0 |
| Avg. SHWT Depth= | 2.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 28.0 |
| SHWT Elev. Used = | 28.0 |

Water Quality Calcs.

New Imp. Area = 3.78 ac 15% 1.41

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.32 ac-ft Provided Treat Vol. = 0.32 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 28.00 | 0.71 | 0.00 |
| Weir Crest EL. | 28.44 | 0.75 | 0.32 |
| DHW10 EL. | 30.76 | 0.98 | 2.33 |
| DHW 25 EL. | 30.88 | 0.99 | 2.45 |
| 1 foot Clearance | 31.00 | 1.00 | 2.57 |
| Inside Berm | 32.00 | 1.10 | 3.62 |
| Outside Berm | 32.00 | 1.50 | 3.62 |

Treatment Depth= 0.44

Attenuation Depth= 2.44

Basin Hydraulics Calc.

LEOP in Basin = 54.0
 Less 1 foot of clearance= 53.0
 Distance from LEOP to Pond= 200 ft
 Losses = 0.16 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 52.8
 10-year HGL at Pond = 30.76 Go

Pond Volume Calcs.

Basin Name: **25**

Pond Name: **SMF-25A**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 6.99 | 685.0 |
| Pervious Area | A / A/D | 49 | 10.71 | 524.8 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.98 | 97.0 |
| | | | 19.68 | 66.4 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 17.7 | 1734.6 |
| Pervious Area | A / A/D | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.99 | 48.5 |
| Water at Pond | - | 100 | 0.99 | 99.0 |
| | | | 19.68 | 95.6 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.06 | S-post | 0.46 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 6.48 | 5.32 | 10.63 | 5.31 |
| 25-Yr / 24-Hr | 8 | 4.05 | 7.48 | 6.65 | 12.26 | 5.62 |
| 100-Yr / 24-Hr | 11 | 6.63 | 10.47 | 10.87 | 17.17 | 6.30 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 44.5 |
| Avg. SHWT Depth = | 6.60 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 37.9 |
| SHWT Elev. Used = | 37.9 |

Water Quality Calcs.

New Imp. Area = 10.71 ac

15% 2.95

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.89 ac-ft

Provided Treat Vol. = 0.89 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 37.90 | 0.99 | 0.00 |
| Weir Crest EL. | 38.76 | 1.08 | 0.89 |
| DHW10 EL. | 42.28 | 1.44 | 5.31 |
| DHW 25 EL. | 42.49 | 1.46 | 5.62 |
| 1 foot Clearance | 42.50 | 1.46 | 5.63 |
| Inside Berm | 43.50 | 1.56 | 7.14 |
| Outside Berm | 43.50 | 1.98 | 7.14 |

Treatment Depth = 0.86

Attenuation Depth = 3.73

Basin Hydraulics Calc.

LEOP in Basin = 46.0
 Less 1 foot of clearance = 45.0
 Distance from LEOP to Pond = 1400 ft
 Losses = 1.12 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 43.9
 10-year HGL at Pond = 42.28 Go

Pond Volume Calcs.

Basin Name: **25**

Pond Name: **SMF-25B**

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 6.99 | 685.0 |
| Pervious Area | A / A/D | 49 | 10.71 | 524.8 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 2.19 | 107.3 |
| | | | 19.89 | 66.2 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 17.7 | 1734.6 |
| Pervious Area | A / A/D | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.94 | 46.1 |
| Water at Pond | - | 100 | 1.25 | 125.0 |
| | | | 19.89 | 95.8 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 5.10 | S-post | 0.46 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 6.48 | 5.32 | 10.63 | 5.31 |
| 25-Yr / 24-Hr | 8 | 4.05 | 7.48 | 6.65 | 12.26 | 5.62 |
| 100-Yr / 24-Hr | 11 | 6.63 | 10.47 | 10.87 | 17.17 | 6.30 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 42.0 |
| Avg. SHWT Depth = | 6.60 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 35.4 |
| SHWT Elev. Used = | 35.4 |

Water Quality Calcs.

New Imp. Area = 10.71 ac 15% 2.98

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.89 ac-ft Provided Treat Vol. = 0.89 ac-ft

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 35.40 | 1.25 | 0.00 |
| Weir Crest EL. | 36.09 | 1.32 | 0.89 |
| DHW10 EL. | 39.12 | 1.61 | 5.32 |
| DHW 25 EL. | 39.31 | 1.63 | 5.62 |
| 1 foot Clearance | 40.00 | 1.69 | 6.77 |
| Inside Berm | 41.00 | 1.79 | 8.51 |
| Outside Berm | 41.00 | 2.19 | 8.51 |

Treatment Depth = 0.69

Attenuation Depth = 3.22

Basin Hydraulics Calc.

LEOP in Basin = 46.0
 Less 1 foot of clearance = 45.0
 Distance from LEOP to Pond = 800 ft
 Losses = 0.64 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 44.4
 10-year HGL at Pond = 39.12 **Go**

Basin Name: 25

Pond Name: SMF-25C-1 / 2

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|----|-----------|---------|
| Impervious Area | - | 98 | 6.99 | 685.0 |
| Pervious Area | A / A/D | 49 | 10.71 | 524.8 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 1.20 | 58.8 |
| | | | 18.90 | 67.1 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-----------------|---------|-----|-----------|---------|
| Impervious Area | - | 98 | 17.7 | 1734.6 |
| Pervious Area | A / A/D | 49 | 0 | 0.0 |
| Pervious Area | A/D | 49 | 0 | 0.0 |
| Pervious Area | A | 49 | 0 | 0.0 |
| Grass at Pond | A / A/D | 49 | 0.55 | 27.0 |
| Water at Pond | - | 100 | 0.65 | 65.0 |
| | | | 18.90 | 96.6 |

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 4.90 | S-post | 0.46 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 3.25 | 6.48 | 5.32 | 10.63 | 5.31 |
| 25-Yr / 24-Hr | 8 | 4.05 | 7.48 | 6.65 | 12.26 | 5.62 |
| 100-Yr / 24-Hr | 11 | 6.63 | 10.47 | 10.87 | 17.17 | 6.30 |

Pond SHWT Determination

| | |
|---------------------|------|
| Avg. Ground Elev. = | 36.5 |
| Avg. SHWT Depth = | 6.50 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 30.0 |
| SHWT Elev. Used = | 30.0 |

Water Quality Calcs.

New Imp. Area = 4.28 ac

15% 2.84

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.36 ac-ft

Provided Treat Vol. = 0.36 ac-ft

Pond Stage Storage Calcs. (SMF-25C-1)

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 30.00 | 0.65 | 0.00 |
| Weir Crest EL. | 30.54 | 0.69 | 0.36 |
| DHW10 EL. | 32.84 | 0.84 | 2.12 |
| DHW 25 EL. | 33.00 | 0.85 | 2.25 |
| 1 foot Clearance | 33.00 | 0.85 | 2.25 |
| Inside Berm | 34.00 | 0.92 | 3.14 |
| Outside Berm | 34.00 | 1.20 | 3.14 |

Treatment Depth= 0.54

Attenuation Depth= 2.46

LEOP in Basin = 46.0
 Less 1 foot of clearance= 45.0
 Distance from LEOP to Pond= 800 ft
 Losses = 0.64 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 44.4
 10-year HGL at Pond = 32.84 **Go**

Pond SHWT Determination

| | |
|--------------------|------|
| Avg. Ground Elev.= | 41.0 |
| Avg. SHWT Depth= | 5.00 |

| | |
|-------------------|------|
| Est. SHWT Elev. = | 36.0 |
| SHWT Elev. Used = | 36.0 |

Water Quality Calcs.

New Imp. Area = 6.43 ac

15% 2.84

N OFW (Y or N) if Y, 50% additional treatment

Req. Treat Vol. = 0.54 ac-ft

Provided Treat Vol. = 0.54 ac-ft

Pond Stage Storage Calcs. (SMF-25C-2)

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 36.00 | 1.13 | 0.00 |
| Weir Crest EL. | 36.47 | 1.17 | 0.54 |
| DHW10 EL. | 38.57 | 1.34 | 3.18 |
| DHW 25 EL. | 38.71 | 1.35 | 3.37 |
| 1 foot Clearance | 39.00 | 1.38 | 3.76 |
| Inside Berm | 40.00 | 1.46 | 5.18 |
| Outside Berm | 40.00 | 1.81 | 5.18 |

Treatment Depth= 0.47

Attenuation Depth= 2.24

LEOP in Basin = 46.0
 Less 1 foot of clearance= 45.0
 Distance from LEOP to Pond= 800 ft
 Losses = 0.64 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 44.4
 10-year HGL at Pond = 38.57 **Go**

Proposed Pond Calculations
Basin Ramp 1 Infield

DRAFT

Pond Volume Calcs.

Basin Name: 1B, 1C, & Ramp 1 Infield

Pond Name: Ramp 1 Infield

Pre-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|-------------------------|-----|-----|-----------|---------|
| Roadway Impervious | - | - | - | - |
| Bruce B. Downs Blvd. | - | 98 | 1.03 | 100.9 |
| I-75 NB/SB | - | 98 | 2.14 | 209.7 |
| I-75 Off-Ramp (Ramp 1) | - | 98 | 0.63 | 61.7 |
| Pervious (Grass Good) | B/D | 80 | 5.08 | 406.4 |
| Pond Site (NWL/Wetland) | B/D | 100 | 4.40 | 440.0 |
| | | | 13.28 | 91.8 |

Post-Condition CN Calc.

| Description | HSG | CN | Area (ac) | Avg. CN |
|----------------------------------|-----|-----------|-------------|--------------|
| Roadway Impervious | - | - | - | - |
| Bruce B. Downs Blvd. | - | 98 | 4.4 | 431.2 |
| I-75 NB/SB | - | 98 | 2.14 | 209.7 |
| I-75 Off-Ramp (Ramp 1) | - | 98 | 0.63 | 61.7 |
| I-75 SB Widening/Ramp H-2 | - | 98 | 1.56 | 152.9 |
| Pervious (Grass Good) | B/D | 80 | 4.31 | 344.8 |
| Pond Site (NWL/Wetland) | B/D | 100 | 4.10 | 410.0 |
| | | | 17.14 | 94.0 |

Additional Pavement from Proposed Widening

Water Quantity Calcs.

Soil Storage

| | | | |
|--------------|------|---------------|------|
| S-pre | 0.90 | S-post | 0.64 |
|--------------|------|---------------|------|

| Storm Event | P (in) | R-pre (in) | R-post (in) | V[R]pre (ac-ft) | V[R]post (ac-ft) | V[R]diff (ac-ft) |
|----------------|--------|------------|-------------|-----------------|------------------|------------------|
| 10-Yr / 24-Hr | 7 | 6.03 | 6.28 | 8.61 | 8.97 | 0.36 |
| 25-Yr / 24-Hr | 8 | 7.02 | 7.28 | 10.02 | 10.39 | 0.37 |
| 100-Yr / 24-Hr | 11 | 9.99 | 10.26 | 14.27 | 14.66 | 0.39 |

Pond SHWT Determination

| | |
|--------------------|---|
| Avg. Ground Elev.= | - |
| Avg. SHWT Depth= | - |

| | |
|-------------------|-------------------|
| Est. SHWT Elev. = | - |
| SHWT Elev. Used = | 42.50 (Permitted) |

Water Quality Calcs.

Basin Area = 17.14 ac 18% = 3.09
 Treat 1" over Basin Area
 Req. Treat Area = 1.43 ac-ft Provided Treat Area = 1.44 ac-ft
 N OFW (Y or N) if Y, 50% additional treatment

Pond Stage Storage Calcs.

| Description | Stage | Area (ac) | Cummulative Storage (ac-ft) |
|------------------|-------|-----------|-----------------------------|
| SHWT EL. | 42.50 | 4.02 | 0.00 |
| Weir Crest EL. | 42.85 | 4.10 | 1.44 |
| DHW 10 EL. | 42.95 | 4.12 | 1.83 |
| DHW 25 EL. | 43.00 | 4.13 | 2.04 |
| 1 foot Clearance | 44.50 | 4.47 | 8.49 |
| Inside Berm | 45.50 | 4.70 | 13.08 |
| Outside Berm | 46.50 | 5.59 | 18.23 |

Treatment Depth= 0.35 Attenuation Depth= 1.65

Basin Hydraulics Calc.

LEOP in Basin = 45.5
 Less 1 foot of clearance= 44.5
 Distance from LEOP to Pond= 1200 ft
 Losses = 0.96 (Assume Slope = 0.0008 ft/ft)
 Allowable 10-year HGL at Pond = 43.5
 10-year HGL at Pond = 43.0 Go

Note: Curve Number and stage/area based on ERP# 44021639.007 Elevations in NGVD 1929

Appendix G
FDOT Right-of-Way Cost Estimates

DRAFT

Basin 1

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 1A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-----------------------|
| Parcels | Gross | Net | Estimated Relocatees: |
| Commercial | 1 | 1 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 0 | 0 | Signs |
| Total Parcels | 1 | 1 | Special |
| | | | Total Relocatees |

| | | | |
|-------------------------------------|-----------|--------------|--------------------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 1 x 20,000 = | Rate) Amount 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 x 0 = | Rate) Amount 0 |
| 3. | | | |
| | | | TOTAL PHASE 41 \$20,000 |

| | | | |
|---|-----------|--------------------------|--------------------------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | | 1 Parcels x 30,000 = | 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 1 Claims x 19,000 = | 19,000 |
| 6. Court Reporter & Process Servers | 50% x 1 = | 1 Parcels x 500 = | 500 |
| 7. Expert Witness | 75% x 1 = | 1 Parcels x 30,000 = | 30,000 |
| 8. Mediators | 75% x 1 = | 1 Parcels x 2,400 = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 Imprvmet x 15,000 = | 0 |
| 10. Miscellaneous Contracts | | 0 Per Project x 15,000 = | 0 |
| 11. Appraisal Fee Review | | 0 Parcels x 5,000 = | 0 |
| 12. | | | |
| | | | TOTAL PHASE 4B \$81,900 |

| | | | |
|--|---|----------------------|------------------------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 x 120% * Design plan stage = | | 0 |
| 14. Water Retention & Mit. (1 Pond) | 11,568,356 x 120% (0 Parcels w/o R/W Acq) | | 13,882,000 |
| 15. SUBTOTAL (120,226) | | (Lines 13 & 14) | 13,882,000 |
| 16. Admin. Settlements (Factor) | 20% x 0% of Line 15 = | | 0 |
| 17. Litigation Awards (Factor) | 45% x 100% of Line 15 = | | 6,246,900 |
| 18. Business Damages (Claims) | 1 x 0 = | | 2,000,000 |
| 19. Bus. Damages Incr (Factor) | 25% x \$2,000,000 = | | 500,000 |
| 20. Owner Appr. Fees (Parcels) | 1 x \$15,000 = | | 15,000 |
| 21. Owner CPA Fees (Claims) | 1 x \$16,000 = | | 16,000 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 6,746,900 x 33% = | | 2,226,500 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 + 0) x 18,000 = | | 18,000 |
| 24. Other Condemn. Costs | 1 x \$1,000 = | | 1,000 |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | 11,023,400 |
| 26. | | | |
| | | | TOTAL PHASE 43 \$24,905,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | |
|--|--------------|--|---------------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 x 0 | | |
| | | | TOTAL PHASE 42 \$0 |

| | | | |
|------------------------------------|----------------|----------------------|--------------------------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 x 0 = | | 0 |
| 29. Tenant | \$25,000 x 0 = | | 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 x 0 = | | 0 |
| 31. Business/Farm | \$40,000 x 1 = | | 40,000 |
| 32. Personal Property | \$3,000 x 0 = | | 0 |
| 33. (Lines 28 thru 32) | | | |
| | | | TOTAL PHASE 45 \$40,000 |
| 34. Relocation Services Cost | \$4,000 | (Not in Phase Total) | |

| | | | |
|-----|--------------|-----------------------|---------------------|
| 35. | | | |
| 36. | | | |
| 37. | (All Phases) | TOTAL ESTIMATE | \$25,047,300 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam.: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

This pond site will impact a new theatre complex.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 1B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 57 | 57 | Residential |
| Unimproved | 0 | 0 | Signs |
| Total Parcels | 57 | 57 | Special |
| | | | Total Relocates |

| | | | | | |
|-------------------------------------|----------|----|---|-----------------------|--------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels | 57 | x | 20,000 = Rate) | 1,140,000 |
| 2. Indirect Overhead | (Parcels | 57 | x | 0 = Rate) | 0 |
| 3. | | | | | |
| | | | | TOTAL PHASE 41 | \$1,140,000 |

| | | | | | | | | |
|---|-----|----|---------|-----------------------|--------------------|-----------|----------|-----------|
| R/W OPS (PHASE 4B) | | | | Amount | | | | |
| 4. Appraisal Fees Through Trial | | 57 | Parcels | x | 30,000 = | 1,710,000 | | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = | 0 | | |
| 6. Court Reporter & Process Servers | 50% | x | 57 = | 29 | Parcels | x | 500 = | 14,500 |
| 7. Expert Witness | 75% | x | 57 = | 43 | Parcels | x | 30,000 = | 1,290,000 |
| 8. Mediators | 75% | x | 57 = | 43 | Parcels | x | 2,400 = | 103,200 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 5 | Imprvmet | x | 15,000 = | 75,000 |
| 10. Miscellaneous Contracts | | | | 0 | Per Project | x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | | 20 | Parcels | x | 5,000 = | 100,000 |
| 12. | | | | | | | | |
| | | | | TOTAL PHASE 4B | \$3,292,700 | | | |

| | | | | | |
|--|-----------|---|------------------------------|-----------------------|---------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 6,175,765 | x | 120% (0 Parcels w/o R/W Acq) | 7,410,900 | |
| 15. SUBTOTAL (151,153) | | | (Lines 13 & 14) | | 7,410,900 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 889,300 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 1,334,000 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 57 | x | \$15,000) | = | 855,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 2,223,300 | x | 33%) | = | 733,700 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = | 0 |
| 24. Other Condemn. Costs | 57 | x | \$1,000 | = | 57,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 3,869,000 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$11,279,900 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|----------|---|---|-----------------------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | 0 | |
| | | | | TOTAL PHASE 42 | \$0 |

| | | | | | |
|------------------------------------|----------|---|-----------|-----------------------|--------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 28 | = | 840,000 |
| 29. Tenant | \$25,000 | x | 28 | = | 700,000 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 56 | = | 280,000 |
| 31. Business/Farm | \$40,000 | x | 28 | = | 1,120,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| | | | | TOTAL PHASE 45 | \$2,940,000 |
| 34. Relocation Services Cost | | | \$294,000 | (Not in Phase Total) | |

| | | | | | |
|-----|--|--|--|------------------------------------|---------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| | | | | (All Phases) TOTAL ESTIMATE | \$18,652,600 |

| | | |
|------------------------------------|-------------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>R. D. Patton</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>A. J. Thompson</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>R. D. Patton</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>A. J. Thompson</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:
This pond impacts a large condominium complex.

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 1C | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 8 | 8 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 9 | 9 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|---|------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 9 | x | 20,000 = |
| 2. Indirect Overhead | (Parcels) | 9 | x | 0 = |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$180,000 |

| | | | | |
|---|-----|---|---------------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 9 | Parcels x | 30,000 = |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = |
| 6. Court Reporter & Process Servers | 50% | x | 9 = | 5 |
| 7. Expert Witness | 75% | x | 9 = | 7 |
| 8. Mediators | 75% | x | 9 = | 7 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 8 | Imprvmet x | 15,000 = |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = |
| 11. Appraisal Fee Review | | 3 | Parcels x | 5,000 = |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$634,300 |

| | | | | | |
|--|-----------|---|------------------------------|---------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 2,628,900 | x | 120% (0 Parcels w/o R/W Acq) | 3,154,700 | |
| 15. SUBTOTAL (97,140) | | | (Lines 13 & 14) | | 3,154,700 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 378,600 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 567,800 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 9 | x | \$15,000) | = | 135,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 946,400 | x | 33%) | = | 312,300 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | = | 18,000 |
| 24. Other Condemn. Costs | 9 | x | \$1,000 | = | 9,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 1,420,700 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$4,575,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|---|----------------------|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x | 8 | = |
| 29. Tenant | \$25,000 | x | 0 | = |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x | 8 | = |
| 31. Business/Farm | \$40,000 | x | 0 | = |
| 32. Personal Property | \$3,000 | x | 0 | = |
| 33. (Lines 28 thru 32) | | | | |
| TOTAL PHASE 45 | | | | \$280,000 |
| 34. Relocation Services Cost | \$28,000 | | (Not in Phase Total) | |

| | | | | |
|------------------------------------|--|--|--|--------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | | |
| (All Phases) TOTAL ESTIMATE | | | | \$5,669,700 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

DRAFT

Basin 6

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 6A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| Parcels | Gross | Net |
|----------------------|----------|----------|
| Commercial | 1 | 1 |
| Residential | 0 | 0 |
| Unimproved | 0 | 0 |
| Total Parcels | 1 | 1 |

| | |
|------------------------------|----------|
| Estimated Relocatees: | |
| Business | 0 |
| Residential | 0 |
| Signs | 0 |
| Special | 0 |
| Total Relocatees | 0 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | | | |
|----------------------|----------|---|---|--------|---|-------|-----------------------|-----------------|
| 1. Direct Labor Cost | (Parcels | 1 | x | 20,000 | = | Rate) | Amount | 20,000 |
| 2. Indirect Overhead | (Parcels | 1 | x | 0 | = | Rate) | 0 | |
| 3. | | | | | | | TOTAL PHASE 41 | \$20,000 |

R/W OPS (PHASE 4B)

| | | | | | | | | | | |
|---|-----|---|---------|-------------|--------|---------|-----------------------|-----------------|---|--------|
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x | 30,000 | = | Amount | 30,000 | | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 | = | 0 | | | |
| 6. Court Reporter & Process Servers | 50% | x | 1 | = | 1 | Parcels | x | 500 | = | 500 |
| 7. Expert Witness | 75% | x | 1 | = | 1 | Parcels | x | 30,000 | = | 30,000 |
| 8. Mediators | 75% | x | 1 | = | 1 | Parcels | x | 2,400 | = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 0 | Imprvmet | x | 15,000 | = | 0 | | |
| 10. Miscellaneous Contracts | | | 0 | Per Project | x | 15,000 | = | 0 | | |
| 11. Appraisal Fee Review | | | 0 | Parcels | x | 5,000 | = | 0 | | |
| 12. | | | | | | | TOTAL PHASE 4B | \$62,900 | | |

R/W LAND COSTS (PHASE 43)

| | | | | | | | | |
|--|-----------|---|----------|-------------------------|---|-----------|-----------------------|--------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% | * Design plan stage | = | 0 | Amount | Subtotal |
| 14. Water Retention & Mit. (1 Pond) | 2,026,560 | x | 120% | (0 Parcels w/o R/W Acq) | = | 2,431,900 | | |
| 15. SUBTOTAL (141,570) | | | | (Lines 13 & 14) | | | 2,431,900 | |
| 16. Admin. Settlements (Factor | 20% | x | 0% | of Line 15) | = | 0 | | |
| 17. Litigation Awards (Factor | 45% | x | 100% | of Line 15) | = | 1,094,400 | | |
| 18. Business Damages (Claims | 0 | x | 0 |) | = | 0 | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ | -) | = | 0 | | |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000 |) | = | 15,000 | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000 |) | = | 0 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,094,400 | x | 33% |) | = | 361,200 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + | 0 |) x 18,000 | = | 18,000 | | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 |) | = | 1,000 | | |
| 25. SUBTOTAL | | | | (Lines 16 thru 24) | = | 1,489,600 | | |
| 26. | | | | | | | TOTAL PHASE 43 | \$3,921,500 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | | |
|---|----------|---|---|--|--|-----------------------|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | | TOTAL PHASE 42 | \$0 |
|---|----------|---|---|--|--|-----------------------|------------|

RELOCATION COSTS (PHASE 45)

| | | | | |
|------------------------------|----------|----------------------|-----------------------|------------|
| Replacement Housing | | Number | Amount | |
| 28. Owner | \$30,000 | 0 | 0 | |
| 29. Tenant | \$25,000 | 0 | 0 | |
| Move Costs | | | | |
| 30. Residential | \$5,000 | 0 | 0 | |
| 31. Business/Farm | \$40,000 | 0 | 0 | |
| 32. Personal Property | \$3,000 | 0 | 0 | |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | | |
| | | | TOTAL PHASE 45 | \$0 |

| | | | | | | | |
|-----|--|--|--|--|--|------------------------------------|--------------------|
| 35. | | | | | | (All Phases) TOTAL ESTIMATE | \$4,004,400 |
|-----|--|--|--|--|--|------------------------------------|--------------------|

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 6B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 0 | 0 | Signs |
| | | | Special |
| Total Parcels | 0 | 0 | Total Relocates |

| | | | |
|-------------------------------------|--------------|---------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | Amount | |
| 1. Direct Labor Cost (Parcels) | 0 x 20,000 = | Rate) | 0 |
| 2. Indirect Overhead (Parcels) | 0 x 0 = | Rate) | 0 |
| 3. | | | TOTAL PHASE 41 |
| | | | \$0 |

| | | | |
|---|-----------------|---------------|-----------------------|
| R/W OPS (PHASE 4B) | | Amount | |
| 4. Appraisal Fees Through Trial | 0 Parcels x | 30,000 = | 0 |
| 5. Business Damage CPA Fees Through Trial | -3 Claims x | 19,000 = | -57,000 |
| 6. Court Reporter & Process Servers | 0 Parcels x | 500 = | 0 |
| 7. Expert Witness | 0 Parcels x | 30,000 = | 0 |
| 8. Mediators | 0 Parcels x | 2,400 = | 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 Imprvmet x | 15,000 = | 0 |
| 10. Miscellaneous Contracts | 0 Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | 0 Parcels x | 5,000 = | 0 |
| 12. | | | TOTAL PHASE 4B |
| | | | -\$57,000 |

| | | | | |
|--|--|---------------|--|-----------------------|
| R/W LAND COSTS (PHASE 43) | | Amount | | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 x 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 2,001,621 x 120% (0 Parcels w/o R/W Acq) | 2,401,900 | | |
| 15. SUBTOTAL (152,655) | (Lines 13 & 14) | | | 2,401,900 |
| 16. Admin. Settlements (Factor | 20% x 60% of Line 15) | = 288,200 | | |
| 17. Litigation Awards (Factor | 45% x 40% of Line 15) | = 432,300 | | |
| 18. Business Damages (Claims | 0 x 0) | = -1,450,000 | | |
| 19. Bus. Damages Incr (Factor | 25% x \$ (1,450,000) | = -362,500 | | |
| 20. Owner Appr. Fees (Parcels | 0 x \$15,000) | = 0 | | |
| 21. Owner CPA Fees (Claims | -3 x \$16,000) | = -48,000 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 358,000 x 33% | = 118,100 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 + 0) x 18,000 | = 0 | | |
| 24. Other Condemn. Costs | 0 x \$1,000 | = 0 | | |
| 25. SUBTOTAL | (Lines 16 thru 24) | | | -1,021,900 |
| 26. | | | | TOTAL PHASE 43 |
| | | | | \$1,380,000 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | |
|--|--------------|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 x 0 | 0 |
| | | TOTAL PHASE 42 |
| | | \$0 |

| | | | |
|------------------------------------|------------|---------------|-----------------------|
| RELOCATION COSTS (PHASE 45) | | Number | Amount |
| Replacement Housing | | | |
| 28. Owner | \$30,000 x | 0 | = 0 |
| 29. Tenant | \$25,000 x | 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 x | 0 | = 0 |
| 31. Business/Farm | \$40,000 x | 0 | = 0 |
| 32. Personal Property | \$3,000 x | 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| 34. Relocation Services Cost | | \$0 | (Not in Phase Total) |
| | | | TOTAL PHASE 45 |
| | | | \$0 |

| | | | |
|--|--|---------------------|-----------------------|
| | | (All Phases) | TOTAL ESTIMATE |
| | | | \$1,323,000 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: This estimate for SMF 6B includes 2 parcels and assumes mainline damages have been applied. The driveway entrance for Parcel 2 serves more than one property. The estimate assumes the driveway entrance will be moved to accommodate the property to the north.

The mainline taking creates significant business and severance damages. Selection of this pond makes the business damages go away and therefore negative numbers are shown in Lines 5, 18, 19 & 21.

The following indicates the estimator's confidence in the above estimate:

- Type A - indicates the most confidence
- Type B - indicates above average confidence
- Type C - indicates below average confidence
- Type D - indicates the least or no confidence

Add \$5,000,000
Total= \$5,000,000 + \$1,323,000 = \$6,323,000
See Attached e-mail

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____

Comments: _____

From: McTeer, Bill [<mailto:Bill.McTeer@dot.state.fl.us>]

Sent: Wednesday, October 30, 2019 2:07 PM

To: Littlefield, John <John.Littlefield@wsp.com>; roger.patton@hdrinc.com; Brad Flom <BFLOM@HNTB.com>

Cc: Henzel, Ashley <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <Steve.Gordillo@wsp.com>; Steve Maierle <smaierle@hntb.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>; Thompson, Alfred <Alfred.Thompson@hdrinc.com>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Looks good from here. If later down the road we have to update ponds we will do a new estimate. But I think for now you are good.

Bill McTeer, CSM, CPM
Right of Way Cost Estimate Coordinator
Fl. Department of Transportation District VII
bill.mcTeer@dot.state.fl.us
(813) 975 6735

From: Littlefield, John [<mailto:John.Littlefield@wsp.com>]

Sent: Wednesday, October 30, 2019 1:33 PM

To: McTeer, Bill <Bill.McTeer@dot.state.fl.us>; roger.patton@hdrinc.com; Brad Flom <BFLOM@HNTB.com>

Cc: Henzel, Ashley <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <steve.gordillo@wsp.com>; Steve Maierle <smaierle@hntb.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>; Thompson, Alfred <Alfred.Thompson@hdrinc.com>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill,

If you are saying I can add \$5M to SMF 6B, that works for me. As mentioned I will add text to the current estimate for my report. This puts the total cost at:

SMF 6A- \$4,004,400 - Preferred

SMF 6B- \$1,323,000 + \$5,000,000= \$6,323,000

This works for me.

John Littlefield
Supervising Engineer



Phone: 813.520.4347

Email: john.littlefield@wsp.com

Please note I have a new email address.

WSP USA
2202 West Shore Blvd, Suite 300
Tampa, FL 33607

wsp.com

WSP | Parsons Brinckerhoff is now WSP.

From: McTeer, Bill [<mailto:Bill.Mcteer@dot.state.fl.us>]

Sent: Wednesday, October 30, 2019 1:26 PM

To: roger.patton@hdrinc.com; Brad Flom <BFLOM@HNTB.com>; Littlefield, John <John.Littlefield@wsp.com>

Cc: Henzel, Ashley <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <Steve.Gordillo@wsp.com>; Steve Maierle <smaierle@hntb.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>; Thompson, Alfred <Alfred.Thompson@hdrinc.com>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

I am not sure we need a new estimate on these locations. If SMF 6B were to have the mainline takings removed we would roughly estimate the additional cost of improvements and damages at around \$5,000,000. Can we not just put this email with the pond sites in your report and add it on your worksheet with a star or something?

Bill McTeer, CSM, CPM

Right of Way Cost Estimate Coordinator

Fl. Department of Transportation District VII

bill.mcteer@dot.state.fl.us

(813) 975 6735

From: Patton, Roger [<mailto:Roger.Patton@hdrinc.com>]

Sent: Wednesday, October 30, 2019 1:17 PM

To: Brad Flom <BFLOM@HNTB.com>; Littlefield, John <john.littlefield@wsp.com>; McTeer, Bill <Bill.Mcteer@dot.state.fl.us>

Cc: Henzel, Ashley <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <steve.gordillo@wsp.com>; Steve Maierle <smaierle@hntb.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>; Thompson, Alfred <Alfred.Thompson@hdrinc.com>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

EXTERNAL SENDER: Use caution with links and attachments.

Good afternoon all:

The pond siting Short List Meeting Summary list calls out "SMF 6B", but the ROW maps shows what was actually 6A's location on the original ROW Maps.

FYI, 6B would actually result in a higher cost without the mainline take due to the substantial commercial improvements.

SMF 6A is the site we assume is to be included in the estimate.

Please advise if 6A is not the preferred site.

Thank you,

Roger D. Patton

Real Estate Services Agent III

HDR

4830 W. Kennedy Blvd, Suite 400
Tampa, Florida 33609-2548
D 813-262-2716

roger.patton@hdrinc.com

hdrinc.com/follow-us

From: Brad Flom [<mailto:BFLOM@HNTB.com>]
Sent: Wednesday, October 30, 2019 12:57 PM
To: Littlefield, John <John.Littlefield@wsp.com>; Bill McTeer (Bill.McTeer@dot.state.fl.us) <Bill.McTeer@dot.state.fl.us>
Cc: Patton, Roger <Roger.Patton@hdrinc.com>; Ashley Henzel <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk (Kirk.Bogen@dot.state.fl.us) <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <Steve.Gordillo@wsp.com>; Steve Maierle <SMaierle@HNTB.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>
Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill- in anticipation that SMF 6A is the preferred pond site, our Preliminary ROW Maps (dated 10/11/19) provided to you a couple of weeks ago for estimating show the ROW needed for SMF 6A on Sheet No. 5. (Parcel 72303-0106: 186,296 SF).

Brad Flom, P.E.

Program Manager
FDOT D7, Tampa Bay Next Program Consultant
Direct: (813) 906-4989
Mobile: (407) 415-4785

Brad.Flom@dot.state.fl.us

10770 N. 46th St
Bldg F- Suite 200
Tampa, FL 33617



From: Littlefield, John <John.Littlefield@wsp.com>
Sent: Wednesday, October 30, 2019 12:01 PM
To: Bill McTeer (Bill.McTeer@dot.state.fl.us) <Bill.McTeer@dot.state.fl.us>
Cc: Patton, Roger <Roger.Patton@hdrinc.com>; Ashley Henzel <Ashley.Henzel@dot.state.fl.us>; Bogen, Kirk (Kirk.Bogen@dot.state.fl.us) <Kirk.Bogen@dot.state.fl.us>; Gordillo, Steve <Steve.Gordillo@wsp.com>; Steve Maierle <SMaierle@HNTB.com>; Brad Flom <BFLOM@HNTB.com>; Shiffman, Lindsay M. <Lindsay.Shiffman@wsp.com>
Subject: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill,

There has been a recent design change to the I-75 roadway alignment to warrant an updated ROW cost estimate for SMF 6A & SMF 6B. The biggest change is that SMF 6B will no longer require a roadway take along the property. We believe this will change the preferred pond option. Can you please provide an update ROW cost for these two pond sites. Please see the revised ROW graphic. We have coordinated this task with Ashley Henzel.

SMF 6A is 3.31 acres with a 0.09 ac easement on one parcel.
SMF 6B is 3.43 acres on three parcels.

Thank you.

John Littlefield
Supervising Engineer



Phone: 813.520.4347
Email: john.littlefield@wsp.com
Please note I have a new email address.

WSP USA
2202 West Shore Blvd, Suite 300
Tampa, FL 33607

wsp.com

WSP | Parsons Brinckerhoff is now WSP.

NOTICE: This communication and any attachments ("this message") may contain information which is privileged, confidential, proprietary or otherwise subject to restricted disclosure under applicable law. This message is for the sole use of the intended recipient(s). Any unauthorized use, disclosure, viewing, copying, alteration, dissemination or distribution of, or reliance on, this message is strictly prohibited. If you have received this message in error, or you are not an authorized or intended recipient, please notify the sender immediately by replying to this message, delete this message and all copies from your e-mail system and destroy any printed copies.

-LAEmHhHzdJzBITWfa4Hos7pbKl

This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.

DRAFT

Basin 7

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|----------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 7A & FPC 7A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 2 | 2 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|----------|---|------------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels | 2 | x 20,000 = Rate) | 40,000 |
| 2. Indirect Overhead | (Parcels | 2 | x 0 = Rate) | 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$40,000 |

| | | | | |
|---|-----|---------|------------------------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | 2 | Parcels | x 30,000 = | 60,000 |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims | x 19,000 = | 0 |
| 6. Court Reporter & Process Servers | 50% | 1 | Parcels x 500 = | 500 |
| 7. Expert Witness | 75% | 2 | Parcels x 30,000 = | 60,000 |
| 8. Mediators | 75% | 2 | Parcels x 2,400 = | 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 1 | Imprvmet x 15,000 = | 15,000 |
| 10. Miscellaneous Contracts | | 0 | Per Project x 15,000 = | 0 |
| 11. Appraisal Fee Review | | 1 | Parcels x 5,000 = | 5,000 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$145,300 |

| | | | | | |
|--|------------|--------------------------------|------------|--------|---------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 16,553,672 | x 120% (0 Parcels w/o R/W Acq) | 19,864,400 | | |
| 15. SUBTOTAL (192,535) | | (Lines 13 & 14) | | | 19,864,400 |
| 16. Admin. Settlements (Factor | 20% | x 60% of Line 15) | 2,383,700 | | |
| 17. Litigation Awards (Factor | 45% | x 40% of Line 15) | 3,575,600 | | |
| 18. Business Damages (Claims | 0 | x 0) | 0 | | |
| 19. Bus. Damages Incr (Factor | 25% | x \$ -) | 0 | | |
| 20. Owner Appr. Fees (Parcels | 2 | x \$15,000) | 30,000 | | |
| 21. Owner CPA Fees (Claims | 0 | x \$16,000) | 0 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 5,959,300 | x 33%) | 1,966,600 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + 1) x 18,000 | 36,000 | | |
| 24. Other Condemn. Costs | 2 | x \$1,000 | 2,000 | | |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | | | 7,993,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$27,858,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|----------------|-----|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | TOTAL PHASE 42 | \$0 |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | |

| | | | | | |
|------------------------------------|----------|---|---------|----------------------|----------|
| RELOCATION COSTS (PHASE 45) | | | | TOTAL PHASE 45 | \$40,000 |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 1 | = | 40,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | | \$4,000 | (Not in Phase Total) | |

| | | | | | |
|------------------------------------|--|--|--|--|---------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| (All Phases) TOTAL ESTIMATE | | | | | \$28,083,600 |

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>R. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>R. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Parcel 2 is a new Woodsprings Suites Hotel

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 7B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 2 | 2 | Business _____ 1 |
| Residential | 0 | 0 | Residential _____ 0 |
| Unimproved | 0 | 0 | Signs _____ 0 |
| | | | Special _____ 0 |
| Total Parcels | 2 | 2 | Total Relocates _____ 1 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | | | |
|-----------------------|-----------|---|---|--------|---|-------|--------|-----------------|
| 1. Direct Labor Cost | (Parcels) | 2 | x | 20,000 | = | Rate) | Amount | 40,000 |
| 2. Indirect Overhead | (Parcels) | 2 | x | 0 | = | Rate) | 0 | |
| 3. | | | | | | | | |
| TOTAL PHASE 41 | | | | | | | | \$40,000 |

R/W OPS (PHASE 4B)

| | | | | | | | | |
|---|-----|---|-------------|---------|--------|--------|----------|------------------|
| 4. Appraisal Fees Through Trial | | 2 | Parcels | x | 30,000 | = | 60,000 | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 | = | 0 | |
| 6. Court Reporter & Process Servers | | 1 | Parcels | x | 500 | = | 500 | |
| 7. Expert Witness | 50% | x | 2 | Parcels | x | 30,000 | = 60,000 | |
| 8. Mediators | 75% | x | 2 | Parcels | x | 2,400 | = 4,800 | |
| 9. Demolition, Asb. Abate., Survey, etc. | 75% | x | 2 | Parcels | x | 2,400 | = 4,800 | |
| 10. Miscellaneous Contracts | | 1 | Imprvmet | x | 15,000 | = | 15,000 | |
| 11. Appraisal Fee Review | | 0 | Per Project | x | 15,000 | = | 0 | |
| 12. | | 1 | Parcels | x | 5,000 | = | 5,000 | |
| TOTAL PHASE 4B | | | | | | | | \$145,300 |

R/W LAND COSTS (PHASE 43)

| | | | | | |
|--|-----------|---|------------------------------|---|--------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 3,263,415 | x | 120% (0 Parcels w/o R/W Acq) | = | 3,916,100 |
| 15. SUBTOTAL (67,082) | | | (Lines 13 & 14) | | 3,916,100 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 469,900 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 704,900 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | = | 30,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,174,800 | x | 33%) | = | 387,700 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 2 | + | 0) x 18,000 | = | 36,000 |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | = | 2,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 1,630,500 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$5,546,600 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | |
|---|----------|---|---|--|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | |
| TOTAL PHASE 42 | | | | | \$0 |

RELOCATION COSTS (PHASE 45)

| | | | |
|------------------------------|----------|--------|----------------------|
| Replacement Housing | | Number | Amount |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 1 | = 40,000 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| TOTAL PHASE 45 | | | \$40,000 |
| 34. Relocation Services Cost | \$4,000 | | (Not in Phase Total) |

| | | | |
|-----|--|--------------|-----------------------------------|
| 35. | | | |
| 36. | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE \$5,771,900 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:

| | |
|----------|---|
| _____ | Type A - indicates the most confidence |
| _____ | Type B - indicates above average confidence |
| X | Type C - indicates below average confidence |
| _____ | Type D - indicates the least or no confidence |

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169266-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 7C | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | | | |
|----------------------|----------|----------|--|-----------------------------|----------|
| Parcels | Gross | Net | | | |
| Commercial | 0 | 0 | | Estimated Relocates: | |
| Residential | 0 | 0 | | Business | 1 |
| Unimproved | 0 | 0 | | Residential | 0 |
| | | | | Signs | 0 |
| | | | | Special | 0 |
| Total Parcels | 0 | 0 | | Total Relocates | 1 |

| | | | | | |
|-------------------------------------|----------|---|---|----------------|------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels | 0 | x | 20,000 = Rate) | 0 |
| 2. Indirect Overhead | (Parcels | 0 | x | 0 = Rate) | 0 |
| 3. | | | | | |
| TOTAL PHASE 41 | | | | | \$0 |

| | | | | | |
|---|-----|---|-----------------|---------------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount | |
| 4. Appraisal Fees Through Trial | | 0 | Parcels x | 30,000 = | 0 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | | 0 | Parcels x | 500 = | 0 |
| 7. Expert Witness | 50% | 0 | Parcels x | 30,000 = | 0 |
| 8. Mediators | 75% | 0 | Parcels x | 2,400 = | 0 |
| 9. Demolition, Asb. Abate., Survey, etc. Plus \$100,000 | | | 6 Imprvmet x | 15,000 = | 190,000 |
| 10. Miscellaneous Contracts | | | 0 Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | 0 Parcels x | 5,000 = | 0 |
| 12. | | | | | |
| TOTAL PHASE 4B | | | | | \$190,000 |

| | | | | | |
|--|------------|---|------------------------------|---------------|---------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 12,198,212 | x | 120% (0 Parcels w/o R/W Acq) | 14,637,900 | |
| 15. SUBTOTAL (358,234) | | | (Lines 13 & 14) | | 14,637,900 |
| 16. Admin. Settlement (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 6,587,100 |
| 18. Business Damages (Claims | 0 | x | | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 0 | x | \$15,000) | = | 0 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 6,587,100 | x | 33%) | = | 2,173,700 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = | 0 |
| 24. Other Condemn. Costs | 0 | x | \$1,000 | = | 0 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) = | | 8,760,800 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$23,398,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|---------------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 |
| TOTAL PHASE 42 | | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------|---------------|----------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm Plus \$200,000 | \$40,000 | x | 1 | = | 240,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | | \$24,000 | | (Not in Phase Total) |
| TOTAL PHASE 45 | | | | | \$240,000 |

| | | | | | |
|-----|--|--|--------------|-----------------------|---------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$23,828,700 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

This pond site is a Cadillac and Alfa Romeo/Fiat dealership.

This estimate for SMF 7C assumes the mainline taking impacts to the remainder.

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

X Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

DRAFT

Basin 8

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 8A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| Parcels | Gross | Net |
|----------------------|----------|----------|
| Commercial | 0 | 0 |
| Residential | 0 | 0 |
| Unimproved | 1 | 1 |
| Total Parcels | 1 | 1 |

| Estimated Relocatees: | |
|-------------------------|----------|
| Business | 0 |
| Residential | 0 |
| Signs | 0 |
| Special | 0 |
| Total Relocatees | 0 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | | | |
|----------------------|-----------|---|---|--------|---|-------|-----------------------|-----------------|
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 | = | Rate) | Amount | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 | = | Rate) | Amount | 0 |
| 3. | | | | | | | TOTAL PHASE 41 | \$20,000 |

R/W OPS (PHASE 4B)

| | | | | | | | Amount | |
|---|-----|-------------|---|--------|---|--|-----------------------|-----------------|
| 4. Appraisal Fees Through Trial | 1 | Parcels | x | 30,000 | = | | 30,000 | |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims | x | 19,000 | = | | 0 | |
| 6. Court Reporter & Process Servers | 50% | | x | 1 | = | | 500 | |
| 7. Expert Witness | 75% | | x | 1 | = | | 30,000 | |
| 8. Mediators | 75% | | x | 1 | = | | 2,400 | |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 | Imprvmet | x | 15,000 | = | | 0 | |
| 10. Miscellaneous Contracts | 0 | Per Project | x | 15,000 | = | | 0 | |
| 11. Appraisal Fee Review | 0 | Parcels | x | 5,000 | = | | 0 | |
| 12. | | | | | | | TOTAL PHASE 4B | \$62,900 |

R/W LAND COSTS (PHASE 43)

| | | | | | | Amount | Subtotal | |
|--|-----------|---|------------------------------|---|-----------|--------|-----------------------|--------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = | | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 2,506,215 | x | 120% (0 Parcels w/o R/W Acq) | = | 3,007,500 | | | |
| 15. SUBTOTAL (115,434) | | | (Lines 13 & 14) | | | | 3,007,500 | |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | = | 0 | | | |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 1,353,400 | | | |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 | | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 | | | |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = | 15,000 | | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 | | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,353,400 | x | 33%) | = | 446,600 | | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | = | 18,000 | | | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = | 1,000 | | | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | | | 1,834,000 | |
| 26. | | | | | | | TOTAL PHASE 43 | \$4,841,500 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | | |
|---|----------|---|---|---|--|-----------------------|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | | TOTAL PHASE 42 | \$0 |
|---|----------|---|---|---|--|-----------------------|------------|

RELOCATION COSTS (PHASE 45)

| | | Number | Amount |
|------------------------------|----------|--------|-----------------------|
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) |
| | | | TOTAL PHASE 45 |
| | | | \$0 |

| | | | | | | | |
|-----|--|--|--|--|--|------------------------------------|--------------------|
| 35. | | | | | | (All Phases) TOTAL ESTIMATE | \$4,924,400 |
|-----|--|--|--|--|--|------------------------------------|--------------------|

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:

- Type A - indicates the most confidence
- Type B - indicates above average confidence
- Type C - indicates below average confidence
- Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 8B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | | |
|---------------|-------|-----|----------------------|---|
| Parcels | Gross | Net | Estimated Relocates: | |
| Commercial | 0 | 0 | Business | 0 |
| Residential | 0 | 0 | Residential | 0 |
| Unimproved | 1 | 1 | Signs | 0 |
| | | | Special | 0 |
| Total Parcels | 1 | 1 | Total Relocates | 0 |

| | | | | | |
|-------------------------------------|-----------|---|---|----------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = | Rate) 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = | Rate) 0 |
| 3. | | | | | |
| | | | | | TOTAL PHASE 41 |
| | | | | | \$20,000 |

| | | | | | |
|---|-----|---|---------|---|---------------------------|
| R/W OPS (PHASE 4B) | | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x | 1 = | 1 | Parcels x 500 = 500 |
| 7. Expert Witness | 75% | x | 1 = | 1 | Parcels x 30,000 = 30,000 |
| 8. Mediators | 75% | x | 1 = | 1 | Parcels x 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 0 | Imprvmet x 15,000 = 0 |
| 10. Miscellaneous Contracts | | | | 0 | Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | | 0 | Parcels x 5,000 = 0 |
| 12. | | | | | |
| | | | | | TOTAL PHASE 4B |
| | | | | | \$62,900 |

| | | | | | | |
|--|-----------|-----------|------------------|------------------------------|-----------------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | | 0 | x | 120% * Design plan stage | = 0 | |
| 14. Water Retention & Mit. (1 Pond) | | 3,017,600 | x | 120% (0 Parcels w/o R/W Acq) | = 3,621,100 | |
| 15. SUBTOTAL (195,149) | | | | (Lines 13 & 14) | | 3,621,100 |
| 16. Admin. Settlements (Factor) | 20% | x | 0% of Line 15) | | = 0 | |
| 17. Litigation Awards (Factor) | 45% | x | 100% of Line 15) | | = 1,629,500 | |
| 18. Business Damages (Claims) | 0 | x | 0) | | = 0 | |
| 19. Bus. Damages Incrs. (Factor) | 25% | x | \$ -) | | = 0 | |
| 20. Owner Appr. Fees (Parcels) | 1 | x | \$15,000) | | = 15,000 | |
| 21. Owner CPA Fees (Claims) | 0 | x | \$16,000) | | = 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,629,500 | x | 33%) | | = 537,700 | |
| 23. Owner Expert Witness (Comm.+Unimp.) | 0 | + | 1) x 18,000 | | = 18,000 | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | | = 1,000 | |
| 25. SUBTOTAL | | | | (Lines 16 thru 24) | | 2,201,200 |
| 26. | | | | | | |
| | | | | | TOTAL PHASE 43 | \$5,822,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|--|----------|---|---|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | | \$20,000 | x | 0 | = 0 |
| | | | | | TOTAL PHASE 42 |
| | | | | | \$0 |

| | | | | | | |
|------------------------------------|--|----------|---|-----|-----------------------|---------------|
| RELOCATION COSTS (PHASE 45) | | | | | Amount | |
| Replacement Housing | | | | | Number | Amount |
| 28. Owner | | \$30,000 | x | 0 | = 0 | |
| 29. Tenant | | \$25,000 | x | 0 | = 0 | |
| Move Costs | | | | | | |
| 30. Residential | | \$5,000 | x | 0 | = 0 | |
| 31. Business/Farm | | \$40,000 | x | 0 | = 0 | |
| 32. Personal Property | | \$3,000 | x | 0 | = 0 | |
| 33. (Lines 28 thru 32) | | | | | | |
| | | | | | TOTAL PHASE 45 | \$0 |
| 34. Relocation Services Cost | | | | \$0 | (Not in Phase Total) | |

| | | | | | |
|-----|--|--|--|--------------|-----------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | (All Phases) | TOTAL ESTIMATE |
| | | | | | \$5,905,200 |

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The pond configuration impacts 4 vacant lots and an entry driveway and creates an uneconomic remnant.

It is recommended that the engineer consider shifting the pond site to the east in an effort to eliminate relocating the new driveway, or splitting the pond.

It is assumed the easment location is entirely within the existing right of way of Estuary Lakes Drive.

The following indicates the estimator's confidence in the above estimate:

| | |
|----------|---|
| _____ | Type A - indicates the most confidence |
| _____ | Type B - indicates above average confidence |
| X | Type C - indicates below average confidence |
| _____ | Type D - indicates the least or no confidence |

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 7/8 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 0 | 0 | Signs |
| Total Parcels | 1 | 1 | Special |
| | | | Total Relocates |

| | | | | | |
|-------------------------------------|-----------|---|---|----------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = Rate) | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = Rate) | 0 |
| 3. | | | | | TOTAL PHASE 41 |
| | | | | | \$20,000 |

| | | | | | | | |
|---|-----|---|---------|-------------|----------|----------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount | | | |
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x | 30,000 = | 30,000 | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = | 0 | |
| 6. Court Reporter & Process Servers | 50% | x | 1 | Parcels | x | 500 = | 500 |
| 7. Expert Witness | 75% | x | 1 | Parcels | x | 30,000 = | 30,000 |
| 8. Mediators | 75% | x | 1 | Parcels | x | 2,400 = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 0 | Imprvmet | x | 15,000 = | 0 |
| 10. Miscellaneous Contracts | | | 0 | Per Project | x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | 0 | Parcels | x | 5,000 = | 0 |
| 12. | | | | | | | TOTAL PHASE 4B |
| | | | | | | | \$62,900 |

| | | | | | |
|--|-----------|---|------------------------------|-----------|-----------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 4,414,140 | x | 120% (0 Parcels w/o R/W Acq) | 5,297,000 | |
| 15. SUBTOTAL (242,629) | | | (Lines 13 & 14) | | 5,297,000 |
| 16. Admin. Settlement (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 2,383,700 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = | 15,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 2,383,700 | x | 33%) | = | 786,600 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + | 0) x 18,000 | = | 18,000 |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = | 1,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 3,204,300 |
| 26. | | | | | TOTAL PHASE 43 |
| | | | | | \$8,501,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | |
|--|----------|---|---|----------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | TOTAL PHASE 42 |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | \$0 |

| | | | | |
|------------------------------------|----------|---|----------------------|----------------|
| RELOCATION COSTS (PHASE 45) | | | | TOTAL PHASE 45 |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x | 0 | 0 |
| 29. Tenant | \$25,000 | x | 0 | 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x | 0 | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | 0 |
| 32. Personal Property | \$3,000 | x | 0 | 0 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) | \$0 |

| | | | | |
|-----|--|--|--------------|-----------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE |
| | | | | \$8,584,200 |

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

DRAFT

Basin 10

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 10A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| Parcels | Gross | Net |
|----------------------|----------|----------|
| Commercial | 0 | 0 |
| Residential | 0 | 0 |
| Unimproved | 0 | 0 |
| Total Parcels | 0 | 0 |

| Estimated Relocates: | |
|------------------------|----------|
| Business | 0 |
| Residential | 0 |
| Signs | 0 |
| Special | 0 |
| Total Relocates | 0 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | | |
|--------------------------------|---|---|--------|---|-------|-----------------------|------------|
| 1. Direct Labor Cost (Parcels) | 0 | x | 20,000 | = | Rate) | Amount | 0 |
| 2. Indirect Overhead (Parcels) | 0 | x | 0 | = | Rate) | Amount | 0 |
| 3. | | | | | | TOTAL PHASE 41 | \$0 |

R/W OPS (PHASE 4B)

| | | | | | | Amount | |
|---|-----|-------------|---|--------|---|-----------------------|------------|
| 4. Appraisal Fees Through Trial | 0 | Parcels | x | 30,000 | = | 0 | |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims | x | 19,000 | = | 0 | |
| 6. Court Reporter & Process Servers | 50% | Parcels | x | 500 | = | 0 | |
| 7. Expert Witness | 75% | Parcels | x | 30,000 | = | 0 | |
| 8. Mediators | 75% | Parcels | x | 2,400 | = | 0 | |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 | Imprvmet | x | 15,000 | = | 0 | |
| 10. Miscellaneous Contracts | 0 | Per Project | x | 15,000 | = | 0 | |
| 11. Appraisal Fee Review | 0 | Parcels | x | 5,000 | = | 0 | |
| 12. | | | | | | TOTAL PHASE 4B | \$0 |

R/W LAND COSTS (PHASE 43)

| | | | | | | Amount | Subtotal |
|--|---------|---|------------------------------|---|---------|-----------------------|--------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 707,850 | x | 120% (0 Parcels w/o R/W Acq) | = | 849,400 | | |
| 15. SUBTOTAL (141,570) | | | (Lines 13 & 14) | | | | 849,400 |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | = | 0 | | |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 382,200 | | |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 | | |
| 20. Owner Appr. Fees (Parcels | 0 | x | \$15,000) | = | 0 | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 382,200 | x | 33%) | = | 126,100 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = | 0 | | |
| 24. Other Condemn. Costs | 0 | x | \$1,000 | = | 0 | | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | | | 508,300 |
| 26. | | | | | | TOTAL PHASE 43 | \$1,357,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | | |
|---|----------|---|---|--|--|-----------------------|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | | TOTAL PHASE 42 | \$0 |
|---|----------|---|---|--|--|-----------------------|------------|

RELOCATION COSTS (PHASE 45)

| | | | Number | Amount | |
|------------------------------|----------|---|--------------|-----------------------|------------|
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = 0 | |
| 29. Tenant | \$25,000 | x | 0 | = 0 | |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = 0 | |
| 31. Business/Farm | \$40,000 | x | 0 | = 0 | |
| 32. Personal Property | \$3,000 | x | 0 | = 0 | |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | \$0 | | | (Not in Phase Total) | |
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| | | | (All Phases) | TOTAL PHASE 45 | \$0 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The pond estimate includes impacts from the mainline taking.

