Project Development & Environment Study

I-75 (SR 93A)

From South of US 301 (SR 43) to North of Fletcher Avenue (CR 482A), Hillsborough County

Work Program Item Segment Number: 419235-3

DRAFT Wetlands Evaluation and Biological Assessment Report

Prepared for
Florida Department of Transportation
District Seven

Manuel Santos, E.I.
FDOT Project Manager

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INTERSTATE 75

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Prepared by
Scheda Ecological Associates, Inc.

In association with
PB Americas, Inc.

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INTERSTATE 75

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 15.5 miles of Interstate 75 (I-75) (State Road (SR) 93A), from south of US 301 (SR 43) to north of Fletcher Avenue (County Road (CR) 582A) in Hillsborough County, Florida. The design year for the improvements is 2035.

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 in Hillsborough County (WPI Segment No. 419235-2).

The objective of this PD&E Study is to help the FDOT and the Federal Highway Administration (FHWA) reach 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 will document the need for the improvements, as well as the procedures utilized to develop and evaluate various improvements including elements such as proposed typical sections, preliminary horizontal alignments, and interchange enhancement alternatives. The 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 (NEPA), for this project to qualify for federal-aid funding of subsequent development phases (design, right of way (ROW) acquisition, and construction).

The project was evaluated through the FDOT's Efficient Transportation Decision Making (ETDM) process. This project is designated as ETDM 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 has determined that this project qualifies as a Type 2 Categorical Exclusion.

This *Wetland Evaluation and Biological Assessment Report* (WEBAR) has been prepared as part of this PD&E Study. This report summarizes the possible impacts to wetlands, federally and state protected species, and protected habitats. Identification of measures to avoid, minimize, and mitigate for any potential impacts is also discussed. However, pond sizing has not been conducted as part of this PD&E Study and, therefore, this document does not include analysis of wetlands and/or protected species within proposed stormwater management facilities or floodplain compensation sites.

Wetlands

Pursuant to Presidential Executive Order 11990 entitled "Protection of Wetlands," (May 23, 1977) the United States Department of Transportation (USDOT) has developed a policy, Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978, which requires all federally-funded highway projects to protect wetlands to the fullest extent possible. In accordance with this policy, as well as Part 2, Chapter 18 - Wetlands of the FDOT PD&E Manual, two project alternatives were assessed to determine potential wetland impacts associated with construction of each alternative. A biological assessment has been prepared to aid in determining the type, design, and location of improvements to the existing facility and to evaluate impacts, if any, associated with alternatives for the proposed improvements.

Wetland resources within the project study area were initially identified through a review of several mapping resources. Subsequent to the review of available reference materials, field reconnaissance efforts were conducted during late spring and early summer of 2008, during which each wetland was classified and characterized using the USFWS Classification of Wetland and Deepwater Habitats of the United States (Cowardin *et al.*, 1979). All practical measures to avoid construction in wetlands will be taken; however, wetland impacts will be unavoidable because of engineering constraints.

Roadway improvements for I-75 will generally occur within the existing FDOT ROW, but additional ROW will be required for some interchange improvements, stormwater management facilities, and floodplain compensation sites.

Sixty-nine wetlands and 29 surface waters were observed, classified, and documented. A description of the dominant floral species, soil types, Florida Land Use, Cover and Forms Classification System (FLUCFCS) codes, and other pertinent remarks are contained in the following sections. Uniform Mitigation Assessment Method (UMAM) analysis was performed on representative wetlands.

Preferred alternatives were identified and recommended for the I-75 mainline and the interchanges within the study area. These recommendations are listed below:

- I-75 Mainline: Mainline Alternative 2
- Segment 1: Option C except for the SR 60 interchange where Option A was recommended
- Segment 2: Option A
- Segment 3: Option A

Proposed wetland impacts for the preferred alignment are 60.34 acres and 10.60 acres of surface water impacts. Impact estimates for each alternative are provided in this document.

Final determination of jurisdictional wetland areas and mitigation requirements will occur between the FDOT and the regulatory agencies during the final design phase of this project. The FDOT is committed to minimizing wetland impacts to the greatest extent possible during the design and permitting phase of this project and will mitigate wetland impacts that result from the proposed project. It is anticipated that wetland impacts resulting from construction of this project will be satisfied by the mitigation requirements of Part IV, Chapter 373, Florida Statutes (F.S.) and 33 United States Codes (U.S.C.), 1344. Based on the considerations that have been outlined in this report, it has been determined that there are no practical alternatives to the proposed impacts from construction in wetlands and that the proposed action includes all practical measure to minimize harm to wetlands.

Protected Species and Habitat

This project was evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with 50 CFR Part 402 of the Endangered Species Act of 1973, as amended, and Chapter 27 of the FDOT Project Development and Environment Manual: Wildlife and Habitat Impacts. Prior to the site review the Florida Natural Area Inventory (FNAI) natural communities survey website was reviewed to determine protected species occurrence within Hillsborough County. Twenty protected faunal species and eight floral species were reported on the FNAI Hillsborough County species and natural community occurrence summary. Based on the review of the species and natural communities occurrence summary for Hillsborough County, 18 protected faunal and five protected floral species have potential to occur within the project corridor. In addition, a review of the Florida Fish and Wildlife Conservation

Commission (FWC) bald eagle (*Haliaeetus leucocephalus*) nest locator website was performed.

The project was surveyed during 2008 and 2009 to determine its usage by protected species and other wildlife. Seven protected faunal species and no protected plant species were observed within the project corridor. No designated critical habitat or essential fish habitat crucial to the survival of any listed species occurs within the project limits.

Protected species assessed included the state and federally endangered **wood stork** (*Mycteria americana*), state and federally threatened **Florida scrub-jay** (*Aphelocoma coerulescens*), and the state and federally threatened **eastern indigo snake** (*Drymarchon corais couperi).* Additionally, the following state-protected species were also assessed: **American alligator** (*Alligator mississippiensis*); **limpkin** (*Aramus guarana*); **white ibis** (*Eudocimus albus*); **little blue heron** (*Egretta caerulea*); **snowy egret** (*Egretta thula*); **tricolored heron** (*Egretta tricolor*); **roseate spoonbill** (*Platalea ajaia*); the **gopher tortoise** (*Gopherus polyphemus*) and its commensal species, the **gopher frog** (*Rana capito*) and the **Florida mouse** (*Podomys floridanus*); **bald eagle** (*Haliaeetus leucocephalus*); **Florida sandhill crane** (*Grus canandensis pratensis*); **southeastern American kestrel** (*Falco sparverius paulus*); **least tern** (*Sterna antillarum*); and **Sherman's fox squirrel** (*Sciurus niger shermani*).

Additionally, based upon findings of the preliminary data collection, results of the general corridor surveys, and ongoing coordination with the U.S. Fish and Wildlife Service (USFWS) and FWC, the FDOT will consider the following commitments:

1. Gopher tortoise: Due to the presence of gopher tortoise burrows and appropriate habitat within the existing right-of-way, a gopher tortoise survey in appropriate habitat, within construction limits (including roadway footprint, construction staging areas, and stormwater management ponds), will be performed prior to construction in accordance with FWC guidelines. The FDOT will secure any relocation permits needed for this species during the project design and construction phase of the project.

2. Eastern indigo snake: The standard FDOT Construction Precautions for the Eastern Indigo Snake (Appendix D) will be adhered to during construction of the project.

3. Bald eagle: If any active nests are located within 660 feet of the project, the FDOT will act in accordance with the requirements of the Bald and Golden Eagle Protection Act (BGEPA) and Migratory Bird Treaty Act (MBTA).

4. Florida sandhill crane: If construction is initiated during or just prior to the nesting season (January through June) of the Florida sandhill crane, the FDOT will commit to resurveying appropriate sandhill crane nesting habitat within the proposed right-of-way. The FDOT will coordinate with the FWC as appropriate if any nests are located.

5. Wood stork: Based on the proximity of five wood stork rookeries to the project site, the FDOT commits to ensure that there is no net loss of wetlands. The replacement of wetlands and or surface waters will be at a 1:1 ratio, resulting in no net loss of these areas. Indirect impacts (e.g., changes in hydrological regimes) to adjacent wetlands will be minimized by adherence to wetland permitting requirements of the Southwest Florida Water Management District (SWFWMD) and the U.S. Army Corps of Engineers (USACE). The FDOT further commits, where reasonable, to ensure that any wood stork habitat alteration is mitigated within the foraging range of known rookeries in the project area in compliance with the USFWS Standard Local Operating Procedures for Endangered Species (SLOPES) requirement.

Given the above commitments and previously mentioned data collection efforts, it is anticipated that project improvements associated with the widening of I-75 from south of US 301 to north of Fletcher Avenue "may affect, but is not likely to adversely affect" the following federally protected species:

- Eastern indigo snake
- Wood stork

This widening project will have "no effect" on the following federally protected species:

- Florida scrub-jay

In addition to faunal surveys, appropriate habitats were surveyed for **protected flora.** No protected plant species were observed within the project area. This project proposes minimal impacts to undisturbed natural habitat and the FDOT is committed to coordination with the Florida Department of Agricultural and Consumer Services (FDACS), if protected plant species are observed within the proposed impact areas

during the design phase, therefore, based on the results of the floral surveys the project is not anticipated to adversely affect protected plant species.

Although habitat near this project may support protected species, construction of this project predominantly within or adjacent to the existing right-of-way is unlikely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1513 et. seq.). It has been determined that the proposed project is not likely to have an adverse affect on any federally or state protected species. Future design of pond and floodplain compensation sites outside of the existing ROW will have to be evaluated for potential impacts to protected species and habitat.

This report will be reviewed by the USFWS for concurrence. Once a letter of concurrence has been obtained it will be incorporated into the final document.

TABLE OF CONTENTS

Section **Page**

LIST OF FIGURES

Figure

LIST OF TABLES

Table

LIST OF APPENDICES

Appendix

1.0 INTRODUCTION

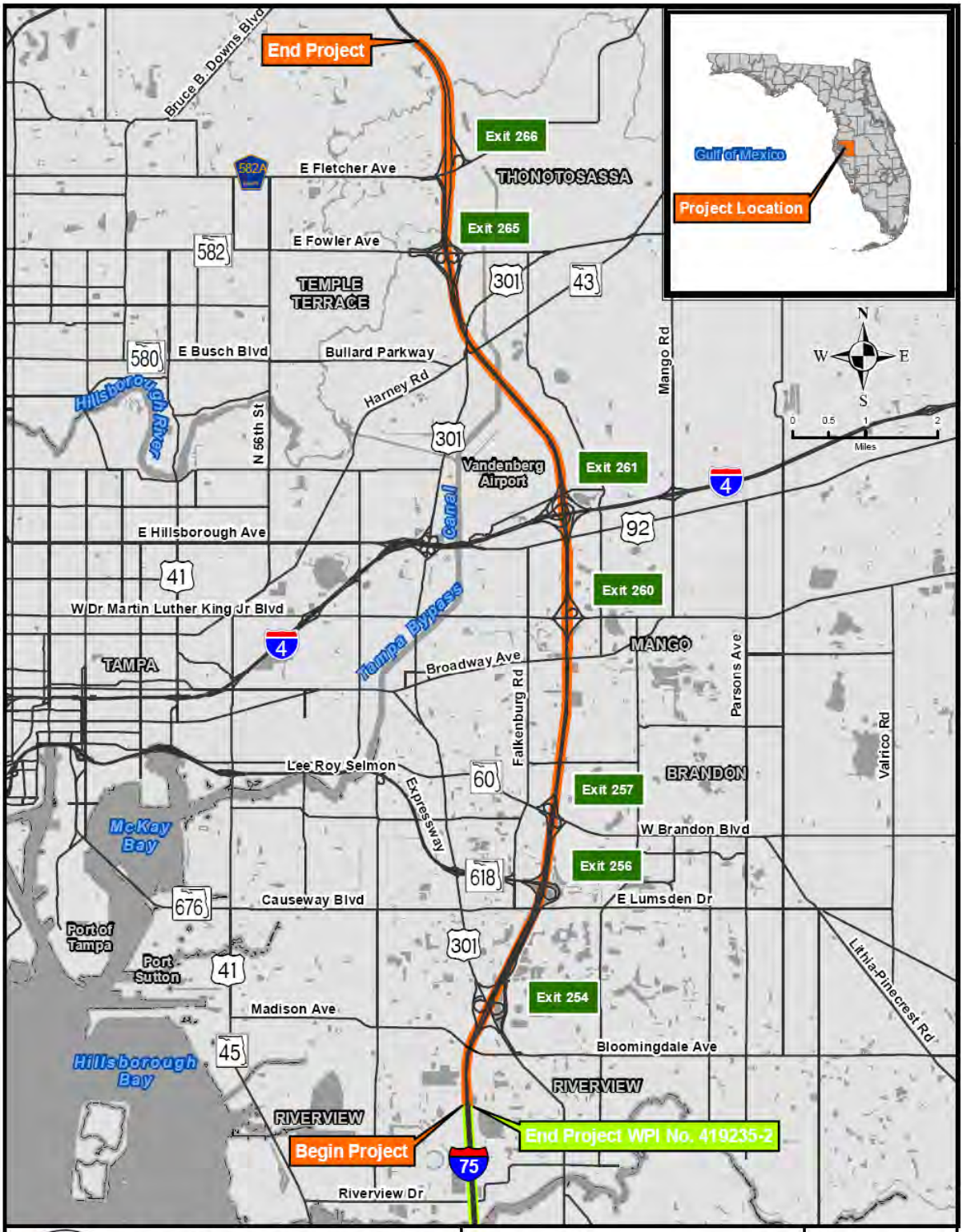
1.1 PROJECT DESCRIPTION

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate improvements along 15.5 miles of Interstate 75 (I-75) (State Road (SR) 93A), from south of US 301 (SR 43) to north of Fletcher Avenue (County Road (CR) 582A), in Hillsborough County, Florida. The design year for the improvements is 2035. A project location map is shown in Figure 1-1. A study area aerial map is shown in Figure 1-2. The sections, townships, and ranges where the project is located are summarized in Table 1-1.

Table 1-1
Study Area Sections, Townships, and Ranges

Sections	Townships	Ranges
1, 12, 13	28 S	19 E
18, 19, 29, 30, 32	28 S	20 E
5, 8, 17, 20, 29, 31, 32	29 S	20 E
6	30 S	20 E

The objective of this PD&E Study is to help the FDOT and the Federal Highway Administration (FHWA) reach 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 will document the need for the improvements as well as the procedures utilized to develop and evaluate various improvements including elements such as proposed typical sections, preliminary horizontal alignments, and interchange enhancement alternatives. The 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).



I-75 (SR 93A) PD&E Study

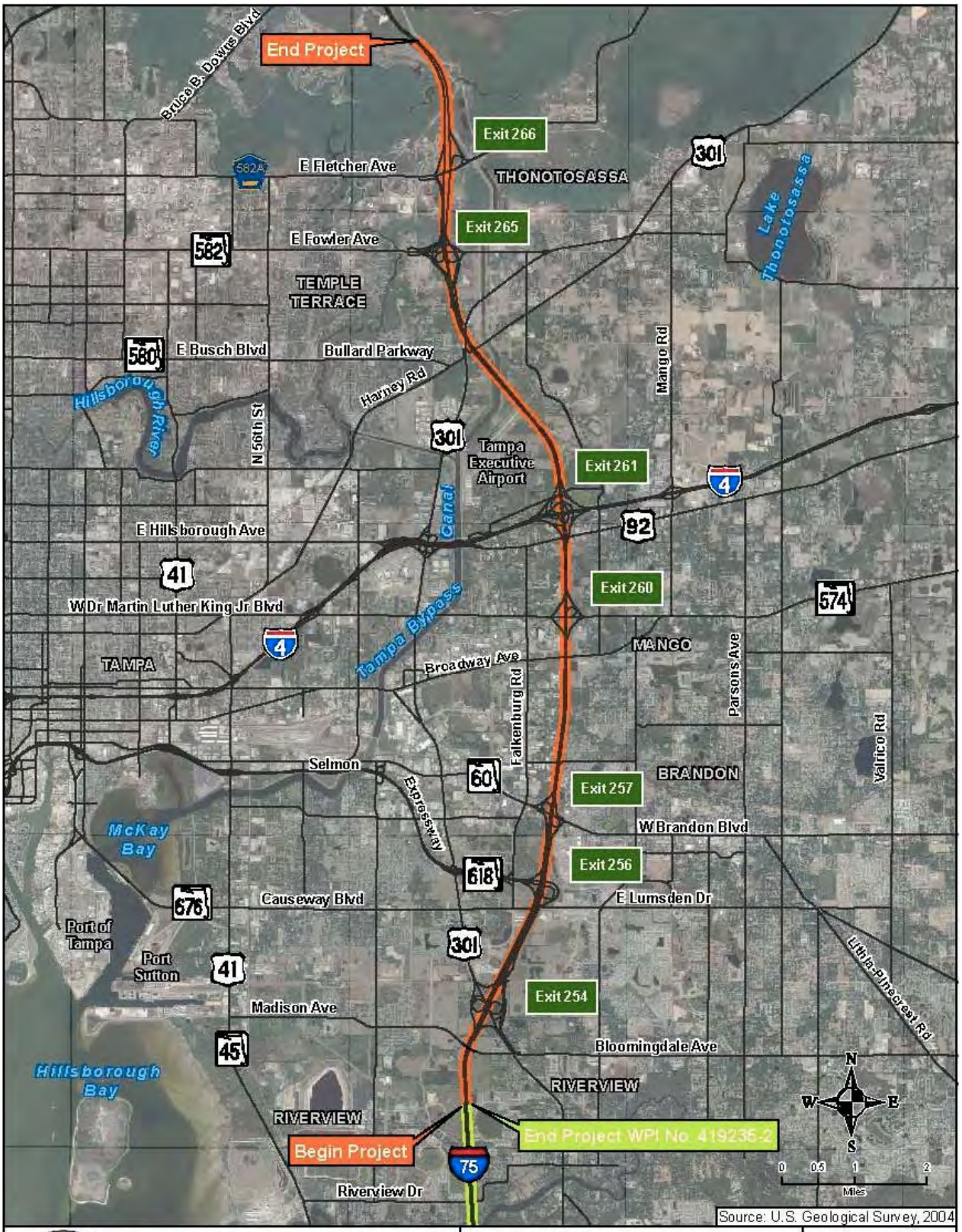
South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Project Location Map

Figure 1-1



I-75 (SR 93A) PD&E Study

South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Study Area Map

Figure 1-2

1.2 EXISTING FACILITY

I-75 is a limited access, 1,786-mile-long freeway that travels in a generally north/south 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.

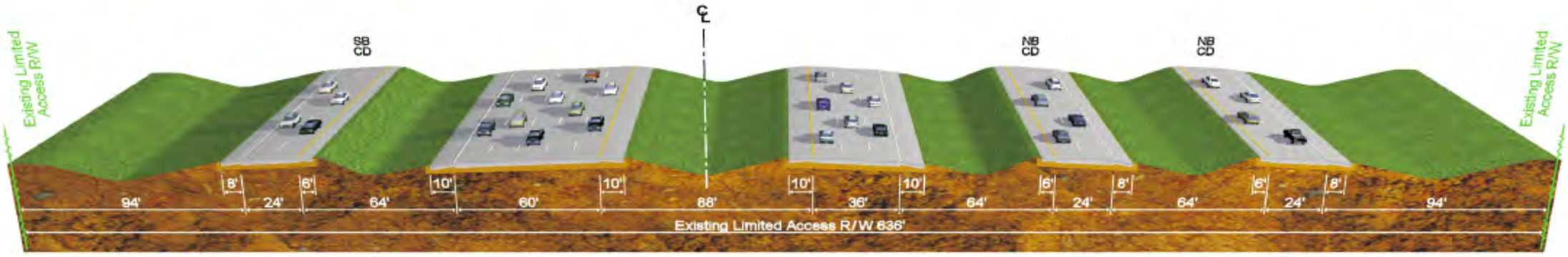
The portion of I-75 located within the project limits was opened to traffic in 1985, linking existing segments of I-75 to the north and south and completing the Tampa Bay Bypass. This portion of I-75 is classified as an *Urban Principal Arterial – Interstate*. Its mainline generally provides a six-lane,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

- Between US 301 and the Selmon Expressway (SR 618), I-75 provides eight travel lanes (three northbound and five southbound).
- Between Dr. Martin Luther King, Jr. Boulevard (MLK Boulevard - SR 574) and I-4 (SR 400), I-75 provides three travel lanes and an auxiliary lane in each direction.
- Between Fowler Avenue (SR 582) and Fletcher Avenue, I-75 provides two travel lanes and an auxiliary lane between the entrance and exit ramps in each direction.

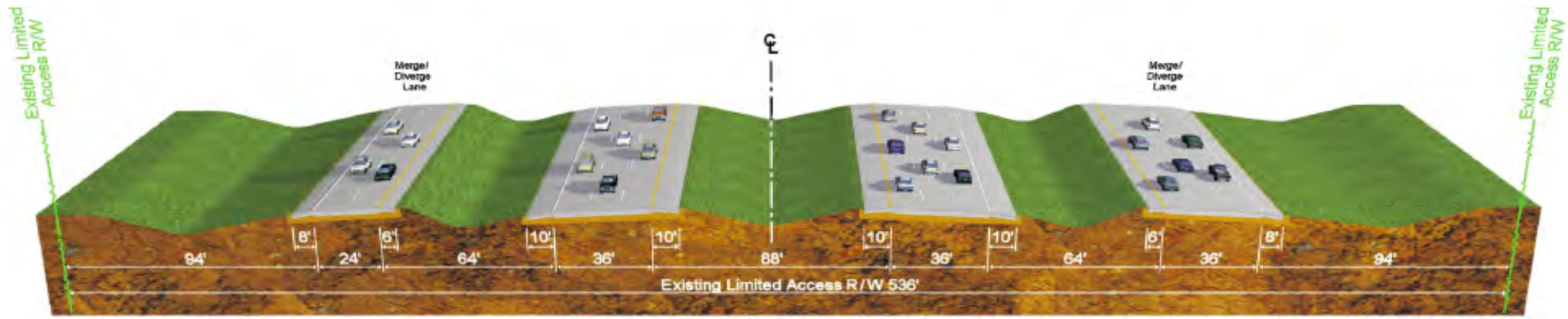
Between US 301 and SR 60, I-75 widens to include collector-distributor (C-D) roads in both directions. The existing typical sections are shown in Figure 1-3 (a through f).

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.

There are seven interchanges along I-75 within the project limits. They are located at US 301, the Selmon Expressway, SR 60, MLK Boulevard, I-4, Fowler Avenue, and Fletcher Avenue. 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.



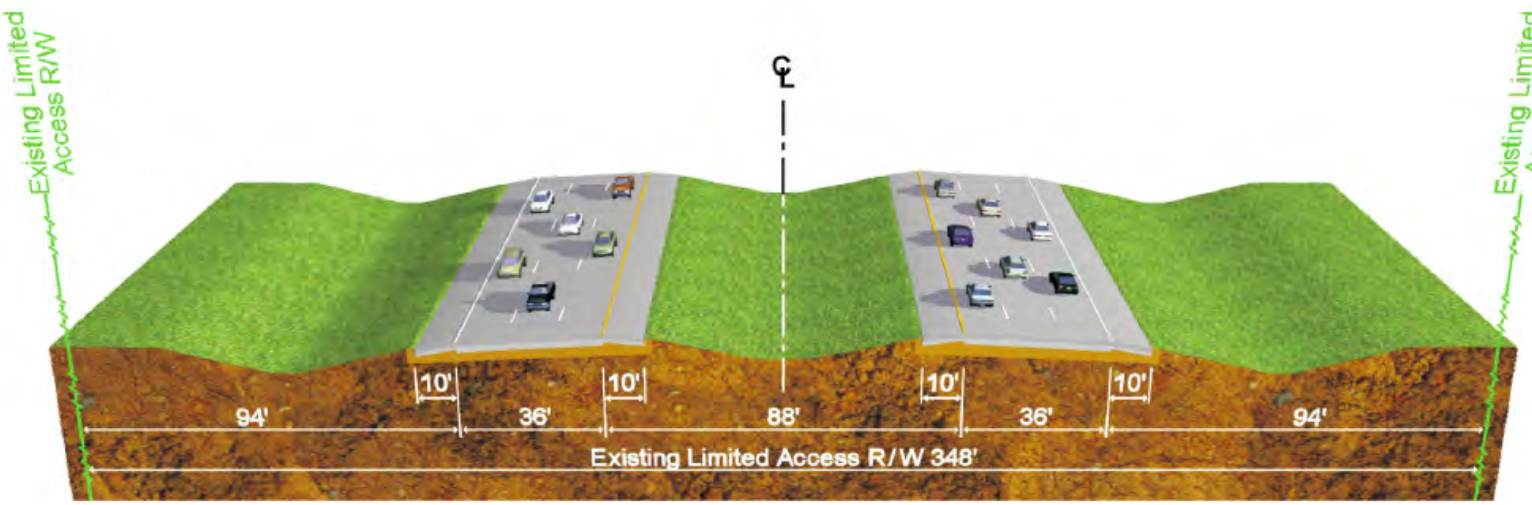
I - 75 (SR 93A) PD&E Study *From South of US 301 to North of Fletcher Avenue* WPI Segment No.: 419235-3 Hillsborough County	**Existing I-75 Mainline Typical Section from US 301 to South of Selmon Expressway**	Figure 1-3a



I - 75 (SR 93A) PD&E Study
From South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County

Existing I-75 Mainline Typical Section from South of Selmon Expressway to South of SR 60

Figure1-3b



I - 75 (SR 93A) PD&E Study

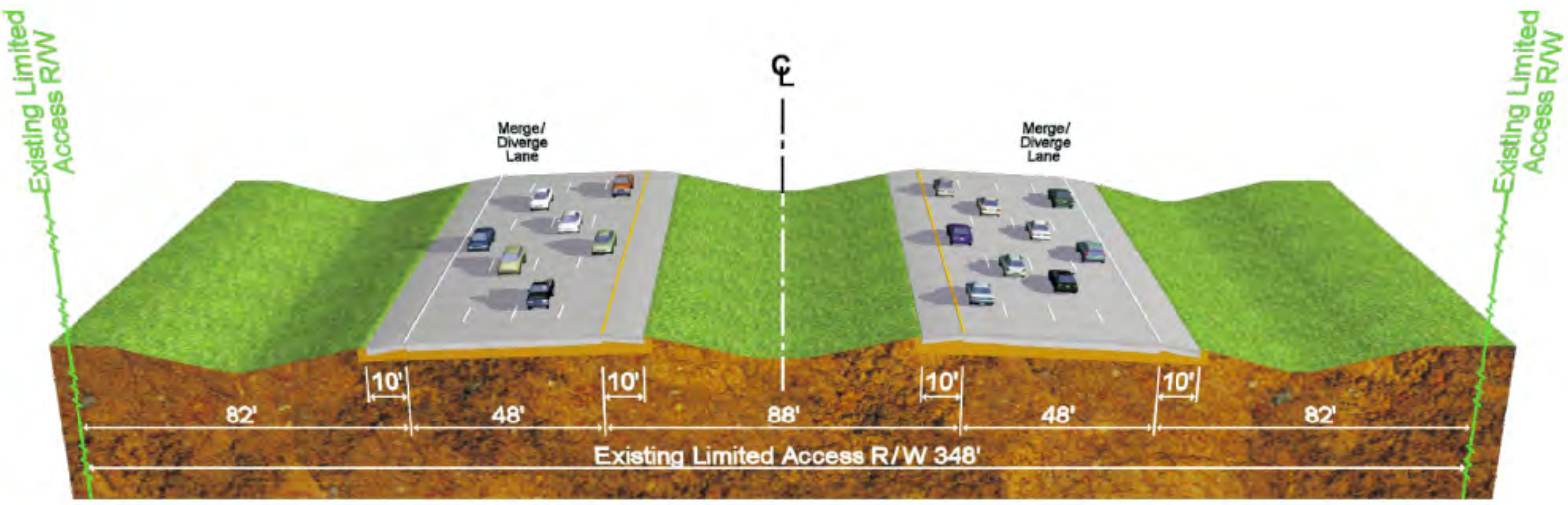
From South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Existing I-75 Mainline Typical Section from South of SR 60 to Dr. Martin Luther King Jr. Boulevard

Figure 1-3c



I - 75 (SR 93A) PD&E Study

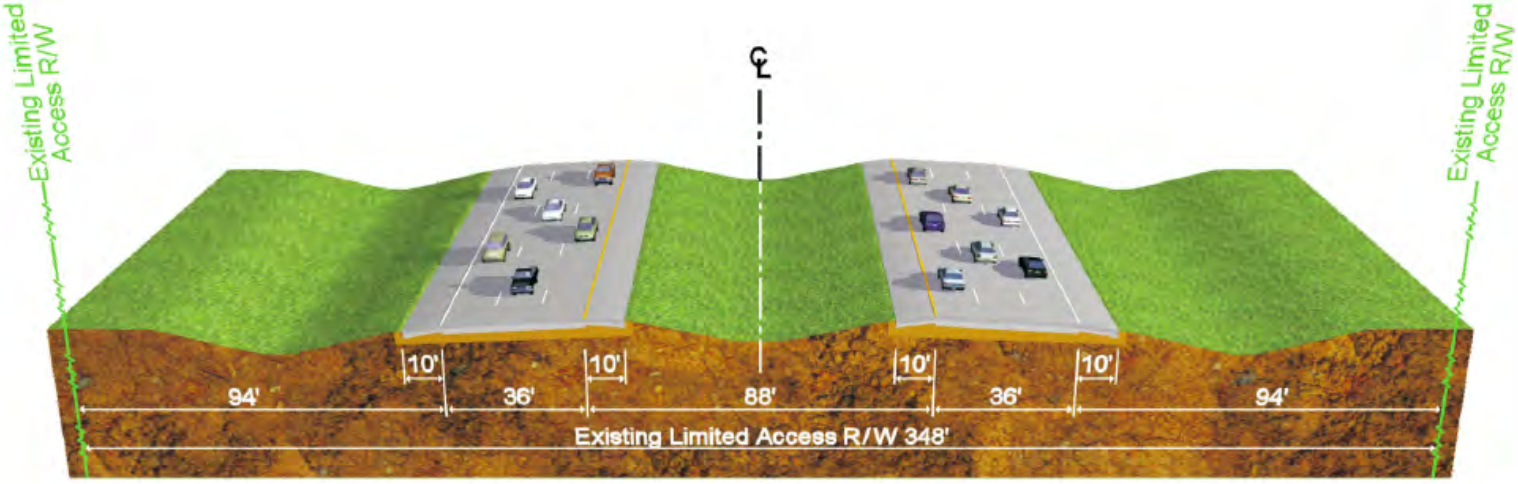
From South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Existing I-75 Mainline Typical Section from Dr. Martin Luther King Jr. Boulevard to I-4

Figure 1-3d



I - 75 (SR 93A) PD&E Study

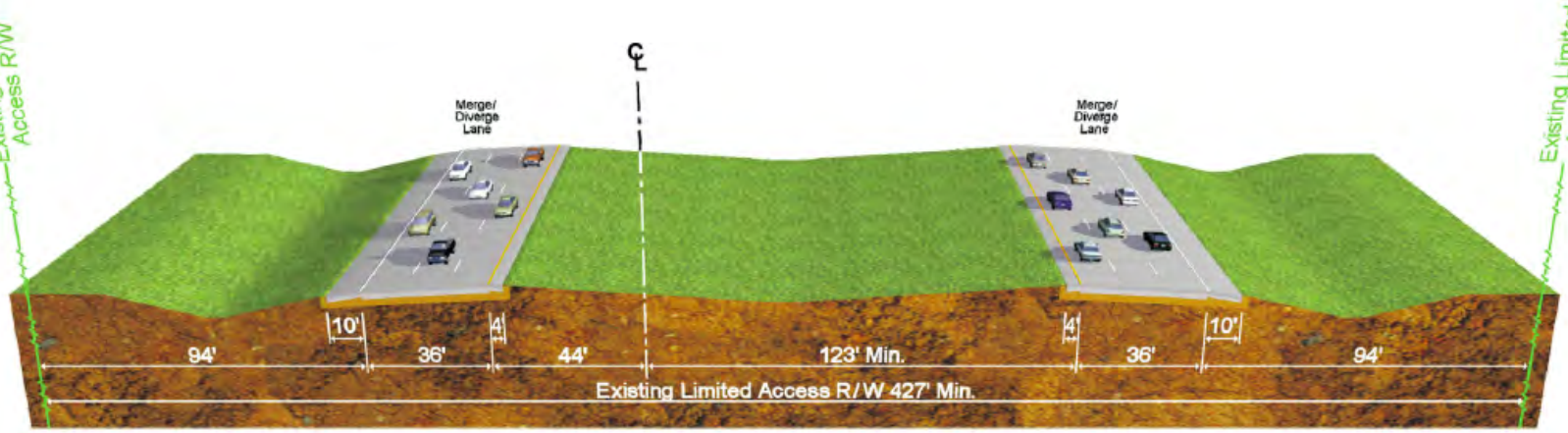
From South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Existing I-75 Mainline Typical Section from I-4 to Fowler Avenue

Figure 1-3e



I - 75 (SR 93A) PD&E Study *From South of US 301 to North of Fletcher Avenue* WPI Segment No.: 419235-3 Hillsborough County	**Existing I-75 Mainline Typical Section from Fowler Avenue to Fletcher Avenue**	Figure 1-3f

The posted speed limit is 70 miles per hour (mph).

With the exception of some minor improvements, including the construction of an auxiliary lane between MLK Boulevard and I-4 and the addition of an interchange connecting with the Selmon Expressway, I-75 has not had capacity improvements from south of US 301 to north of Fletcher Avenue since its original construction.

1.3 PROJECT PURPOSE AND NEED

I-75 is a vital link in the local and regional transportation network, as well as a critical evacuation route as shown on the Florida Division of Emergency Management's evacuation route network. As a major north/south corridor, I-75 links the Tampa Bay region with the remainder of the state and the nation, supporting commerce, trade, and tourism. I-75 is part of the FIHS, a statewide transportation network that provides for the movement of goods and people at high speeds and high traffic volumes. The FIHS is comprised of interconnected, limited and controlled access roadways, such as Florida's Turnpike, selected urban expressways, and major arterial highways. The FIHS is the Highway Component of the SIS, which is a statewide network of highways, railways, waterways, and transportation hubs that handle the bulk of Florida's passenger and freight traffic. As an SIS/FIHS facility, and part of the regional roadway network, I-75 is included in the 2025 Regional Long-Range Transportation Plan (LRTP) developed by the West Central Florida Metropolitan Planning Organization's (MPO) Chairs Coordinating Committee (CCC). Preserving the operational integrity and regional functionality of I-75 is critical to mobility and economy, as it is a vital link in the transportation network that connects the Tampa Bay region to the remainder of the state and the nation.

A portion of the study corridor, from SR 60 to I-4, is included in the FIHS 2025 Cost Feasible Plan Update, August 2003. Due to the intense traffic growth and high levels of congestion, the remaining portions of the study corridor are proposed to be included in the next update of the FIHS 2025 Cost Feasible Plan. The project is identified in the SIS Multimodal Unfunded Needs Plan (May 2006) and in the earlier SIS 2030 Highway Component Unfunded Needs Plan (April 2004). This project is consistent with the Transportation Element of the Hillsborough County Comprehensive Plan, adopted in March 2001 and last amended in January 2005. The Hillsborough County MPO's 2035 LRTP Needs Assessment Map, adopted on December 10, 2009, indicates the need for managed lanes throughout the length of the project and a total of 12 travel lanes from south of US 301 to I-4 and ten travel lanes from I-4 to north of Fletcher Avenue.

This project is consistent with other similar projects planned along the I-75 corridor throughout the state and provides continuity with these projects. This 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 (WPI Segment No. 419235-2). Also, FDOT's District One is currently completing two PD&E Studies for the widening of two continuous portions of I-75 which, when combined, extend from SR 681 in Sarasota County to Moccasin Wallow Road in Manatee County (WPI Segment Numbers 201277-1 and 201032-1). FDOT's District Seven is currently designing capacity improvements to I-75 from Fowler Avenue in Hillsborough County to the Pasco/Hernando County Line (WPI Segment Numbers 408459-2, 408459-3, 408459-4, 258736-2, and 411014-2) and from the Pasco/Hernando County Line north to the Sumter County Line (WPI Segment Nos. 411011-2 and 411012-2).

In 2007, the traffic volumes along I-75 in the study area ranged from 73,300 vehicles per day (vpd) south of the Selmon Expressway to 144,800 vpd south of I-4. These volumes included truck traffic that varied from 8.9 to 11.0 percent of the daily volumes. As a result of this high travel demand, several sections of I-75 already operate at congested conditions and levels of service (LOS) worse than the FIHS minimum level of service standard for "urban areas," which is LOS "D." Without improvements, the operating conditions along I-75 and connecting roadways will continue to deteriorate, resulting in unacceptable levels of service throughout the entire study corridor. Capacity improvements could also enhance travel safety by reducing congestion, thereby decreasing vehicle conflicts.

According to the crash records for the years 2005 through 2007, obtained from the FDOT's crash database, a total of 1,973 crashes were reported along I-75 within the project limits. Ten crashes resulted in one or more fatalities, 637 crashes resulted in personal injuries, and 1,326 crashes resulted in property damage only. The total economic loss from these crashes is estimated to be approximately $58.0 million.

1.4 REPORT PURPOSE

This WEBAR is one of several documents that will be prepared as part of this PD&E Study. This report documents the wetland and protected species involvement for the improvement alternatives for I-75 from south of US 301 to north of Fletcher Avenue.

2.0 IMPROVEMENT ALTERNATIVES

A detailed *Design Traffic Technical Memorandum* (DTTM) was prepared as part of this PD&E Study. The DTTM documented the existing travel conditions along I-75, presented forecasts of the design year travel demand along I-75 and the crossing corridors, and summarized level of service evaluations of several improvement alternatives for the mainline and the interchanges. The DTTM concluded that the proposed ultimate improvements should 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.

2.1 NO-BUILD ALTERNATIVE

The No-Build Alternative assumes that, with the exception of the improvements that are already planned and funded, the existing conditions would remain for I-75 within the project limits and only routine maintenance activities would occur until the design year 2035. 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 indicate that by the year 2035 a significant portion of the I-75 mainline, merge/diverge areas, and ramp termini intersections would operate below acceptable levels of service.

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

2.2 MAINLINE BUILD ALTERNATIVES

For the I-75 mainline, two build alternative alignments – Mainline Build Alternative 1 and Mainline Build Alternative 2 – were developed and evaluated based on two alternate typical sections. Both typical sections generally consisted of 12 travel lanes with six GULs (three in each direction) and six SULs (three in each direction). The two main differences between the typical sections were the type of separation provided between the SULs and the GULs and whether widening would take place mainly within the median or to the outside.

The widening of I-75 under both mainline alternatives can be constructed within the existing right of way. Additional right of way may be required; however, for interchange

enhancements, slip ramps, stormwater management facilities, and floodplain compensation sites.

A detailed description of each mainline alternative is provided below.

2.2.1 Mainline Alternative 1

Under Mainline Build Alternative 1, the proposed widening of I-75 would mainly occur to the outside. The 12-lane typical section would provide for a minimum 88-foot median (for potential future use as a multi-modal envelope), which would include 12-foot inside shoulders (10-foot paved). A 2-foot concrete barrier wall and 10-foot paved shoulders on both sides of the wall would separate the SULs from the GULs. The proposed typical section of this alternative is shown in Figure 2-1.

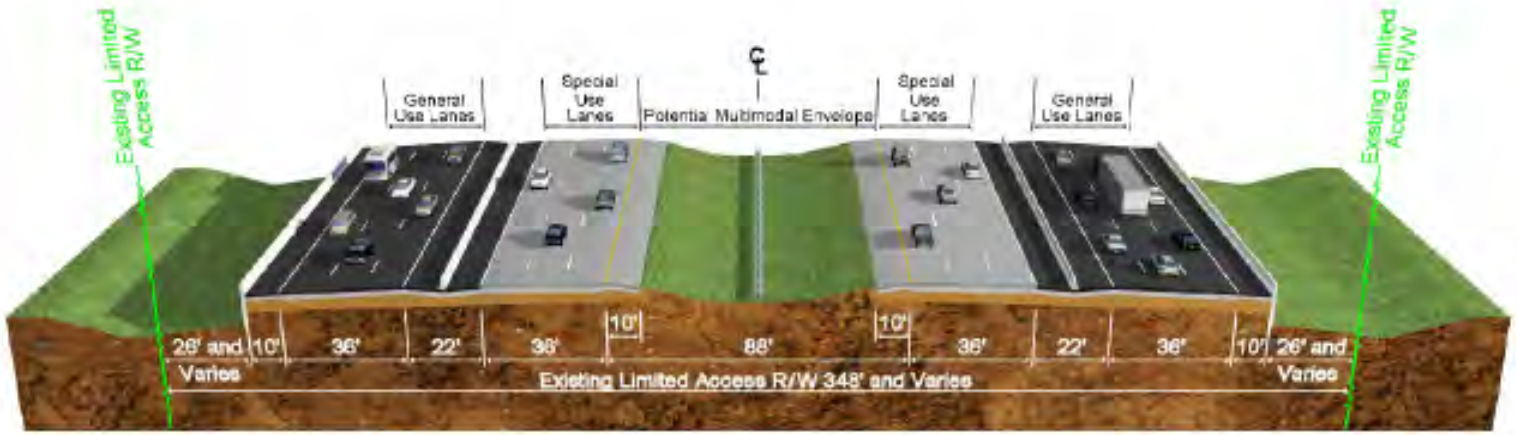
2.2.2 Mainline Alternative 2

Under Mainline Build Alternative 2, the proposed widening of I-75 would mainly occur to the inside, within the existing median. A 9-foot widening to the outside would also be typically required on both sides of I-75. The proposed typical section would provide a minimum 22-foot median that would include a 2-foot concrete barrier wall and 10-foot paved shoulders on both sides of the wall. A 6-foot buffer, consisting of paint and/or plastic pylons, would separate the SULs from the GULs. Should a multi-modal envelope be desired to be added to the typical section, this envelope would be placed to the outside on either side of I-75. The proposed typical section for this alternative is shown in Figure 2-2.

2.3 INTERCHANGE BUILD ALTERNATIVES

Due to the close spacing between the seven interchanges in the study area, improvements proposed at each interchange would affect the operations at adjacent interchanges. Therefore, instead of developing separate improvement concepts for each interchange, the study area was divided into three segments and alternative improvement conceptual design plans were developed for each segment. The three segments, depicted in Figure 2-3, are described below:

- Segment 1, from south of US 301 to north of SR 60, included improvements for the interchanges at US 301, the Selmon Expressway, and SR 60.
- Segment 2, from north of SR 60 to north of I-4, included improvements for the interchanges at MLK Boulevard and I-4.
- Segment 3, from north of I-4 to north of Fletcher Avenue, included improvements for the interchanges at Fowler Avenue and Fletcher Avenue.