The following indicates the estimator's confidence in the above estimate:

- _____ Type A - indicates the most confidence
- _____ Type B - indicates above average confidence
- Type C - indicates below average confidence
- _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 10B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business _____ 0 |
| Residential | 0 | 0 | Residential _____ 0 |
| Unimproved | 0 | 0 | Signs _____ 0 |
| | | | Special _____ 0 |
| Total Parcels | 1 | 1 | Total Relocates _____ 0 |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = Rate |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = Rate |
| 3. | | | | |
| | | | | TOTAL PHASE 41 |
| | | | | \$20,000 |

| | | | | |
|---|-----|---|---------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | 1 | Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | 1 | Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | 1 | Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 | Imprvmet x | 15,000 = 0 |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 | Parcels x | 5,000 = 0 |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$62,900 |

| | | | | | |
|--|-----------|---|------------------------------|-----------------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = 0 | |
| 14. Water Retention & Mit. (1 Pond) | 2,253,125 | x | 120% (0 Parcels w/o R/W Acq) | = 2,703,800 | |
| 15. SUBTOTAL (233,046) | | | (Lines 13 & 14) | | 2,703,800 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = 324,500 | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = 486,700 | |
| 18. Business Damages (Claims | 0 | x | | = 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = 0 | |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = 15,000 | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 811,200 | x | 33%) | = 267,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + | 0) x 18,000 | = 18,000 | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = 1,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 1,112,900 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$3,816,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = 0 |
| | | | | TOTAL PHASE 42 |
| | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------------------|-----------------------|---------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = 0 | |
| 29. Tenant | \$25,000 | x | 0 | = 0 | |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = 0 | |
| 31. Business/Farm | \$40,000 | x | 0 | = 0 | |
| 32. Personal Property | \$3,000 | x | 0 | = 0 | |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) | | |
| | | | | TOTAL PHASE 45 | \$0 |

| | | | | | |
|-----|--|--|--------------|-----------------------|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$3,899,600 |

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

This pond will impact 3 Parcels. The permanent easement will impact the remaining land on Parcel 2 and the pond location will cause collateral damages to Parcel 3 due to the loss of Pride Road which is the only current access to the property.

This pond assumes mainline damages have been applied to Parcel 2

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

X Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 10C | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | | |
|---------------|-------|-----|----------------------|---|
| Parcels | Gross | Net | Estimated Relocates: | |
| Commercial | 0 | 0 | Business | 0 |
| Residential | 0 | 0 | Residential | 0 |
| Unimproved | 0 | 0 | Signs | 0 |
| | | | Special | 0 |
| Total Parcels | 0 | 0 | Total Relocates | 0 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | |
|--------------------------------|---|---|----------|-------|-----------------------|------------|
| 1. Direct Labor Cost (Parcels) | 0 | x | 20,000 = | Rate) | Amount | 0 |
| 2. Indirect Overhead (Parcels) | 0 | x | 0 = | Rate) | Amount | 0 |
| 3. | | | | | TOTAL PHASE 41 | \$0 |

R/W OPS (PHASE 4B)

| | | | | | | |
|---|-----|-------------|---|----------|-----------------------|------------|
| 4. Appraisal Fees Through Trial | 0 | Parcels | x | 30,000 = | Amount | 0 |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims | x | 19,000 = | Amount | 0 |
| 6. Court Reporter & Process Servers | 50% | Parcels | x | 500 = | Amount | 0 |
| 7. Expert Witness | 75% | Parcels | x | 30,000 = | Amount | 0 |
| 8. Mediators | 75% | Parcels | x | 2,400 = | Amount | 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 | Imprvmet | x | 15,000 = | Amount | 0 |
| 10. Miscellaneous Contracts | 0 | Per Project | x | 15,000 = | Amount | 0 |
| 11. Appraisal Fee Review | 0 | Parcels | x | 5,000 = | Amount | 0 |
| 12. | | | | | TOTAL PHASE 4B | \$0 |

R/W LAND COSTS (PHASE 43)

| | | | | | | | |
|--|---------|---|------------------------------|---------|-----------------------|--|------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | Amount | | Subtotal |
| 14. Water Retention & Mit. (1 Pond) | 516,134 | x | 120% (0 Parcels w/o R/W Acq) | 619,400 | Amount | | |
| 15. SUBTOTAL (106,722) | | | (Lines 13 & 14) | | | | 619,400 |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | 0 | | | |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | 278,700 | | | |
| 18. Business Damages (Claims | 0 | x | 0) | 0 | | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | 0 | | | |
| 20. Owner Appr. Fees (Parcels | 0 | x | \$15,000) | 0 | | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | 0 | | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 278,700 | x | 33%) | 92,000 | | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | 0 | | | |
| 24. Other Condemn. Costs | 0 | x | \$1,000 | 0 | | | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | | | 370,700 |
| 26. | | | | | TOTAL PHASE 43 | | \$990,100 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | |
|---|----------|---|---|--|-----------------------|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | TOTAL PHASE 42 | \$0 |
|---|----------|---|---|--|-----------------------|------------|

RELOCATION COSTS (PHASE 45)

| | | | |
|------------------------------|----------|--------|-----------------------|
| Replacement Housing | | Number | Amount |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) |
| | | | TOTAL PHASE 45 |

| | | | |
|-----|--|--------------|-----------------------|
| 35. | | | |
| 36. | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

DRAFT

Basin 11

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 11A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business 4 |
| Residential | 0 | 0 | Residential 0 |
| Unimproved | 0 | 0 | Signs 0 |
| | | | Special 0 |
| Total Parcels | 0 | 0 | Total Relocates 4 |

| | | | | |
|-------------------------------------|-----------|---|------------|---------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 0 | x 20,000 = | Rate) 0 |
| 2. Indirect Overhead | (Parcels) | 0 | x 0 = | Rate) 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$0 |

| | | | | |
|---|-----|----|---------------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 0 | Parcels x | 30,000 = 0 |
| 5. Business Damage CPA Fees Through Trial | | -1 | Claims x | 19,000 = -19,000 |
| 6. Court Reporter & Process Servers | | 0 | Parcels x | 500 = 0 |
| 7. Expert Witness | 50% | 0 | Parcels x | 30,000 = 0 |
| 8. Mediators | 75% | 0 | Parcels x | 2,400 = 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 1 | Imprvmet x | 15,000 = 15,000 |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 | Parcels x | 5,000 = 0 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | -\$4,000 |

| | | | | | |
|--|---------|---------|--------------------------------|---------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | | 0 | x 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | | 471,716 | x 120% (0 Parcels w/o R/W Acq) | 566,100 | |
| 15. SUBTOTAL (53,579) | | | (Lines 13 & 14) | | 566,100 |
| 16. Admin. Settlements (Factor | 20% | | x 60% of Line 15) | = 67,900 | |
| 17. Litigation Awards (Factor | 45% | | x 40% of Line 15) | = 101,900 | |
| 18. Business Damages (Claims | -1 | | x 0) | = -125,000 | |
| 19. Bus. Damages Incr (Factor | 25% | | x \$ (125,000) | = -31,300 | |
| 20. Owner Appr. Fees (Parcels | 0 | | x \$15,000) | = 0 | |
| 21. Owner CPA Fees (Claims | -1 | | x \$16,000) | = -16,000 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 138,500 | | x 33%) | = 45,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | | + 0) x 18,000 | = 0 | |
| 24. Other Condemn. Costs | 0 | | x \$1,000 | = 0 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 43,200 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$609,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------|----------------------|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 4 | = | 160,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | | \$16,000 | (Not in Phase Total) | |
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| TOTAL PHASE 45 | | | | | \$160,000 |

| | | | | |
|------------------------------------|--|--|--|------------------|
| (All Phases) TOTAL ESTIMATE | | | | \$765,300 |
|------------------------------------|--|--|--|------------------|

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Bus. Dam. : Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The estimate assumes mainline damages have been applied.

The remaining improvement value of the south building on Parcel 2 reflects a credit for the cut and reface and prorated portion of the TCE paid in the mainline.

The mainline taking creates business damages. Selection of this pond makes the business damages go away and therefore negative numbers are shown in Lines 5, 18, 19 21 & 22.

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

X Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 11B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business 5 |
| Residential | 0 | 0 | Residential 0 |
| Unimproved | 0 | 0 | Signs 0 |
| | | | Special 0 |
| Total Parcels | 0 | 0 | Total Relocates 5 |

| | | | | | |
|-------------------------------------|----------|---|---|----------------|------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels | 0 | x | 20,000 = Rate) | 0 |
| 2. Indirect Overhead | (Parcels | 0 | x | 0 = Rate) | 0 |
| 3. | | | | | |
| TOTAL PHASE 41 | | | | | \$0 |

| | | | | | |
|---|-----|---|---------------|---------------|-----------------|
| R/W OPS (PHASE 4B) | | | | Amount | |
| 4. Appraisal Fees Through Trial | | 0 | Parcels x | 30,000 = | 0 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | | 0 | Parcels x | 500 = | 0 |
| 7. Expert Witness | 50% | x | 0 = | 0 | 0 |
| 8. Mediators | 75% | x | 0 = | 0 | 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 3 | Imprvmet x | 15,000 = | 45,000 |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | 0 | Parcels x | 5,000 = | 0 |
| 12. | | | | | |
| TOTAL PHASE 4B | | | | | \$45,000 |

| | | | | | |
|--|-----------|---|------------------------------|---------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 1,542,648 | x | 120% (0 Parcels w/o R/W Acq) | 1,851,200 | |
| 15. SUBTOTAL (64,033) | | | (Lines 13 & 14) | | 1,851,200 |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 833,000 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 0 | x | \$15,000) | = | 0 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 833,000 | x | 33%) | = | 274,900 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = | 0 |
| 24. Other Condemn. Costs | 0 | x | \$1,000 | = | 0 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 1,107,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$2,959,100 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|----------|---|---|---------------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 |
| TOTAL PHASE 42 | | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------------------|---------------|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount | |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 5 | = | 200,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | \$20,000 | | (Not in Phase Total) | | |
| TOTAL PHASE 45 | | | | | \$200,000 |

| | | | | | |
|------------------------------------|--|--|--|--|--------------------|
| (All Phases) TOTAL ESTIMATE | | | | | \$3,204,100 |
|------------------------------------|--|--|--|--|--------------------|

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The pond assumes the mainline damages have been applied.

The remaining improvement value of the of the three buildings reflects a credit for the cut and reface and prorated portion of the TCE paid in the mainline.

The following indicates the estimator's confidence in the above estimate:

- _____ Type A - indicates the most confidence
- _____ Type B - indicates above average confidence
- X** Type C - indicates below average confidence
- _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

DRAFT

Basin 12/13

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13A & FPC 12/13L | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 2 | 2 | Business _____ 3 |
| Residential | 1 | 1 | Residential _____ 1 |
| Unimproved | 1 | 1 | Signs _____ 0 |
| Total Parcels | 4 | 4 | Special _____ 1 |
| | | | Total Relocates _____ 5 |

| | | | | |
|-------------------------------------|-----------|--------------|-------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 4 x 20,000 = | Rate) | 80,000 |
| 2. Indirect Overhead | (Parcels) | 4 x 0 = | Rate) | 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$80,000 |

| | | | | |
|---|-----|-----------------|----------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 4 Parcels x | 30,000 = | 120,000 |
| 5. Business Damage CPA Fees Through Trial | | -1 Claims x | 19,000 = | -19,000 |
| 6. Court Reporter & Process Servers | 50% | 2 Parcels x | 500 = | 1,000 |
| 7. Expert Witness | 75% | 3 Parcels x | 30,000 = | 90,000 |
| 8. Mediators | 75% | 3 Parcels x | 2,400 = | 7,200 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 4 Imprvmet x | 15,000 = | 60,000 |
| 10. Miscellaneous Contracts | | 0 Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | 1 Parcels x | 5,000 = | 5,000 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$264,200 |

| | | | | | |
|--|-----------|--------------------------------|------------|--------------------|-----------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 3,733,951 | x 120% (0 Parcels w/o R/W Acq) | 4,480,700 | | |
| 15. SUBTOTAL (290,204) | | (Lines 13 & 14) | | | 4,480,700 |
| 16. Admin. Settlements (Factor | 20% | x 60% of Line 15) | = 537,700 | | |
| 17. Litigation Awards (Factor | 45% | x 40% of Line 15) | = 806,500 | | |
| 18. Business Damages (Claims | -1 | x 0) | = -225,000 | | |
| 19. Bus. Damages Incr (Factor | 25% | x \$ (225,000) | = -56,300 | | |
| 20. Owner Appr. Fees (Parcels | 4 | x \$15,000) | = 60,000 | | |
| 21. Owner CPA Fees (Claims | -1 | x \$16,000) | = -16,000 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,287,900 | x 33%) | = 425,000 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 2 | + 1) x 18,000 | = 54,000 | | |
| 24. Other Condemn. Costs | 4 | x \$1,000 | = 4,000 | | |
| 25. SUBTOTAL | | (Lines 16 thru 24) | = | 1,589,900 | |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | \$6,070,600 | |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|-----|--|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | | 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|----------------------|---|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x 1 | = | 30,000 |
| 29. Tenant | \$25,000 | x 0 | = | 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x 1 | = | 5,000 |
| 31. Business/Farm | \$40,000 | x 3 | = | 120,000 |
| 32. Personal Property | \$3,000 | x 1 | = | 3,000 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | \$15,800 | (Not in Phase Total) | | |
| TOTAL PHASE 45 | | | | \$158,000 |

| | | | | |
|-----|--|--------------|-----------------------|--------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE | \$6,572,800 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The mainline impacts to SMF 12/13A and FPC 12/13L are considered in this estimate.

The mainline taking creates business and severance damages on Parcel 5. Selection of this pond makes the business damages go away and therefore negative numbers are shown in Lines 5, 18, 19 & 21 .

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13B & FPC 12/13R | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 1 | 1 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 2 | 2 | Total Relocates |

| | | | | | | |
|-------------------------------------|----------|---|---|---------------|-------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | | |
| 1. Direct Labor Cost | (Parcels | 2 | x | 20,000 = | Rate) | 40,000 |
| 2. Indirect Overhead | (Parcels | 2 | x | 0 = | Rate) | 0 |
| 3. | | | | | | |
| TOTAL PHASE 41 | | | | | | \$40,000 |

| | | | | | | |
|---|-----|---|-------------|---------------|----------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount | | |
| 4. Appraisal Fees Through Trial | | 2 | Parcels | x | 30,000 = | 60,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | | 1 | Parcels | x | 500 = | 500 |
| 7. Expert Witness | 50% | 2 | Parcels | x | 30,000 = | 60,000 |
| 8. Mediators | 75% | 2 | Parcels | x | 2,400 = | 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 2 | Imprvmet | x | 15,000 = | 30,000 |
| 10. Miscellaneous Contracts | | 0 | Per Project | x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | 1 | Parcels | x | 5,000 = | 5,000 |
| 12. | | | | | | |
| TOTAL PHASE 4B | | | | | | \$160,300 |

| | | | | | | |
|--|---------|---|------------------------------|---------------|-----------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 468,704 | x | 120% (0 Parcels w/o R/W Acq) | 562,400 | | |
| 15. SUBTOTAL (241,396) | | | (Lines 13 & 14) | | 562,400 | |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | 67,500 | | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | 101,200 | | |
| 18. Business Damages (Claims | 0 | x | 0) | 0 | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | 0 | | |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | 30,000 | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | 0 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 168,700 | x | 33%) | 55,700 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | 18,000 | | |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | 2,000 | | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 274,400 | |
| 26. | | | | | | |
| TOTAL PHASE 43 | | | | | | \$836,800 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|---|---|----------------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x | 1 | = 30,000 |
| 29. Tenant | \$25,000 | x | 0 | = 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x | 1 | = 5,000 |
| 31. Business/Farm | \$40,000 | x | 0 | = 0 |
| 32. Personal Property | \$3,000 | x | 0 | = 0 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | \$3,500 | | | (Not in Phase Total) |
| TOTAL PHASE 45 | | | | \$35,000 |

| | | | | |
|------------------------------------|--|--|--|--------------------|
| (All Phases) TOTAL ESTIMATE | | | | \$1,072,100 |
|------------------------------------|--|--|--|--------------------|

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Bus. Dam. : Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: For Parcel's 1 and 4 of the pond site and Parcel 1 of the FPC, the estimate considers the impacts from the mainline take

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13C & FPC 12/13R | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

| | | |
|--|-------|-----|
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |
| Parcels | Gross | Net |
| Commercial | 0 | 0 |
| Residential | 0 | 0 |
| Unimproved | 1 | 1 |
| Total Parcels | 1 | 1 |

| | |
|----------------------|---|
| Estimated Relocates: | |
| Business | 0 |
| Residential | 0 |
| Signs | 0 |
| Special | 0 |
| Total Relocates | 0 |

| | | | | | |
|-------------------------------------|-----------|---|---|---------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = | Rate) |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = | Rate) |
| 3. | | | | | |
| | | | | | TOTAL PHASE 41 |
| | | | | | \$20,000 |

| | | | | | |
|---|-----|---|---|---------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount | |
| 4. Appraisal Fees Through Trial | | | | 30,000 = | 30,000 |
| 5. Business Damage CPA Fees Through Trial | | | | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | | | | 500 = | 500 |
| 7. Expert Witness | 50% | 1 | = | 30,000 = | 30,000 |
| 8. Mediators | 75% | 1 | = | 2,400 = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 15,000 = | 0 |
| 10. Miscellaneous Contracts | | | | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | | 5,000 = | 0 |
| 12. | | | | | |
| | | | | | TOTAL PHASE 4B |
| | | | | | \$62,900 |

| | | | | | |
|--|---------|---|------------------------------|---------------|-----------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 460,072 | x | 120% (0 Parcels w/o R/W Acq) | 552,100 | |
| 15. SUBTOTAL (284,011) | | | (Lines 13 & 14) | | 552,100 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | 66,300 | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | 99,400 | |
| 18. Business Damages (Claims | 0 | x | 0) | 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | 0 | |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | 15,000 | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 165,700 | x | 33%) | 54,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | 18,000 | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | 1,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 254,400 |
| 26. | | | | | |
| | | | | | TOTAL PHASE 43 |
| | | | | | \$806,500 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|---------------|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | 0 | |
| | | | | | TOTAL PHASE 42 |
| | | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|---|---------------|-----------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | \$0 | | | | (Not in Phase Total) |
| | | | | | TOTAL PHASE 45 |
| | | | | | \$0 |

| | | | | | |
|--|--|--|--|------------------------------------|------------------|
| | | | | (All Phases) TOTAL ESTIMATE | \$889,400 |
|--|--|--|--|------------------------------------|------------------|

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Mainline impacts have been considered in valuation of the pond site and FPC
This pond site creates remnant areas with no access and damages to the remainder have been applied.

The area for FPC 12/13R would not add costs to this SMF because it was damaged out for the SMF 12/13C.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13A & FPC 12/13R&L | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

| | | | |
|--|----------|----------|--|
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | | |
| Parcels | Gross | Net | Estimated Relocates: Business _____ 3 Residential _____ 1 Signs _____ 0 Special _____ 1 Total Relocates _____ 5 |
| Commercial | 2 | 2 | |
| Residential | 1 | 1 | |
| Unimproved | 1 | 1 | |
| Total Parcels | 4 | 4 | |

| | | | |
|-------------------------------------|-----|----------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | Amount |
| 1. Direct Labor Cost (Parcels) | 4 x | 20,000 = | 80,000 |
| 2. Indirect Overhead (Parcels) | 4 x | 0 = | 0 |
| 3. | | | |
| TOTAL PHASE 41 | | | \$80,000 |

| | | | |
|---|-----------------|----------|------------------|
| R/W OPS (PHASE 4B) | | | Amount |
| 4. Appraisal Fees Through Trial | 4 Parcels x | 30,000 = | 120,000 |
| 5. Business Damage CPA Fees Through Trial | -1 Claims x | 19,000 = | -19,000 |
| 6. Court Reporter & Process Servers | 2 Parcels x | 500 = | 1,000 |
| 7. Expert Witness | 3 Parcels x | 30,000 = | 90,000 |
| 8. Mediators | 3 Parcels x | 2,400 = | 7,200 |
| 9. Demolition, Asb. Abate., Survey, etc. | 4 Imprvmet x | 15,000 = | 60,000 |
| 10. Miscellaneous Contracts | 0 Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | 1 Parcels x | 5,000 = | 5,000 |
| 12. | | | |
| TOTAL PHASE 4B | | | \$264,200 |

| | | | | |
|--|-------------|------------------------------|---------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 3,632,431 x | 120% (0 Parcels w/o R/W Acq) | 4,358,900 | |
| 15. SUBTOTAL (337,684) | | (Lines 13 & 14) | | 4,358,900 |
| 16. Admin. Settlements (Factor) | 20% x | 60% of Line 15) | = 523,100 | |
| 17. Litigation Awards (Factor) | 45% x | 40% of Line 15) | = 784,600 | |
| 18. Business Damages (Claims) | -1 x | 0) | = -225,000 | |
| 19. Bus. Damages Incr (Factor) | 25% x | \$ (225,000)) | = -56,300 | |
| 20. Owner Appr. Fees (Parcels) | 4 x | \$15,000) | = 60,000 | |
| 21. Owner CPA Fees (Claims) | -1 x | \$16,000) | = -16,000 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 1,251,400 x | 33%) | = 413,000 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 2 + | 1) x 18,000 | = 54,000 | |
| 24. Other Condemn. Costs | 4 x | \$1,000 | = 4,000 | |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | | 1,541,400 |
| 26. | | | | |
| TOTAL PHASE 43 | | | | \$5,900,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | |
|--|------------|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 x | 0 | 0 |
| TOTAL PHASE 42 | | | \$0 |

| | | | | |
|------------------------------------|------------|----------|----------------------|------------------|
| RELOCATION COSTS (PHASE 45) | | | Number | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 x | 1 | = | 30,000 |
| 29. Tenant | \$25,000 x | 0 | = | 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 x | 1 | = | 5,000 |
| 31. Business/Farm | \$40,000 x | 3 | = | 120,000 |
| 32. Personal Property | \$3,000 x | 1 | = | 3,000 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | | \$15,800 | (Not in Phase Total) | |
| TOTAL PHASE 45 | | | | \$158,000 |

| | | | | |
|------------------------------------|--|--|--|--------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | | |
| (All Phases) TOTAL ESTIMATE | | | | \$6,402,500 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The mainline impacts to SMF 12/13A and FPC 12/13L are considered in this estimate.

The mainline taking creates business and severance damages on Parcel 5. Selection of this pond makes the business damages go away and therefore negative numbers are shown in Lines 5, 18, 19 & 21.

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

X Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13B & FPC 12/13R&L | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | |
|---------------|-------|-----|-----------------------|
| Parcels | Gross | Net | Estimated Relocatees: |
| Commercial | 0 | 0 | Business |
| Residential | 1 | 1 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 2 | 2 | Special |
| | | | Total Relocatees |

| | | | |
|-------------------------------------|---|-----------------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | Amount | |
| 1. Direct Labor Cost | (Parcels <u>2</u> x <u>20,000</u> = Rate) | <u>40,000</u> | |
| 2. Indirect Overhead | (Parcels <u>2</u> x <u>0</u> = Rate) | <u>0</u> | |
| 3. | | | |
| | | TOTAL PHASE 41 | \$40,000 |

| | | | |
|---|--------------------------|-----------------------|------------------|
| R/W OPS (PHASE 4B) | | Amount | |
| 4. Appraisal Fees Through Trial | 2 Parcels x 30,000 = | 60,000 | |
| 5. Business Damage CPA Fees Through Trial | 0 Claims x 19,000 = | 0 | |
| 6. Court Reporter & Process Servers | 1 Parcels x 500 = | 500 | |
| 7. Expert Witness | 2 Parcels x 30,000 = | 60,000 | |
| 8. Mediators | 2 Parcels x 2,400 = | 4,800 | |
| 9. Demolition, Asb. Abate., Survey, etc. | 2 Imprvmet x 15,000 = | 30,000 | |
| 10. Miscellaneous Contracts | 0 Per Project x 15,000 = | 0 | |
| 11. Appraisal Fee Review | 1 Parcels x 5,000 = | 5,000 | |
| 12. | | | |
| | | TOTAL PHASE 4B | \$160,300 |

| | | | | | |
|--|--|-----------------------|--------------------|-----------------|--|
| R/W LAND COSTS (PHASE 43) | | Amount | | Subtotal | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 x 120% * Design plan stage = | 0 | | | |
| 14. Water Retention & Mit. (1 Pond) | 1,150,272 x 120% (0 Parcels w/o R/W Acq) | 1,380,300 | | | |
| 15. SUBTOTAL (312,058) | (Lines 13 & 14) | | 1,380,300 | | |
| 16. Admin. Settlements (Factor 20%) | x 60% of Line 15 = | 165,600 | | | |
| 17. Litigation Awards (Factor 45%) | x 40% of Line 15 = | 248,500 | | | |
| 18. Business Damages (Claims 0) | x 0 = | 0 | | | |
| 19. Bus. Damages Incr (Factor 25%) | x \$ - = | 0 | | | |
| 20. Owner Appr. Fees (Parcels 2) | x \$15,000 = | 30,000 | | | |
| 21. Owner CPA Fees (Claims 0) | x \$16,000 = | 0 | | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 414,100 x 33% = | 136,700 | | | |
| 23. Owner Expert Withn (Comm.+Unimp.) | 0 + 1 x 18,000 = | 18,000 | | | |
| 24. Other Condemn. Costs | 2 x \$1,000 = | 2,000 | | | |
| 25. SUBTOTAL | (Lines 16 thru 24) = | | 600,800 | | |
| 26. | | | | | |
| | | TOTAL PHASE 43 | \$1,981,100 | | |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | |
|--|----------------|-----------------------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 x 0 = | 0 | |
| | | TOTAL PHASE 42 | \$0 |

| | | | | | |
|------------------------------------|------------|-----------------------|---|----------------------|--|
| RELOCATION COSTS (PHASE 45) | | Number | | Amount | |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 x | 1 | = | 30,000 | |
| 29. Tenant | \$25,000 x | 0 | = | 0 | |
| Move Costs | | | | | |
| 30. Residential | \$5,000 x | 1 | = | 5,000 | |
| 31. Business/Farm | \$40,000 x | 0 | = | 0 | |
| 32. Personal Property | \$3,000 x | 0 | = | 0 | |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | 3,500 | | (Not in Phase Total) | |
| | | TOTAL PHASE 45 | | \$35,000 | |

| | | | | | |
|-----|--|--------------|-----------------------|--------------------|--|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE | \$2,216,400 | |

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:
The mainline impacts to SMF 12/13B and FPC 12/13R&L are considered in this estimate

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 12/13C & FPC 12/13R&L | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | |
|-------------------------------------|-----------|--------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 1 x 20,000 = | Rate) Amount |
| 2. Indirect Overhead | (Parcels) | 1 x 0 = | Rate) 20,000 |
| 3. | | | 0 |
| | | | TOTAL PHASE 41 |
| | | | \$20,000 |

| | | | |
|---|-----|-----------------|-----------------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | | 1 Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | 1 Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | 1 Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | 1 Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 Imprvmet x | 15,000 = 0 |
| 10. Miscellaneous Contracts | | 0 Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 Parcels x | 5,000 = 0 |
| 12. | | | |
| | | | TOTAL PHASE 4B |
| | | | \$62,900 |

| | | | |
|--|-----------|--------------------------------|-----------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 1,141,640 | x 120% (0 Parcels w/o R/W Acq) | 1,370,000 |
| 15. SUBTOTAL (354,673) | | (Lines 13 & 14) | 1,370,000 |
| 16. Admin. Settlements (Factor | 20% | x 60% of Line 15) | = 164,400 |
| 17. Litigation Awards (Factor | 45% | x 40% of Line 15) | = 246,600 |
| 18. Business Damages (Claims | 0 | x 0) | = 0 |
| 19. Bus. Damages Incr (Factor | 25% | x \$ -) | = 0 |
| 20. Owner Appr. Fees (Parcels | 1 | x \$15,000) | = 15,000 |
| 21. Owner CPA Fees (Claims | 0 | x \$16,000) | = 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 411,000 | x 33%) | = 135,600 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 1) x 18,000 | = 18,000 |
| 24. Other Condemn. Costs | 1 | x \$1,000 | = 1,000 |
| 25. SUBTOTAL | | (Lines 16 thru 24) | = 580,600 |
| 26. | | | |
| | | | TOTAL PHASE 43 |
| | | | \$1,950,600 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | |
|--|----------|-----|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | |
| | | | TOTAL PHASE 42 |
| | | | \$0 |

| | | | |
|------------------------------------|----------|----------------------|-----------------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| | | | TOTAL PHASE 45 |
| | | | \$0 |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | |

| | | | |
|-----|--|--------------|-----------------------|
| 35. | | | |
| 36. | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE |
| | | | \$2,033,500 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: The mainline impacts to SMF 12/13 C and the FPC's are considered in this estimate.

The area for FPC 12/13R would not add costs to this SMF because it was damaged out for the SMF 12/13C.

The following indicates the estimator's confidence in the above estimate:

Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____

Comments: _____



MEMORANDUM

Date: October 1, 2019

To: Bill McTeer, Cost Estimate Coordinator,
FDOT District Seven, MS 7-900

From: Roger D. Patton, Real Estate Services Agent III

Re: Right of Way Cost Estimate
HDR #100626981-7.12

FM#: 419235-3
County: Hillsborough
Description: I-75 PD&E
From South of US 301
To North of Bruce B. Downs (Pond Sites)
Purpose: Special Purpose

In accordance with your request, the cost estimates for Basin 12/13 have been revised for the above referenced project. The estimate considers mainline impacts to the pond sites and SMF's 12/13 A, B, C have been revised to include both right and left FPC's for each pond alternative.

| <i>BASIN 12/13</i> | <i>Total</i> |
|------------------------------|---------------------|
| SMF 12/13A & FPC 12/13R&L | \$6,402,500 |
| SMF 12/13B & FPC 12/13R&L | \$2,216,400 |
| SMF 12/13C & FPC 12/13R&L | \$2,033,500 |

Thank you for the opportunity to provide this service, and please feel free to call with question concerns.

DRAFT

Basin 14

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|-----------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 14A & FPC 14 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | |
|-------------------------------------|-----------|--------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 1 x 20,000 = | Rate) Amount |
| 2. Indirect Overhead | (Parcels) | 1 x 0 = | Rate) 20,000 |
| 3. | | | 0 |
| | | | TOTAL PHASE 41 |
| | | | \$20,000 |

| | | | |
|---|-----|-----------------|-----------------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | | 1 Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | 1 Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | 1 Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | 1 Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 Imprvmet x | 15,000 = 0 |
| 10. Miscellaneous Contracts | | 0 Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 Parcels x | 5,000 = 0 |
| 12. | | | |
| | | | TOTAL PHASE 4B |
| | | | \$62,900 |

| | | | |
|--|---------|--------------------------------|-----------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 855,954 | x 120% (0 Parcels w/o R/W Acq) | 1,027,100 |
| 15. SUBTOTAL (251,341) | | (Lines 13 & 14) | 1,027,100 |
| 16. Admin. Settlements (Factor) | 20% | x 0% of Line 15) | = 0 |
| 17. Litigation Awards (Factor) | 45% | x 100% of Line 15) | = 462,200 |
| 18. Business Damages (Claims) | 0 | x 0) | = 0 |
| 19. Bus. Damages Incr (Factor) | 25% | x \$ -) | = 0 |
| 20. Owner Appr. Fees (Parcels) | 1 | x \$15,000) | = 15,000 |
| 21. Owner CPA Fees (Claims) | 0 | x \$16,000) | = 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 462,200 | x 33%) | = 152,500 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 1) x 18,000 | = 18,000 |
| 24. Other Condemn. Costs | 1 | x \$1,000 | = 1,000 |
| 25. SUBTOTAL | | (Lines 16 thru 24) | 648,700 |
| 26. | | | |
| | | | TOTAL PHASE 43 |
| | | | \$1,675,800 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | |
|--|----------|-----|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | |
| | | | TOTAL PHASE 42 |
| | | | \$0 |

| | | | |
|------------------------------------|----------|-----|-----------------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| | | | TOTAL PHASE 45 |
| | | | \$0 |

| | | | |
|------------------------------|-----|----------------------|------------------------------------|
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | |
| 35. | | | |
| 36. | | | |
| 37. | | | |
| | | | (All Phases) TOTAL ESTIMATE |
| | | | \$1,758,700 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:
Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-----------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 14B & FPC 14 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 2 | 2 | Signs |
| Total Parcels | 2 | 2 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 2 | x | 20,000 = |
| 2. Indirect Overhead | (Parcels) | 2 | x | 0 = |
| 3. | | | | |
| | | | | TOTAL PHASE 41 |
| | | | | \$40,000 |

| | | | | |
|---|-----|-------|---------|---------------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 2 | Parcels | x 30,000 = 60,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x 2 = | 1 | Parcels x 500 = 500 |
| 7. Expert Witness | 75% | x 2 = | 2 | Parcels x 30,000 = 60,000 |
| 8. Mediators | 75% | x 2 = | 2 | Parcels x 2,400 = 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 0 | Imprvmet x 15,000 = 0 |
| 10. Miscellaneous Contracts | | | 0 | Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | 1 | Parcels x 5,000 = 5,000 |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$130,300 |

| | | | | | |
|--|-----------|---|------------------------------|-----------------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 1,295,855 | x | 120% (0 Parcels w/o R/W Acq) | = | 1,555,000 |
| 15. SUBTOTAL (325,394) | | | | | 1,555,000 |
| (Lines 13 & 14) | | | | | |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 186,600 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 279,900 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | = | 30,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 466,500 | x | 33%) | = | 153,900 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 2) x 18,000 | = | 36,000 |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | = | 2,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 688,400 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$2,243,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|-----------------------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 |
| | | | | TOTAL PHASE 42 | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------------------|-----------------------|---------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| | | | | TOTAL PHASE 45 | \$0 |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) | | |

| | | | | | |
|-----|--|--|--------------|-----------------------|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$2,413,700 |

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The Parcel for SMF 14B was recently purchased and clearing for development is underway. The development plan was unavailable. Based on other new ongoing development in the area it appears it may be a residential use.

Damages to potential development has been estimated

The SMF creates an isolated area at the northwest quadrant of the parcel and damages were applied to that remainder for shape and access.

The following indicates the estimator's confidence in the above estimate:

Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____

Comments: _____

DRAFT

Basin 17

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10189256-7.12

| | | |
|----------------------|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 17A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | |
|-------------------------------------|-----------|--------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 1 x 20,000 = | Rate) Amount |
| 2. Indirect Overhead | (Parcels) | 1 x 0 = | Rate) 20,000 |
| 3. | | | 0 |
| TOTAL PHASE 41 | | | \$20,000 |

| | | | |
|---|-----|-----------------|-----------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | | 1 Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | 1 Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | 1 Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | 1 Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 Imprvmet x | 15,000 = 0 |
| 10. Miscellaneous Contracts | | 0 Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 Parcels x | 5,000 = 0 |
| 12. | | | |
| TOTAL PHASE 4B | | | \$62,900 |

| | | | |
|--|---------|--------------------------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 510,071 | x 120% (0 Parcels w/o R/W Acq) | 612,100 |
| 15. SUBTOTAL (160,357) | | (Lines 13 & 14) | 612,100 |
| 16. Admin. Settlements (Factor) | 20% | x 60% of Line 15) | 73,500 |
| 17. Litigation Awards (Factor) | 45% | x 40% of Line 15) | 110,200 |
| 18. Business Damages (Claims) | 0 | x () | 0 |
| 19. Bus. Damages Incr (Factor) | 25% | x \$ () | 0 |
| 20. Owner Appr. Fees (Parcels) | 1 | x \$15,000) | 15,000 |
| 21. Owner CPA Fees (Claims) | 0 | x \$16,000) | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 183,700 | x 33%) | 60,600 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 1) x 18,000 | 18,000 |
| 24. Other Condemn. Costs | 1 | x \$1,000 | 1,000 |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | 278,300 |
| 26. | | | |
| TOTAL PHASE 43 | | | \$890,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | |
|--|----------|-----|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | |
| TOTAL PHASE 42 | | | \$0 |

| | | | |
|------------------------------------|----------|----------------------|------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | |
| TOTAL PHASE 45 | | | \$0 |

| | | | |
|-----|--|--------------|---------------------------------|
| 35. | | | |
| 36. | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE \$973,300 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 17B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 2 | 2 | Special |
| | | | Total Relocates |

| | | | | | | |
|-------------------------------------|-----------|---|---|----------|------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | | |
| 1. Direct Labor Cost | (Parcels) | 2 | x | 20,000 = | Rate | 40,000 |
| 2. Indirect Overhead | (Parcels) | 2 | x | 0 = | Rate | 0 |
| 3. | | | | | | |
| TOTAL PHASE 41 | | | | | | \$40,000 |

| | | | | | | | |
|---|-----|---|-----------|----------|---------------|------------------|--------|
| R/W OPS (PHASE 4B) | | | | Amount | | | |
| 4. Appraisal Fees Through Trial | | 2 | Parcels x | 30,000 = | 60,000 | | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = | 0 | | |
| 6. Court Reporter & Process Servers | 50% | x | 2 = | 1 | Parcels x | 500 = | 500 |
| 7. Expert Witness | 75% | x | 2 = | 2 | Parcels x | 30,000 = | 60,000 |
| 8. Mediators | 75% | x | 2 = | 2 | Parcels x | 2,400 = | 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 2 | Imprvmet x | 15,000 = | 30,000 |
| 10. Miscellaneous Contracts | | | | 0 | Per Project x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | | 1 | Parcels x | 5,000 = | 5,000 |
| 12. | | | | | | | |
| TOTAL PHASE 4B | | | | | | \$160,300 | |

| | | | | | | |
|--|---------|---|------------------------------|---------|----------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 671,070 | x | 120% (0 Parcels w/o R/W Acq) | 805,300 | | |
| 15. SUBTOTAL (178,160) | | | (Lines 13 & 14) | | 805,300 | |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 96,600 | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 145,000 | |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 | |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | = | 30,000 | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 241,600 | x | 33%) | = | 79,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + | 1) x 18,000 | = | 36,000 | |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | = | 2,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 389,300 | |
| 26. | | | | | | |
| TOTAL PHASE 43 | | | | | | \$1,194,600 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | | |
|--|----------|---|---|--------|---|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 | |
| TOTAL PHASE 42 | | | | | | \$0 |

| | | | | | | |
|------------------------------------|----------|---|----------|----------------------|--------|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount | |
| Replacement Housing | | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 | |
| 29. Tenant | \$25,000 | x | 2 | = | 50,000 | |
| Move Costs | | | | | | |
| 30. Residential | \$5,000 | x | 2 | = | 10,000 | |
| 31. Business/Farm | \$40,000 | x | 1 | = | 40,000 | |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 | |
| 33. (Lines 28 thru 32) | | | | | | |
| 34. Relocation Services Cost | | | \$10,000 | (Not in Phase Total) | | |
| TOTAL PHASE 45 | | | | | | \$100,000 |

| | | | | | | |
|--|--|--|--|--------------|-----------------------|--------------------|
| | | | | (All Phases) | TOTAL ESTIMATE | \$1,494,900 |
|--|--|--|--|--------------|-----------------------|--------------------|

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <u>R. D. Patton</u> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <u>A. J. Thompson</u> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <u>R. D. Patton</u> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <u>A. J. Thompson</u> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

DRAFT

Basin 18

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 18A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | | |
|---------------|-------|-----|----------------------|---|
| Parcels | Gross | Net | Estimated Relocates: | |
| Commercial | 0 | 0 | Business | 0 |
| Residential | 0 | 0 | Residential | 0 |
| Unimproved | 0 | 0 | Signs | 0 |
| | | | Special | 0 |
| Total Parcels | 0 | 0 | Total Relocates | 0 |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 0 | x | 20,000 = Rate) |
| 2. Indirect Overhead | (Parcels) | 0 | x | 0 = Rate) |
| 3. | | | | 0 |
| | | | | TOTAL PHASE 41 |
| | | | | \$0 |

| | | | | |
|---|-----|-------|-------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 0 | Parcels | x 30,000 = 0 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x 19,000 = 0 |
| 6. Court Reporter & Process Servers | | 0 | Parcels | x 500 = 0 |
| 7. Expert Witness | 75% | x 0 = | Parcels | x 30,000 = 0 |
| 8. Mediators | 75% | x 0 = | Parcels | x 2,400 = 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | Imprvmet | x 15,000 = 0 |
| 10. Miscellaneous Contracts | | | Per Project | x 15,000 = 0 |
| 11. Appraisal Fee Review | | | Parcels | x 5,000 = 0 |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$0 |

| | | | | | |
|--|---------|---|------------------------------|-----------------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 499,668 | x | 120% (0 Parcels w/o R/W Acq) | 599,600 | |
| 15. SUBTOTAL (116,305) | | | (Lines 13 & 14) | | 599,600 |
| 16. Admin. Settlement (Factor | 20% | x | 0% of Line 15) | = 0 | |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = 269,800 | |
| 18. Business Damages (Claims | 0 | x | (0) | = 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = 0 | |
| 20. Owner Appr. Fees (Parcels | 0 | x | (\$15,000) | = 0 | |
| 21. Owner CPA Fees (Claims | 0 | x | (\$16,000) | = 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 269,800 | x | 33%) | = 89,900 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = 0 | |
| 24. Other Condemn. Costs | 0 | x | (\$1,000) | = 0 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) = | | 358,800 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$958,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = 0 |
| | | | | TOTAL PHASE 42 |
| | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------------------|-----------------------|---------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| | | | | TOTAL PHASE 45 | \$0 |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) | | |

| | | | | | |
|-----|--|--|--------------|-----------------------|------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$958,400 |

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

Damages to the remainder are significant due to the location of the pond site and easement.

Any mainline takings are considered in the estimate

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

 X Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 18B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-----------------------|
| Parcels | Gross | Net | Estimated Relocatees: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocatees |

| | | | |
|-------------------------------------|-----------------------------|--|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | Amount |
| 1. Direct Labor Cost | (Parcels 1 x 20,000 = Rate) | | 20,000 |
| 2. Indirect Overhead | (Parcels 1 x 0 = Rate) | | 0 |
| 3. | | | |
| TOTAL PHASE 41 | | | \$20,000 |

| | | | |
|---|--------------------------------|--|-----------------|
| R/W OPS (PHASE 4B) | | | Amount |
| 4. Appraisal Fees Through Trial | 1 Parcels x 30,000 = | | 30,000 |
| 5. Business Damage CPA Fees Through Trial | 0 Claims x 19,000 = | | 0 |
| 6. Court Reporter & Process Servers | 50% x 1 = 1 Parcels x 500 = | | 500 |
| 7. Expert Witness | 75% x 1 = 1 Parcels x 30,000 = | | 30,000 |
| 8. Mediators | 75% x 1 = 1 Parcels x 2,400 = | | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 Imprvmet x 15,000 = | | 0 |
| 10. Miscellaneous Contracts | 0 Per Project x 15,000 = | | 0 |
| 11. Appraisal Fee Review | 0 Parcels x 5,000 = | | 0 |
| 12. | | | |
| TOTAL PHASE 4B | | | \$62,900 |

| | | | | |
|--|--|--|-----------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 x 120% * Design plan stage = | | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 1,086,997 x 120% (0 Parcels w/o R/W Acq) | | 1,304,400 | |
| 15. SUBTOTAL (92,783) | (Lines 13 & 14) | | | 1,304,400 |
| 16. Admin. Settlements (Factor 20% x 0% of Line 15) | | | 0 | |
| 17. Litigation Awards (Factor 45% x 100% of Line 15) | | | 587,000 | |
| 18. Business Damages (Claims 0 x 0) | | | 0 | |
| 19. Bus. Damages Incrs. (Factor 25% x \$ -) | | | 0 | |
| 20. Owner Appr. Fees (Parcels 1 x \$15,000) | | | 15,000 | |
| 21. Owner CPA Fees (Claims 0 x \$16,000) | | | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 587,000 x 33% | | 193,700 | |
| 23. Owner Expert Witness (Comm.+Unimp.) | 0 + 1 x 18,000 | | 18,000 | |
| 24. Other Condemn. Costs | 1 x \$1,000 | | 1,000 | |
| 25. SUBTOTAL | (Lines 16 thru 24) | | | 814,700 |
| 26. | | | | |
| TOTAL PHASE 43 | | | | \$2,119,100 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | |
|--|--------------|--|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 x 0 | | \$0 |
| TOTAL PHASE 42 | | | \$0 |

| | | | |
|------------------------------------|--------------------------|--|------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 x 0 | | 0 |
| 29. Tenant | \$25,000 x 0 | | 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 x 0 | | 0 |
| 31. Business/Farm | \$40,000 x 0 | | 0 |
| 32. Personal Property | \$3,000 x 0 | | 0 |
| 33. (Lines 28 thru 32) | | | |
| TOTAL PHASE 45 | | | \$0 |
| 34. Relocation Services Cost | \$0 (Not in Phase Total) | | |

| | | | |
|-----|--------------|-----------------------|--------------------|
| 35. | | | |
| 36. | | | |
| 37. | (All Phases) | TOTAL ESTIMATE | \$2,202,000 |

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam.: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|----------------------|--------------------|
| FM#: 419235-3 | Alternate: FPC 17/18 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

| | | |
|--|-------|-----|
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |
| Parcels | Gross | Net |
| Commercial | 0 | 0 |
| Residential | 0 | 0 |
| Unimproved | 0 | 0 |
| Total Parcels | 0 | 0 |

| | |
|----------------------|---|
| Estimated Relocates: | |
| Business | 0 |
| Residential | 0 |
| Signs | 0 |
| Special | 0 |
| Total Relocates | 0 |

| | | | |
|-------------------------------------|-----------|--------------|----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 0 x 20,000 = | Rate) Amount 0 |
| 2. Indirect Overhead | (Parcels) | 0 x 0 = | Rate) Amount 0 |
| 3. | | | |
| TOTAL PHASE 41 | | | \$0 |

| | | | |
|---|-----|--------------------------|------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | | 0 Parcels x 30,000 = | Amount 0 |
| 5. Business Damage CPA Fees Through Trial | | 0 Claims x 19,000 = | 0 |
| 6. Court Reporter & Process Servers | | 0 Parcels x 500 = | 0 |
| 7. Expert Witness | 50% | 0 Parcels x 30,000 = | 0 |
| 8. Mediators | 75% | 0 Parcels x 2,400 = | 0 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 Imprvmet x 15,000 = | 0 |
| 10. Miscellaneous Contracts | | 0 Per Project x 15,000 = | 0 |
| 11. Appraisal Fee Review | | 0 Parcels x 5,000 = | 0 |
| 12. | | | |
| TOTAL PHASE 4B | | | \$0 |

| | | | |
|--|---------|--------------------------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 656,781 | x 120% (0 Parcels w/o R/W Acq) | 788,100 |
| 15. SUBTOTAL (105,415) | | (Lines 13 & 14) | 788,100 |
| 16. Admin. Settlements (Factor 20%) | | x 0% of Line 15 | = 0 |
| 17. Litigation Awards (Factor 45%) | | x 100% of Line 15 | = 354,600 |
| 18. Business Damages (Claims) | 0 | x 0 | = 0 |
| 19. Bus. Damages Incr (Factor 25%) | | x \$ - | = 0 |
| 20. Owner Appr. Fees (Parcels) | 0 | x \$15,000 | = 0 |
| 21. Owner CPA Fees (Claims) | 0 | x \$16,000 | = 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 354,600 | x 33% | = 117,000 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 0 x 18,000 | = 0 |
| 24. Other Condemn. Costs | 0 | x \$1,000 | = 0 |
| 25. SUBTOTAL | | (Lines 16 thru 24) | 471,600 |
| 26. | | | |
| TOTAL PHASE 43 | | | \$1,259,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | |
|--|----------|-----|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | |
| TOTAL PHASE 42 | | | \$0 |

| | | | |
|------------------------------------|----------|----------------------|------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | |
| 35. | | | |
| 36. | | | |
| 37. | | | |
| TOTAL PHASE 45 | | | \$0 |

| | | | |
|------------------------------------|--|--|--------------------|
| (All Phases) TOTAL ESTIMATE | | | \$1,259,700 |
|------------------------------------|--|--|--------------------|

| | | |
|------------------------------------|------------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>R. Patton</u> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <u>A.J. Thompson</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>R. Patton</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>A.J. Thompson</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The damages to the remainder are significant due to the location of the FPC site.

Any mainline takings are considered in the estimate

The following indicates the estimator's confidence in the above estimate:

_____ Type A - indicates the most confidence

_____ Type B - indicates above average confidence

X _____ Type C - indicates below average confidence

_____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X _____ Docs to RW: _____

Comments: _____

DRAFT

Basin 20

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|----------------------|-----------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 20A & FPC 20 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |

Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business _____ 0 |
| Residential | 0 | 0 | Residential _____ 0 |
| Unimproved | 1 | 1 | Signs _____ 0 |
| Total Parcels | 1 | 1 | Special _____ 0 |
| | | | Total Relocates _____ 0 |

| | | | |
|-------------------------------------|-----------|--------------|--------------------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | |
| 1. Direct Labor Cost | (Parcels) | 1 x 20,000 = | Rate) Amount 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 x 0 = | Rate) Amount 0 |
| 3. | | | |
| | | | TOTAL PHASE 41 \$20,000 |

| | | | |
|---|-----|---------------|--------------------------------|
| R/W OPS (PHASE 4B) | | | |
| 4. Appraisal Fees Through Trial | 1 | Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | 0 | Imprvmet x | 15,000 = 0 |
| 10. Miscellaneous Contracts | 0 | Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | 0 | Parcels x | 5,000 = 0 |
| 12. | | | |
| | | | TOTAL PHASE 4B \$62,900 |

| | | | |
|--|---------|--------------------------------|---------------------------------|
| R/W LAND COSTS (PHASE 43) | | | |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 105,524 | x 120% (0 Parcels w/o R/W Acq) | 126,600 |
| 15. SUBTOTAL (422,097) | | (Lines 13 & 14) | 126,600 |
| 16. Admin. Settlements (Factor 20%) | | x 0% of Line 15) | = 0 |
| 17. Litigation Awards (Factor 45%) | | x 100% of Line 15) | = 57,000 |
| 18. Business Damages (Claims 0) | | x 0) | = 0 |
| 19. Bus. Damages Incr (Factor 25%) | | x \$ -) | = 0 |
| 20. Owner Appr. Fees (Parcels 1) | | x \$15,000) | = 15,000 |
| 21. Owner CPA Fees (Claims 0) | | x \$16,000) | = 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 57,000 | x 33%) | = 18,800 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 1) x 18,000 | = 18,000 |
| 24. Other Condemn. Costs | 1 | x \$1,000 | = 1,000 |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | 109,800 |
| 26. | | | |
| | | | TOTAL PHASE 43 \$236,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | |
|--|----------|-----|--------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | TOTAL PHASE 42 \$0 |

| | | | |
|------------------------------------|----------|----------------------|---------------------------|
| RELOCATION COSTS (PHASE 45) | | | |
| Replacement Housing | | | |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| | | | TOTAL PHASE 45 \$0 |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | |

| | | | |
|-----|--|--------------|---------------------------------|
| 35. | | | |
| 36. | | | |
| 37. | | (All Phases) | TOTAL ESTIMATE \$319,300 |

| | | | | | |
|-----------------|--------------------|---------|--|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|-----------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 20B & FPC 20 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business _____ 1 |
| Residential | 0 | 0 | Residential _____ 2 |
| Unimproved | 2 | 2 | Signs _____ 0 |
| Total Parcels | 2 | 2 | Special _____ 0 |
| | | | Total Relocates _____ 3 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | |
|--------------------------------|---|---|----------|-------|--------|-----------------|
| 1. Direct Labor Cost (Parcels) | 2 | x | 20,000 = | Rate) | Amount | 40,000 |
| 2. Indirect Overhead (Parcels) | 2 | x | 0 = | Rate) | | 0 |
| 3. | | | | | | |
| TOTAL PHASE 41 | | | | | | \$40,000 |

R/W OPS (PHASE 4B)

| | | | | | | |
|---|-----|---------|-------------|----------|----------|------------------|
| 4. Appraisal Fees Through Trial | 2 | Parcels | x | 30,000 = | Amount | 60,000 |
| 5. Business Damage CPA Fees Through Trial | 0 | Claims | x | 19,000 = | | 0 |
| 6. Court Reporter & Process Servers | 50% | 1 | Parcels | x | 500 = | 500 |
| 7. Expert Witness | 75% | 2 | Parcels | x | 30,000 = | 60,000 |
| 8. Mediators | 75% | 2 | Parcels | x | 2,400 = | 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 9 | Imprvmet | x | 15,000 = | 135,000 |
| 10. Miscellaneous Contracts | | 0 | Per Project | x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | 1 | Parcels | x | 5,000 = | 5,000 |
| 12. | | | | | | |
| TOTAL PHASE 4B | | | | | | \$265,300 |

R/W LAND COSTS (PHASE 43)

| | | | | | | | |
|--|---------|---|------------------------------|---------|--------|------------------|----------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | Amount | | Subtotal |
| 14. Water Retention & Mit. (1 Pond) | 285,019 | x | 120% (0 Parcels w/o R/W Acq) | 342,000 | | | |
| 15. SUBTOTAL (512,126) | | | (Lines 13 & 14) | | | | 342,000 |
| 16. Admin. Settlement (Factor | 20% | x | 60% of Line 15) | 41,000 | | | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | 61,600 | | | |
| 18. Business Damages (Claims | 0 | x | 0) | 0 | | | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | 0 | | | |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | 30,000 | | | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | 0 | | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 102,600 | x | 33%) | 33,900 | | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 2) x 18,000 | 36,000 | | | |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | 2,000 | | | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | | | 204,500 |
| 26. | | | | | | | |
| TOTAL PHASE 43 | | | | | | \$546,500 | |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | |
|---|----------|---|---|--|--|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | | |
| TOTAL PHASE 42 | | | | | | \$0 |

RELOCATION COSTS (PHASE 45)

| | | | | | | |
|------------------------------|----------|---|----------|---|----------------------|------------------|
| Replacement Housing | | | | | | |
| 28. Owner | \$30,000 | x | 1 | = | 30,000 | |
| 29. Tenant | \$25,000 | x | 1 | = | 25,000 | |
| Move Costs | | | | | | |
| 30. Residential | \$5,000 | x | 2 | = | 10,000 | |
| 31. Business/Farm | \$40,000 | x | 1 | = | 40,000 | |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 | |
| 33. (Lines 28 thru 32) | | | | | | |
| 34. Relocation Services Cost | | | \$10,500 | | (Not in Phase Total) | |
| TOTAL PHASE 45 | | | | | | \$105,000 |

| | | | | | | |
|------------------------------------|--|--|--|--|--|------------------|
| 35. | | | | | | |
| 36. | | | | | | |
| 37. | | | | | | |
| (All Phases) TOTAL ESTIMATE | | | | | | \$956,800 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Bus. Dam. : Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____

Comments: _____

DRAFT

Basin 21

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 21A & FPC 21A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business _____ 0 |
| Residential | 0 | 0 | Residential _____ 0 |
| Unimproved | 1 | 1 | Signs _____ 0 |
| Total Parcels | 1 | 1 | Special _____ 0 |
| | | | Total Relocates _____ 0 |

R/W SUPPORT COSTS (PHASE 41)

| | | | | | | | | |
|-----------------------|-----------|---|---|--------|---|-------|--------|-----------------|
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 | = | Rate) | Amount | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 | = | Rate) | 0 | |
| 3. | | | | | | | | |
| TOTAL PHASE 41 | | | | | | | | \$20,000 |

R/W OPS (PHASE 4B)

| | | | | | | | | |
|---|-----|---|-------------|---------|--------|--------|----------|-----------------|
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x | 30,000 | = | 30,000 | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 | = | 0 | |
| 6. Court Reporter & Process Servers | 50% | x | 1 | Parcels | x | 500 | = 500 | |
| 7. Expert Witness | 75% | x | 1 | Parcels | x | 30,000 | = 30,000 | |
| 8. Mediators | 75% | x | 1 | Parcels | x | 2,400 | = 2,400 | |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 | Imprvmet | x | 15,000 | = | 0 | |
| 10. Miscellaneous Contracts | | 0 | Per Project | x | 15,000 | = | 0 | |
| 11. Appraisal Fee Review | | 0 | Parcels | x | 5,000 | = | 0 | |
| 12. | | | | | | | | |
| TOTAL PHASE 4B | | | | | | | | \$62,900 |

R/W LAND COSTS (PHASE 43)

| | | | | | | | | |
|--|---------|---|----------|-------------------------|---|---------|--------|------------------|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% | * Design plan stage | = | 0 | Amount | Subtotal |
| 14. Water Retention & Mit. (1 Pond) | 114,236 | x | 120% | (0 Parcels w/o R/W Acq) | = | 137,100 | | |
| 15. SUBTOTAL (459,558) | | | | (Lines 13 & 14) | | | | 137,100 |
| 16. Admin. Settlement (Factor 20%) | | x | 0% | of Line 15) | = | 0 | | |
| 17. Litigation Awards (Factor 45%) | | x | 100% | of Line 15) | = | 61,700 | | |
| 18. Business Damages (Claims) | 0 | x | 0 |) | = | 0 | | |
| 19. Bus. Damages Incr (Factor 25%) | | x | \$ - |) | = | 0 | | |
| 20. Owner Appr. Fees (Parcels 1) | | x | \$15,000 |) | = | 15,000 | | |
| 21. Owner CPA Fees (Claims 0) | | x | \$16,000 |) | = | 0 | | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 61,700 | x | 33% |) | = | 20,400 | | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1 |) x 18,000 | = | 18,000 | | |
| 24. Other Condemn. Costs | 1 | x | \$1,000 |) | = | 1,000 | | |
| 25. SUBTOTAL | | | | (Lines 16 thru 24) | = | | | 116,100 |
| 26. | | | | | | | | |
| TOTAL PHASE 43 | | | | | | | | \$253,200 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

R/W ACQUISITION CONSULTANT (PHASE 42)

| | | | | | | | | |
|---|----------|---|---|--|--|--|--|------------|
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | | | | |
| TOTAL PHASE 42 | | | | | | | | \$0 |

RELOCATION COSTS (PHASE 45)

| | | | |
|------------------------------|----------|--------|----------------------|
| Replacement Housing | | Number | Amount |
| 28. Owner | \$30,000 | x 0 | = 0 |
| 29. Tenant | \$25,000 | x 0 | = 0 |
| Move Costs | | | |
| 30. Residential | \$5,000 | x 0 | = 0 |
| 31. Business/Farm | \$40,000 | x 0 | = 0 |
| 32. Personal Property | \$3,000 | x 0 | = 0 |
| 33. (Lines 28 thru 32) | | | |
| TOTAL PHASE 45 | | | \$0 |
| 34. Relocation Services Cost | \$0 | | (Not in Phase Total) |

| | | | |
|-----|--------------|-----------------------|------------------|
| 35. | | | |
| 36. | | | |
| 37. | (All Phases) | TOTAL ESTIMATE | \$336,100 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|------------------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 21B & FPC 21B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = |
| 3. | | | | |
| | | | | TOTAL PHASE 41 |
| | | | | \$20,000 |

| | | | | |
|---|-----|---|---------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels x | 30,000 = |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = |
| 6. Court Reporter & Process Servers | 50% | 1 | Parcels x | 500 = |
| 7. Expert Witness | 75% | 1 | Parcels x | 30,000 = |
| 8. Mediators | 75% | 1 | Parcels x | 2,400 = |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 | Imprvmet x | 15,000 = |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = |
| 11. Appraisal Fee Review | | 0 | Parcels x | 5,000 = |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$62,900 |

| | | | | | |
|--|--------|---|------------------------------|-----------------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 91,041 | x | 120% (0 Parcels w/o R/W Acq) | 109,200 | |
| 15. SUBTOTAL (364,162) | | | (Lines 13 & 14) | | 109,200 |
| 16. Admin. Settlement (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 49,100 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = | 15,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 49,100 | x | 33%) | = | 16,200 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | = | 18,000 |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = | 1,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 99,300 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$208,500 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = |
| | | | | TOTAL PHASE 42 |
| | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|-----|-----------------------|------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| | | | | TOTAL PHASE 45 | \$0 |
| 34. Relocation Services Cost | | | \$0 | (Not in Phase Total) | |

| | | | | | | |
|--|--|--|--|--------------|-----------------------|------------------|
| | | | | (All Phases) | TOTAL ESTIMATE | \$291,400 |
|--|--|--|--|--------------|-----------------------|------------------|

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

DRAFT

Basin 22

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 22A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x 20,000 = | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x 0 = | 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$20,000 |

| | | | | |
|---|-----|-------|------------------------|-----------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels x 30,000 = | 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x 19,000 = | 0 |
| 6. Court Reporter & Process Servers | 50% | x 1 = | 1 Parcels x 500 = | 500 |
| 7. Expert Witness | 75% | x 1 = | 1 Parcels x 30,000 = | 30,000 |
| 8. Mediators | 75% | x 1 = | 1 Parcels x 2,400 = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 | Imprvmet x 15,000 = | 0 |
| 10. Miscellaneous Contracts | | 0 | Per Project x 15,000 = | 0 |
| 11. Appraisal Fee Review | | 0 | Parcels x 5,000 = | 0 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$62,900 |

| | | | | | |
|--|--------|--------------------------------|--------|---------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | 0 | | |
| 14. Water Retention & Mit. (1 Pond) | 42,907 | x 120% (0 Parcels w/o R/W Acq) | 51,500 | | |
| 15. SUBTOTAL (171,626) | | (Lines 13 & 14) | | | 51,500 |
| 16. Admin. Settlements (Factor 20%) | | x 0% of Line 15) | = | 0 | |
| 17. Litigation Awards (Factor 45%) | | x 100% of Line 15) | = | 23,200 | |
| 18. Business Damages (Claims 0) | | x 0) | = | 0 | |
| 19. Bus. Damages Incr (Factor 25%) | | x \$ -) | = | 0 | |
| 20. Owner Appr. Fees (Parcels 1) | | x \$15,000) | = | 15,000 | |
| 21. Owner CPA Fees (Claims 0) | | x \$16,000) | = | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 23,200 | x 33%) | = | 7,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 1) x 18,000 | = | 18,000 | |
| 24. Other Condemn. Costs | 1 | x \$1,000 | = | 1,000 | |
| 25. SUBTOTAL | | (Lines 16 thru 24) | = | | 64,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$116,400 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|-----|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | = | 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|----------------------|---|---------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x 0 | = | 0 |
| 29. Tenant | \$25,000 | x 0 | = | 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x 0 | = | 0 |
| 32. Personal Property | \$3,000 | x 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | \$0 | (Not in Phase Total) | | |
| TOTAL PHASE 45 | | | | \$0 |

| | | | | |
|------------------------------------|--|--|--|------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | | |
| (All Phases) TOTAL ESTIMATE | | | | \$199,300 |

| | | | | | |
|-----------------|--------------------|---------|---------------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>Roger D. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>Alfred J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>Roger D. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>Alfred J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

DRAFT

Basin 23

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 23A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 1 | 1 | Residential |
| Unimproved | 0 | 0 | Signs |
| | | | Special |
| Total Parcels | 1 | 1 | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|------------------|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x 20,000 = Rate) | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x 0 = Rate) | 0 |
| 3. | | | | |
| | | | | TOTAL PHASE 41 |
| | | | | \$20,000 |

| | | | | |
|---|-----|-------|-----------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels x | 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x 1 = | 1 Parcels x | 500 = 500 |
| 7. Expert Witness | 75% | x 1 = | 1 Parcels x | 30,000 = 30,000 |
| 8. Mediators | 75% | x 1 = | 1 Parcels x | 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 2 Imprvmet x | 15,000 = 30,000 |
| 10. Miscellaneous Contracts | | | 0 Per Project x | 15,000 = 0 |
| 11. Appraisal Fee Review | | | 0 Parcels x | 5,000 = 0 |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$92,900 |

| | | | | | |
|--|---------|--------------------------------|-----------------|-----------------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 250,907 | x 120% (0 Parcels w/o R/W Acq) | | 301,100 | |
| 15. SUBTOTAL (135,907) | | | (Lines 13 & 14) | | 301,100 |
| 16. Admin. Settlement: (Factor | 20% | x 0% of Line 15) | | 0 | |
| 17. Litigation Awards (Factor | 45% | x 100% of Line 15) | | 135,500 | |
| 18. Business Damages (Claims | 0 | x 0) | | 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x \$ -) | | 0 | |
| 20. Owner Appr. Fees (Parcels | 1 | x \$15,000) | | 15,000 | |
| 21. Owner CPA Fees (Claims | 0 | x \$16,000) | | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 135,500 | x 33%) | | 44,700 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + 0) x 18,000 | | 0 | |
| 24. Other Condemn. Costs | 1 | x \$1,000 | | 1,000 | |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | | | 196,200 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$497,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | |
|--|----------|-----|--|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | | 0 |
| | | | | TOTAL PHASE 42 |
| | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---------|----------------------|-----------------------|-----------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x 0 | = | 0 | |
| 29. Tenant | \$25,000 | x 1 | = | 25,000 | |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x 1 | = | 5,000 | |
| 31. Business/Farm | \$40,000 | x 1 | = | 40,000 | |
| 32. Personal Property | \$3,000 | x 0 | = | 0 | |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | \$7,000 | (Not in Phase Total) | | |
| | | | | TOTAL PHASE 45 | \$70,000 |

| | | | | |
|-----|--|--|--------------|-----------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE |
| | | | | \$680,200 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 23B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business _____ 1 |
| Residential | 3 | 3 | Residential _____ 3 |
| Unimproved | 1 | 1 | Signs _____ 0 |
| | | | Special _____ 0 |
| Total Parcels | 4 | 4 | Total Relocates _____ 4 |

| | | | | | |
|-------------------------------------|-----------|---|---|----------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels) | 4 | x | 20,000 = | Rate) 80,000 |
| 2. Indirect Overhead | (Parcels) | 4 | x | 0 = | Rate) 0 |
| 3. | | | | | |
| TOTAL PHASE 41 | | | | | \$80,000 |

| | | | | | |
|---|-----|---|-----------|----------|----------------------------|
| R/W OPS (PHASE 4B) | | | | Amount | |
| 4. Appraisal Fees Through Trial | | 4 | Parcels x | 30,000 = | 120,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | 50% | x | 4 = | 2 | Parcels x 500 = 1,000 |
| 7. Expert Witness | 75% | x | 4 = | 3 | Parcels x 30,000 = 90,000 |
| 8. Mediators | 75% | x | 4 = | 3 | Parcels x 2,400 = 7,200 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 5 | Imprvmet x 15,000 = 75,000 |
| 10. Miscellaneous Contracts | | | | 0 | Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | | 1 | Parcels x 5,000 = 5,000 |
| 12. | | | | | |
| TOTAL PHASE 4B | | | | | \$298,200 |

| | | | | | |
|--|---------|---|------------------------------|---------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 424,278 | x | 120% (0 Parcels w/o R/W Acq) | 509,100 | |
| 15. SUBTOTAL (107,852) | | | (Lines 13 & 14) | | 509,100 |
| 16. Admin. Settlement (Factor | 20% | x | 60% of Line 15) | = | 61,100 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 91,600 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 4 | x | \$15,000) | = | 60,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 152,700 | x | 33%) | = | 50,400 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | = | 18,000 |
| 24. Other Condemn. Costs | 4 | x | \$1,000 | = | 4,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 285,100 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$794,200 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|----------|---|---|----------------|-----|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | TOTAL PHASE 42 | \$0 |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | |

| | | | | | |
|------------------------------------|----------|---|---|----------------|----------------------|
| RELOCATION COSTS (PHASE 45) | | | | TOTAL PHASE 45 | \$140,000 |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 2 | = | 60,000 |
| 29. Tenant | \$25,000 | x | 1 | = | 25,000 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 3 | = | 15,000 |
| 31. Business/Farm | \$40,000 | x | 1 | = | 40,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | \$14,000 | | | | (Not in Phase Total) |

| | | | | | |
|------------------------------------|--|--|--|--|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| (All Phases) TOTAL ESTIMATE | | | | | \$1,312,400 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|----------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 22/23 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|-------------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business _____ 1 |
| Residential | 1 | 1 | Residential _____ 1 |
| Unimproved | 0 | 0 | Signs _____ 0 |
| Total Parcels | 1 | 1 | Special _____ 0 |
| | | | Total Relocates _____ 2 |

| | | | | | |
|-------------------------------------|-----------|---|---|----------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = Rate) | 20,000 |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = Rate) | 0 |
| 3. | | | | | 0 |
| TOTAL PHASE 41 | | | | | \$20,000 |

| | | | | | | | |
|---|-----|---|---------|-------------|-----------------|----------|--------|
| R/W OPS (PHASE 4B) | | | | Amount | | | |
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x | 30,000 = | 30,000 | |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = | 0 | |
| 6. Court Reporter & Process Servers | 50% | x | 1 | Parcels | x | 500 = | 500 |
| 7. Expert Witness | 75% | x | 1 | Parcels | x | 30,000 = | 30,000 |
| 8. Mediators | 75% | x | 1 | Parcels | x | 2,400 = | 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 2 | Imprvmet | x | 15,000 = | 30,000 |
| 10. Miscellaneous Contracts | | | 0 | Per Project | x | 15,000 = | 0 |
| 11. Appraisal Fee Review | | | 0 | Parcels | x | 5,000 = | 0 |
| 12. | | | | | | | |
| TOTAL PHASE 4B | | | | | \$92,900 | | |

| | | | | | |
|--|---------|---|------------------------------|---------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 303,615 | x | 120% (0 Parcels w/o R/W Acq) | 364,300 | |
| 15. SUBTOTAL (188,615) | | | (Lines 13 & 14) | | 364,300 |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 163,900 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = | 15,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 163,900 | x | 33%) | = | 54,100 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = | 0 |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = | 1,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 234,000 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$598,300 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|----------|---|---|--------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | 0 |
| TOTAL PHASE 42 | | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|---------|----------------------|-----------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount | |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 1 | = | 25,000 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 1 | = | 5,000 |
| 31. Business/Farm | \$40,000 | x | 1 | = | 40,000 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| TOTAL PHASE 45 | | | | | \$70,000 |
| 34. Relocation Services Cost | | | \$7,000 | (Not in Phase Total) | |

| | | | | | |
|------------------------------------|--|--|--|--|------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| (All Phases) TOTAL ESTIMATE | | | | | \$781,200 |

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <u>[Signature]</u> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <u>[Signature]</u> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:

| | |
|----------|---|
| _____ | Type A - indicates the most confidence |
| _____ | Type B - indicates above average confidence |
| <u>X</u> | Type C - indicates below average confidence |
| _____ | Type D - indicates the least or no confidence |

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____

Comments: _____

DRAFT

Basin 24

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 24A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 1 | 1 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 1 | x | 20,000 = Rate) |
| 2. Indirect Overhead | (Parcels) | 1 | x | 0 = Rate) |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$20,000 |

| | | | | |
|---|-----|---|-------------|---------------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 1 | Parcels | x 30,000 = 30,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x | 1 | Parcels x 500 = 500 |
| 7. Expert Witness | 75% | x | 1 | Parcels x 30,000 = 30,000 |
| 8. Mediators | 75% | x | 1 | Parcels x 2,400 = 2,400 |
| 9. Demolition, Asb. Abate., Survey, etc. | | 0 | Imprvmet | x 15,000 = 0 |
| 10. Miscellaneous Contracts | | 0 | Per Project | x 15,000 = 0 |
| 11. Appraisal Fee Review | | 0 | Parcels | x 5,000 = 0 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$62,900 |

| | | | | | |
|--|---------|---|------------------------------|--------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage | = | 0 |
| 14. Water Retention & Mit. (1 Pond) | 643,192 | x | 120% (0 Parcels w/o R/W Acq) | = | 771,800 |
| 15. SUBTOTAL (79,714) | | | (Lines 13 & 14) | | 771,800 |
| 16. Admin. Settlements (Factor | 20% | x | 0% of Line 15) | = | 0 |
| 17. Litigation Awards (Factor | 45% | x | 100% of Line 15) | = | 347,300 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 1 | x | \$15,000) | = | 15,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 347,300 | x | 33%) | = | 114,600 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | = | 18,000 |
| 24. Other Condemn. Costs | 1 | x | \$1,000 | = | 1,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 495,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$1,267,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|------------|---|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 |
| TOTAL PHASE 42 | | | | \$0 | |

| | | | | | |
|------------------------------------|----------|---|-----|----------------------|------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| TOTAL PHASE 45 | | | | | \$0 |
| 34. Relocation Services Cost | | | \$0 | (Not in Phase Total) | |

| | | | | | |
|-----|--|--|--------------|-----------------------|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$1,350,600 |

| | | | | | |
|-----------------|--------------------|---------|-----------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>R. D. Patton</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>A. J. Thompson</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: Administrative Settlement and Litigation Awards have been adjusted to reflect one ownership. Administrative settlement is considered to be zero, while litigation is factored at 45%.

The following indicates the estimator's confidence in the above estimate:

- _____ Type A - indicates the most confidence
- _____ Type B - indicates above average confidence
- Type C - indicates below average confidence
- _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 24B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 2 | 2 | Signs |
| Total Parcels | 2 | 2 | Special |
| | | | Total Relocates |

| | | | | | | |
|-------------------------------------|-----------|---|---|----------|-------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount | | |
| 1. Direct Labor Cost | (Parcels) | 2 | x | 20,000 = | Rate) | 40,000 |
| 2. Indirect Overhead | (Parcels) | 2 | x | 0 = | Rate) | 0 |
| 3. | | | | | | |
| TOTAL PHASE 41 | | | | | | \$40,000 |

| | | | | | | |
|---|-----|---|---------|--------|----------|------------------|
| R/W OPS (PHASE 4B) | | | | Amount | | |
| 4. Appraisal Fees Through Trial | | 2 | Parcels | x | 30,000 = | 60,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims | x | 19,000 = | 0 |
| 6. Court Reporter & Process Servers | 50% | x | 2 | = | 1 | Parcels |
| 7. Expert Witness | 75% | x | 2 | = | 2 | Parcels |
| 8. Mediators | 75% | x | 2 | = | 2 | Parcels |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 0 | | 0 | Imprvmet |
| 10. Miscellaneous Contracts | | | 0 | | 0 | Per Project |
| 11. Appraisal Fee Review | | | 1 | | 1 | Parcels |
| 12. | | | | | | |
| TOTAL PHASE 4B | | | | | | \$130,300 |

| | | | | | |
|--|---------|---|------------------------------|---------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 643,192 | x | 120% (0 Parcels w/o R/W Acq) | 771,800 | |
| 15. SUBTOTAL (87,369) | | | (Lines 13 & 14) | | 771,800 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = | 92,600 |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = | 138,900 |
| 18. Business Damages (Claims | 0 | x | 0) | = | 0 |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = | 0 |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | = | 30,000 |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = | 0 |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 231,500 | x | 33%) | = | 76,400 |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 2) x 18,000 | = | 36,000 |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | = | 2,000 |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 375,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$1,147,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | | |
|--|----------|---|---|--------|------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount | |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = | 0 |
| TOTAL PHASE 42 | | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|-----|----------------------|------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 0 | = | 0 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| TOTAL PHASE 45 | | | | | \$0 |
| 34. Relocation Services Cost | | | \$0 | (Not in Phase Total) | |

| | | | | | |
|-----|--|--|--------------|-----------------------|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE | \$1,318,000 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 Type A - indicates the most confidence
 Type B - indicates above average confidence
 X Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: Docs to RW: _____
 Comments: _____

DRAFT

Basin 25

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 25A | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 2 | 2 | Residential |
| Unimproved | 0 | 0 | Signs |
| | | | Special |
| Total Parcels | 2 | 2 | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|---|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 2 | x | 20,000 = |
| 2. Indirect Overhead | (Parcels) | 2 | x | 0 = |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$40,000 |

| | | | | |
|---|-----|---|-----------|------------------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 2 | Parcels x | 30,000 = 60,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x | 2 = | 1 Parcels x 500 = 500 |
| 7. Expert Witness | 75% | x | 2 = | 2 Parcels x 30,000 = 60,000 |
| 8. Mediators | 75% | x | 2 = | 2 Parcels x 2,400 = 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 2 Imprvmet x 15,000 = 30,000 |
| 10. Miscellaneous Contracts | | | | 0 Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | | 1 Parcels x 5,000 = 5,000 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$160,300 |

| | | | | | |
|--|---------|---|------------------------------|---------------|------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 406,816 | x | 120% (0 Parcels w/o R/W Acq) | 488,200 | |
| 15. SUBTOTAL (104,544) | | | (Lines 13 & 14) | | 488,200 |
| 16. Admin. Settlements (Factor | 20% | x | 60% of Line 15) | = 58,600 | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | = 87,900 | |
| 18. Business Damages (Claims | 0 | x | 0) | = 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | = 0 | |
| 20. Owner Appr. Fees (Parcels | 2 | x | \$15,000) | = 30,000 | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | = 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 146,500 | x | 33%) | = 48,300 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 0) x 18,000 | = 0 | |
| 24. Other Condemn. Costs | 2 | x | \$1,000 | = 2,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 226,800 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$715,000 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100%

| | | | | |
|--|----------|---|---|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | = 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|---|---------|----------------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x | 2 | = 60,000 |
| 29. Tenant | \$25,000 | x | 0 | = 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x | 2 | = 10,000 |
| 31. Business/Farm | \$40,000 | x | 0 | = 0 |
| 32. Personal Property | \$3,000 | x | 0 | = 0 |
| 33. (Lines 28 thru 32) | | | | |
| 34. Relocation Services Cost | | | \$7,000 | (Not in Phase Total) |
| TOTAL PHASE 45 | | | | \$70,000 |

| | | | | |
|------------------------------------|--|--|--|------------------|
| (All Phases) TOTAL ESTIMATE | | | | \$985,300 |
|------------------------------------|--|--|--|------------------|

| | | |
|------------------------------------|----------------------------|----------------|
| Real Estate: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Bus. Dam.: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Relocation: Roger D. Patton | Signed: <i>[Signature]</i> | Date: 09/10/19 |
| Overall Review: Alfred J. Thompson | Signed: <i>[Signature]</i> | Date: 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: X Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|--------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 25B | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business |
| Residential | 3 | 3 | Residential |
| Unimproved | 0 | 0 | Signs |
| | | | Special |
| Total Parcels | 4 | 4 | Total Relocates |

| | | | | |
|-------------------------------------|-----------|-----|----------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 4 x | 20,000 = | Rate) 80,000 |
| 2. Indirect Overhead | (Parcels) | 4 x | 0 = | Rate) 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$80,000 |

| | | | | |
|---|-----|---|-----------|------------------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 4 | Parcels x | 30,000 = 120,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x | 4 = | 2 Parcels x 500 = 1,000 |
| 7. Expert Witness | 75% | x | 4 = | 3 Parcels x 30,000 = 90,000 |
| 8. Mediators | 75% | x | 4 = | 3 Parcels x 2,400 = 7,200 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | 4 Imprvmet x 15,000 = 60,000 |
| 10. Miscellaneous Contracts | | | | 0 Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | | 1 Parcels x 5,000 = 5,000 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$283,200 |

| | | | | | |
|--|---------|---|------------------------------|-----------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 609,808 | x | 120% (0 Parcels w/o R/W Acq) | 731,800 | |
| 15. SUBTOTAL (122,404) | | | (Lines 13 & 14) | | 731,800 |
| 16. Admin. Settlements (Factor 20%) | | x | 60% of Line 15) | = 87,800 | |
| 17. Litigation Awards (Factor 45%) | | x | 40% of Line 15) | = 131,700 | |
| 18. Business Damages (Claims 0) | | x | 0) | = 0 | |
| 19. Bus. Damages Incr (Factor 25%) | | x | \$ -) | = 0 | |
| 20. Owner Appr. Fees (Parcels 4) | | x | \$15,000) | = 60,000 | |
| 21. Owner CPA Fees (Claims 0) | | x | \$16,000) | = 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 219,500 | x | 33%) | = 72,400 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + | 0) x 18,000 | = 18,000 | |
| 24. Other Condemn. Costs | 4 | x | \$1,000 | = 4,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | = | 373,900 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$1,105,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | | |
|--|----------|---|---|----------------|-----|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | TOTAL PHASE 42 | \$0 |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | | |

| | | | | | |
|------------------------------------|----------|---|----------|----------------------|-----------|
| RELOCATION COSTS (PHASE 45) | | | | TOTAL PHASE 45 | \$105,000 |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 3 | = | 90,000 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 3 | = | 15,000 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| 34. Relocation Services Cost | | | \$10,500 | (Not in Phase Total) | |

| | | | | | |
|------------------------------------|--|--|--|--|--------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| (All Phases) TOTAL ESTIMATE | | | | | \$1,573,900 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|----------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 25C-1 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 1 | 1 | Business |
| Residential | 0 | 0 | Residential |
| Unimproved | 2 | 2 | Signs |
| Total Parcels | 3 | 3 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|-----------|---|------------|-----------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels) | 3 | x 20,000 = | Rate) 60,000 |
| 2. Indirect Overhead | (Parcels) | 3 | x 0 = | Rate) 0 |
| 3. | | | | |
| TOTAL PHASE 41 | | | | \$60,000 |

| | | | | |
|---|-----|-------|-----------|----------------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 3 | Parcels x | 30,000 = 90,000 |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = 0 |
| 6. Court Reporter & Process Servers | 50% | x 3 = | 2 | Parcels x 500 = 1,000 |
| 7. Expert Witness | 75% | x 3 = | 2 | Parcels x 30,000 = 60,000 |
| 8. Mediators | 75% | x 3 = | 2 | Parcels x 2,400 = 4,800 |
| 9. Demolition, Asb. Abate., Survey, etc. | | | 4 | Imprvmet x 15,000 = 60,000 |
| 10. Miscellaneous Contracts | | | 0 | Per Project x 15,000 = 0 |
| 11. Appraisal Fee Review | | | 1 | Parcels x 5,000 = 5,000 |
| 12. | | | | |
| TOTAL PHASE 4B | | | | \$220,800 |

| | | | | | |
|--|---------|--------------------------------|--|---------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x 120% * Design plan stage = | | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 664,562 | x 120% (0 Parcels w/o R/W Acq) | | 797,500 | |
| 15. SUBTOTAL (94,961) | | | | | 797,500 |
| 16. Admin. Settlements (Factor | 20% | x 60% of Line 15) | | 95,700 | |
| 17. Litigation Awards (Factor | 45% | x 40% of Line 15) | | 143,600 | |
| 18. Business Damages (Claims | 0 | x 0) | | 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x \$ -) | | 0 | |
| 20. Owner Appr. Fees (Parcels | 3 | x \$15,000) | | 45,000 | |
| 21. Owner CPA Fees (Claims | 0 | x \$16,000) | | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 239,300 | x 33%) | | 79,000 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 1 | + 2) x 18,000 | | 54,000 | |
| 24. Other Condemn. Costs | 3 | x \$1,000 | | 3,000 | |
| 25. SUBTOTAL | | (Lines 16 thru 24) = | | | 420,300 |
| 26. | | | | | |
| TOTAL PHASE 43 | | | | | \$1,217,800 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|-----|--|---------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x 0 | | 0 |
| TOTAL PHASE 42 | | | | \$0 |

| | | | | |
|------------------------------------|----------|---------|----------------------|-----------------|
| RELOCATION COSTS (PHASE 45) | | | | Amount |
| Replacement Housing | | | | |
| 28. Owner | \$30,000 | x 0 | = | 0 |
| 29. Tenant | \$25,000 | x 0 | = | 0 |
| Move Costs | | | | |
| 30. Residential | \$5,000 | x 0 | = | 0 |
| 31. Business/Farm | \$40,000 | x 1 | = | 40,000 |
| 32. Personal Property | \$3,000 | x 1 | = | 3,000 |
| 33. (Lines 28 thru 32) | | | | |
| TOTAL PHASE 45 | | | | \$43,000 |
| 34. Relocation Services Cost | | \$4,300 | (Not in Phase Total) | |

| | | | | |
|-----|--|--|--------------|-----------------------------------|
| 35. | | | | |
| 36. | | | | |
| 37. | | | (All Phases) | TOTAL ESTIMATE \$1,541,600 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:

| | |
|----------|---|
| _____ | Type A - indicates the most confidence |
| _____ | Type B - indicates above average confidence |
| X | Type C - indicates below average confidence |
| _____ | Type D - indicates the least or no confidence |

The following indicates the Department's purpose for this estimate:

Work Program Update: _____ Gaming 1: _____ Special Purpose: **X** Docs to RW: _____

Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10169256-7.12

| | | |
|--|----------------------|--------------------|
| FM#: 419235-3 | Alternate: SMF 25C-2 | District: Seven |
| County: Hillsborough | Segment: N/A | Date: 28-Aug-19 |
| State Rd.: SR 93A | FAP#: N/A | C.E. Sequence: N/A |
| Project Des. I-75 (SR 93A) S. of US 301 to N of Bruce B. Downs | | |

| | | | |
|---------------|-------|-----|----------------------|
| Parcels | Gross | Net | Estimated Relocates: |
| Commercial | 0 | 0 | Business |
| Residential | 3 | 3 | Residential |
| Unimproved | 1 | 1 | Signs |
| Total Parcels | 4 | 4 | Special |
| | | | Total Relocates |

| | | | | |
|-------------------------------------|----------|---|---|-----------------------|
| R/W SUPPORT COSTS (PHASE 41) | | | | Amount |
| 1. Direct Labor Cost | (Parcels | 4 | x | 20,000 = |
| 2. Indirect Overhead | (Parcels | 4 | x | 0 = |
| 3. | | | | |
| | | | | TOTAL PHASE 41 |
| | | | | \$80,000 |

| | | | | |
|---|-----|---|---------------|-----------------------|
| R/W OPS (PHASE 4B) | | | | Amount |
| 4. Appraisal Fees Through Trial | | 4 | Parcels x | 30,000 = |
| 5. Business Damage CPA Fees Through Trial | | 0 | Claims x | 19,000 = |
| 6. Court Reporter & Process Servers | 50% | 4 | Parcels x | 500 = |
| 7. Expert Witness | 75% | 4 | Parcels x | 30,000 = |
| 8. Mediators | 75% | 4 | Parcels x | 2,400 = |
| 9. Demolition, Asb. Abate., Survey, etc. | | 3 | Imprvmet x | 15,000 = |
| 10. Miscellaneous Contracts | | 0 | Per Project x | 15,000 = |
| 11. Appraisal Fee Review | | 1 | Parcels x | 5,000 = |
| 12. | | | | |
| | | | | TOTAL PHASE 4B |
| | | | | \$268,200 |

| | | | | | |
|--|---------|---|------------------------------|-----------------------|--------------------|
| R/W LAND COSTS (PHASE 43) | | | | Amount | Subtotal |
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 0 | x | 120% * Design plan stage = | 0 | |
| 14. Water Retention & Mit. (1 Pond) | 701,610 | x | 120% (0 Parcels w/o R/W Acq) | 841,900 | |
| 15. SUBTOTAL (106,722) | | | (Lines 13 & 14) | | 841,900 |
| 16. Admin. Settlement (Factor | 20% | x | 60% of Line 15) | 101,000 | |
| 17. Litigation Awards (Factor | 45% | x | 40% of Line 15) | 151,500 | |
| 18. Business Damages (Claims | 0 | x | 0) | 0 | |
| 19. Bus. Damages Incr (Factor | 25% | x | \$ -) | 0 | |
| 20. Owner Appr. Fees (Parcels | 4 | x | \$15,000) | 60,000 | |
| 21. Owner CPA Fees (Claims | 0 | x | \$16,000) | 0 | |
| 22. Defend. Atty Fees (Sum of Lines 16, 17 & 19) | 252,500 | x | 33%) | 83,300 | |
| 23. Owner Expert Witn (Comm.+Unimp.) | 0 | + | 1) x 18,000 | 18,000 | |
| 24. Other Condemn. Costs | 4 | x | \$1,000 | 4,000 | |
| 25. SUBTOTAL | | | (Lines 16 thru 24) | | 417,800 |
| 26. | | | | | |
| | | | | TOTAL PHASE 43 | \$1,259,700 |

* Design contingency for design plan stage:
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%

| | | | | |
|--|----------|---|---|-----------------------|
| R/W ACQUISITION CONSULTANT (PHASE 42) | | | | Amount |
| 27. Acquisition Consultant-50% of parcels | \$20,000 | x | 0 | 0 |
| | | | | TOTAL PHASE 42 |
| | | | | \$0 |

| | | | | | |
|------------------------------------|----------|---|----------|-----------------------|------------------|
| RELOCATION COSTS (PHASE 45) | | | | Number | Amount |
| Replacement Housing | | | | | |
| 28. Owner | \$30,000 | x | 3 | = | 90,000 |
| 29. Tenant | \$25,000 | x | 0 | = | 0 |
| Move Costs | | | | | |
| 30. Residential | \$5,000 | x | 3 | = | 15,000 |
| 31. Business/Farm | \$40,000 | x | 0 | = | 0 |
| 32. Personal Property | \$3,000 | x | 0 | = | 0 |
| 33. (Lines 28 thru 32) | | | | | |
| | | | | TOTAL PHASE 45 | \$105,000 |
| 34. Relocation Services Cost | | | \$10,500 | (Not in Phase Total) | |

| | | | | | |
|-----|--|--|--|--------------|-----------------------|
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| | | | | (All Phases) | TOTAL ESTIMATE |
| | | | | | \$1,712,900 |

| | | | | | |
|-----------------|--------------------|---------|--------------------|-------|----------|
| Real Estate: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Bus. Dam. : | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Relocation: | Roger D. Patton | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |
| Overall Review: | Alfred J. Thompson | Signed: | <i>[Signature]</i> | Date: | 09/10/19 |

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 X Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ X _____ Docs to RW: _____

Comments: _____

DRAFT

**Appendix H
Assessments**

DRAFT

Contamination

Contamination Screening Long List Pond Sites

| Pond Alternative | Location (Station), Side | No. of Parcels | Total ROW area (acres) | Land Use | RISK | Notes |
|------------------|---|----------------|------------------------|---|------|--|
| SMF 1A | 1290+00, RT | 1 | 2.76 | Theater (parking lot) | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 1B | 1282+00, RT | 5 | 3.47 | Condos | LOW | Nothing found in the area of SMF 1B. |
| SMF 1C | 1284+00, LT | 9 | 2.36 | Single Family Residential | LOW | Nothing found in the area of SMF 1C. |
| SMF 2/3 | 1323+00, LT | 0 | 0 | FDOT ROW | MED | Petro Chemical Transport (Citgo) Spill US 301 SB Ramp & I-75 S |
| SMF 4/5 | 1335+00, LT | 0 | 0 | FDOT ROW | LOW | Nothing found in the area of SMF 4/5. |
| SMF 6A | 1370+00, LT | 1 | 3.25 | Office Multi Story | LOW | Progressive Insurance Cell Ctr Above Ground Storage Tank (AST) located approx 500 feet sw of site. |
| SMF 6B | 1389+00, LT | 3 | 3.69 | Warehouse Office Multi Story | LOW | Nothing found in the area of SMF 6B. |
| FCP 6 | 1360+00, RT | 0 | 0 | FDOT ROW | LOW | Nothing found in the area of FCP 6. |
| SMF 7A | 1415+70, LT | 1 | 3.16 | Vacant Commercial | LOW | Nothing found in the area of SMF 7A. |
| SMF 7B | 1422+00, RT | 2 | 2.17 | Child Care Center FDOT ROW | LOW | Site has an FDEP marker for Mangaged Entities. Walmart Supercenter #2387 above ground storage tank (AST) located across Brandon Town Center Drive, approximately 500 feet from site. Walmart is considered a County Small Quantity Generator and contains an FDEP marker for two Registered Tanks from Storage Tank Contamination Monitoring. A marker for Storage Tank Contamination Monitoring is also found. As of 2019 in compliance. |
| SMF 7C | 1415+00, RT | 1 | 8.82 | Auto Dealership | MED | Site has an FDEP marker for Mangaged Entities. Site has FDEP markers for several Registered Tanks from Storage Tank Contamination Monitoring (all compliant). The site is also marked for Compliance and Enforcement Tracking for HAZardous Facilities. Walmart Supercenter #2387 is directly across Brandon Town Center Drive, approximately 500 feet from site, is considered a County Small Quantity Generator and contains an FDEP marker for two Registered Tanks from Storage Tank Contamination Monitoring. A marker for Storage Tank Contamination Monitoring is also found. As of 2019 in compliance. |
| FPC 7A | 1437+00, LT | 2 | 0 | FDOT ROW | LOW | A registered storage tank is located approx 1,200 feet sw of the site. |
| Easement | Adj to SMF 7C. Appears to be the road. | | | | LOW | See SMF 7C. |
| SMF 7/8 | 1454+00, RT | 1 | 5.57 | Vacant Commercial | LOW | Nothing found in the area of SMF 7/8. |
| SMF 8A | 1450+00, RT | 1 | 2.65 | Vacant Commercial | LOW | Nothing found in the area of SMF 8A. |
| SMF 8B | 1457+00, RT | 4 | 4.48 | Vacant Commercial | LOW | Nothing found in the area of SMF 8B. |
| Easement | Adj to SMF 8B | | | | LOW | See SMF 8B. |
| SMF 9 | 1485+00, LT | 0 | 0 | FDOT ROW | LOW | Nothing found in the area of SMF 9. |
| SMF 10A | 1504+00, LT | 1 | 3.25 | Bowling Alley/Skate Rink Vacant area | MED | Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site. |
| Easement | Adj to SMF 10A | | | | MED | See SMF 10A. |
| SMF 10B | 1500+00, LT | 2 | 5.35 | Bowling Alley/Skate Rink Vacant area/Warehouse | MED | Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site. A closed Hazardous Waste Facility is also located across Elizabeth Place from this site. |
| SMF 10C | 1497+00, LT | 1 | 2.45 | Vacant Industrial | MED | Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site. A closed Hazardous Waste Facility is also located across Elizabeth Place from this site. |
| SMF 11A | 1508+00, LT | 2 | 1.23 | Warehouse County Vacant | MED | Site is located adjacent to Dickinson Fleet Service which is listed on the Compliance and Enforcement Tracing for HAZardous Facilities. |
| SMF 11B | 1512+00, LT | 1 | 1.47 | Warehouse | MED | Site is located adjacent to Dickinson Fleet Service which is listed on the Compliance and Enforcement Tracing for HAZardous Facilities. The site is also listed as a Managed Entity. |

| | | | | | | |
|------------|------------------|---|------|---|-----|---|
| SMF 12/13A | 1529+00, LT | 6 | 5.04 | Mobile Home Flex Serv Warehouse A Warehouse B Vacant Industrial | MED | Site appears to contain an automobile junk yard. Site is occupied by several County Small Quantity Generators. Site also has markers for Registered Tanks from Storage Tank Contamination Monitoring, Storage Tank Contamination Monitoring and a Managed Entity. Across Fisher Rd there is a property with a Compliance and Enforcement Tracking for HAZardous Facilities marker. Property is approximately 100 south of site. |
| SMF 12/13B | 1536+00, RT | 4 | 4.61 | Single Family Residential Vacant Residential | LOW | One County Small Quantity Generator site (Gutheries Neon) is located adjacent to the site; however, per FDEP the business is closed (2005). |
| SMF 12/13C | 1550+00, RT | 2 | 5.43 | Pasture Vacant Residential | LOW | Nothing found in the area if SMF 12/13C. |
| SMF 12/13R | 1543+00, LT | 1 | 1.09 | Pasture | LOW | Nothing found in the area if SMF 12/13R. |
| SMF 12/13L | 1542+00, RT | 2 | 1.55 | Mobile Home Flex Serv | LOW | Site shows no triggers, but is located adjacent to several County Small Quantity Generators and is immediately adjacent to I-75. Site is approximately 600 feet northeast from the property associated with 12/13A (Storage Tank Contamination Monitoring). |
| FPC 14 | 1580+00, RT | 1 | 0.78 | Vacant Commercial | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 14A | 1575+00, RT | 1 | 5.77 | Vacant Commercial | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 14B | 1572+00, RT | 3 | 4.96 | Single Family Residential Vacant Residential | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. One County Small Quantity Generator site (Douglas Painting) is located adjacent to the site; however, per FDEP the business is closed (2000). |
| Easement | Adj to SMF 14A | | | | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 15/16 | 1615+00, RT | 0 | 0 | FDOT ROW | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 17A | 1665+00, LT | 2 | 3.78 | Pasture | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 700 feet north of the site is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator. |
| SMF 17B | 1664+00, RT | 2 | 4.09 | Pasture Utility | LOW | Nothing found in the area of SMF 17B. |
| SMF 18A | 1670+00, LT | 1 | 2.67 | Pasture | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 200 feet west of the site, is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator. The CHAZ sites last document on the FDEP site is from 2003. No issues since then. |
| SMF 18B | 1670+00, RT | 1 | 2.13 | Pasture | LOW | There are no FDEP markers for this site; however, immediately north of the site is a truck transport facility and two junk yards. The transport facility is listed as a Storage Tank Contamination Monitoring site as well as a Registered Tank from Storage Tank Contamination Monitoring site. |
| FPC 17/18 | 1711+00, LT | 1 | 2.64 | Pasture | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 350 feet west of the site, is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator. The CHAZ sites last document on the FDEP site is from 2003. No issues since then. |
| Easement | Adj to FPC 17/18 | | | | LOW | See FPC 17/18 |
| SMF 19A | 1699+00, RT | 0 | 0 | FDOT ROW | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 19B | 1699+00, RT | 0 | 0 | FDOT ROW | LOW | There are no FDEP markers for this site; however, there are two County Small Quantity Generators located approximately 700 feet southwest of the site. |
| SMF 19C | 1700+00, LT | 0 | 0 | FDOT ROW | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| SMF 19D | 1705+00, LT | 0 | 0 | FDOT ROW | LOW | Nothing found in the area of SMF 19D. There are two County Small Quantity Generators located approximately 450 feet west of the site. |
| FPC 19A | 1705+00, LT | 0 | 0 | FDOT ROW | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| FPC 19B | 1711+00, LT | 0 | 0 | FDOT ROW | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |

| | | | | | | |
|-----------|----------------|---|-------|--|------|---|
| SMF 20A | 1730+00, LT | 1 | 7.81 | Pasture | MED | Site is clear of FDEP markers; however, approximately 900 feet north of the site is a DEP Cleanup site (Eureka Springs Landfill). |
| FPC 20 | 1735+00, Lt | 1 | 1.88 | Pasture | MED | Site is clear of FDEP markers; however, approximately 1000 feet southeast of the site is a DEP Cleanup site (Eureka Springs Landfill). |
| SMF 20B | 1745+00, RT | 2 | 10.64 | Pasture Church | LOW | Site shows a Managed Entities marker on FDEP map, but no issues. |
| Easement | Adj to SFM 20B | | | | LOW | See SMF 20B. |
| SMF 21A | 1755+00, RT | 1 | 7.78 | Pasture | LOW | Site shows a Registered Tanks from Storage Tank Contamination Monitoring marker; however, documentation shows there were two above ground tanks (diesel) in use in 1987. |
| Easement | Adj to SFM 21A | | | | LOW | See SMF 21A. |
| SMF 21B | 1755+00, LT | 1 | 8.36 | Pasture | HIGH | Site is part of a DEP Cleanup site associated with Eureka Springs Solid Waste Facility (Landfill Site). |
| FPC 21B | 1764+00, RT | 1 | 2.77 | Pasture | HIGH | Site is part of a DEP Cleanup site associated with Eureka Springs Solid Waste Facility (Landfill Site). |
| FPC 21A | 1755+00, LT | 1 | 1.66 | Pasture | LOW | Site is clear of FDEP markers; however, approximately 300 feet south of the site is a County Small Quantity Generator site (Art McBride Carpentry). Documentation shows no use (non-generator). |
| SMF 22A | 1794+00, LT | 2 | 3.94 | SWFWMD | LOW | Nothing found in the area of SMF 22A. |
| Easement | Adj to SMF 22A | | | | LOW | Nothing found in the area of this easement. |
| SMF 23A | 1821+00, LT | 3 | 3.12 | Dairies/Feedlts Poul/Bees/Fish | LOW | Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. |
| SMF 23B | 1825+00, LT | 3 | 2.82 | Mobile Home | LOW | Nothing found in the area of SMF 23B. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. |
| SMF 22/23 | 1823+00, LT | 3 | 4.33 | Dairies/Feedlts Poul/Bees/Fish | LOW | Nothing found in the area of SMF 22/23. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. |
| SMF 24A | 1838+00, LT | 1 | 1.83 | Vacant Commercial | LOW | Nothing found in the area of SMF 24A. |
| SMF 24B | 1838+00, RT | 3 | 1.83 | Vacant Commercial FDOT ROW | LOW | A solid waste facility is located approximately 500 feet east of the site; however, it is a Debris Staging Site for storm events for yard waste. |
| SMF 25A | 1854+00, LT | 4 | 1.86 | Single Family Residential FDOT ROW | LOW | Nothing found in the area of SMF 25A. A FDEP marker for a County Small Quantity Generators (Aunt Gracie and Kids) is located northwest of this site; however, documentation states unverified generator staus with no corresponding waste information. |
| SMF 25B | 1857+00, LT | 4 | 2.81 | Single Family Residential Vacant | LOW | Nothing found in the area of SMF 25B. FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus with no corresponding waste information. |
| SMF 25C-1 | 1860+00, RT | 6 | 4.52 | Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential | LOW | Nothing found in the area of SMF 25C-1. |
| SMF25C-2 | 1860+00, LT | | | | LOW | FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located adjacent to this site, and one (System Services by Young) is located north of this site; however, documentation for all states unverified generator staus with no corresponding waste information. |
| Easement | Adj to 25C-1 | | | | LOW | Nothing found in the area of this easement. |

Preliminary Cultural Resource Assessment

Probability Analysis

DRAFT

**PRELIMINARY CULTURAL RESOURCE ASSESSMENT
PROBABILITY ANALYSIS
TECHNICAL MEMORANDUM**

**PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) &
FLOODPLAIN COMPENSATION (FPC) SITES
I-75 (SR 93A) FROM
SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD
HILLSBOROUGH COUNTY, FLORIDA**

Financial Project ID No.: 419235-3-22-01

Prepared for:

**Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456**

November 2019

**PRELIMINARY CULTURAL RESOURCE ASSESSMENT
PROBABILITY ANALYSIS
TECHNICAL MEMORANDUM**

**PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) &
FLOODPLAIN COMPENSATION (FPC) SITES
I-75 (SR 93A) FROM
SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD
HILLSBOROUGH COUNTY, FLORIDA**

Financial Project ID No.: 419235-3-22-01

Prepared for:

**Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456**

Prepared by:

**Archaeological Consultants, Inc.
8110 Blaikie Court, Suite A
Sarasota, Florida 34240**

In association with:

**WSP USA
2202 West Shore Boulevard, Suite 300
Tampa, FL 33607**

November 2019

**PRELIMINARY CULTURAL RESOURCE ASSESSMENT
PROBABILITY ANALYSIS
TECHNICAL MEMORANDUM
PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN
COMPENSATION (FPC) SITES
I-75 (SR 93A) FROM
SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD
HILLSBOROUGH COUNTY, FLORIDA
Financial Project ID No.: 419235-3-22-01**

1.0 INTRODUCTION

The purpose of this study was to determine, preliminarily, if any significant or potentially significant cultural resources, including archaeological sites and historic resources, will be impacted by the construction of a total 57 proposed Stormwater Management Facilities (SMF) and Floodplain Compensation (FPC) sites associated with improvements to I-75 (SR 93A) from south of US 301 to north of Bruce B. Downs Boulevard in Hillsborough County (**Figure 1**). Known or potentially significant cultural resources are defined as those sites that are listed, determined eligible, or considered potentially eligible for listing in the National Register of Historic Places (NRHP). All work was conducted in compliance with the provisions of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended, and the implementing regulations 36 CFR 800, as well as with the provisions contained in the revised Chapter 267, *Florida Statutes (FS)*.

The study methodology included a review of Florida Master Site File (FMSF) records, NRHP listings, relevant cultural resource assessment survey (CRAS) reports, the U.S. Department of Agriculture's (USDA) *Soil Survey of Hillsborough County, Florida* (USDA 1952, 1989), as well as the United States Geological Survey (USGS) Brandon, Thonotosassa quadrangle maps (USGS 1956, 1974). Relevant CRAS reports included the Project Development and Environment (PD&E) Study for I-75 (SR 93) from south of US 301 to north of Bruce B. Downs Boulevard (Archaeological Consultants, Inc. [ACI] 2009b), the PD&E Study for I-75 from Moccasin Wallow Road to south of US 301 (ACI 2009a), the I-75 Research Design for both of these segments of I-75 (ACI 2008), the 1978 survey of the proposed I-75 corridor by Calvin Jones, as well as over 50 plus CRAS conducted within one quarter mile.

As a result of the preliminary study, there are 11 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites and 5 previously recorded historic resources (50 years of age or older) identified within and/or adjacent to the proposed SMF/FPC sites. Of the 11 previously recorded archaeological sites, 7 sites are adjacent to 7 of the proposed SMF/FPC sites and 7 sites are within or partially within 14 of the proposed SMF/FPC sites. Most of the SMF/FPC sites have a low archaeological potential; however, several have either a low to moderate, moderate, or high potential for the discovery of additional archaeological sites or for evidence of previously recorded sites. Nine of the proposed SMF/FPC sites have historic resources 50 years of age or older within or adjacent that will need to be recorded in the FMSF, as well as five previously recorded resources that will need to be updated. This information is summarized in **Tables 1 and 2** and **Figures 2-4**.

In conclusion, no proposed SMF/FPC site should be avoided due to cultural resource issues. Following the selection of preferred SMF/FPC sites, systematic archaeological field survey is recommended; historical/architectural field survey is also recommended.

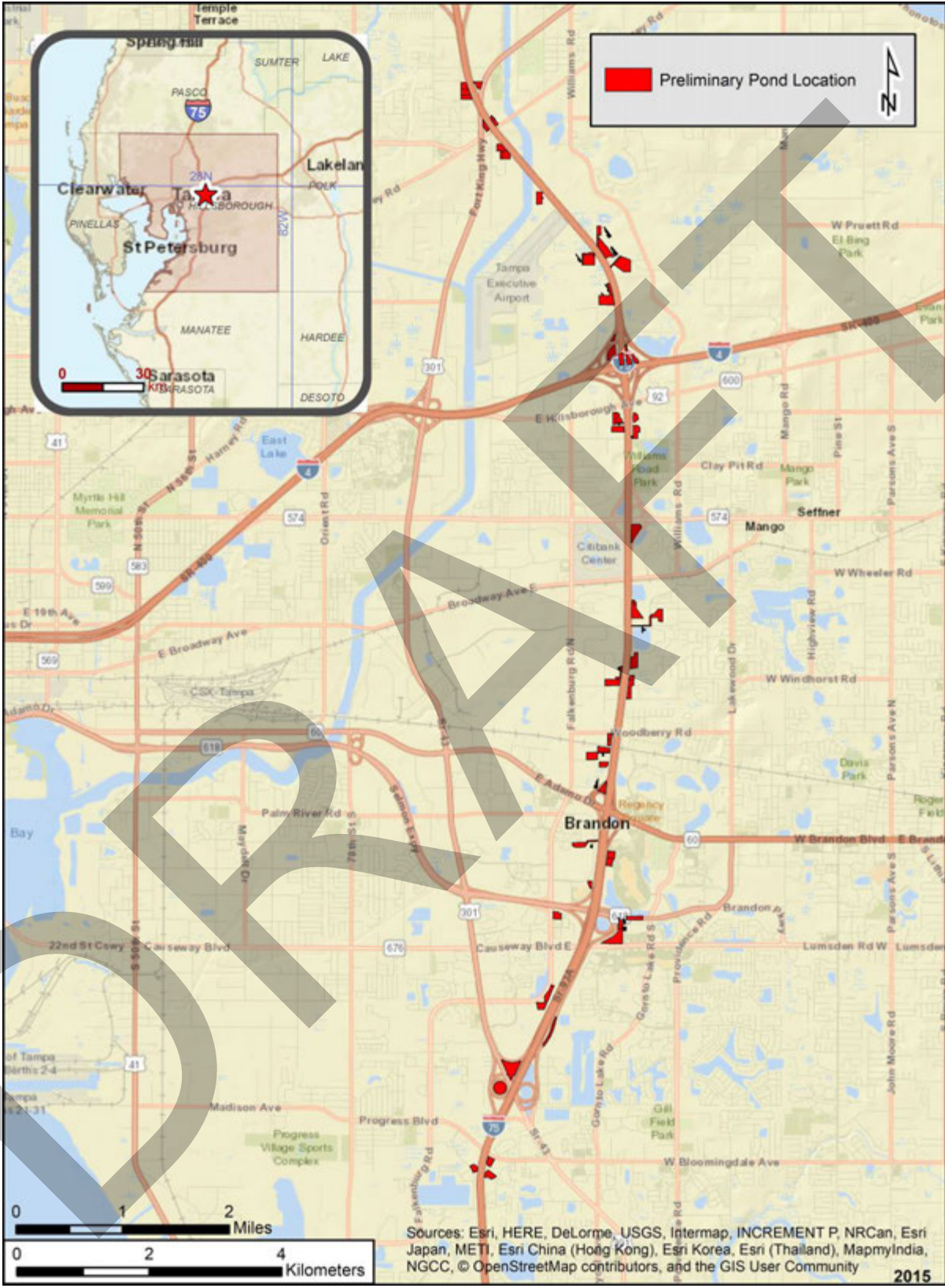


Figure 1. Location of the proposed SMF/FPC Sites, Hillsborough County.