I - 75 (SR 93A) PD&E Study

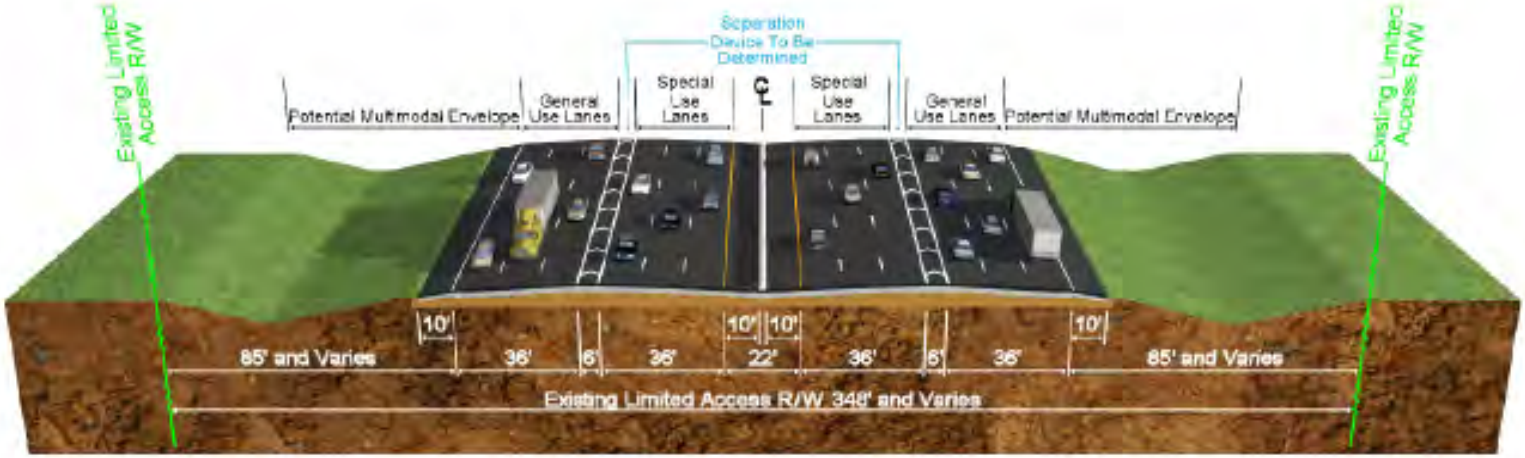
From South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

I-75 Mainline Alternative 1 Proposed Typical Section

Figure 2-1



I - 75 (SR 93A) PD&E Study

From South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

I-75 Mainline Alternative 2 Proposed Typical Section

Figure 2-2

I-75 (SR 93A) PD&E Study

South of US 301 to North of Fletcher Avenue

WPI Segment No.: 419235-3

Hillsborough County

Project Segments Map

Figure 2-3

For each segment and each of the mainline (typical section) alternatives, several improvement concepts, called options, were considered.

- Options A, B, and C were evaluated for Segment 1. Table 2-1 summarizes the key features of each option.
- Options A and B were evaluated for Segment 2. Table 2-2 summarizes the key features of each option.
- Options A and B were evaluated for Segment 3. Table 2-3 summarizes the key features of each option.

2.4 RECOMMENDED IMPROVEMENTS

All alternatives were evaluated with regards to costs, operational factors, and environmental impacts. Based on these evaluations, the recommended build alternatives were identified for the I-75 mainline and the interchanges within the study area. These recommendations are listed below:

- I-75 Mainline: Mainline Build Alternative 2
- Segment 1: Option C except for the SR 60 interchange where Option A was recommended
- Segment 2: Option A
- Segment 3: Option A

The methodology for the selection of the recommended alternative is discussed in detail in the *Project Development Engineering Report (PDER)*.

Table 2-1
Segment 1 – Main Features of Improvement Options

Location	Option A	Option B	Option C
US 301 Interchange	• No major improvements • Realign some ramps to match I-75 mainline improvements	• No major improvements • Realign some ramps to match I-75 mainline improvements	• No major improvements • Realign some ramps to match I-75 mainline improvements
US 301 to Selmon Expressway	• Expand/extend northbound and southbound C-D roads • Combine northbound exit slip ramps to C-D road accessing Selmon Expressway and SR 60 • Eliminate existing slip ramp connecting northbound US 301 with Selmon Expressway and SR 60	• Eliminate northbound and southbound C-D roads • Eliminate existing slip ramp connecting northbound US 301 with Selmon Expressway • Allow access to SR 60 from northbound US 301	• Expand/extend northbound and southbound C-D roads • Combine three northbound exits from the I-75 GULs to US 301, Selmon Expressway and SR 60 into one • Maintain connection from northbound US 301 to Selmon Expressway and SR 60
Selmon Expressway Interchange	• Provide direct access to/from the I-75 GULs and SULs in both directions • No access from northbound US 301	• Provide direct access only to/from the I-75 GULs • Provide access for the I-75 SULs to Selmon Expressway by shifting to the GULs through slip ramps away from the interchange • No access from northbound US 301	• Provide direct access only to/from the I-75 GULs • Connect I-75 SUL traffic south of the interchange with Selmon Expressway by shifting to the GULs through slip ramps away from the interchange • I-75 SUL traffic north of the interchange connects with Selmon Expressway through braided ramps to the C-D roads placed north of SR 60, thus avoiding weaving with GUL traffic
Selmon Expressway to SR 60	• Extend/expand northbound and southbound C-D roads to north of SR 60	• Eliminate northbound and southbound C-D roads	• Extend/expand the northbound and southbound C-D roads to north of SR 60 • Combine entry points for northbound traffic from Selmon Expressway and SR 60
SR 60 Interchange	• Maintain existing partial cloverleaf configuration • Expand/extend southbound and northbound exit ramps to provide more storage • Expand ramp termini intersections to add turn lanes	• Replace existing interchange with a single point urban interchange (SPUI) • Extend northbound and southbound exit ramps to provide more storage	• Modify west half of existing partial cloverleaf interchange to a diamond configuration • Provide braided ramps for the I-75 SUL traffic north of the interchange to directly connect with the SR 60 C-D roads, thus avoiding weaving with the GUL traffic

Table 2-2
Segment 2 – Main Features of Improvement Options

Location	Option A	Option B
MLK Boulevard Interchange	• Replace existing partial cloverleaf interchange with a SPUI • Begin northbound C-D road at interchange • End southbound C-D road at interchange	• Replace existing partial cloverleaf interchange with a SPUI • Begin northbound C-D road at interchange • End southbound C-D road at interchange
MLK Boulevard to I-4	• Provide northbound and southbound C-D roads from north of I-4 to MLK Boulevard; MLK Boulevard traffic to/from I-4 never enters I-75	• Provide northbound and southbound C-D roads from north of I-4 to MLK Boulevard; MLK Boulevard traffic to/from I-4 never enters I-75
I-4 Interchange	• Upgrade existing "turbine" configuration by adding directional ramps to connect the I-75 SULs with I-4	• Replace existing interchange with a combined directional "turbine/stack" configuration • Provide touchdown for the SUL ramps in the median of I-4 to allow future construction of connections with the I-4 SULs • Reconstruct I-4 at the interchange

Table 2-3
Segment 3 – Main Features of Improvement Options

Location	Option A	Option B
Fowler Avenue Interchange	• Maintain existing configuration with slight adjustments of some ramps to match C-D roads and mainline alignments	• Replace existing flyover ramp carrying the northbound I-75 to westbound Fowler Avenue traffic with a two-lane loop ramp in northeast quadrant • Eliminate loop ramp in southeast quadrant carrying eastbound Fowler Avenue to northbound I-75 traffic; accommodate this movement by allowing left turns from eastbound Fowler Avenue and connecting with the westbound Fowler Avenue to northbound I-75 ramp
South of Fowler Avenue to north of Fletcher Avenue	• Remove diverge areas at the interchanges from the mainline by providing northbound and southbound C-D roads in both directions • Eliminate short trips between Fletcher Avenue and Fowler Avenue in both directions	• Remove diverge areas at the interchanges from the mainline by providing northbound and southbound C-D roads in both directions • Eliminate short trips between Fletcher Avenue and Fowler Avenue in both directions
Fletcher Avenue Interchange	• Maintain existing configuration with enhancements proposed by current design project (FPID No. 408456-2-52-01, Section No. 10075)	• Maintain existing configuration with enhancements proposed by current design project (FPID No. 408456-2-52-01, Section No. 10075)

3.0 LAND USE

3.1 EXISTING ENVIRONMENTAL CONDITIONS

Land use was reviewed on either side of the centerline for I-75 and adjacent to the right-of-way. The 2006, Florida Land Use, Cover and Forms Classification System (FLUCFCS) Geographic Information System (GIS) data layers provided by the South Florida Water Management District (SWFWMD) were utilized, and most habitats within and adjacent to the project right-of-way were subsequently ground-truthed for verification. Figure 3-1 (Appendix A) depicts land use and land cover within the proposed project area and Table 3-1 provides a summary of the land cover/land use types.

3.1.1 Biological Features

Following completion of field verification efforts, FLUCFCS, upland, and wetland communities identified within the project study corridor were evaluated. This evaluation consisted of detailed ground-truthing investigations to characterize the predominant floral communities typical of each habitat type.

In most portions of the project mainline right-of-way, a mowed grass line is present up to the right-of-way fence. In some areas, however, the mowing line is located approximately 20 feet inside the right-of-way fence and a given plant community begins at this location. The plant community edge is, therefore, within the project right-of-way and may include nuisance/exotic species resulting from the mowing "edge-effect". However, in comparison to other roadway corridors, this section of I-75 contains relatively low to moderate coverage of nuisance/exotic species. Common understory nuisance species include Peruvian primrose willow (*Ludwigia peruviana*) and torpedograss (*Panicum repens*), and Brazilian pepper (*Schinus terebinthifolius*) is the notable shrub and canopy species. The majority of the natural habitat within the project right-of-way is located within the interchanges. Some interchanges, including US 301, I-4, Fowler Avenue, and Fletcher Avenue are extensive in size and contain both upland and wetland systems. Habitats within the interchanges are similar to those adjacent to the mainline right-of-way in both type and nuisance species presence.

Upland forested areas are characterized by low to moderate nuisance exotic vegetation coverage, with an overgrown shrub layer in some areas. Wildlife utilization observed in these areas primarily consisted of gopher tortoises, as evidenced by the presence of burrows. Wetlands are similarly characterized by low to moderate nuisance exotic vegetation coverage and many of the forested systems contain significant overgrowth by shrub species. However, wildlife utilization in wetlands was notably higher than in

Table 3-1 Existing Land Use/Land Cover (FLUCFCS) within the Project Area

FLUCFCS Code		Description	Area Within Study Corridor (Acres)	Percent Within Study Corridor (%)	Area Within Project ROW (Acres)	Percent Within Project ROW (%)
100: Urban and Built Up	110	Residential, Low Density	78.66	3.73	10.81	0.75
	120	Residential, Medium Density	10.66	0.51	0.34	0.02
	130	Residential, High Density	21.23	1.01	2.73	0.19
	140	Commercial and Services	116.44	5.52	19.28	1.33
	150	Industrial	0.31	0.01	0.89	0.06
	160	Extractive	1.79	0.08	0.00	0.00
	170	Institutional	3.11	0.15	0.00	0.00
	180	Recreational	0.03	0.00	0.00	0.00
	190	Open Land	129.02	6.11	20.97	1.45
	Total		**361.25**	**17.12**	**55.02**	**3.80**
200: Agriculture	210	Cropland and Pastureland	70.95	3.36	16.35	1.13
	220	Tree Crops	9.43	0.45	0.12	0.01
	230	Feeding Operations	6.92	0.33	0.23	0.02
	260	Other Open Land	4.14	0.20	1.13	0.08
	Total		**91.44**	**4.33**	**17.83**	**1.23**
300: Rangeland	310	Herbaceous	5.83	0.28	5.83	0.40
	320	Shrub and Brushland	24.07	1.14	4.66	0.32
	Total		**29.90**	**1.42**	**10.49**	**0.73**
400: Upland Forests	410	Upland Coniferous Forests	48.56	2.30	44.21	3.06
	411	Pine Flatwoods	7.10	0.34	4.92	0.34
	420	Upland Hardwood Forests	2.32	0.11	2.15	0.15
	421	Xeric Oak	0.90	0.04	0.88	0.06
	434	Hardwood-Conifer Mixed	216.36	10.25	153.08	10.58
	436	Upland Scrub, Pine and Hardwoods	3.13	0.15	0.39	0.03
	438	Mixed Hardwoods	38.76	1.84	30.55	2.11
	441	Coniferous Plantations	3.24	0.15	3.12	0.22
	Total		**320.37**	**15.18**	**239.30**	**16.54**
500: Water	510	Streams and Waterways	14.58	0.69	4.90	0.34
	530	Reservoirs	14.13	0.67	0.04	0.00
	534	Reservoirs less than 10 acres	32.21	1.53	31.66	2.19
	510/615	Streams and Lake Swamps	9.68	0.46	5.41	0.37
	Total		**70.60**	**3.35**	**42.01**	**2.90**
600: Wetlands	615	Streams and Lake Swamps	19.02	0.90	9.66	0.67
	617	Mixed Wetland Hardwoods	4.81	0.23	4.81	0.33
	618	Willow and Elderberry	3.52	0.17	3.47	0.24
	621	Cypress	3.73	0.18	0.69	0.05
	630	Wetland Forested	2.44	0.12	2.44	0.17
	631	Wetland Shrub	47.22	2.24	39.36	2.72
	641	Freshwater Marsh	35.26	1.67	12.04	0.83
	643	Wet Prairies	1.71	0.08	0.27	0.02
	644	Emergent Aquatic Vegetation	9.04	0.43	0.00	0.00
	653	Intermittent Ponds	0.09	0.00	0.00	0.00
	631x	Wetland Shrub, excavated	6.89	0.33	6.69	0.46
	641x	Freshwater Marsh, excavated	8.76	0.42	7.71	0.53
	Total		**142.49**	**6.75**	**87.14**	**6.02**
800: Transportation, Communication, Utilities	810	Transportation	1,082.73	51.30	990.98	68.51
	830	Utilities	11.62	1.06	3.72	0.37
	Total		**1,094.35**	**52.37**	**994.70**	**68.88**
		Totals	**2,110.40**	**100.00**	**1,446.49**	**100.00**

upland communities. Wading birds were commonly observed in open water and marsh systems within and adjacent to the project right-of-way.

3.1.2 Upland Communities

Upland communities within and immediately adjacent to the project corridor are discussed in this section. These communities are classified according to the *Florida Land Use, Cover and Forms Classification System* (FLUCFCS), (FDOT, 1999). During the field review, upland community types were visually inspected to verify community boundaries, dominant vegetation, and for the presence or potential for occurrence of threatened and endangered species.

Commercial and Services (FLUCFCS 140)

Commercial areas are predominantly associated with the distribution of products and services. This category is composed of a large number of commercial land uses that often occur in complex mixtures. No protected species were observed in this habitat type.

Open Land (FLUCFCS 190)

This classification includes undeveloped land within urban areas and inactive land with street patterns, but without structures. Open Land typically does not exhibit any structures or any indication of intended use. Land in this category may be in a transitional state and ultimately will be developed into one of the typical urban land uses; however, at the time of observation the intended use may be hard to determine. No protected species were observed in this habitat type.

Cropland and Pastureland (FLUCFCS 210)

This land use classification includes agricultural land managed for row or field crop production as well as improved, unimproved, and woodland pastures. Improved pasture is land that has been cleared, tilled, and seeded with specific grass types, commonly bahiagrass (*Paspalum notatum*). Unimproved pasture includes cleared land with major stands of trees and brush where native grasses and forbs have been allowed to regenerate. Woodland pastures are areas of forest land used as pastures. The land classified in this category within the project limits exhibits all three of these pasture types. Vegetation in this category consisted of bahiagrass, oaks (*Quercus* spp.), and broomsedge (*Andropogon* spp.). Florida sandhill cranes were observed foraging in this habitat type.

Shrub and Brushland (FLUCFCS 320)

Shrub and brushland areas are characterized by an open canopy with scattered to dense shrubs and brush. Vegetation observed in the field for this category included saw palmetto (*Serenoa repens*), groundsel tree (*Baccharis halimifolia*), saltbush (*Baccharis glomeruliflora*), and wax myrtle (*Myrica cerifera*). Cabbage palms (*Sabal palmetto*) and oaks are commonly scattered throughout this habitat type. Various vines such as grapevine (*Vitis* sp.) and peppervine (*Ampelopsis arborea*); grasses such as beggarticks (*Bidens alba*), common ragweed (*Ambrosia artemisiifolia*), and broomsedge; and short herbs were found in the groundcover of this habitat type. Some shrub and brushland areas along the project corridor are occupied by cattle. Evidence of cattle was noted via direct observation, cattle droppings, cattle trails, and tree browsing to a height consistent with cattle presence. No protected species were observed in this habitat type.

Upland Coniferous Forests (FLUCFCS 410)

This land use classification consists of any natural forest stand whose canopy is at least 66 percent dominated by coniferous species. Conifer species include slash pine (*Pinus elliottis*), longleaf pine (*Pinus palustris*), and sand pine (*Pinus clausa*). No protected species were observed in this habitat type.

Hardwood-Conifer Mixed (FLUCFCS 434)

This land use classification consists of forested areas in which neither upland conifers nor hardwoods achieve 66 percent crown canopy dominance. Hardwood species included live oak (*Quercus virginiana*), American elm (*Ulmus americana*), and persimmon (*Diospyros virginana*). Conifer species include slash pine, longleaf pine, and sand pine.

Gopher tortoises and gopher tortoise burrows were observed in this habitat type.

Transportation (FLUCFCS 810)

This land use classification consists of roads, sidewalks, ditches/swales, right-of-way buffers, and associated facilities. I-75 is a major north/south corridor and links the Tampa Bay region with the remainder of the state and the nation, supporting commerce, trade, and tourism. A bald eagle nest was observed on a tower located within this habitat type.

3.1.3 Wetland Communities

Pursuant to Presidential Executive Order 11990 entitled "Protection of Wetlands," (May 23, 1977) the United States Department of Transportation (USDOT) has developed a policy, Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978, which requires all federally-funded highway projects to protect wetlands to the fullest extent possible. In accordance with this policy, as well as Part 2, Chapter 18 - Wetlands of the FDOT PD&E Manual, two project alternatives were assessed to determine potential wetland impacts associated with construction of each alternative.

3.1.3.1 Methodology

Project biologists identified 69 wetlands within the project corridor through field verification, review of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), and analysis of FLUCFCS databases. Wetlands were identified in the field over five days beginning on May 30, 2008 and ending on July 3, 2008. Wetland boundaries were visually approximated using the US Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual, and the criteria identified in Chapter 62-340, Florida Administrative Code (F.A.C.) Twenty-nine surface waters also were identified. Following this review, a permit search of the project area identified a current, valid, formal wetland determination for a portion of the project wetlands, specifically, from Fowler Avenue to north of Fletcher Avenue. Southwest Florida Water Management District Permit No. 42031057.000, Formal Determination of Wetlands and Other Surface Waters, was issued on March 28, 2007 and is valid until March 28, 2012. Therefore, these wetland and surface water boundaries have been incorporated into this report since they more accurately represent project area conditions than PD&E-level visual approximations. Wetland and surface water locations are depicted in Figure 3-1 (Appendix A).

Wetlands were numbered and assigned a location code as per the side of the alignment (L=left or north, C=center, and R=right or south). The systems were classified according to USFWS methodology (Cowardin *et al*. 1979) and FLUCFCS (FDOT, 1999) for NWI and FLUCFCS codes, respectively. Table 3-2 lists all wetlands that are within the limits of proposed right-of-way design, along with the proposed impact acreages. Photos of the wetlands can be found in Appendix F.

Table 3-2 Wetland and Surface Water Impacts in Acres Within the Project Area

		Alternate 1							Alternate 2						
NWI	Wetland #	Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B	Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B
PEM1	1540+20R	0.33	0.37	0.51					0.19	0.19	0.51				
	1680+50M				0.57	0.57						0.57	0.57		
	1420+20M		0.05							0.05					
	1620+20M				0.81	0.81						0.81	0.81		
	TOTAL	0.33	0.42	0.51	1.38	1.38	0.00	0.00	0.19	0.24	0.51	1.38	1.38	0.00	0.00
PEM1x	1790+90L											0.13	0.13		
	1780+00L				0.94	0.91						0.90	0.90		
	1760+50R				0.54	0.54						0.54	0.54		
	1770+60R				0.05	0.05						0.05	0.05		
	1690+90M											1.19	1.19		
	1460+90R		0.11	0.16							0.12				
	1710+90LB				0.24	0.24						0.24	0.24		
	1700+00M				0.83	0.83						0.83	0.83		
	1690+80M				0.40	0.40						0.40	0.40		
	1680+80M				1.00	1.00						1.00	1.00		
	1690+00M				0.16	0.16						0.16	0.16		
	1280+80R	0.50	0.50	0.50					0.50	0.50	0.50				
	TOTAL	0.50	0.61	0.66	4.16	4.13	0.00	0.00	0.50	0.50	0.62	5.44	5.44	0.00	0.00
PEM1 Total		0.83	1.03	1.17	5.54	5.51	0	0	0.69	0.74	1.13	6.82	6.82	0	0
PSS1	1740+50LA				1.04	1.47						1.15	2.05		
	1610+40R				0.77	0.77						0.77	0.77		
	1420+40M		0.04												
	1430+00M	0.29	0.09	0.60					0.07	0.11	0.31				
	1260+60R	0.08	0.08	0.08						0.08					
	1800+40R											0.20	0.20		
	1530+60L	0.28	0.28	0.28					0.28	0.28	0.28				
	1310+40M		0.02												
	1420+00M									0.02					
	TOTAL	0.65	0.51	0.96	1.81	2.24	0.00	0.00	0.35	0.49	0.59	2.12	3.02	0.00	0.00
PSS1x	1700+20M				0.99	0.99						0.99	0.99		
PSS1 Total		0.65	0.51	0.96	2.8	3.23	0	0	0.35	0.49	0.59	3.11	4.01	0	0
PSS 1/3	1700+10M				6.77	6.77						6.77	6.77		
	1620+10M				1.74	1.74						1.74	1.74		
	1460+40L	0.37	0.37	0.37					0.37	0.37	0.37				
	1460+20M	0.66	0.46	0.52					0.80	0.52	0.52				
	1450+00R	2.46	2.46	2.46					2.46	2.46	2.46				
	1430+00L	1.63	1.13	1.07					1.08	1.29	1.08				
	1420+80M		0.08							0.08					
	1470+00M	0.04	0.03	0.09					0.04		0.09				
	1620+50M				2.09	2.09						2.09	2.09		
PSS1/3 Total		5.16	4.53	4.51	10.6	10.6	0	0	4.75	4.72	4.52	10.6	10.6	0	0
PSS3	1480+60M	0.09	0.27	0.23						0.17	0.23				
PSS3 Total		0.09	0.27	0.23	0	0	0	0	0	0.17	0.23	0	0	0	0
PFO1	1940+00L	2.65	4.84	4.15	0.35	0.35	0.43	0.43	2.85	4.70	4.15			0.43	0.43
	1760+50L				2.26	1.77						1.71	1.52		
	1740+50LB				0.35	0.73						0.50	1.01		
	1740+50LC				2.61	3.91						3.05	4.68		
	1610+40M				2.52	2.52						2.52	2.52		
	1600+90L				0.76	0.76						0.76	0.76		
	1790+00L				0.35	0.35						0.35	0.35		
	1740+80R				0.87	0.87						0.87	0.87		
	1810+10L											0.34	0.34		
	1800+00R											0.32	0.32		
PFO1 Total		2.65	4.84	4.15	10.07	11.26	0.43	0.43	2.85	4.7	4.15	10.42	12.37	0.43	0.43
PFO1/3	1680+80L				1.66	1.66						1.66	1.66		
	1690+10M				1.68	1.68						1.68	1.68		
	1620+40M				4.43	4.43						4.43	4.43		
	1620+40R				1.63	1.63						1.63	1.63		
	1680+20M				1.73	1.73						1.73	1.73		
	1670+00L				2.04	2.12						2.01	2.11		
PFO1/3 Total		0	0	0	13.17	13.25	0	0	0	0	0	13.14	13.24	0	0
PFO2	2030+50M						0.37	0.37							
	2030+50R						0.51	0.51						0.51	0.51
PFO2 Total		0	0	0	0	0	0.88	0.88	0	0	0	0	0	0.51	0.51
R2AB4	1710+90R				0.19	0.19						0.11	0.17		
	1710+90LA				0.15	0.18						0.11	0.19		
	1440+00L	0.09	0.08	0.08					0.08	0.08	0.08				
	1440+00R	0.07	0.07	0.06					0.06	0.07	0.06				
R2AB4 Total		0.16	0.15	0.14	0.34	0.37	0	0	0.14	0.15	0.14	0.22	0.36	0	0
R2EM4	1590+10R	0.09	0.09	0.09	0.24	0.25				0.09	0.09	0.09	0.09		
	1590+10L	0.24	0.24	0.24	0.09	0.09				0.24	0.24	0.24	0.25		
R2EM4 Total		0.33	0.33	0.33	0.33	0.34	0	0	0	0.33	0.33	0.33	0.34	0	0
R2AB3/PFO1	2030+00M						0.45	0.45							
	2030+00L						0.59	0.69						0.52	0.52
	2030+00R						0.4	0.4						0.40	0.40
R2AB3/PFO1 Total		0	0	0	0	0	1.44	1.54	0	0	0	0	0	0.92	0.92
R2UB2/PFO1	1920+40M						0.17	0.17						0.17	0.17
	1920+40L						0.67	0.67						0.67	0.67
	1920+50R						2.02	2.9						1.76	2.90
	1920+70L						0.12	0.12						0.12	0.12
	1930+10M						0.01	0.01						0.03	0.03
R2UB2/PFO1 Total		0	0	0	0	0	2.99	3.87	0	0	0	0	0	2.75	3.89
Wetland Grand Total		9.87	11.66	11.49	42.85	44.56	5.74	6.72	8.78	11.30	11.09	44.64	47.74	4.61	5.75
Surface Water Total		8.24	7.91	7.54	3.07	3.07	0.00	0.00	5.46	7.87	7.53	3.07	3.07	0.00	0.00
Note: Preferred alignments in gray															

3.1.3.2 Wetlands

Streams and Waterways (FLUCFCS 510)

This classification includes rivers, creeks, canals, and other linear water bodies. The Hillsborough River, Tampa Bypass Canal, Cow House Creek, Delaney Creek, and two unnamed canals are included in this classification. UMAM sheets for these wetlands are found in Appendix C and include vegetative species, hydrology, and surrounding landscape.

Species observed foraging in this habitat type include the little blue heron, white ibis, and least tern.

Riverine, lower perennial, aquatic bed wetlands with floating vascular vegetation (R2AB4)

Wetlands within this category include Delaney Creek in the southern portion of the project and an unnamed, channelized creek near the northern portion of the project. Delaney Creek passes through urban areas east of the project and through undeveloped upland communities to the west. The unnamed creek is generally surrounded by natural habitats on both sides of I-75. Water levels appeared lower than normal due to several years of drought conditions in the project area. However, there is still flow in these systems. Nuisance/exotic species coverage is nearly 100 percent for both systems. Delaney Creek is characterized by a predominance of water lettuce (*Pistia stratiotes*) and the unnamed creek contains water hyacinth (*Eichhornia crassipes*).

Riverine, lower perennial, aquatic bed wetlands with floating vascular vegetation and Palustrine forested wetlands with broad-leaved deciduous vegetation (R2AB3/PFO1)

Three wetlands in the project area are classified as a mixture of riverine, aquatic bed wetlands with floating plants and palustrine forested wetlands with broad-leaved deciduous vegetation (R2AB3/PFO1). These wetlands are part of the Hillsborough River, a Class I Water and Outstanding Florida Waterbody, that flows under I-75. The river is somewhat narrow with a wider PFO1 component and is, therefore, given the joint coding. The river bed generally contains some spatterdock (*Nuphar* spp.), broad-leaf arrowhead (*Sagittaria lancifolia*), torpedograss, and water hyacinth. The forested component contains red maple (*Acer rubrum*), American elm, sweetgum (*Liquidambar stryraciflua*), cabbage palm, cypress (*Taxodium* spp.), and Carolina willow (*Salix carolinensis*).

Riverine, lower perennial, emergent wetlands with broad-leaved non-persistent vegetation (R2EM4)

The wetland system in this category consists of an unnamed, channelized creek. Primarily this wetland passes through urban areas; however, there is a forested wetland to the immediate west. The water level for this system appeared lower than normal due to several years of drought conditions in the project area. While there was no flow, standing water was noted at the time of field reviews. The creek is completely overgrown primarily with shrubs, but also groundcover vegetation such as Peruvian primrose willow and torpedograss. Nuisance/exotic species coverage is nearly 100 percent.

Riverine, lower perennial, unconsolidated bottom, sand wetlands with a component of Palustrine forested wetlands with broad-leaved deciduous vegetation (R2UB2/PFO1)

There are five wetlands in the project area within this category and each is a section of Cow House Creek. The creek bed and surrounding forested floodplain, which typically can be separated into two different wetlands, were combined as one wetland, given the unique quality of Cow House Creek. The creek is buffered by upland habitat but drains from and to wetland systems along its path, outside the right-of-way, to ultimately flow into the Hillsborough River. I-75 crosses this system via a bridge structure. Cow House Creek is designated a Class I Water. Water levels appeared lower than normal due to drought conditions, but flow was evident at the time of field reviews. The creek bed is generally devoid of vegetation but does contain some broad-leaf arrowhead, torpedograss, and water hyacinth. The forested floodplain component contains red maple, American elm, sweetgum, cabbage palm, cypress, and Carolina willow. Nuisance/exotic species coverage within the creek bed is approximately 35 percent but is less than 5 percent within the forested component.

Mixed Wetland Hardwoods (FLUCFCS 617)

This land use classification contains a large variety of hardwood species tolerant of hydric conditions, yet exhibits an ill-defined mixture of species. The wetlands in this classification contain hardwoods and cypress where hardwoods achieve dominance. UMAM sheets for these wetlands are found in Appendix C and include vegetative species, hydrology, and surrounding landscape. No protected species were observed in this habitat type.

Palustrine Forested Wetlands with broad-leaved deciduous vegetation (PFO1)

Ten wetlands in the project area are classified as palustrine forested wetlands with broad-leaved deciduous vegetation (PFO1). The majority of these wetlands are outside of and adjacent to the project area, with small components found within the I-75 right-of-way. The surrounding landscape is typically natural, consisting mostly of uplands, but a few are located in more developed portions of the project corridor. Common canopy species include red maple, water oak, sweetgum, and American elm. Due to several years of drought conditions and reduced hydroperiods, the shrub layer is somewhat overgrown, the groundcover layer is reduced, and no standing water was observed at the time of field reviews. Nuisance/exotic species coverage is typically low, averaging about 10 percent for the assessed wetlands.

Palustrine Forested Wetlands with broad-leaved deciduous and broad-leaved evergreen vegetation (PFO1/3)

Six wetlands in the project area are classified as palustrine forested wetlands with broad-leaved deciduous and broad-leaved evergreen vegetation (PFO1/3). This wetland classification is generally found adjacent to and within the infields of the I-4 and Dr. Martin Luther King, Jr. Boulevard interchanges. As such, the adjacent land use is developed. Common canopy species include red maple, water oak, bays, and sweetgum. Due to drought conditions and reduced hydroperiods, the shrub layer is somewhat overgrown, the groundcover layer is reduced, and no standing water was observed at the time of field reviews. Nuisance/exotic species coverage appeared to be approximately 20 percent for the majority of the systems in this classification.

Palustrine Forested Wetlands with needle-leaved deciduous vegetation (PFO2)

Two wetlands in the project area are classified as palustrine forested wetlands with needle-leaved deciduous vegetation (PFO2). These wetlands are located just north of the Hillsborough River in the median and to the east of I-75. These forested systems are primarily dominated by cypress trees. Due to drought conditions and reduced hydroperiods, the shrub layer was minimal, the groundcover layer was reduced, and the water level appeared lower than normal.

Wetland Scrub (FLUCFCS 631)

This community is associated with depressions and poorly drained soil. The wetlands in this classification contain shrubs and small sapling trees typically less than 20 feet tall. Vegetation includes a mix of saltbush, wax myrtle, elderberry (*Sambucus nigra*), Peruvian primrose willow, Carolina willow, Brazilian pepper, and small red maples. UMAM sheets for these wetlands are found in Appendix C and include vegetative

species, hydrology, and surrounding landscape. Species observed foraging in this habitat type include the little blue heron and white ibis.

Palustrine Scrub-Shrub Wetlands with broad-leaved deciduous vegetation (PSS1)

Nine wetlands in the project area are classified as palustrine scrub-shrub wetlands with broad-leaved deciduous vegetation (PSS1). Many of these systems are located within the interchange infields and are directly abutted by grassy, mowed areas. Some of these systems are the scrub-shrub fringes of excavated, open water systems within interchange infields. These systems are typically overgrown with thick shrub layers. Groundcover species and coverage are minimal. Most of the wetlands are dominated by Carolina willow and also include saltbush, wax myrtle, elderberry, Peruvian primrose willow, and small red maples. Nuisance/exotic species coverage is generally 15 to 20 percent. Standing water was evident in less than 50 percent of the wetlands at the time of field reviews.

Palustrine Scrub-Shrub Wetlands with broad-leaved deciduous vegetation, excavated (PSS1x)

One wetland in the project area is classified as a palustrine scrub-shrub wetland with broad-leaved deciduous vegetation, excavated (PSS1x). This wetland is located on the northwest side of the I-75 and I-4 interchange/intersection area. This system is overgrown with thick shrub layers and has a minimal herbaceous layer. The dominate species was Carolina willow, with scattered saltbush, wax myrtle, Peruvian primrose willow, and small red maples. Nuisance/exotic species coverage was approximately 15 to 20 percent. Standing water was not evident at the time of field reviews.

Palustrine Scrub-Shrub Wetlands with broad-leaved evergreen vegetation (PSS3)

One wetland in the project area is classified as a palustrine scrub-shrub wetland with broad-leaved evergreen vegetation (PSS3). This wetland is located in the northwest quadrant of the I-75 and SR 60 interchange area. This system is overgrown with thick shrub layers and has a minimal herbaceous layer. The dominant species was Brazilian pepper and this wetland also had scattered wax myrtle. Nuisance/exotic species coverage was approximately 15 to 20 percent. Standing water was not evident at the time of field reviews.

Palustrine Scrub-Shrub Wetlands with broad-leaved deciduous and broad-leaved evergreen vegetation (PSS1/3)

Nine wetlands in the project area are classified as palustrine scrub-shrub wetlands with broad-leaved deciduous and broad-leaved evergreen vegetation (PSS1/3). Many of

these systems are located within the interchange infields and are directly abutted by grassy, mowed areas. Others of these systems are the scrub-shrub fringes of excavated, open water systems within interchange infields. Some of these systems are linear, located along the edges of the mainline. These systems are typically overgrown with thick shrub layers. Groundcover species and coverage are minimal. Common plant species include Carolina willow, Brazilian pepper, saltbush, wax myrtle, elderberry, Peruvian primrose willow, and small red maples. Nuisance/exotic species coverage is generally 25 percent. Standing water was evident in less than 50 percent of the wetlands at the time of field reviews.

Freshwater Marsh (FLUCFCS 641)

This land use classification contains a large variety of wetland dependent, non-woody plants and very small shrubs. Vegetation includes cattail (*Typha* spp.), Peruvian primrose willow, a mix of sedges, mock Bishop's weed (*Ptilimnium capillaceum*), soft rush (*Juncus effusus*), scattered Carolina willow, saltbush pickerelweed (*Pontedaria cordata*), rushes, and other herbaceous species. UMAM sheets for these wetlands are found in Appendix C and include vegetative species, hydrology, and surrounding landscape.

Some protected wildlife species that may be present in this habitat type include the Florida sandhill crane, snowy egret, limpkin, little blue heron, and white ibis.

Palustrine Emergent Marsh (PEM1)

Four wetlands in the project area are classified as palustrine emergent marshes with persistent vegetation (PEM1). These are open marsh wetlands with groundcover vegetation that remains erect in the non-growing season. These systems fall into two categories. The first category is excavated ditches or shallow ponds/borrow pits areas within interchange infields that were excavated in hydric soils (as per Hillsborough County Soil Survey 1989) and are, therefore, considered to be wetlands as opposed to surface waters. The second category consists of shallow ponds/borrow pit areas within interchange infields that are not located within hydric soils but, due to the length of time they have been in existence, display adequate wetland characteristics (hydrology, vegetation, and soils) to be considered wetlands.

These appear to be natural systems and are typically components of larger, forested wetlands within interchange infields. Two of these wetlands are isolated sink hole wetlands (within the Fletcher interchange infields) and are surrounded by upland forested communities. Common plant species include cattail, Peruvian primrose willow, a mix of sedges, mock Bishop's weed, soft rush, and scattered Carolina willow,

saltbush, and wax myrtle. Nuisance/exotic species coverage is generally 15 to 20 percent. Standing water was evident in some systems and saturated soils were apparent when standing water was lacking at the time of field reviews.

Palustrine Emergent Marsh, excavated (PEM1x)

Twelve wetlands in the project area are classified as palustrine emergent marshes with persistent vegetation, excavated (PEM1x). These systems commonly connect to larger wetlands within and outside the project area. They typically run alongside the grassy, mowed palustrine scrub-shrub wetlands with broad-leaved deciduous vegetation (PSS1) of I-75, both along the edge of the mainline and within interchange infields. Common plant species include cattail, Peruvian primrose willow, a mix of sedges, and scattered Carolina willow, saltbush, and wax myrtle. Nuisance/exotic species coverage is generally 20 to 30 percent. Decline in wetland quality generally occurs at outfalls/culverts, where invasive species tend to proliferate. These are maintained systems and, therefore, fluctuate in the amount of shrub coverage depending on when they are mowed. A majority of the wetlands hold standing water ranging from, small shallow isolated pockets to several inches at the time of the field reviews.

3.1.3.3 Surface Waters

Twenty-nine surface waters, mostly roadside ditches running parallel to the mainline or ramps, are scattered along the length of the project. The surface waters are generally 8 to 12 feet wide, with some retaining water at the time of the field review. Most of the surface waters appear to be occasionally maintained by mechanical methods and perhaps herbicides. Due to the occasional mowing, the ditches likely change in character throughout the year from herbaceous to more shrubby systems and from shrub to herbaceous. Typical vegetation includes nuisance species (cattails, Peruvian primrose willow, torpedo grass, Carolina willow, and desirable wetland plants, including wax myrtle, pickerelweed, sedges, rushes, and other herbaceous species.

3.2 SOILS

From review of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey for Hillsborough County, (Doolittle, 1989), it was determined that 31 soil types are present within the project corridor. Of the 31 soil types found within the project corridor 12 are listed as hydric according to the Florida Association of Environmental Soil Scientists', "Hydric Soils of Florida Handbook", (Carlisle, *et.al.* 1995). The Soil Survey of Hillsborough County, Florida, indicates that the most prevalent soils are Arents (4); Basinger, Holopaw, and Samsula depressional (5); Candler fine sand (7); Chobee muck, depressional (11); Malabar fine sand (27);

Myakka fine sand (29); Smryna fine sand (52); and Zolfo fine sand (61). Figure 3-2 depicts hydric soils in the project area. Detailed descriptions of the dominant soil types are provided below.

- **Arents (4)** consist of nearly level, heterogeneous soil material. This material has been excavated, reworked, and reshaped by earthmoving equipment. Arents are near urban centers, phosphate-mining operations, major highways, and sanitary landfills. Arents are variable and contain discontinuous lenses, pockets, or streaks of black, gray, or grayish brown, brown or yellowish brown sandy or loamy fill material. Slopes are 0 to 5 percent. Depth to the seasonal high water table varies with the amount of fill material and artificial drainage. This is not a federal or state hydric soil.
- **Basinger, Holopaw, and Samsula depressional (5)** is a very poorly drained soil type commonly found along the exterior of swamps or in shallow depressions. The surface layer is typically black fine sand about seven inches thick. Slopes are 0 to 2 percent. In most years, the undrained areas in this map unit are ponded for 6 months of the year. This is not listed as a federal hydric soil but is listed as a state hydric soil.
- **Candler fine sand (7)** is nearly level to gently sloping and excessively drained and is found in uplands. The surface layer is typically dark gray fine sand about 6 inches thick. Slopes are most commonly 0 to 5 percent. A seasonal high water table is at a depth of more than 80 inches, permeability is rapid, and available water capacity is very low. This is not a federal or state hydric soil.
- **Chobee muck, depressional (11)** is nearly level, very poorly drained, and has slopes of less than 1 percent. It is found in broad depressions, mainly in the Harney Flats region of Hillsborough County. Typically, this soil has a surface layer that is about 12 inches thick and consists of black muck in the upper nine inches and black loamy fine sand in the lower three inches. The project area bisects this region south of the Tampa Bypass Canal. Water levels are typically above ground throughout the year, except during drought and for ditched areas. This is both a federal and state hydric soil.
- **Malabar fine sand (27)** is a nearly level, poorly drained soil in sloughs and flatwoods. Slopes are smooth to slightly concave, and range from 0 to 2 percent. In most years, the water table is within 10 inches of the surface for 2 to 6 months. Typically, this soil has a surface layer of dark gray fine sand about 4 inches thick. This is not listed as a federal hydric soil but is listed as a state hydric soil.

- **Myakka fine sand (29)** is a nearly level, poorly drained soil in broad flatwoods. Slopes are smooth to slightly concave, and range from 0 to 2 percent. In most years, the water table is within 10 inches of the surface for 1 to 3 months, and is 10 to 40 inches below the surface for 2 to 6 months. Typically, this soil has a surface layer of very dark gray fine sand about 5 inches thick. It can recede to a depth of more than 40 inches during extended dry periods. This is listed as a federal hydric soil but is not a state hydric soil.
- **Smyrna fine sand (52)** is nearly level and poorly drained with slopes of 0 to 2 percent. In most years, the seasonal high water table fluctuates from the surface to 10 inches below the surface for 2 months and is 10-40 inches below the surface for approximately six months. Typically, the soil has a surface layer of very dark gray fine sand about 4 inches thick. This is listed as a federal hydric soil but is not a state hydric soil.
- **Zolfo fine sand (61)** is nearly level and poorly drained with slopes of 0 to 2 percent. In most years, the seasonal high water table fluctuates from the surface to 10 inches below the surface for two months and is at depth of 24 to 40 inches below the surface for 2 to 6 months and recedes to a depth of 60 inches during prolonged dry periods. Typically, the soil has a surface layer of very dark gray fine sand about 3 inches thick. This is not a federal or state hydric soil.