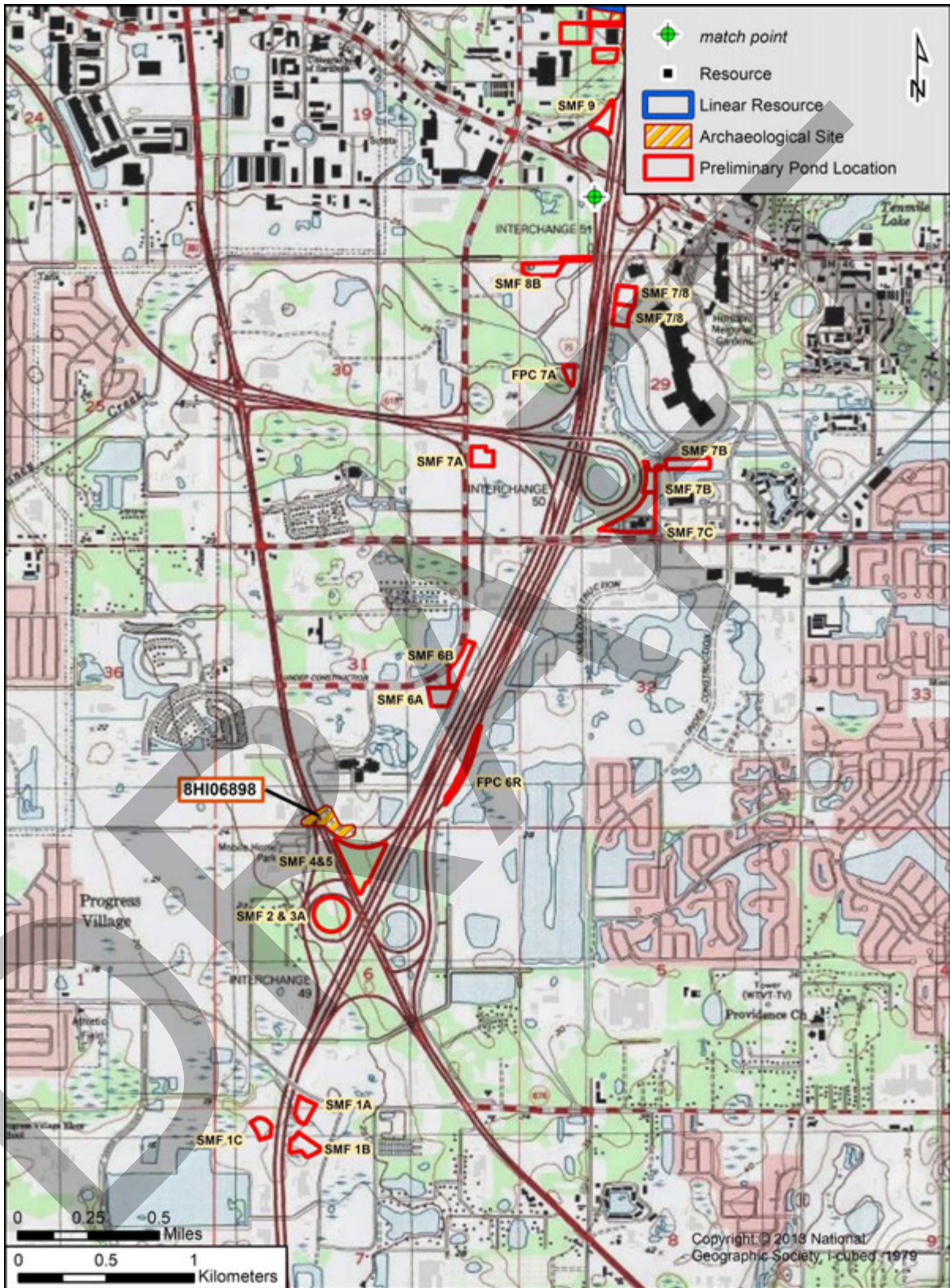


Figure 2. Location of the proposed SMF/FPC Sites, Hillsborough County.

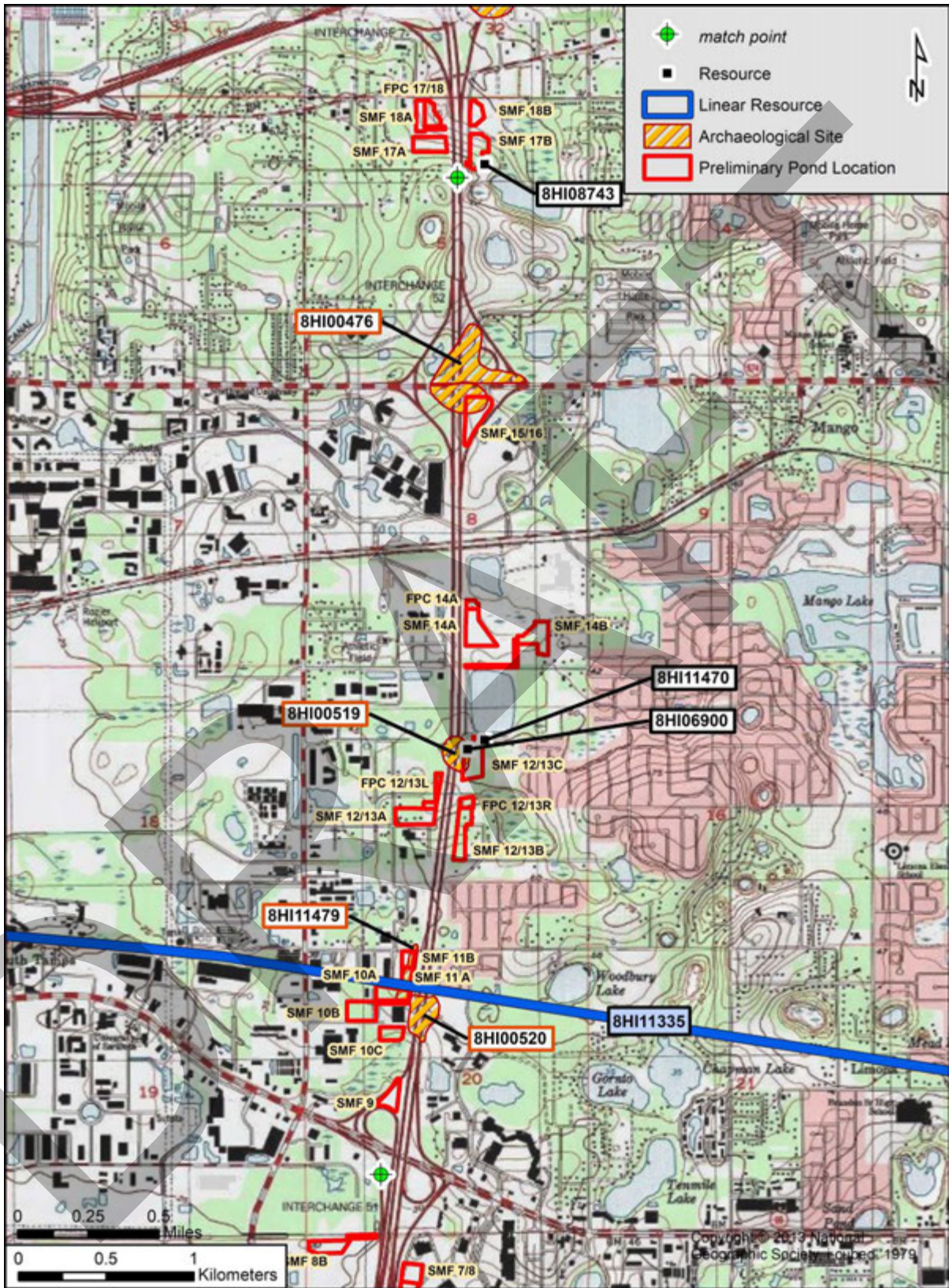


Figure 3. Location of the proposed SMF/FPC Sites, Hillsborough County.

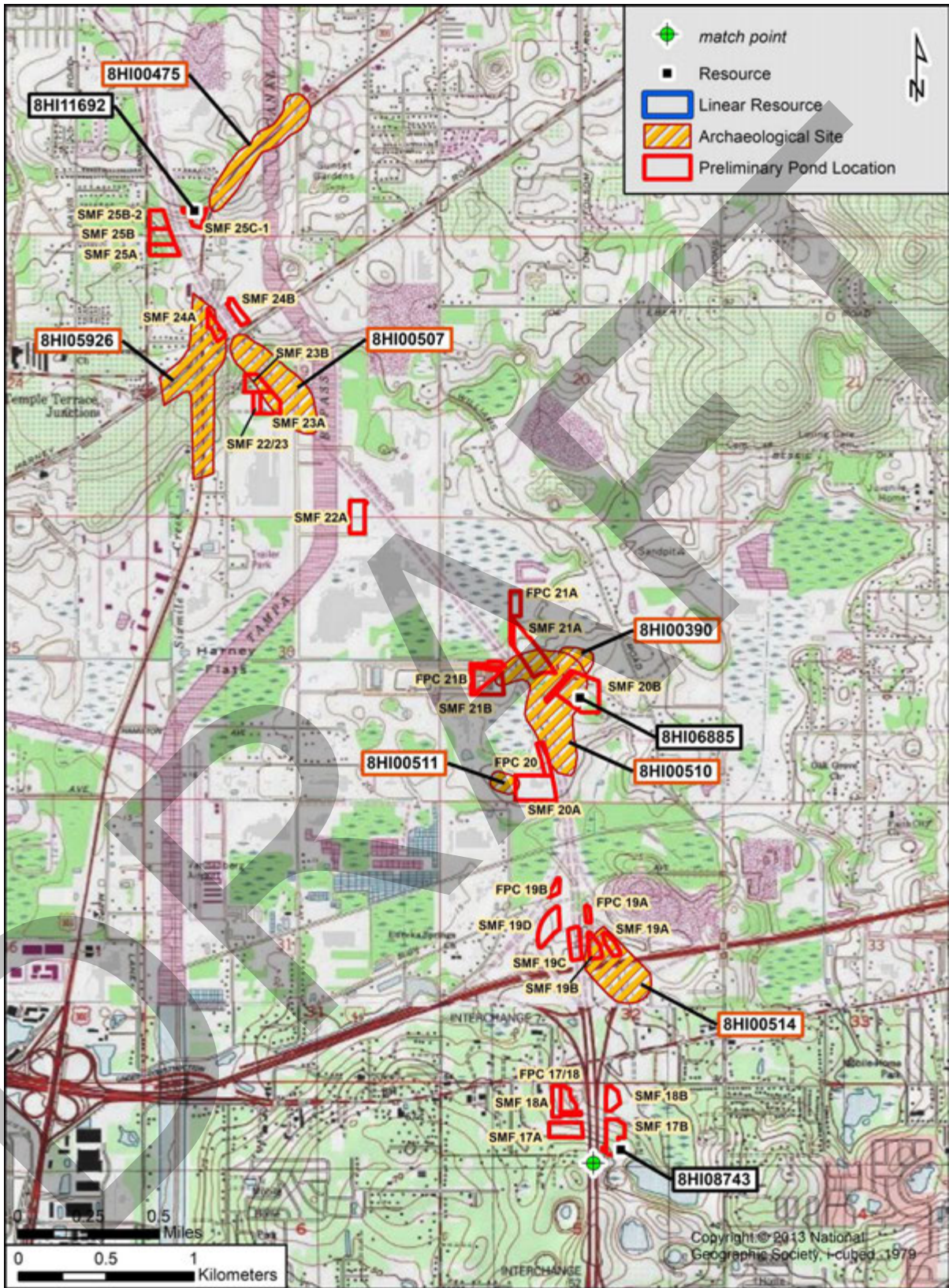


Figure 4. Location of the proposed SMF/FPC Sites, Hillsborough and Manatee Counties.

2.0 DESCRIPTION OF KNOWN ARCHAEOLOGICAL AND HISTORIC RESOURCES AND SITE POTENTIAL

Archaeological Sites: A check of the FMSF digital database (October 2019) indicated there are 11 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites and 5 previously recorded historic resources (50 years of age or older) identified within and/or adjacent to the proposed SMF/FPC sites. Of the 11 previously recorded archaeological sites, 7 sites are adjacent to 7 of the proposed SMF/FPC sites and 7 sites are within or partially within 14 of the proposed SMF/FPC site (**Figures 2-4; Tables 1, 2**). These sites consist of six lithic scatters (one with an historic component), four artifact scatters, and one habitation site. Of these, five sites have been determined not eligible for listing in the NRHP by the State Historic Preservation Office (SHPO), three have not been evaluated, and three are potentially eligible for listing in the NRHP.

Table 1. Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites.

| Site # | Site Name | Site Type | Culture | SHPO Eval* |
|----------|--------------------|---|--|------------|
| 8HI00390 | Bartolotti | Lithic scatter/quarry | Aboriginal lacking pottery | No |
| 8HI00475 | 301 Crossing | Artifact scatter, lithic scatter/quarry | Archaic | NE |
| 8HI00476 | Diamond Dairy: A | Habitation | Middle Archaic | PE |
| 8HI00507 | Harney Flats | Artifact scatter | Paleo-Indian, Early and Middle Archaic, post-Archaic | PE |
| 8HI00510 | Bartolotti | Lithic scatter/quarry | Paleo-Indian, Early and Middle Archaic, post-Archaic | PE |
| 8HI00511 | Bartolotti SW | Lithic scatter/quarry | Archaic | No |
| 8HI00514 | Road End | Lithic scatter/quarry, artifact scatter | Archaic | NE |
| 8HI00519 | Graves Road | Historic refuse / Dump, lithic scatter/quarry | Archaic, 20th century | NE |
| 8HI00520 | South Railroad | Lithic scatter/quarry | Aboriginal | No |
| 8HI05926 | Vera's Thrift Shop | Artifact scatter | Early Archaic | NE |
| 8HI06898 | Bayside #12 | Ceramic scatter, lithic scatter/quarry | Post-Archaic | NE |

* PE=Potentially Eligible for NRHP, NE= Not Eligible for NRHP, No= Not Evaluated by SHPO.

Several of these sites are among those originally recorded by B. Calvin Jones in 1978 during Phase I archaeological survey of the proposed I-75 ROW. In addition, three were the focus of Phase II evaluative site testing (8HI00476, 8HI00507, 8HI00510) and two of these were also subjected to Phase III mitigative salvage excavation as part of the original I-75 study (8HI00476, 8HI00507). Today, roughly 40 years later, most of these sites, as located within the I-75 project APE, have lost their contextual integrity due to road construction and improvements, the placement of utility lines, and other developments. Thus, they no longer meet the criteria of eligibility for listing in the NRHP, at least in part, even though the FMSF lists them as “potentially eligible.”

In addition to the 1978 survey of I-75, over 50 CRASs have been conducted within one-quarter mile of the I-75 PD&E Study corridor. These include 1970s surveys of recreation areas within the Lower Hillsborough River Flood Detention Area (Daniel et al. 1979), the Tampa Bypass Canal (Seabury et al. 1975), and the Lake Thonotosassa By-Pass Canal (Deming 1976). Transportation project-related survey, conducted between the 1970s and recently, include the Vandenberg Airport expansion (Janus Research 1996a), the Crosstown Expressway (HDR Engineering 1991; Janus Research 1998, 2000), I-4 (Janus Research 1992b), US 92/SR 660 (ACI 1993), US 301 (Deming 1997; Janus Research

1996b, 1999), I-75 (ACI 2003, 2006), SR 60 (Adamo Drive) (ACI 2004), and the Florida High Speed Rail (ACI/Janus 2003). Several other surveys were conducted for water and sewage conveyance (Austin 1999, 2000a; Miller 1979; SEARCH 2000a; Wharton 1988). R. Christopher Goodwin and Associates, Inc. conducted Phase I surveys along the Florida Gas Transmission Company corridor, plus access roads, and work spaces in the general vicinity of the I-75 corridor (Athens et al. 1994; Athens and Weisman 1994; Austin 2000b; SEARCH 2000b; Stokes 2002a, 2002b, 2002c). Since the mid-1970s, other surveys have been conducted incident to Developments of Regional Impact (DRIs) and various other developments. These include an 80-acre parcel (Miller 1974), Deltona (Grange et al. 1979), Brandon Town Center (Piper et al. 1982), Hidden River (Almy and Deming 1982), Sabal Center (Brooks and Ballo 1984), Temple Terrace 2 (Deming et al. 1984), Regency Park North (Deming 1985), the Florida Corporate Center (ACI 1998), LL Middle School (Ambrosino 2002), Joe Ebert Road (Ambrosino 2003), Williams Crossing (Austin and Mohlman 2003), Lakeview Village (Quinn 2004), Freedom Ridge (Austin and Mohlman 2005), Claymore Crossings (Janus Research 2005), Gray Pines (Austin 2005), Harvest Creek (Hughes 2006), and Sampson Grove (Carty 2006) project areas. In addition, several surveys have been conducted for cellular communication towers (Johnson 2001; Pracht 2001a, 2001b).

Given these known patterns of aboriginal settlement, it was anticipated that additional data on the previously recorded sites would be obtained and several areas were considered to have moderate potential for archaeological sites based on soils, elevation, and distance to water. Given the results of the historic research, as detailed in the Historical Overview, no historic period archaeological sites, including nineteenth century homesteads, forts, or Indian encampments were expected. However, three historic trails leading to Peace Creek/Alafia ford, Fort Mellon, and Fort King are crossed by the I-75 corridor (State of Florida 1843, 1852a, 1852b, 1852c). The potential for discovery of cultural materials associated with these historic trails was considered low.

Based upon the results of previous archaeological surveys in the vicinity, an understanding of known patterns of aboriginal settlement in the general region, as well as an examination of the (USDA) *Soil Survey Hillsborough County, Florida* (USDA 1952, 1989), as well as the USGS quadrangle maps (USGS 1956, 1974), each of the proposed SMF/FPC sites was evaluated for archaeological site potential. Each was reviewed and assigned to one of four site potential categories: low, low to moderate, moderate, and high potential areas.

Historic Resources: Background research, including records check at the Hillsborough County Property Appraisers website (Henriquez 2019) indicated that five previously recorded historic resources are located within and/or adjacent to the proposed SMF/FPC sites. In addition, there is the potential for five buildings that will need to be recorded (**Figures 2-4; Table 2**).

Table 2. Archaeological and historic data.

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|-------------|-------------------|--|
| SMF-1A | Low- Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-1B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; low and wet |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-1C | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|----------------------------|--------------|--|
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-2 & 3A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; within interchange, disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-4 & 5 | High | Prehistoric Archaeological: no previously recorded sites within APE; 8HI06893 adjacent; disturbed and in interchange |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-6A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-6B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC 6R | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, along a roadway |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-7A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-7B (has 2 parts) | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-7C | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-7A | Low-Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE on uplands adjacent to freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-7/8 (has two parts) | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-8B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|-----------------|----------------|---|
| SMF-9 | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in an interchange |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-10A | Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands north of freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE |
| SMF-10B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-10C | High | Prehistoric Archaeological: no previously recorded sites within APE; adjacent to 8HI00520 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-11A | Moderate | Prehistoric Archaeological: 8HI11479 within SMF site |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE |
| SMF-11B | Moderate | Prehistoric Archaeological: 8HI11479 within SMF site |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE |
| SMF 12/ 13A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-12/ 13B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-12/ 13C | Moderate | Prehistoric Archaeological: 8HI00519 within |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: one previously recorded building within APE: 8HI06900; and one unrecorded historic building adjacent to APE |
| FPC-12/ 13CL | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-12/ 13R | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|---------------|----------------|--|
| SMF 14A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-14B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-14A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-15/ 16 | Low - Moderate | Prehistoric Archaeological: 8HI00476 within and within interchange |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-17A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-17B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within APE; 8HI08743 adjacent to APE |
| SMF-18A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-18B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-17/ 18 | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-19A | High | Prehistoric Archaeological: pond site located in 8HI00514 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-19B | High | Prehistoric Archaeological: pond site located in 8HI00514 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-19C | Moderate | Prehistoric Archaeological: no previously recorded sites within; 8HI00514 adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-19D | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|-------------|----------------|---|
| FPC-19A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-19B | High | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-20A | Moderate | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00511 adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-20B | High | Prehistoric Archaeological: 8HI00510 partially within APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources adjacent to APE; 8HI06885 within APE |
| FPC-20 | Low | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00510 adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-21A | High | Prehistoric Archaeological: 8HI00510 partially within APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-21B | Low - Moderate | Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-21A | High | Prehistoric Archaeological: 8HI00510 partially within APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| FPC-21B | Low - Moderate | Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-22A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-22/23 | Low-Moderate | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00507 adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within or adjacent to APE; one unrecorded historic building within APE |
| SMF-23A | Moderate | Prehistoric Archaeological: 8HI00507 partially within APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|---------------|----------------|---|
| SMF-23B | Moderate | Prehistoric Archaeological: 8HI00507 partially within APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-24A | High | Prehistoric Archaeological: Pond within 8HI05926 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-24B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-25A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources within or adjacent to APE; two unrecorded historic buildings within APE and one adjacent |
| SMF-25B | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-25B -2 | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Low | Historical: no previously recorded resources within or adjacent to APE |
| SMF-25C -1 | Moderate | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00475 adjacent to APE |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| | Moderate | Historical: no previously recorded resources adjacent to APE; 8HI11692 within APE |

* Zone of Archaeological Potential; green shading represents archaeological sites within APE; blue shading represents archaeological sites adjacent to the APE; yellow shading represents historic resources

3.0 CONCLUSIONS AND RECOMMENDATIONS

In conclusion, no proposed SMF/FPC site should be avoided due to cultural resource issues. Following the selection of preferred SMF/FPC sites, systematic archaeological field survey is recommended in accordance with the guidelines and standards as per the Florida Department of Transportation (FDOT) and Florida Division of Historical Resources (FDHR). The selected SMF/FPC sites considered to have a low potential also should be surveyed and judgmentally tested. In addition, based on this data, a historical/architectural field survey is also recommended.

4.0 REFERENCES

Archaeological Consultants, Inc.

- 1993 A Cultural Resource Assessment Survey - US 92 (SR 600) Improvements Project from Garden Lane to County Line Road, Hillsborough County, Florida. ACI, Sarasota.
- 1998 Cultural Resource Assessment Survey of the Temple Terrace 2 Development Property, Hillsborough County, Florida. ACI, Sarasota.
- 2003 Cultural Resource Assessment Survey I-75 (SR 93A) Project Development and Environment (PD&E) Study and Reevaluation from South of Fowler Avenue to South of CR 54 Hillsborough and Pasco Counties, Florida. ACI, Sarasota.
- 2004 Cultural Resource Assessment Survey Report SR 60 (Adamo Dive) Project Development and Environment (PD&E) Study from West of 50th Street to East of Falkenburg Road, Hillsborough County, Florida. ACI, Sarasota.
- 2006 Cultural Resource Assessment Survey Technical Memorandum I-75 (SR 93A) from South of Fowler Avenue to Bruce B. Downs Boulevard Proposed Ponds, Hillsborough County, Florida. ACI, Sarasota.
- 2008 Cultural Resource Assessment Survey Research Design Interstate 75 (I-75) Project Development and Environment (PD&E) Study I-75 from Moccasin Wallow Road to South of US 301, Manatee and Hillsborough Counties, Florida WPI No. 419235 2 and I-75 from South of US 301 to North of Fletcher Avenue, Hillsborough County, Florida WPI No. 419235 3. ACI, Sarasota.
- 2009a Cultural Resource Assessment Survey Project Development and Environment (PD&E) Study I-75 from Moccasin Wallow Road to US 301, Hillsborough and Manatee Counties, Florida. ACI, Sarasota.
- 2009b Cultural Resource Assessment Survey Project Development and Environment (PD&E) Study I-75 from South of US 301 to North of Bruce B. Downs Boulevard, Hillsborough County, Florida. ACI, Sarasota.

ACI/Janus

- 2003 Cultural Resource Assessment Survey Report Florida High Speed Rail Authority Project Development and Environment (PD&E) Study from Tampa to Orlando Hillsborough, Polk, Osceola, and Orange Counties, Florida. ACI, Sarasota.

Almy, Marion M. and Joan Deming

- 1982 A Cultural Resources Survey of the Florida Corporate Center, Hillsborough County, Florida. ACI, Sarasota.

Ambrosino, James N.

- 2002 Cultural Resource Assessment Survey of the LL Middle School Project Area and Archaeological Testing of 8HI8368 in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.
- 2003 An Archaeological and Historical Survey of the Joe Ebert Road Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.

Athens, William P., Charlotte Donald, Jon Berkin, Paul V. Heinrich, Ralph Draughton, Julie McClay, Thomas Fenn, Dan Dolensky, Jennifer Cohen, Lynn Berg, Julian Granberry, and Thomas Neumann

- 1994 Phase I Cultural Resources Investigation of the West Leg Mainline Portion of the Proposed Florida Gas Transmission Company Phase III Expansion Project. R. Christopher Goodwin & Associates, Inc., New Orleans.

Athens, William P. and Rusty Weisman

- 1994 Phase I Cultural Resources Investigation of the Proposed Hillsborough County Reroute, Hillsborough County, Florida. R. Christopher Goodwin & Associates, Inc., New Orleans.

Austin, Robert J.

- 1999 A Cultural Resource Assessment Survey of the Proposed Tampa Bay Water Pipeline from the Tampa Bypass Canal at Six Mile Creek to Bell Shoals Road, Hillsborough County, Florida. SEARCH, Jonesville.
- 2000a Cultural Resource Assessment Survey for the Proposed Hillsborough County Water Department's Falkenburg to South County Water Main. SEARCH, Jonesville.
- 2000b Survey Report for the Florida Gas Transmission Company Proposed Bayside Lateral, Hillsborough County, Florida. SEARCH, Jonesville.
- 2005 A Cultural Resource Survey of the Grey Pines Development Property, Hillsborough County, Florida. SEARCH, Jonesville.

Austin, Robert J. and Geoffrey Mohlman

- 2003 Cultural Resource Assessment Survey of the Proposed Williams Crossing Development Property, Hillsborough County, Florida. SEARCH, Jonesville.
- 2005 A Cultural Resource Assessment of the Freedom Ridge Development Property, Hillsborough County, Florida. SEARCH, Jonesville.

Brooks, Mark J. and Janice R. Ballo

- 1984 An Archaeological and Historical Survey of the Proposed Sabal Center Project Area, Hillsborough County, Florida. Janus Research, Tampa.

Carty, Thomas J.

- 2006 An Archaeological and Historical Survey of the Sampson Grove Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.

Daniel, I. Randolph, Mildred Fryman, and Michael Wisenbaker

- 1979 An Archaeological and Historical Survey of Seven Proposed Recreation Resource Sites in the Lower Hillsborough River Flood Detention Area. On file, Florida Division of Historical Resources, Tallahassee.

Deming, Joan

- 1976 An Archaeological and Historical Survey of the Lake Thonotosassa By-Pass Canal Right-of-Way in Hillsborough County, Florida. Department of Anthropology, University of South Florida, Tampa.
- 1985 Cultural Resource Assessment Survey of the Regency Park North (DRI) Tract, Hillsborough County, Florida. ACI, Sarasota.
- 1997 Cultural Resource Assessment Survey, Technical Memorandum, US 301 Ponds from Interstate 4 (I-4) to Fowler Avenue, Hillsborough County, Florida. ACI, Sarasota.

Deming, Joan, Marion M. Almy, Richard W. Estabrook, and Elizabeth A. Horvath

- 1984 The Hidden River (DRI) Archaeological Project: Cultural Resources Assessment Survey and Evaluative Site Testing. ACI, Sarasota.

Grange, Roger T., Jr., Mildred Fryman, and J. Raymond Williams

- 1979 A Phase I Study of the Deltona Corporation Property on State Road 581 in Hillsborough County, Florida. University of South Florida, Tampa.

HDR Engineering, Inc.

- 1991 An Archaeological and Historical Resource Assessment of the Proposed Tampa South Crosstown Expressway Extension, Hillsborough County, Florida. HDR Engineering, Inc., Tampa.

Henriquez, Bob

- 2019 Hillsborough County Property Appraisers.

Hughes, Skye W.

- 2006 An Archaeological and Historical Survey of the Harvest Creek Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.

Janus Research

- 1992 A Cultural Resource Assessment Survey of the Interstate 4 Improvements Project Right-of-Way from 50th Street to the Hillsborough/Polk County Line, Hillsborough County, Florida. Janus Research, Tampa.
- 1996a A Cultural Resource Assessment Survey for the Vandenberg Airport Expansion Project Area, Hillsborough County, Florida. Janus Research, Tampa.
- 1996b A Cultural Resource Assessment Survey for U.S. 301 from Interstate 4 to Fowler Avenue in Hillsborough County, Florida. Janus Research, Tampa.
- 1998 Cultural Resource Assessment Survey for the Lee Roy Selmon Crosstown Expressway Brandon Feeder Roads from Falkenburg Road to SR 60 and Lumsden Road and Widening from 50th Street (US 41) to Falkenburg Road (PD&E) Study, Hillsborough County, Florida. Janus Research, Tampa.
- 1999 Cultural Resource Assessment Survey for the Harney Road/US 301 Intersection Improvement Project and the Re-alignment of Bowles Road from East of Morris Bridge Road to Interstate 75 Hillsborough County, Florida. Janus Research, Inc., Tampa.
- 2000 Cultural Resource Assessment Survey for the Lee Roy Selmon Crosstown Expressway Capacity Improvement Project, Hillsborough County, Florida. Janus Research, Tampa.
- 2005 Cultural Resource Assessment Survey of the Claymore Crossings Project Area, Hillsborough County. Janus Research, Tampa.

Johnson, Robert E.

- 2001 Proposed Tower: I-4 Exit No. 8. Florida Archaeological Services, Inc., Jacksonville.

Jones, B. Calvin

- 1978 Archaeological and Historical Survey of Tampa Bypass Canal and Associated Structures in Hillsborough County, US Army Corps of Engineers, March 1975. On file, Florida Division of Historical Resources, Tallahassee.

Miller, James J.

- 1974 80 Acre DRI in Hillsborough County. On file, Florida Division of Historical Resources, Tallahassee.
- 1979 A Preliminary Archaeological and Historical Survey of the Tampa-Hillsborough 201 Plan. On file, Florida Division of Historical Resources, Tallahassee.

Piper, Harry M., Kenneth W. Hardin, and Jacquelyn G. Piper

- 1982 Archaeological and Historical Survey of the Brandon Town Center Property, Hillsborough County, Florida. Janus Research, Tampa.

Pracht, Jodi B.

- 2001a Proposed Cellular Tower: Keebler (FL3426G) Williams Road and Broadway, Tampa, Hillsborough County, Florida. ACI, Sarasota.
- 2001b Proposed Cellular Tower: Stirling Ranch, 10011 Circle C Drive, Tampa, Hillsborough County, Florida. ACI, Sarasota.

Quinn, Lisa N.

- 2004 An Archaeological and Historical Survey of the Lakeview Village Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.

Seabury, Patricia, Nancy Swilley, John Martin, and Anthony Deregnacourt

- 1975 An Archaeological Survey of the Tampa Bypass Canal Right-of-Way, Hillsborough County, Florida. On file, Florida Division of Historical Resources.

SEARCH

- 2000a Cultural Resource Assessment Survey North-Central Hillsborough Intertie Contract 2, Hillsborough County, Florida. SEARCH, Jonesville.
- 2000b Cultural Resource Survey of Three Extra Work Spaces along the Bayside Lateral , Hillsborough County, Florida. SEARCH, Jonesville.

State of Florida, Department of Environmental Protection

- 1843 *Plat. Township 28 South, Range 20 East.*
- 1852a *Plat. Township 28 South, Range 19 East.* A. M. Randolph and C. F. Hopkins.
- 1852b *Plat. Township 29 South, Range 20 East.* A. M. Randolph and C. F. Hopkins.
- 1852c *Plat. Township 30 South, Range 20 East.* A. M. Randolph and C. F. Hopkins.

Stokes, Anne V.

- 2002a Addendum Report for the Florida Gas Transmission Company Bayside Lateral Modification Hillsborough County, Florida. SEARCH, Jonesville.
- 2002b Cultural Resources Survey of One Bayside Lateral Temporary Work Space at Mile Post 6.66, Florida Gas Transmission Company (FGT) Phase V Expansion. SEARCH, Jonesville.
- 2002c Cultural Resources Survey of Two Bayside Lateral Access Roads and One Road Crossing, Florida Gas Transmission Company (FGT) Phase V Expansion. SEARCH, Jonesville.

USDA

- 1952 *Soil Survey of Hillsborough County, Florida.* USDA, Soil Conservation Service, Washington, D.C.
- 1989 *Soil Survey of Hillsborough County, Florida.* USDA, Soil Conservation Service, Washington, D.C.

USGS

- 1956 Brandon, Fla., Photorevised 1987.
- 1974 Thonotosassa, Fla., Photorevised 1987.

Wharton, Barry R.

- 1988 Archaeological Survey of the Falkenburg Road Transmission Facilities, Woodberry Road Pump Station & Woodberry Road Interceptor, Hillsborough County, Florida. HDR Engineering, Inc., Tampa.

DRAFT

Cultural Resource Assessment

**CULTURAL RESOURCE ASSESSMENT SURVEY
TECHNICAL MEMORANDUM
STORMWATER MANAGEMENT FACILITIES (SMF) &
FLOODPLAIN COMPENSATION (FPC) SITES**

**I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF
BRUCE B. DOWNS BOULEVARD**

HILLSBOROUGH COUNTY, FLORIDA

Financial Project ID No.: 419235-3-22-01

Prepared for:

**Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456**

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

December 2019

**CULTURAL RESOURCE ASSESSMENT SURVEY
TECHNICAL MEMORANDUM**

**STORMWATER MANAGEMENT FACILITIES (SMF) &
FLOODPLAIN COMPENSATION (FPC) SITES**

**I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF
BRUCE B. DOWNS BOULEVARD**

HILLSBOROUGH COUNTY, FLORIDA

Financial Project ID No.: 419235-3-22-01

Prepared for:

Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456

Prepared by:

Archaeological Consultants, Inc.
8110 Blaikie Court, Suite A
Sarasota, Florida 34240

Marion Almy – Project Manager
Lee Hutchinson – Project Archaeologist
Katie Baar – Archaeologists
Kimberly M. Irby – Architectural Historian

In association with:

WSP USA
2202 West Shore Boulevard, Suite 300
Tampa, FL 33607

December 2019

TABLE OF CONTENTS

| | |
|---|----|
| 1. INTRODUCTION..... | 1 |
| 2. PROJECT DESCRIPTION..... | 3 |
| 3. ENVIRONMENTAL SETTING..... | 4 |
| 4. HISTORIC AND PREHISTORIC OVERVIEWS..... | 11 |
| 5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND AND CONSIDERATIONS | 11 |
| 6. SURVEY METHODS..... | 14 |
| 7. SURVEY RESULTS..... | 15 |
| 8. CONCLUSIONS..... | 33 |
| 9. BIBLIOGRAPHY | 34 |

APPENDIX A: FMSF Forms

APPENDIX B: Survey Log

LIST OF FIGURES

| | |
|--|----|
| Figure 1. Location of the APE. | 2 |
| Figure 2. Environmental Setting and previously recorded cultural resources in close proximity to the APE..... | 5 |
| Figure 3. Environmental Setting and previously recorded cultural resources in close proximity to the APE..... | 6 |
| Figure 4. Environmental Setting and previously recorded cultural resources in close proximity to the APE..... | 7 |
| Figure 5. Approximate location of shovel tests within the APE..... | 19 |
| Figure 6. Approximate location of shovel tests within the APE..... | 20 |
| Figure 7. Approximate location of shovel tests within the APE..... | 21 |
| Figure 8. Approximate location of shovel tests within the APE..... | 22 |
| Figure 9. Approximate location of shovel tests within the APE..... | 23 |
| Figure 10. Approximate location of shovel tests within the APE..... | 24 |
| Figure 11. Approximate location of shovel tests within the APE..... | 25 |
| Figure 12. Approximate location of shovel tests within the APE..... | 26 |
| Figure 13. Approximate location of shovel tests within the APE..... | 27 |
| Figure 14. Approximate location of shovel tests within the APE..... | 28 |

LIST OF TABLES

| | |
|---|----|
| Table 1. Sections, Townships, Ranges..... | 4 |
| Table 2. Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites. | 12 |
| Table 3. Previously recorded historic resources within or immediately adjacent to the proposed pond sites..... | 13 |
| Table 4. Archaeological field survey results..... | 16 |

LIST OF PHOTOS

| | | |
|-----------|--|----|
| Photo 1. | North, northeast view of SMF 19B..... | 8 |
| Photo 2. | Looking northeast at SMF 19D..... | 8 |
| Photo 3. | Southeast view of SMF 24B..... | 8 |
| Photo 4. | Ditch in north end of SMF 22/23..... | 9 |
| Photo 5. | Pasture in SMF 17A..... | 9 |
| Photo 6. | North view of SMF 15/16..... | 9 |
| Photo 7. | Looking southwest at FPC 12/13R..... | 10 |
| Photo 8. | North view of SMF 11A..... | 10 |
| Photo 9. | Northeast view of SMF 10C..... | 10 |
| Photo 10. | South view of SMF 9..... | 11 |
| Photo 11. | Looking north at 8HI00511..... | 18 |
| Photo 12. | Looking northeast a site 8HI00514..... | 29 |
| Photo 13. | Looking south at 8HI00519..... | 30 |
| Photo 14. | Looking north at site 8HI06898..... | 31 |
| Photo 15. | Looking southeast at site in portion of SMF 17A..... | 32 |
| Photo 16. | Looking north at portion of site in SMF 18A..... | 32 |

**CULTURAL RESOURCE ASSESSMENT SURVEY
TECHNICAL MEMORANDUM
STORMWATER MANAGEMENT FACILITIES (SMF) &
FLOODPLAIN COMPENSATION (FPC) SITES
I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF
BRUCE B. DOWNS BOULEVARD
HILLSBOROUGH COUNTY, FLORIDA
Financial Project ID No.: 419235-3-22-01**

1. INTRODUCTION

Archaeological Consultants, Inc. (ACI) conducted a Cultural Resources Assessment Survey (CRAS) of 22 Stormwater Management Facility (SMF) sites (two of the SMF sites have multiple parts) and 10 Floodplain Compensation (FPC) sites (hereinafter referred to as pond sites) associated with the Florida Department of Transportation's (FDOT) proposed improvements to I-75 from south of US 301 to north of Bruce B. Downs Boulevard, in Hillsborough County (**Figure 1**). The purpose of this survey was to locate and identify any cultural resources within the project Area of Potential Effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP), as well as assess the potential of adverse impacts to resources from the proposed project activities. As defined in 36 CFR Part § 800.16(d), the APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." The archaeological APE is defined as the area contained within the footprint of the proposed undertaking and the historical APE includes the archaeological APE and immediately adjacent properties as contained within 150 feet.

This CRAS was initiated to comply with Section 106 of the *National Historic Preservation Act* of 1966, as amended by Public Law 89-665; the *Archaeological and Historic Preservation Act*, as amended by Public Law 93-291; Executive Order 11593; and Chapter 267, *Florida Statutes (FS)*. All work was carried out in conformity with Part 2, Chapter 8 ("Archaeological and Historical Resources") of the FDOT's *Project Development and Environment (PD&E) Manual* (FDOT 2019), and the Florida Division of Historical Resources' (FDHR) standards contained in the *Cultural Resource Management Standards and Operational Manual* (FDHR 2003), as well as with the provisions contained in the Chapter 1A-46, *Florida Administrative Code (FAC)*. Principal Investigators meet the *Secretary of the Interior's Historic Preservation Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The background research, which included a review of the previous I-75 CRAS and memos, the Florida Master Site File (FMSF), and the NRHP indicated that there are 17 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites. Of the 17 previously recorded archaeological sites, 7 sites are wholly or partially within 10 of the SMF/FPC sites and the remaining sites are adjacent. Most of the SMF/FPC sites have a low archaeological potential; however, several have either a low to moderate, moderate, or high potential for the discovery of additional archaeological sites or for evidence of previously recorded sites. In addition, once fieldwork began, the archaeological potential for several of the pond sites was downgraded because of current field conditions. As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). Three of the previously recorded sites were determined not eligible for listing in the NRHP by the State Historic Preservation Officer

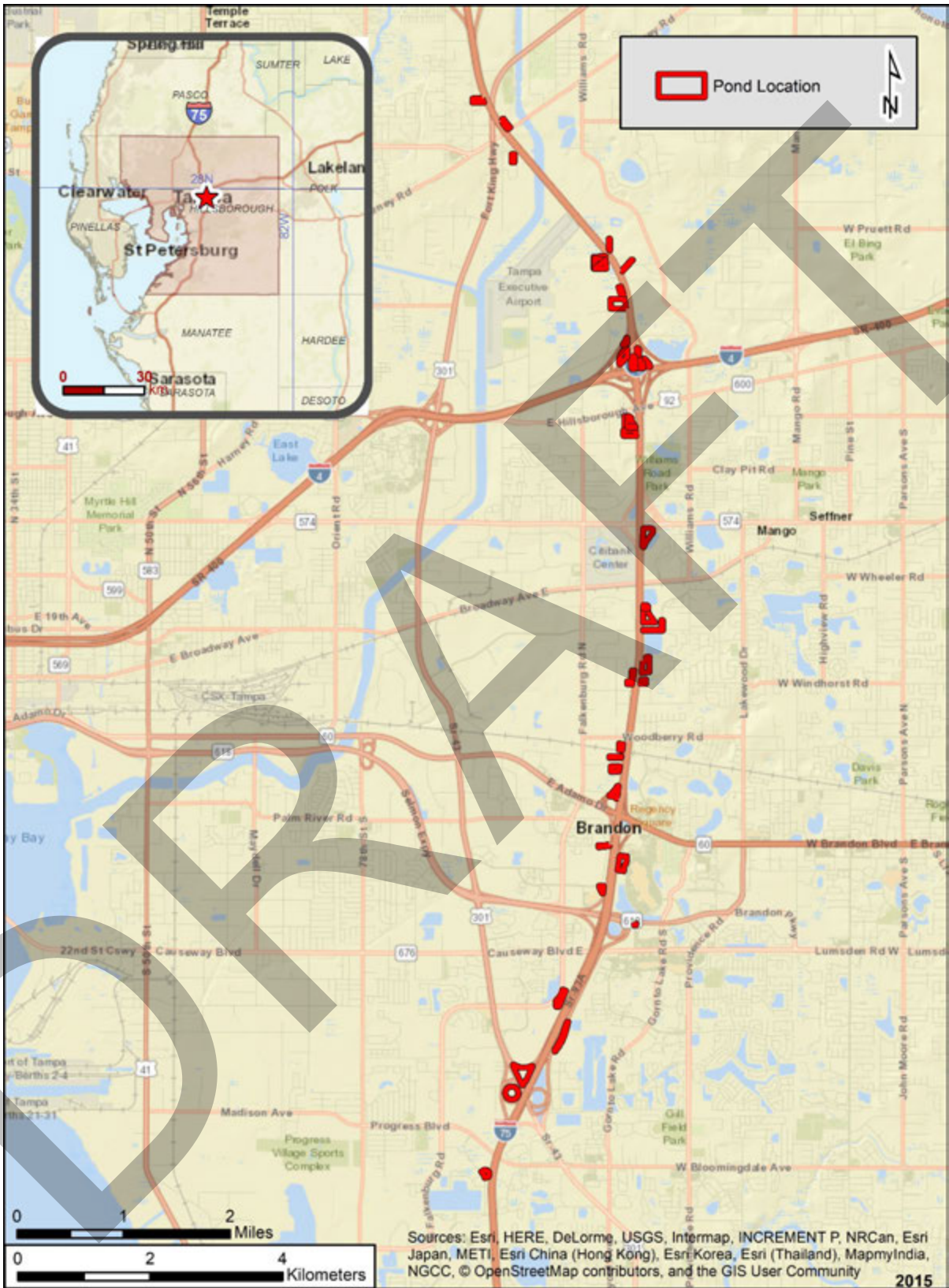


Figure 1. Location of the APE.

(SHPO) and one had not been evaluated. However, none of the previously recorded sites or newly recorded sites is considered eligible for listing in the NRHP. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, they have low research potential and are similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. In addition, ACI concurs with the previous evaluations of the ineligibility for listing in the NRHP for the three sites.

Historic/architectural background research included a review of the previous I-75 CRAS and memos, the FMSF, and the NRHP. The research indicated eight historic resources (8HI11335; 8HI6900; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites. These include one linear resource, the Seaboard Railway (8HI11335), one Frame Vernacular style building (8HI06900), and six Masonry Vernacular style buildings (8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) constructed between circa (ca.) 1939 and 1965. Of these, two buildings (8HI06900 & 8HI11470) were evaluated as ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Prior to completing the pond site memo, a Historic Resources Survey Update (HRSU) was completed for the I-75 corridor from south of US 301 (SR 43) to north of Bruce B Downs Boulevard (ACI 2019b) which discuss the historic resources. Based on the results of the HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within the historic APE. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. A review of relevant quadrangle maps, historic aerial photographs, and Hillsborough County property appraiser's website data revealed the potential for no additional historic resources 50 years of age or older (constructed in 1969 or earlier) within the APE (Henriquez 2019).

Based on the results of the background research and field investigations, the proposed undertaking will have no effect to any cultural resources listed, eligible, or that appear to be eligible for listing in the NRHP.

2. PROJECT DESCRIPTION

The FDOT District Seven, is proposing roadway improvements to a 17.2-mile segment of I-75 (SR 93A) from south of US 301 (SR 43) to north of Bruce B Downs Boulevard in Hillsborough County, Florida. The proposed ultimate improvements consist of adding three special use lanes (SULs) to the existing general use lanes (GULs) in each direction of the I-75 mainline, because it would provide mobility options and preserve acceptable levels of service for the regional travelers. For the ultimate typical section, the proposed widening of I-75 would mainly occur to the inside within the existing median. A 9-foot widening would also be typically required to the outside on both sides of I-75. The proposed typical section would provide for a minimum 22-foot median that would include 10-foot paved shoulders and barrier walls on both sides. A 6-foot buffer consisting of paint and/or plastic pylons would separate the SULs from the GULs. The design year for the improvements is 2035. This project also includes SMF and FPC sites.

3. ENVIRONMENTAL SETTING

The APE is located in various Sections, Townships, and Ranges (**Table 1; Figures 2-4**) and is located within the Central or Mid-peninsula physiographic zone (White 1970). The topography is gently rolling with a series of low hills and valleys paralleling the coast. The corridor ranges in elevation from 15 to 75 feet (ft) above mean sea level (amsl) and transects three physiographic provinces. The northern and southern ends of the corridor are contained within the Gulf Coastal Lowlands. These are characterized by surficial streams with little to no down cutting. Low sand ridges, formed by ocean waters during the Pleistocene, form slight, rolling hills within the zone. The lack of elevation in the Gulf Coastal Lowlands creates the near surficial to exposed water table throughout the region. This high water table results in the poor natural drainage and abundance of wetlands in the region (Davis 1943; McNab and Avers 1996). Roughly six miles of the corridor are situated within the Polk Uplands, which were formed by the uplifting of Miocene limestones and subsequently shaped by Pleistocene seas that occupied lowland. About two miles of the corridor passes through the Zephyrhills Gap. This break in the Western Valley wall allows for the egress of the Hillsborough River to the Gulf.

Table 1. Sections, Townships, Ranges

| Sections | Townships | Ranges |
|---------------------|-----------|--------|
| Hillsborough County | | |
| 06,07 | 30 S | 20 E |
| 05,08,17,20,29,31 | 29 S | 20 E |
| 19,29,32 | 28 S | 20 E |

The I-75 PD&E Study corridor transects the Candler-Lake, Myakka-Basinger-Holopaw and Winder-Chobee-St. Johns soil associations (USDA 1989). The Candler-Lake association is characterized by nearly level to strongly sloping, excessively drained soils that are sandy throughout. These are associated with the uplands and low ridges. The Myakka-Basinger-Holopaw association consists of nearly level, poorly and very poorly drained soils of the flatwoods. The Winder-Chobee-St. Johns association consists of nearly level, poorly and very poorly drained soils that have a loamy or a sandy subsoil. These are located in wetland and coastal areas. A more detailed description of the soils can be found in ACI's 2008 PD&E Study on file at the FDHR, Survey No. 17897.

Today, much of the natural vegetation has been removed and the APE has been disturbed as the result of many land altering activities, which include but are not limited to, road construction, above ground and subsurface utilities, commercial/residential/recreational/agricultural development, water retention ponds, ditches, and spoil piles (**Photos 1-10**).

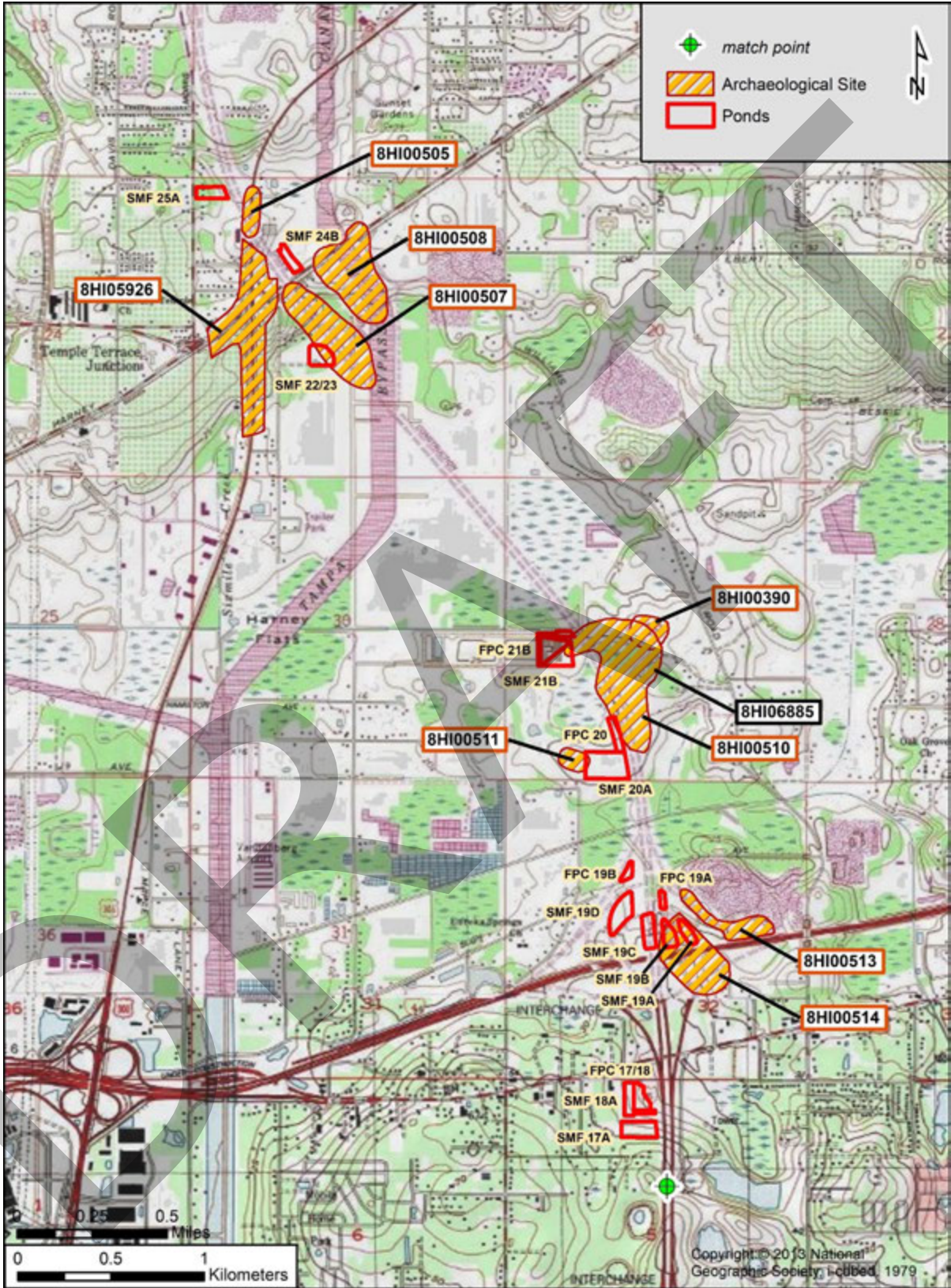


Figure 2. Environmental Setting and previously recorded cultural resources in close proximity to the APE.

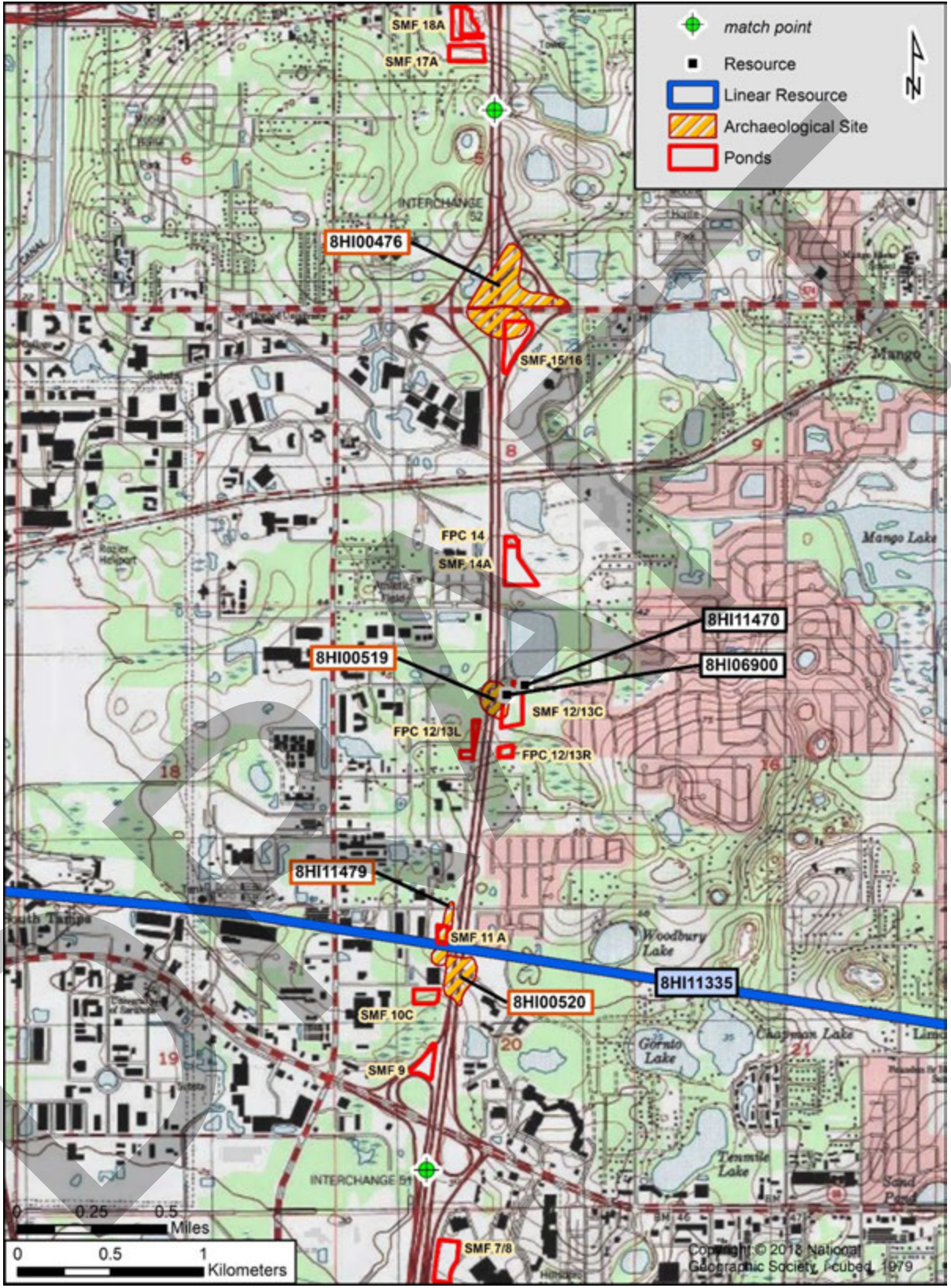


Figure 3. Environmental Setting and previously recorded cultural resources in close proximity to the APE.

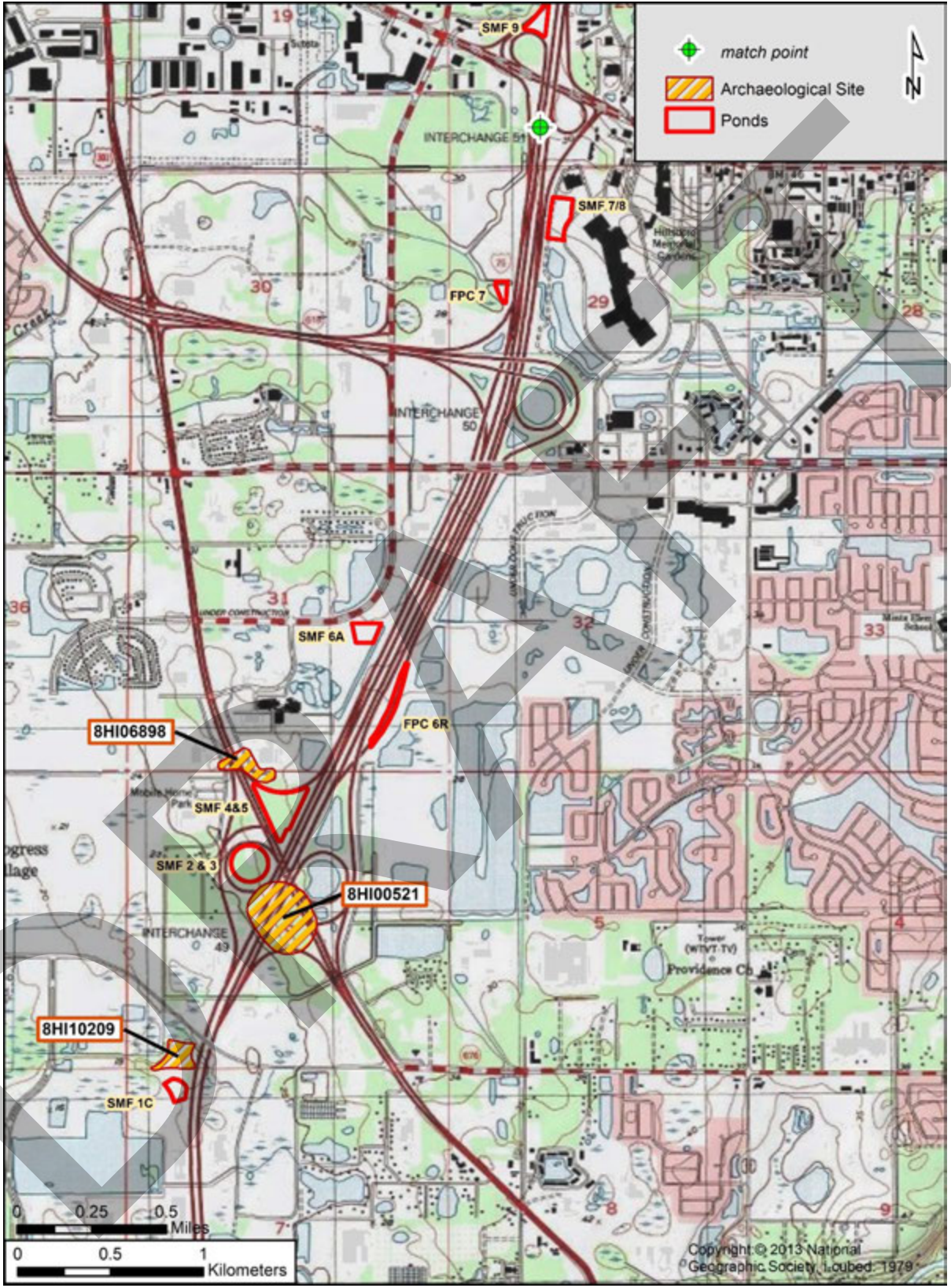


Figure 4. Environmental Setting and previously recorded cultural resources in close proximity to the APE.



Photo 1. North, northeast view of SMF 19B.



Photo 2. Looking northeast at SMF 19D.



Photo 3. Southeast view of SMF 24B.



Photo 4. Ditch in north end of SMF 22/23.



Photo 5. Pasture in SMF 17A.



Photo 6. North view of SMF 15/16.



Photo 7. Looking southwest at FPC 12/13R.



Photo 8. North view of SMF 11A.



Photo 9. Northeast view of SMF 10C.



Photo 10. South view of SMF 9.

4. HISTORIC AND PREHISTORIC OVERVIEWS

In-depth historic and prehistoric overviews were included in the PD&E CRAS document submitted to and approved by the State Historic Preservation Office (SHPO) (Kammerer 2010) and are not repeated here because they are already in the DHR database (DHR Project File No. 2009-7642). Specifically, this report is: *A Cultural Resource Assessment Survey Project Development and Environment Study from South of US 301 to North of Fletcher Avenue Hillsborough County* (ACI 2009b; FDHR Survey No. 17897).

5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND AND CONSIDERATIONS

Prior to initiating the archaeological and historical survey of the preferred pond sites, ACI reviewed the CRAS and the Preliminary Technical Memorandum for Proposed Stormwater Management Facilities from south of US 301 (ACI 2009b, 2019a, 2019b) to north of Fletcher Avenue. This research revealed that there are 17 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites. Of the 17 previously recorded archaeological sites, 7 sites are wholly or partially within 10 of the SMF/FPC sites and the remaining sites are adjacent (**Table 2; Figures 2-4**). Four of the sites identified in the APE are considered potential eligible for listing in the NRHP. Several of these sites are among those originally recorded by B. Calvin Jones in 1978 during Phase I archaeological survey of the proposed I-75 ROW. In addition, three were the focus of Phase II evaluative site testing (8HI00476, 8HI00507, 8HI00510) and two of these were also subjected to Phase III mitigative salvage excavation as part of the original I-75 study (8HI00476, 8HI00507). Today, roughly 40 years later, most of these sites, as located within the I-75 project APE, have lost their contextual integrity due to road construction and improvements, the placement of utility lines, and other developments. Thus, they no longer meet the criteria of eligibility for listing in the NRHP, at least in part, even though the FMSF lists them as “potentially eligible.”

Table 2. Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites.

| Site # | Site Name | Site Type | Culture | SHPO Eval* |
|----------|--------------------|---|--|------------|
| 8HI00390 | Bartolotti | Lithic scatter/quarry | Aboriginal lacking pottery | No |
| 8HI00475 | 301 Crossing | Artifact scatter, lithic scatter/quarry | Archaic | NE |
| 8HI00476 | Diamond Dairy: A | Habitation | Middle Archaic | PE |
| 8HI00505 | Fruit Stand | Lithic scatter/quarry | Archaic | NE |
| 8HI00507 | Harney Flats | Artifact scatter | Paleo-Indian, Early and Middle Archaic, post-Archaic | PE |
| 8HI00508 | Black Chert | Artifact scatter | Paleo-Indian, Early and Middle Archaic, post-Archaic | No |
| 8HI00510 | Bartolotti | Lithic scatter/quarry | Paleo-Indian, Early and Middle Archaic, post-Archaic | PE |
| 8HI00511 | Bartolotti SW | Lithic scatter/quarry | Archaic | No |
| 8HI00513 | Red Hill | Lithic scatter/quarry | Archaic | NE |
| 8HI00514 | Road End | Lithic scatter/quarry, artifact scatter | Archaic | NE |
| 8HI00519 | Graves Road | Historic refuse / Dump, lithic scatter/quarry | Archaic, 20th century | NE |
| 8HI00520 | South Railroad | Lithic scatter/quarry | Aboriginal | No |
| 8HI00521 | Titus Church | Lithic scatter/quarry | Archaic | No |
| 8HI05926 | Vera's Thrift Shop | Artifact scatter | Early Archaic | NE |
| 8HI10209 | Progress | Campsite | Aboriginal | NE |
| 8HI11479 | Regency NW | Lithic Scatter | Aboriginal | PE |
| 8HI06898 | Bayside #12 | Ceramic scatter, lithic scatter/quarry | Post-Archaic | NE |

* PE=Potentially Eligible for NRHP, NE= Not Eligible for NRHP, No= Not Evaluated by SHPO.

In addition to the 1978 survey of I-75, over 50 CRASs have been conducted within one-quarter mile of the I-75 PD&E Study corridor. These include 1970s surveys of recreation areas within the Lower Hillsborough River Flood Detention Area (Daniel et al. 1979), the Tampa Bypass Canal (Seabury et al. 1975), and the Lake Thonotosassa By-Pass Canal (Deming 1976). Transportation project-related survey, conducted between the 1970s and recently, include the Vandenberg Airport expansion (Janus Research 1996a), the Crosstown Expressway (HDR Engineering 1991; Janus Research 1998, 2000), I-4 (Janus Research 1992b), US 92/SR 660 (ACI 1993), US 301 (Deming 1997; Janus Research 1996b, 1999), I-75 (ACI 2003, 2006), SR 60 (Adamo Drive) (ACI 2004), and the Florida High Speed Rail (ACI/Janus 2003). Several other surveys were conducted for water and sewage conveyance (Austin 1999, 2000a; Miller 1979; SEARCH 2000a; Wharton 1988). R. Christopher Goodwin and Associates, Inc. conducted Phase I surveys along the Florida Gas Transmission Company corridor, plus access roads, and work spaces in the general vicinity of the I-75 corridor (Athens et al. 1994; Athens and Weisman 1994; Austin 2000b; SEARCH 2000b; Stokes 2002a, 2002b, 2002c). Since the mid-1970s, other surveys have been conducted incident to Developments of Regional Impact (DRIs) and various other developments. These include an 80-acre parcel (Miller 1974), Deltona (Grange et al. 1979), Brandon Town Center (Piper et al. 1982), Hidden River (Almy and Deming 1982), Sabal Center (Brooks and Ballo 1984), Temple Terrace 2 (Deming et al. 1984), Regency Park North (Deming 1985), the Florida Corporate Center (ACI 1998), LL Middle School (Ambrosino 2002), Joe Ebert Road (Ambrosino 2003), Williams Crossing (Austin and Mohlman 2003), Lakeview Village (Quinn 2004), Freedom Ridge (Austin and Mohlman 2005), Claymore Crossings (Janus Research 2005), Gray Pines (Austin 2005), Harvest Creek (Hughes 2006), and Sampson Grove (Carty 2006)

project areas. In addition, several surveys have been conducted for cellular communication towers (Johnson 2001; Pracht 2001a, 2001b).

The background research also entailed research of the computerized database at the FMSF and NRHP listings (conducted in August 2019), examination of the (USDA) *Soil Survey Hillsborough County, Florida* (USDA 1952, 1989), as well as the USGS quadrangle maps (USGS 1956, 1974), and the standard archaeological predictive model for the Central Peninsular Gulf Coast and Caloosahatchee archaeological regions (Milanich and Fairbanks 1980; Milanich 1994).

Historic/architectural background research included a review of the previous I-75 CRAS and memos, the FMSF, and the NRHP. The research indicated eight historic resources (8HI11335; 8HI6900; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites (**Table 3; Figures 2-4**). These include one linear resource, the Seaboard Railway (8HI11335), one Frame Vernacular style building (8HI6900), and six Masonry Vernacular style buildings (8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) constructed between circa (ca.) 1939 and 1965. Of these, two buildings (8HI6900 & 8HI11470) were evaluated as ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Prior to completing the pond site memo, a HRSU was completed for the I-75 corridor from south of US 301 (SR 43) to north of Bruce B Downs Boulevard (ACI 2019). Based on the results of the HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within the historic APE. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU.

Table 3. Previously recorded historic resources within or immediately adjacent to the proposed pond sites.

| FMSF No. | Address/Site Name | Build Date | Style/Type | NRHP Evaluation Recommendation | Proposed Pond Site |
|-----------|-----------------------|------------|--------------------|--------------------------------|---------------------|
| 8HI11335 | Seaboard Railway | N/A | Linear Resource | Insufficient Information | Adjacent SMF 11A |
| 8HI14689* | 2408 Graves Rd | 1961 | Masonry Vernacular | Ineligible | Adjacent SMF 12/13C |
| 8HI06900 | 2408 Grave Rd | 1939 | Frame Vernacular | Ineligible | Within SMF 12/13C |
| 8HI11470 | 2306 Graves Rd | 1951 | Masonry Vernacular | Ineligible | Adjacent SMF 12/13C |
| 8HI14872* | 8913 Bowles Rd | 1963 | Masonry Vernacular | Ineligible | Within SMF 22/23 |
| 8HI14694* | 9919 Morris Bridge Rd | 1965 | Masonry Vernacular | Ineligible | Within SMF 25A |
| 8HI14695* | 9921 Morris Bridge Rd | 1961 | Masonry Vernacular | Ineligible | Within SMF 25A |
| 8HI14696* | 9923 Morris Bridge Rd | 1960 | Masonry Vernacular | Ineligible | Adjacent SMF 25A |

*Denotes recorded resource during the I-75 Historic Resources Update (ACI 2019). Red shading denotes resource is no longer extant.

A review of relevant quadrangle maps, historic aerial photographs, and Hillsborough County property appraiser's website data revealed the potential for no additional historic resources 50 years of age or older (constructed in 1969 or earlier) within the APE (Henriquez 2019).

6. SURVEY METHODS

The FDHR's Module Three, Guidelines for Use by Historic Professionals, indicates that the first stage of archaeological field survey is a reconnaissance of the project area to "ground truth," or ascertain the validity of the predictive model (FDHR 2003). During this part of the survey, the researcher assesses whether the initial predictive model needs adjustment based on disturbance or conditions such as constructed features (i.e., parking lots, buildings, etc.), underground utilities, landscape alterations (i.e., ditches and swales, mined land, dredged and filled land, agricultural fields), or other constraints that may affect the archaeological potential. Additionally, these Guidelines indicate that non-systematic "judgmental" testing may be appropriate in urbanized environments where pavement, utilities, and constructed features make systematic testing unfeasible; in geographically restricted areas such as proposed pond sites; or within project areas that have limited high and moderate probability zones, but where a larger subsurface testing sample may be desired. While predictive models are useful in determining preliminary testing strategies in a broad context, it is understood that testing intervals may be altered due to conditions encountered by the field crew at the time of survey.

Based upon the results of background research, all pond sites were assigned to low to moderate, moderate, moderate to high, or high zone of historic and prehistoric archaeological potential (ZAP) for site discovery (**Table 4**) during the preliminary pond review (ACI 2019). However, several of these were downgraded once the crew was in the field and could assess the actual field conditions. The potential for historic period archaeological sites was assessed on the basis of documentary research. Prehistoric sites, if found, were expected to be small, low artifact density lithic and/or artifact (ceramics and lithics) scatters. Based upon an examination of the nineteenth century federal surveyor's plat and field notes, no homesteads, forts, battle sites, military trails, or Native American (Seminole) encampments were expected.

Archaeological field survey included both ground surface reconnaissance and the systematic excavation of shovel test pits. Subsurface testing was conducted systematically at 25, 50, and 100 meter (m) intervals and judgmentally. Positive shovel tests were bounded at 10 m intervals. All shovel tests measured 1.6 ft in diameter, and most were dug to 3.3 ft in depth unless impeded by water, gravel, or other impenetrable substrata. All recovered soil was screened through a .25 inch (in) mesh hardware cloth to maximize the recovery of cultural materials, and, after soil stratigraphy was recorded, each test pit was refilled. The location of each shovel test was plotted on a GPS Juno 5 Series.

Historic/architectural field methodology consisted of a field survey of the APE to determine and verify the location of all buildings and other historic resources (i.e. bridges, roads, cemeteries) that are 50 years of age or older (built in or prior to 1969), and to establish if any such resources could be determined eligible for listing in the NRHP. The field survey focused on the assessment of existing conditions for all previously recorded historic resources located within the APE, and the presence of unrecorded historic resources within the project area. For each property, photographs were taken, and information needed for the completion of FMSF forms was gathered. In addition to architectural descriptions, each historic resource was reviewed to assess style, historic context, condition, and potential NRHP eligibility. Also, informant interviews would have been conducted, if possible, with knowledgeable persons to obtain site-specific building construction dates and/or possible associations with individuals or events significant to local or regional history.

Laboratory Procedures and Curation: All recovered cultural materials were initially cleaned and sorted by artifact class. Lithics were divided into tools and debitage based on gross morphology. Tools, if found would have been measured, and the edges examined with a 7-45x stereo-zoom microscope for traces of edge damage and classified using standard references (Bullen 1975; Purdy 1981). Lithic debitage was subjected to a limited technological analysis focused on ascertaining the stages of stone tool production. Flakes and non-flake production debris (i.e. cores, blanks, tested cobbles) were measured, and examined for raw material types and absence or presence of thermal alteration. Flakes were classified into four types (primary decortication, secondary decortication, non-decortication, and shatter) based on the amount of cortex on the dorsal surface and the shape (White 1963). Aboriginal ceramics, if found, would have been classified based on the characteristics of temper type and decoration, utilizing standard references (Cordell 1987, 2004; Goggin 1948; Luer and Almy 1980; Willey 1949). In addition, standard references would have been used to aide in the identification of historic period artifacts to ascertain site function and temporal placement. Faunal material would have been initially sorted into class (mammal, reptile, bony fish, etc.); within these broad categories, identifiable elements would have been classified as to genus and species, where possible.

All project related information will be housed at Archaeological Consultants, Inc., in Sarasota (Project file #P19150.2), pending transfer to a FDOT-designated repository for permanent storage and curation.

Inadvertent/Unexpected Discoveries Occasionally, archaeological deposits, subsurface features or unmarked human remains are encountered during the course of development, even though the project area may have previously received a thorough and professionally adequate cultural resources assessment. Such events are rare, but they do occur. In the event that human remains are encountered during the course of development, the procedures outlined in Chapter 872, *FS* must be followed. However, it was not anticipated that such sites would be found during this survey.

In the event such discoveries are made during the development process, all activities in the immediate vicinity of the discovery will be suspended, and a professional archaeologist will be contacted to evaluate the importance of the discovery. The area will be examined by the archaeologist, who, in consultation with staff of the Florida SHPO, will determine if the discovery is significant or potentially significant. In the event the discovery is found to be not significant, the work may immediately resume. If, on the other hand, the discovery is found to be significant or potentially significant, then development activities in the immediate vicinity of the discovery will continue to be suspended until such time as a mitigation plan, acceptable to SHPO, is developed and implemented. Development activities may then resume within the discovery area, but only when conducted in accordance with the guidelines and conditions of the approved mitigation plan.

7. SURVEY RESULTS

Archaeological: Field survey resulted in the excavation of 193 shovel tests placed within 28 of the 32 pond sites; these were placed systematically and judgmentally. One of the ponds not tested was due to it being an active construction site (FPC 19B) and the other three not tested was due to no access (electric fences, locked gates, concrete barrier) (SMF 12/13R, SMF 21B, FPC 21B). The distribution of the shovel test pits is noted in **Table 4** and **Figures 5-14**. As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). FMSF forms for these sites are in **Appendix A** and brief descriptions are provided. In addition, no evidence of previously recorded sites 8HI00476 (SMF15/16), 8HI00507

(SMF 22/23), 8HI00510 (SMF 21B, FPC 20, FPC 21B), or 8HI11479 (SMF 11A), was found. Thus, since no evidence was found, the FMSF forms for these four resources was not updated.

All shovel tests had variable stratigraphy and most evidenced disturbance. Soils in the ponds that had a more upland environment had an average stratigraphy of 0-20 cm of grey or dark grey sand, 20-70 cm of light brown or tan sand, and 70-100 cm of dark brown sand or hard pan, with water sometimes encountered as shallow as 50 cm. The upper soil in many of the shovel tests evidenced disturbance. Some of the ponds on the lower lying elevations contained standing water. A reasonable and good faith effort was made per the regulations laid out in 36 CFR § 800.4(b)(1) (Advisory Council on Historic Preservation n.d.) to survey all areas of the project APE.

Table 4. Archaeological field survey results.

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|----------------|----------|---|
| SMF-1C | Low | Prehistoric Archaeological: no previously recorded sites within; 8HI10209 to the north; upland from freshwater; gated community with residences; 3 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-2/3 | Low | Prehistoric Archaeological: no previously recorded sites within; 8HI00521 to the southeast; within interchange, disturbed, contains a lot of refuse; 5 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-4/5 | High | Prehistoric Archaeological: no previously recorded sites within APE; 8HI06893 adjacent; disturbed and in interchange; 23 shovel tests, 11 positive |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-6A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed by relict agriculture; 5 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC 6R | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, along a roadway; 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-7 | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE on uplands adjacent to freshwater; disturbed (has ditching and invasive weeds); 5 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-7/8 | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, used as parking for Town Center; 6 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-9 | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in an interchange; 3 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-10C | Moderate | Prehistoric Archaeological: no previously recorded sites within APE; adjacent to 8HI00520; disturbed, contained standing water; 8 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-11A | Moderate | Prehistoric Archaeological: 8HI11479 within SMF site; disturbed, 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-12/ 13C | Moderate | Prehistoric Archaeological: 8HI00519 within; disturbed by residence, 20 shovel tests, 2 positive |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|---------------|----------------|--|
| FPC-12/13L | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater; disturbed (parking lot, retention pond, private drive, residence), 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-12/13R | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater; disturbed, no access (electric fences, locked gates, construction trench); 0 shovel tests |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF 14A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed; 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-14 | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, 2 shovel tests, negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-15/ 16 | Low - Moderate | Prehistoric Archaeological: 8HI00476 within and within interchange; disturbed and contains refuse and homeless camps; 7 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-17A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; disturbed by pasture and ranching activities; 16 shovel tests, 3 positive; new site 8HI14873 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-18A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; disturbed by pasture and ranching activities; 9 shovel tests, 2 positive; new site 8HI14873 |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-17/ 18 | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; 7 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-19A | Low | Prehistoric Archaeological: pond site located in 8HI00514 but within interchange, disturbed; 6 shovel tests, 2 positive |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-19B | High | Prehistoric Archaeological: pond site located in 8HI00514; disturbed within interchange; 8 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-19C | Low | Prehistoric Archaeological: no previously recorded sites within; 8HI00514 adjacent to APE; disturbed within interstate, 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-19D | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed within interchange, 2 shovel tests, both negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-19A | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in interchange; 2 shovel tests, both negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-19B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in interchange and part of an active construction site; 0 shovel tests |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-20A | Moderate | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00511 adjacent to APE; 24 shovel tests, 7 positive |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-20 | Low | Prehistoric Archaeological: no previously recorded sites within APE; 8HI00510 adjacent to APE; disturbed, 2 shovel tests, both negative |

| SMF/ FPC | ZAP* | Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.) |
|-------------|----------------|--|
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-21B | Low | Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed; property no accessible (locked gate, concrete wall lined ramp adj. to interstate); 0 shovel tests |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| FPC-21B | Low | Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed; property no accessible (locked gate, concrete wall lined ramp adj. to interstate); 0 shovel tests |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-22/23 | Low | Prehistoric Archaeological: 8HI00507 partially within APE but it is disturbed by residence, farming activities, ditching; 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-24B | Low | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed by dredging, low and wet in some areas, fill in other areas; 2 shovel tests, both negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |
| SMF-25A | Low - Moderate | Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater; disturbed by residences, 4 shovel tests, all negative |
| | Low | Historic Archaeological: no previously recorded sites within or adjacent to APE |

* Zone of Archaeological Potential; green shading represents archaeological sites within APE; blue shading represents archaeological sites adjacent to the APE

8HI00511: The **Bartolotti SW Site** is located in the northeast quarter of Section 29, Township 28 South, Range 20 East in SMF 20A (**Figure 13, Photo 11; Appendix A**). The site was originally reported by an informant and then recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF). It has not been evaluated by the SHPO. The site is situated on Bradenton fine sand, 0-2% slopes, which is a moderately well drained soil of low ridges in the flatwoods. The site is at an approximate elevation of 25-30 feet. The general stratigraphy consists of 0-20 cmbs of grey sand, 20-70 cmbs of very light grey sand, and 70-100 cmbs of dark brown hard pan with some water intrusion at 90 cmbs. The site is situated on uplands between two swamps. The site area is a cattle pasture. The extended agricultural history of the area suggest that shallow site components may have been removed.



Photo 11. Looking north at 8HI00511.

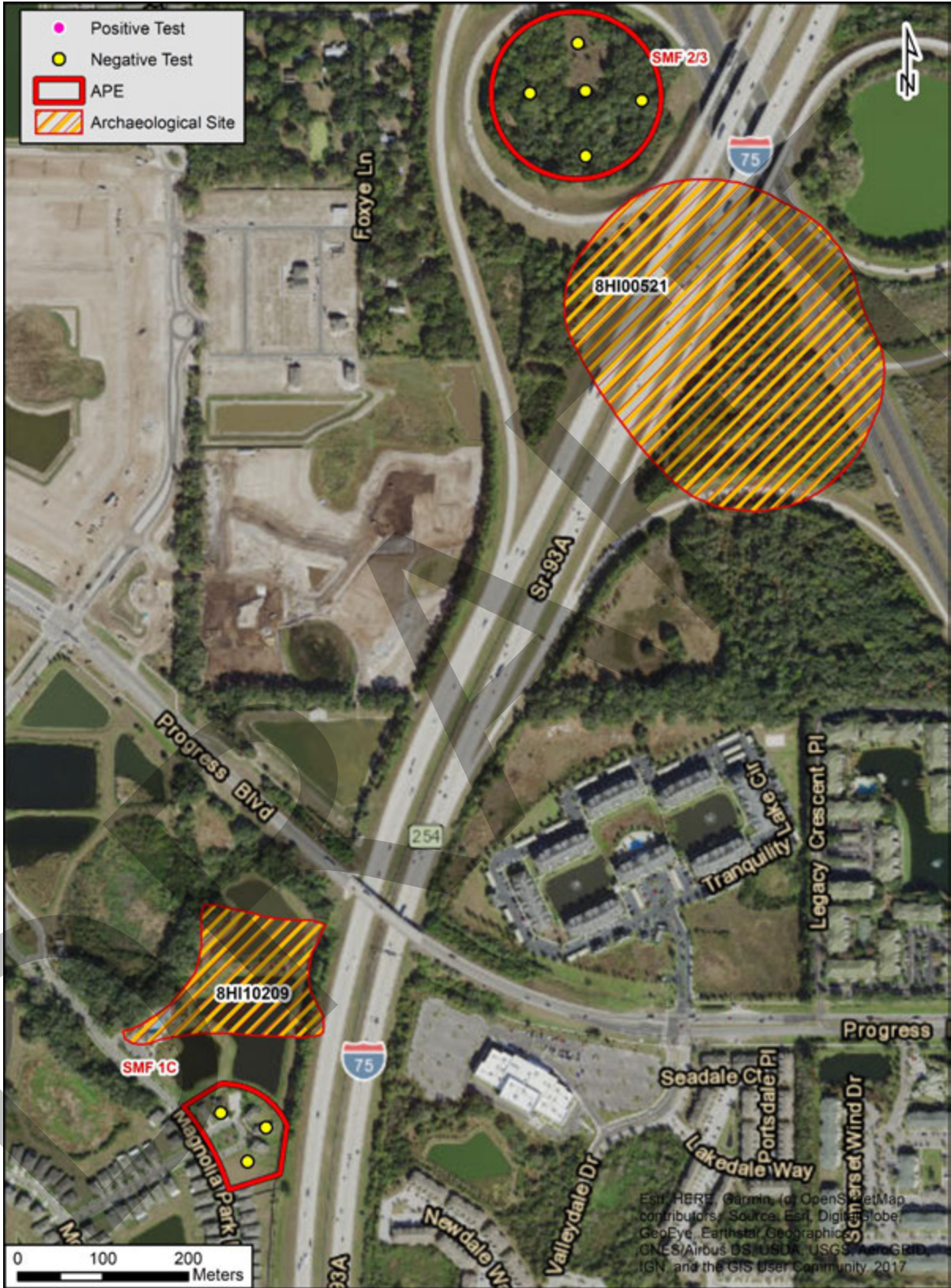


Figure 5. Approximate location of shovel tests within the APE.

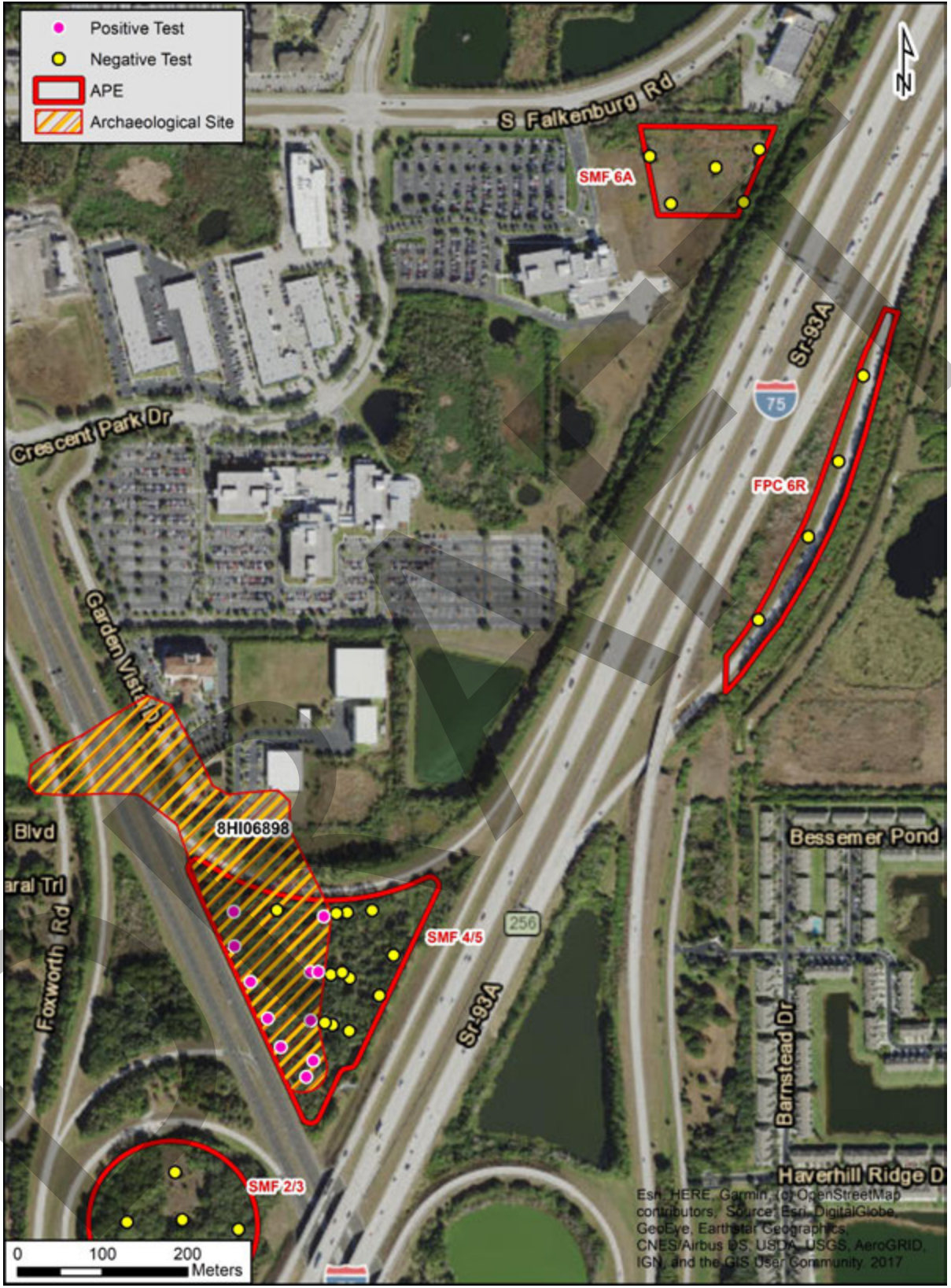


Figure 6. Approximate location of shovel tests within the APE.

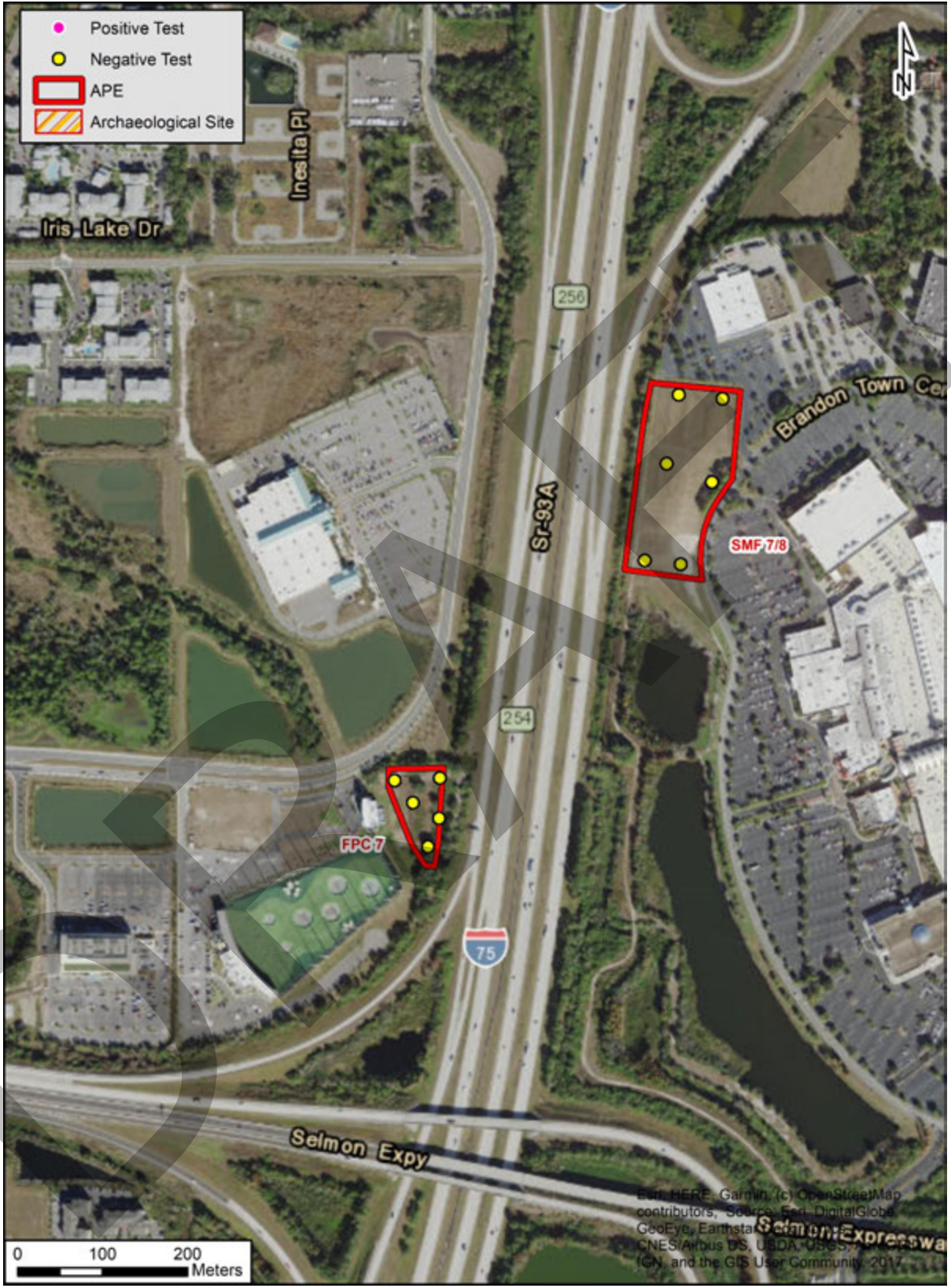


Figure 7. Approximate location of shovel tests within the APE.

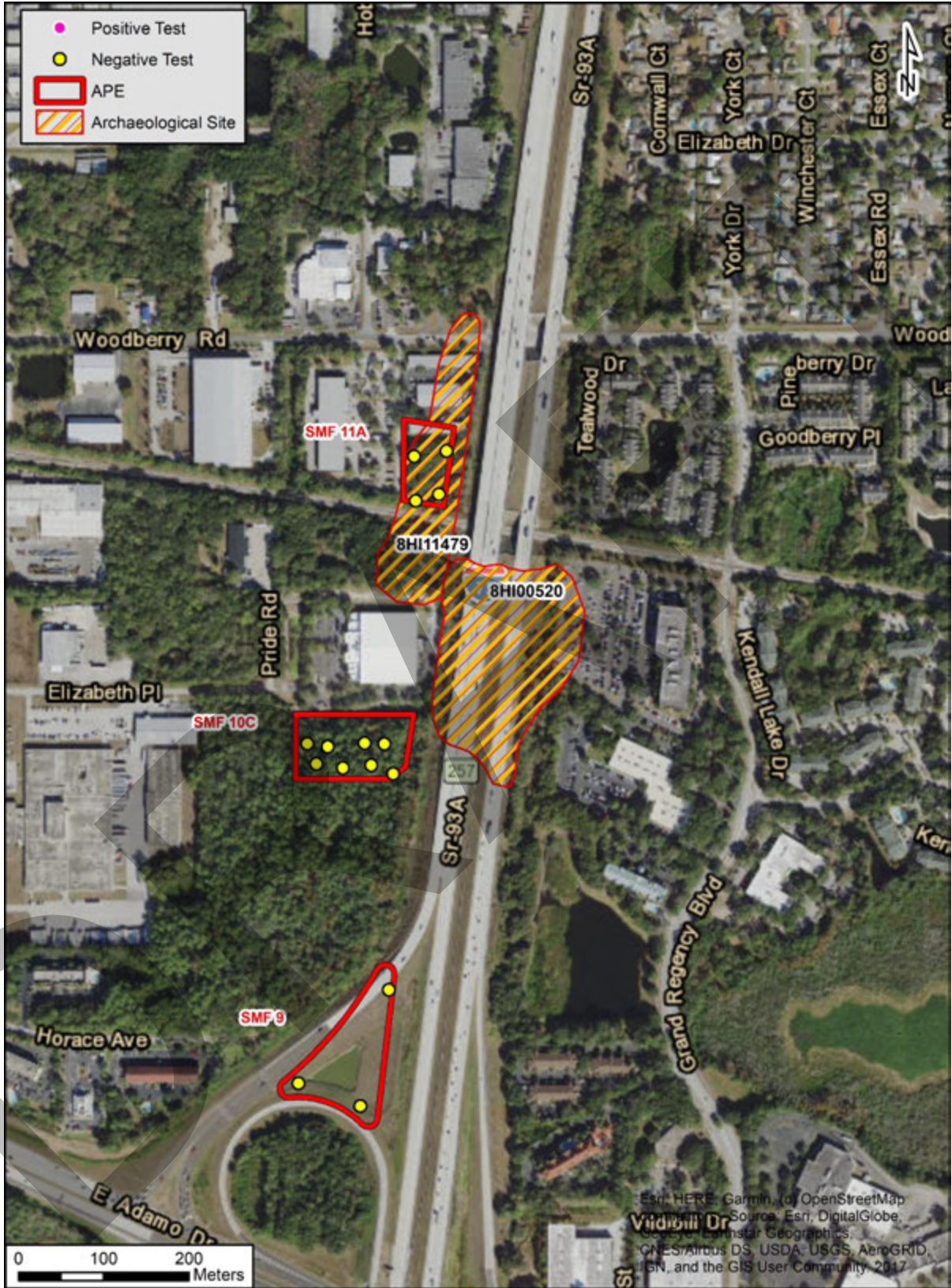


Figure 8. Approximate location of shovel tests within the APE.

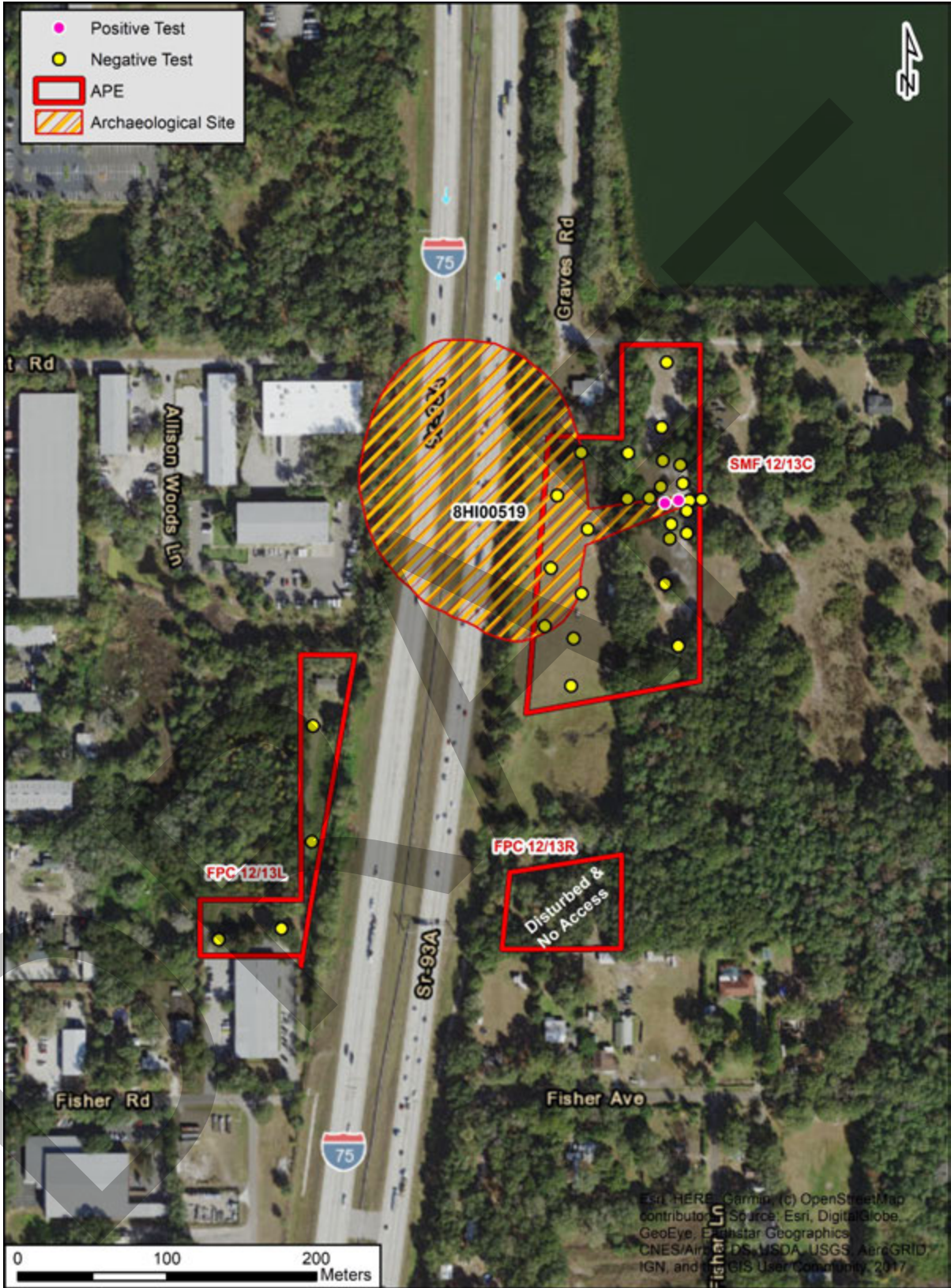


Figure 9. Approximate location of shovel tests within the APE.

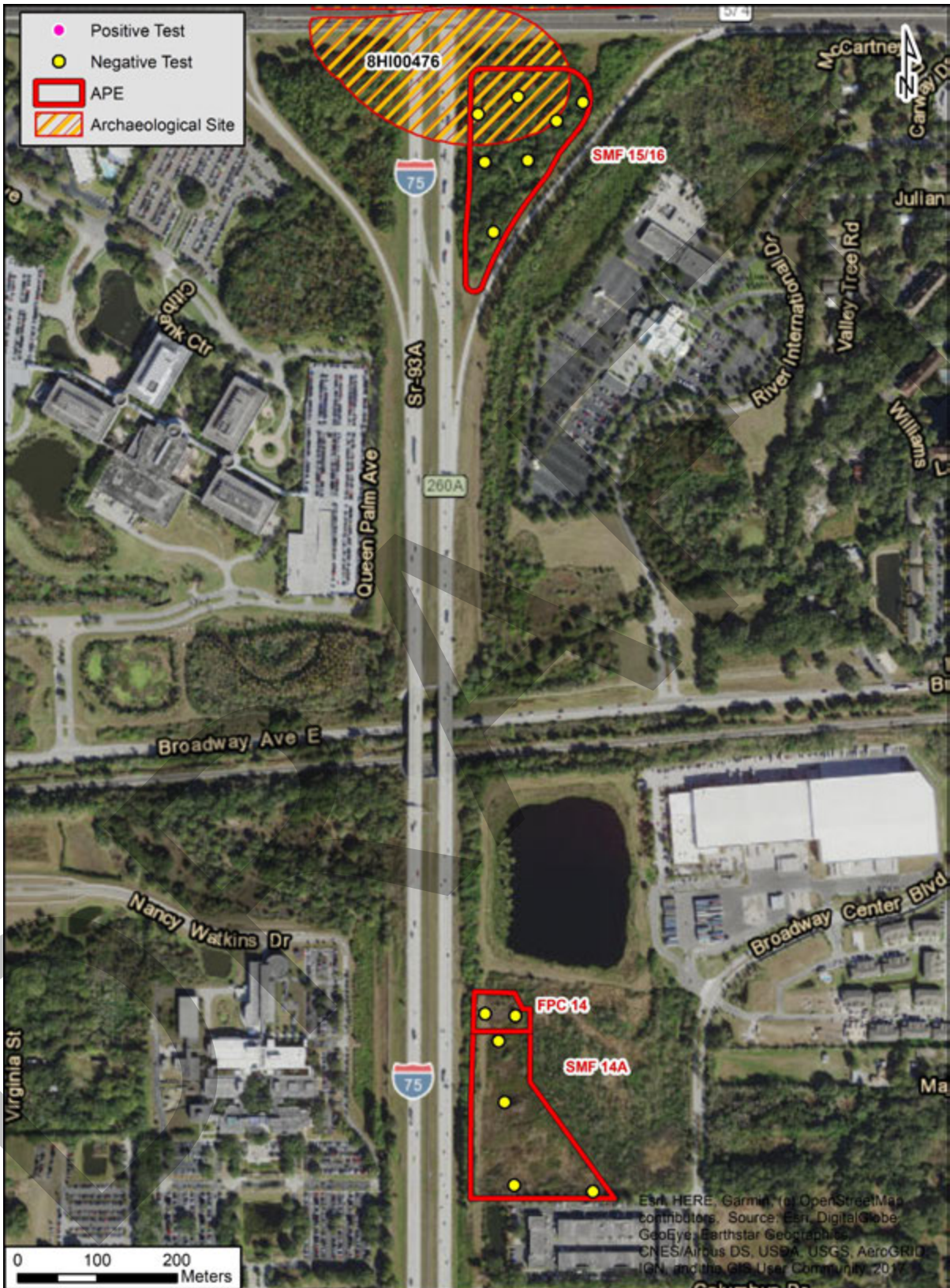


Figure 10. Approximate location of shovel tests within the APE.

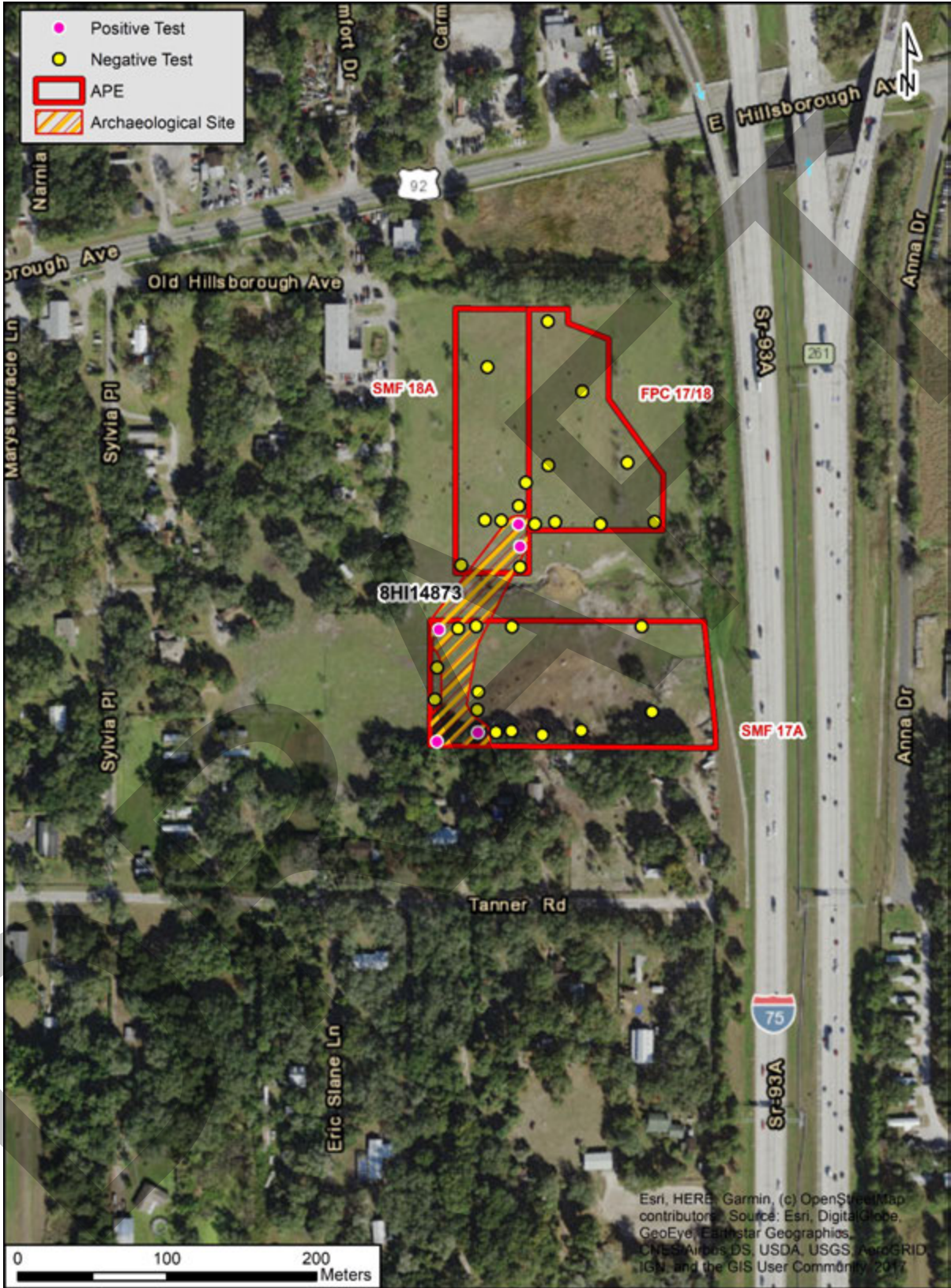


Figure 11. Approximate location of shovel tests within the APE.

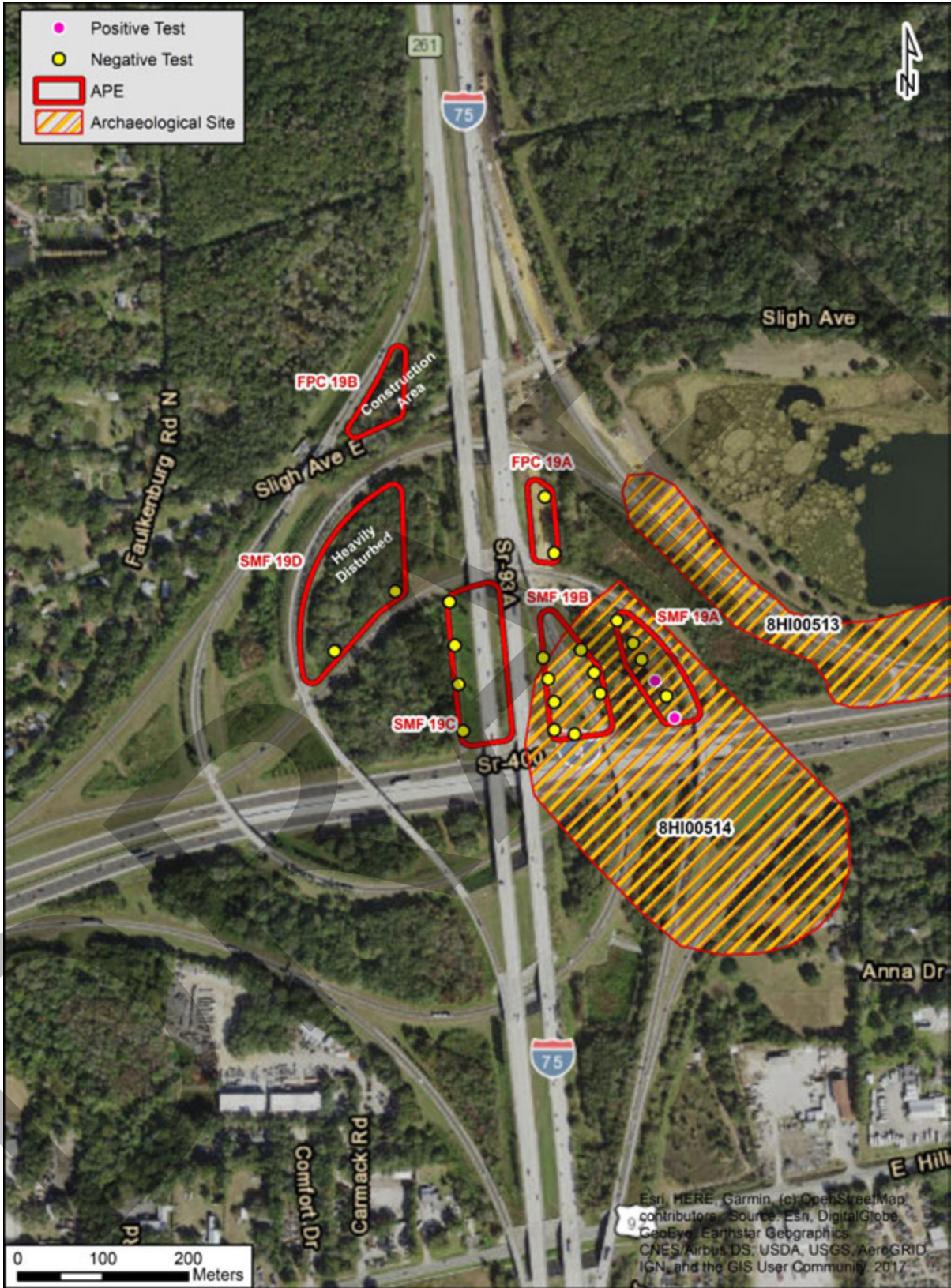


Figure 12. Approximate location of shovel tests within the APE.

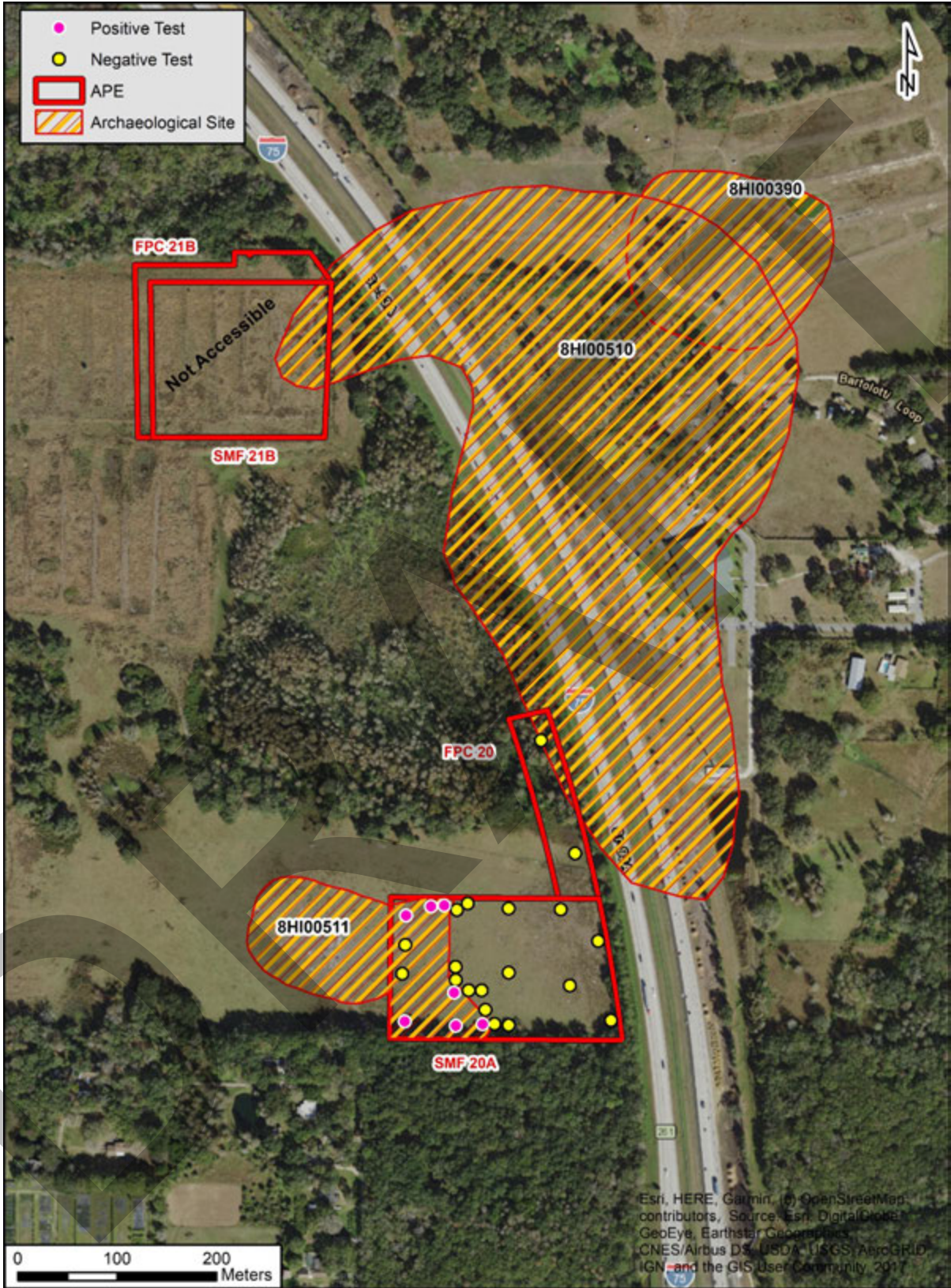


Figure 13. Approximate location of shovel tests within the APE.