3.3 SIGNIFICANT WATERS AND PROTECTION AREAS

3.3.1 Outstanding Florida Water

The proposed project would involve the widening of existing structures over the Hillsborough River and Cow House Creek. The proposed design will include, at a minimum, the requirements for the treatment of water quality impacts as required by SWFWMD in Rules Chapters 40D-4 and 40D-40.

The Hillsborough River is a Class 1 Water and an Outstanding Florida Water (OFW) which crosses under I-75 just north of Fletcher Avenue. The Hillsborough River's Class I Water designation extends from Flint Creek, downstream to the City of Tampa dam. The Hillsborough River ultimately drains to Hillsborough Bay, which is an impaired water (Chapter 62-303 F.A.C.).

Cow House Creek, a Class 1 Water, crosses beneath I-75 just north of Fowler Avenue. Cow House Creek is a tributary of the Hillsborough River; the confluence is approximately 1 mile downstream and west of I-75.

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I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

SOILS MAP

Figure 3-2
Sheet 1 of 3

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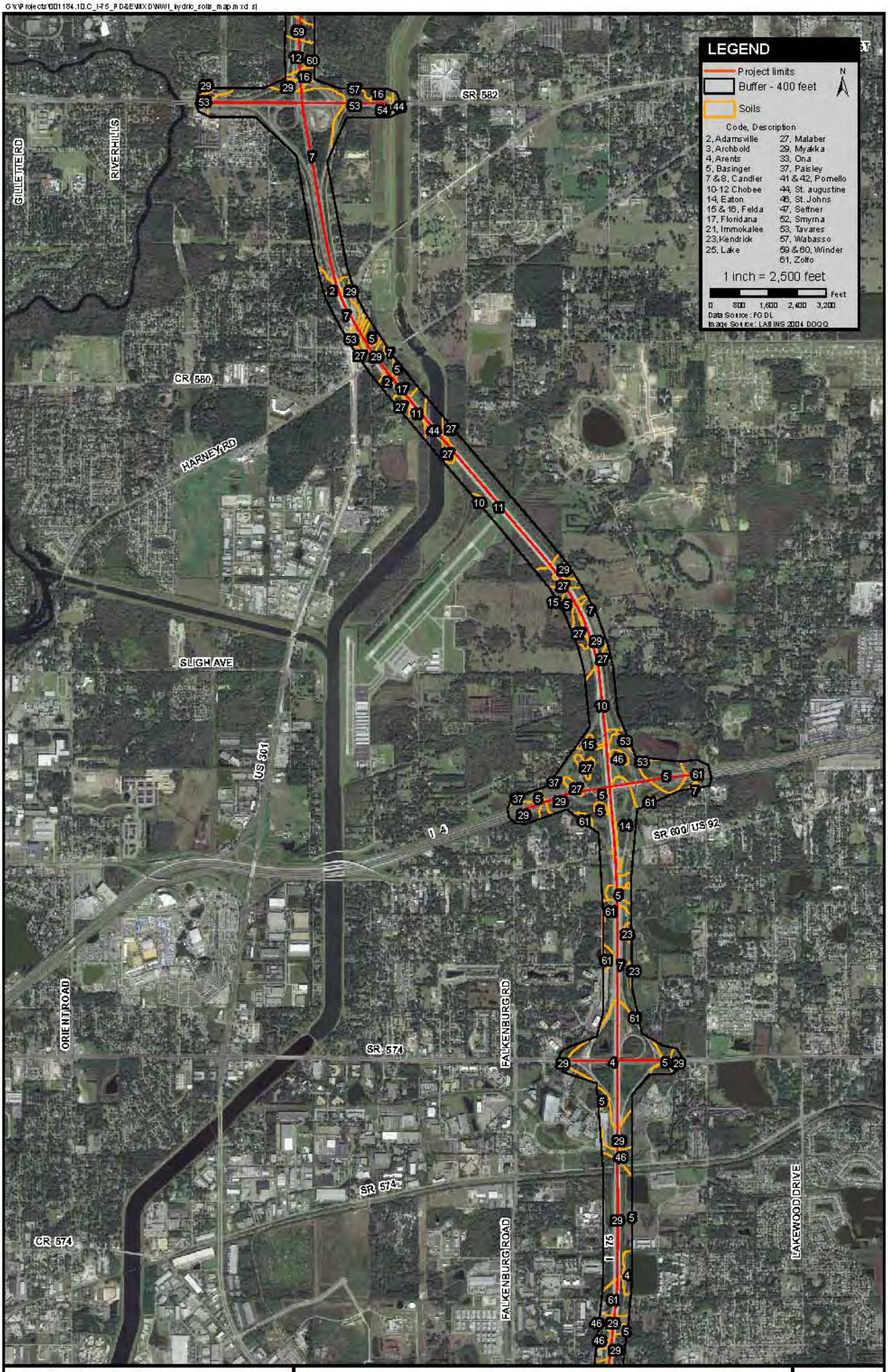

I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

SOILS MAP

Figure 3-2
Sheet 2 of 3

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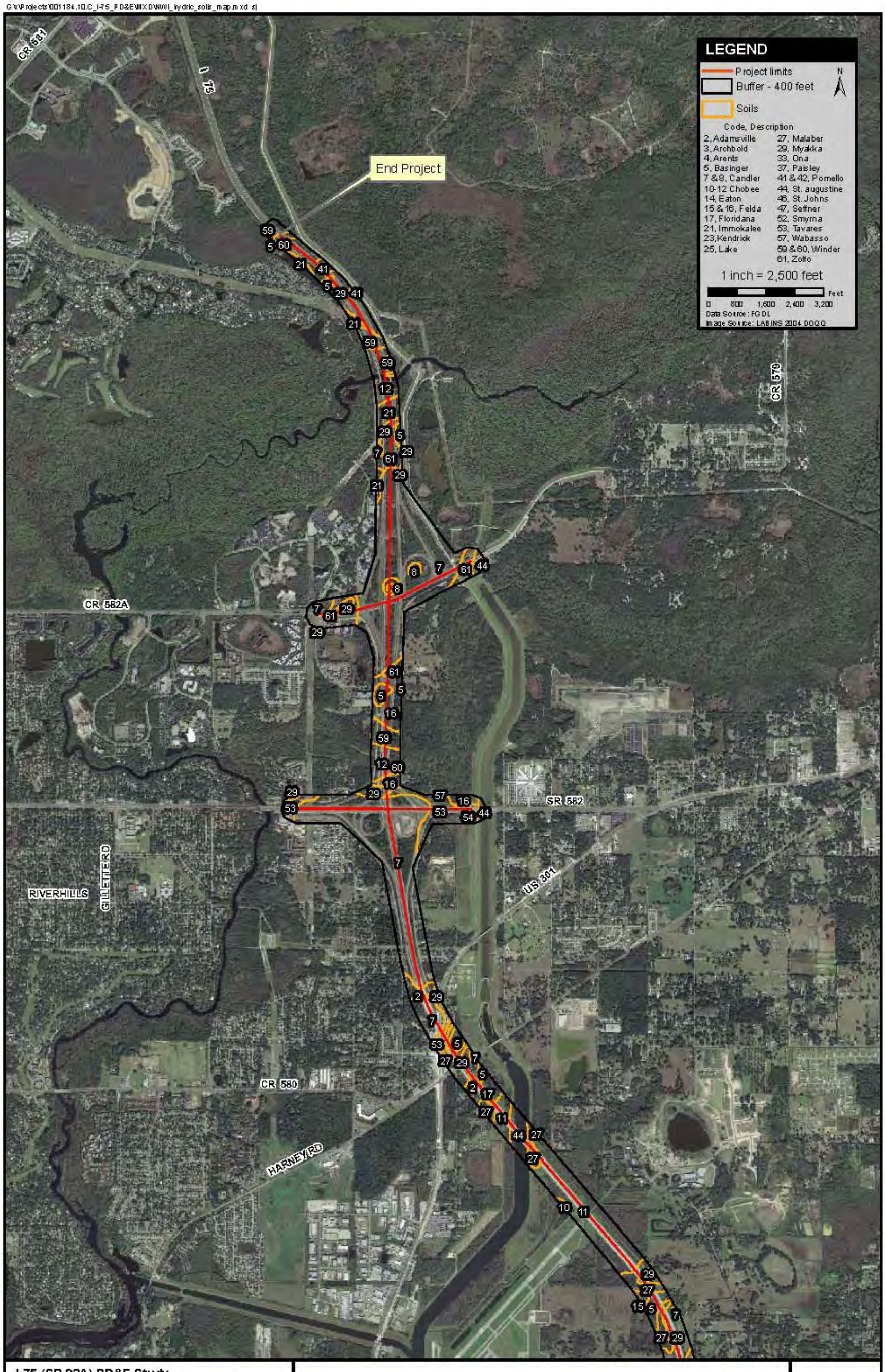

I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

SOILS MAP

Figure 3-2
Sheet 3 of 3

Other aquatic crossings located within the project area are: Delaney Creek, the Tampa Bypass Canal, and two unnamed canals. I-75 crosses Delaney Creek just north of the Selmon Crosstown Expressway interchange. Delaney Creek drains to Hillsborough Bay and does not have any special designations. The unnamed canals drain to the Tampa Bypass Canal. I-75 also crosses over the Tampa Bypass canal, a Class I Water and an impaired water body.

3.3.2 Protection Areas

There are no conservation lands within or adjacent to the project area. However, there is a proposed Hillsborough County Environmental Lands Acquisition and Protection Program (ELAPP) site located just west of the project right-of-way that encompasses Cow House Creek. This area is also designated as Hillsborough County Significant Wildlife Habitat. The Cow House Creek area east of the project right-of-way is similarly identified as Significant Wildlife Habitat. In addition, a portion of Cow House Creek under the I-75 bridge crossing is classified as a strategic habitat conservation area (SHCA). The SHCA designation does not carry regulatory implications; rather, it identifies locations where diversity of terrestrial and aquatic vertebrates is notably high.

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4.0 WETLAND IMPACTS

4.1 RESULTS OF UMAM ANALYSES

Wetlands to be potentially impacted were assessed for compensatory mitigation requirements. Roadside ditches and surface waters were not assessed because mitigation requirements do not apply to these man-made features. Conceptual design plans for the project are provided in Appendix B. Wetland impacts were assessed by using the Uniform Mitigation Assessment Method (UMAM). Since many wetlands were similar in function and quality, the systems were grouped into categories based on wetland type, and each group was subsequently assessed using UMAM. Wetland UMAM sheets are presented in Appendix C.

UMAM analyses were conducted to evaluate wetland function and values for representative wetlands for each type of wetland identified along the project corridor. Table 4-1 provides the wetland type, impact acreage, and functional loss associated with each wetland within the project area. Other than the No-Build Alternative, it is not possible to completely avoid wetland impacts. All Build Alternatives would result in impacts to jurisdictional wetlands and surface waters. The resulting impacts would be minimized during construction by the use of best management practices and erosion prevention measures. Additionally, stormwater runoff would be treated prior to discharge. Opportunities to avoid and minimize impacts to jurisdictional wetlands and surface waters will continue to be evaluated during the project's final design phase. All unavoidable impacts will be appropriately mitigated.

4.2 SUMMARY OF PERMITS AND MITIGATION

4.2.1 Permits

The USACE, SWFWMD, and Environmental Protection Commission of Hillsborough County (HCEPC) regulate wetlands within the project study area and will issue wetland impact-related permits or authorizations for this project. Other agencies, including the USFWS, the Florida Department of Environmental Protection (FDEP), and the FWC review and comment on wetland permitting and potential affects to protected wildlife species. Any wetland effects associated with this project will be permitted through the following agencies:

Environmental Resource Permit..... SWFWMD

Wetland delineation approval ..... HCEPC

Section 404, Dredge and Fill Permit..... ……USACE

Table 4-1 Wetland Types, Impact Acres and Functional Loss Within Alternative Alignments

Wetland Type (NWI Code)	Wetland Type (Description)	Wetland Numbers	UMAM Functional Loss/Acre*	Alternative 1							Wetland Numbers	Alternative 2							NO BUILD
				Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B		Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B	
PEM1	Palustrine Emergent Marsh with persistent vegetation	1540+20R 1680+50M 1420+20M 1620+20M	0.37	0.00	0.00	0.12	0.16	0.19	0.51	0.51	1540+20R 1680+50M 1420+20M 1620+20M	0.00	0.00	0.07	0.09	0.19	0.51	0.51	
PEM1x	Palustrine Emergent Marsh with persistent vegetation, excavated	1790+90L 1780+00L 1760+50R 1770+60R 1690+90M 1460+90R 1710+90LB 1700+00M 1690+80M 1680+80M 1690+00M 1280+80R	0.4	0.00	0.00	0.20	0.24	0.26	2.14	2.13	1790+90L 1780+00L 1760+50R 1770+60R 1690+90M 1460+90R 1710+90LB 1700+00M 1690+80M 1680+80M 1690+00M 1280+80R	0.00	0.00	0.20	0.20	0.25	2.18	2.18	
PSS1	Palustrine Scrub-Shrub with broad-leafed deciduous vegetation	1740+50LA 1610+40R 1420+40M 1430+00M 1260+60R 1800+40R 1530+60L 1310+40M 1420+00M	0.4	0.00	0.00	0.26	0.21	0.38	0.72	0.90	1740+50LA 1610+40R 1420+40M 1430+00M 1260+60R 1800+40R 1530+60L 1310+40M 1420+00M	0.00	0.00	0.14	0.20	0.24	0.85	3.02	
PSS1x	Palustrine Scrub-Shrub with broad-leafed deciduous vegetation, excavated	1700+20M	0.3	0.00	0.00	0.00	0.00	0.00	0.30	0.30	1700+20M	0.00	0.00	0.00	0.00	0.00	0.30	0.30	
PSS 1/3	Palustrine Scrub-Shrub with broad-leafed deciduous and broad - leafed evergreen vegetation	1700+10M 1620+10M 1460+40L 1460+20M 1450+00R 1430+00L 1420+80M 1470+00M 1620+50M	0.33	0	0	170	149	149	3.50	3.50	1700+10M 1620+10M 1460+40L 1460+20M 1450+00R 1430+00L 1420+80M 1470+00M 1620+50M	0.00	0.00	1.57	1.56	149	3.18	3.18	

Note: Preferred alignments in gray

Table 4-1 continued

Wetland Type (NWI Code)	Wetland Type (Description)	Wetland Numbers	UMAM Functional Loss/Acre*	Atlernative 1							Wetland Numbers	Atlernative 2							NO BUILD
				Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B		Segment 1 Option B	Segment 1 Option A	Segment 1 Option C	Segment 2 Option A	Segment 2 Option B	Segment 3 Option A	Segment 3 Option B	
PSS3	Palustrine Scrub-Shrub with broad-leafed evergreen vegetation	1480+60M	0.27	0	0	0.02	0.07	0.06	0.00	0.00	1480+60M	0.00	0.00	0.00	0.05	0.06	0.00	0.00	
PFO1	Palustrine Forested with broad-leafed deciduous vegetation	1940+00L	0.5	0.22	0.22	133	2.42	2.26	4.87	5.46	1940+00L	0.22	0.22	143	2.35	2.10	5.22	6.19	
		1760+50L									1760+50L								
		1740+50LB									1740+50LB								
		1740+50LC									1740+50LC								
		1610+40M									1610+40M								
		1600+90L									1600+90L								
		1790+00L									1790+00L								
		1740+80R									1740+80R								
		1810+10L									1810+10L								
		1800+00R									1800+00R								
PFO1/3	Palustrine Forested with broad-leafed deciduous and evergreen vegetation	1680+80L	0.5	0	0	0.00	0.00	0.00	6.58	6.62	1680+80L	0.00	0.00	0.00	0.00	0.00	6.57	6.62	
		1690+10M									1690+10M								
		1620+40M									1620+40M								
		1620+40R									1620+40R								
		1680+20M									1680+20M								
		1670+00L									1670+00L								
PFO2	Palustrine Forested with needle-leafed deciduous vegetation	2030+50M	0.5	0.44	0.44	0.00	0.00	0.00	0.00	0.00	2030+50M	0.23	0.23	0.00	0.00	0.00	0.00	0.00	
		2030+50R									2030+50R								
R2AB4	Riverine, Lower perrenial with floating aquatic bed vegetation	1710+90R	0.4	0	0	0.06	0.06	0.06	0.14	0.15	1710+90R	0.00	0.00	0.06	0.06	0.06	0.09	0.14	
		1710+90LA									1710+90LA								
		1440+00L									1440+00L								
		1440+00R									1440+00R								
R2EM4	Riverine, Lower perrenial, emergent vegetation	1590+10R	0.3	0	0	0.10	0.01	0.10	0.10	0.10	1590+10R	0.00	0.00	0.00	0.10	0.10	0.10	0.10	
		1590+10L									1590+10L								
R2AB3/PFO1	Riverine, Lower perrenial and Palustrine Forested with broad-leafed decidious vegetation	2030+00M	0.8	1.15	1.23	0.00	0.00	0.00	0.00	0.00	2030+00M	0.74	0.74	0.00	0.00	0.00	0.00	0.00	
		2030+00L									2030+00L								
		2030+00R									2030+00R								
R2UB2/PFO1	Riverine, unconsolidated bottom and Palustrine forested needle-leafed deciduous vegetation	1920+40M	0.8	2.4	3.1	0.00	0.00	0.00	0.00	0.00	1920+40M	1.02	1.44	0.00	0.00	0.00	0.00	0.00	
		1920+40L									1920+40L								
		1920+50R									1920+50R								
		1920+70L									1920+70L								
		1930+10M									1930+10M								
N/A	roadside ditches/swales	all surface waters	N/A	0	0	8.24	7.91	7.54	3.07	3.07	all surface waters	0.00	0.00	5.46	7.87	7.53	3.07	3.07	0
TOTAL FL:**			N/A	4.21	4.99	151	2.56	2.48	11.69	12.33		2.21	2.63	149	2.56	2.32	11.98	13.05	0

Note: Preferred alignments in gray.

National Pollutant Discharge Elimination System Permit…….FDEP

Coordination for roadway construction over the Tampa Bypass Canal, owned and operated by the SWFWMD, is anticipated to be handled during the Environmental Resource Permit (ERP) permitting process.

4.2.2 Mitigation

Wetland impact mitigation policies have been established by the USACE, FDEP, and SWFWMD. Options for mitigating the loss of wetlands include mitigation banking, using a Regional Off-site Mitigation Area (ROMA), or fund transfer to the FDEP (Florida Statute 373.4137). The cost per acre of wetland impact was established by statute in 1997 at $75,000 per acre, with annual increases based upon the Consumer Price Index. Using the current rate of $98,050 per acre of mitigation, the preferred alignment alternative (segments 1, 2 and 3 combined) which has 60.34 acres of wetland impacts, will cost approximately $5,916,337.00.

Mitigation banking requires the purchase of credits from the operating entity of a permitted mitigation bank. The bank's mitigation service area normally must include the proposed project, however, bank utilization for linear projects is more flexible. The number of credits required to offset adverse impacts to wetlands is determined during the permitting process using a functional assessment. Currently, impacts are typically evaluated using the UMAM. SWFWMD uses the UMAM score and the impact area to establish the number of bank credits required to offset the impacts. The geographic relationship of the project to the mitigation bank, with respect to the project's drainage basin(s), may also be a criterion in determining the number of mitigation credits needed.

On-site mitigation options can include wetland creation, restoration, enhancement, or preservation. However, these forms of mitigation can be more costly based on the need to acquire additional right-of-way and, therefore, may be more cost prohibitive than using a mitigation bank.

4.2.3 Coordination with the permitting Agencies

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

- Environmental Resource Permit - SFWMD
- Wetland delineation approval - HCEPC
- Section 404, Dredge and Fill Permit – USACE

National Pollutant Discharge Elimination System Permit - FDEP

5.0 PROTECTED SPECIES

This project was evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with 50 CFR Part 402 of the Endangered Species Act of 1973, as amended, and Chapter 27 of the FDOT Project Development and Environment (PD&E) Manual: Wildlife and Habitat Impacts.

5.1 METHODOLOGY

Literature reviews, agency database searches and coordination, and preliminary field reviews of potential habitat areas were conducted to identify state and federally protected species and/or critical habitat occurring or potentially occurring within the project area. Information sources and databases assessed include:

- FDOT ETDM Report;
- FWC data, including the Eagle Nest Locator;
- Florida Geographic Data Library (FGDL);
- SWFWMD database;
- National Wetlands Inventory;
- Hillsborough County Soil Survey;
- Land Boundary Information System (LABINS); and
- Recent aerial photographs (SWFWMD 2006).

Aerial photographs, in conjunction with 2006 land use (SWFWMD) and wetland data (NWI), were reviewed to determine habitat types occurring within and adjacent to the project corridor. Following the literature/database search and preliminary field verification, a list of potentially occurring protected faunal and floral species was developed for the project area. Table 5-1 lists the protected fauna and habitat that may occur within the project limits. Table 5-2 lists the protected flora that may occur within the project limits.

Project scientists conducted general wildlife field reviews during the months of June and July 2008. Additional field inspections will be conducted as-needed throughout the project timeframe as new data suggests a need for additional surveys. Appropriate habitat in and immediately adjacent to the project right-of-way was visually scanned for evidence of protected species and general wildlife. Most natural areas (rangeland, upland forests, and wetlands) were considered appropriate wildlife habitat.

Potentially suitable upland habitats were specifically examined for the presence of gopher tortoise burrows and their commensal species (Florida mouse, gopher frog, and eastern indigo snake). Areas with open, scattered canopy were visually scanned for the Florida sandhill crane, southeastern American kestrel, and Sherman's fox squirrel. Wetland areas were examined for the presence of protected wading bird species and American alligators. Large water bodies or wetlands with nearby forested areas also were visually scanned for water dependent species. Plant surveys were conducted primarily in conjunction with wildlife surveys.

The potential for occurrence of protected species within the proposed project was based on federal and state protected species lists, the vegetative communities present, and surrounding land uses. The probability of each species occurring within the proposed project was ranked based on these conditions and as: (1) No Habitat Available, (2) Low, (3) Moderate, and (4) High. The ranking of "Low" indicates that marginally suitable habitat may exist within the proposed project but was not observed during field observations. The ranking of "Moderate" indicates that suitable habitat may exist within the proposed project; however, the species was not observed during field observations. The ranking of "High" indicates that suitable habitat may exist within the proposed project and the species was observed during field observations or documented by another resource (e.g., databases, personal communication).

All observations of threatened and endangered plants and wildlife were documented in a GIS database. These observations include direct sightings of species or signs of their presence including tracks, burrows, dens, scat, nests, or calls.

5.2 AGENCY COORDINATION

The FDOT initiated review and comment from the Environmental Technical Advisory Team (ETAT) on October 2, 2006, with the entry of the I-75 PD&E Study into the ETDM website. Coordination with federal, state, and local resource agencies will continue throughout the PD&E study through a FDOT representative, and specific issues will be addressed, as needed. Documentation of agency coordination is provided in Appendix D.

Table 5-1 Protected Fauna That May Occur or Was Observed Within the Project Area

Common Name	Scientific Name	USFWS Listing	FWC Listing	Observed	Potential for Occurrence
AMPHIBIANS					
gopher frog	*Rana capito*		SSC		Moderate
REPTILES					
American alligator	*Alligator mississipiensis*		SSC		Moderate
eastern indigo snake	*Drymarchon corais couperi*	T	T		Moderate
gopher tortoise	*Gopherus polyphemus*		T	X	High
AVIFAUNA					
bald eagle*	*Haliaeetus leucocephalus*				Moderate
Florida sandhill crane	*Grus canadensis pratensis*		T	X	High
least tern	*Sterna antillarum*		T	X	High
Florida scrub-jay	*Aphelocoma coerulescens*	T	T		Low
limpkin	*Aramus guarana*		SSC	X	High
little blue heron	*Egretta caerulea*		SSC	X	High
roseate spoonbill	*Platalea ajaja*		SSC		Moderate
snowy egret	*Egretta thula*		SSC	X	High
southeastern American kestrel	*Falco sparverius paulus*		T		Moderate
tricolored heron	*Egretta tricolor*		SSC		Moderate
white ibis	*Eudocimas albus*		SSC	X	High
wood stork	*Mycteria americana*	E	E		Moderate
MAMMALS					
Florida mouse	*Podomys floridanus*		SSC		Moderate
Sherman's fox squirrel	*Sciurus niger shermani*		SSC		Moderate

*****Bald eagle protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty

Table 5-2 Protected Flora That May Occur or Was Observed Within the Project Area

Scientific Name	Common Name	State Status *	Habitat
Andropogon arctatus	Pinewoods Bluestem	T	Pinelands
Asplenium auritum	Eared spleenwort	E	Wet hammocks and swamps, epiphytic
Calopogon multiflorus	Manyflowered Grass Pink	E	Dry to moist flatwoods with longleaf pine, wiregrass, saw palmetto
Campanula robinsea	Robin's bellflower	E	Wet, grassy slopes and drying pond edges
Chrysopsis floridana	Florida goldenaster	E**	Scrub, rarely oak hammocks
Glandularia tampensis	Tampa Mock Vervain	E	Live oak- cabbage palm hammocks and pine-palmetto flatwoods.
Habenaria nivea (previously *Platanthera nivea*)	Snowy Orchid	T	Wet pine flatwoods and other wet sites
Harrisella porrecta	Needleroot Airplant Orchid	T	Hardwood hammocks, tramways and sloughs, cypress domes, juniper and old citrus trees
Lechera divaricata	Drysand pinweed	E	Flatwoods
Lilium catesbaei	Catesby's Lily	T	Wet pine flatwoods, savannas, and other wet areas
Liparis nervosa	Widelip orchid	E	Swamps and moist hammocks
Listera australis	Southern twayblade	T	Wet hammocks
Lobelia cardinalis	cardinalflower	T	Floodplain forests and spring runs
Matalea floridana	Florida milkvine	E	Hammocks
Matalea gonocarpos	Angularfruit milkvine	T	hammocks
Ophioglossum palmatum	Hand fern	E	Hammocks, epiphytic
Pecluma plumula	Plume polypody	E	Wet hammocks and swamps, epiphytic

Scientific Name	Common Name	State Status *	Habitat
Pecluma ptilodon	Comb polypody	E	Floodplain forests, moist hammocks, swamps
Pinguicula caerulea	Blueflower Butterwort	T	Bogs, shallow ponds and depressions, hydric pine flatwoods and savannas, seepage slopes and ditches
Pinguicula lutea	Yellow Butterwort	T	Wet pine flatwoods, ruderal, and other wet areas
Platanthera blephariglottis	White fringed orchid	T	Wet prairies, bogs and swamps
Platanthera ciliaris	Yellow Fringed Orchid	T	Open, wet meadows, roadside ditches and seeps, and pine flatwoods
Platanthera cristata	Crested Yellow Orchid	T	Wet flatwoods and bogs
Platanthera flava	Southern Tubercled Orchid; palegreen orchid	T	Swamps
Pogonia ophioglossoides	Rose pogonia	T	Bogs and wet flatwoods
Pteroglossaspis ecristata	Giant Orchid	T	Old fields, orchards, pine flatwoods, prairies; usually in sandy soils
Saciola lanceolata	Leafless beaked ladies'-tresses and Leafy Beaked Ladies'-tresses	T	Hammocks and tramways old logs and stumps
Sarracenia minor	Hooded pitcherplant	T	Flatwoods and bogs
Spiranthes longilabris	Longlip Ladies'-tresses	T	Moist, grassy roadsides, pine flatwoods
Tillandsia balbisiana	Reflexed Wild-pine	T	Tropical hammocks, rockland pinelands, cypress swamps, and scrubs
Tillandsia fasciculata	Common Wild-pine	E	Tropical hammocks and cypress swamps
Tillandsia utriculata	Giant Airplant	E	Hammocks and cypress swamps

Scientific Name	Common Name	State Status *	Habitat
Triphora latifolia	Broadleaf noddingcaps	E	Hardwood hammocks
Zephyranthes atamasco	Atamasco lily	T	Moist flatwoods
Zephyranthes simpsonii	Simpson's Zephyrlily	T	Wet flatwoods, meadows

Notes:

Sources: Chapter 5B-40.0055, Florida Administrative Code

Notes on Florida's Endangered and Threatened Plants 4th Edition, 2003

Guide to the Vascular Plants of Florida 2nd Edition, 2003

Atlas of Florida Vascular Plants (http://www.plantatlas.usf.edu/)

E = Endangered

T = Threatened

CE = Commercially Exploited

* No Federal listings

** Federal Listing in addition

5.3 GENERAL CORRIDOR SURVEY RESULTS

Based on the findings obtained during corridor field survey efforts, seven protected faunal species and no protected floral species were observed within the project corridor. Eighteen protected species have potential habitat within or adjacent to the project corridor based on database and literature research, and field observations of available habitat. Figure 5-1 shows the approximate location of protected species observations or previously documented occurrences, and conservation lands within and near the project corridor. The following is a brief discussion of the protected species that are either known to occur in the project area or for which there is a special concern identified in the project area. Faunal species discussed include the Florida scrub-jay, wood stork, eastern indigo snake, bald eagle, American alligator, gopher tortoise and commensal species, Florida sandhill crane, other wading birds, least tern, southeastern American kestrel, and Sherman's fox squirrel.

5.4 FEDERALLY PROTECTED SPECIES

5.4.1 Florida Scrub-Jay

The Florida scrub-jay is listed as threatened by both the USFWS and FWC due to loss of habitat. Optimal Florida scrub-jay habitat consists of low growing, scattered scrub canopy species with patches of bare sandy soil such as those found in sand pine scrub, xeric oak scrub, scrubby flatwoods, and scrubby coastal strand habitats. In areas

where these types of habitats are unavailable, Florida scrub-jays may be found in less optimal habitats such as pine flatwoods with scattered oaks and residential areas.

Sub-optimal Florida scrub-jay habitats, such as residential areas, were observed within the project boundary. Florida scrub-jays have been reported to use residential areas for opportunistic feeding at bird feeders. The USFWS consultation area (CA) for the Florida scrub-jay is extensive and includes nearly all of southwest Florida. Within this large area, projects that include potential Florida scrub-jay habitat may require specific species consultation with the USFWS. Based on the minimal foraging habitat available for Florida scrub-jays within and adjacent to the I-75 right-of-way, it is anticipated that the project will have no effect on the Florida scrub-jay.

5.4.2 Wood Stork

The wood stork is listed as endangered by both the USFWS and FWC. Wood storks are known to utilize freshwater marshes, swamps, lagoons, ponds, flooded fields, depressions in marshes and brackish wetlands, open pine-cypress wetlands, and man-made wetlands (i.e., ditches, canals, and stormwater retention ponds). Despite the presence of these features within and near the project right-of-way, no wood storks were observed during field surveys.

The project corridor is located within, completely or in part, the Core Foraging Area (CFA) of five wood stork rookeries (Atlas number 611110 - Heron Point, 611310 - Saddlebrook Resort, 615105 - Cross Creek, 615333 - East Lake/Bellows Lake, and an unnamed colony). Foraging by wood storks may occur within wetlands and surface waters along I-75 during the rainy season. All impacted or altered ditches, swales, treatment ponds, and water conveyances will be replaced or improved near their current locations. In addition, no net loss of wetlands will occur as a result of this project; all wetland impacts will be mitigated on a type-for-type basis, either on-site or pursuant to Part IV, Chapter 373, F.S. and 33 U.S.C., 1344. Therefore, the project may affect, but is not likely to adversely affect the wood stork.

5.4.3 Eastern Indigo Snake

The eastern indigo snake is listed by the USFWS and FWC as threatened. The species inhabits a wide variety of habitats present within the project corridor, including pine flatwoods, hardwood forests, forested wetlands, and wet and dry prairies. No individuals were observed during the field surveys and no individuals have been documented within a three-mile radius of the project boundary. However, because

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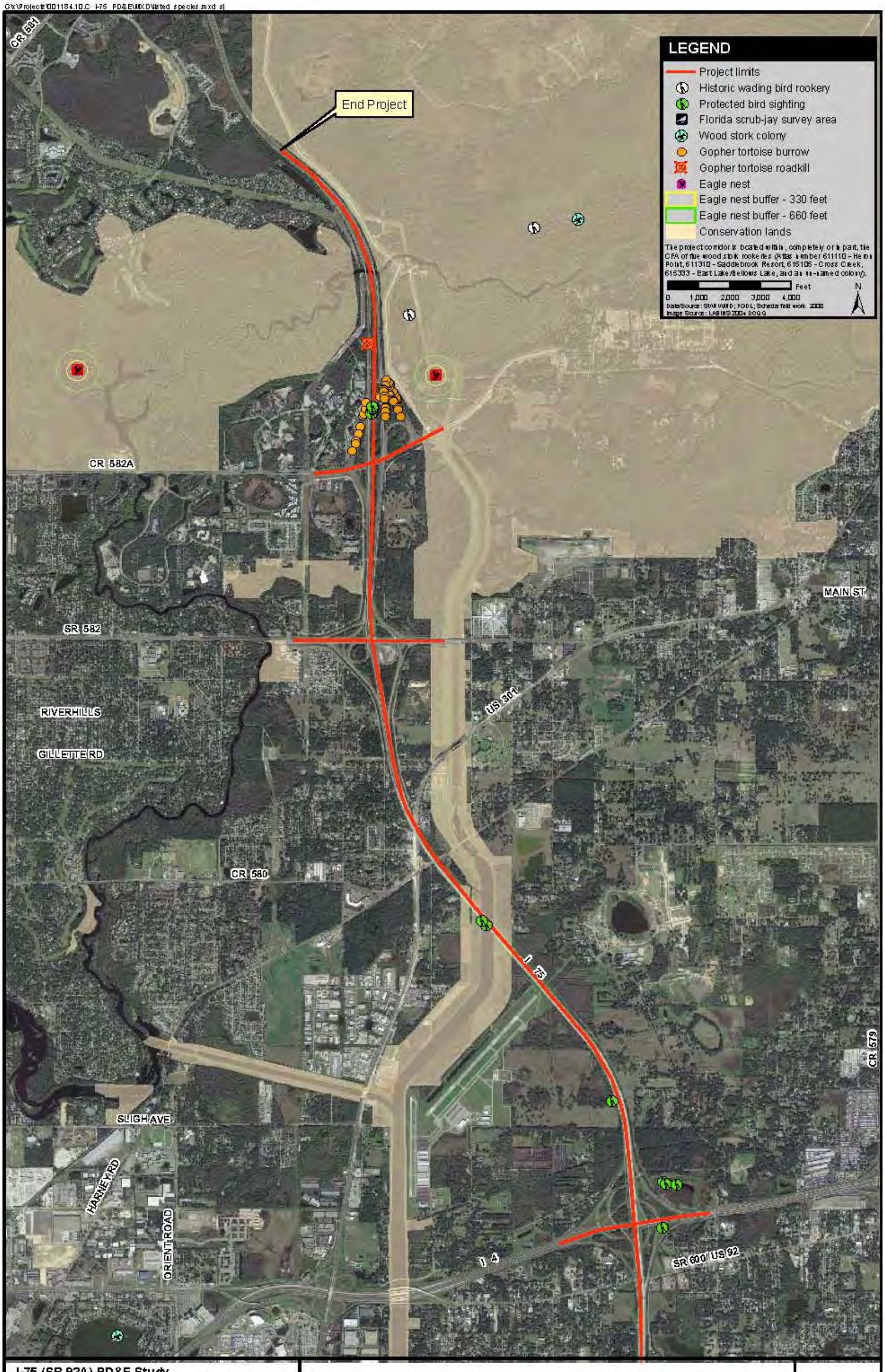
I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

PROTECTED SPECIES AND HABITAT MAP

Figure 5-1
Sheet 1 of 2

G:\Projects\00118410.C I-75 PD&E\MXD\listed species.mxd sl



I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

PROTECTED SPECIES AND HABITAT MAP

Figure 5-1
Sheet 2 of 2

areas of suitable habitat for this species occur adjacent to the project corridor, eastern indigo snake presence in the project corridor is possible. The FDOT will commit to implementing the standard FDOT Construction Precautions for the Eastern Indigo Snake (Appendix E). Given the limited amount of suitable habitat to be impacted within the project and the standard protection guidelines to be incorporated into the final project design and implemented during construction, it is anticipated that this project may affect, but is not likely to adversely affect the eastern indigo snake.

5.4.5 Federally Protected Floral Species

In general, natural areas within the corridor are composed of habitat fringes that have been impacted, to varying degrees, by the existing roadway. No protected plants were identified during field surveys. If protected plant species are observed within the proposed impact limits during the design phase, coordination with FDACS will be initiated and efforts will be made prior to construction to allow for seed collection and/or relocation of plants to adjacent habitat or other suitable protected lands. Therefore, it is anticipated that the project will not affect protected plants.

5.4.6 Bald Eagle

The bald eagle is no longer listed as a federally-threatened species but is protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d), as amended, and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712). The species is also currently state-protected as threatened, but is anticipated to be downlisted in the near future. The bald eagle prefers riparian habitat associated with coastal areas, lake shores, and rivers. It nests near water bodies which provide a dependable source of food. Data obtained from the 2008-2009 FWC Eagle Nest Locator Database indicate that the nearest bald eagle nest to the project corridor is nest HL902. This is a new nest located in the northwest section of the US 301 and I-75 interchange. Since this nest is within the project footprint, FDOT will need to act in accordance with the BGEPA and MBTA for construction activities. Additionally, bald eagle nest HL032, located approximately 200 feet west of I-75 and north of the SR 60 interchange, was documented to be last active as of the 2003 nesting season. Bald eagle nests are considered to be active for five consecutive years of no documented nesting activity. After five years they are considered to be abandoned and protection measures no longer apply. Coordination with FWC revealed that nest HL032 is no longer present but that the area contains suitable habitat for nesting. Other active bald eagle nests near the project right-of-way are well beyond the 330-foot and 660-foot protection zones.

Given that the FDOT will adhere to the BGEPA and MBTA during construction, this project is not likely to adversely affect the bald eagle.

5.5 STATE PROTECTED SPECIES

5.5.1 American Alligator

The American alligator is listed by the FWC as a species of special concern, but it is not listed by the USFWS in Hillsborough County. This species is known to utilize swamps, lakes, marshes, and canals, all of which exist in the project corridor. Wildlife surveys did not identify the species in the corridor but some appropriate habitat was observed, specifically the channelized creek crossings. Since project impacts to wetlands within the corridor will be mitigated for pursuant to Part IV, Chapter 373, F.S. and 33 U.S.C., 1344, the project is not likely to adversely affect the American alligator.

5.5.2 Gopher Tortoise and Commensal Species

The gopher tortoise is a state-protected threatened species. This species is known to utilize a variety of habitats including pine flatwoods and some rangeland communities, but prefers well-drained soils that enable burrowing and support a high diversity of low-growing herbs. The gopher tortoise is a keystone species because its burrows are used by other species including the Florida mouse and the gopher frog, both species of special concern.

Suitable habitat for gopher tortoises exists in several locations within the project, specifically along and within the Fowler Avenue/I-75 and Fletcher Avenue/I-75 interchanges. Many active gopher tortoise burrows were observed in these locations (Figure 5-1). More comprehensive surveys for tortoises and their burrows will be conducted within appropriate habitat during the final design phase of the project. If tortoise burrows are identified within the proposed project limits, the FDOT will coordinate with the FWC to mitigate any impacts to this species. Impacts to the gopher tortoise will require the acquisition of a relocation permit. Based on this information, this project is not anticipated to adversely affect the gopher tortoise, Florida mouse, or gopher frog.

5.5.3 Florida Sandhill Crane

The Florida sandhill crane is a large wading bird listed as threatened by the FWC, but remains unlisted by the USFWS. The range of this Florida subspecies extends from southeastern Georgia through peninsular Florida. The Florida sandhill crane subspecies is non-migratory and becomes a permanent resident wherever it nests.

This bird inhabits freshwater marshes, prairies, low-lying improved pastures, and shallow flooded open areas. It typically nests from January to June in the shallow waters of lakes, ponds, and open marshes where maidencane, arrowhead, and pickerelweed are present.

Field surveys identified adult and juvenile individuals foraging within the northern terminus of the project limits, just north of the Fletcher Avenue interchange (Figure 5-1). Pockets of suitable foraging habitat are located throughout the project area and some adequate nesting habitat is present in areas adjacent to the existing right-of-way. If construction is initiated during or just prior to the nesting season, the FDOT will commit to resurveying appropriate sandhill crane nesting habitat within the proposed right-of-way. Given the available foraging habitat adjacent to proposed impact areas, and FDOT's commitment to mitigate wetland impacts and resurvey prior to construction, it is anticipated that the project will not adversely affect the Florida sandhill crane.

5.5.4 Wetland Dependent Avian Species

This category includes all wetland dependent birds that are not listed as protected by the USFWS, but are listed by the FWC as species of special concern. These species utilize a wide variety of wetland habitats including canals, ditches, forested wetlands, and marshes, all of which are found within the project corridor. Species in this category include the white ibis, roseate spoonbill, little blue heron, snowy egret, tricolored heron, and limpkin.

GIS databases indicate the presence of the tricolored heron, snowy egret, and white ibis within the project area. The nearest active wading bird rookery, Atlas #619316, is located approximately 1.1 miles north of the project terminus. Data from the Breeding Atlas of Herons and their Allies last recorded wading birds at this rookery in 1999. Since wetland impacts to habitats potentially utilized by these state-protected species will be mitigated pursuant to Part IV, Chapter 373, F.S. and U.S.C., 1344, it is anticipated that the project will not result in any adverse effects to these species.

5.5.5 Least Tern

The least tern is not listed by the USFWS, but is listed as a threatened species by the FWC. The species is found in coastal areas throughout Florida, including beaches, lagoons, bays, and estuaries. Nesting areas have a substrate of well-drained sand or gravel and usually little vegetation. The species is migratory and is absent from Florida from November through February. During field surveys, least terns were observed foraging in and adjacent to the I-75 corridor in the vicinity of the I-4 and Dr. Martin

Luther King, Jr. Boulevard interchanges. Least terns often forage in and around freshwater ponds as well as coastal wetlands. Due to the abundance of foraging areas near the project corridor, it is anticipated that the project will not adversely affect the least tern.