Figure 14. Approximate location of shovel tests within the APE.

The site was found during systematic shovel testing at 50 m intervals; of the 18 shovel tests excavated, 7 produced cultural material from 30-90 cmbs (**Figure 13**). The debitage (chert=11, coral=1) assemblage includes one primary decortication flake, two secondary decortication flakes, and nine non-decortication flakes. Nine of the flakes are medium-sized (1-2 cm), two of the flakes are large (2-3 cm), and one is extra-large (3-4 cm). All but two were thermally altered. The lithic artifacts suggest the early to late stages of stone tool manufacture and maintenance and the presence of the high prevalence of thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. to 500 B.C.E.).

8HI00511, as located within the current APE, measures approximately 60 m east/west by 140 m north/south. The site most likely extends outside of the APE (**Figure 5.1**). However, further investigation was beyond the scope of this project. The site probably represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, it has a low research potential. It is similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. Thus, 8HI00511, as located within the APE, does not appear to be potentially eligible for listing in the NRHP.

8HI00514: The Road End Site is located in the northwest and northeast quarter of Section 32, Township 28 South, Range 20 East in SMF 19A (**Figure 12, Photo 12; Appendix A**). The site was originally reported by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by several others (ACI 2009, 2014; Austin 2000; Janus Research 1992b). It was evaluated by the SHPO in 2015 as ineligible for listing in the NRHP. The site is situated on Leon fine sand at an approximate elevation of 25-30 feet. The general stratigraphy consists of 0-50 cmbs of mottled grey/brown sand, 50-95 cmbs of light grey sand, and 95-100 cmbs of dark brown compact sand. The site is situated on uplands between two swamps. The site area is located at the interchange of I-75 and I-4.



Photo 12. Looking northeast a site 8HI00514.

The site was found during systematic shovel testing at 50 m intervals; of the 14 shovel tests excavated, two produced cultural material from 20-100 cmbs. The debitage consisted of two large chert, non-decortication waste flakes that had been thermally altered. One of the flakes had been altered for

use as a flake tool. The flaked tool is described as a perforator and a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

Additional evidence of 8HI00514 was found within the existing boundaries of the recorded site. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI00519: The **Graves Road Site** is located in the northeast quarter of Section 17, Township 29 South, Range 20 East in SMF 12/13C (**Figure 9, Photo 13; Appendix A**). The site was recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by others (ACI 2009; Austin 2000). It was evaluated by the SHPO in 2000 and determined not eligible for listing in the NRHP. The site is situated on Blanton fine sand at an approximate elevation of 50-55 ft amsl. The general stratigraphy consists of 0-30 cmbs of mottled grey sand, 30-50 cmbs of brown sand, and 50-100 cmbs of light tan sand. The site is situated upland from a swamp. The site area is residential with mature oaks.



Photo 13. Looking south at 8HI00519.

The site was found during systematic shovel testing at 50 m intervals; of the 18 shovel tests excavated, 7 produced cultural material from 30-90 cmbs. The debitage assemblage (all chert) includes, two secondary decortication flakes and four non-decortication flakes. Three of the flakes are medium-sized (1-2 cm) and three of the flakes are large (2-3 cm), and three were thermally altered. One of the flakes had been altered for use as a flake tool. The flaked tool is described as a perforator and a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

8HI00519, as located within the current APE, measures approximately 75 m east/west by 25 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI06898: The **Bayside #12 Site**, as located within the APE, is situated in the northwest quarter of Section 6 Township 30 South, Range 20 East in SMF 4/5 (**Figure 6, Photo 14; Appendix A**). The site was recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by others (ACI 2009; Austin 2000). It was evaluated by the SHPO in 2000 and determined not eligible for listing in the NRHP. The site is situated on Archbold fine sand at an approximate elevation of 30 ft amsl. The general stratigraphy consists of 0-30 cmbs of mottled grey sand, 30-80 cmbs of very light grey sand, and 80-100 cmbs of dark brown hard pan. The site is situated upland from a swamp. The site area is disturbed and part of the US 301/I-75 interchange.



Photo 14. Looking north at site 8HI06898.

The site was found during systematic shovel testing at 25 m intervals; of the 23 shovel tests excavated, 11 produced cultural material from 30-90 cmbs. A dredged pond in the southern portion of the SMF prevented bounding with double negatives and roadway disturbance in the northwest portion also prevented double negatives. The debitage assemblage (N=35 chert; N=2 coral) includes 3 secondary decortication flakes and 34 non-decortication flakes. Five of the flakes are small-sized (0-1 cm), 26 of the flakes are medium-sized (1-2 cm), and 6 of the flakes are large (2-3 cm) and all but six had been thermally altered. Four of the flakes have been altered for use as flake tools. Two are multi-purpose, perforator and a spokeshave; one is a blade; and the other is just a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

8HI06898, as located within the current APE, measures approximately 120 east/west by 250 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited

activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI14873: The **Tanner Road Site** is located in the northeast quarter of Section 5, Township 29 South, Range 20 East in SMF 17A and 18A (**Figure 11, Photos 15, 16; Appendix A**). The site is situated on Myakka fine sand at an approximate elevation of 35-50 ft amsl. The general stratigraphy consists of 0-20 cmbs of dark grey sand, 20-40 cmbs of grey sand, 40-60 cmbs of dark brown sand, and 60-100 cmbs of yellow brown sand, with water occasional encountered at 90 cmbs. The site is situated upland from a swamp. The site area is a cattle pasture. The artifacts from both of the SMF sites was combined to form one site since the artifacts all had common features (ie, depth below surface, soil type, elevation) in common.



Photo 15. Looking southeast at site in portion of SMF 17A.



Photo 16. Looking north at portion of site in SMF 18A.

The site was found during systematic shovel testing at 50 m intervals; of the 21 shovel tests excavated, 5 produced cultural material from 25-90 cmbs. The debitage assemblage (all chert) includes five secondary decortication flakes and three non-decortication flakes, as well as one 3 Sand Tempered plain (STP) ceramic body sherd. Four of the flakes are medium-sized (1-2 cm), three of the flakes are large (2-3 cm), and one is extra-large (3-4 cm); five were thermally altered. One of the flakes had been altered for use as a flake tool. The flake tool is described as a perforator and a scraper.

The lithic artifacts suggest the early to late stages of stone tool manufacture and maintenance and the STP sherd suggests cooking and/or storage activities were occurring. Although the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.), the presence of the STP sherds, first made during the Transitional period, ca. 1200 to 500 B.C.E., and continued to be used through the Safety Harbor period, suggests either a later period of occupation or seasonal occupation over thousands of years.

8HI14873, as located within the current APE, measures approximately 70 m east/west by 175 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, it has a low research potential. It is similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO (**Table 2**). Thus, 8HI14873 does not appear to be potentially eligible for listing in the NRHP within the project APE.

Historical: Background research revealed seven extant historic resources (8HI11335; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites (**Table 3; Figures 2-4**). Of these, a Masonry Vernacular style building (8HI11470) was evaluated ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Based on the results of the 2019 HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within and/or adjacent to the proposed SMF/FPC sites. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. No additional historic resources were identified during the pond survey.

8. CONCLUSIONS

As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). In addition, no evidence of previously recorded sites 8HI00476 (SMF15/16), 8HI00507 (SMF 22/23), 8HI00510 (SMF 21B, FPC 20, FPC 21B), or 8HI11479 (SMF 11A), was found. However, no additional archaeological testing is recommended due to the low diversity and the absence of both diagnostic artifacts and subsurface features, the low research potential, and that the sites are similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. In addition, ACI concurs with the previous evaluations of the three sites ineligibility for listing in the NRHP. Thus, no further work is recommended.

Historic/architectural background research revealed seven extant historic resources (8HI11335; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites. Of these, historic resource 8HI14872 is located within SMF 22/23, and historic resources 8HI14694 and 8HI14695 are located within SMF 25A. These buildings were recorded during the 2019 HRSU and have not been evaluated by the SHPO. The buildings are common examples of their respective architectural styles without significant historical associations; therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. No additional historic resources were identified during the pond survey. In summary, this undertaking will have no effect on any cultural resources, including archaeological sites and historic resources, which are listed, determined eligible, or appear to be eligible for listing in the NRHP.

9. BIBLIOGRAPHY

Advisory Council on Historic Preservation

n.d. Meeting the “Reasonable and Good Faith” Identification Standard in Section 106 Review. Accessed at http://www.achp.gov/docs/reasonable_good_faith_identification.pdf.

Archaeological Consultants, Inc.

- 1993 A Cultural Resource Assessment Survey - US 92 (SR 600) Improvements Project from Garden Lane to County Line Road, Hillsborough County, Florida. ACI, Sarasota.
- 1998 Cultural Resource Assessment Survey of the Temple Terrace 2 Development Property, Hillsborough County, Florida. ACI, Sarasota.
- 2003 Cultural Resource Assessment Survey I-75 (SR 93A) Project Development and Environment (PD&E) Study and Reevaluation from South of Fowler Avenue to South of CR 54 Hillsborough and Pasco Counties, Florida. ACI, Sarasota.
- 2004 Cultural Resource Assessment Survey Report SR 60 (Adamo Dive) Project Development and Environment (PD&E) Study from West of 50th Street to East of Falkenburg Road, Hillsborough County, Florida. ACI, Sarasota.
- 2006 Cultural Resource Assessment Survey Technical Memorandum I-75 (SR 93A) from South of Fowler Avenue to Bruce B. Downs Boulevard Proposed Ponds, Hillsborough County, Florida. ACI, Sarasota.
- 2008 Cultural Resource Assessment Survey Research Design Interstate 75 (I-75) Project Development and Environment (PD&E) Study I-75 from Moccasin Wallow Road to South of US 301, Manatee and Hillsborough Counties, Florida WPI No. 419235 2 and I-75 from South of US 301 to North of Fletcher Avenue, Hillsborough County, Florida WPI No. 419235 3. ACI, Sarasota.
- 2009a Cultural Resource Assessment Survey Project Development and Environment (PD&E) Study I-75 from Moccasin Wallow Road to US 301, Hillsborough and Manatee Counties, Florida. ACI, Sarasota.
- 2009b Cultural Resource Assessment Survey Project Development and Environment (PD&E) Study I-75 from South of US 301 to North of Bruce B. Downs Boulevard, Hillsborough County, Florida. ACI, Sarasota.
- 2019a Preliminary Cultural Resource Assessment Probability Analysis Technical Memorandum Proposed SMF and FPC Sites I-75 from South of US 301 to North of Bruce B. Downs Boulevard Hillsborough County, Florida. ACI, Sarasota.
- 2019b Historic Resources Survey Update Technical Memorandum I-75 (93A) from South of US 301 to North of Bruce B Downs Boulevard, Hillsborough County, Florida. ACI, Sarasota.

ACI/Janus

- 2003 Cultural Resource Assessment Survey Report Florida High Speed Rail Authority Project Development and Environment (PD&E) Study from Tampa to Orlando Hillsborough, Polk, Osceola, and Orange Counties, Florida. ACI, Sarasota.
- Almy, Marion M. and Joan Deming
1982 A Cultural Resources Survey of the Florida Corporate Center, Hillsborough County, Florida. ACI, Sarasota.
- Ambrosino, James N.
2002 Cultural Resource Assessment Survey of the LL Middle School Project Area and Archaeological Testing of 8HI8368 in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.
2003 An Archaeological and Historical Survey of the Joe Ebert Road Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.
- Athens, William P., Charlotte Donald, Jon Berkin, Paul V. Heinrich, Ralph Draughon, Julie McClay, Thomas Fenn, Dan Dolensky, Jennifer Cohen, Lynn Berg, Julian Granberry, and Thomas Neumann
1994 Phase I Cultural Resources Investigation of the West Leg Mainline Portion of the Proposed Florida Gas Transmission Company Phase III Expansion Project. R. Christopher Goodwin & Associates, Inc., New Orleans.
- Athens, William P. and Rusty Weisman
1994 Phase I Cultural Resources Investigation of the Proposed Hillsborough County Reroute, Hillsborough County, Florida. R. Christopher Goodwin & Associates, Inc., New Orleans.
- Austin, Robert J.
1999 A Cultural Resource Assessment Survey of the Proposed Tampa Bay Water Pipeline from the Tampa Bypass Canal at Six Mile Creek to Bell Shoals Road, Hillsborough County, Florida. SEARCH, Jonesville.
2000a Cultural Resource Assessment Survey for the Proposed Hillsborough County Water Department's Falkenburg to South County Water Main. SEARCH, Jonesville.
2000b Survey Report for the Florida Gas Transmission Company Proposed Bayside Lateral, Hillsborough County, Florida. SEARCH, Jonesville.
2005 A Cultural Resource Survey of the Grey Pines Development Property, Hillsborough County, Florida. SEARCH, Jonesville.
- Austin, Robert J. and Geoffrey Mohlman
2003 Cultural Resource Assessment Survey of the Proposed Williams Crossing Development Property, Hillsborough County, Florida. SEARCH, Jonesville.
2005 A Cultural Resource Assessment of the Freedom Ridge Development Property, Hillsborough County, Florida. SEARCH, Jonesville.
- Brooks, Mark J. and Janice R. Ballo
1984 An Archaeological and Historical Survey of the Proposed Sabal Center Project Area, Hillsborough County, Florida. Janus Research, Tampa.
- Bullen, Ripley P.
1975 *A Guide to the Identification of Florida Projectile Points*. Kendall Books, Gainesville.

- Carty, Thomas J.
 2006 An Archaeological and Historical Survey of the Sampson Grove Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.
- Cordell, Ann S.
 1987 Ceramic Technology at a Weeden Island Period Archaeological Site in North Florida. *Ceramic Notes 2*. Occasional Publications of the Ceramic Technology Laboratory, Florida Museum of Natural History, Gainesville.
 2004 Paste Variability and Possible Manufacturing Origins of Late Archaic Fiber-Tempered Pottery from Selected Sites in Peninsular Florida. In *Early Pottery: Technology, Function, Style, and Interaction in the Lower Southeast*. Edited by R. Saunders and C. T. Hays, pp. 63-104. University of Alabama Press, Tuscaloosa.
- Daniel, I. Randolph, Mildred Fryman, and Michael Wisenbaker
 1979 An Archaeological and Historical Survey of Seven Proposed Recreation Resource Sites in the Lower Hillsborough River Flood Detention Area. FDHR, Tallahassee.
- Davis, J. H.
 1943 The Natural Features of Southern Florida. *Geological Bulletin 25*. Florida Geological Survey, Tallahassee.
- Deming, Joan
 1976 An Archaeological and Historical Survey of the Lake Thonotosassa By-Pass Canal Right-of-Way in Hillsborough County, Florida. Department of Anthropology, University of South Florida, Tampa.
 1985 Cultural Resource Assessment Survey of the Regency Park North (DRI) Tract, Hillsborough County, Florida. ACI, Sarasota.
 1997 Cultural Resource Assessment Survey, Technical Memorandum, US 301 Ponds from Interstate 4 (I-4) to Fowler Avenue, Hillsborough County, Florida. ACI, Sarasota.
- Deming, Joan, Marion M. Almy, Richard W. Estabrook, and Elizabeth A. Horvath
 1984 The Hidden River (DRI) Archaeological Project: Cultural Resources Assessment Survey and Evaluative Site Testing. ACI, Sarasota.
- Goggin, John M.
 1948 Some Pottery Types from Central Florida. *Gainesville Anthropological Association, Bulletin 1*.
- Grange, Roger T., Jr., Mildred Fryman, and J. Raymond Williams
 1979 A Phase I Study of the Deltona Corporation Property on State Road 581 in Hillsborough County, Florida. University of South Florida, Tampa.
- Florida Department of Transportation (FDOT)
 2019 *Project Development and Environmental Manual Part 2, Chapter 8, "Archaeological and Historical Resources."* FDOT, Tallahassee.
- Florida Division of Historical Resources (DHR)
 n.d. Florida Master Site File Form Information.
 2003 *Cultural Resource Management Standards and Operational Manual*. FDHR, Tallahassee.

Henriquez, Bob

2019 Hillsborough County Property Appraiser.

HDR Engineering, Inc.

1991 An Archaeological and Historical Resource Assessment of the Proposed Tampa South Crosstown Expressway Extension, Hillsborough County, Florida. HDR Engineering, Inc., Tampa.

Hughes, Skye W.

2006 An Archaeological and Historical Survey of the Harvest Creek Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.

Janus Research

1992 A Cultural Resource Assessment Survey of the Interstate 4 Improvements Project Right-of-Way from 50th Street to the Hillsborough/Polk County Line, Hillsborough County, Florida. Janus Research, Tampa.

1996a A Cultural Resource Assessment Survey for the Vandenberg Airport Expansion Project Area, Hillsborough County, Florida. Janus Research, Tampa.

1996b A Cultural Resource Assessment Survey for U.S. 301 from Interstate 4 to Fowler Avenue in Hillsborough County, Florida. Janus Research, Tampa.

1998 Cultural Resource Assessment Survey for the Lee Roy Selmon Crosstown Expressway Brandon Feeder Roads from Falkenburg Road to SR 60 and Lumsden Road and Widening from 50th Street (US 41) to Falkenburg Road (PD&E) Study, Hillsborough County, Florida. Janus Research, Tampa.

1999 Cultural Resource Assessment Survey for the Harney Road/US 301 Intersection Improvement Project and the Re-alignment of Bowles Road from East of Morris Bridge Road to Interstate 75 Hillsborough County, Florida. Janus Research, Inc., Tampa.

2000 Cultural Resource Assessment Survey for the Lee Roy Selmon Crosstown Expressway Capacity Improvement Project, Hillsborough County, Florida. Janus Research, Tampa.

2005 Cultural Resource Assessment Survey of the Claymore Crossings Project Area, Hillsborough County. Janus Research, Tampa.

Johnson, Robert E.

2001 Proposed Tower: I-4 Exit No. 8. Florida Archaeological Services, Inc., Jacksonville.

Jones, B. Calvin

1978 Archaeological and Historical Survey of Tampa Bypass Canal and Associated Structures in Hillsborough County, US Army Corps of Engineers, March 1975. FDHR, Tallahassee.

Kammerer, Laura

2010 SHPO Concurrence Letter, DHR Project File No.: 2009-7642, Cultural Resource Assessment Survey Interstate 75 (I-75) Project Development and Environment (PD&E) Study I-75 from South of US 301 to North of Fletcher Avenue Hillsborough County. ACI, Sarasota.

Luer, George M. and Marion M. Almy

1980 The Development of Some Aboriginal Pottery of the Central Peninsular Gulf Coast of Florida. *The Florida Anthropologist* 33(4): 207-225.

- McNab, W. Henry and Peter E. Avers
1996 *Ecological Subregions of the United States*. Prepared in Cooperation with Regional Compilers and the ECOMAP Team of the Forest Service.
<http://www.fs.fed.us/land/pubs/ecoregions>.
- Milanich, Jerald T.
1994 *Archaeology of Precolumbian Florida*. University Press of Florida, Gainesville.
- Milanich, Jerald T. and Charles H. Fairbanks
1980 *Florida Archaeology*. Academic Press, New York.
- Miller, James J.
1974 80 Acre DRI in Hillsborough County. FDHR, Tallahassee.
1979 A Preliminary Archaeological and Historical Survey of the Tampa-Hillsborough 201 Plan. FDHR, Tallahassee.
- Piper, Harry M., Kenneth W. Hardin, and Jacquelyn G. Piper
1982 Archaeological and Historical Survey of the Brandon Town Center Property, Hillsborough County, Florida. Janus Research, Tampa.
- Pracht, Jodi B.
2001a Proposed Cellular Tower: Keebler (FL3426G) Williams Road and Broadway, Tampa, Hillsborough County, Florida. ACI, Sarasota.
2001b Proposed Cellular Tower: Stirling Ranch, 10011 Circle C Drive, Tampa, Hillsborough County, Florida. ACI, Sarasota.
- Purdy, Barbara A.
1981 *Florida's Prehistoric Stone Tool Technology*. University Press of Florida, Gainesville.
- Quinn, Lisa N.
2004 An Archaeological and Historical Survey of the Lakeview Village Project Area in Hillsborough County, Florida. Panamerican Consultants, Inc., Tampa.
- Seabury, Patricia, Nancy Swilley, John Martin, and Anthony Deregnacourt
1975 An Archaeological Survey of the Tampa Bypass Canal Right-of-Way, Hillsborough County, Florida. FDHR, Tallahassee
- SEARCH
2000a Cultural Resource Assessment Survey North-Central Hillsborough Intertie Contract 2, Hillsborough County, Florida. SEARCH, Jonesville.
2000b Cultural Resource Survey of Three Extra Work Spaces along the Bayside Lateral, Hillsborough County, Florida. SEARCH, Jonesville.
- Stokes, Anne V.
2002a Addendum Report for the Florida Gas Transmission Company Bayside Lateral Modification Hillsborough County, Florida. SEARCH, Jonesville.
2002b Cultural Resources Survey One Bayside Lateral Temporary Work Space at Mile Post 6.66, Florida Gas Transmission Company Phase V Expansion. SEARCH, Jonesville.
2002c Cultural Resources Survey of Two Bayside Lateral Access Roads and One Road Crossing, Florida Gas Transmission Company Phase V Expansion. SEARCH, Jonesville.

USDA

- 1952 *Soil Survey of Hillsborough County, Florida.* USDA, Soil Conservation Service, Washington, D.C.
1989 *Soil Survey of Hillsborough County, Florida.* USDA, Soil Conservation Service, Washington, D.C.

United States Geological Survey (USGS)

- 1956 Brandon, Fl (Photo Revised, 1987).
1974 Thonotosassa, Fl (Photo Revised, 1987).
1974 Lutz, Fl (Photo Revised, 1987).
1973 Wesley Chapel, Fl (Photo Revised, 1987).

Wharton, Barry R.

- 1988 Archaeological Survey of the Falkenburg Road Transmission Facilities, Woodberry Road Pump Station & Woodberry Road Interceptor, Hillsborough County, Florida. HDR Engineering, Inc., Tampa.

White, Anta M.

- 1963 Analytic Description of the Chipped-stone Industry from Snyders Site, Calhoun County, Illinois. *Miscellaneous Studies in Typology and Classification* 19. Anthropological Papers, Museum of Anthropology, University of Michigan, Ann Arbor.

White, William A.

- 1970 Geomorphology of the Florida Peninsula. *Geological Bulletin* 51. Florida Department of Natural Resources, Bureau of Geology, Tallahassee.

Willey, Gordon R.

- 1949 Archaeology of the Florida Gulf Coast. *Smithsonian Miscellaneous Collections* 113. 1982 Reprint. Florida Book Store, Gainesville.

DRAFT

APPENDIX A: FMSF Forms



ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Site # HI00511
Field Date 11-4-2019
Form Date 12-16-2019
Recorder #

Original
Update

Consult Guide to Archaeological Site Form for detailed instructions

Site Name(s) Bartolotti SW
Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown

LOCATION & MAPPING

USGS 7.5 Map Name THONOTOSASSA USGS Date 1987 Plat or Other Map
City/Town (within 3 miles) Tampa In City Limits? yes no unknown County Hillsborough
Township 28S Range 20E Section 29 1/4 section: NW SW SE NE Irregular-name:
Township Range Section 1/4 section: NW SW SE NE
Landgrant Tax Parcel #
UTM Coordinates: Zone 16 17 Easting Northing
Other Coordinates: X: Y: Coordinate System & Datum
Address / Vicinity / Route to:
200 meters west of I-75 and north of I-4

Name of Public Tract (e.g., park) NA

TYPE OF SITE (select all that apply)

SETTING: Land (terrestrial) Wetland (palustrine) usually flooded usually dry Cave/Sink (subterranean) terrestrial aquatic
STRUCTURES OR FEATURES: log boat agric/farm building burial mound building remains cemetery/grave dump/refuse earthworks (historic) fort midden mill mission mound, nonspecific plantation platform mound road segment shell midden shell mound shipwreck subsurface features surface scatter well
FUNCTION: campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
Other Features or Functions (Choose from the list or type a response.)
1. Prehistoric Lithic quarry 2.

CULTURE PERIODS (select all that apply)

ABORIGINAL: Alachua Archaic (nonspecific) Archaic, Early Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Englewood Fort Walton Glades (nonspecific) Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II Manasota Mississippian Mount Taylor Norwood Orange Paleoinidian Pensacola Perico Island Safety Harbor St. Augustine St. Johns (nonspecific) St. Johns I St. Johns II Santa Rosa Santa Rosa-Swift Creek Seminole (nonspecific) Seminole: Colonization Seminole: 1st War To 2nd Seminole: 2nd War To 3rd Seminole: 3rd War & After Swift Creek (nonspecific) Swift Creek, Early Swift Creek, Late Transitional Weeden Island (nonspecific) Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic
NON-ABORIGINAL: First Spanish 1513-99 First Spanish 1600-99 First Spanish 1700-1763 First Spanish (nonspecific) British 1763-1783 Second Spanish 1783-1821 American Territorial 1821-45 American Civil War 1861-65 American 19th Century American 20th Century American (nonspecific) African-American
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. 2. 3. 4.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? yes no insufficient information
Potentially eligible as contributor to a National Register district? yes no insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)
Given the limited and mundane nature of the artifact assemblage and lack of associated features, the site does not appear eligible for listing in the NRPH
Recommendations for Owner or SHPO Action
None

Table with 3 columns: DHR USE ONLY, OFFICIAL EVALUATION, DHR USE ONLY. Includes fields for NR List Date, SHPO - Appears to meet criteria for NR listing, and NR Criteria for Evaluation.

FIELD METHODS (select all that apply)

SITE DETECTION

- no field check
- literature search
- informant report
- remote sensing
- exposed ground
- posthole tests
- auger tests
- unscreened shovel
- screened shovel
- screened shovel-1/4"
- screened shovel-1/8"
- screened shovel-1/16"

SITE BOUNDARY

- bounds unknown
- none by recorder
- literature search
- informant report
- remote sensing
- exposed ground
- posthole tests
- auger tests
- unscreened shovel
- screened shovel
- block excavations
- estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

18 shovel tests: 7 positive; 10, 25, 50 meter intervals; 50 cm x 50 cm x 100cm; 1/4 inch mesh screen

SITE DESCRIPTION

Extent/Size (m²) 8,400 Depth/stratigraphy of cultural deposit (describe below)

Artifacts found 30-90 cmbs; 0-20 cm grey sand, 20-70 cm very light grey sand, 70-100 cm dark brown hard pan; site size: 60m e/w x 140 m n/s

Temporal Interpretation - Components (check one): single component multiple component uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Integrity - Overall disturbance: none seen minor substantial major redeposited destroyed-document! unknown

Disturbances / threats / protective measures

cattle pasture/retention pond/none

Surface collection: area collected _____ m² # collection units _____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 12 count estimate Surface # _____ Subsurface # 12

COLLECTION SELECTIVITY

- unknown
- unselective (all artifacts)
- selective (some artifacts)
- mixed selectivity

SPATIAL CONTROL

- uncollected
- general (not by subarea)
- unknown
- controlled (by subarea)
- variable spatial control
- other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

- A - Lithics
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____

select a disposition from the list below for each artifact category selected at left

- A - category always collected
- S - some items in category collected
- O - observed first hand, but not collected
- R - collected and subsequently left at site
- I - informant reported category present
- U - unknown

Artifact Comments

Eleven chert, 1 coral, all but 2 thermally altered

DIAGNOSTICS (type or mode, and frequency: e.g., Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware)

- 1. _____ N= _____ 4. _____ N= _____ 7. _____ N= _____
- 2. _____ N= _____ 5. _____ N= _____ 8. _____ N= _____
- 3. _____ N= _____ 6. _____ N= _____ 9. _____ N= _____

ENVIRONMENT

Nearest fresh water: Type Swamp Name Un-named Distance from site (m) 50
 Natural community UPLAND HARDWOODS Topography Hill slope Elevation: Min 8 m Max 10 m
 Local vegetation Hardwood Hammock
 Present land use pasture
 SCS soil series Bradenton FS Soil association _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

- 1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
 Document description field notes, photos, artifacts File or accession #'s P19150.2
- 2) Document type _____ Maintaining organization _____
 Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
 Address / Phone / E-mail _____
 Recorder Information: Name Lee Hutchinson Affiliation Archaeological Consultants Inc
 Address / Phone / E-mail 8110 Blaikie Ct, Suite A, Sarasota, FL, 34240 / (941) 379-6206 / lhutchinson@aciflorida.com

Required Attachments

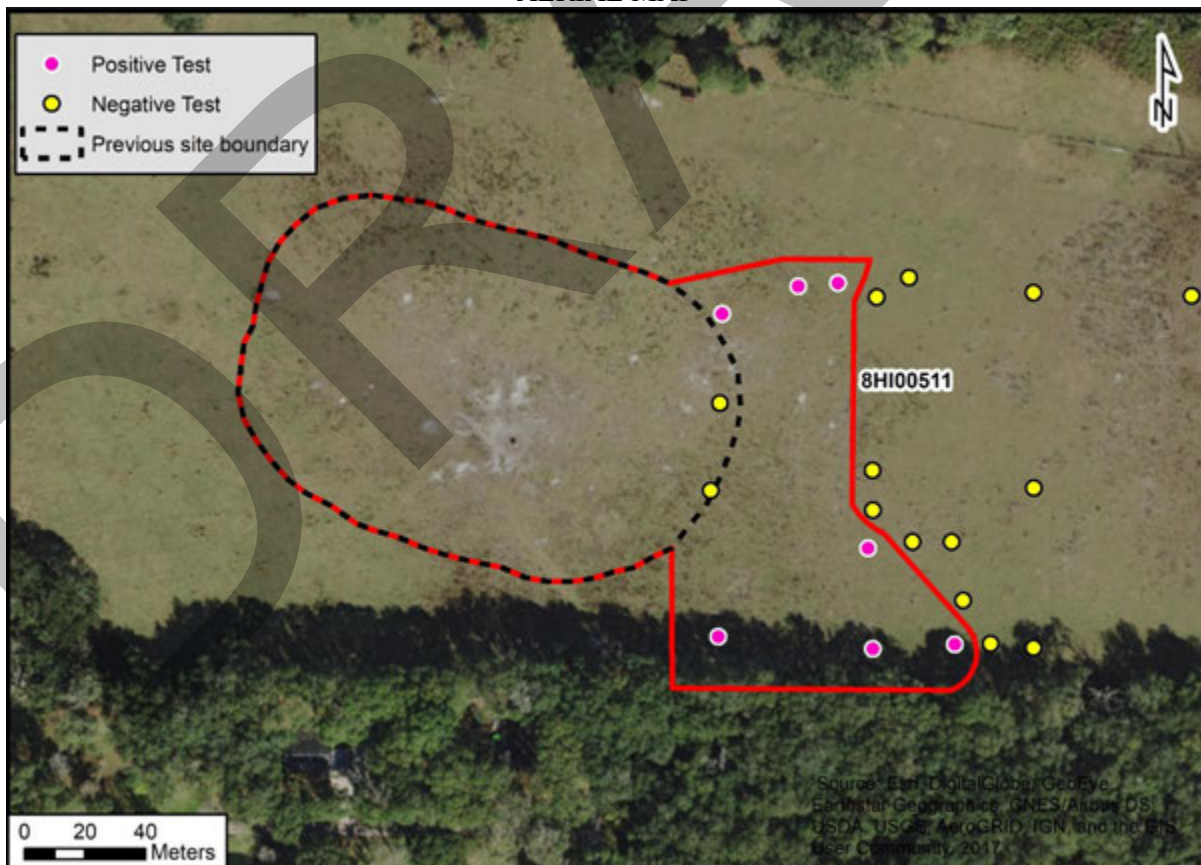
1 PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED and SITE PLAN Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.



PHOTOGRAPH

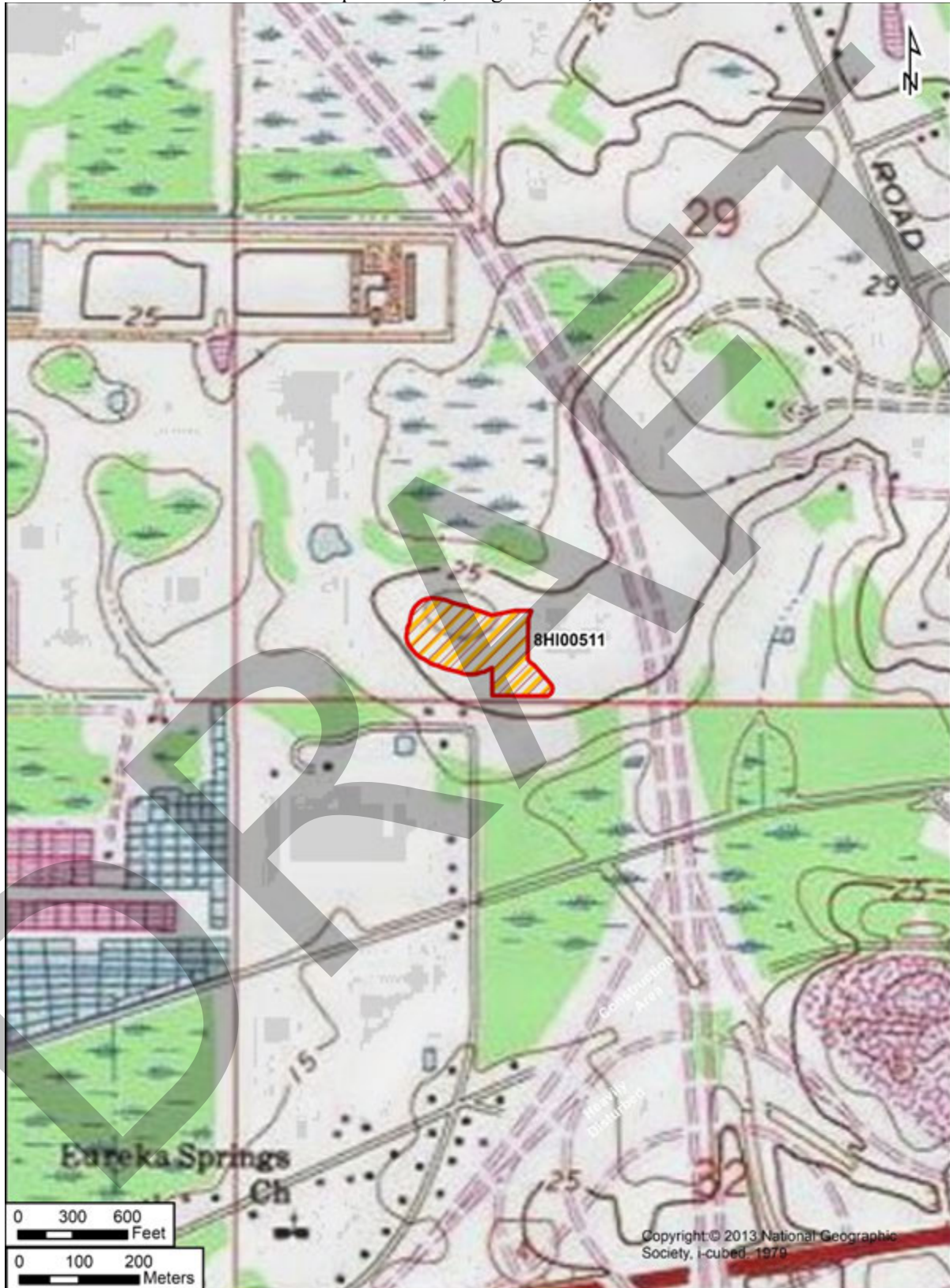


AERIAL MAP





USGS Thonotosassa
Township 28 South, Range 20 East, Section 29





ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Site # HI00514
Field Date 11-4-2019
Form Date 12-16-2019
Recorder #

Original
Update

Consult Guide to Archaeological Site Form for detailed instructions

Site Name(s) Road End Site
Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown

LOCATION & MAPPING

USGS 7.5 Map Name THONOTOSASSA
City/Town Tampa
Township 28S Range 20E Section 32
UTM Coordinates: Zone 16 17 Easting Northing
Address / Vicinity / Route to: interchange of I-75 and I-4

Name of Public Tract (e.g., park) NA

TYPE OF SITE (select all that apply)

SETTING: Land (terrestrial) Wetland (palustrine)
STRUCTURES OR FEATURES: log boat fort road segment
FUNCTION: campsite extractive site

Other Features or Functions (Choose from the list or type a response.)
1. Lithic Scatter/quarry

CULTURE PERIODS (select all that apply)

ABORIGINAL: Archaic (nonspecific)
NON-ABORIGINAL: First Spanish 1513-99
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? no
Potentially eligible as contributor to a National Register district? no
Explanation of Evaluation (required if evaluated; use separate sheet if needed)
Given the limited and mundane nature of the artifact assemblage and lack of associated features, the SHPO's evaluation of not eligible for the NRHP is still valid

Recommendations for Owner or SHPO Action
None

Table with 3 columns: DHR USE ONLY, OFFICIAL EVALUATION, DHR USE ONLY. Includes fields for NR List Date, SHPO evaluation (yes/no/insufficient info), and NR Criteria for Evaluation (a, b, c, d).

FIELD METHODS (select all that apply)

- | | | | | | |
|---|--|--|---|---|---|
| <u>SITE DETECTION</u> | | | <u>SITE BOUNDARY</u> | | |
| <input type="checkbox"/> no field check | <input type="checkbox"/> exposed ground | <input type="checkbox"/> screened shovel | <input type="checkbox"/> bounds unknown | <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel |
| <input checked="" type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input checked="" type="checkbox"/> screened shovel-1/4" | <input type="checkbox"/> none by recorder | <input type="checkbox"/> exposed ground | <input checked="" type="checkbox"/> screened shovel |
| <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> screened shovel-1/8" | <input checked="" type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input type="checkbox"/> block excavations |
| <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel | <input type="checkbox"/> screened shovel-1/16" | <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> estimate or guess |

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

14 shovel tests: 2 positive; 10, 25, 50 meter intervals; 50 cm x 50 cm x 100cm; 1/4 inch mesh screen

SITE DESCRIPTION

Extent/Size (m²) _____ Depth/stratigraphy of cultural deposit (describe below)

Artifacts found 20-100 cmbs; 0-50 cm mottled grey/brown sand, 50-95 cm light grey sand, 95-100 cm dark brown compact sand; additional evidence of site within existing site boundaries

Temporal Interpretation - Components (check one): single component multiple component uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Integrity - Overall disturbance: none seen minor substantial major redeposited destroyed-document! unknown

Disturbances / threats / protective measures

cattle pasture/retention pond/none

Surface collection: area collected _____ m² # collection units _____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 2 count estimate | Surface # _____ | Subsurface # 2

COLLECTION SELECTIVITY

- unknown
- unselective (all artifacts)
- selective (some artifacts)
- mixed selectivity

SPATIAL CONTROL

- uncollected
- general (not by subarea)
- unknown
- controlled (by subarea)
- variable spatial control
- other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

- A - Lithics
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____

select a disposition from the list below for each artifact category selected at left

- A - category always collected
- S - some items in category collected
- O - observed first hand, but not collected
- R - collected and subsequently left at site
- I - informant reported category present
- U - unknown

Artifact Comments

2 chert flakes, both thermally altered; one of the flakes is a multi-purpose tool: perforator and spokeshave

DIAGNOSTICS (type or mode, and frequency: e.g., Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware)

- | | | |
|-------------------|-------------------|-------------------|
| 1. _____ N= _____ | 4. _____ N= _____ | 7. _____ N= _____ |
| 2. _____ N= _____ | 5. _____ N= _____ | 8. _____ N= _____ |
| 3. _____ N= _____ | 6. _____ N= _____ | 9. _____ N= _____ |

ENVIRONMENT

Nearest fresh water: Type Swamp Name Un-named Distance from site (m) 50
 Natural community UPLAND HARDWOODS Topography Hill slope Elevation: Min 8 m Max 10 m
 Local vegetation Hardwood Hammock
 Present land use pasture
 SCS soil series Leon FS Soil association _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

- 1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
 Document description field notes, photos, artifacts File or accession #'s P19150.2
- 2) Document type _____ Maintaining organization _____
 Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
 Address / Phone / E-mail _____
 Recorder Information: Name Lee Hutchinson Affiliation Archaeological Consultants Inc
 Address / Phone / E-mail 8110 Blaikie Ct, Suite A, Sarasota, FL, 34240 / (941) 379-6206 / lhutchinson@aciflorida.com

Required Attachments

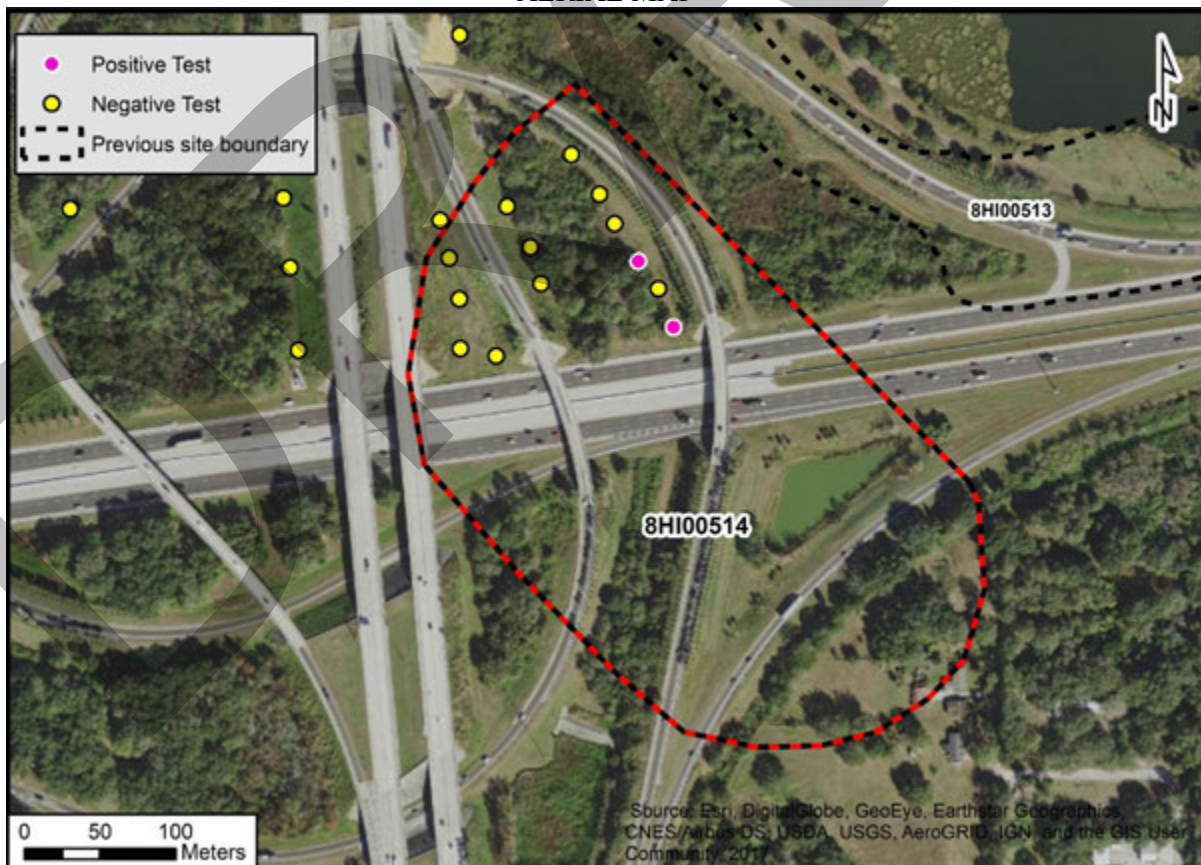
1 PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED and SITE PLAN
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.



PHOTOGRAPH



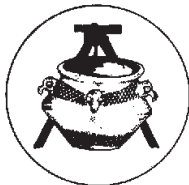
AERIAL MAP





USGS Thonotosassa
Township 28 South, Range 20 East, Section 32





ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Site # HI00519
Field Date 11-5-2019
Form Date 12-16-2019
Recorder #

Original
Update

Consult Guide to Archaeological Site Form for detailed instructions

Site Name(s) Graves Road
Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown

LOCATION & MAPPING

USGS 7.5 Map Name BRANDON USGS Date 1987 Plat or Other Map
City/Town (within 3 miles) Brandon In City Limits? yes no unknown County Hillsborough
Township 29S Range 20E Section 17 1/4 section: NW SW SE NE Irregular-name:
Township Range Section 1/4 section: NW SW SE NE
Landgrant Tax Parcel #
UTM Coordinates: Zone 16 17 Easting Northing
Other Coordinates: X: Y: Coordinate System & Datum
Address / Vicinity / Route to:
West of I-75 and within I-75, between SR 574 and SR 60

Name of Public Tract (e.g., park) NA

TYPE OF SITE (select all that apply)

SETTING: Land (terrestrial) Wetland (palustrine) usually flooded usually dry Cave/Sink (subterranean) terrestrial aquatic
STRUCTURES OR FEATURES: log boat agric/farm building burial mound building remains cemetery/grave dump/refuse earthworks (historic) fort midden mill mission mound, nonspecific plantation platform mound road segment shell midden shell mound shipwreck subsurface features surface scatter well
FUNCTION: campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
Other Features or Functions (Choose from the list or type a response.)
1. Lithic Scatter/quarry 2.

CULTURE PERIODS (select all that apply)

ABORIGINAL: Alachua Archaic (nonspecific) Archaic, Early Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Englewood Fort Walton Glades (nonspecific) Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II Manasota Mississippian Mount Taylor Norwood Orange Paleoindian Pensacola Perico Island Safety Harbor St. Augustine St. Johns (nonspecific) St. Johns I St. Johns II Santa Rosa Santa Rosa-Swift Creek Seminole (nonspecific) Seminole: Colonization Seminole: 1st War To 2nd Seminole: 2nd War To 3rd Seminole: 3rd War & After Swift Creek (nonspecific) Swift Creek, Early Swift Creek, Late Transitional Weeden Island (nonspecific) Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic
NON-ABORIGINAL: First Spanish 1513-99 First Spanish 1600-99 First Spanish 1700-1763 First Spanish (nonspecific) British 1763-1783 Second Spanish 1783-1821 American Territorial 1821-45 American Civil War 1861-65 American 19th Century American 20th Century American (nonspecific) African-American
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. 2. 3. 4.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? yes no insufficient information
Potentially eligible as contributor to a National Register district? yes no insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)
Given the limited and mundane nature of the artifact assemblage and lack of associated features, the SHPO's evaluation of not eligible for the NRHP is still valid
Recommendations for Owner or SHPO Action
None

Table with 3 columns: DHR USE ONLY, OFFICIAL EVALUATION, DHR USE ONLY. Includes fields for NR List Date, SHPO evaluation (yes/no/insufficient info), Date, Init., Owner Objection, and NR Criteria for Evaluation (a, b, c, d).

FIELD METHODS (select all that apply)

- SITE DETECTION: no field check, literature search, informant report, remote sensing, exposed ground, posthole tests, auger tests, unscreened shovel, screened shovel, screened shovel-1/4", screened shovel-1/8", screened shovel-1/16"
SITE BOUNDARY: bounds unknown, none by recorder, literature search, informant report, remote sensing, exposed ground, posthole tests, auger tests, unscreened shovel, screened shovel, block excavations, estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

18 shovel tests: 7 positive; 10, 25, 50 meter intervals; 50 cm x 50 cm x 100cm; 1/4 inch mesh screen

SITE DESCRIPTION

Extent/Size (m2) 1,875 Depth/stratigraphy of cultural deposit (describe below)

Artifacts found 30-90 cmbs; 0-30 cm mottled grey sand, 30-50 cm brown sand, 50-100 cm light tan sand; site size within current APE: 75 m e/w x 25 m n/s

Temporal Interpretation - Components (check one): single component, multiple component, uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Integrity - Overall disturbance: none seen, minor, substantial, major, redeposited, destroyed-document!, unknown

Disturbances / threats / protective measures

residential/retention pond/none

Surface collection: area collected m2 # collection units Excavation: # noncontiguous blocks

ARTIFACTS

Total Artifacts # 6 Count Estimate Surface # Subsurface # 6

COLLECTION SELECTIVITY

- unknown, unselective (all artifacts), selective (some artifacts), mixed selectivity

SPATIAL CONTROL

- uncollected, general (not by subarea), unknown, controlled (by subarea), variable spatial control, other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

- A - Lithics

select a disposition from the list below for each artifact category selected at left

- A - category always collected, S - some items in category collected, O - observed first hand, but not collected, R - collected and subsequently left at site, I - informant reported category present, U - unknown

Artifact Comments

6 chert flakes, 3 thermally altered; one of the flakes is a multi-purpose tool: perforator and spokeshave

DIAGNOSTICS (type or mode, and frequency: e.g., Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware)

- 1. N= 4. N= 7. N=
2. N= 5. N= 8. N=
3. N= 6. N= 9. N=

ENVIRONMENT

Nearest fresh water: Type Swamp Name Un-named Distance from site (m) 75
Natural community UPLAND HARDWOODS Topography Hill slope Elevation: Min 15 m Max 17 m
Local vegetation Hardwood Hammock
Present land use residential
SCS soil series Blanton FS Soil association

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

- 1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
Document description field notes, photos, artifacts File or accession #'s P19150.2
2) Document type Maintaining organization
Document description File or accession #'s

RECORDER & INFORMANT INFORMATION

Informant Information: Name
Address / Phone / E-mail
Recorder Information: Name Lee Hutchinson Affiliation Archaeological Consultants Inc
Address / Phone / E-mail 8110 Blaikie Ct, Suite A, Sarasota, FL, 34240 / (941) 379-6206 / lhutchinson@aciflorida.com

Required Attachments

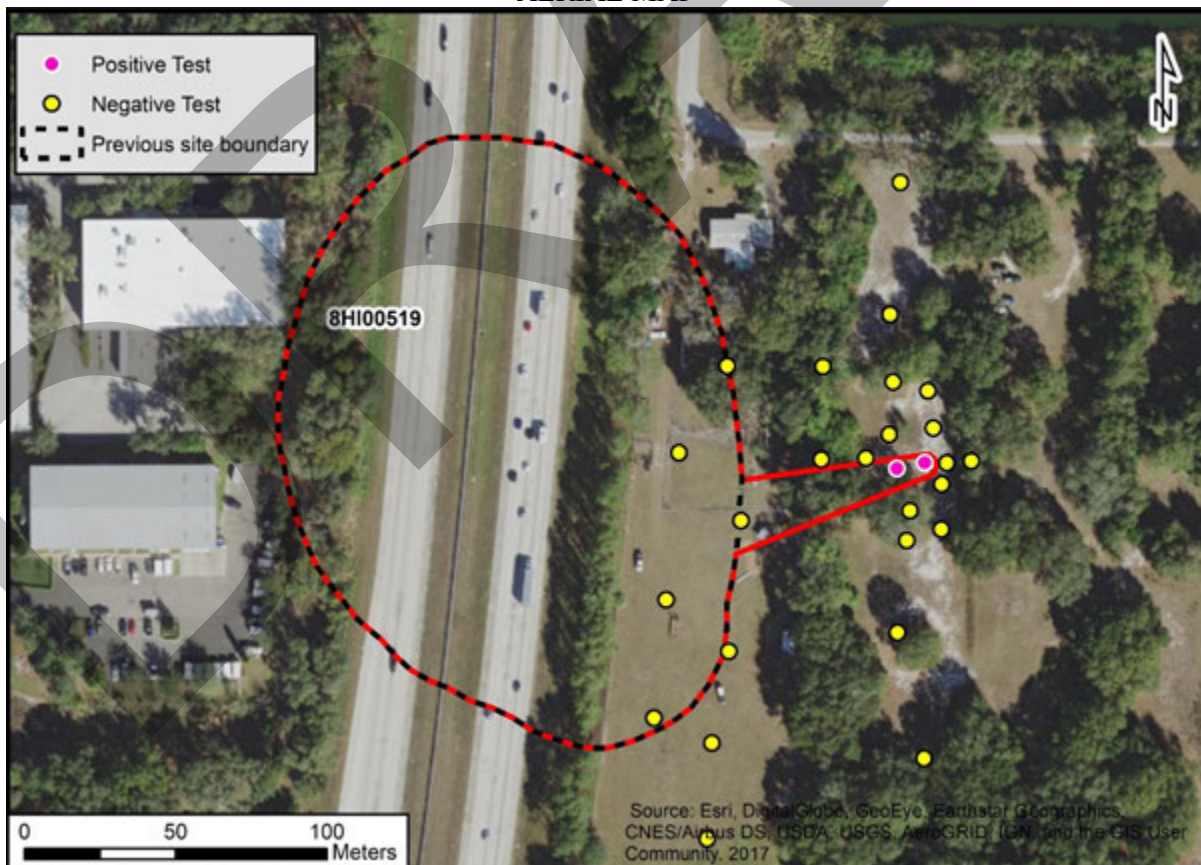
PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED and SITE PLAN
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.



PHOTOGRAPH



AERIAL MAP





USGS Brandon
Township 29 South, Range 20 East, Section 17





ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Site # HI06898
Field Date 11-6-2019
Form Date 12-16-2019
Recorder #

Original
Update

Consult Guide to Archaeological Site Form for detailed instructions

Site Name(s) Bayside #12
Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown

LOCATION & MAPPING

USGS 7.5 Map Name BRANDON USGS Date 1987 Plat or Other Map
City/Town (within 3 miles) Brandon In City Limits? yes no unknown County Hillsborough
Township 30S Range 20E Section 6 1/4 section: NW SW SE NE Irregular-name:
Township Range Section 1/4 section: NW SW SE NE
Landgrant Tax Parcel #
UTM Coordinates: Zone 16 17 Easting Northing
Other Coordinates: X: Y: Coordinate System & Datum
Address / Vicinity / Route to:
Within Interchange of I-75 and US 301

Name of Public Tract (e.g., park) NA

TYPE OF SITE (select all that apply)

SETTING: Land (terrestrial) Wetland (palustrine) Lake/Pond (lacustrine) River/Stream/Creek (riverine) Tidal (estuarine) Saltwater (marine)
STRUCTURES OR FEATURES: log boat agric/farm building burial mound building remains cemetery/grave dump/refuse earthworks (historic) fort midden mill mission mound, nonspecific plantation platform mound road segment shell midden shell mound shipwreck subsurface features surface scatter well
FUNCTION: campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
Other Features or Functions (Choose from the list or type a response.)
1. Lithic Scatter/quarry 2.