5.5.6 Southeastern American Kestrel

The southeastern American kestrel is a small raptor currently listed as threatened by the FWC but not listed by USFWS. The resident southeastern subspecies and the migratory northern subspecies inhabit open areas that contain pasture, open pine-oak, sandhill communities, grasslands, and some agricultural areas where they feed primarily upon insects, small birds, and rodents. Southeastern American kestrel habitat consists of open areas of short vegetation with scattered perch sites, a sufficient prey population, and suitable nesting sites. Field surveys were conducted while traveling the project corridor and searching for southeastern American kestrels perched or in flight and potential nest snags. Sub-optimal foraging habitat for this species exists in pockets adjacent to the project corridor; however, potential nest snags are absent. Field surveys did not detect individuals or nests in the project area and there are no documented observations within three miles of the project limits. Given the above information, it is anticipated that the project will not adversely affect the southeastern American kestrel.

5.5.7 Sherman's Fox Squirrel

The Sherman's fox squirrel is listed as a species of special concern by the FWC. It is not currently protected by the USFWS. This fox squirrel primarily inhabits the region of Florida north of the Caloosahatchee River. Optimal habitat for this subspecies is mature, fire-maintained longleaf pine-turkey oak sandhills and flatwoods. However, only 10 to 20 percent of the original habitat is still intact and, consequently, Sherman's fox squirrels now require larger home ranges to exploit patchy food resources. The species will utilize various suboptimal habitats including other forms of coniferous and hardwood forests, woodland pastures, and more open areas. Field surveys within the I-75 right-of-way did not detect the presence of the Sherman's fox squirrel, nests, or stripped pinecones. Because habitat within the project right-of-way is not appropriate to support the species, and only a few pockets of potentially suitable habitat adjacent to the project corridor were noted, it is anticipated that the project will not adversely affect the Sherman's fox squirrel.

5.5.8 State Protected Floral Species

In general, natural areas within the corridor are composed of habitat fringes that have been impacted, to varying degrees, by the existing roadway. No protected plants were identified during field surveys. If protected plant species are observed within the proposed impact limits during the design phase, coordination with FDACS will be initiated and efforts will be made prior to construction to allow for seed collection and/or relocation of plants to adjacent habitat or other suitable protected lands. Therefore, it is anticipated that the project will not affect protected plants.

5.6 CRITICAL HABITAT

No critical habitat for any federally protected species occurs within the project limits. Based on this information, it has been determined that the proposed project will not affect any existing or proposed critical habitat.

5.6 ESSENTIAL FISH HABITAT

There is no Essential Fish Habitat (EFH) designation within the Hillsborough River, Cow House Creek, or in any other wetland systems within the project area.

6.0 CONCLUSIONS AND COMMITMENTS

6.1 WETLANDS

As a result of this study, the project team has determined there are no practicable alternatives to completely avoid wetland impacts. All alternatives were evaluated with regards to costs, operational factors, and environmental impacts. Based on these evaluations, preferred alternatives were identified and recommended for the I-75 mainline and the interchanges within the study area. These recommendations are listed below:

- I-75 Mainline: Mainline Alternative 2
- Segment 1: Option C except for the SR 60 interchange where Option A was recommended
- Segment 2: Option A
- Segment 3: Option A

Proposed wetland impacts for the preferred alignment are 60.34 acres and 10.60 acres of surface water impacts.

It is anticipated that wetland impacts resulting from construction of this project will be satisfied by the mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C., 1344. Based on the considerations that have been outlined in this report, it has been determined that there are no practical alternatives to the proposed construction in wetlands and that the proposed action includes all practical measure to minimize harm to wetlands.

6.2 PROTECTED SPECIES

Based upon findings of the preliminary data collection, general corridor surveys, and ongoing coordination with the USFWS and FWC, the FDOT will consider the following commitments:

1. Gopher tortoise: Due to the presence of gopher tortoise burrows and appropriate habitat within the existing right-of-way, a gopher tortoise survey in appropriate habitat, within construction limits (including roadway footprint, construction staging areas, and stormwater management ponds), will be performed prior to construction per FWC guidelines. The FDOT will secure any relocation permits needed for this species during the project design and construction phase of the project.

2. Eastern indigo snake: The standard FDOT Construction Precautions for the Eastern Indigo Snake (Appendix E) will be adhered to during construction of the project.
3. Bald eagle: If bald eagle nests HL032 and HL902 are active at the time of roadway construction, or if any new active nests located within 660 feet of the project are identified, the FDOT will act in accordance with the BGEPA and MBTA.
4. Florida sandhill crane: Pockets of suitable Florida sandhill crane foraging habitat are located throughout the project area and some adequate nesting habitat is present in areas adjacent to the existing right-of-way. If construction is initiated during or just prior to the nesting season (January through June), the FDOT will commit to resurveying appropriate sandhill crane nesting habitat within the proposed right-of-way. The FDOT will coordinate with the FWC as appropriate if any nests are located.
5. Wood stork: Based on the proximity of five wood stork rookeries to the project site, the FDOT commits to ensure that there is no net loss of wetlands. The replacement of wetlands and/or surface waters will be at a 1:1 ratio, resulting in no net loss of these areas. Indirect impacts (e.g., changes in hydrological regimes) to adjacent wetlands will be minimized by adherence to wetland permitting requirements of the SWFWMD and the USACE. The FDOT further commits, where reasonable, to ensure that any wood stork habitat alteration is mitigated within the foraging range of known rookeries in the project area in compliance with the USFWS's SLOPES requirement.

Given the above commitments and previously mentioned data collection efforts, it is anticipated that project improvements associated with the widening of I-75 from south of US 301 to north of Fletcher Avenue "may affect, but is not likely to adversely affect" the following federally protected species:

- Eastern indigo snake
- Wood stork

This widening project will have "no effect" on the following federally protected species:

- Florida scrub-jay

6.3 PERMITTING AND REVIEW AGENCIES

The USACE, SWFWMD, and HCEPC regulate wetlands within the project study area and will issue wetland impact-related permits and authorizations for this project. Other

agencies, including the USFWS, FDEP, and FWC review and comment on wetland permitting and potential affects to protected wildlife species. Any wetland effects associated with this project will be permitted through the following agencies:

Environmental Resource Permit ..... SWFWMD

Wetland delineation approval..... HCEPC

Section 404, Dredge and Fill Permit ..... USACE

Notice of Intent- National Pollutant Discharge

Elimination System Permit……FDEP

Coordination for roadway construction over the Tampa Bypass Canal, owned and operated by the SWFWMD, is anticipated to be handled during the ERP permitting process.

Options for mitigating the loss of wetlands include mitigation banking, using a ROMA, or fund transfer to the FDEP (F.S. 373.4137). Using the current rate of $98,050 per acre of mitigation, the preferred alignment alternative (segments 1, 2 and 3 combined) which has 60.34 acres of wetland impacts, will cost approximately $5,916,337.00.

Mitigation banking requires the purchase of credits from the operating entity of a permitted mitigation bank. The bank's mitigation service area normally must include the proposed project, however, bank utilization for linear projects is more flexible. The number of credits required to offset adverse impacts to wetlands is determined during the permitting process using a functional assessment. Currently, impacts are typically evaluated using the UMAM.

7.0 REFERENCES

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GIS data layers displayed in graphics:

- FGDL Soils Data for Hillsborough County
- FGDL NWI Data
- FWC 2008-2009 Bald Eagle Nest Location Records
- Scheda 2008 Protected Species Observations
- SWFWMD 2006 Florida Land Use, Cover and Forms Classification System Data

APPENDIX A

EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

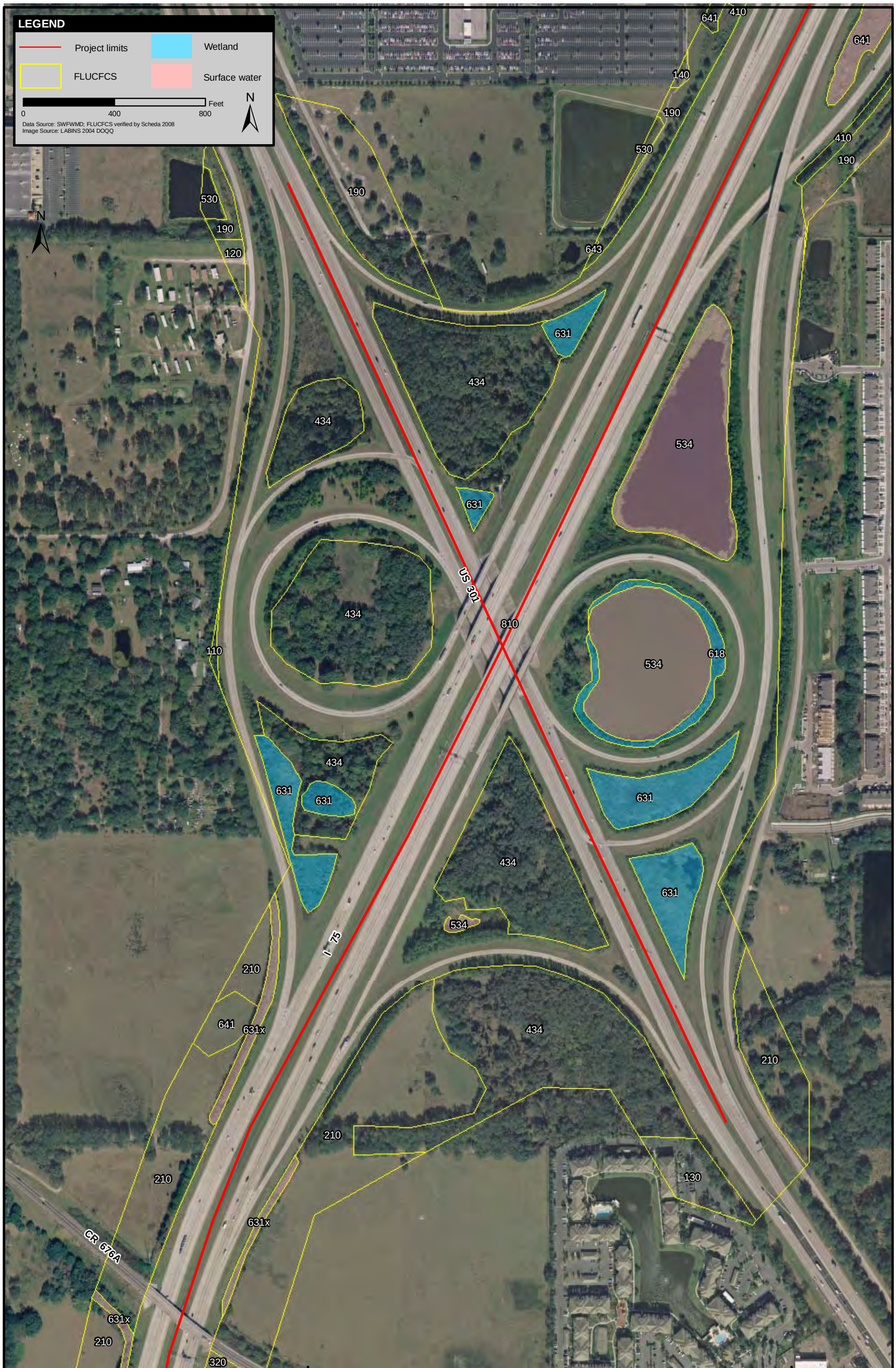
G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj

I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 1 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj



I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 2 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj

I-75 (SR 93A) PD&E Study
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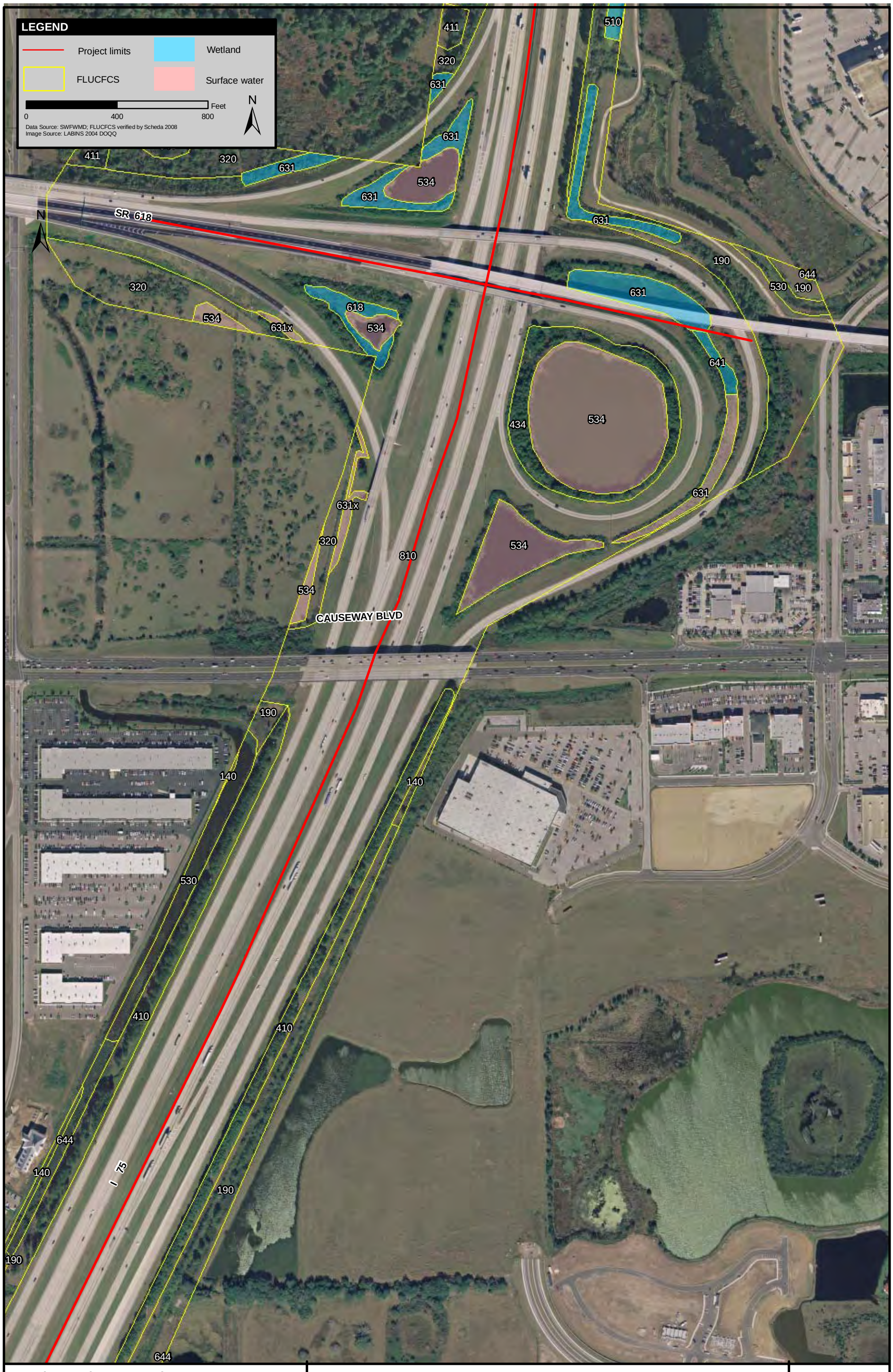
EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 3 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj



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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 4 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj

I-75 (SR 93A) PD&E Study
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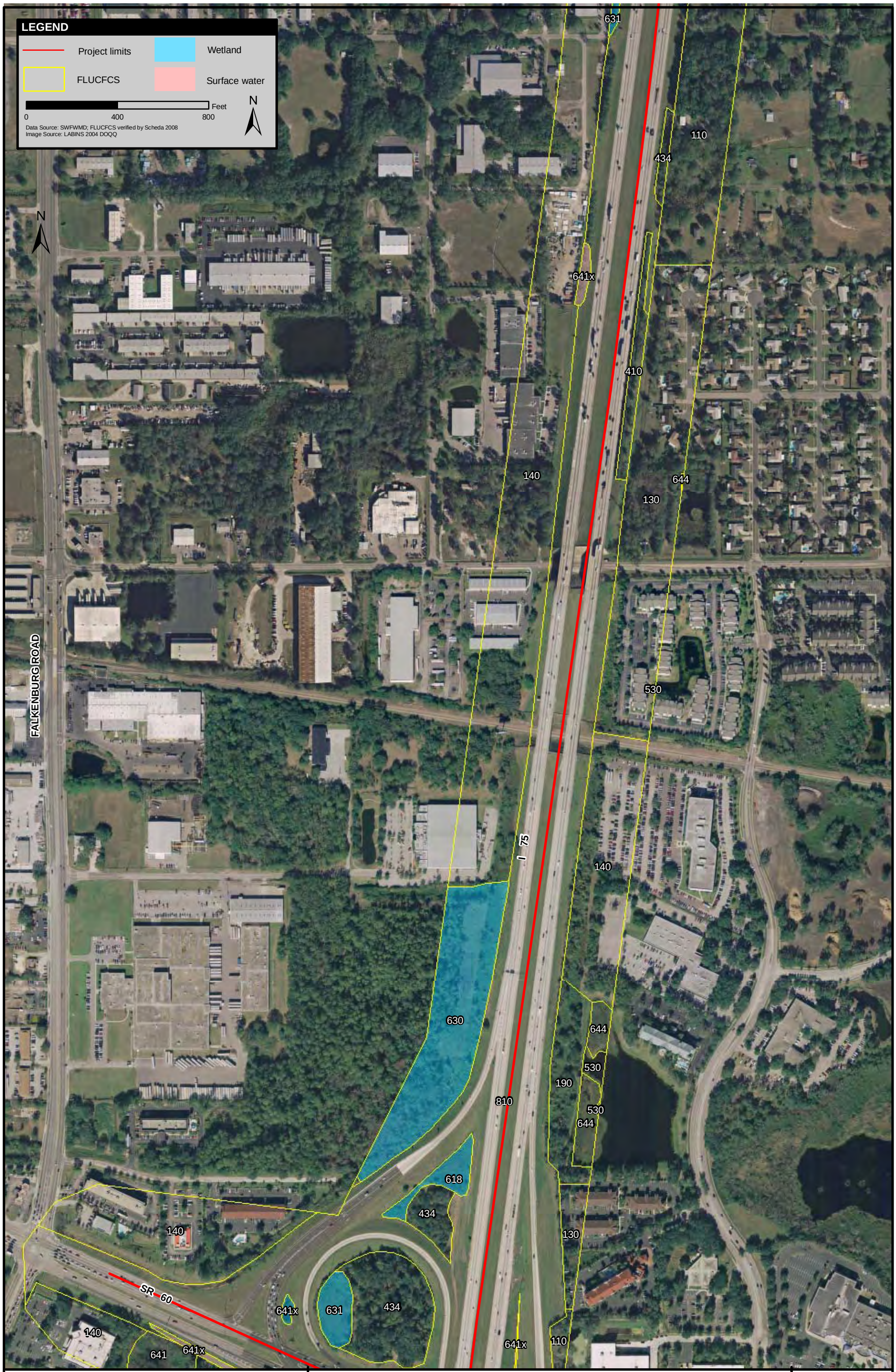
EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 5 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj



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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 6 of 16

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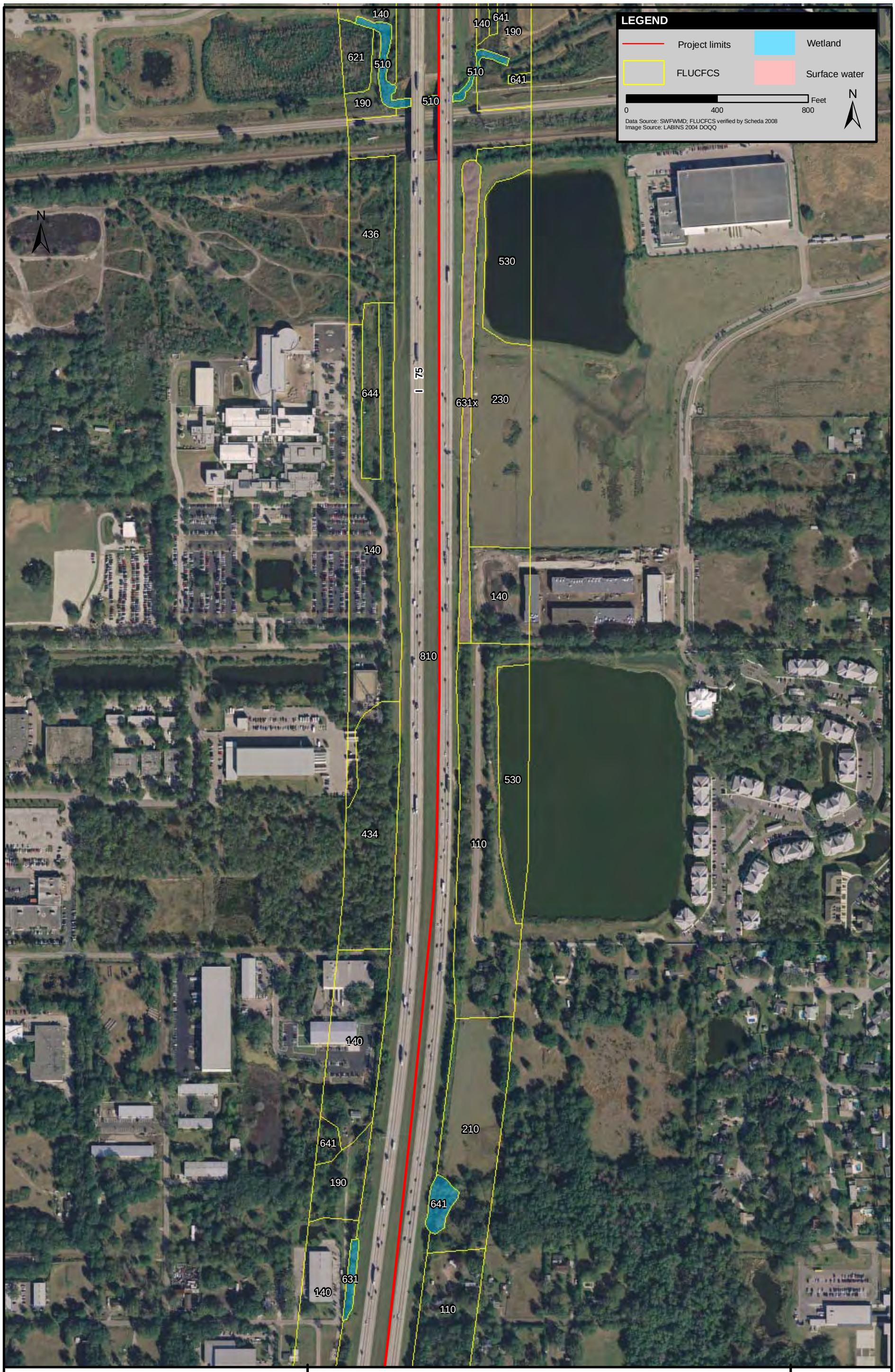

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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 7 of 16

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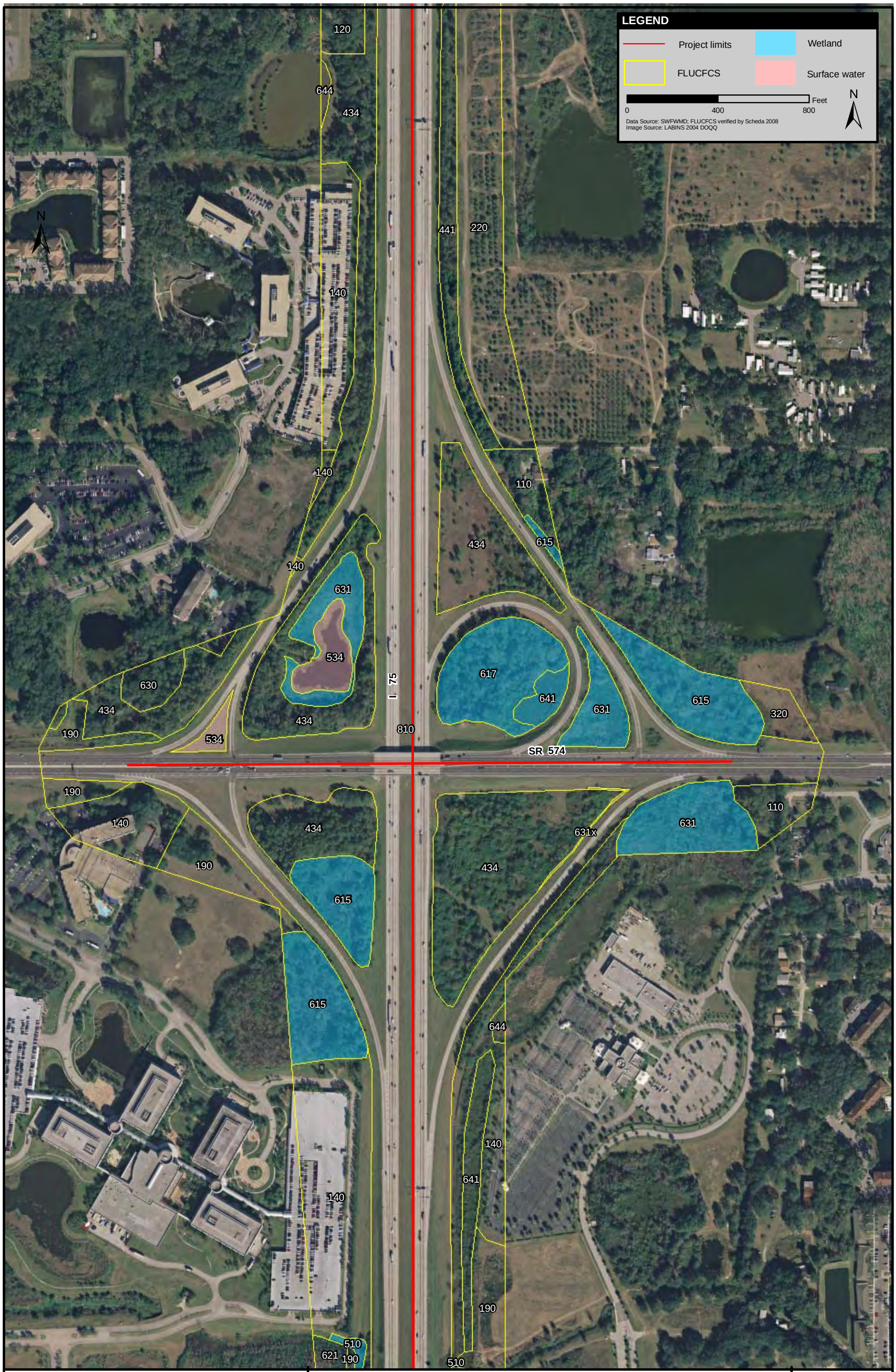

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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 8 of 16

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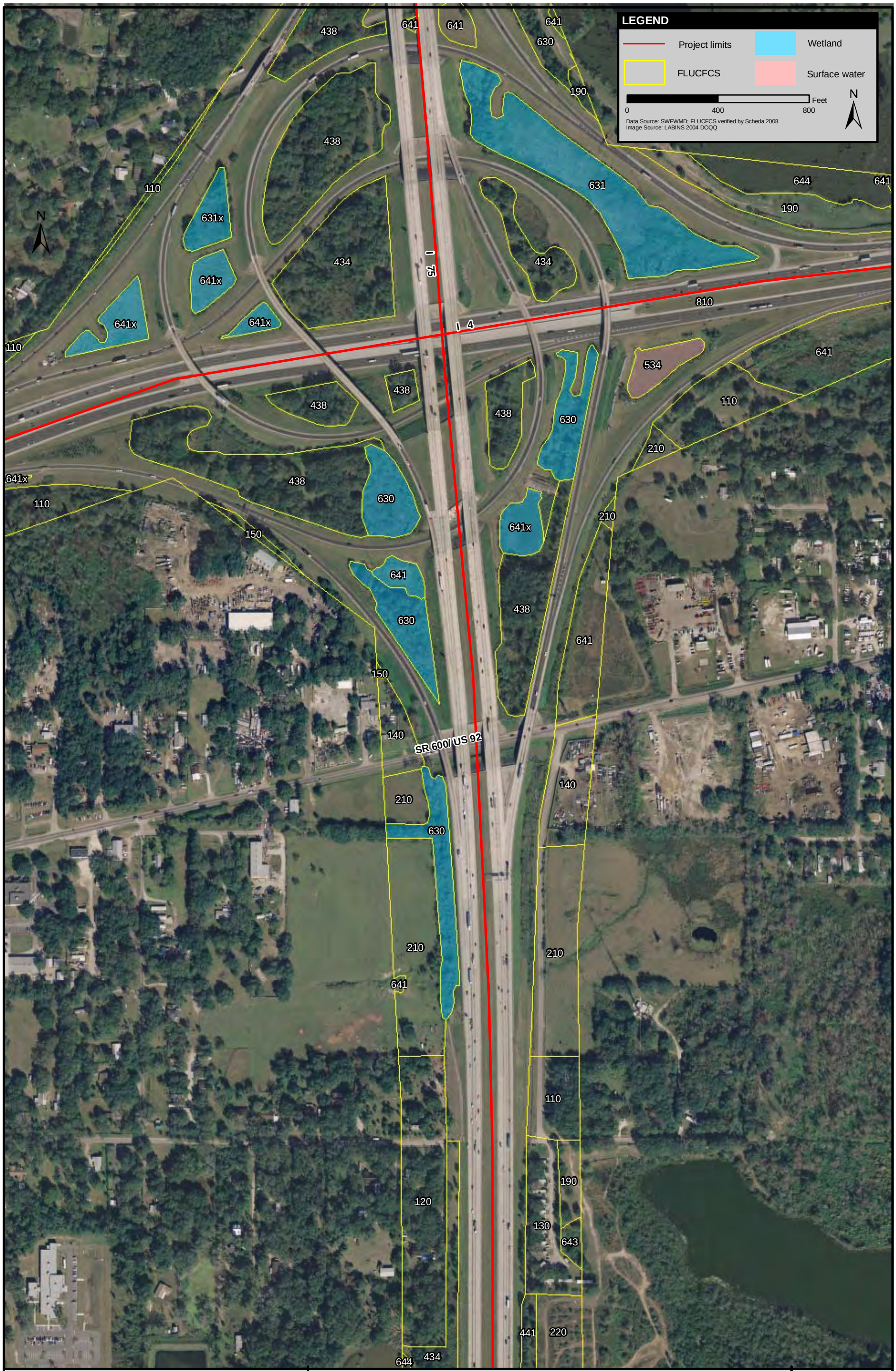

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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 9 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj

I-75 (SR 93A) PD&E Study
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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 10 of 16

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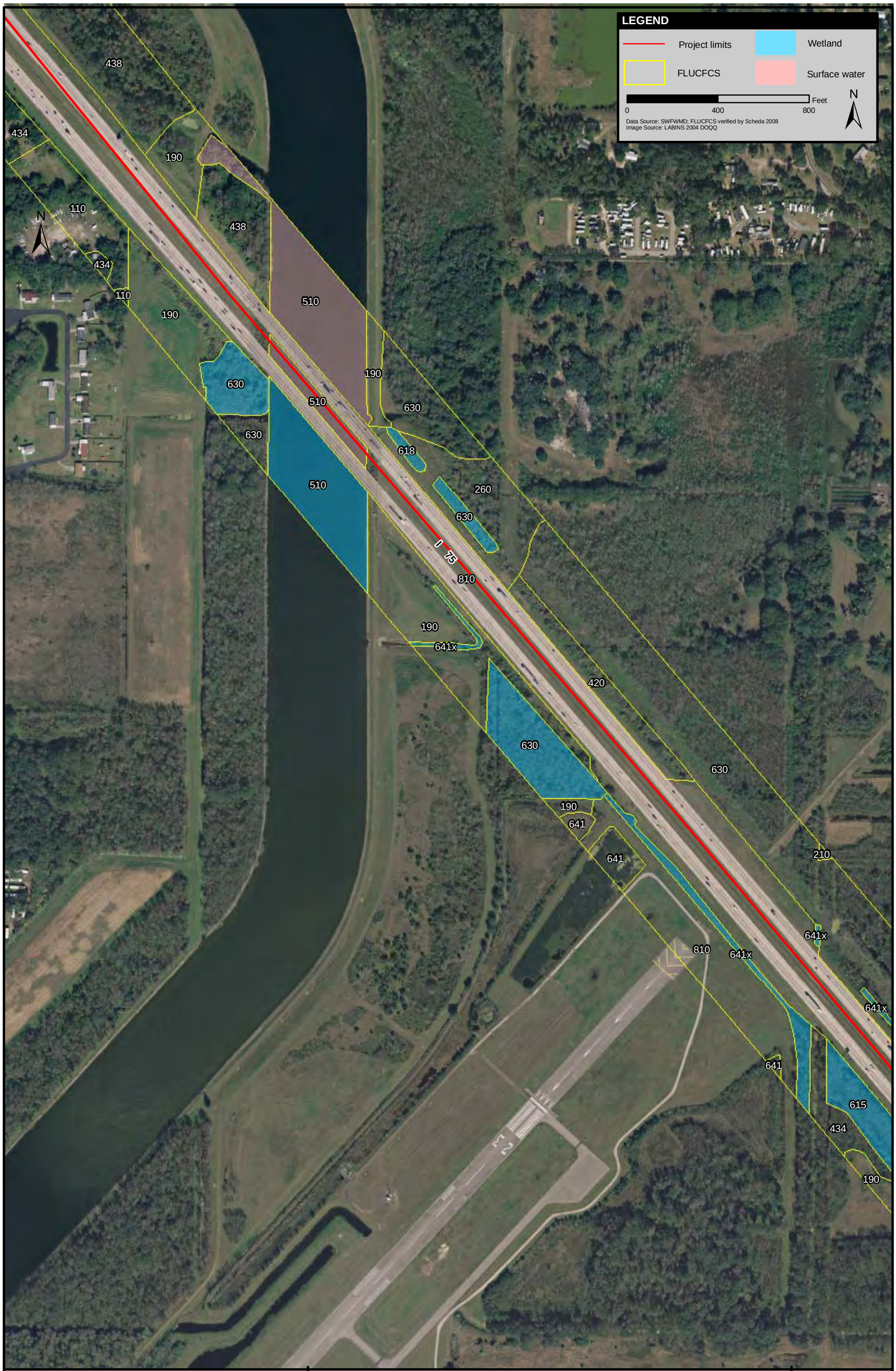

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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 11 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj

I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
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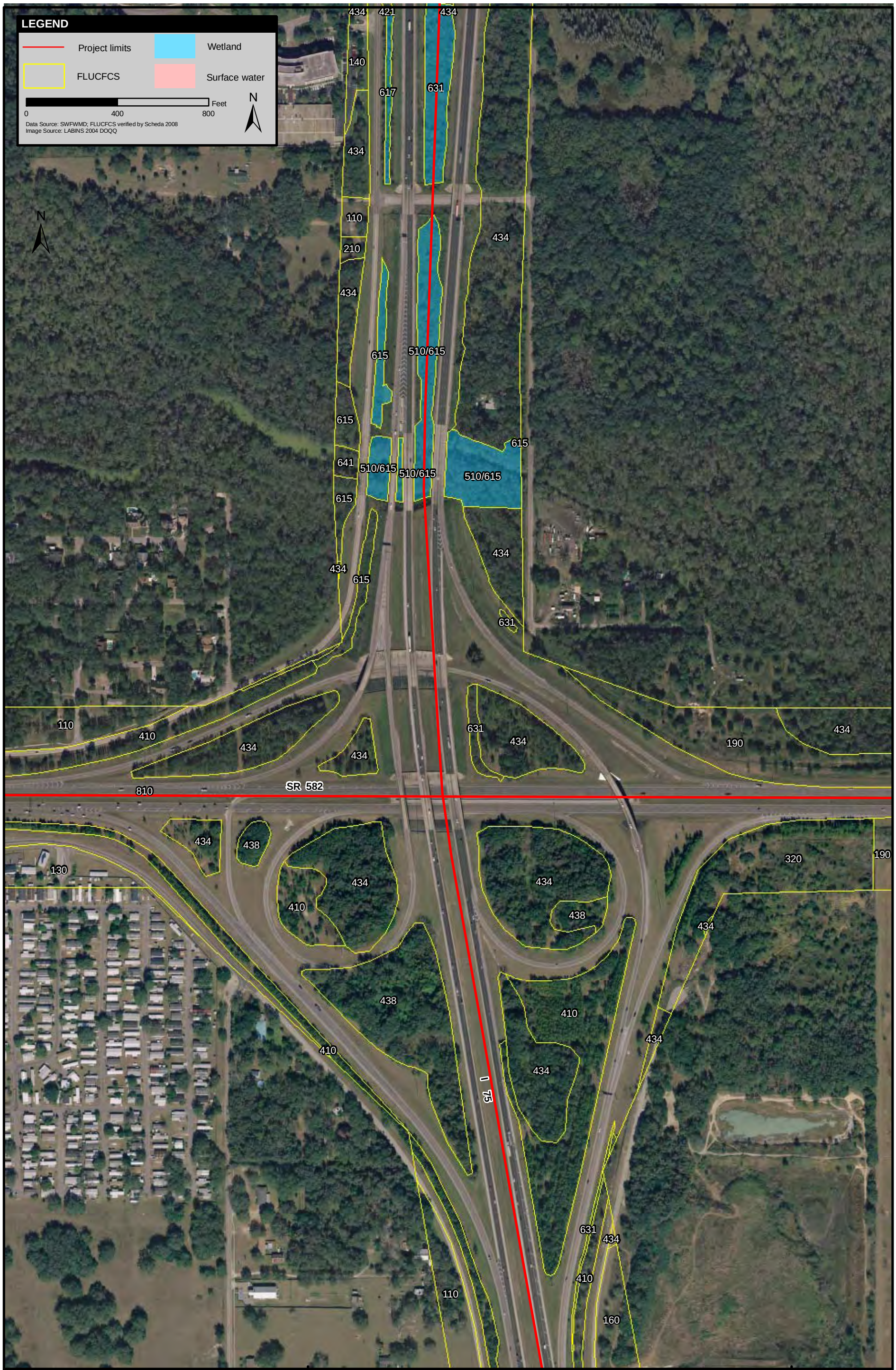
EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 12 of 16

G\x\Projects\001184.10.C_I-75_PD&E\MXD\FLUCFCS_wetlands_r1.mxd sj



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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 13 of 16

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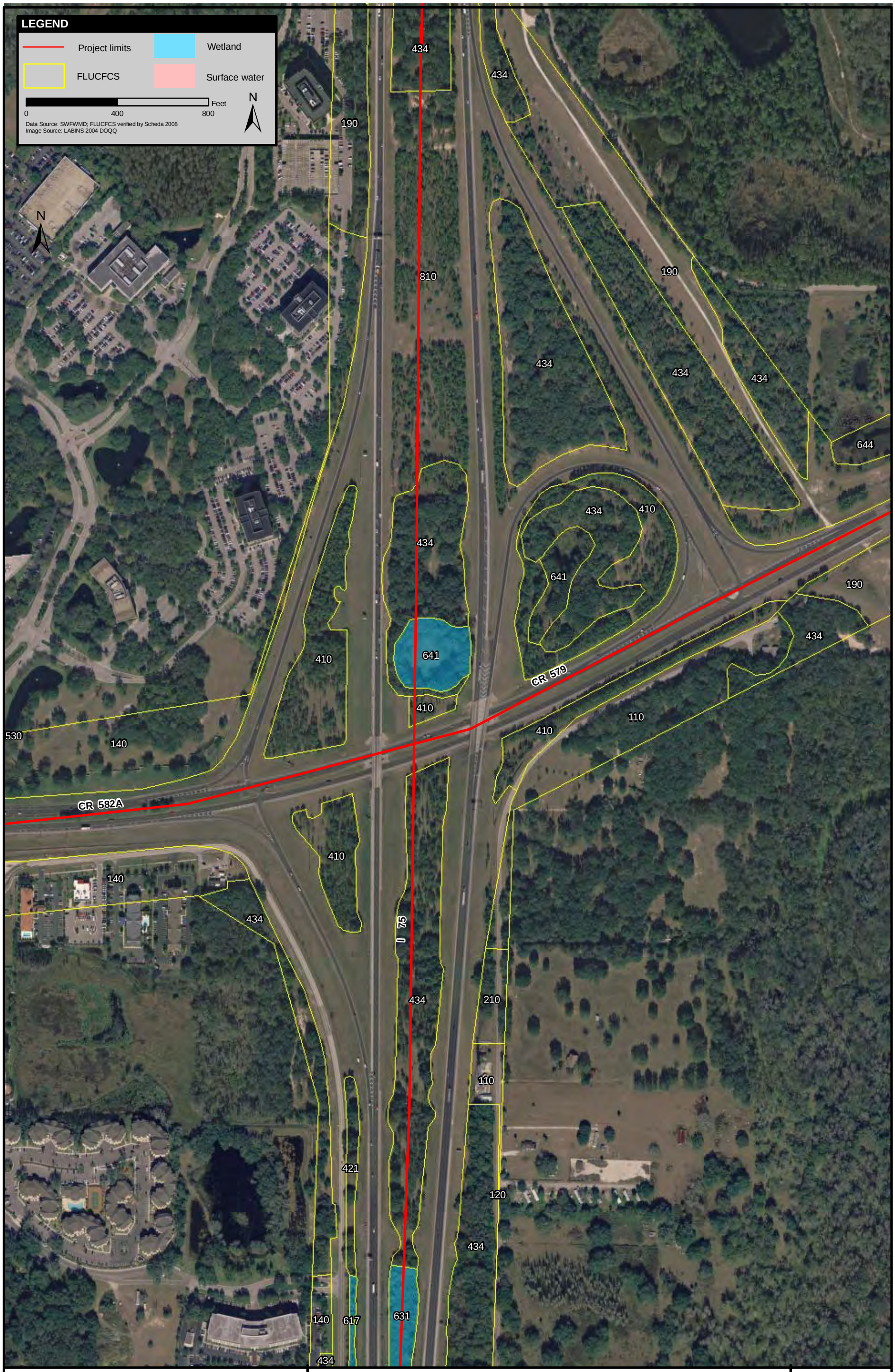

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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 14 of 16

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I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
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EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 15 of 16

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I-75 (SR 93A) PD&E Study
South of US 301 to North of Fletcher Avenue
WPI Segment No.: 419235-3
Hillsborough County, Florida

EXISTING FLUCFCS, WETLANDS, AND SURFACE WATERS WITHIN PROJECT AREA

Figure 3-1
Sheet 16 of 16

APPENDIX B

CONCEPTUAL DESIGN PLANS

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
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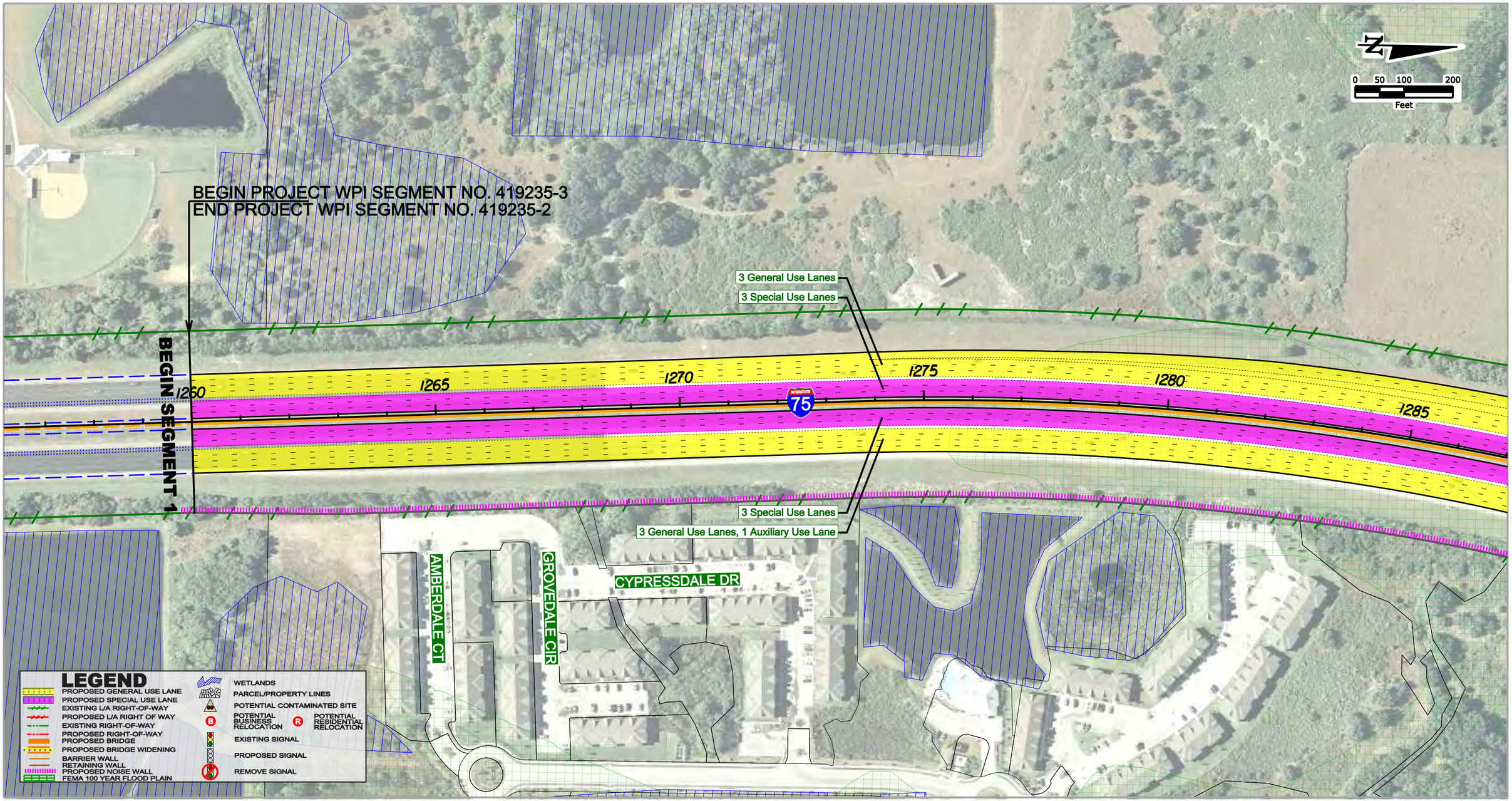

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AERIAL FLIGHT DATE: OCTOBER, 2008

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From South of US 301 to North of Fletcher Avenue - Hillsborough County

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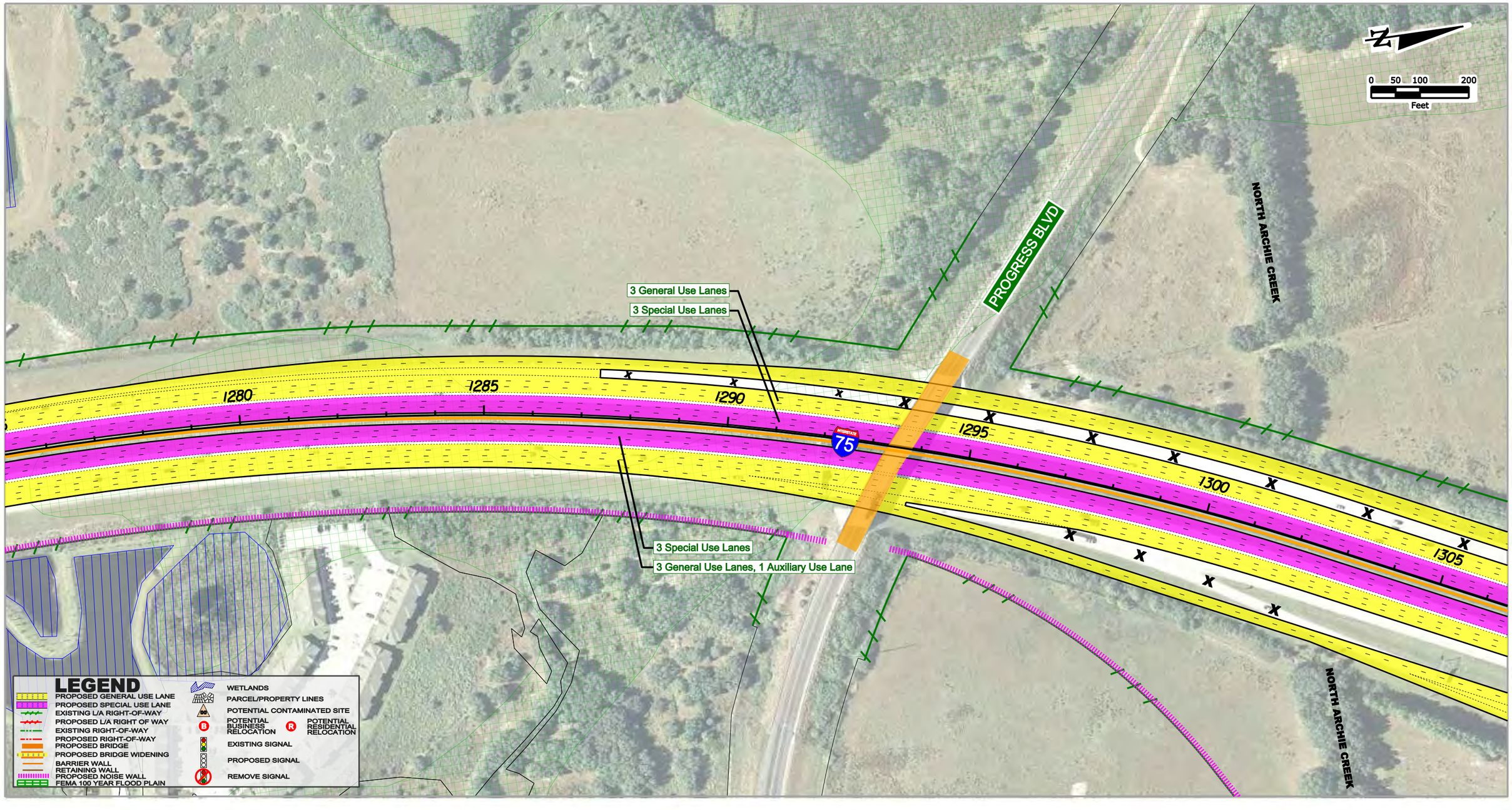

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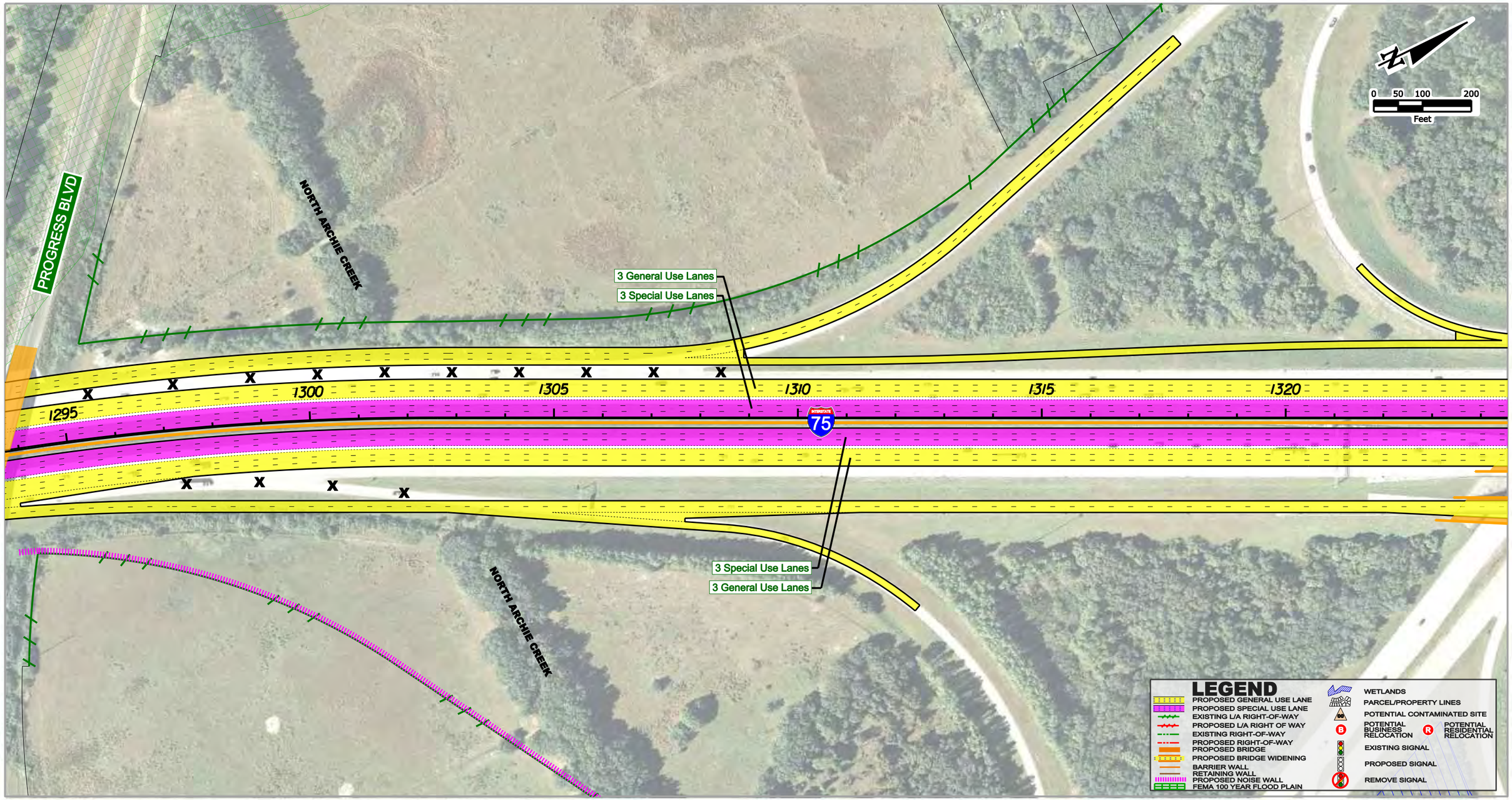

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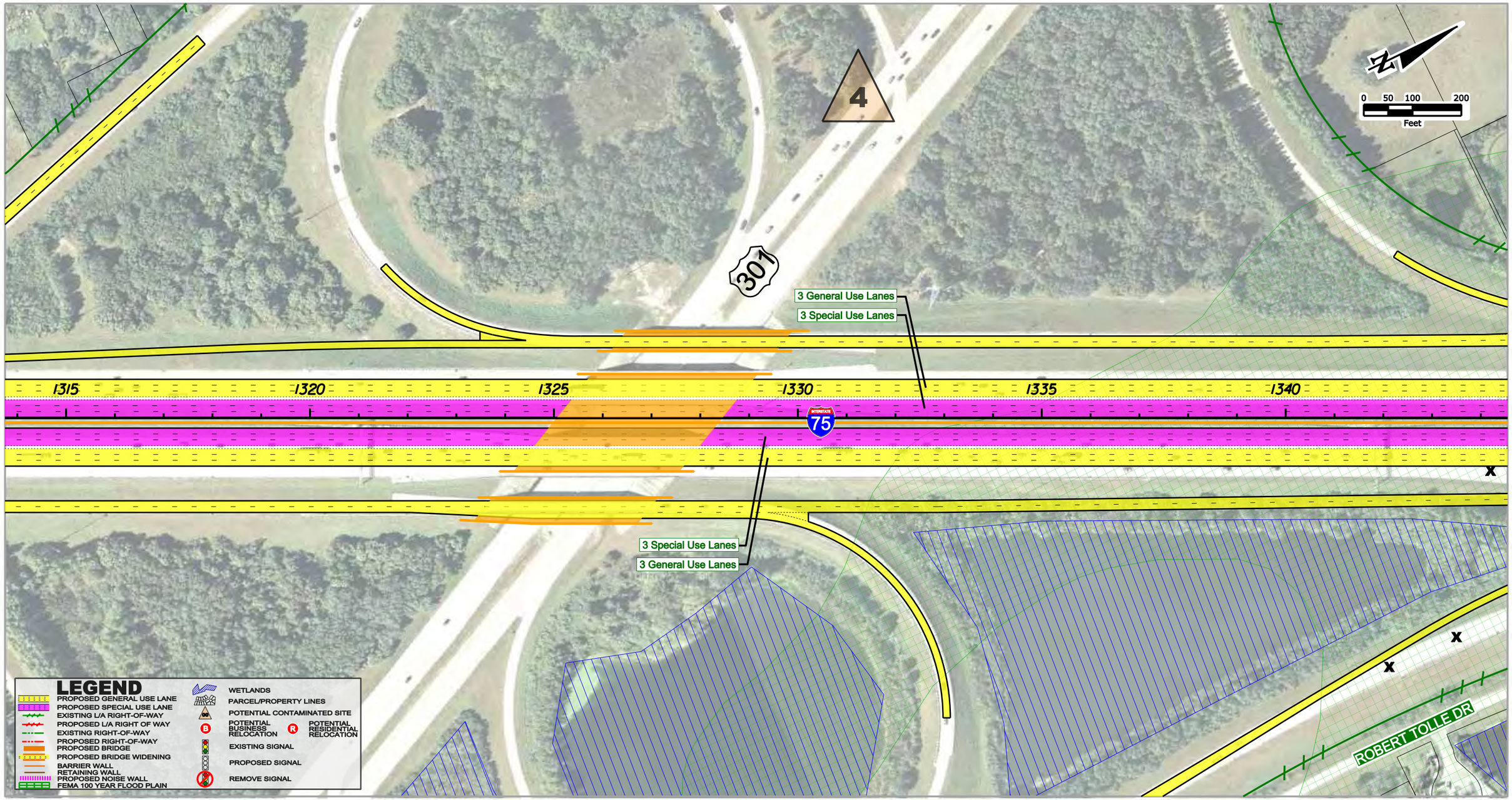

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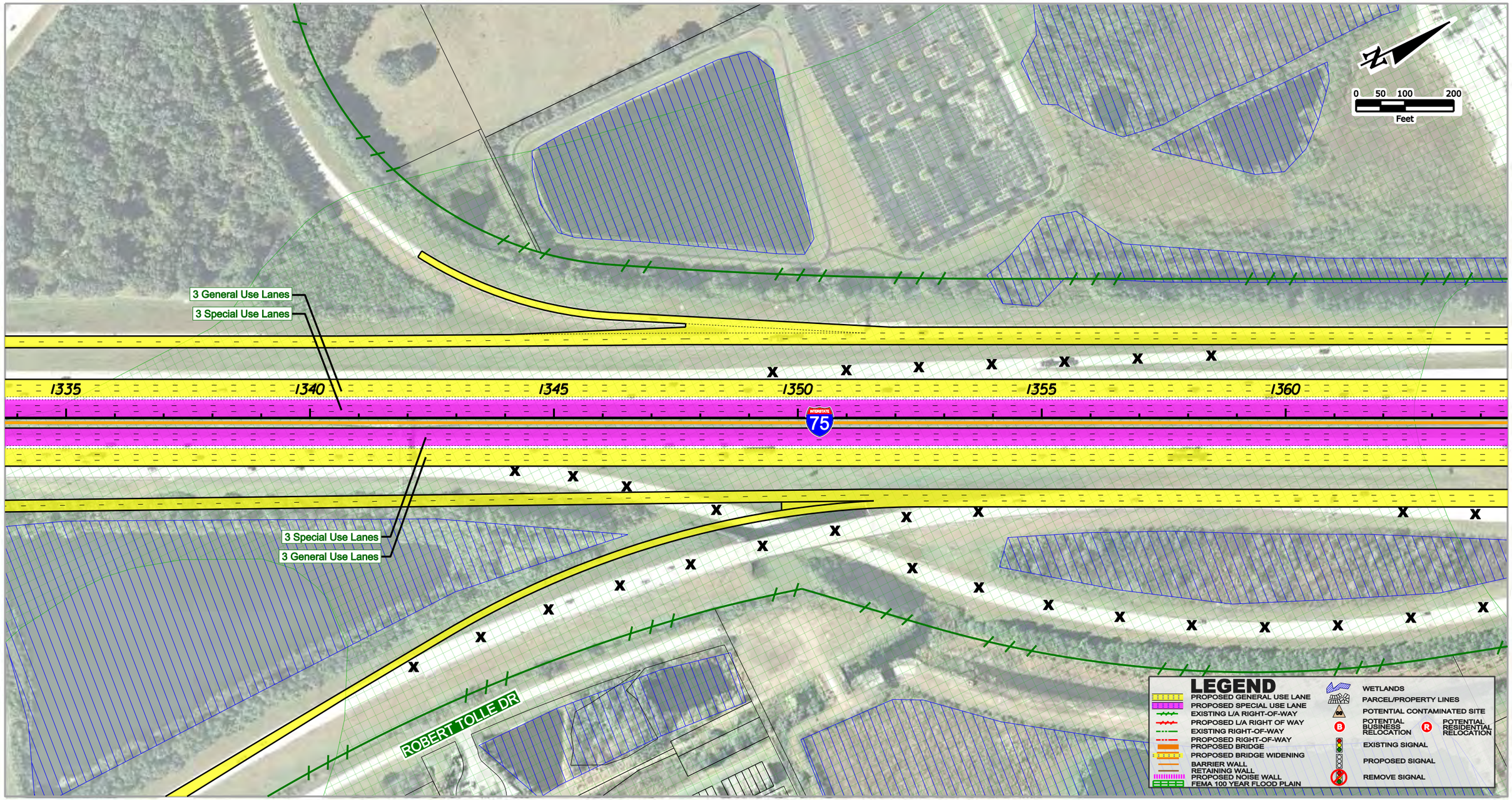

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Sheet No. 6

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

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ROBERT TOLLE DR
PONDRIDGE DR
BARNSTEAD DR
BESSEMER POND CT
HAVERHILL RIDGE DR
CHATHAM GATE DR
CHATHAM GATE DR
VALHALLA PHASE 3-4
VALHALLA PHASE 1-2

LEGEND

- PROPOSED GENERAL USE LANE
- PROPOSED SPECIAL USE LANE
- EXISTING L/A RIGHT-OF-WAY
- PROPOSED L/A RIGHT OF WAY
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED BRIDGE
- PROPOSED BRIDGE WIDENING
- BARRIER WALL
- RETAINING WALL
- PROPOSED NOISE WALL
- FEMA 100 YEAR FLOOD PLAIN
- WETLANDS
- PARCEL/PROPERTY LINES
- POTENTIAL CONTAMINATED SITE
- POTENTIAL BUSINESS RELOCATION (B)
- POTENTIAL RESIDENTIAL RELOCATION (R)
- EXISTING SIGNAL
- PROPOSED SIGNAL
- REMOVE SIGNAL

N

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PB 100 YEARS
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From South of US 301 to North of Fletcher Avenue - Hillsborough County

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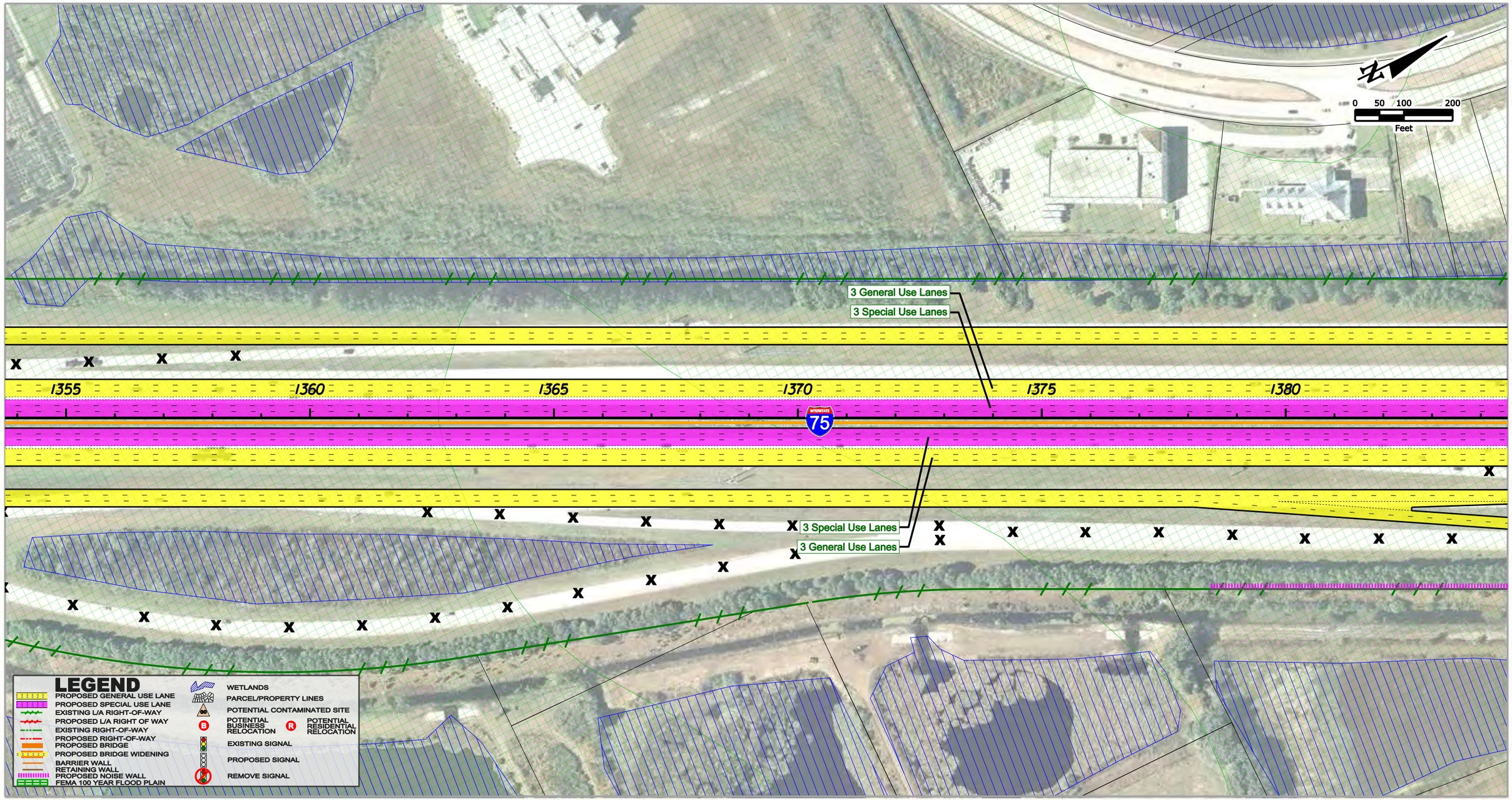

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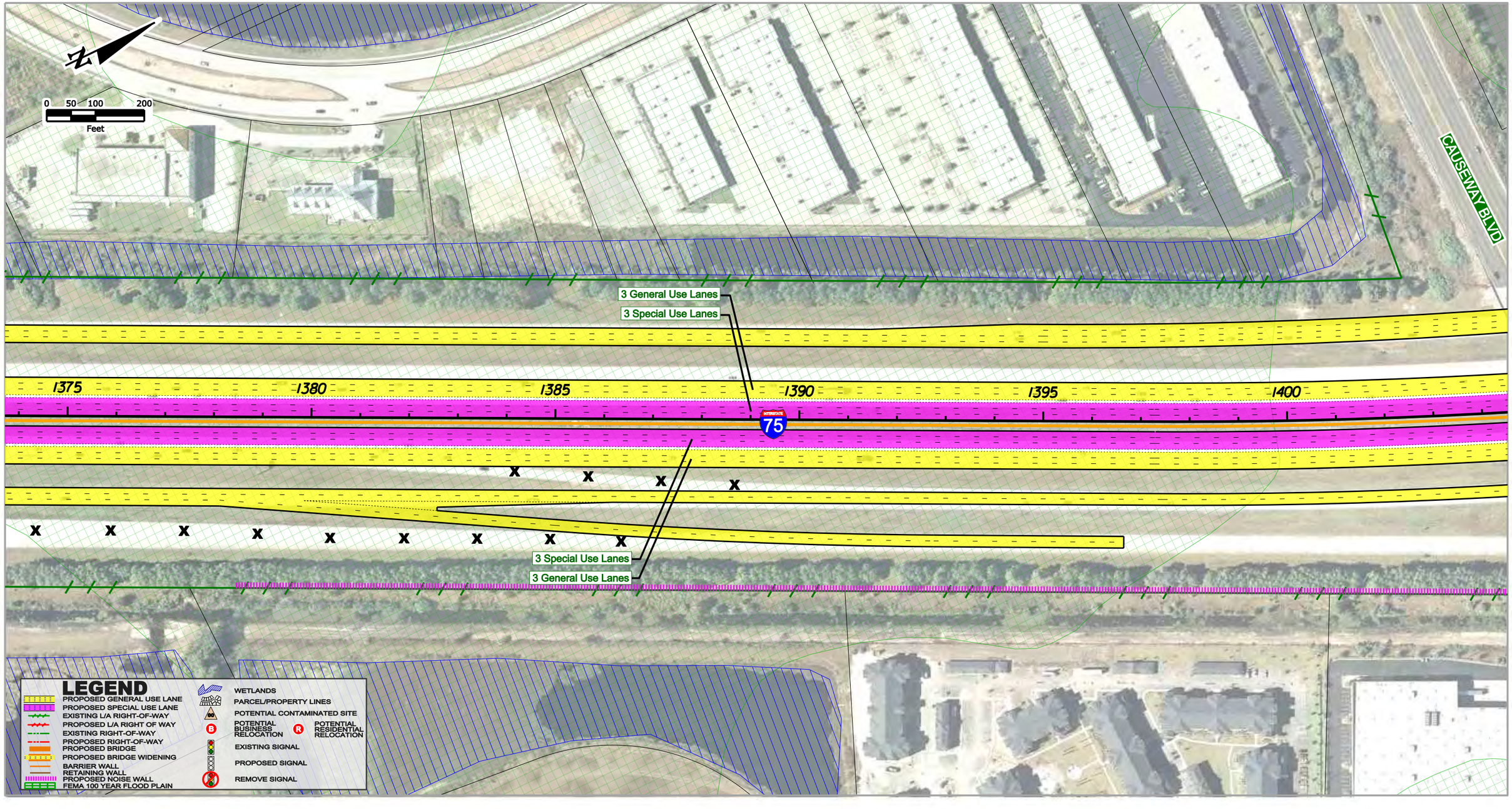

PB 100 YEARS
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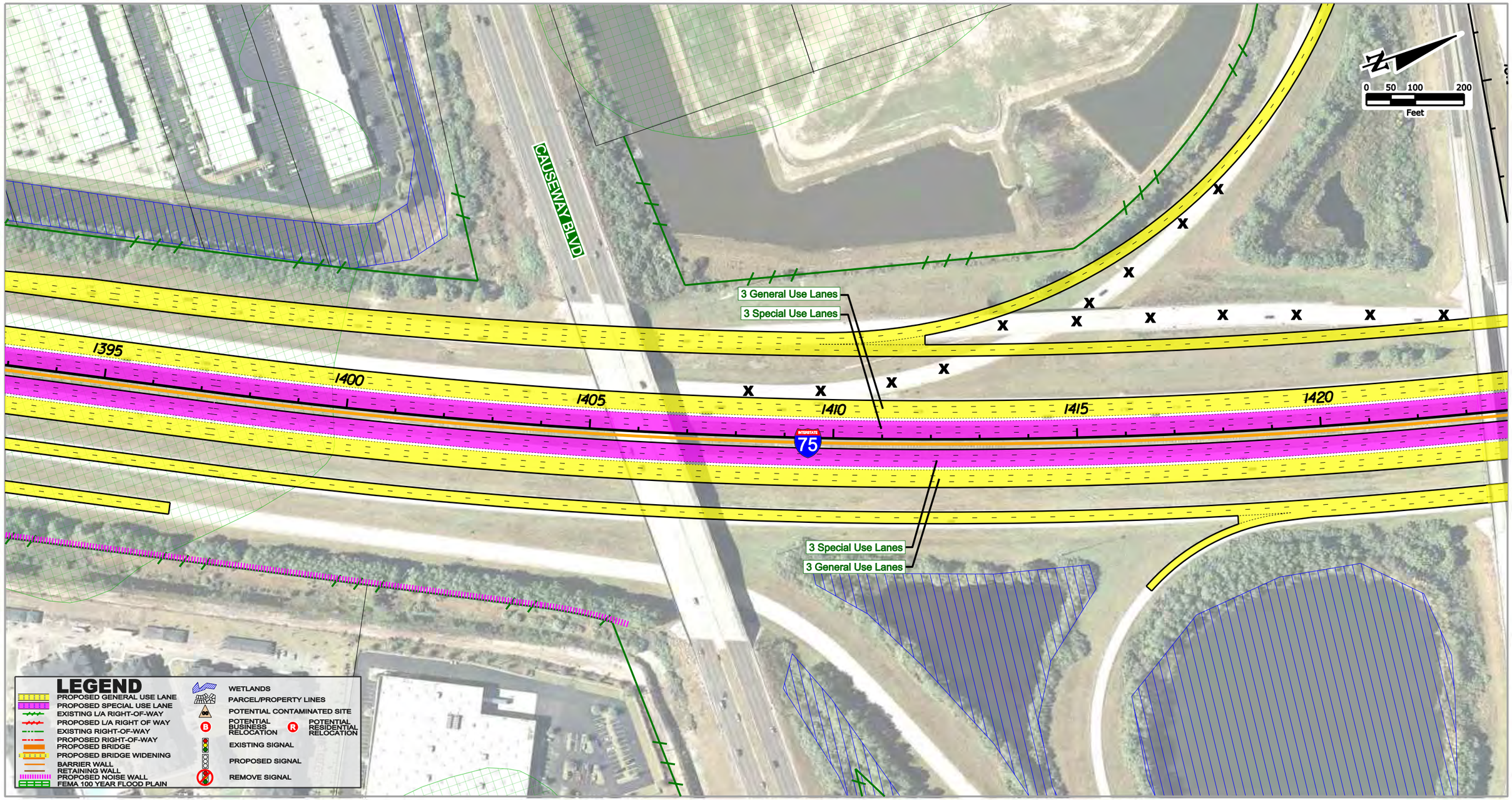

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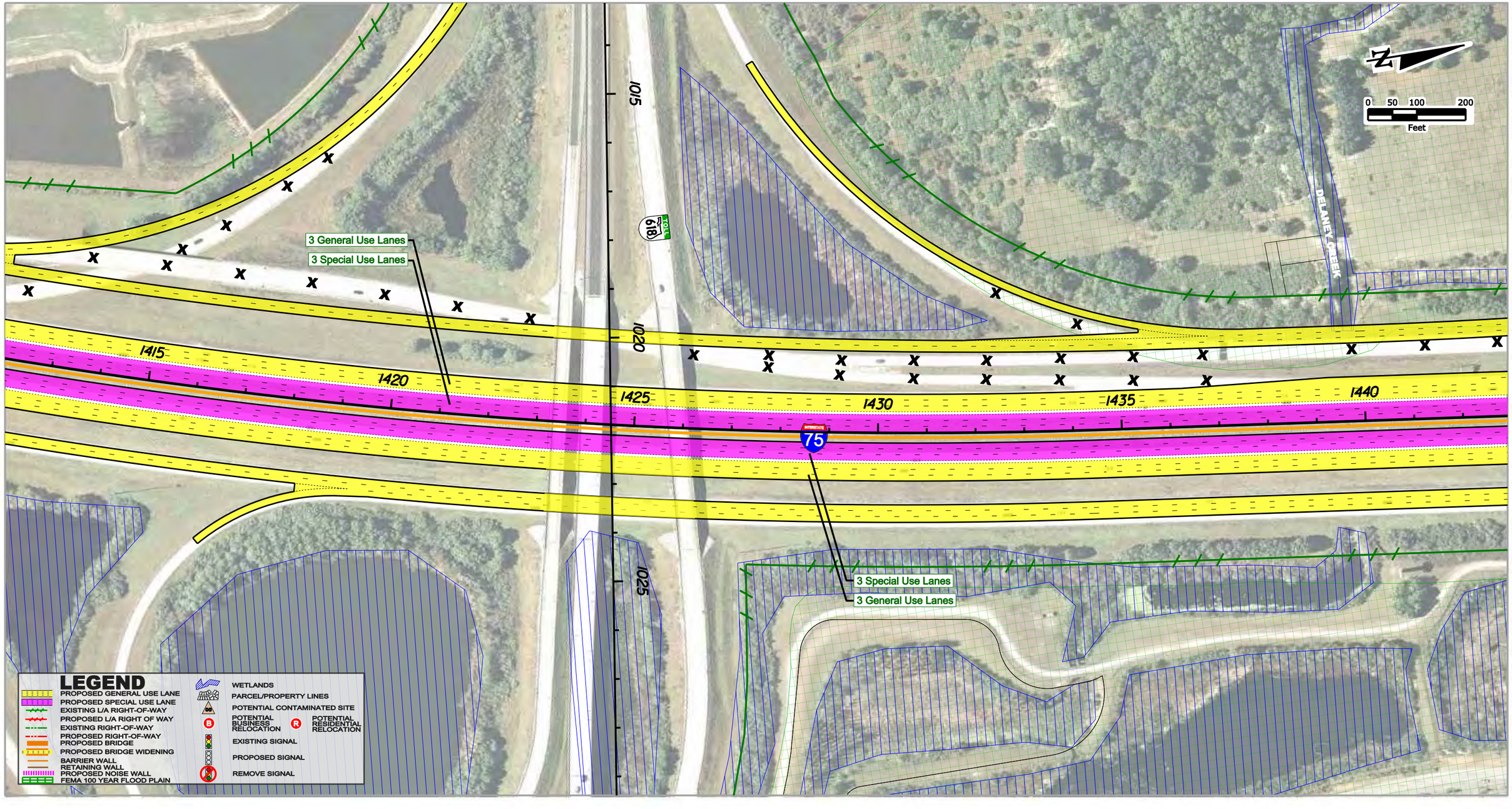

PB 100 YEARS
JACOBS™

Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

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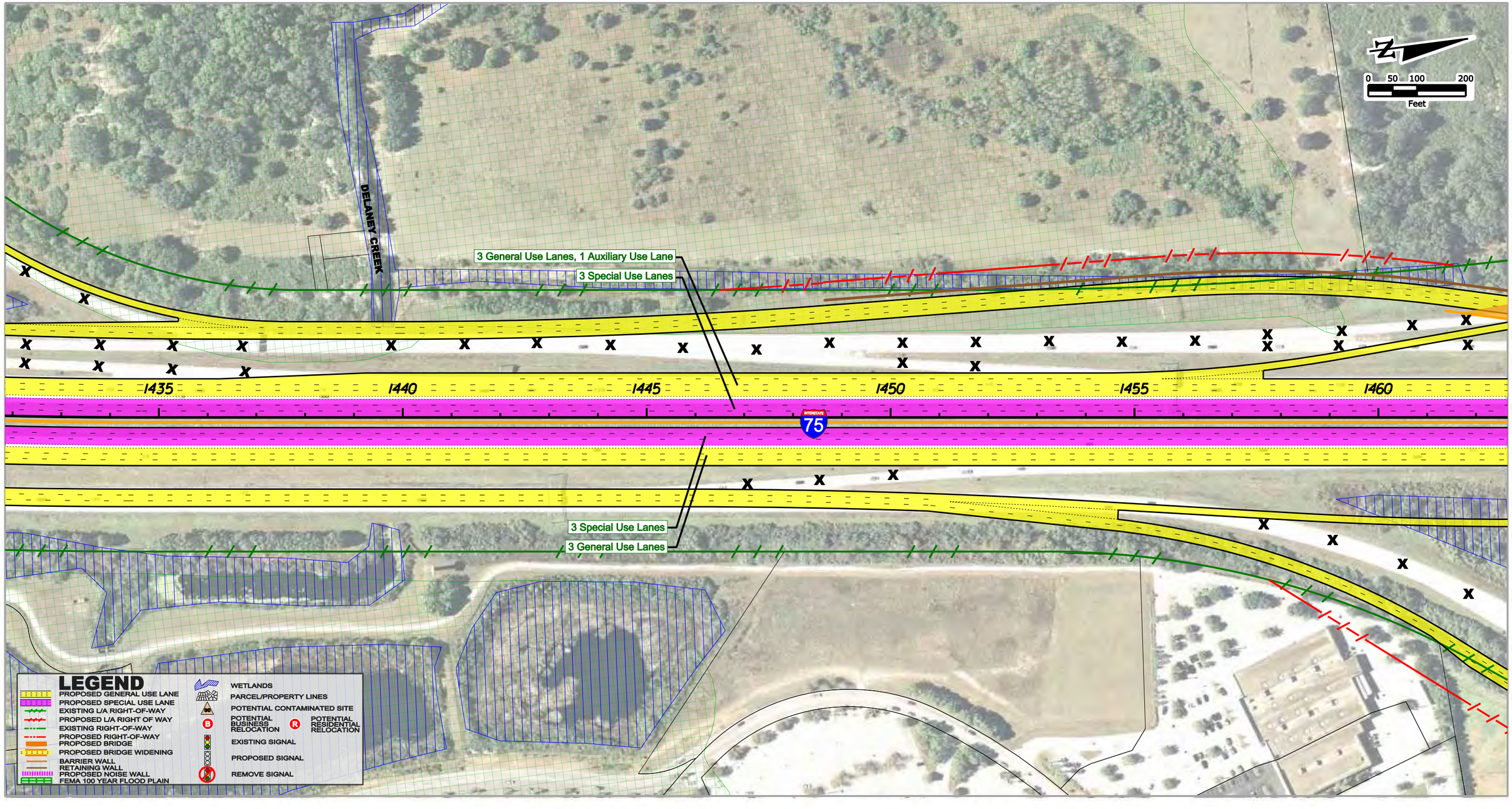

PB 100 YEARS JACOBS™

Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

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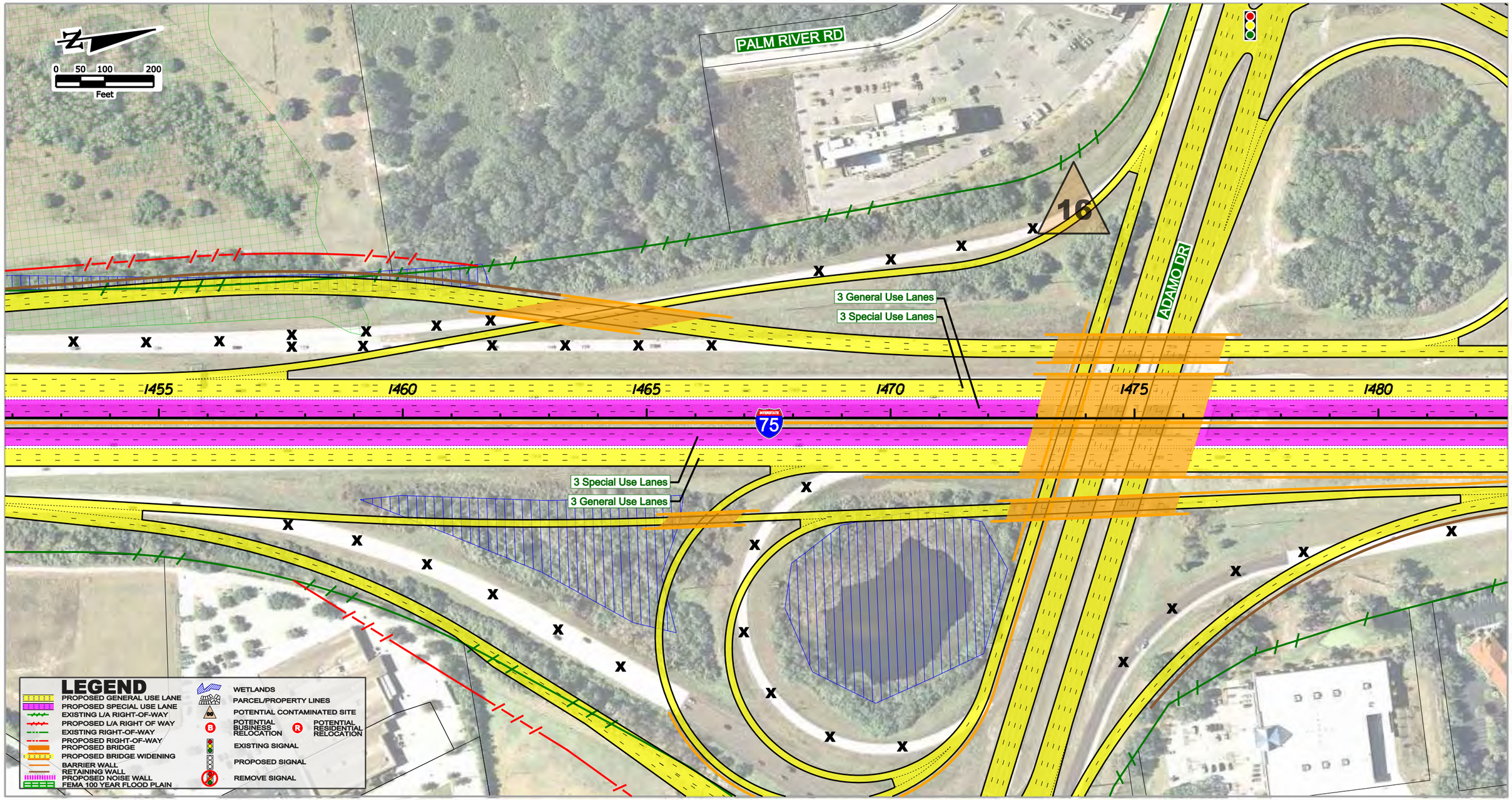