CULTURE PERIODS (select all that apply)

ABORIGINAL: Alachua Archaic (nonspecific) Archaic, Early Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford
Englewood Fort Walton Glades (nonspecific) Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II
Manasota Mississippian Mount Taylor Norwood Orange Paleoindian Pensacola Perico Island Safety Harbor St. Augustine
St. Johns (nonspecific) St. Johns I St. Johns II Santa Rosa Santa Rosa-Swift Creek Seminole (nonspecific) Seminole: Colonization Seminole: 1st War To 2nd Seminole: 2nd War To 3rd Seminole: 3rd War & After
Swift Creek (nonspecific) Swift Creek, Early Swift Creek, Late Transitional Weeden Island (nonspecific) Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic
NON-ABORIGINAL: First Spanish 1513-99 First Spanish 1600-99 First Spanish 1700-1763 First Spanish (nonspecific) British 1763-1783 Second Spanish 1783-1821 American Territorial 1821-45 American Civil War 1861-65 American 19th Century American 20th Century American (nonspecific) African-American
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. 2. 3. 4.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? yes no insufficient information
Potentially eligible as contributor to a National Register district? yes no insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)
Given the limited and mundane nature of the artifact assemblage and lack of associated features, the SHPO's evaluation of not eligible for the NRHP is still valid
Recommendations for Owner or SHPO Action
None

Table with 3 columns: DHR USE ONLY, OFFICIAL EVALUATION, DHR USE ONLY. Includes fields for NR List Date, SHPO - Appears to meet criteria for NR listing, and NR Criteria for Evaluation.

FIELD METHODS (select all that apply)

| | | | | | |
|---|--|--|---|---|---|
| <u>SITE DETECTION</u> | | | <u>SITE BOUNDARY</u> | | |
| <input type="checkbox"/> no field check | <input type="checkbox"/> exposed ground | <input type="checkbox"/> screened shovel | <input type="checkbox"/> bounds unknown | <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel |
| <input checked="" type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input checked="" type="checkbox"/> screened shovel-1/4" | <input type="checkbox"/> none by recorder | <input type="checkbox"/> exposed ground | <input checked="" type="checkbox"/> screened shovel |
| <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> screened shovel-1/8" | <input checked="" type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input type="checkbox"/> block excavations |
| <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel | <input type="checkbox"/> screened shovel-1/16" | <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> estimate or guess |

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

23 shovel tests: 11 positive; 10, 25 meter intervals; 50 cm x 50 cm x 100cm; 1/4 inch mesh screen

SITE DESCRIPTION

Extent/Size (m²) 18,000 Depth/stratigraphy of cultural deposit (describe below)

Artifacts found 30-90 cmbs; 0-30 cm mottled grey sand, 30-80 cm very light grey sand, 80-100 cm dark brown hardpan; site size 120m e/w x 250m n/s

Temporal Interpretation - Components (check one): single component multiple component uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Integrity - Overall disturbance: none seen minor substantial major redeposited destroyed-document! unknown

Disturbances / threats / protective measures

roadway consturction/retention pond/none

Surface collection: area collected _____ m² # collection units _____ Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 37 count estimate Surface # _____ Subsurface # 37

COLLECTION SELECTIVITY

unknown unselective (all artifacts)
 selective (some artifacts)
 mixed selectivity

SPATIAL CONTROL

uncollected general (not by subarea)
 unknown controlled (by subarea)
 variable spatial control
 other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A - Lithics

select a disposition from the list below for each artifact category selected at left

- A - category always collected
- S - some items in category collected
- O - observed first hand, but not collected
- R - collected and subsequently left at site
- I - informant reported category present
- U - unknown

Artifact Comments

35 chert and 2 coral flakes, 31 thermally altered; four of the flakes are flake tools: 2 are perforator and spokeshave; 1 is a blade; 1 is a spokeshave

DIAGNOSTICS (type or mode, and frequency: e.g., Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware)

| | | |
|-------------------|-------------------|-------------------|
| 1. _____ N= _____ | 4. _____ N= _____ | 7. _____ N= _____ |
| 2. _____ N= _____ | 5. _____ N= _____ | 8. _____ N= _____ |
| 3. _____ N= _____ | 6. _____ N= _____ | 9. _____ N= _____ |

ENVIRONMENT

Nearest fresh water: Type Swamp Name Un-named Distance from site (m) 100
 Natural community UPLAND HARDWOODS Topography Hill slope Elevation: Min 9 m Max 9 m
 Local vegetation Hardwood Hammock
 Present land use I-75 and US 301 Interchange
 SCS soil series Archbold FS Soil association _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
 Document description field notes, photos, artifacts File or accession #'s P19150.2

2) Document type _____ Maintaining organization _____
 Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
 Address / Phone / E-mail _____

Recorder Information: Name Lee Hutchinson Affiliation Archaeological Consultants Inc
 Address / Phone / E-mail 8110 Blaikie Ct, Suite A, Sarasota, FL, 34240 / (941) 379-6206 / lhutchinson@aciflorida.com

Required Attachments

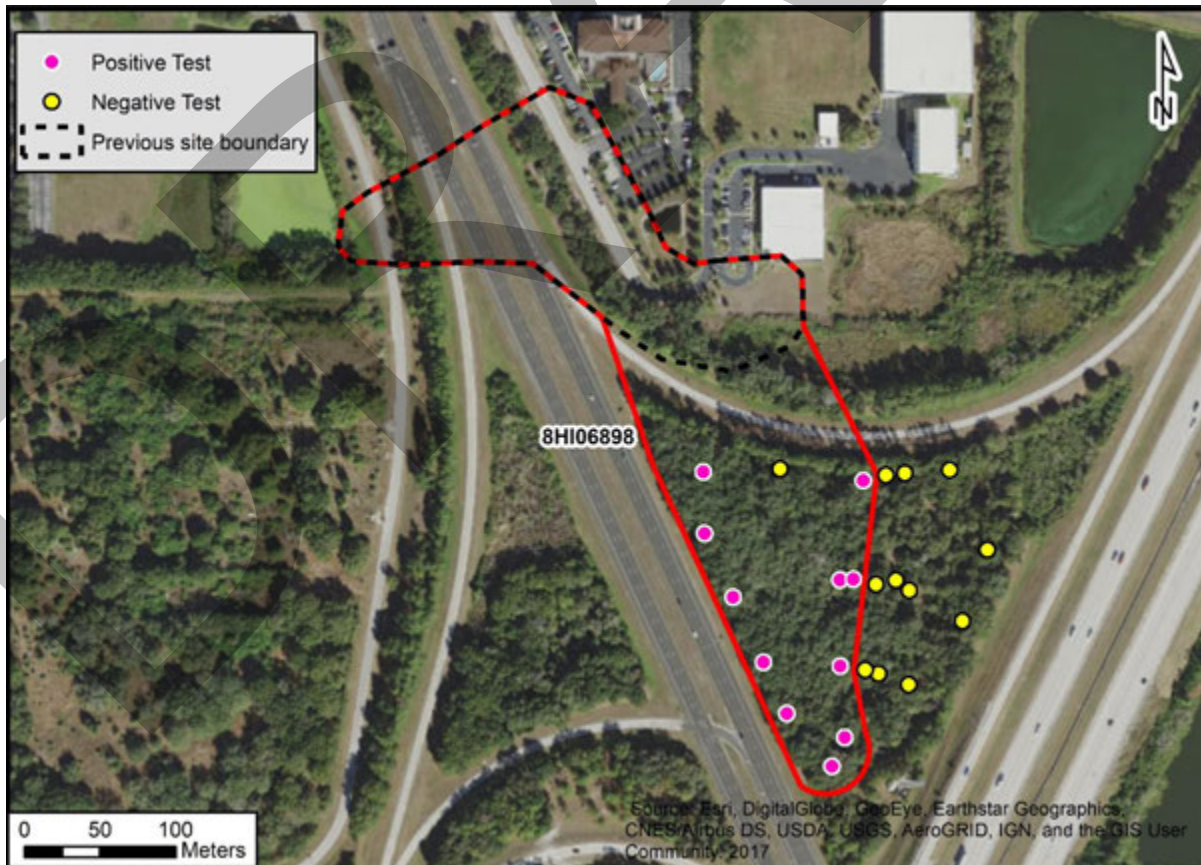
1 PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED and SITE PLAN
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.



PHOTOGRAPH

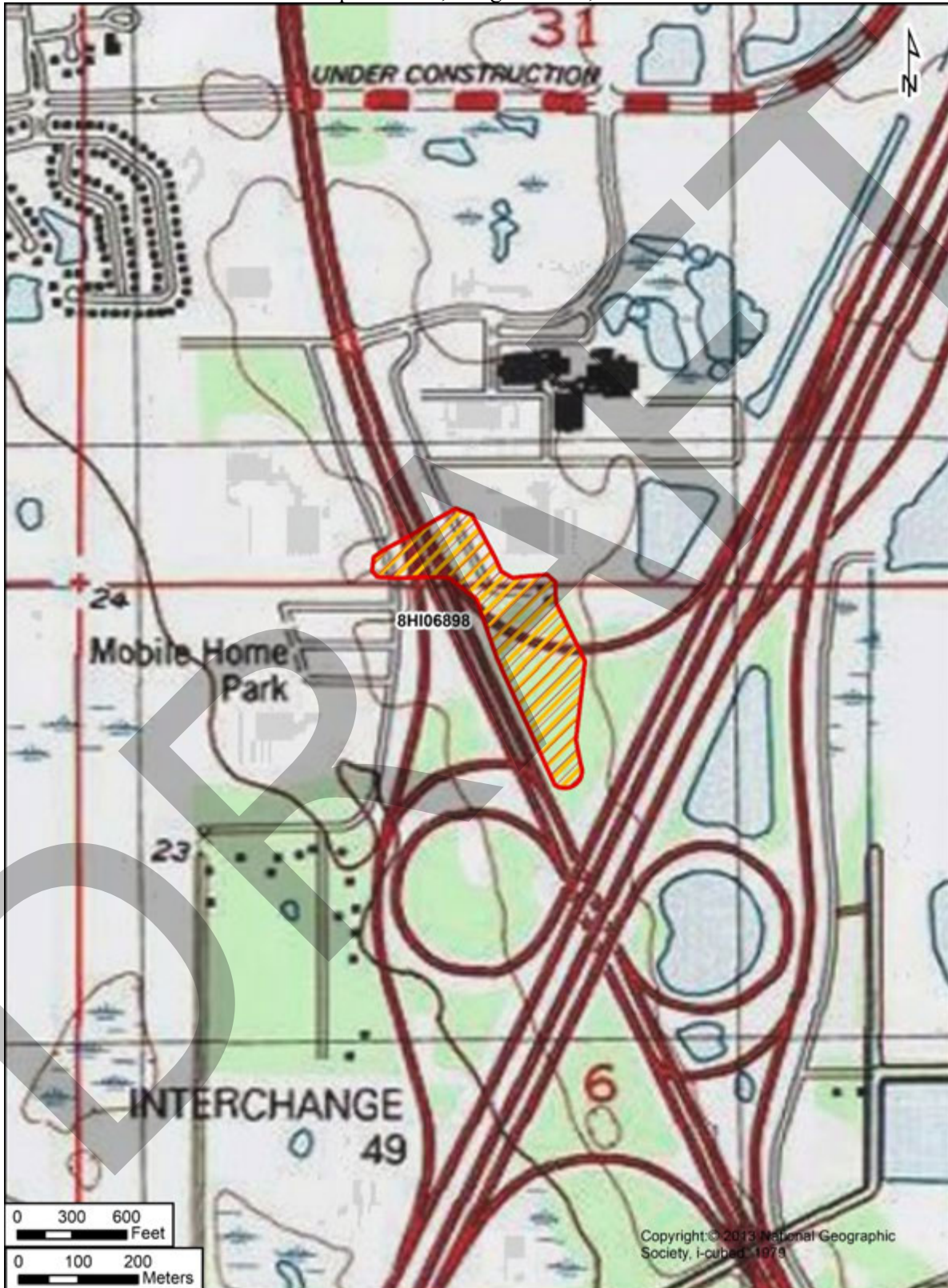


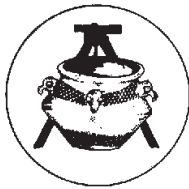
AERIAL MAP





USGS Brandon
Township 29 South, Range 20 East, Section 31, and
Township 30 South, Range 20 East, Section 06





ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Site # HI14873
Field Date 11-6-2019
Form Date 12-16-2019
Recorder #

Original
Update

Consult Guide to Archaeological Site Form for detailed instructions

Site Name(s) Tanner Road
Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown

LOCATION & MAPPING

USGS 7.5 Map Name BRANDON USGS Date 1987 Plat or Other Map
City/Town (within 3 miles) Brandon In City Limits? yes no unknown County Hillsborough
Township 29S Range 20E Section 5 1/4 section: NW SW SE NE Irregular-name:
Township Range Section 1/4 section: NW SW SE NE
Landgrant Tax Parcel #
UTM Coordinates: Zone 16 17 Easting Northing
Other Coordinates: X: Y: Coordinate System & Datum
Address / Vicinity / Route to:
southwest quarter of the I-75/US 92 Interchange

Name of Public Tract (e.g., park) NA

TYPE OF SITE (select all that apply)

SETTING: Land (terrestrial) Wetland (palustrine) usually flooded usually dry Cave/Sink (subterranean) terrestrial aquatic
STRUCTURES OR FEATURES: log boat agric/farm building burial mound building remains cemetery/grave dump/refuse earthworks (historic) fort midden mill mission mound, nonspecific plantation platform mound road segment shell midden shell mound shipwreck subsurface features surface scatter well
FUNCTION: campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
Other Features or Functions (Choose from the list or type a response.)
1. Artifact scatter-low density 2.

CULTURE PERIODS (select all that apply)

ABORIGINAL: Alachua Archaic (nonspecific) Archaic, Early Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Englewood Fort Walton Glades (nonspecific) Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II Manasota Mississippian Mount Taylor Norwood Orange Paleoinidian Pensacola Perico Island Safety Harbor St. Augustine St. Johns (nonspecific) St. Johns I St. Johns II Santa Rosa Santa Rosa-Swift Creek Seminole (nonspecific) Seminole: Colonization Seminole: 1st War To 2nd Seminole: 2nd War To 3rd Seminole: 3rd War & After Swift Creek (nonspecific) Swift Creek, Early Swift Creek, Late Transitional Weeden Island (nonspecific) Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic
NON-ABORIGINAL: First Spanish 1513-99 First Spanish 1600-99 First Spanish 1700-1763 First Spanish (nonspecific) British 1763-1783 Second Spanish 1783-1821 American Territorial 1821-45 American Civil War 1861-65 American 19th Century American 20th Century American (nonspecific) African-American
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. 2. 3. 4.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? yes no insufficient information
Potentially eligible as contributor to a National Register district? yes no insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)
Given the limited and mundane nature of the artifact assemblage and lack of associated features, the site appears non-significant
Recommendations for Owner or SHPO Action
None

Table with 3 columns: DHR USE ONLY, OFFICIAL EVALUATION, DHR USE ONLY. Includes fields for NR List Date, SHPO - Appears to meet criteria for NR listing, and NR Criteria for Evaluation.

FIELD METHODS (select all that apply)

- | | | | | | |
|--|--|--|--|---|---|
| <u>SITE DETECTION</u> | | | <u>SITE BOUNDARY</u> | | |
| <input type="checkbox"/> no field check | <input type="checkbox"/> exposed ground | <input type="checkbox"/> screened shovel | <input type="checkbox"/> bounds unknown | <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel |
| <input type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input checked="" type="checkbox"/> screened shovel-1/4" | <input type="checkbox"/> none by recorder | <input type="checkbox"/> exposed ground | <input checked="" type="checkbox"/> screened shovel |
| <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> screened shovel-1/8" | <input type="checkbox"/> literature search | <input type="checkbox"/> posthole tests | <input type="checkbox"/> block excavations |
| <input type="checkbox"/> remote sensing | <input type="checkbox"/> unscreened shovel | <input type="checkbox"/> screened shovel-1/16" | <input type="checkbox"/> informant report | <input type="checkbox"/> auger tests | <input type="checkbox"/> estimate or guess |

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

21 shovel tests: 5 positive; 10, 25, 50 meter intervals; 50 cm x 50 cm x 100cm; 1/4 inch mesh screen

SITE DESCRIPTION

Extent/Size (m²) 12,250 Depth/stratigraphy of cultural deposit (describe below)

Artifacts found 25-90 cmbs; 0-20 cm dark grey sand, 20-40 cm grey sand, 40-60 cm dark brown sand; 60-100 of yellow brown sand, with water at 90 cm; site size 70m e/w x 175 n/s

Temporal Interpretation - Components (check one): single component multiple component uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Integrity - Overall disturbance: none seen minor substantial major redeposited destroyed-document! unknown

Disturbances / threats / protective measures

cattle pasture/retention pond/none

Surface collection: area collected _____ m² # collection units _____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 11 count estimate Surface # _____ Subsurface # 11

COLLECTION SELECTIVITY

- unknown unselective (all artifacts)
 selective (some artifacts)
 mixed selectivity

SPATIAL CONTROL

- uncollected general (not by subarea)
 unknown controlled (by subarea)
 variable spatial control
 other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

- A - Lithics
A - Aboriginal ceramics

select a disposition from the list below for each artifact category selected at left

- A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

8 chert flakes, 5 thermally altered, and one flake is a tool: perforator and scraper

DIAGNOSTICS (type or mode, and frequency: e.g., Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware)

- | | | | | | |
|---------------|-------------|----------|----------|----------|----------|
| 1. STP sherds | N= <u>3</u> | 4. _____ | N= _____ | 7. _____ | N= _____ |
| 2. _____ | N= _____ | 5. _____ | N= _____ | 8. _____ | N= _____ |
| 3. _____ | N= _____ | 6. _____ | N= _____ | 9. _____ | N= _____ |

ENVIRONMENT

Nearest fresh water: Type Swamp Name Un-named Distance from site (m) 100
Natural community UPLAND HARDWOODS Topography Hill slope Elevation: Min 11 m Max 15 m
Local vegetation Hardwood Hammock
Present land use cattle pasture
SCS soil series Myakka FS Soil association _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

- 1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
Document description field notes, photos, artifacts File or accession #'s P19150.2
- 2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
Address / Phone / E-mail _____

Recorder Information: Name Lee Hutchinson Affiliation Archaeological Consultants Inc
Address / Phone / E-mail 8110 Blaikie Ct, Suite A, Sarasota, FL, 34240 / (941) 379-6206 / lhutchinson@aciflorida.com

Required Attachments

1 PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED and SITE PLAN
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

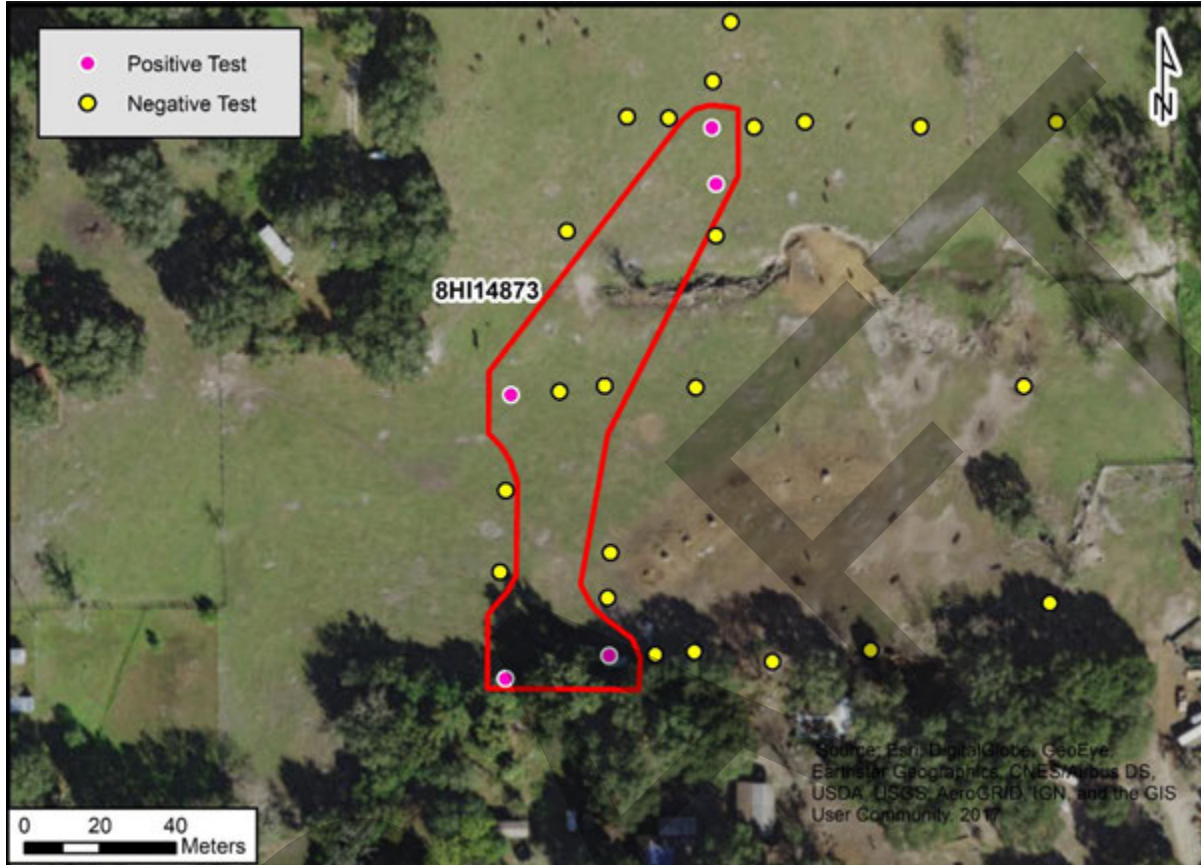


PHOTOGRAPHS





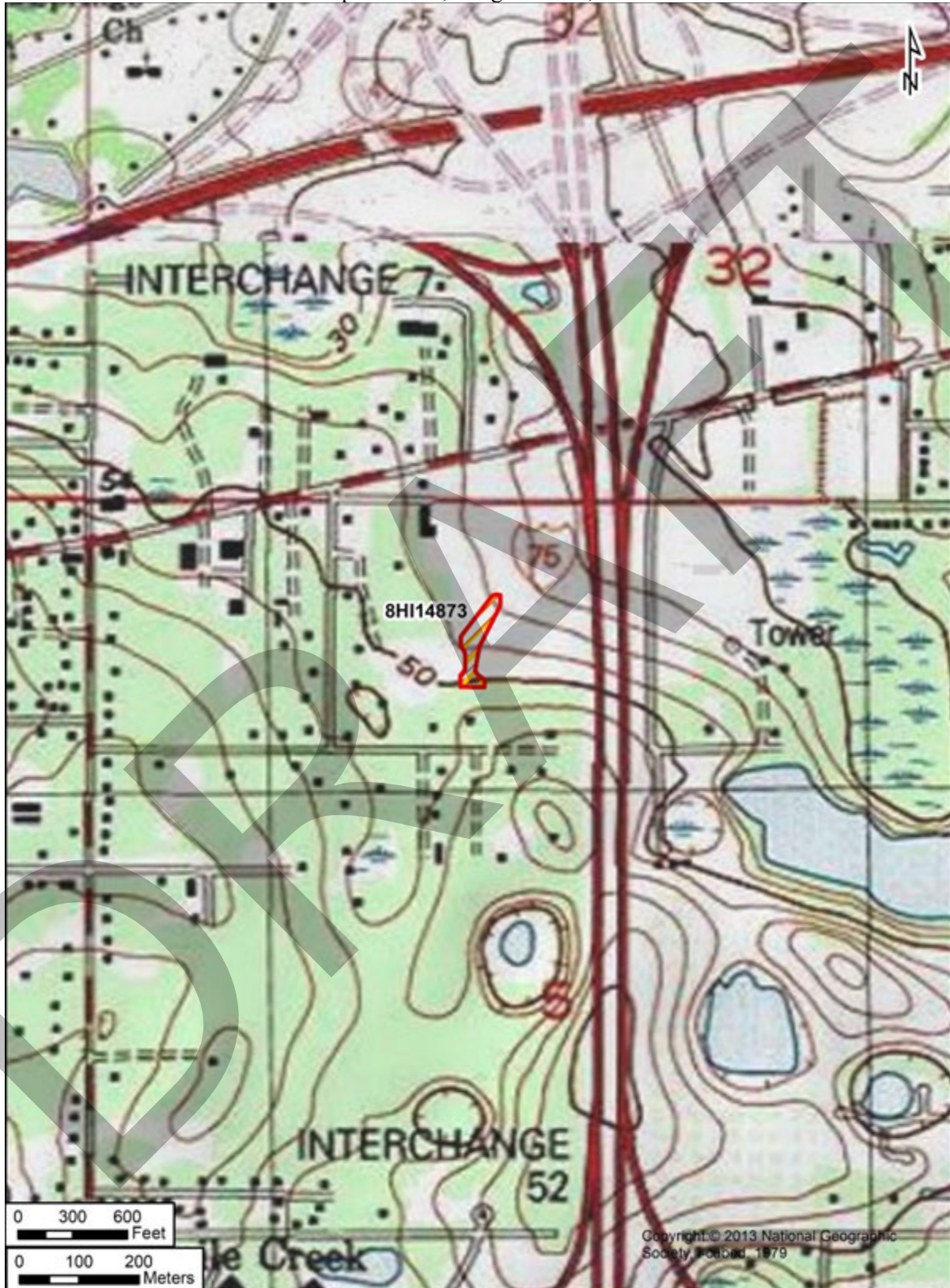
AERIAL MAP



DR



USGS Brandon
Township 29 South, Range 20 East, Section 05



DRAFT

APPENDIX B: Survey Log

Ent D (FMSF only) _____



Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Manuscript Information

Survey Project (name and project phase)

CRAS I-75 (SR 93A) SMF and FPC Sites, Hillsborough County, Florida

Report Title (exactly as on title page)

Cultural Resource Assessment Survey Technical Memorandum Stormwater Management Facilities (SMF) & Floodplain Compensation (FPC) Sites, I-75 (SR 93A) from South of US 301 to North of Bruce B Downs Blvd, Hillsborough County, FL FPID No. 419235-3-22-01

Report Authors (as on title page)

- 1. Marion Almy
- 2. Lee Hutchinson
- 3. Kimberly Irby
- 4. _____

Publication Year 2019

Number of Pages in Report (do not include site forms) 45

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)

ACI, Sarasota, 2019 P19150.2

Supervisors of Fieldwork (even if same as author) Names Marion Almy

Affiliation of Fieldworkers: Organization Archaeological Consultants Inc City Sarasota

Key Words/Phrases (Don't use county name, or common words like *archaeology, structure, survey, architecture, etc.*)

- 1. I-75
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____

Survey Sponsors (corporation, government unit, organization, or person funding fieldwork)

Name _____ Organization Florida Dept of Transportation - District 7

Address/Phone/E-mail 11201 North McKinley Drive Tampa, Florida 33612-6456

Recorder of Log Sheet Lee Hutchinson Date Log Sheet Completed 12-10-2019

Is this survey or project a continuation of a previous project? No Yes: Previous survey #s (FMSF only) _____

Project Area Mapping

Counties (select every county in which field survey was done; attach additional sheet if necessary)

- 1. Hillsborough
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

- 1. Name BRANDON Year 1956
- 2. Name THONOTOSASSA Year 1974
- 3. Name _____ Year _____
- 4. Name _____ Year _____
- 5. Name _____ Year _____
- 6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 11-4-2019 End 11-8-2019 Total Area Surveyed (fill in one) _____ hectares 564.00 acres

Number of Distinct Tracts or Areas Surveyed 28

If Corridor (fill in one for each) Width: _____ meters _____ feet Length: _____ kilometers _____ miles

Research and Field Methods

Types of Survey (select all that apply): archaeological architectural historical/archival underwater
damage assessment monitoring report other(describe): _____

Scope/Intensity/Procedures

background research; shovel tests placed at 10, 25, 50, 100 meter intervals and judgmentally; background research; field survey; CRAS report prepared

Preliminary Methods (select as many as apply to the project as a whole)

Florida Archives (Gray Building) library research- local public local property or tax records other historic maps LIDAR
Florida Photo Archives (Gray Building) library-special collection newspaper files soils maps or data other remote sensing
Site File property search Public Lands Survey (maps at DEP) literature search windshield survey
Site File survey search local informant(s) Sanborn Insurance maps aerial photography
other (describe): _____

Archaeological Methods (select as many as apply to the project as a whole)

Check here if NO archaeological methods were used.
surface collection, controlled shovel test-other screen size block excavation (at least 2x2 m) metal detector
surface collection, uncontrolled water screen soil resistivity other remote sensing
shovel test-1/4" screen posthole tests magnetometer pedestrian survey
shovel test-1/8" screen auger tests side scan sonar unknown
shovel test 1/16" screen coring ground penetrating radar (GPR)
shovel test-unscreened test excavation (at least 1x2 m) LIDAR
other (describe): _____

Historical/Architectural Methods (select as many as apply to the project as a whole)

Check here if NO historical/architectural methods were used.
building permits demolition permits neighbor interview subdivision maps
commercial permits windshield survey occupant interview tax records
interior documentation local property records occupation permits unknown
other (describe): _____

Survey Results

Resource Significance Evaluated? Yes No

Count of Previously Recorded Resources 4 Count of Newly Recorded Resources 1

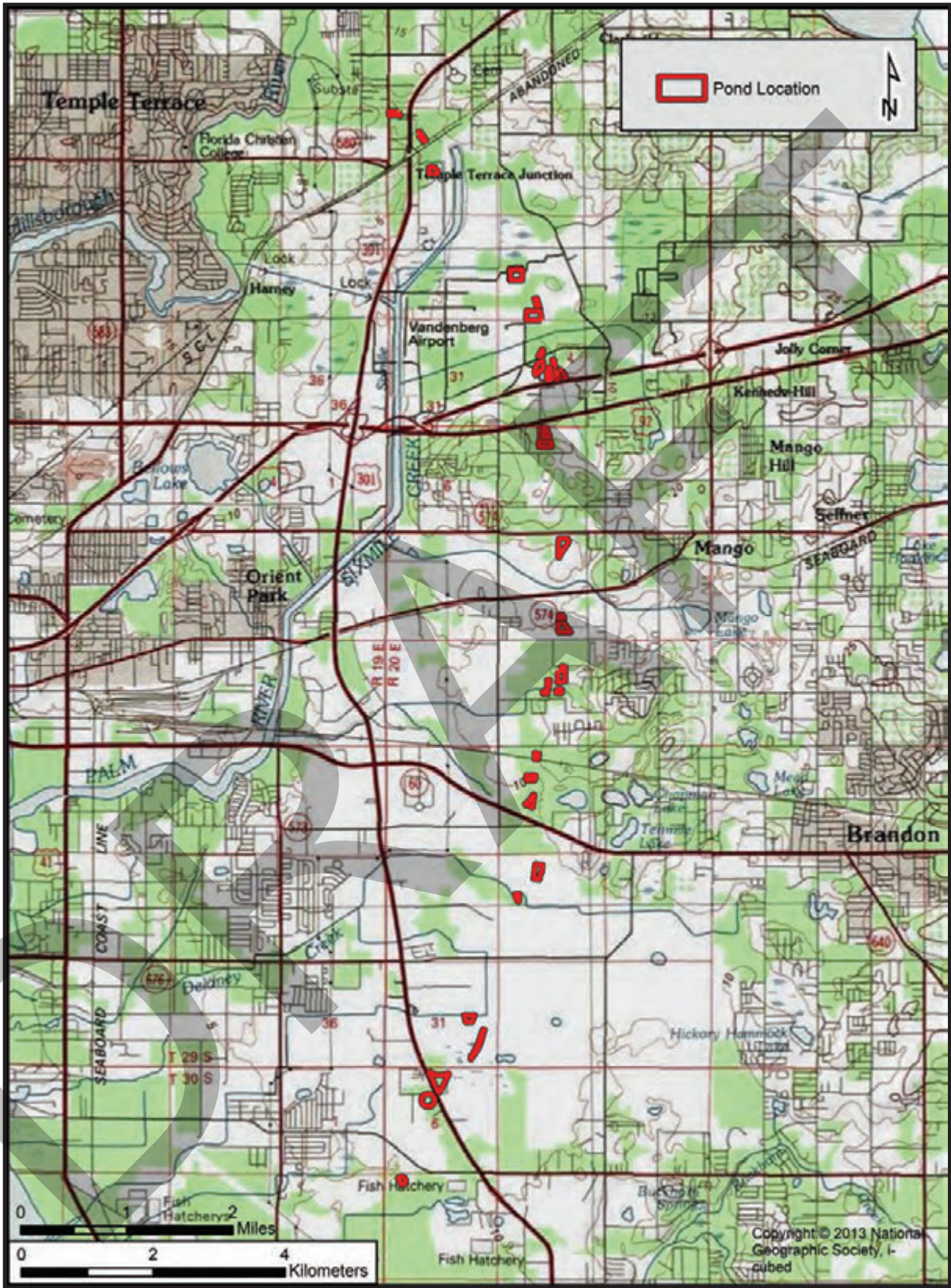
List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)
8HI00511, 8HI00514, 8HI00519, 8HI06898

List Newly Recorded Site ID#s (attach additional pages if necessary)
8HI14873

Site Forms Used: Site File Paper Forms Site File PDF Forms

REQUIRED: Attach Map of Survey or Project Area Boundary

SHPO USE ONLY SHPO USE ONLY SHPO USE ONLY
Origin of Report: 872 Public Lands UW 1A32 # _____ Academic Contract Avocational
Grant Project # _____ Compliance Review: CRAT # _____
Type of Document: Archaeological Survey Historical/Architectural Survey Marine Survey Cell Tower CRAS Monitoring Report
Overview Excavation Report Multi-Site Excavation Report Structure Detailed Report Library, Hist. or Archival Doc
Desktop Analysis MPS MRA TG Other: _____
Document Destination: Plottable Projects Plotability: _____



I-75 Preferred Pond Sites

Township 30 South, Range 20 East, Sections 06-07,
 Township 29 South, Range 20 East, Sections 05, 08, 17, 20, 29, and 31, and
 Township 28 South, Range 20 East, Sections 19, 29, and 32.
 USGS Brandon and Thonotosassa. Hillsborough County.

CRAS I-75 Technical Memorandum
 Stormwater Management Facilities & Floodplain Compensation Sites, I-75 from South of US 301 to North of Bruce B. Downs Boulevard
 Hillsborough County, Florida, FPID No.: 419235-3-22-01

Environmental & Wetland Assessment

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|------------------------|--------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| SMF 1A 2.76 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Freshwater Marsh | 641 | 0.01 | 0% | \$780 | |
| SMF 1B 3.47 | High Density Residential | 130 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Shrub and Brushland | 320 | 0.00 | 0% | \$0 | |
| | Freshwater Marsh | 641 | 0.04 | 1% | \$3,120 | |
| SMF 1C 2.36 | High Density Residential | 130 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 2/3 7.57 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Freshwater Marsh | 641 | 1.07 | 14% | \$83,460 | |
| SMF 4/5 10.47 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | | | | |
| SMF 6A 3.25 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 6B 3.69 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | | | | |
| SMF 7A 3.16 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 7B 2.00 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Open Land | 190 | | | | |
| SMF 7C 8.82 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Open Land | 190 | 0.00 | 0% | \$0 | |
| | Freshwater Marsh | 641 | 0.66 | 7% | \$51,480 | |
| SMF 7 Easement 0.17 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| SMF 7/8 5.57 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| | Open Land | 190 | | | | |
| SMF 8A 2.65 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| | Shrub and Brushland | 320 | 0.00 | 0% | \$0 | |
| SMF 8B 3.58 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|-------------------------|-------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| SMF 8 Easement 0.90 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| | Shrub and Brushland | 320 | 0.00 | 0% | \$0 | |
| SMF 9 2.87 | Wet Prairie | 643 | 0.04 | 1% | \$3,120 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | 0.00 | 0% | \$0 | |
| SMF 10A 3.25 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| SMF 10B 4.53 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Industrial | 150 | | | | |
| | Coniferous Forest | 140 | | | | |
| SMF 10C 2.45 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Mixed Wetland Hardwoods | 617 | 0.17 | 7% | \$13,260 | |
| SMF 10 Easement 0.82 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 11A 1.23 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle and Florida black bear |
| SMF 11B 1.47 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 12/13A 5.04 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Hardwood-Conifer Mix | 434 | | | | |
| SMF 12/13B 4.61 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Woodland Pastures | 213 | | | | |
| SMF 12/13C 5.43 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Woodland Pastures | 213 | | | | |
| SMF 14A 5.77 | Disturbed Land | 740 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 14B 4.96 | Rural Residential | 118 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Open Land | 190 | | | | |

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|--------------------------------|--------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| SMF 14 Easement 1.73 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Rural Residential | 118 | | | | |
| | High Density Residential | 130 | | | | |
| | Commercial and Services | 140 | | | | |
| | Open Land | 190 | | | | |
| | Wet Prairie | 643 | | | | |
| SMF 15/16 6.27 | Transportation | 810 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 17A 3.78 | Rural Residential | 118 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Improved Pastures | 211 | | | | |
| | Transportation | 810 | | | | |
| SMF 17B 4.09 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Improved Pastures | 211 | | | | |
| SMF 17 Easement 0.11 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 18A 2.15 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 18B 2.13 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Improved Pastures | 211 | | | | |
| SMF 18 Easement 0.52 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 19A 1.57 | Transportation | 810 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 19B 2.05 | Transportation | 810 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 19C 2.80 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | | | | |
| SMF 19D 4.19 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | | | | |

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|-------------------------|-------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| SMF 20A 7.81 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Hardwood-Conifer Mix | 434 | | | | |
| | Mixed Forested Wetland | 630 | 0.07 | 1% | \$5,460 | |
| SMF 20B 9.63 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Institutional | 170 | | | | |
| | Improved Pastures | 211 | | | | |
| | Freshwater Marsh | 641 | 0.38 | 4% | \$29,640 | |
| SMF 21A 7.78 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 20 Easement 1.01 | Institutional | 170 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Improved Pastures | 211 | | | | |
| | Freshwater Marsh | 641 | 0.85 | 84% | \$66,300 | |
| SMF 21A 7.78 | Mixed Forested Wetland | 630 | 2.47 | 32% | \$192,660 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Freshwater Marsh | 641 | | | | |
| SMF 21B 6.70 | Unimproved Pasture | 212 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 22A 3.94 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Stream and Lake Swamps | 615 | 0.24 | 6% | \$18,720 | |
| SMF 22/23 4.33 | Specialty Farms | 250 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 23A 3.12 | Specialty Farms | 250 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 23B 2.82 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Specialty Farms | 250 | | | | |
| | Hardwood-Conifer Mix | 434 | | | | |
| SMF 24A 1.83 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Wet Prairie | 643 | 0.11 | 6% | \$8,580 | |
| | Intermittent Ponds | 653 | | | | |
| SMF 24B 1.83 | Herbaceous | 310 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Hardwood-Conifer Mix | 434 | | | | |

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|--------------------------------|----------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| SMF 25A 1.86 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 25B 2.81 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| SMF 25C-1 2.07 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Open Land | 190 | | | | |
| | Hardwood-Conifer Mix | 434 | | | | |
| SMF 25C-2 2.45 | Low Density Residential | 110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Medium Density Residential | 120 | | | | |
| SMF 25 Easement 0.11 | Hardwood-Conifer Mix | 434 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | | | | |
| FPC 6R 3.38 | Freshwater Marsh | 641 | 0.60 | 18% | \$46,800 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | 0.00 | 0% | \$0 | |
| FPC 7A 1.26 | Open Land | 190 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| FPC 12/13L 1.55 | Commercial and Services | 140 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Hardwood-Conifer Mix | 434 | | | | |
| FPC 12/13R 1.09 | Woodland Pastures | 213 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| | Hardwood-Conifer Mix | 434 | | | | |
| FPC 14 0.78 | Disturbed Land | 740 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| FPC 17/18 2.42 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |
| FPC 19A 0.67 | Freshwater Marsh | 641 | 0.24 | 36% | \$18,720 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Transportation | 810 | 0.00 | 0% | \$0 | |
| FPC 19B 0.90 | Transportation | 810 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear |

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

| Pond Size (ac) | Land Use / FLUCFCS Code | | Wetlands / Surface Waters | | | Potential Protected Species that Could Use Habitat |
|-------------------------|-------------------------|------|--------------------------------------|-----------------|---------------------------|---|
| | Type | Code | Wetland / Surface Water Impacts (ac) | Percent of Site | Wetland Mitigation Cost ^ | |
| FPC 20 1.88 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Mixed Forested Wetland | 630 | 0.38 | 20% | \$29,640 | |
| | Freshwater Marsh | 641 | | | | |
| FPC 21A 2.07 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Mixed Forested Wetland | 630 | 0.59 | 29% | \$46,020 | |
| FPC 21B 1.66 | Unimproved Pastures | 212 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Mixed Forested Wetland | 630 | 0.59 | 36% | \$46,020 | |
| FPC 21 Easement 0.75 | Improved Pastures | 211 | 0.00 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear |
| | Mixed Forested Wetland | 630 | 0.65 | 87% | \$50,700 | |

^ = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

Notes:

SMF 4/5 is directly adjacent to bald eagle nest HL047. Construction of this pond would likely occur within the 330ft primary buffer of the nest and require an incidental take permit.

memorandum

date January 29, 2020

to John Littlefield, WSP

cc

from Tori Kuba, ESA

subject I-75 (SR 93A) from South of US 301 to North of Fletcher Avenue (CR 482A) Pond Update FPID: 419235-3 Hillsborough County, FL

In October 2019, scientists with ESA conducted a desktop environmental review of all ponds being considered for the I-75 (SR 93A) from South of US 301 to North of Fletcher Avenue (CR 482A) in Hillsborough County, Florida. At the time of the review, there were 68 sites proposed as potential stormwater management facilities (SMFs), floodplain compensation sites (FPCs) or easements for these drainage features. Potential sites were reviewed for anticipated protected species involvement and wetland and surface water impacts using the following sources:

- National Resources Conservation Service (NRCS) soils data;
- National Wetlands Inventory (NWI) data;
- 2011 and 2017 Southwest Florida Water Management District (SWFWMD) Florida Land Use; Cover and Forms Classification System (FLUCFCS) data;
- ESRI and Florida Department of Transportation (FDOT) 2017 imagery; and
- Google Earth 2019 imagery.

Thirty-two (32) SMF and FPC sites have been selected as preferred pond site locations. ESA scientists conducted field reviews of these locations on November 1, 6, and 8, 2019. FLUCFCS was field verified and sites were reviewed for potential involvement with protected species. The results of the field review are summarized in **Table 1**. The following is a summary and discussion of the sites which had FLUCFCS changes which influenced anticipated wetland and protected species involvement as compared with the initial desktop review.

Five preferred pond sites (SMF 1C, SMF 18A, SMF 19C, SMF 25A, and FPC 17/18,) had no changes that resulted from the field review. Specifically, characteristics identified from the desktop review did not change following the field review. There is no resultant change to expected wetland and protected species involvement.

Three preferred pond sites (SMF 17A, SMF 19B, and SMF 22/23) had some FLUCFCS refinements resulting from the field review. Specifically, these pond sites had characteristics identified from the desktop review that changed following the field review, however, the changes do not result in a change to expected wetland and protected species involvement. At these sites, either a FLUCFCS code was added or removed, or the acreage of a FLUCFCS code changed.

Following the field review, twenty-four preferred pond sites (SMF 2/3, SMF 4/5, SMF 6A, SMF 7/8, SMF 9, SMF 10C, SMF 11A, SMF 12/13C, SMF 14A, SMF 15/16, SMF 19A, SMF 19D, SMF 20A, SMF 21B, SMF 24B, FPC 6R, FPC 7A, FPC 12/13L, FPC 12/13R, FPC 14, FPC 19A, FPC 19B, FPC 20, and FPC 21B) had changes to expected wetland and protected species involvement. These sites are listed in bold in **Table 1**. At these sites, either a FLUCFCS code was added or removed, or the acreage of a FLUCFCS code changed. There were instances when expected wetland impact acreages increased and instances when these acreages decreased. In other instances, the type of wetland habitat involved (i.e. freshwater marsh, mixed wetland hardwood etc.) and expected acreage within the pond site changed.

Overall, based on the field verification of FLUCFCS, the thirty-two preferred SMF and FPC sites will result in an estimated impact of 8.54 acres of wetlands and 4.42 acres of surface waters. Generally, wetlands have been impacted by the existing roadway and other development and are of low to moderate quality and the surface waters may not require mitigation because many were previously permitted.

Notably, a documented bald eagle (*Haliaeetus leucocephalus*) nest, HL047, is in a cell phone tower adjacent to SMF 4/5. Bald eagle nests have two protection buffer zones, a 330-foot primary protective zone, and a 660-foot secondary protection zone. SMF 4/5 falls within the primary protective zone of the nest and SMF 2/3 falls within the secondary protective zone of the nest. At a minimum, for these two ponds, coordination of construction activities with the U.S. Fish and Wildlife Service (USFWS) would be required. If construction activities occur during the bald eagle nesting season (October 1 through May 15) within the 330-foot protective zone it is possible an incidental take permit for the nest may also be required.

No protected species were directly observed during field surveys. Prior to construction, a 100 percent survey for gopher tortoise (*Gopherus polyphemus*) burrows should be conducted to determine whether a relocation permit is needed. Preconstruction surveys may also be required for Florida sandhill crane (*Antigone canadensis pratensis*), Florida burrowing owl (*Athene cunicularia floridana*), and southeastern American kestrel (*Falco sparverius paulus*). The project may result in impacts to wading bird and wood stork (*Mycteria americana*) suitable foraging habitat; however, it will be offset by the purchase of mitigation bank credits for wetland impacts associated with the project. Construction activities will likely be required to follow the USFWS' *Standard Protection Measures for the Eastern Indigo Snake (Drymarchon corais couperi)*.

Table 1. Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives

| Pond Size (ac) | Field-Verified FLUCFCS | | Wetlands / Surface Water Involvement | | | Potential Protected Species that Could Use Habitat | Field Verification Update |
|--------------------|--|------|--------------------------------------|-----------------|-------------------|---|--|
| | Description | Code | Impacts (ac) | Percent of Site | Mitigation Cost * | | |
| SMF 1C 2.36 | Residential High Density | 1300 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | None |
| SMF 2/3 7.56 | Open Land | 1900 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | Wetlands removed and minor FLUCFCS refinement |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Transportation | 8100 | | | | | |
| SMF 4/5 10.47 | Upland Hardwood - Coniferous Mixed | 4340 | 1.18 | 11% | \$92,040 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetlands added and FLUCFCS refinement |
| | Inland Ponds and Sloughs | 6160 | | | | | |
| | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | | | | | |
| | Transportation | 8100 | | | | | |
| SMF 6A 3.25 | Open Land | 1900 | <0.01 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Very small area of wetland added |
| | Freshwater Marshes | 6410 | | | | | |
| SMF 7/8 5.57 | Improved Pastures | 2110 | 0.14 | 3% | \$10,920 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added |
| | Wet Prairies | 6430 | | | | | |
| SMF 9 0.66 | Transportation | 8100 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | Wetland removed |
| SMF 10C 2.45 | Upland Hardwood Forests | 4200 | 1.83 | 75% | \$142,740 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Increased wetland area and FLUCFCS refinement |
| | Stream and Lake Swamps (Bottomland) | 6150 | | | | | |
| | Wet Prairies | 6430 | | | | | |
| SMF 11A 1.23 | Commercial and Services | 140 | 0.08 | 7% | \$6,240 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Surface water added and FLUCFCS refinement |
| | Upland Hardwood Forests | 4200 | | | | | |
| | Reservoirs | 5300 | | | | | |
| SMF 12/13C 5.43 | Residential, Low Density <2 Units per Acre | 1100 | 0.01 | 0% | \$780 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Small area of wetland added and FLUCFCS refinement |
| | Open Land | 1900 | | | | | |
| | Improved Pastures | 2110 | | | | | |
| | Woodland Pastures | 2130 | | | | | |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| Freshwater Marshes | 6410 | | | | | | |
| SMF 14A 5.77 | Commercial and Services | 1400 | 1.83 | 32% | \$142,740 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Open Land | 1900 | | | | | |
| | Improved Pastures | 2110 | | | | | |
| | Wet Prairies | 6430 | | | | | |

| Pond Size (ac) | Field-Verified FLUCFCS | | Wetlands / Surface Water Involvement | | | Potential Protected Species that Could Use Habitat | Field Verification Update |
|-------------------|--|------|--------------------------------------|-----------------|-------------------|---|--|
| | Description | Code | Impacts (ac) | Percent of Site | Mitigation Cost * | | |
| SMF 15/16 6.27 | Upland Hardwood - Coniferous Mixed | 4340 | <0.01 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Small area of wetland added and FLUCFCS refinement |
| | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | | | | | |
| | Transportation | 8100 | | | | | |
| SMF 17A 3.92 | Residential, Medium Density 2-5 Units per Acre | 2110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | FLUCFCS refinement |
| | Improved Pastures | 2110 | | | | | |
| | Transportation | 8110 | | | | | |
| SMF 18A 2.15 | Improved Pastures | 2110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | None |
| SMF 19A 1.57 | Upland Hardwood - Coniferous Mixed | 4340 | <0.01 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Small area of wetland added and FLUCFCS refinement |
| | Freshwater Marshes | 6410 | | | | | |
| | Transportation | 8100 | | | | | |
| SMF 19B 2.05 | Upland Hardwood - Coniferous Mixed | 4340 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | FLUCFCS refinement |
| | Transportation | 8100 | | | | | |
| SMF 19C 2.80 | Upland Hardwood - Coniferous Mixed | 4340 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | None |
| | Transportation | 8100 | | | | | |
| SMF 19D 4.19 | Reservoirs | 5300 | 3.57 | 85% | \$278,460 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Surface water added and FLUCFCS refinement |
| | Transportation | 8100 | | | | | |
| SMF 20A 7.81 | Unimproved Pastures | 2120 | 0.03 | 0% | \$2,340 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland area reduced and FLUCFCS refinement |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Mixed Wetland Hardwoods | 0.03 | | | | | |
| | Transportation | 8100 | | | | | |
| SMF 21B 6.70 | Unimproved Pastures | 2120 | 0.86 | 13% | \$67,080 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Freshwater Marshes | 6410 | | | | | |
| | Emergent Aquatic Vegetation | 6440 | | | | | |
| SMF 22/23 4.33 | Residential, Low Density <2 Units per Acre | 1100 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | FLUCFCS refinement |
| | Specialty Farms | 2500 | | | | | |
| SMF 24B 1.83 | Herbaceous | 3100 | 0.14 | 8% | \$10,920 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Mixed Wetland Hardwoods | 6170 | | | | | |
| SMF 25A 1.86 | Residential, Low Density <2 Units per Acre | 1100 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | None |

| Pond Size (ac) | Field-Verified FLUCFCS | | Wetlands / Surface Water Involvement | | | Potential Protected Species that Could Use Habitat | Field Verification Update |
|--------------------|--|------|--------------------------------------|-----------------|-------------------|---|---|
| | Description | Code | Impacts (ac) | Percent of Site | Mitigation Cost * | | |
| FPC 6R 3.38 | Upland Coniferous Forests | 4100 | 0.46 | 14% | \$35,880 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Reduced wetland area and FLUCFCS refinement |
| | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | | | | | |
| | Transportation | 8100 | | | | | |
| FPC 7A 1.26 | Shrub and Brushland | 3200 | 0.16 | 13% | \$12,480 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Pine Flatwoods | 4110 | | | | | |
| | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | | | | | |
| FPC 12/13L 1.55 | Commercial and Services | 1400 | 0.53 | 34% | \$41,340 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Open Land | 1900 | | | | | |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Mixed Wetland Hardwoods | 6170 | | | | | |
| | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | | | | | |
| FPC 12/13R 1.09 | Improved Pastures | 2110 | <0.01 | 0% | \$0 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Woodland Pastures | 2130 | | | | | |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Freshwater Marshes | 6410 | | | | | |
| FPC 14 0.78 | Improved Pastures | 2110 | 0.04 | 5% | \$3,120 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Wetland added and FLUCFCS refinement |
| | Wet Prairies | 6430 | | | | | |
| FPC 17/18 2.42 | Improved Pastures | 2110 | 0.00 | 0% | \$0 | eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear | None |
| FPC 19A 0.67 | Freshwater Marsh with Shrubs, Brush, and Vines | 6417 | 0.06 | 9% | \$4,680 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Reduced wetland area and FLUCFCS refinement |
| | Transportation | 8100 | | | | | |
| FPC 19B 0.90 | Transportation | 8100 | 0.77 | 86% | \$60,060 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Surface water added |
| | Reservoirs | 5300 | | | | | |
| FPC 20 1.88 | Unimproved Pastures | 2120 | 1.19 | 63% | \$92,820 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Increased wetland area and FLUCFCS refinement |
| | Wetland Shrub | 6310 | | | | | |
| | Transportation | 8100 | | | | | |
| FPC 21B 1.66 | Unimproved Pastures | 2120 | 0.08 | 5% | \$6,240 | eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear | Reduced wetland area and FLUCFCS refinement |
| | Upland Hardwood - Coniferous Mixed | 4340 | | | | | |
| | Freshwater Marshes | 6410 | | | | | |
| | Transportation | 8100 | | | | | |

* = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

Notes:

Sites shown in bold have had a FLUCFCS code change that involves a change in expected wetland impact acreage and/or protected species involvement since the initial environmental desktop review

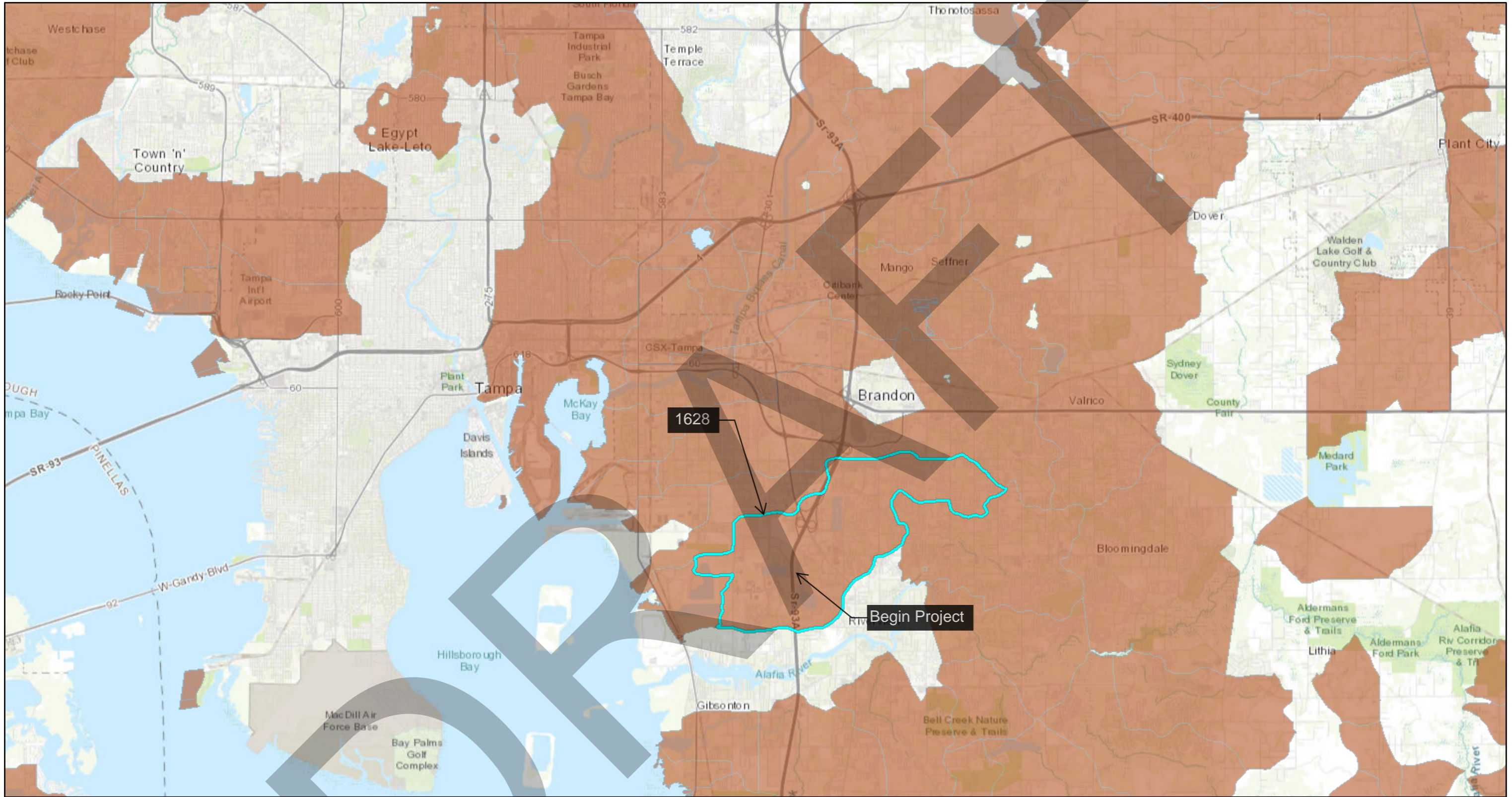
SMF 4/5 falls within the 330-ft primary buffer of bald eagle nest HL 047 and construction would likely require an incidental take permit

SMF 2/3 falls within the 660-ft secondary buffer of bald eagle nest HL047 and construction activities would need to be coordinated with the FWC


DRAFT

**Appendix I
FDEP Verified Impaired List**

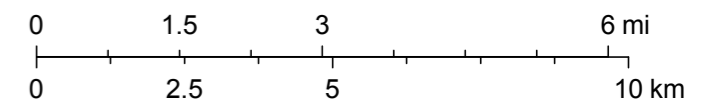
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

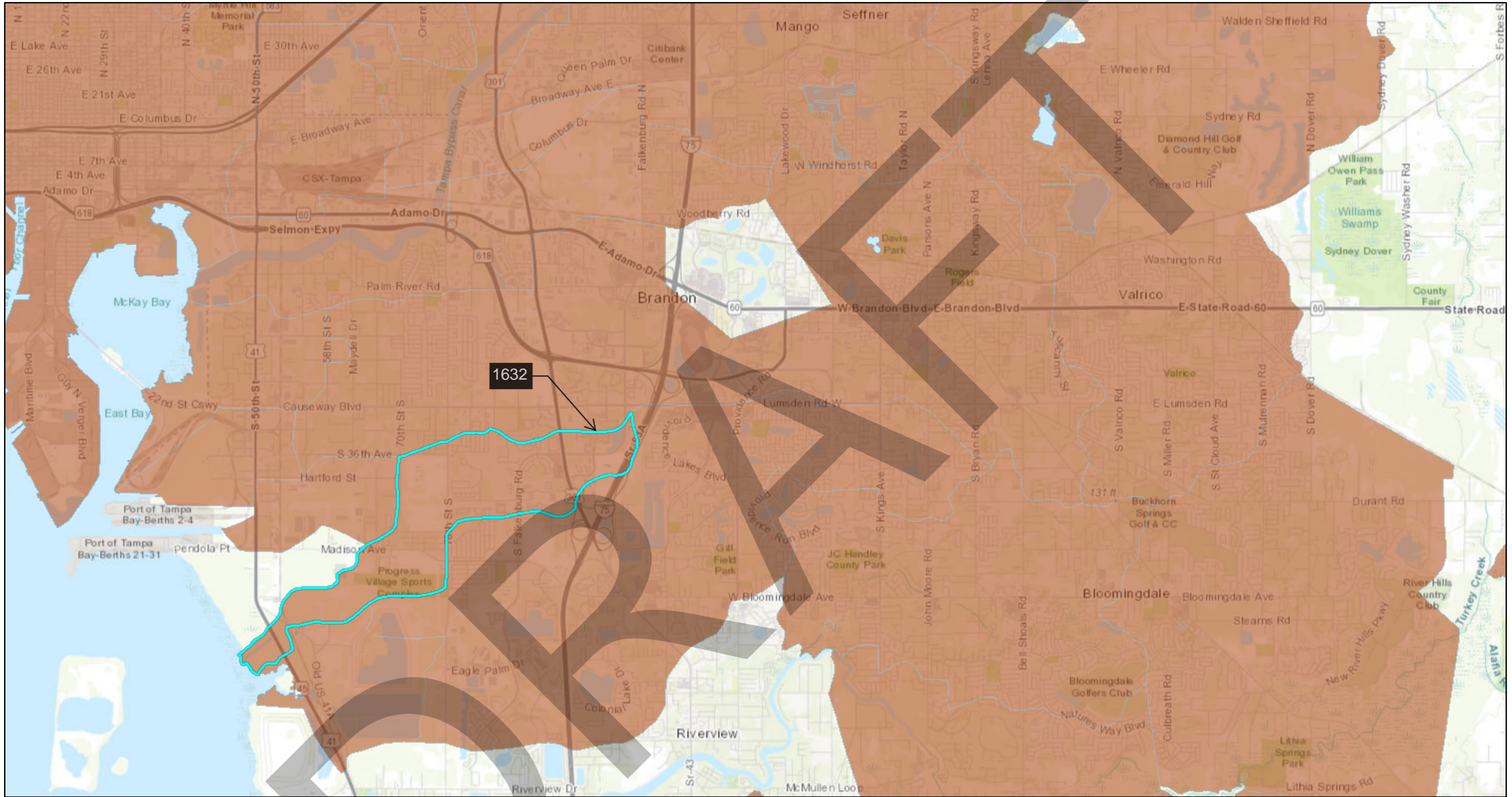
 Verified List WBIDs

1:144,448



FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

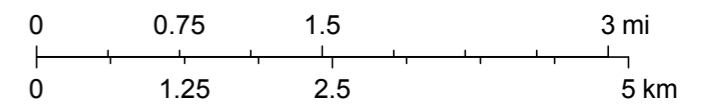
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

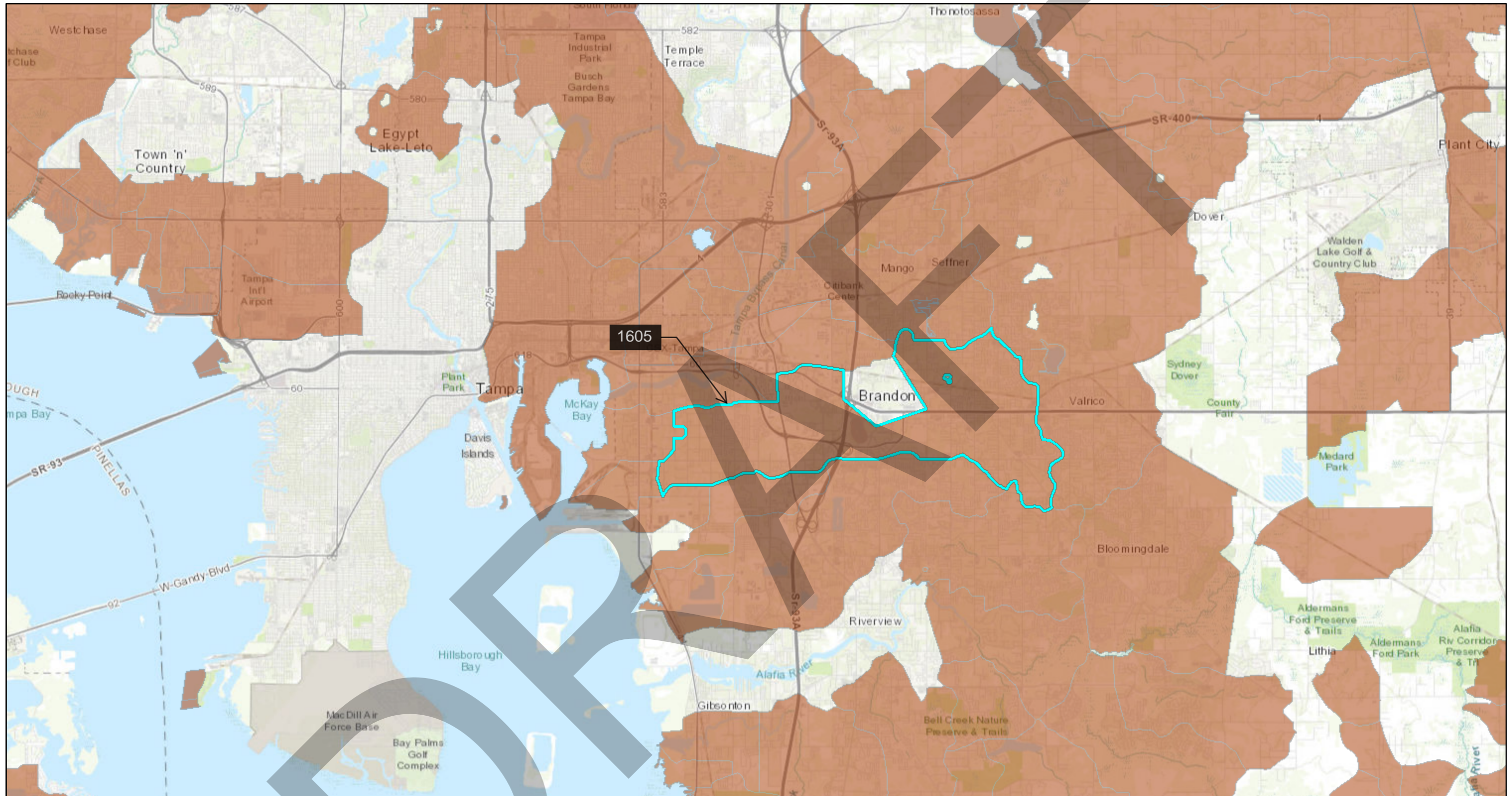
 Verified List WBIDs

1:72,224




FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

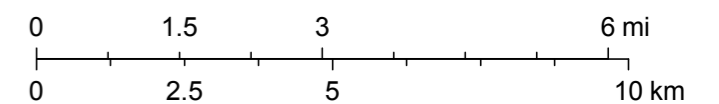
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

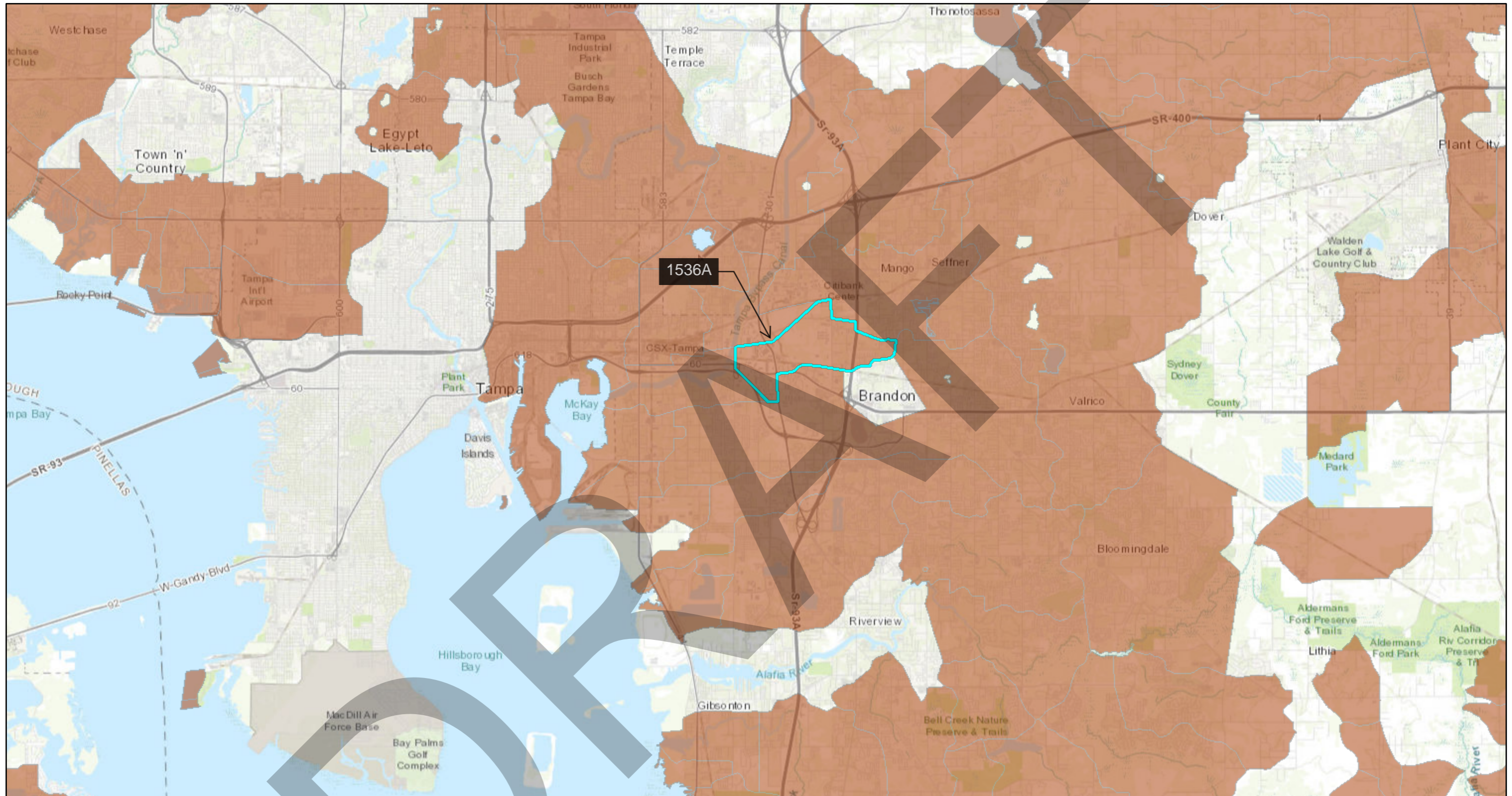
 Verified List WBIDs

1:144,448



FDEP, DEAR. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

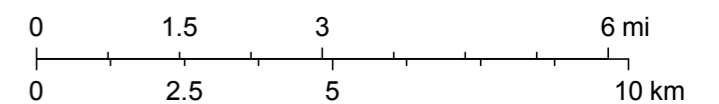
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

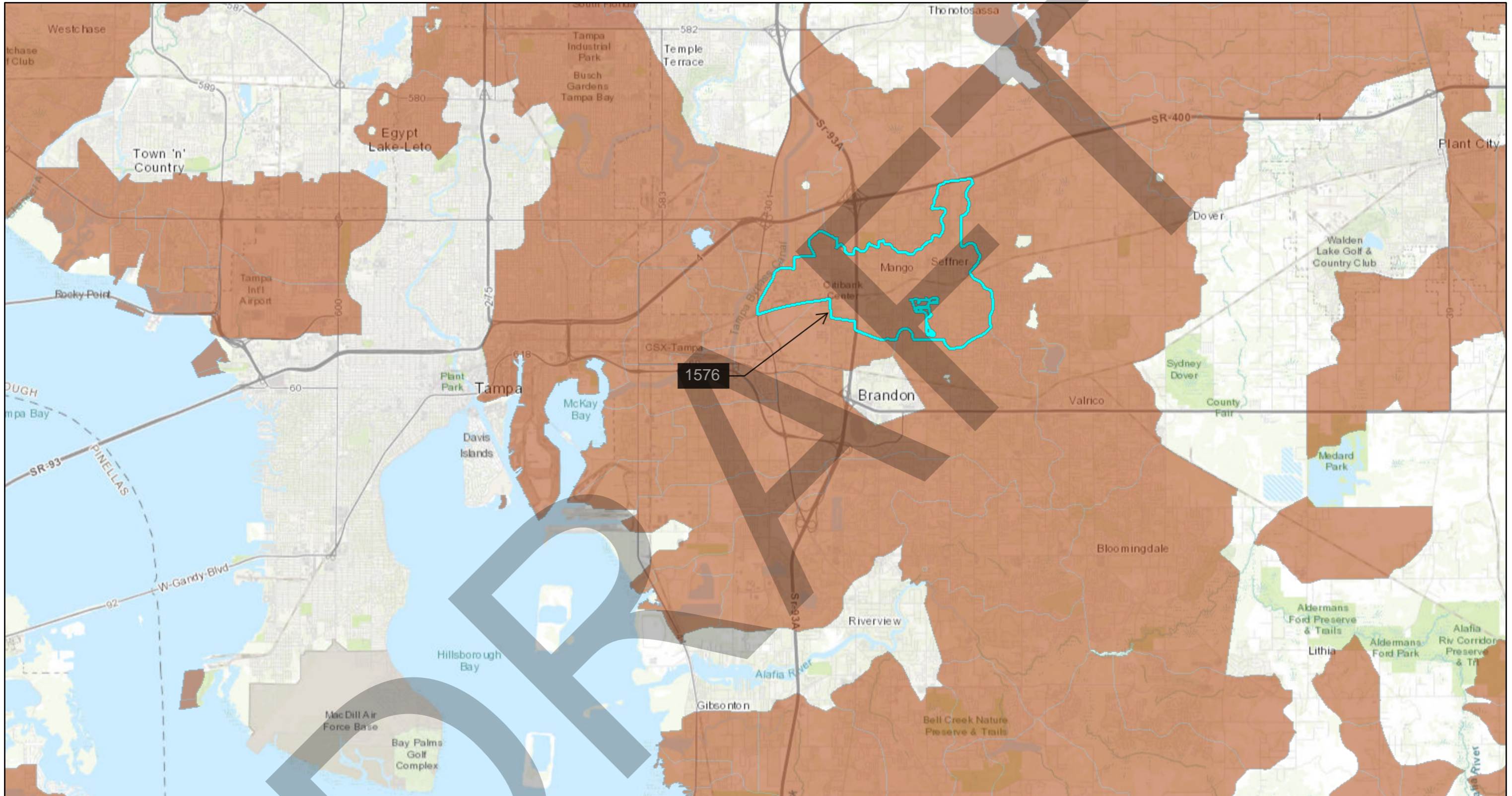
Verified List WBIDs

1:144,448




FDEP, DEAR. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

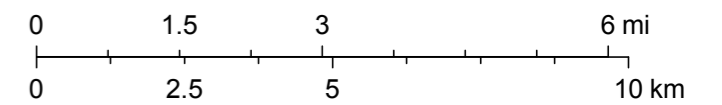
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

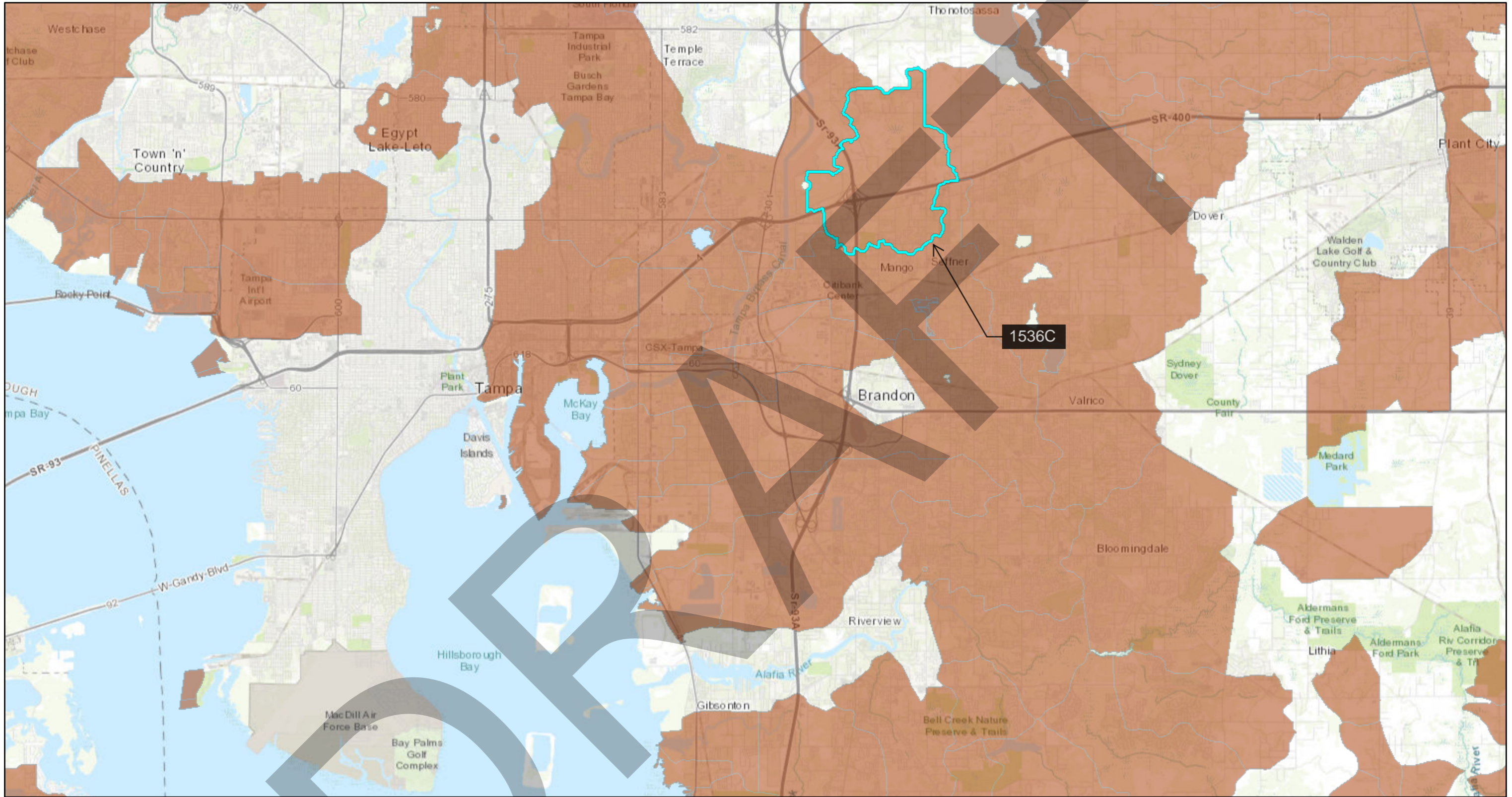
 Verified List WBIDs

1:144,448




FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

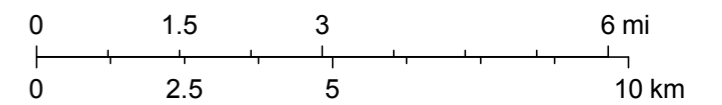
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

 Verified List WBIDs

1:144,448

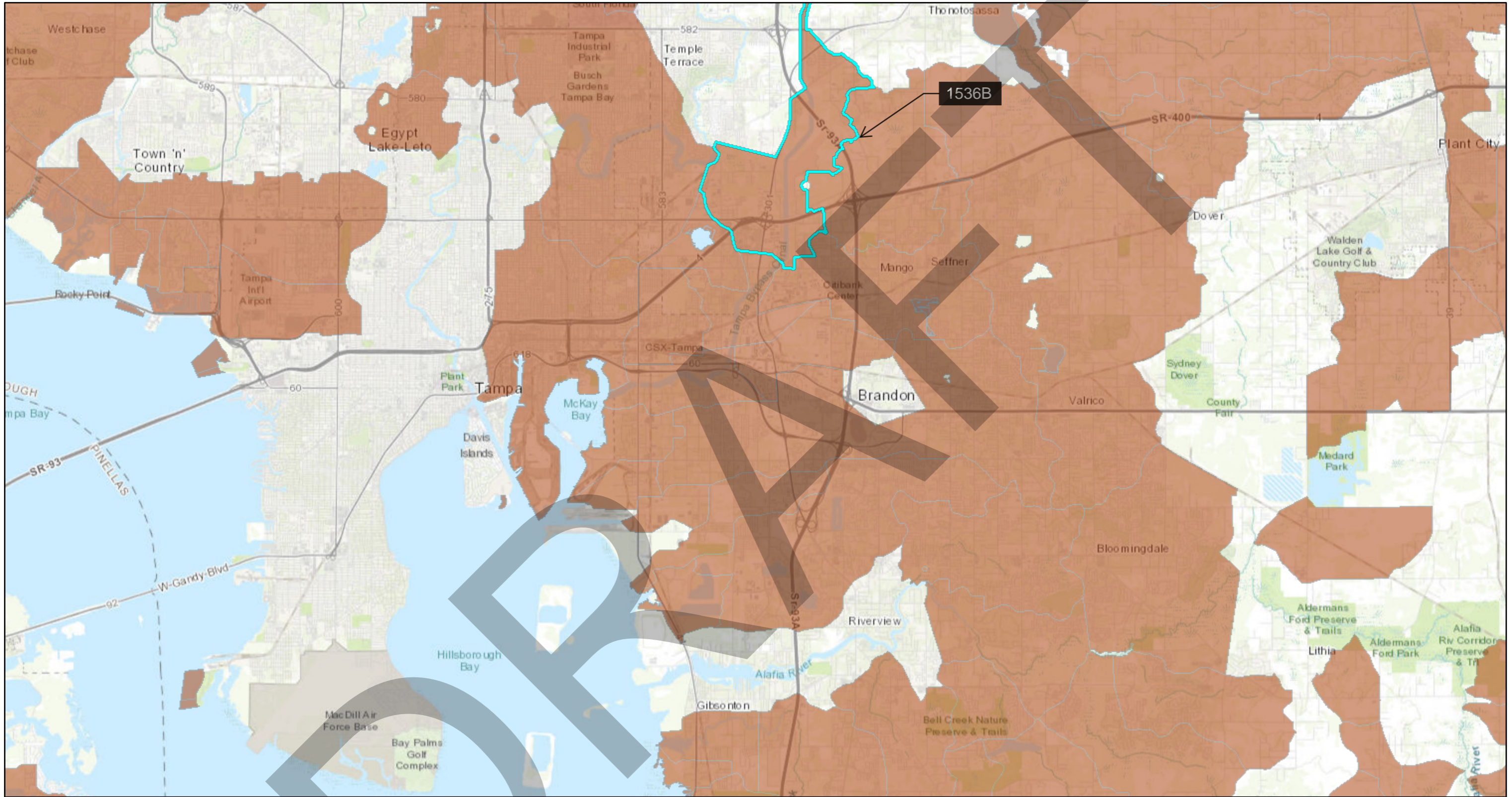


FDEP, DEAR. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map created by Map Direct, powered by ESRI.

Florida Department of Environmental Protection makes no warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

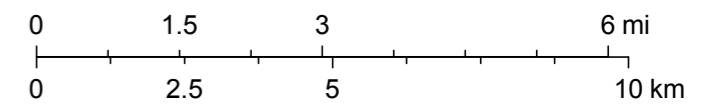
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

 Verified List WBIDs

1:144,448

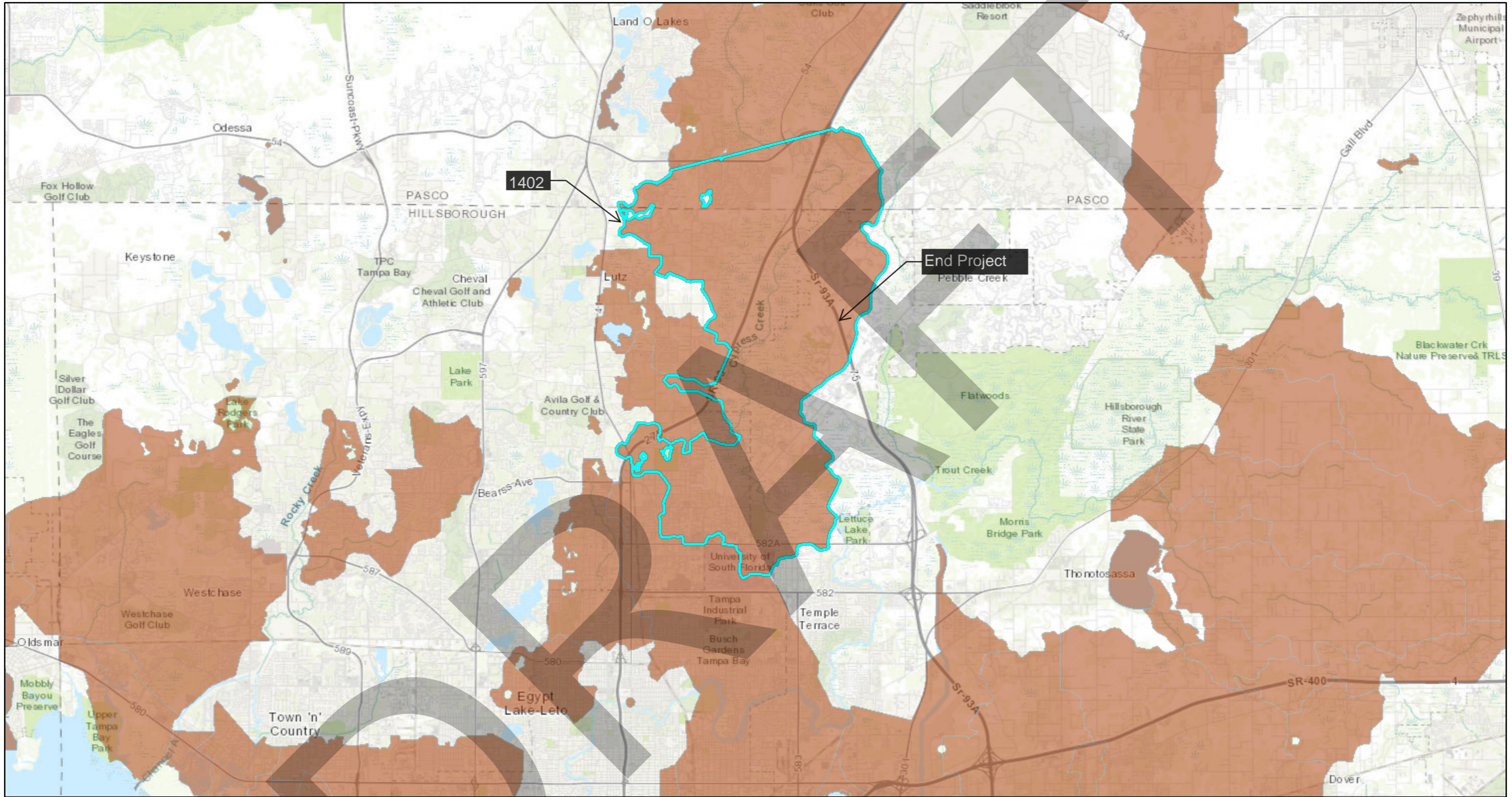


FDEP, DEAR. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community


Map created by Map Direct, powered by ESRI.

Florida Department of Environmental Protection makes no warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

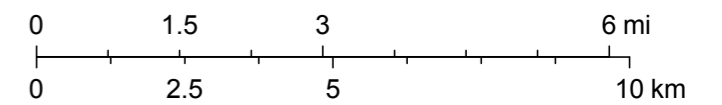
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

 Verified List WBIDs

1:144,448



FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map created by Map Direct, powered by ESRI.

Florida Department of Environmental Protection makes no warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

| Cycle | Group | OGC Case Number | Group Name | Planning Unit | County (-ies) | WBID | Water Segment Name | Water-body Type | Water-body Class ¹ | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Dissolved Oxygen/Biology Pollutant of Concern | Concentration of Criterion or Threshold Not Met | Priority for TMDL Development ³ | Projected Year For TMDL Development ³ | Verified Period Assessment Data ⁸ | Comments ^{7,8} |
|-------|-------|-----------------|-----------------------|------------------------------------|---------------------|-------|------------------------------------|-----------------|-------------------------------|-----------------------------------|--|---|---|--|--|--|--|
| 2 | 2 | 09-2293 | Tampa Bay Tributaries | Hillsborough River | Hillsborough, Pasco | 1402 | Cypress Creek | Stream | 3F | Coliforms | Fecal Coliform | | ≤ 400 Counts / 100 mL | Low | | 11/64 | Delisted from the 1998 303(d) list in Cycle 1, re-listed in Cycle 2. |
| 3 | 1 | 13-0183 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1536A | Unnamed Drain | Stream | 3F | | Fecal Coliform | | ≤ 400 Counts / 100 mL | Low | | 7/11 | This parameter is impaired for this waterbody based on the number of exceedances for a sample size less than 20. Fewer than twenty samples may be used to identify a waterbody as impaired if there are at least five exceedances, per Rule 62-303.420(7)(a), F.A.C. This parameter is being added to the 303(d) list. |
| 3 | 1 | 13-0184 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1536B | Sixmile Creek (Tampa Bypass Canal) | Stream | 3F | Biochemical Oxygen Demand | Dissolved Oxygen | Biochemical Oxygen Demand | ≥ 5.0 mg/L | Low | | 49/145 | This parameter is impaired for this waterbody based on the number of exceedances for the sample size. Median total nitrogen and total phosphorus values were not elevated relative to comparable waters and biochemical oxygen demand was identified as the causative pollutant because it was elevated relative to comparable waters (exceeded 2.0 mg/L). This parameter is being added to the 303(d) list. |
| 3 | 1 | 13-0185 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1536B | Sixmile Creek (Tampa Bypass Canal) | Stream | 3F | Dissolved Oxygen | Dissolved Oxygen | Biochemical Oxygen Demand | ≥ 5.0 mg/L | Low | | 49/145 | This parameter is impaired for this waterbody based on the number of exceedances for the sample size. Median total nitrogen and total phosphorus values were not elevated relative to comparable waters and biochemical oxygen demand was identified as the causative pollutant because it was elevated relative to comparable waters (exceeded 2.0 mg/L). This parameter is being added to the 303(d) list. |
| 3 | 1 | 13-0187 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1536C | Tampa Bypass Canal Tributary | Stream | 3F | | Fecal Coliform | | ≤ 400 Counts / 100 mL | Low | | 10/25 | This parameter is impaired for this waterbody based on the number of exceedances for the sample size and is being added to the 303(d) list. |
| 2 | 1 | 09-2361 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1576 | Mango Drain | Stream | 3F | | Dissolved Oxygen | Nutrients (added from comments) | < 5.0 mg/L | Medium | | | pp = 2 / 6; vp = 17 / 24. Verified impaired. Nutrients (total phosphorus) were identified as the causative pollutant based on Chl-a data/nutrient impairment. Verified period median TN = 1.24 mg/L (19 values), median TP = 0.3 (18 values), median BOD = 1.8 (12 values). |
| 3 | 1 | 13-0193 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1576 | Mango Drain | Stream | 3F | | Fecal Coliform | | ≤ 400 Counts / 100 mL | Low | | 34/80 | This parameter is impaired for this waterbody based on the number of exceedances for the sample size and is being added to the 303(d) list. |
| 4 | 1 | 19-0679 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1605 | Delaney Creek | Stream | 3F | | Nutrients (Macrophytes) | | LVS C of C ≥ 2.5 and LVS FLEPPC ≤ 25% | Medium | | 03/23/2016: Avg CoFC - 1.8, FLEPPC - 36% 05/12/2016: Avg CoFC - 1.0, FLEPPC - 69% 05/16/2016: Avg CoFC - 1.6, FLEPPC - 62% 10/03/2016: Avg CoFC - 2.1, FLEPPC - 32% | This waterbody is impaired for this parameter based on failing linear vegetation surveys with an average C of C score < 2.5 and FLEPPC percent coverage of > 25%. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List. USF Water Institute provided additional biological data used in this assessment. |
| 3 | 1 | 13-0211 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1628 | Archie Creek | Stream | 3F | | Fecal Coliform | | ≤ 400 Counts / 100 mL | Low | | 11/19 | This parameter is impaired for this waterbody based on the number of exceedances for a sample size less than 20. Fewer than twenty samples may be used to identify a waterbody as impaired if there are at least five exceedances, per Rule 62-303.420(7)(a), F.A.C. This parameter is being added to the 303(d) list. |
| 4 | 1 | 19-0685 | Tampa Bay | Coastal Hillsborough Bay Tributary | Hillsborough | 1632 | Delaney Creek Popoff Canal | Estuary | 3M | | Enterococci | | ≤ 130 Counts / 100 mL | High | | 19/28 | This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List. |

¹ Florida's waterbody classifications are defined as:

- 1 - Potable water supplies
- 2 - Shellfish propagation or harvesting
- 3F - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in fresh water
- 3M - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in marine water
- 4 - Agricultural water supplies
- 5 - Navigation, utility, and industrial use

² n is equal to the number of samples. When samples are collected at the same location less than 4 days apart, the median of those results represents a single sample for the purpose of determining n.

³ Where a parameter was identified as impaired under the IWR, a priority of "medium" was assigned. Exceptions are waters where the impairment poses a threat to potable water or human health, which have been assigned a "high" priority, and fecal coliform impairments, which have been assigned a "low" priority. All other listings are prioritized based on the following: it is our intent that listings with a "High" priority be addressed within the next 5 years, listings with a "Medium" priority be addressed within 5-10 years as resources allow, and listings with a "Low" priority be addressed within the next 10 years.

⁷ PP - Planning Period (10 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples.

⁸ VP - Verified Period (7.5 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples. A statewide TMDL for mercury, that will address this waterbody, is scheduled to be completed in 2012.

N/A = Not Applicable, does not apply, or was not assessed in the previous cycle (i.e. it's a new WBID, waterbody type change, etc.).

^ Beach advisories are based on FL Dept of Health Enterococcus criterion of >103 CFU/100mL.

Project: I-75 PD&E

Date: 02/06/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 20% P: 20%

| | |
|---------------------------|----------------|
| Catchment Name | BASIN 7B |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |

Pre-Condition Landuse Information

| | |
|--------------------------------|----------------------------|
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 107.85 |
| Pre Rational Coefficient (0-1) | 0.30 |
| Pre Non DCIA Curve Number | 80.00 |
| Pre DCIA Percent (0-100) | 25.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 138.884 |
| Pre Nitrogen Loading (kg/yr) | 260.291 |
| Pre Phosphorus Loading (kg/yr) | 34.249 |

Post-Condition Landuse Information

| | |
|---------------------------------|----------------------------|
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 107.85 |
| Post Rational Coefficient (0-1) | 0.39 |
| Post Non DCIA Curve Number | 80.00 |
| Post DCIA Percent (0-100) | 37.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 173.647 |
| Post Nitrogen Loading (kg/yr) | 325.442 |
| Post Phosphorus Loading (kg/yr) | 42.821 |

Project: I-75 PD&E

Date: 2/3/2020

Wet Detention with Littoral Shelf Design

| | |
|---|--------|
| Permanent Pool Volume (ac-ft) | 9.640 |
| Permanent Pool Volume (ac-ft) for 31 days residence | 14.748 |
| Annual Residence Time (days) | 20 |
| Littoral Zone Efficiency Credit | 10 |
| Wetland Efficiency Credit | |

Watershed Characteristics

| | |
|---------------------------|----------------|
| Catchment Area (acres) | 107.85 |
| Contributing Area (acres) | 105.850 |
| Non-DCIA Curve Number | 80.00 |
| DCIA Percent | 37.00 |
| Rainfall Zone | Florida Zone 4 |
| Rainfall (in) | 51.00 |

Surface Water Discharge

| | |
|--------------------------------------|----|
| Required TN Treatment Efficiency (%) | 20 |
| Provided TN Treatment Efficiency (%) | 42 |
| Required TP Treatment Efficiency (%) | 20 |
| Provided TP Treatment Efficiency (%) | 65 |

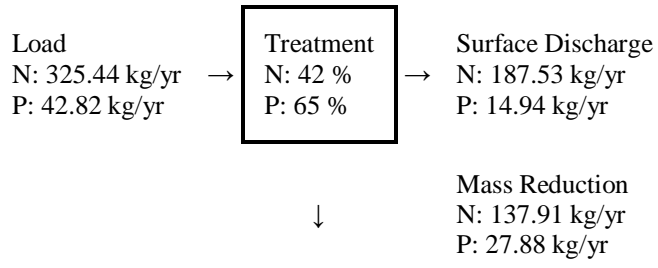
Media Mix Information

| | |
|-----------------------|---------------|
| Type of Media Mix | Not Specified |
| Media N Reduction (%) | |
| Media P Reduction (%) | |

Media Discharge (Stand-Alone)

| | |
|-------------------------|-------|
| Treatment Rate (MG/yr) | 0.000 |
| TN Mass Load (kg/yr) | 0.000 |
| TN Concentration (mg/L) | 0.000 |
| TP Mass Load (kg/yr) | 0.000 |
| TP Concentration (mg/L) | 0.000 |

Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT

Project: I-75 PD&E

Date: 02/03/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 31% P: 31%

| | |
|---------------------------|----------------|
| Catchment Name | BASIN 8A |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |

Pre-Condition Landuse Information

| | |
|--------------------------------|----------------------------|
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 27.44 |
| Pre Rational Coefficient (0-1) | 0.39 |
| Pre Non DCIA Curve Number | 80.00 |
| Pre DCIA Percent (0-100) | 37.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 45.015 |
| Pre Nitrogen Loading (kg/yr) | 84.366 |
| Pre Phosphorus Loading (kg/yr) | 11.101 |

Post-Condition Landuse Information

| | |
|---------------------------------|----------------------------|
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 27.44 |
| Post Rational Coefficient (0-1) | 0.59 |
| Post Non DCIA Curve Number | 80.00 |
| Post DCIA Percent (0-100) | 66.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 65.562 |
| Post Nitrogen Loading (kg/yr) | 122.874 |
| Post Phosphorus Loading (kg/yr) | 16.168 |

Wet Detention

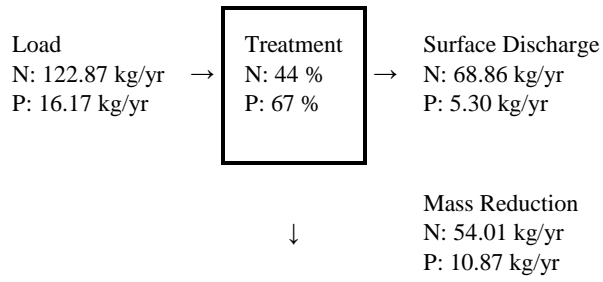
| | |
|--|--------|
| Contributing Catchment Area (acres) | 26.280 |
| Permanent Pool Area (acres) | 1.16 |
| Required Nitrogen Treatment Efficiency (%) | 31 |
| Required Phosphorus Treatment Efficiency (%) | 31 |
| Average Residence Time (days) | 27 |
| Average Annual Runoff Volume (ac-ft/yr) | 65.56 |
| <u>Permanent Pool Volume (ac-ft)</u> | 4.930 |

Removal Efficiencies

| | |
|--|----|
| <u>Littoral Zone Efficiency Credit</u> | 10 |
| Additional N Littoral Removal (%) | 6 |
| Additional P Littoral Removal (%) | 4 |
| <u>Wetland Efficiency Credit</u> | |
| Additional N Wetland Removal (%) | |
| Additional P Wetland Removal (%) | |
| Provided Nitrogen Treatment Efficiency (%) | 44 |
| Provided Phosphorus Treatment Efficiency (%) | 67 |



Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT

Project: I-75 PD&E

Date: 02/03/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 46% P: 46%

| | |
|---|----------------------------|
| Catchment Name | BASIN 14A |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |
| Pre-Condition Landuse Information | |
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 35.94 |
| Pre Rational Coefficient (0-1) | 0.28 |
| Pre Non DCIA Curve Number | 70.00 |
| Pre DCIA Percent (0-100) | 28.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 43.044 |
| Pre Nitrogen Loading (kg/yr) | 80.670 |
| Pre Phosphorus Loading (kg/yr) | 10.615 |
| Post-Condition Landuse Information | |
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 35.94 |
| Post Rational Coefficient (0-1) | 0.58 |
| Post Non DCIA Curve Number | 70.00 |
| Post DCIA Percent (0-100) | 67.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 80.427 |
| Post Nitrogen Loading (kg/yr) | 150.734 |
| Post Phosphorus Loading (kg/yr) | 19.833 |

Project: I-75 PD&E
Date: 2/3/2020

Wet Detention with Littoral Shelf Design

| | |
|---|--------|
| Permanent Pool Volume (ac-ft) | 15.540 |
| Permanent Pool Volume (ac-ft) for 31 days residence | 6.831 |
| Annual Residence Time (days) | 71 |
| Littoral Zone Efficiency Credit | 10 |
| Wetland Efficiency Credit | |

Watershed Characteristics

| | |
|---------------------------|----------------|
| Catchment Area (acres) | 35.94 |
| Contributing Area (acres) | 32.900 |
| Non-DCIA Curve Number | 70.00 |
| DCIA Percent | 67.00 |
| Rainfall Zone | Florida Zone 4 |
| Rainfall (in) | 51.00 |

Surface Water Discharge

| | |
|--------------------------------------|----|
| Required TN Treatment Efficiency (%) | 46 |
| Provided TN Treatment Efficiency (%) | 47 |
| Required TP Treatment Efficiency (%) | 46 |
| Provided TP Treatment Efficiency (%) | 74 |

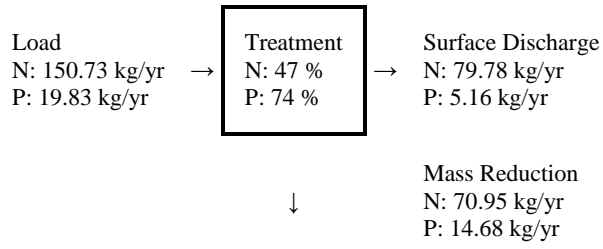
Media Mix Information

| | |
|-----------------------|---------------|
| Type of Media Mix | Not Specified |
| Media N Reduction (%) | |
| Media P Reduction (%) | |

Media Discharge (Stand-Alone)

| | |
|-------------------------|-------|
| Treatment Rate (MG/yr) | 0.000 |
| TN Mass Load (kg/yr) | 0.000 |
| TN Concentration (mg/L) | 0.000 |
| TP Mass Load (kg/yr) | 0.000 |
| TP Concentration (mg/L) | 0.000 |

Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT

Project: I-75 PD&E

Date: 02/03/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 26% P: 26%

| | |
|---|----------------------------|
| Catchment Name | BASIN 15/16 |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |
| Pre-Condition Landuse Information | |
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 60.95 |
| Pre Rational Coefficient (0-1) | 0.42 |
| Pre Non DCIA Curve Number | 70.00 |
| Pre DCIA Percent (0-100) | 46.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 108.122 |
| Pre Nitrogen Loading (kg/yr) | 202.638 |
| Pre Phosphorus Loading (kg/yr) | 26.663 |
| Post-Condition Landuse Information | |
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 60.95 |
| Post Rational Coefficient (0-1) | 0.61 |
| Post Non DCIA Curve Number | 70.00 |
| Post DCIA Percent (0-100) | 72.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 146.888 |
| Post Nitrogen Loading (kg/yr) | 275.292 |
| Post Phosphorus Loading (kg/yr) | 36.223 |

Project: I-75 PD&E

Date: 2/3/2020

Wet Detention with Littoral Shelf Design

| | |
|---|--------|
| Permanent Pool Volume (ac-ft) | 24.180 |
| Permanent Pool Volume (ac-ft) for 31 days residence | 12.475 |
| Annual Residence Time (days) | 60 |
| Littoral Zone Efficiency Credit | 10 |
| Wetland Efficiency Credit | |

Watershed Characteristics

| | |
|---------------------------|----------------|
| Catchment Area (acres) | 60.95 |
| Contributing Area (acres) | 56.400 |
| Non-DCIA Curve Number | 70.00 |
| DCIA Percent | 72.00 |
| Rainfall Zone | Florida Zone 4 |
| Rainfall (in) | 51.00 |

Surface Water Discharge

| | |
|--------------------------------------|----|
| Required TN Treatment Efficiency (%) | 26 |
| Provided TN Treatment Efficiency (%) | 47 |
| Required TP Treatment Efficiency (%) | 26 |
| Provided TP Treatment Efficiency (%) | 73 |

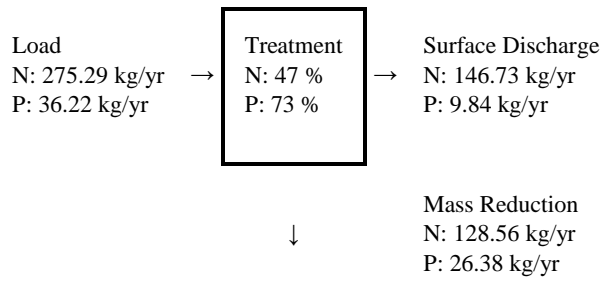
Media Mix Information

| | |
|-----------------------|---------------|
| Type of Media Mix | Not Specified |
| Media N Reduction (%) | |
| Media P Reduction (%) | |

Media Discharge (Stand-Alone)

| | |
|-------------------------|-------|
| Treatment Rate (MG/yr) | 0.000 |
| TN Mass Load (kg/yr) | 0.000 |
| TN Concentration (mg/L) | 0.000 |
| TP Mass Load (kg/yr) | 0.000 |
| TP Concentration (mg/L) | 0.000 |

Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT

Project: I-75 PD&E

Date: 02/04/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 38% P: 38%

| | |
|---------------------------|----------------|
| Catchment Name | BASIN 22A |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |

Pre-Condition Landuse Information

| | |
|--------------------------------|----------------------------|
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 23.49 |
| Pre Rational Coefficient (0-1) | 0.33 |
| Pre Non DCIA Curve Number | 80.00 |
| Pre DCIA Percent (0-100) | 29.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 33.045 |
| Pre Nitrogen Loading (kg/yr) | 61.931 |
| Pre Phosphorus Loading (kg/yr) | 8.149 |

Post-Condition Landuse Information

| | |
|---------------------------------|----------------------------|
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 23.49 |
| Post Rational Coefficient (0-1) | 0.59 |
| Post Non DCIA Curve Number | 80.00 |
| Post DCIA Percent (0-100) | 66.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 53.612 |
| Post Nitrogen Loading (kg/yr) | 100.478 |
| Post Phosphorus Loading (kg/yr) | 13.221 |

Project: I-75 PD&E

Date: 2/4/2020

Wet Detention with Littoral Shelf Design

| | |
|---|-------|
| Permanent Pool Volume (ac-ft) | 9.640 |
| Permanent Pool Volume (ac-ft) for 31 days residence | 4.553 |
| Annual Residence Time (days) | 66 |
| Littoral Zone Efficiency Credit | 10 |
| Wetland Efficiency Credit | |

Watershed Characteristics

| | |
|---------------------------|----------------|
| Catchment Area (acres) | 23.49 |
| Contributing Area (acres) | 21.490 |
| Non-DCIA Curve Number | 80.00 |
| DCIA Percent | 66.00 |
| Rainfall Zone | Florida Zone 4 |
| Rainfall (in) | 51.00 |

Surface Water Discharge

| | |
|--------------------------------------|----|
| Required TN Treatment Efficiency (%) | 38 |
| Provided TN Treatment Efficiency (%) | 47 |
| Required TP Treatment Efficiency (%) | 38 |
| Provided TP Treatment Efficiency (%) | 73 |

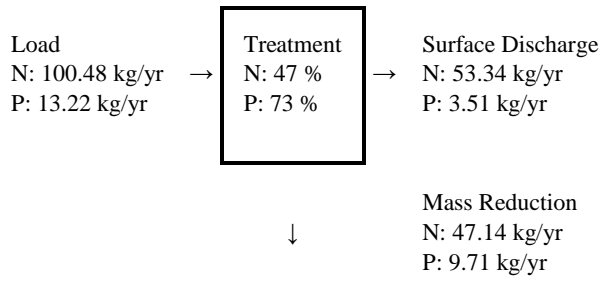
Media Mix Information

| | |
|-----------------------|---------------|
| Type of Media Mix | Not Specified |
| Media N Reduction (%) | |
| Media P Reduction (%) | |

Media Discharge (Stand-Alone)

| | |
|-------------------------|-------|
| Treatment Rate (MG/yr) | 0.000 |
| TN Mass Load (kg/yr) | 0.000 |
| TN Concentration (mg/L) | 0.000 |
| TP Mass Load (kg/yr) | 0.000 |
| TP Concentration (mg/L) | 0.000 |

Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT

Project: I-75 PD&E

Date: 02/04/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 45% P: 45%

| | |
|---|----------------------------|
| Catchment Name | BASIN 23A |
| Rainfall Zone | Florida Zone 4 |
| Annual Mean Rainfall (in) | 51.00 |
| Pre-Condition Landuse Information | |
| Pre-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Pre Condition Area (acres) | 23.00 |
| Pre Rational Coefficient (0-1) | 0.31 |
| Pre Non DCIA Curve Number | 75.00 |
| Pre DCIA Percent (0-100) | 29.00 |
| Pre Nitrogen EMC (mg/l) | 1.520 |
| Pre Phosphorus EMC (mg/l) | 0.200 |
| Pre Runoff Volume (ac-ft/yr) | 29.970 |
| Pre Nitrogen Loading (kg/yr) | 56.169 |
| Pre Phosphorus Loading (kg/yr) | 7.391 |
| Post-Condition Landuse Information | |
| Post-Condition Landuse | Highway: TN=1.520 TP=0.200 |
| Post Condition Area (acres) | 23.00 |
| Post Rational Coefficient (0-1) | 0.60 |
| Post Non DCIA Curve Number | 75.00 |
| Post DCIA Percent (0-100) | 69.00 |
| Post Nitrogen EMC (mg/l) | 1.520 |
| Post Phosphorus EMC (mg/l) | 0.200 |
| Post Runoff Volume (ac-ft/yr) | 54.910 |
| Post Nitrogen Loading (kg/yr) | 102.911 |
| Post Phosphorus Loading (kg/yr) | 13.541 |

Project: I-75 PD&E

Date: 2/4/2020

Wet Detention with Littoral Shelf Design

| | |
|---|-------|
| Permanent Pool Volume (ac-ft) | 6.150 |
| Permanent Pool Volume (ac-ft) for 31 days residence | 4.664 |
| Annual Residence Time (days) | 41 |
| Littoral Zone Efficiency Credit | 10 |
| Wetland Efficiency Credit | |

Watershed Characteristics

| | |
|---------------------------|----------------|
| Catchment Area (acres) | 23.00 |
| Contributing Area (acres) | 21.620 |
| Non-DCIA Curve Number | 75.00 |
| DCIA Percent | 69.00 |
| Rainfall Zone | Florida Zone 4 |
| Rainfall (in) | 51.00 |

Surface Water Discharge

| | |
|--------------------------------------|----|
| Required TN Treatment Efficiency (%) | 45 |
| Provided TN Treatment Efficiency (%) | 46 |
| Required TP Treatment Efficiency (%) | 45 |
| Provided TP Treatment Efficiency (%) | 70 |

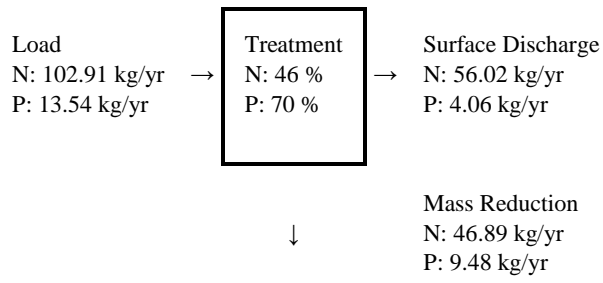
Media Mix Information

| | |
|-----------------------|---------------|
| Type of Media Mix | Not Specified |
| Media N Reduction (%) | |
| Media P Reduction (%) | |

Media Discharge (Stand-Alone)

| | |
|-------------------------|-------|
| Treatment Rate (MG/yr) | 0.000 |
| TN Mass Load (kg/yr) | 0.000 |
| TN Concentration (mg/L) | 0.000 |
| TP Mass Load (kg/yr) | 0.000 |
| TP Concentration (mg/L) | 0.000 |

Load Diagram for Wet Detention with Littoral Shelf (stand-alone)



DRAFT