PB 100 YEARS
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Segment One
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AERIAL FLIGHT DATE: OCTOBER, 2008

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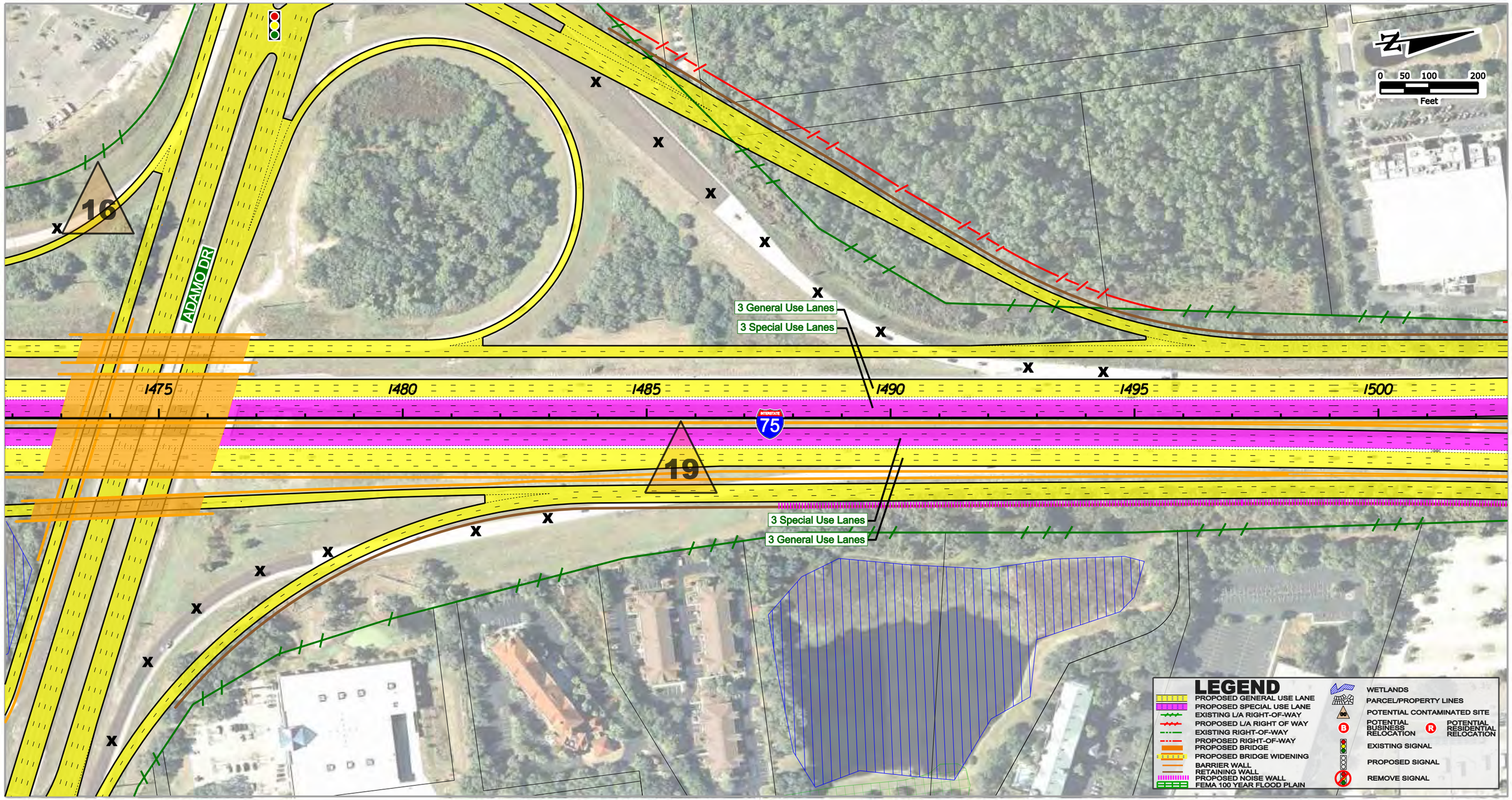

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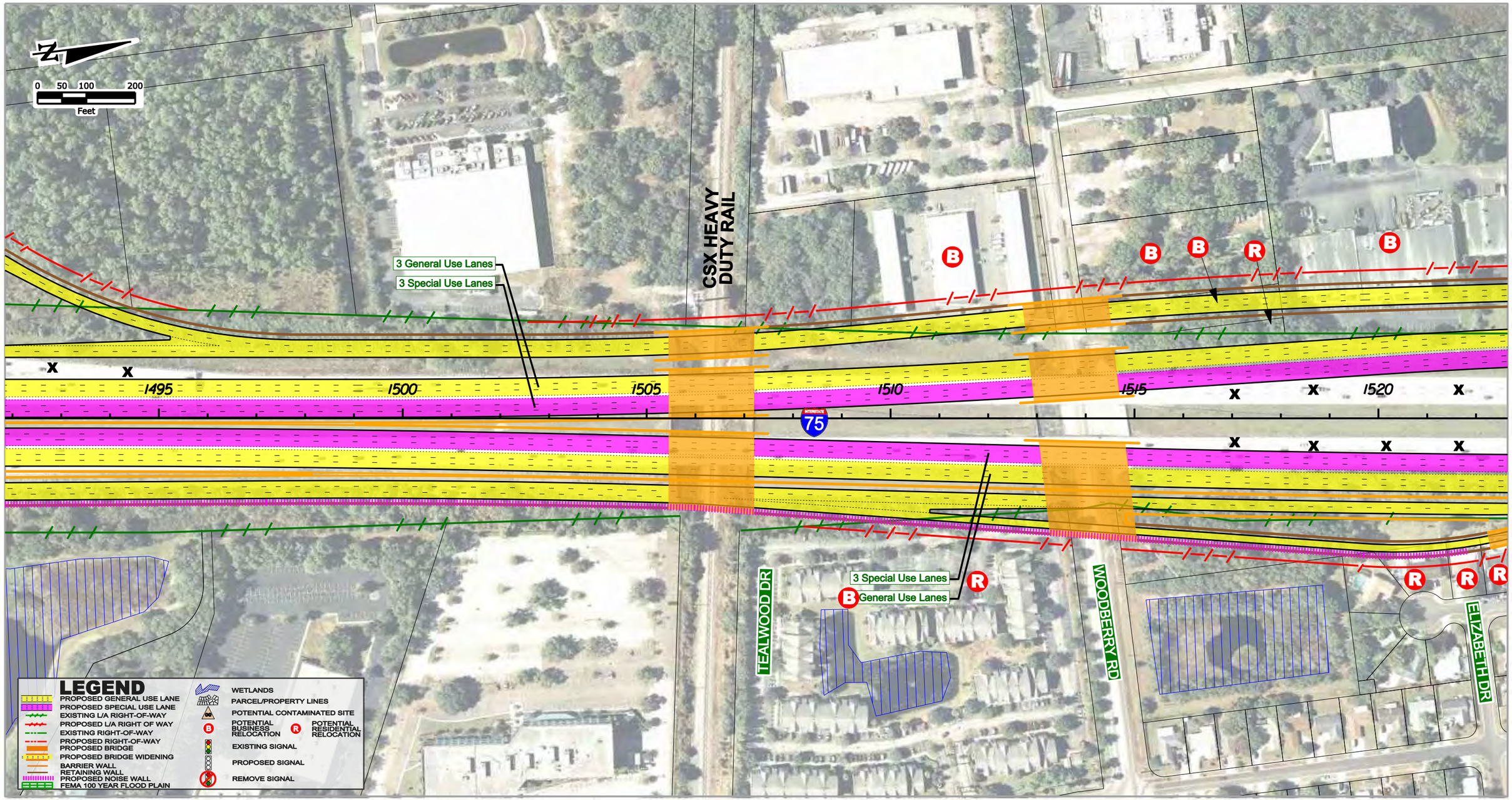

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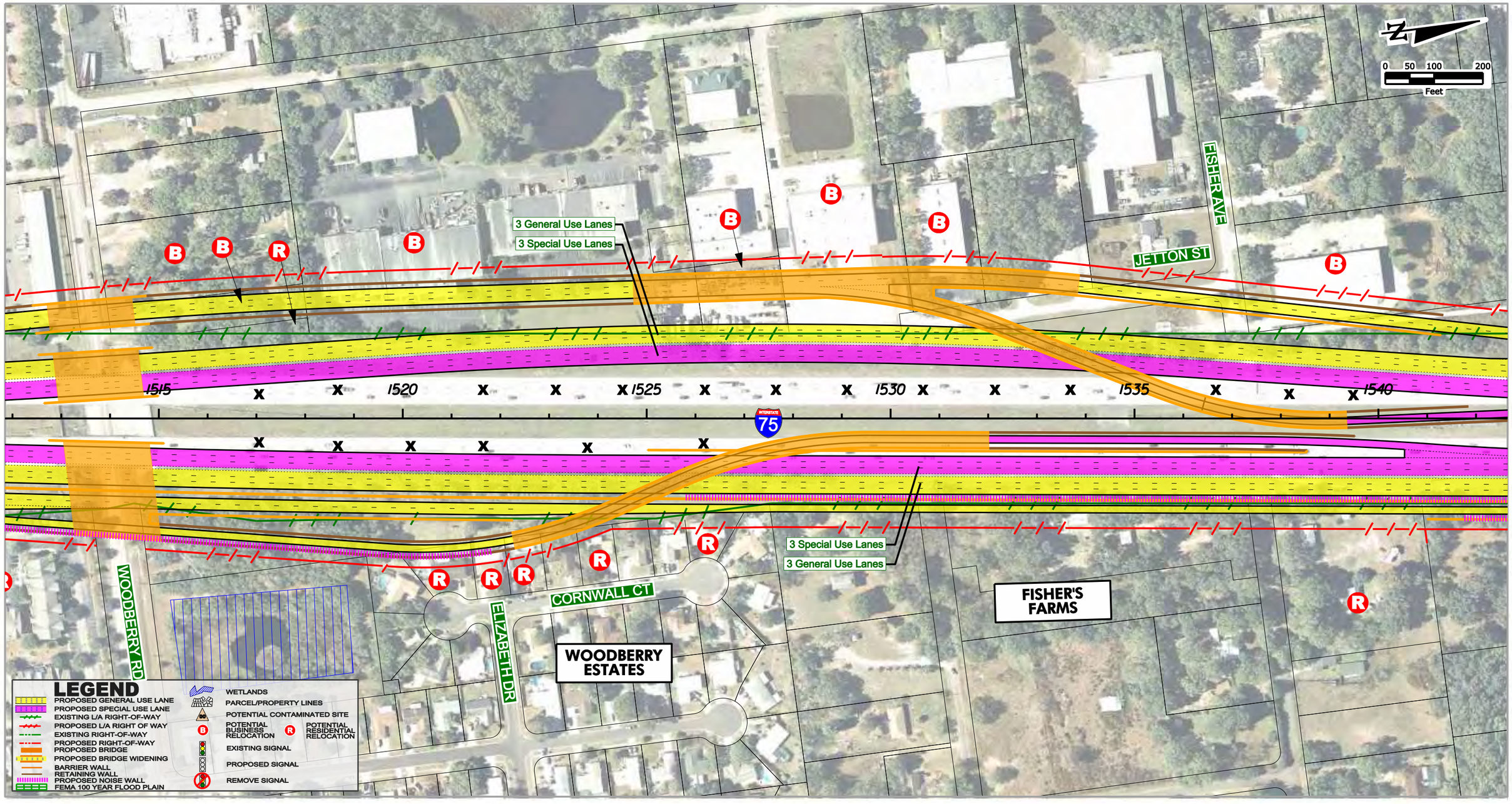

PB 100 YEARS JACOBS™

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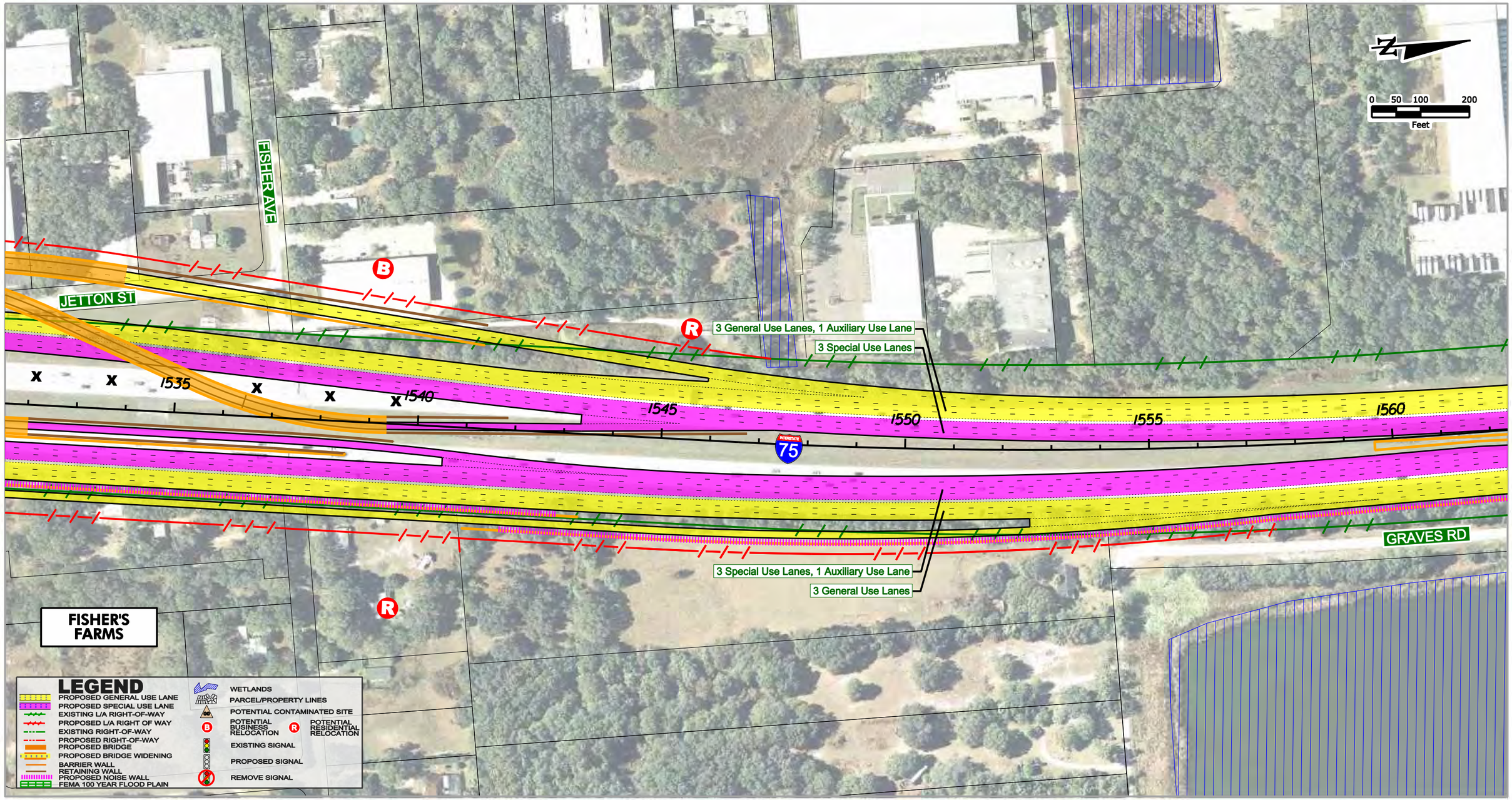

PB 100 YEARS JACOBS™

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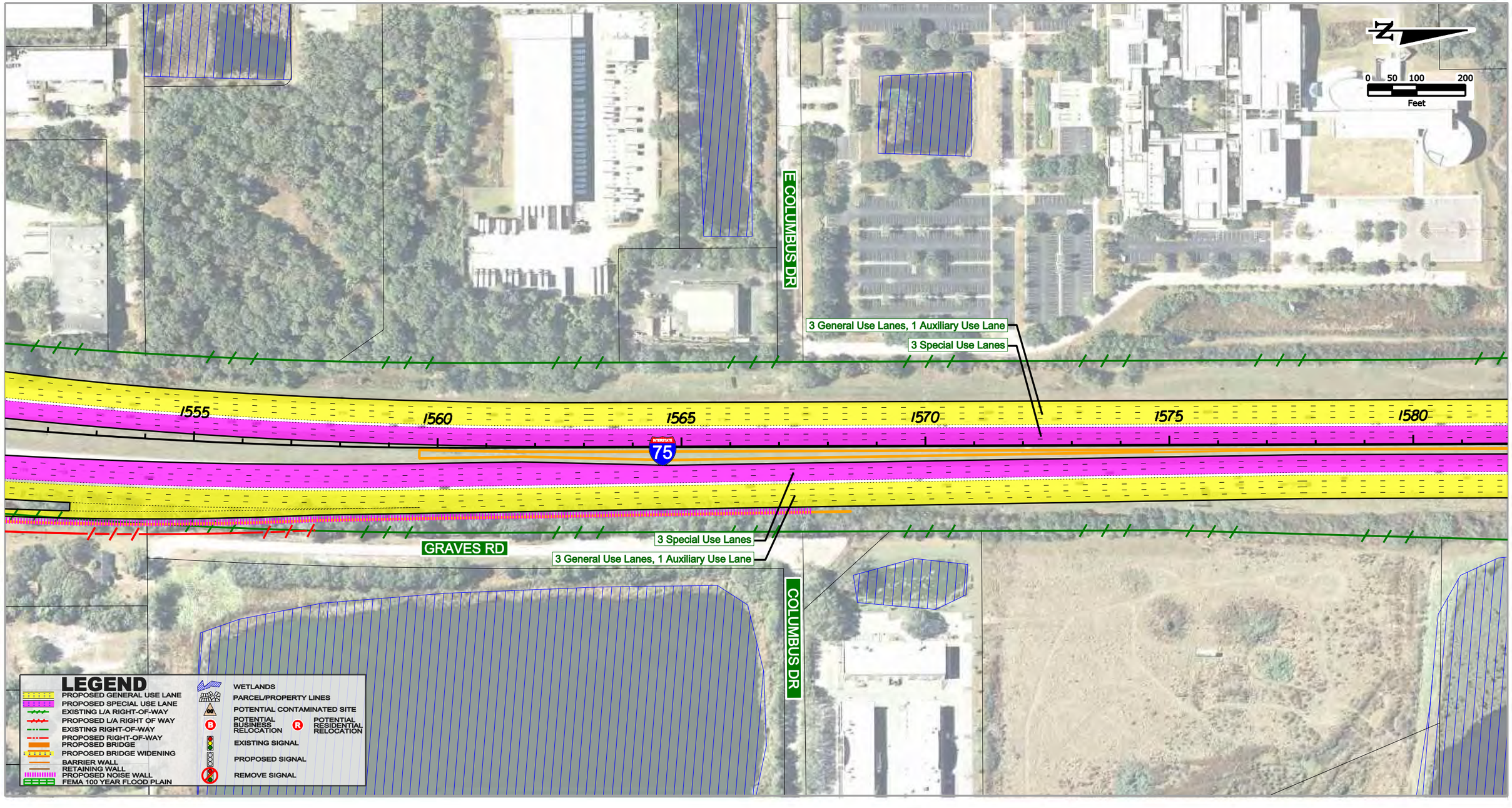

PB 100 YEARS

JACOBS™

Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 18

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

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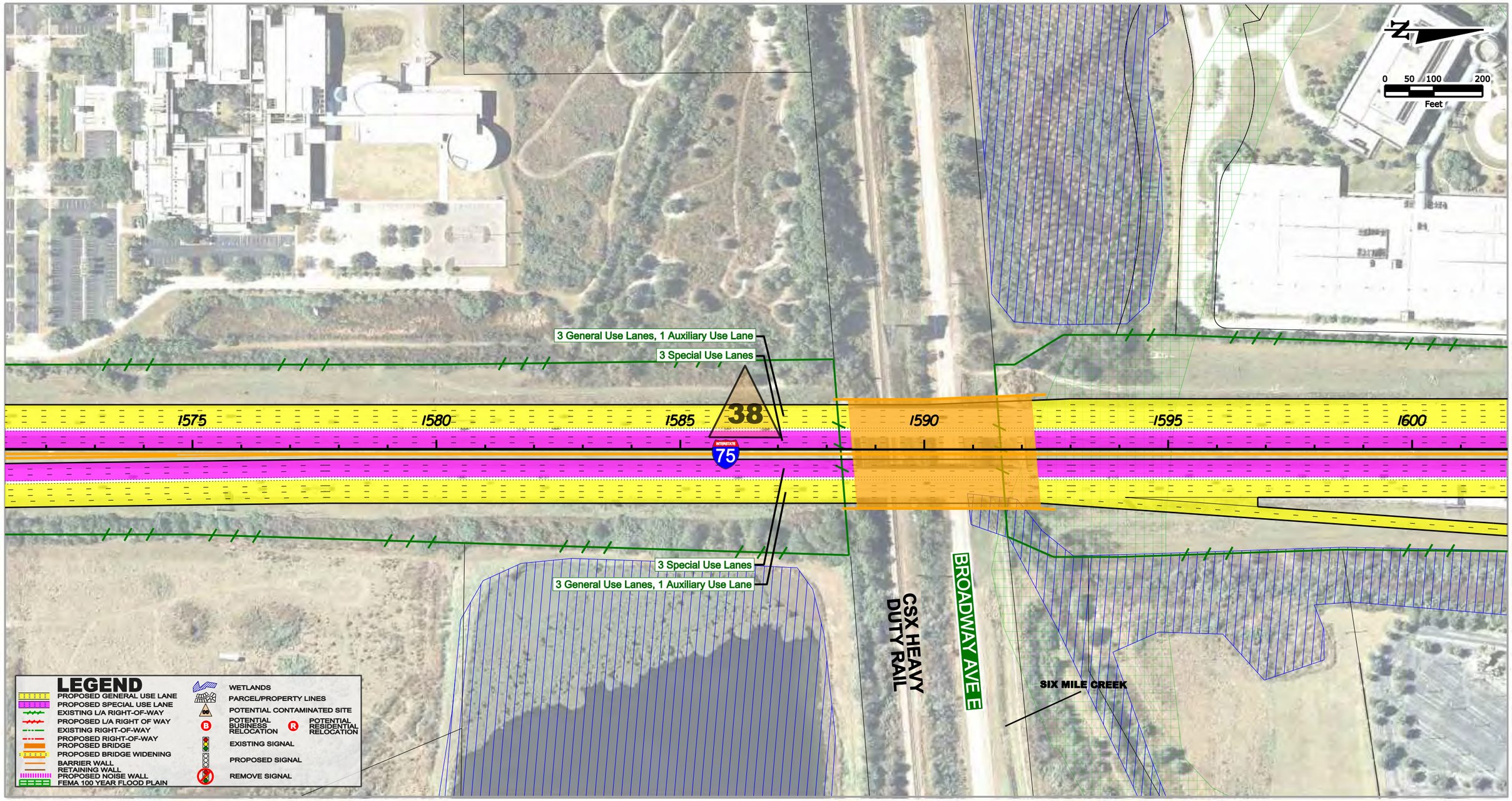

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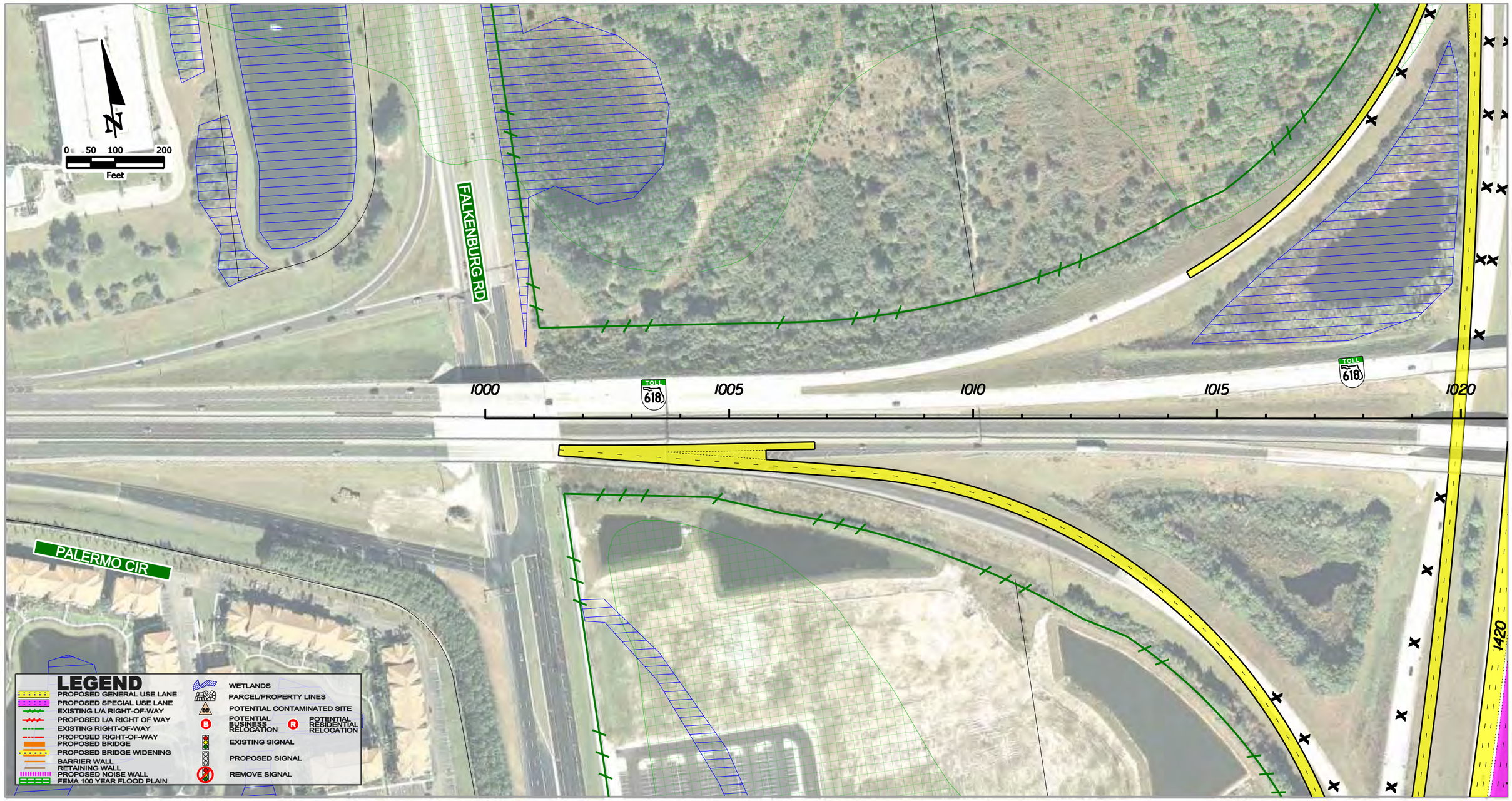
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

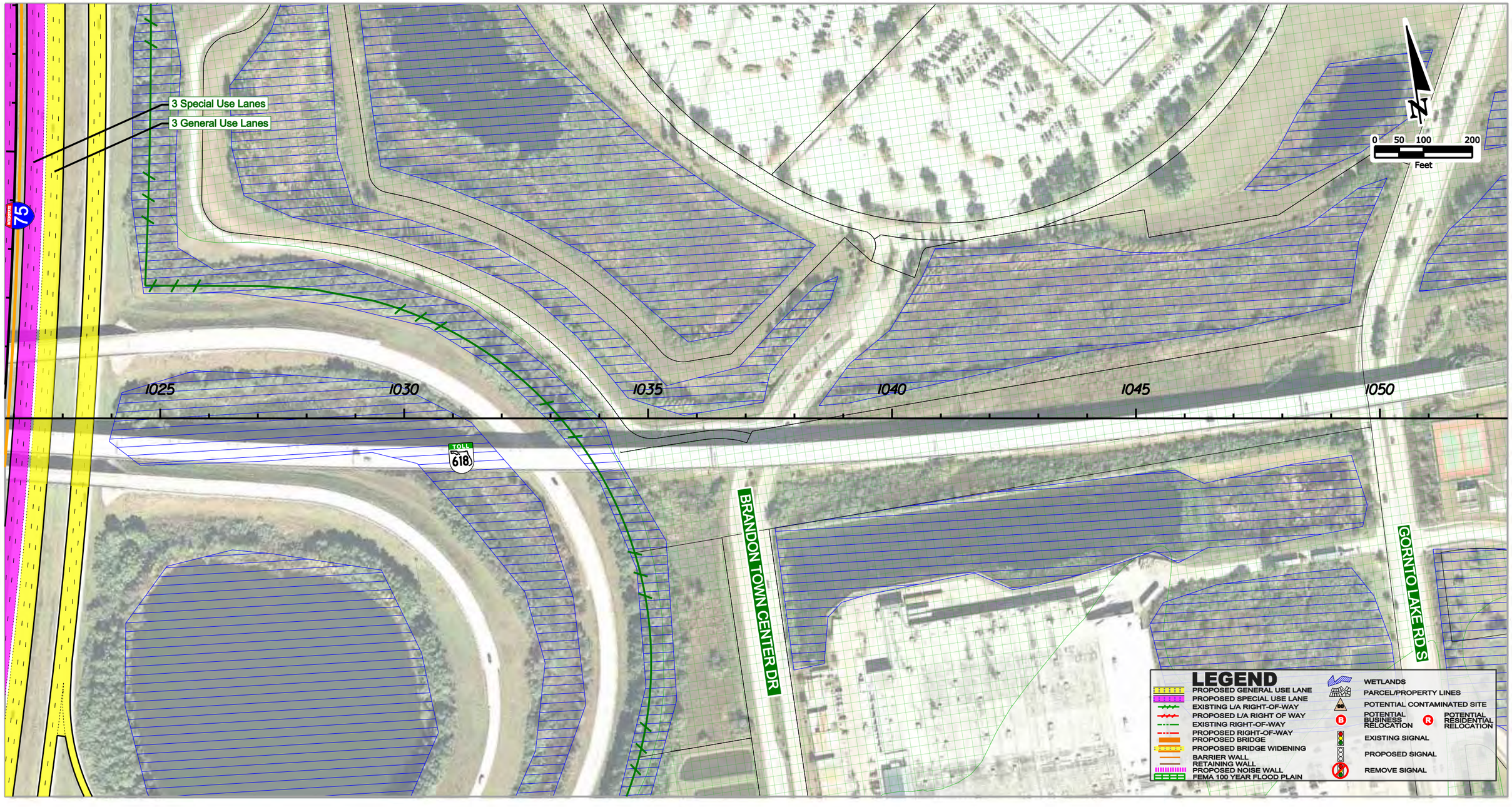
Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 20

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



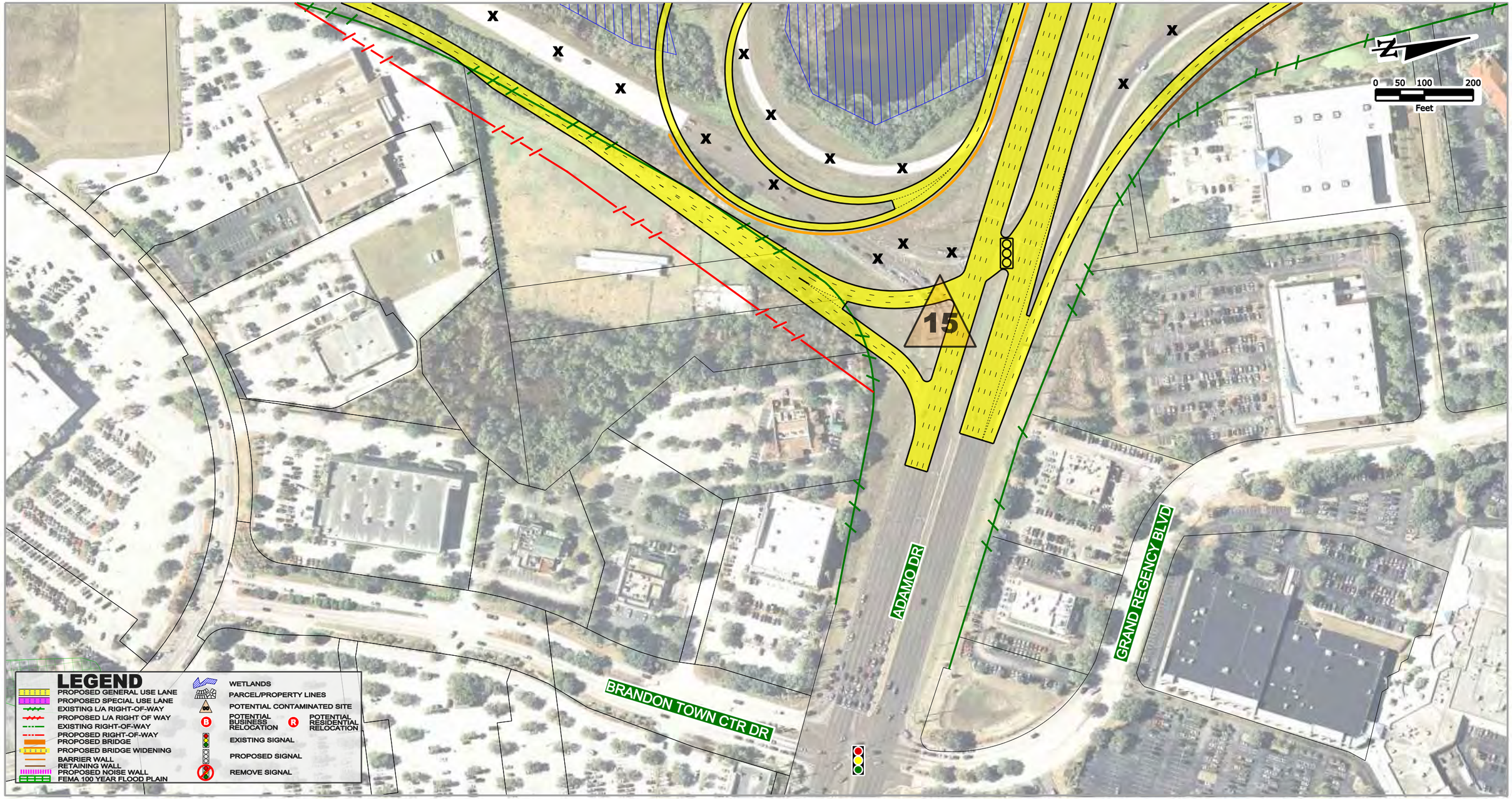
PB 100 YEARS JACOBS™

Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

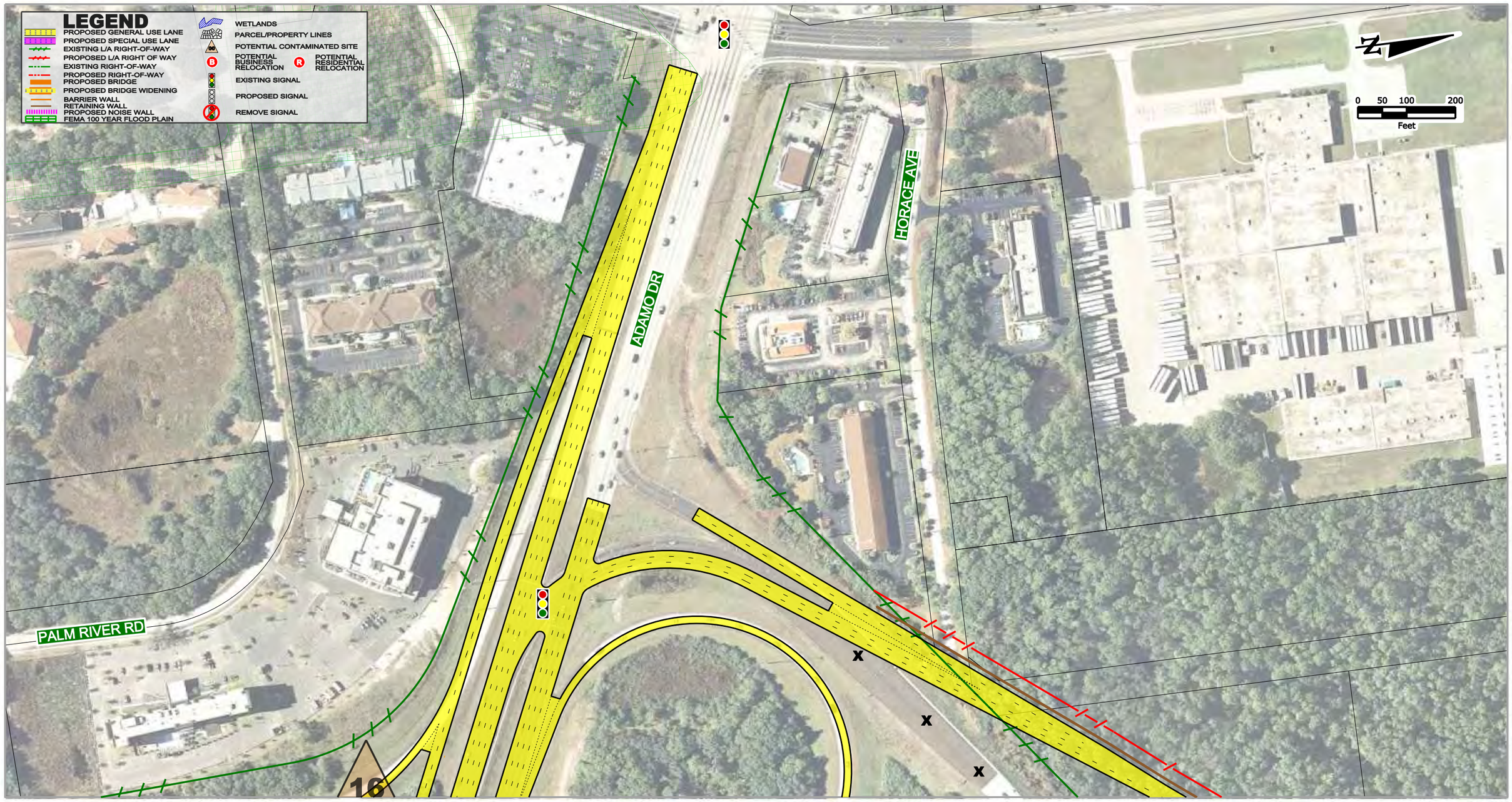
Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 22

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

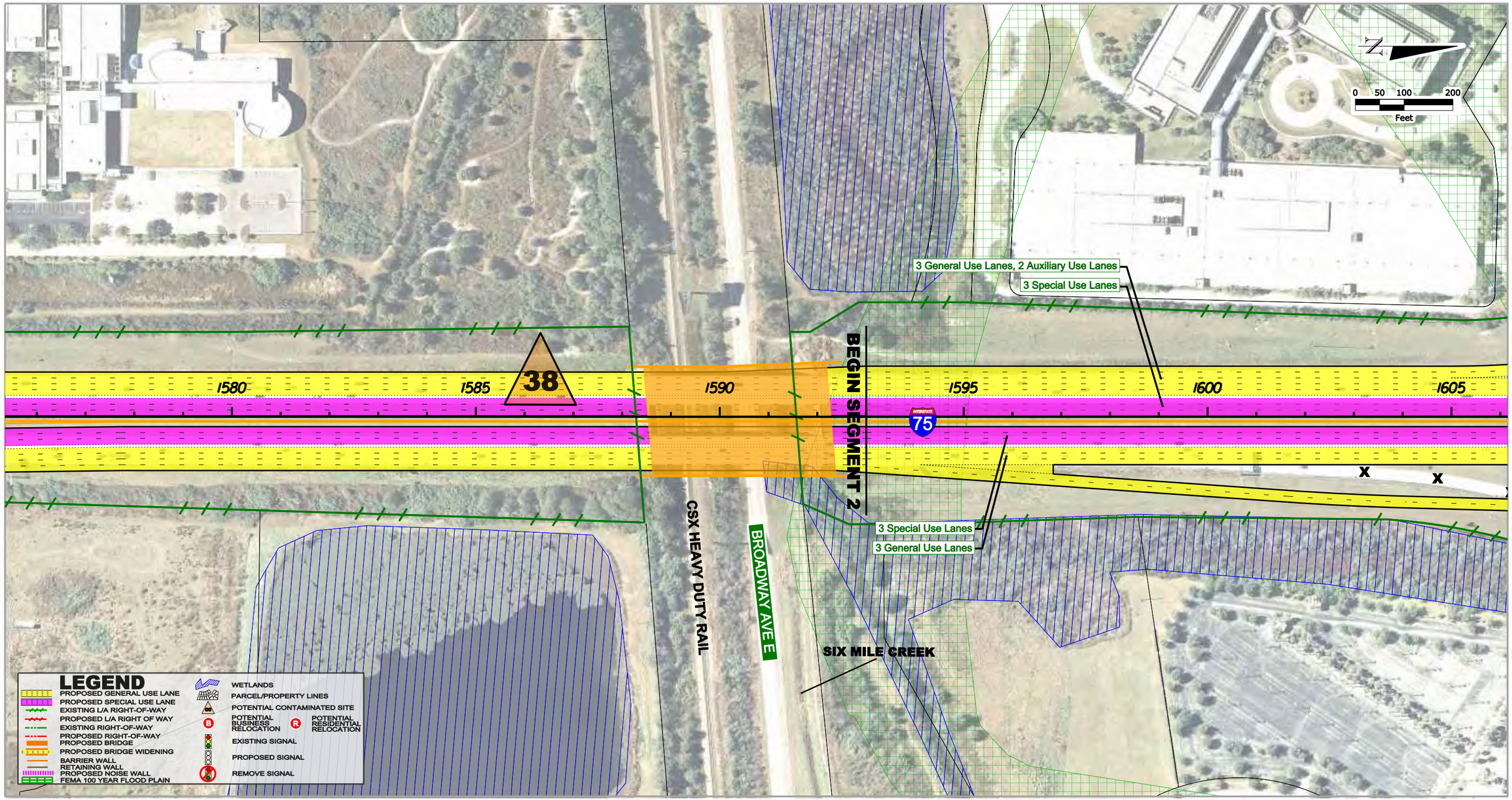
Segment One
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 23

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

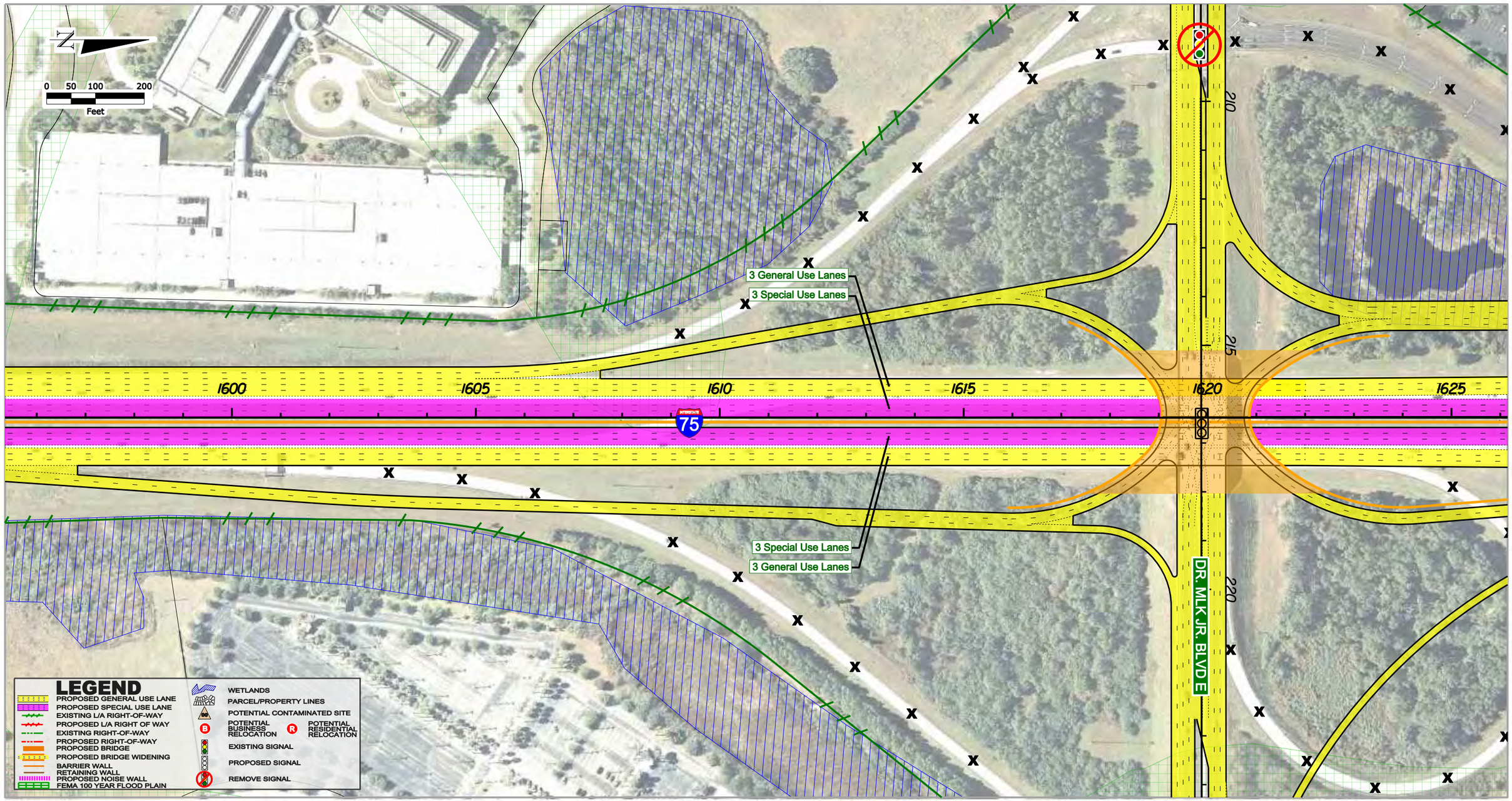
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 24

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

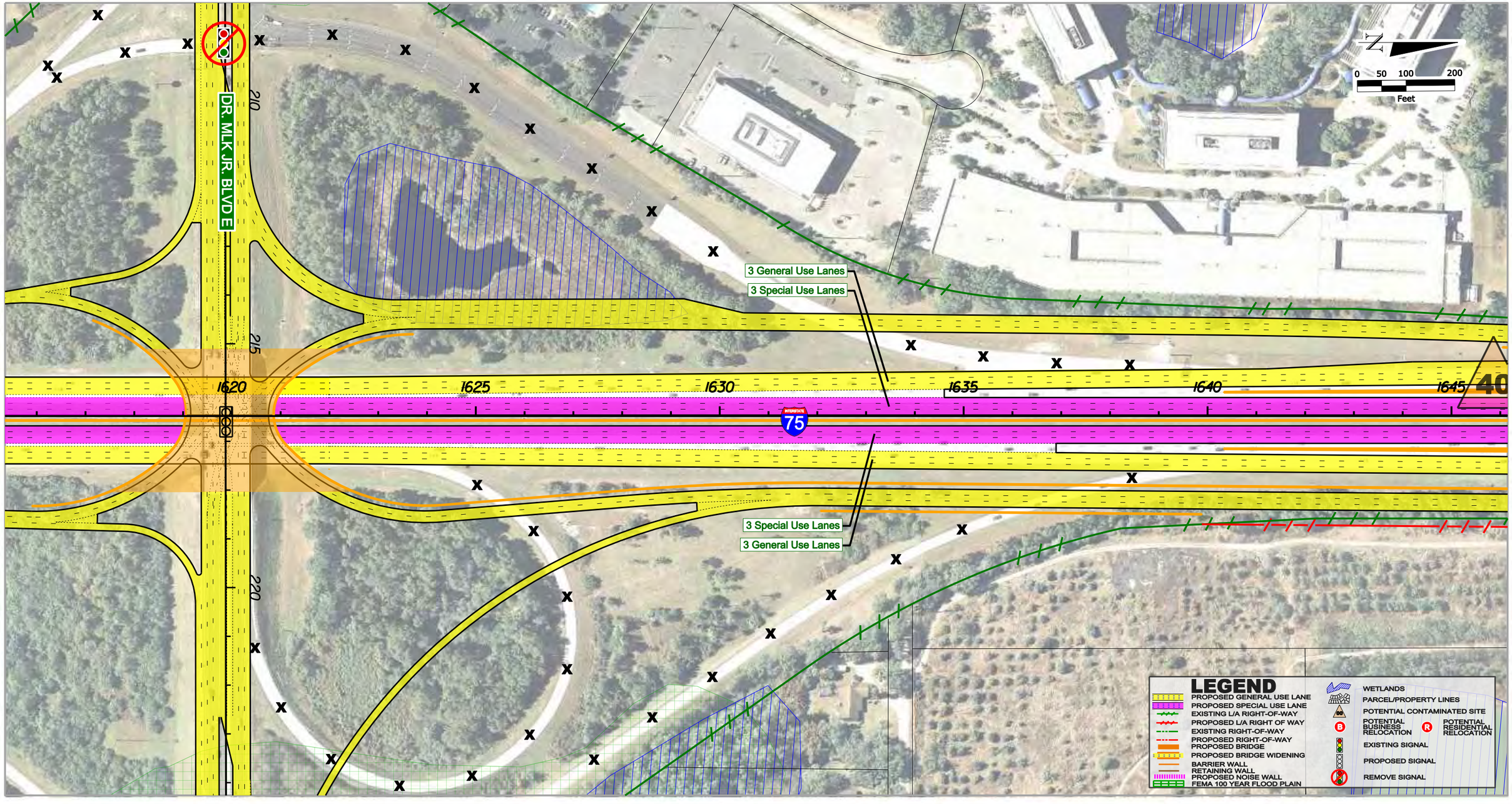
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 25

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS

JACOBS™

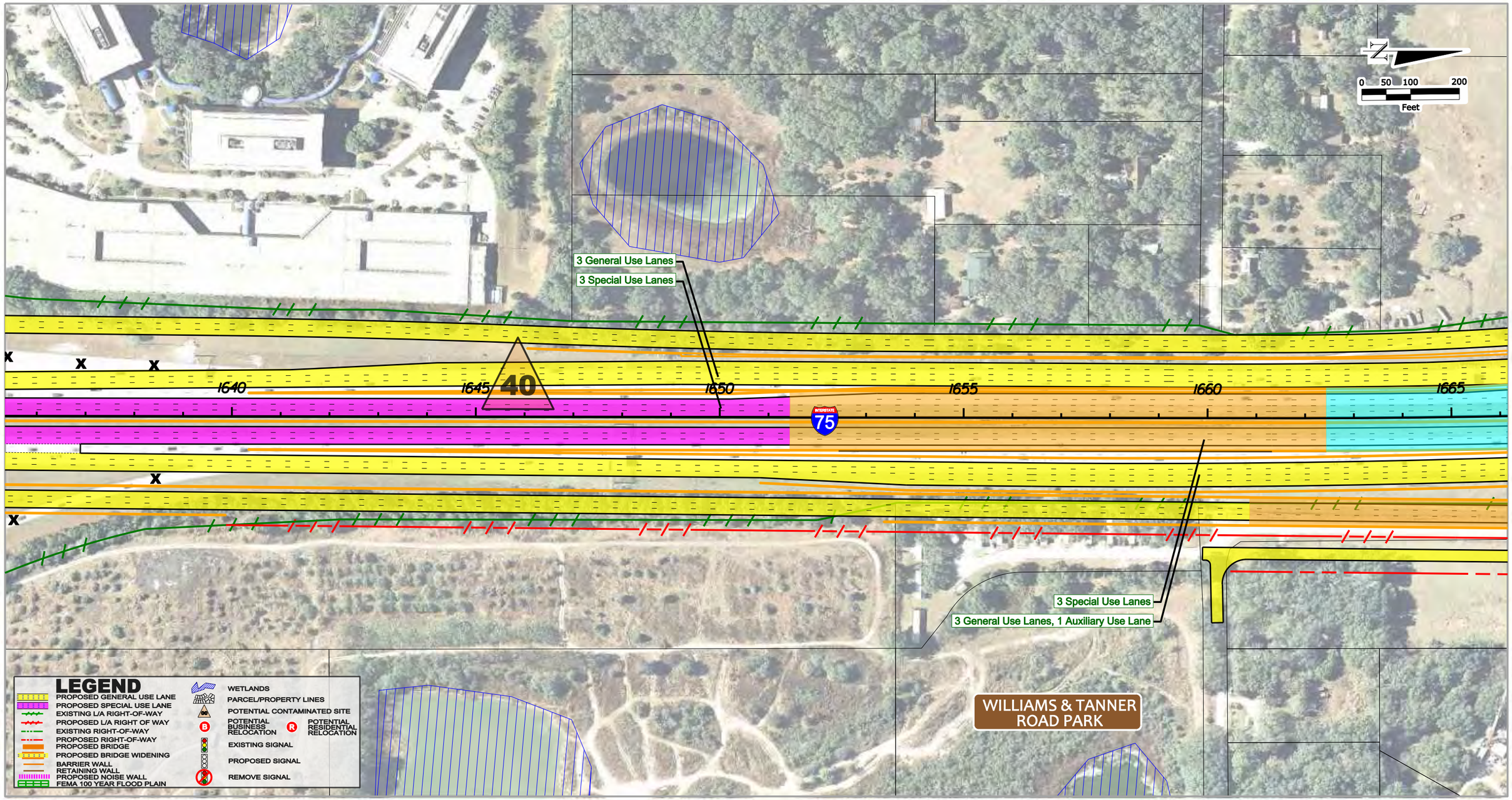
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 26

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS

JACOBS™

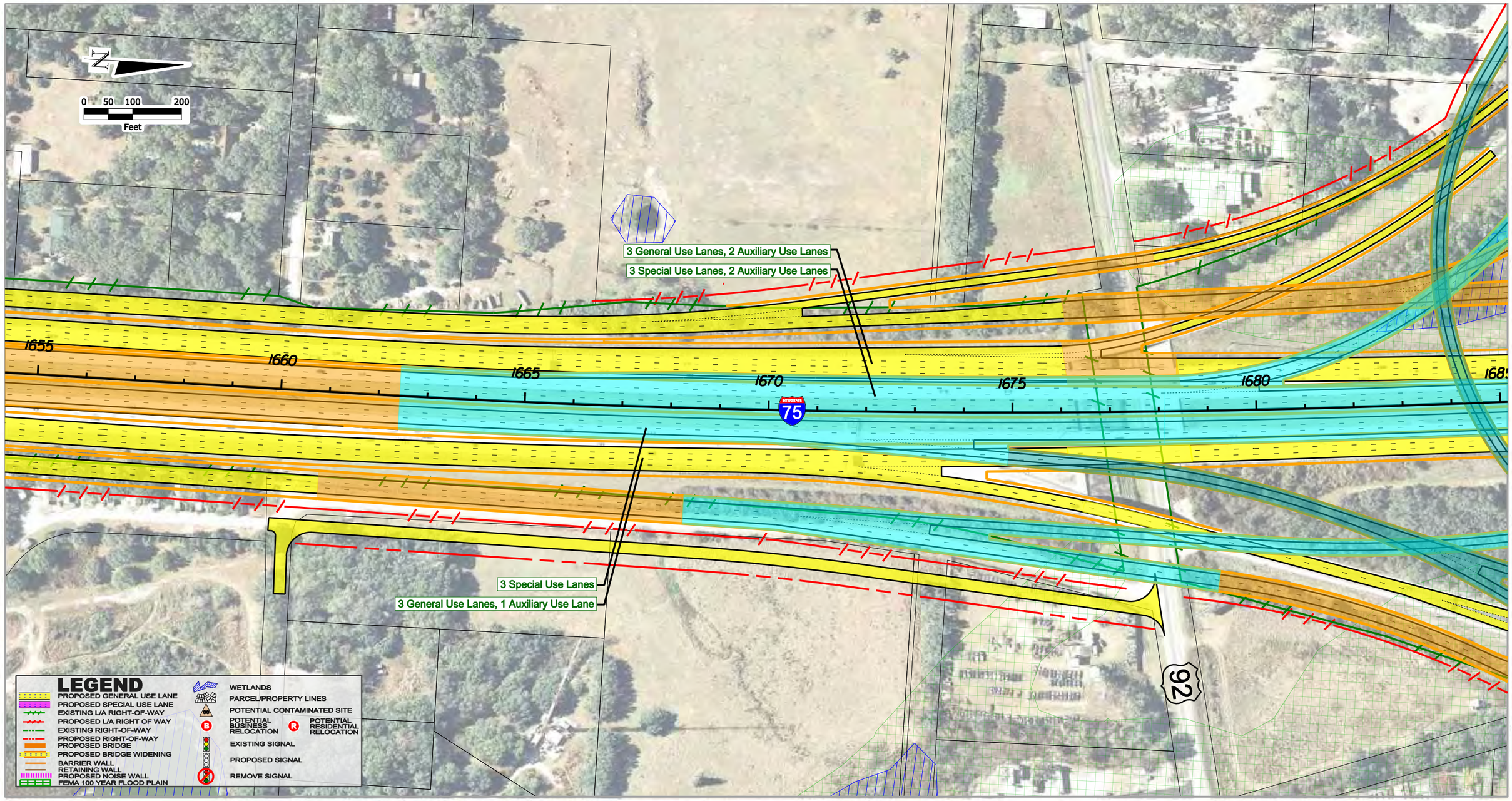
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 27

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS
JACOBS™

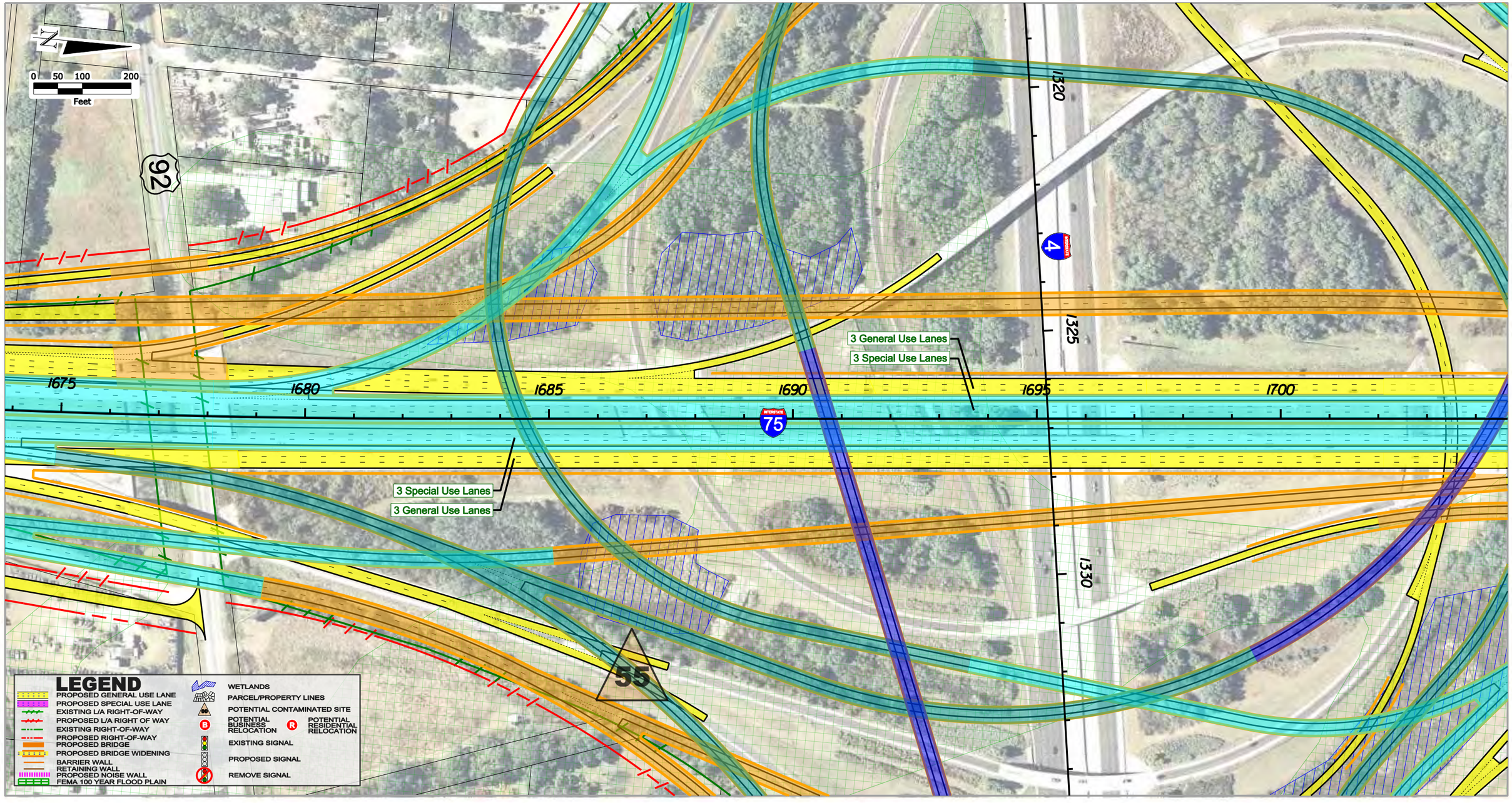
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 28

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

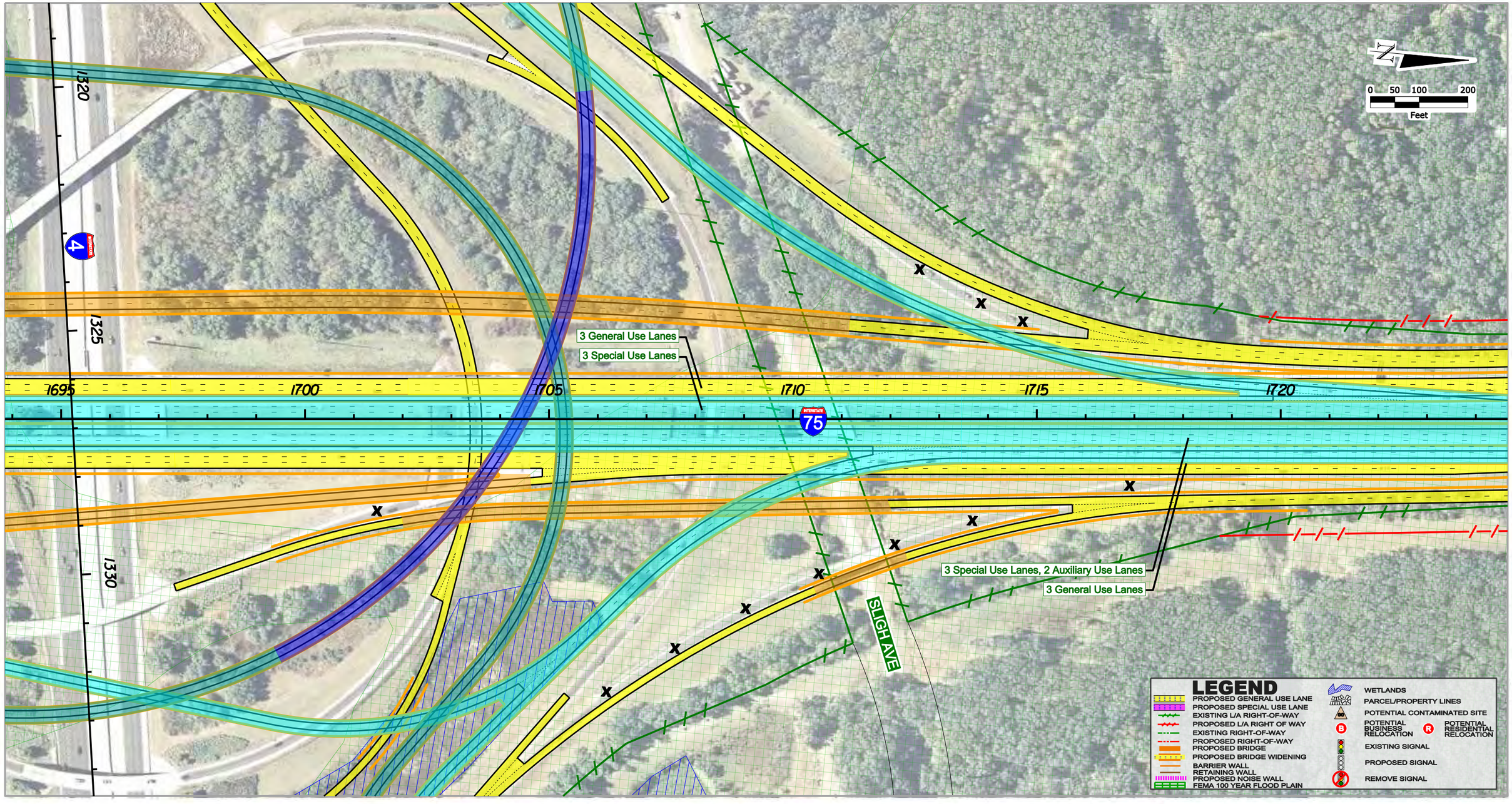
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 29

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

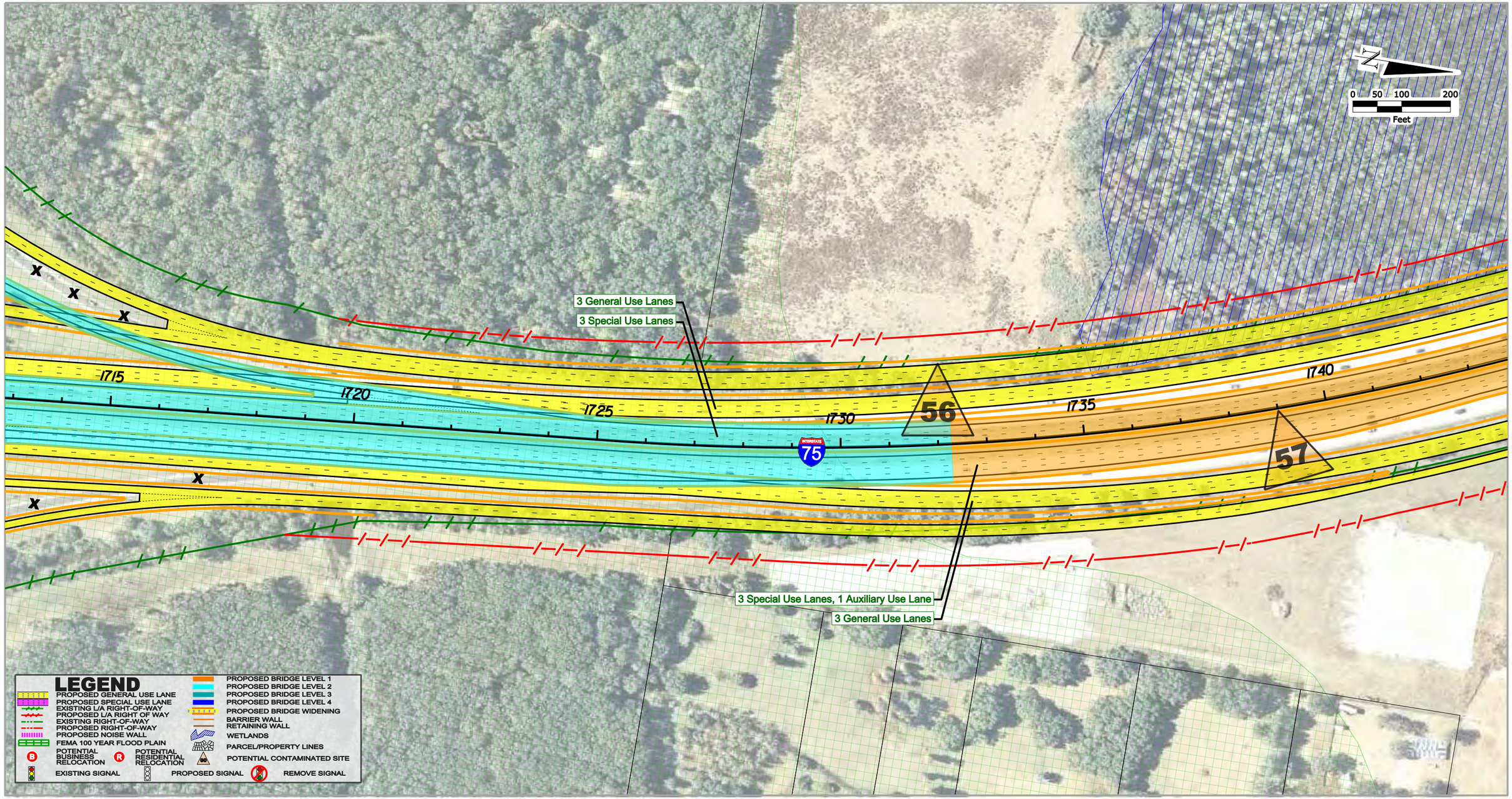
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 30

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

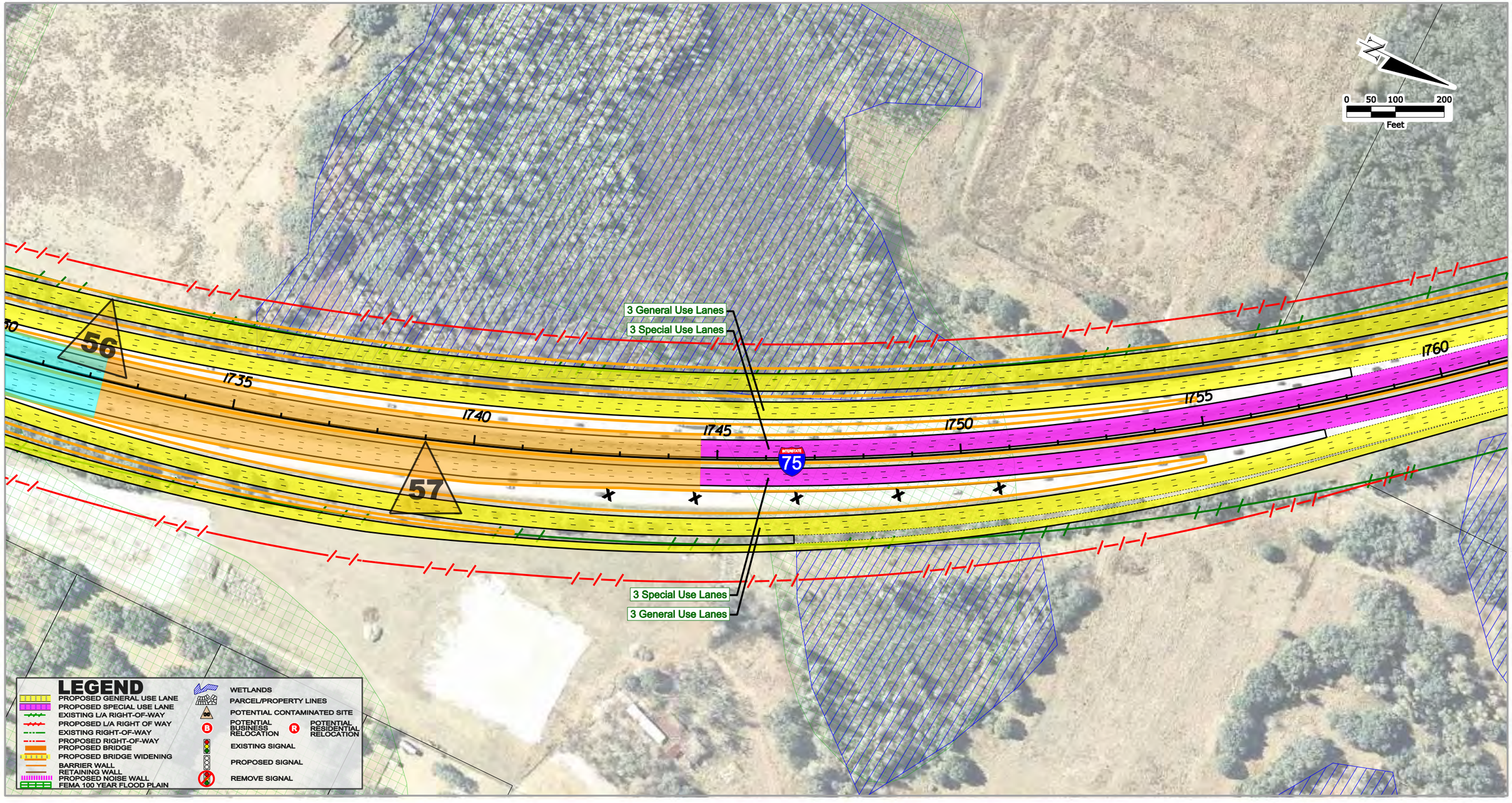
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 31

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01

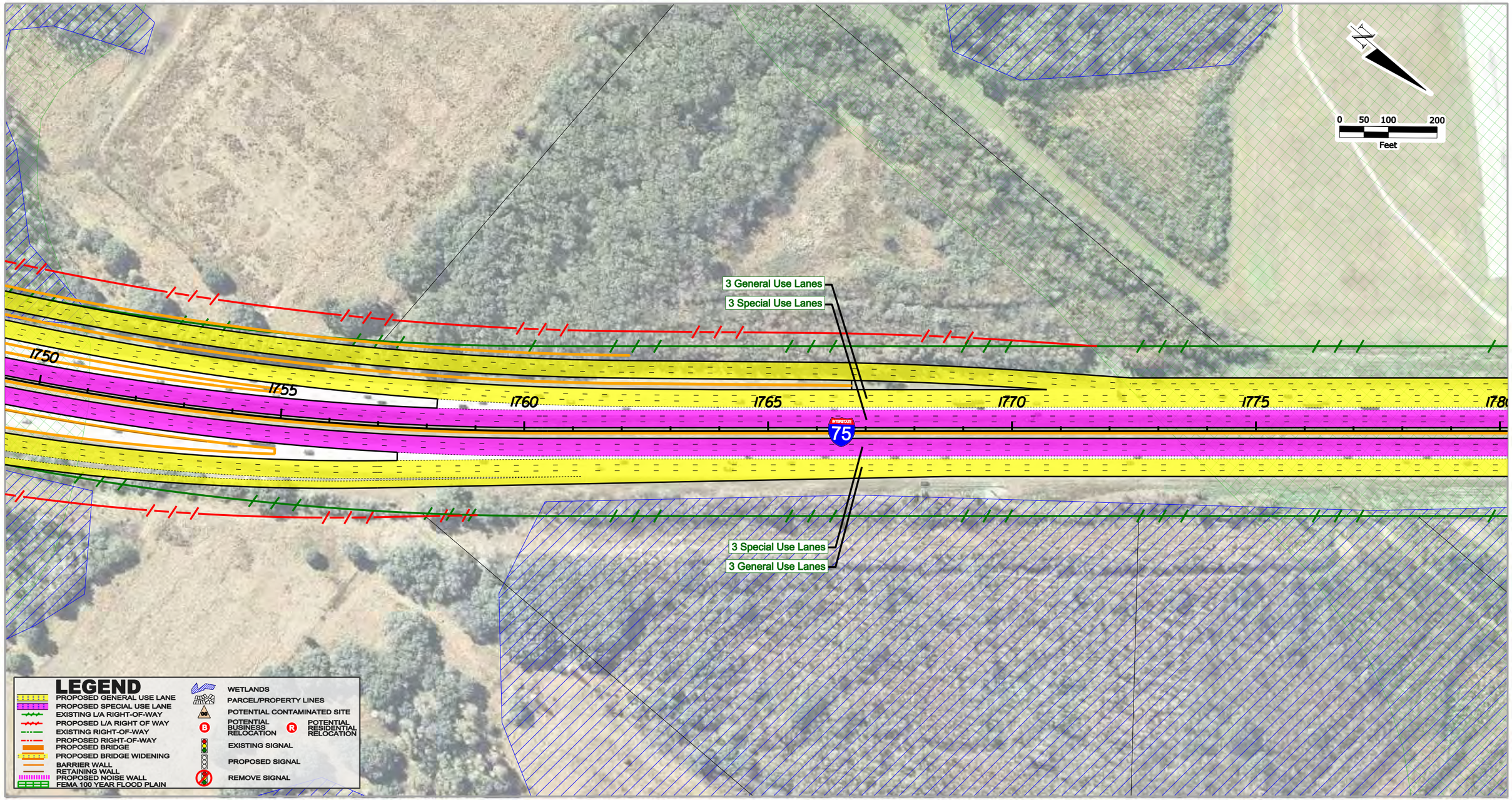


PB 100 YEARS JACOBS™

Segment Two
Preferred Alternative

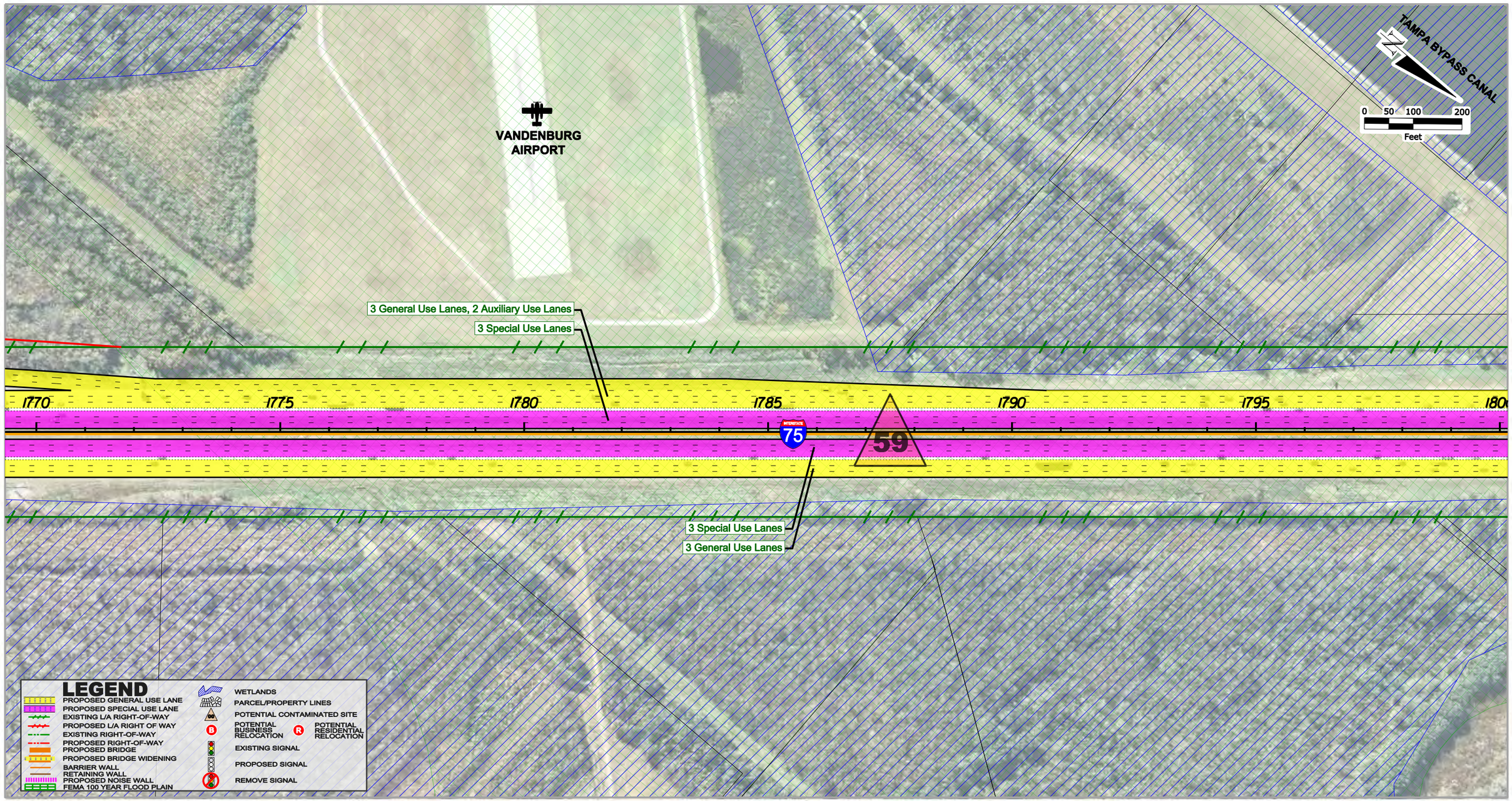
AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 32


3 General Use Lanes
3 Special Use Lanes
3 Special Use Lanes
3 General Use Lanes
1750
1755
1760
1765
1770
1775
75
N
0 50 100 200
Feet
LEGEND
PROPOSED GENERAL USE LANE
PROPOSED SPECIAL USE LANE
EXISTING L/A RIGHT-OF-WAY
PROPOSED L/A RIGHT OF WAY
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED BRIDGE
PROPOSED BRIDGE WIDENING
BARRIER WALL
RETAINING WALL
PROPOSED NOISE WALL
FEMA 100 YEAR FLOOD PLAIN
WETLANDS
PARCEL/PROPERTY LINES
POTENTIAL CONTAMINATED SITE
POTENTIAL BUSINESS RELOCATION
POTENTIAL RESIDENTIAL RELOCATION
EXISTING SIGNAL
PROPOSED SIGNAL
REMOVE SIGNAL

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS
JACOBS™

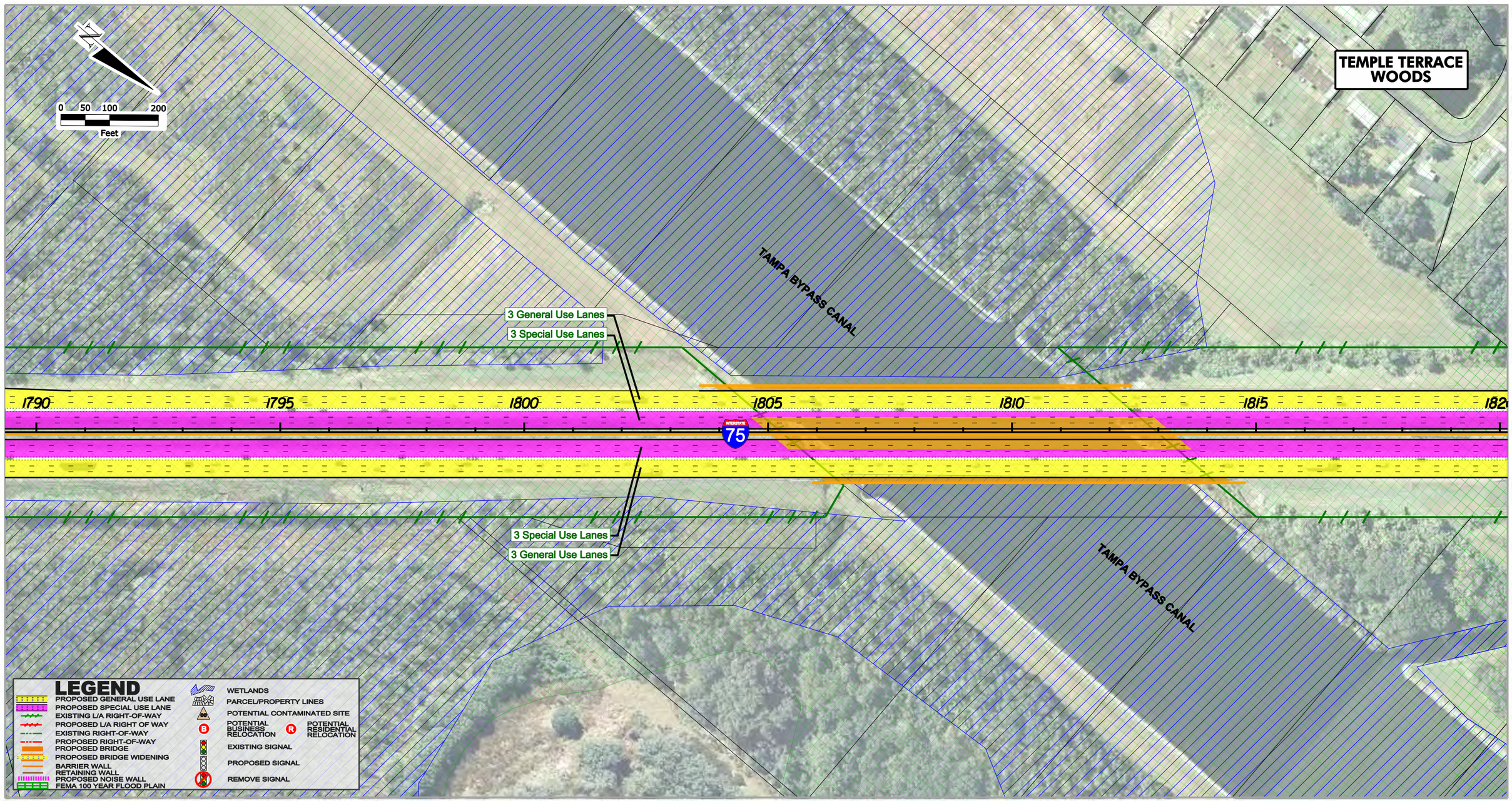
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 34

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS

JACOBS™

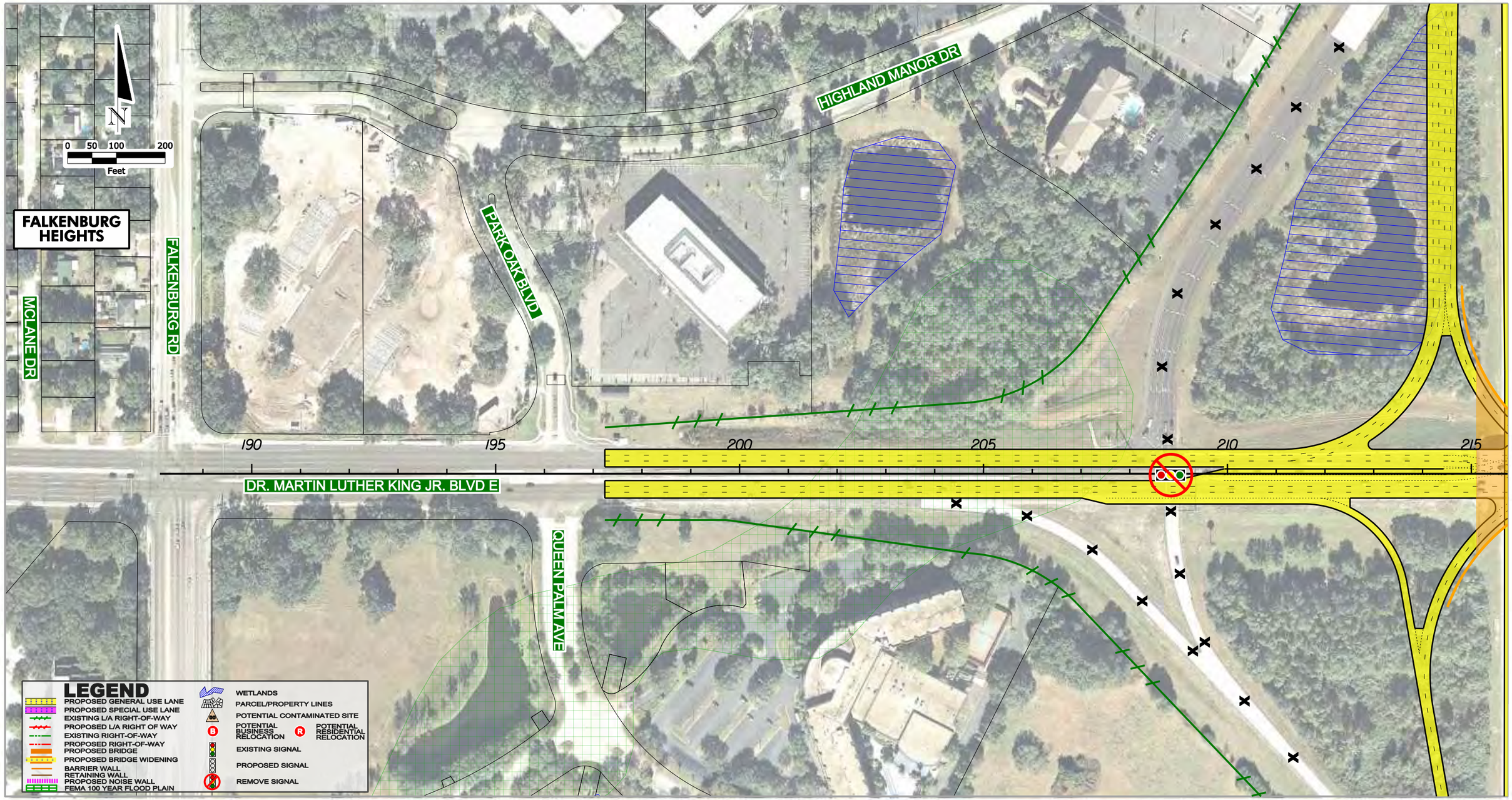
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 35

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS

JACOBS™

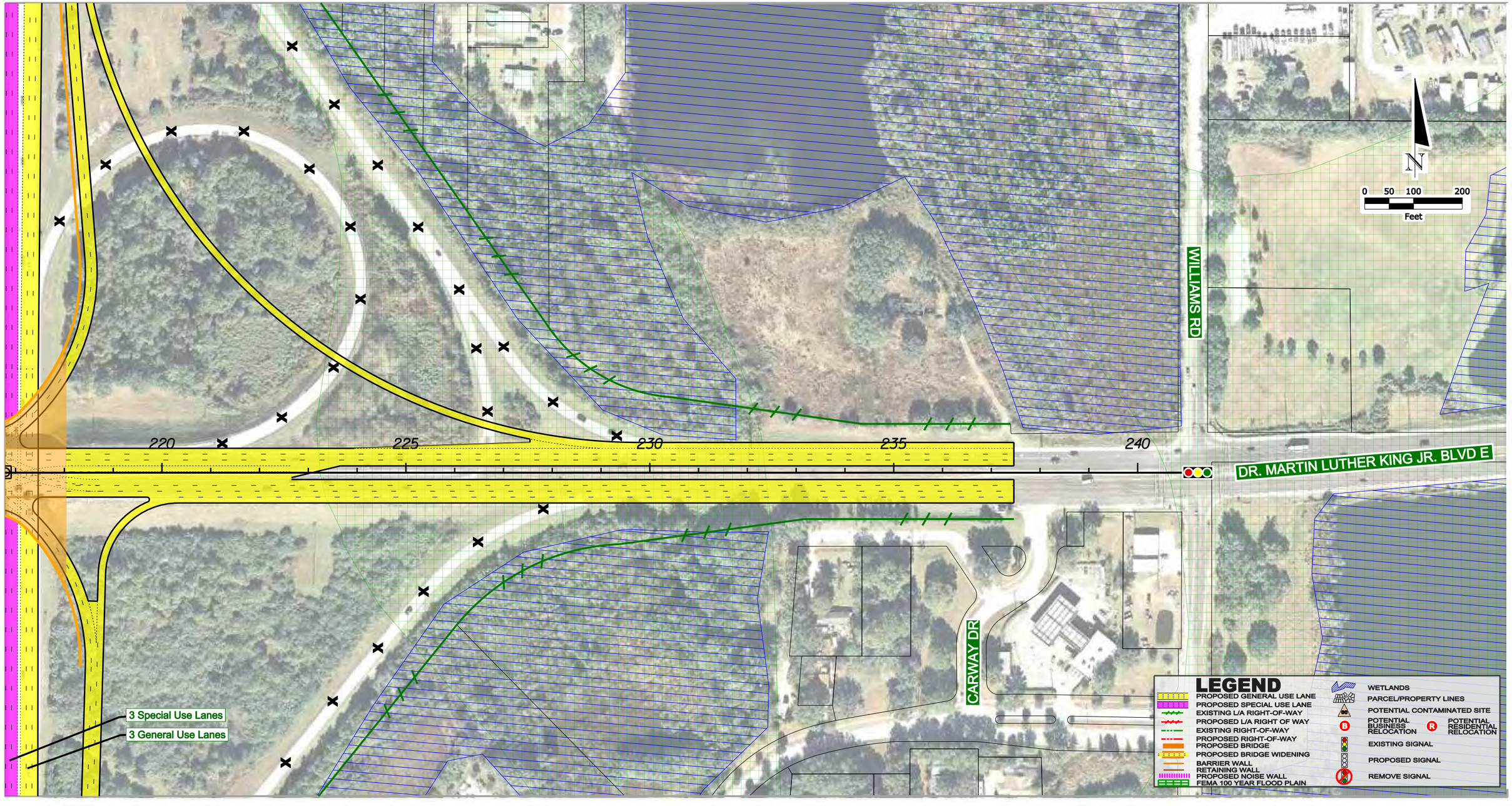
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 36

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

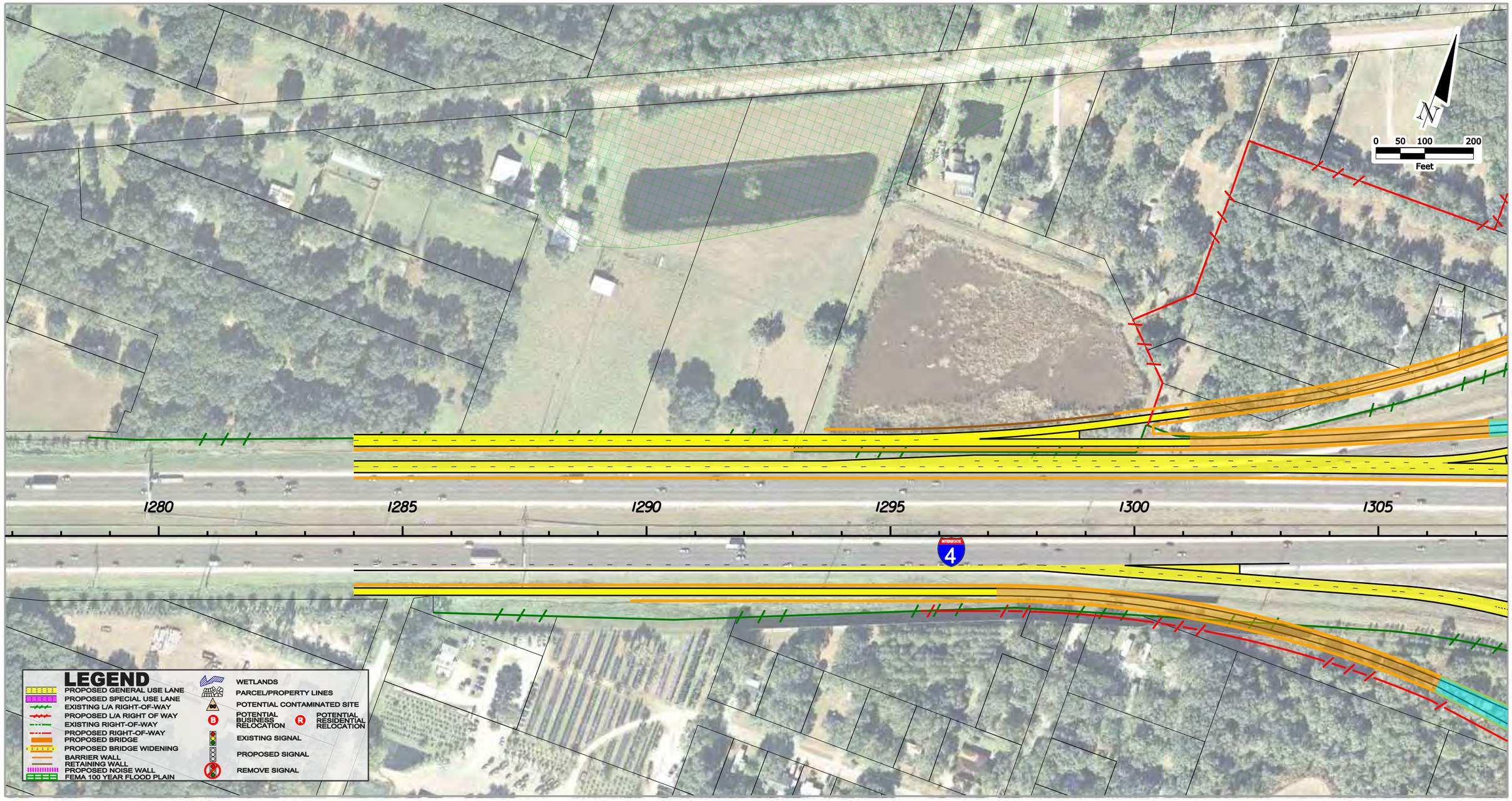
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 37

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

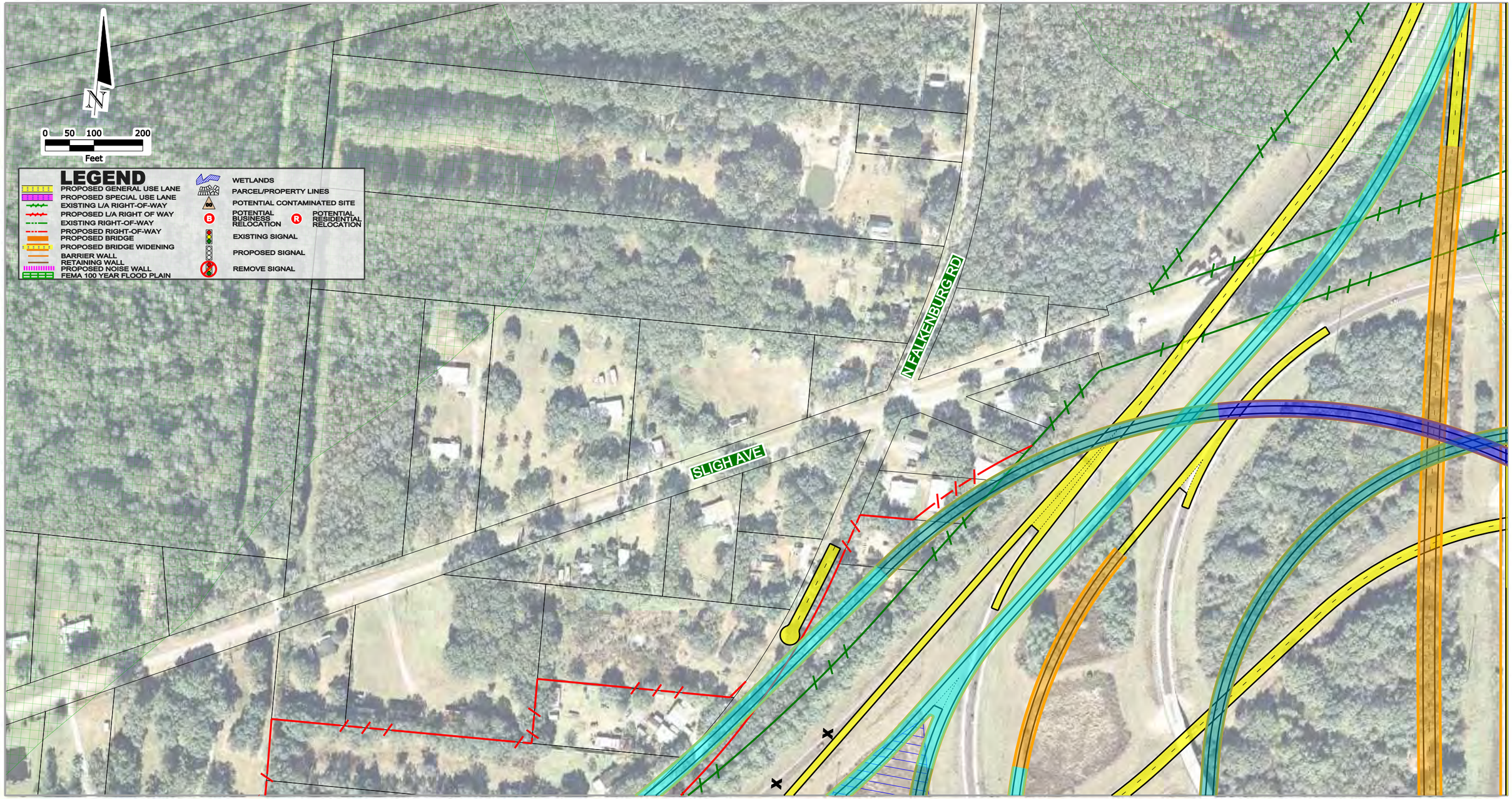
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 38

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

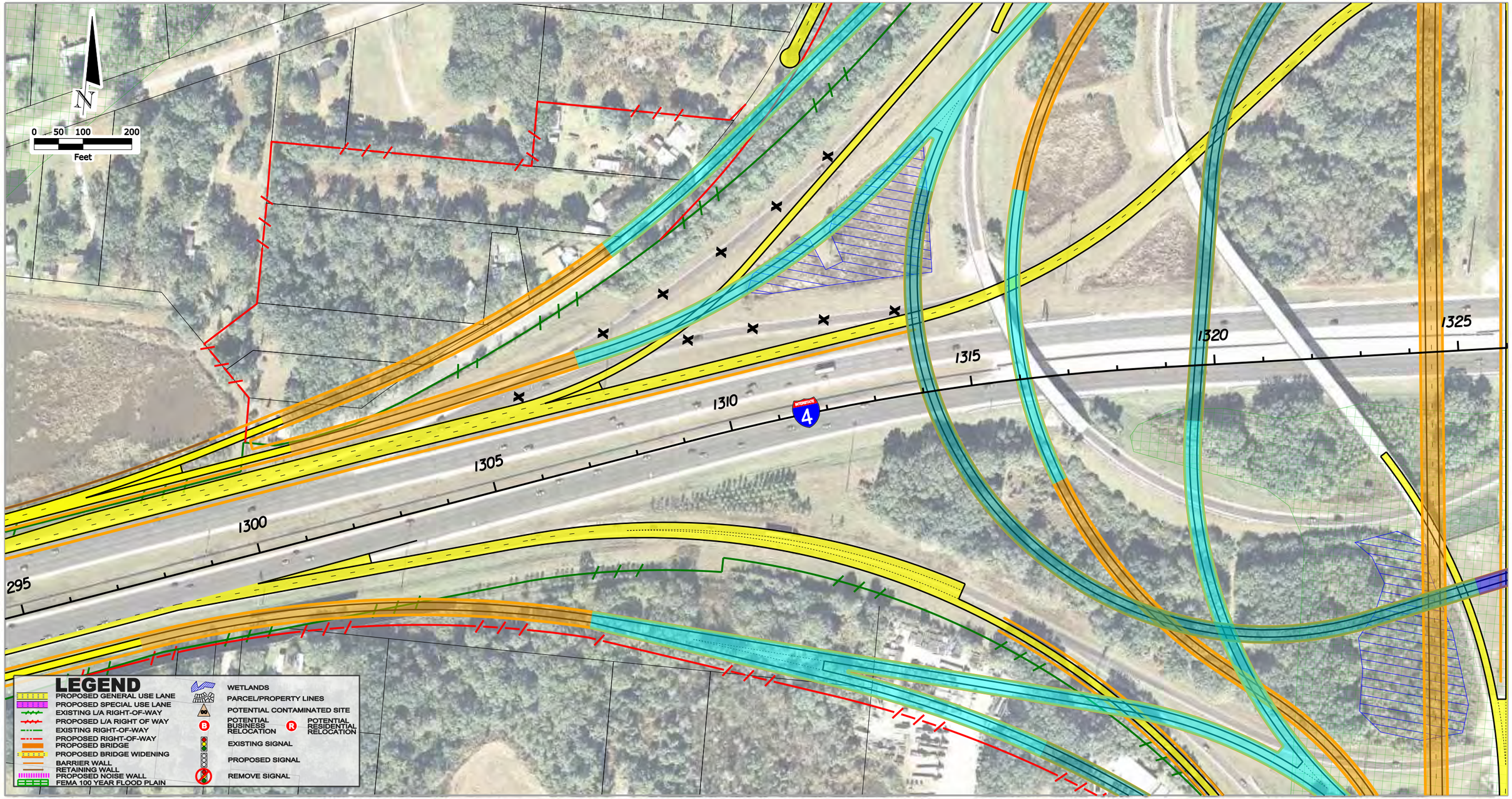
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 39

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01

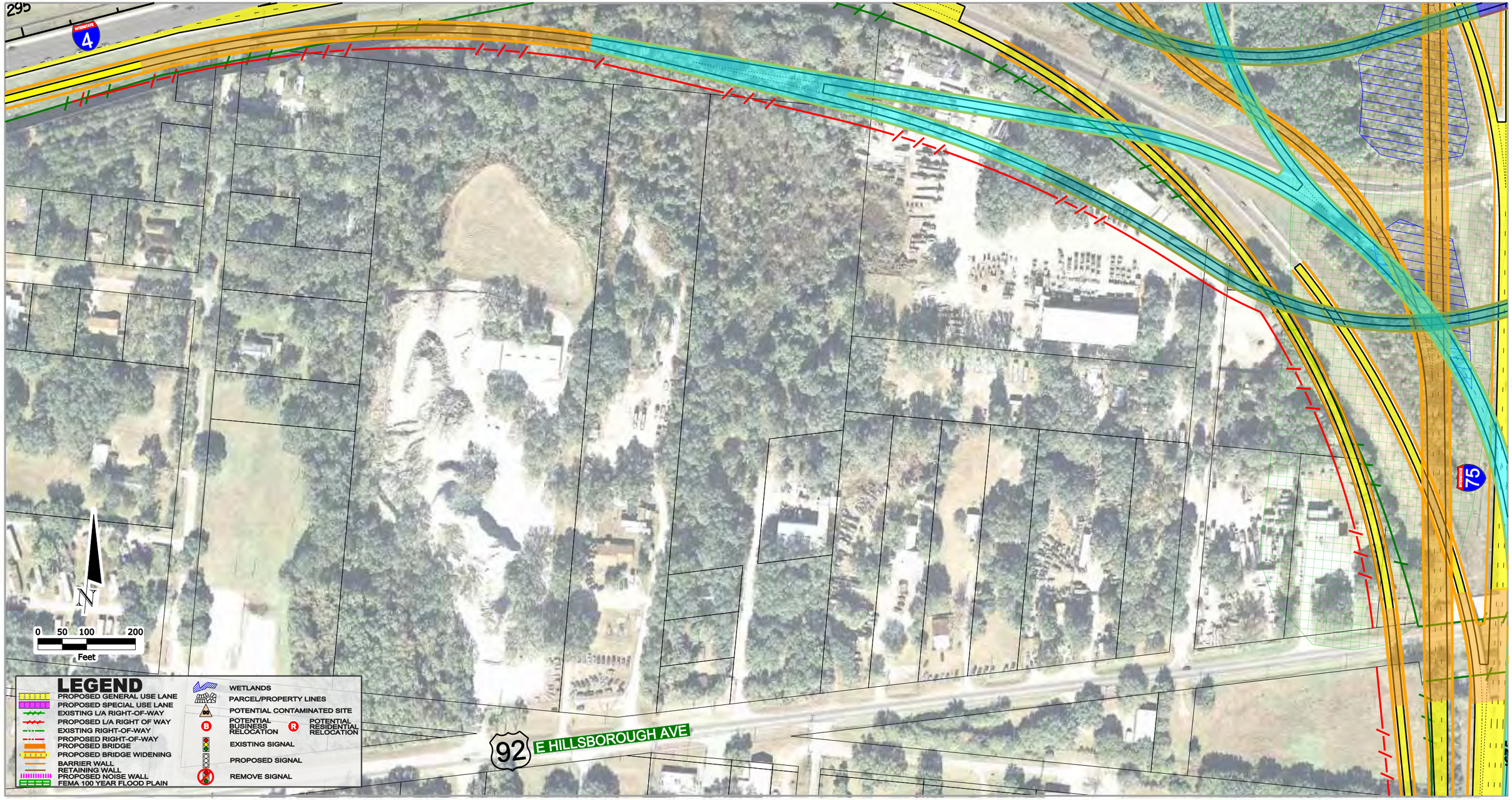


PB 100 YEARS
JACOBS™

Segment Two
Preferred Alternative

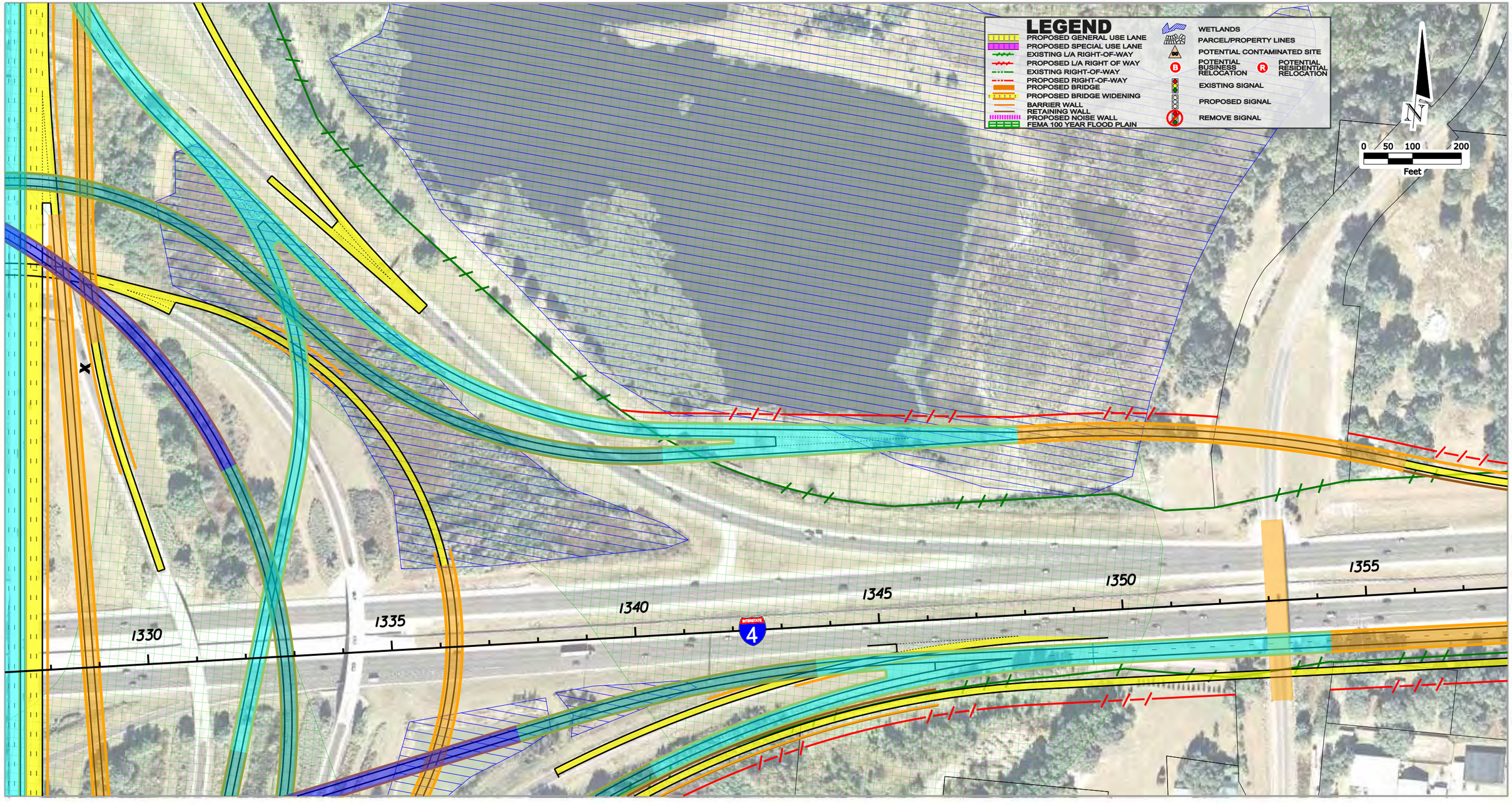
AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 40


295
4
75
92
E HILLSBOROUGH AVE
N
0 50 100 200
Feet
LEGEND
PROPOSED GENERAL USE LANE
PROPOSED SPECIAL USE LANE
EXISTING L/A RIGHT-OF-WAY
PROPOSED L/A RIGHT OF WAY
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED BRIDGE
PROPOSED BRIDGE WIDENING
BARRIER WALL
RETAINING WALL
PROPOSED NOISE WALL
FEMA 100 YEAR FLOOD PLAIN
WETLANDS
PARCEL/PROPERTY LINES
POTENTIAL CONTAMINATED SITE
POTENTIAL BUSINESS RELOCATION
POTENTIAL RESIDENTIAL RELOCATION
EXISTING SIGNAL
PROPOSED SIGNAL
REMOVE SIGNAL

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

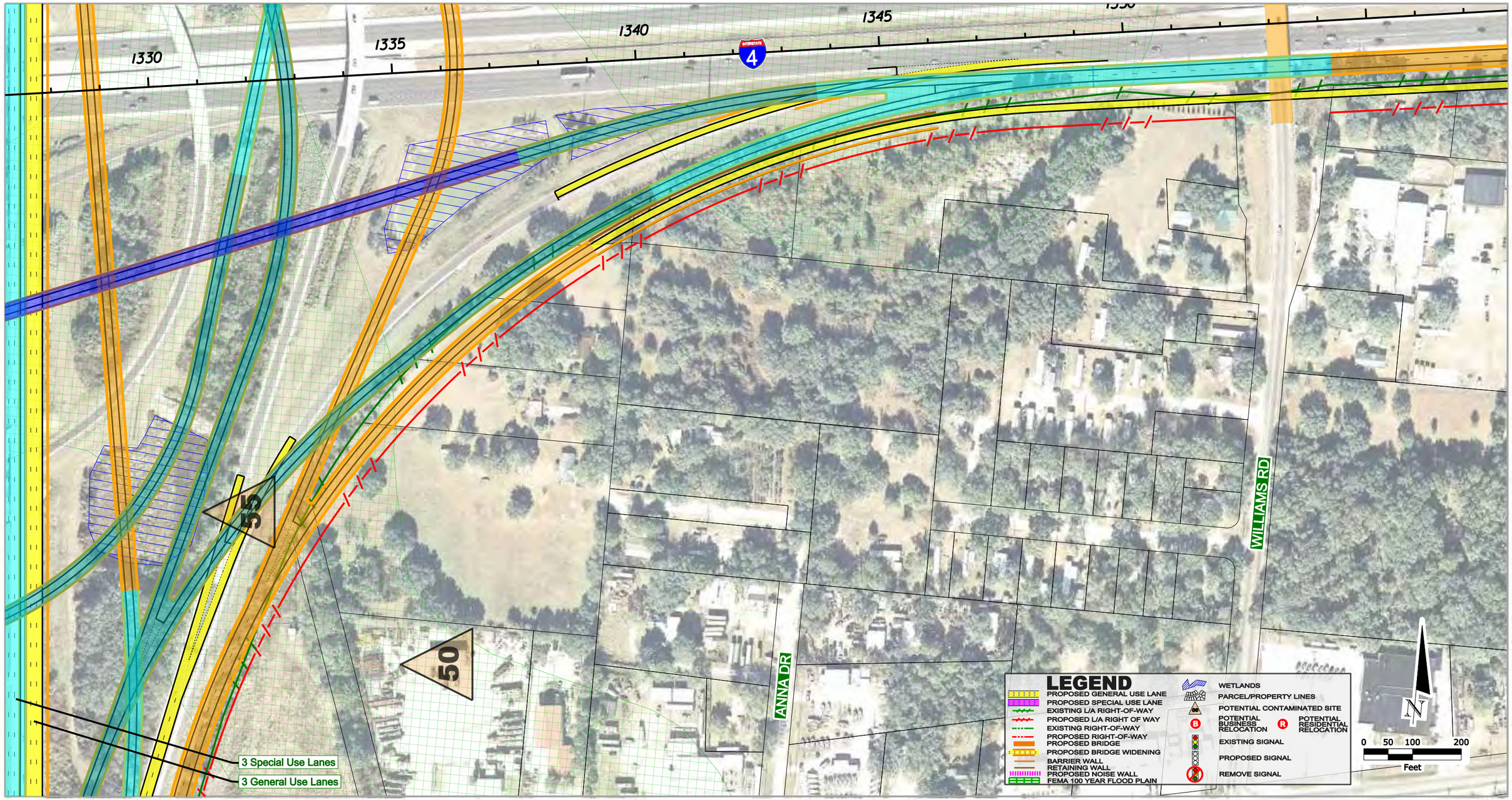
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 42

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



JACOBS™

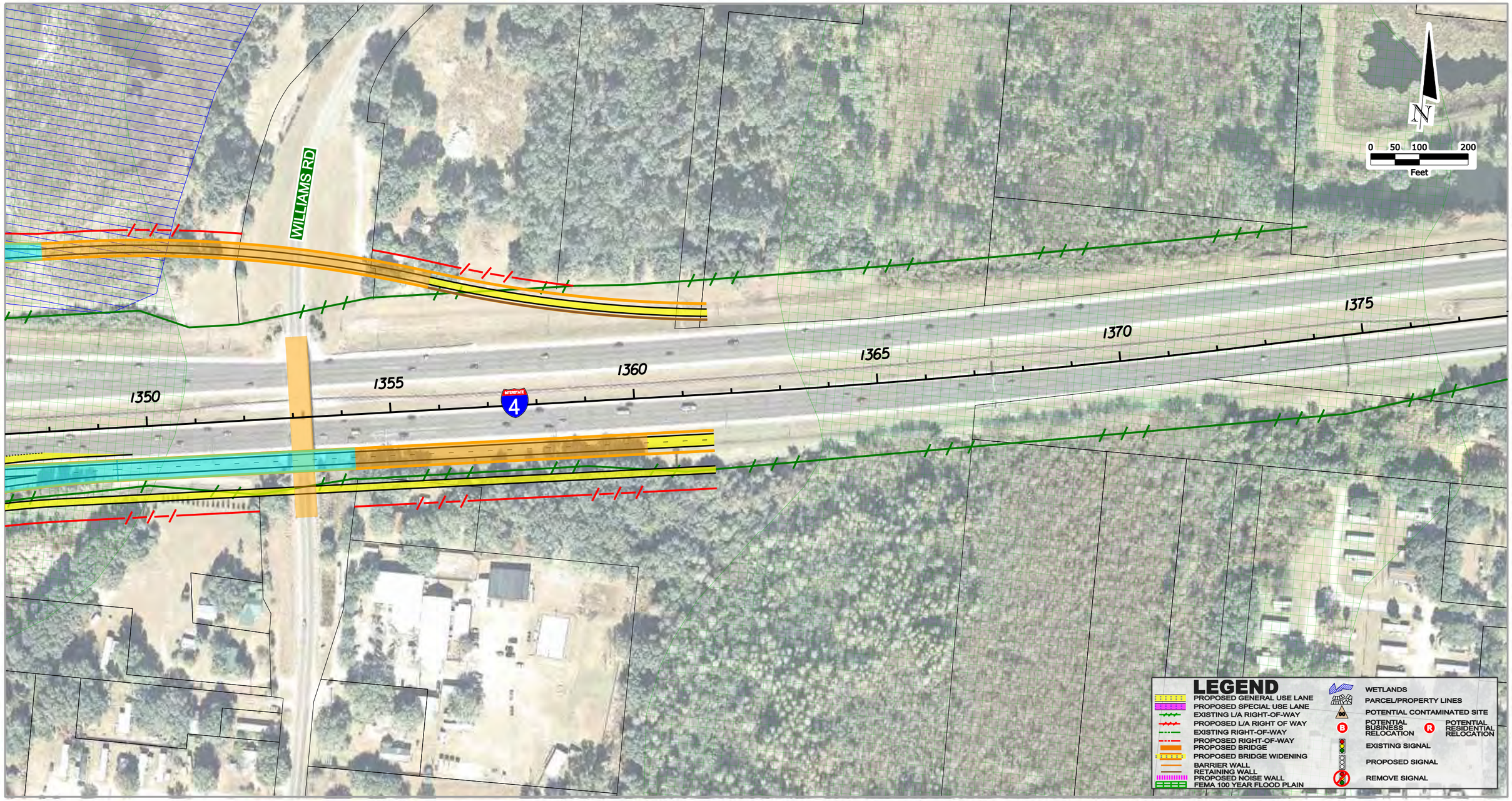
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 43

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

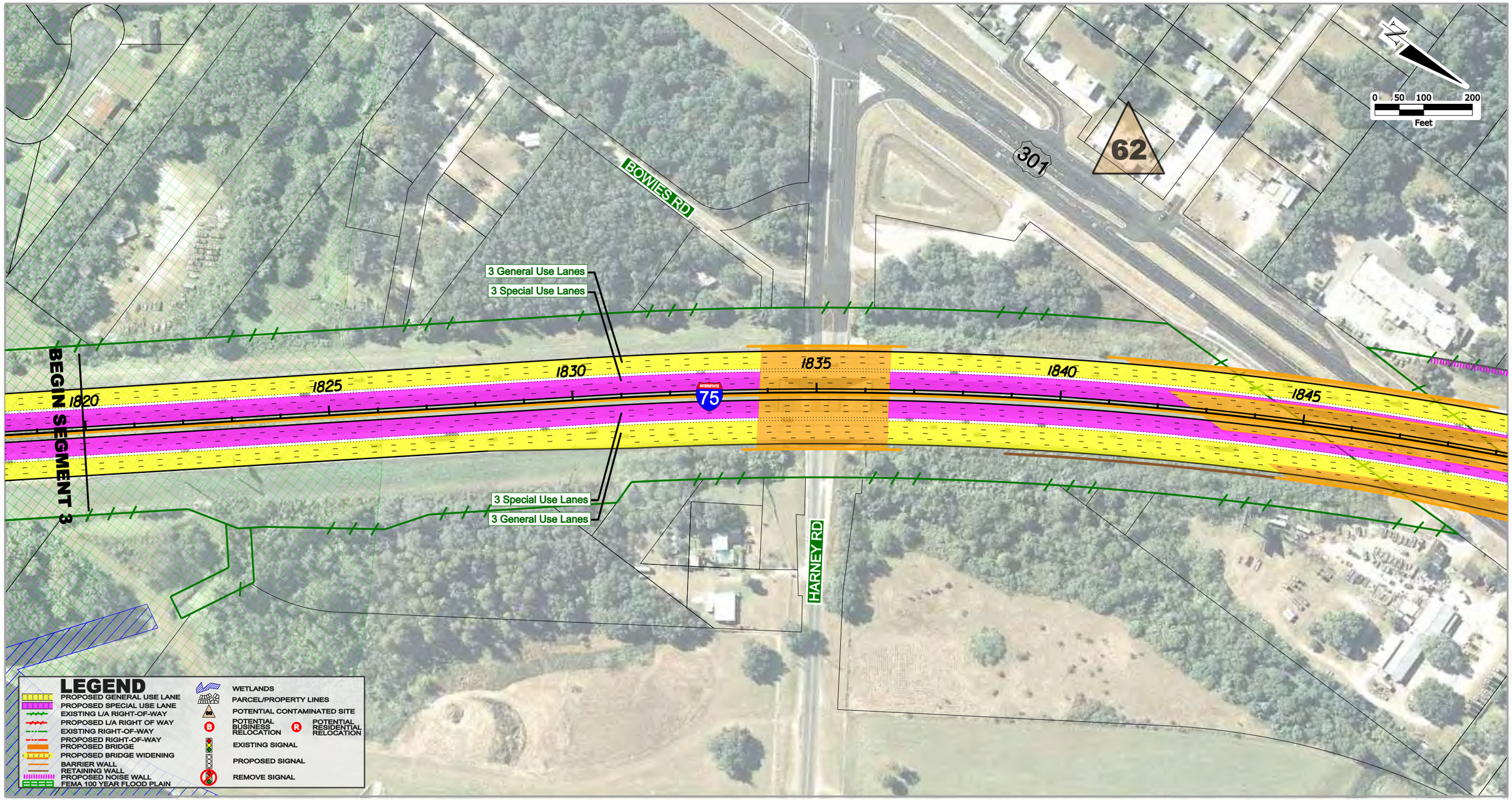
Segment Two
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 44

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

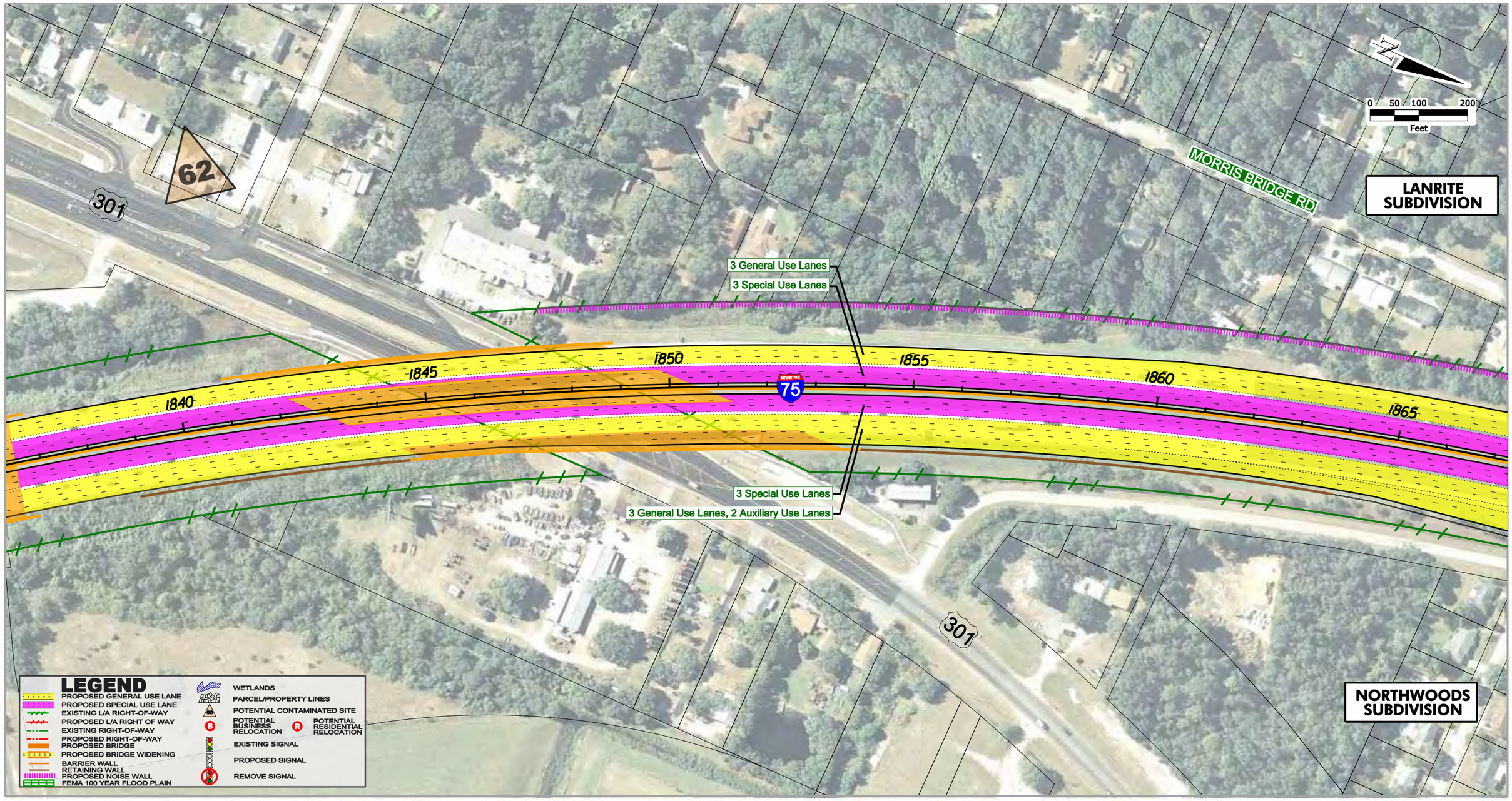
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 45

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

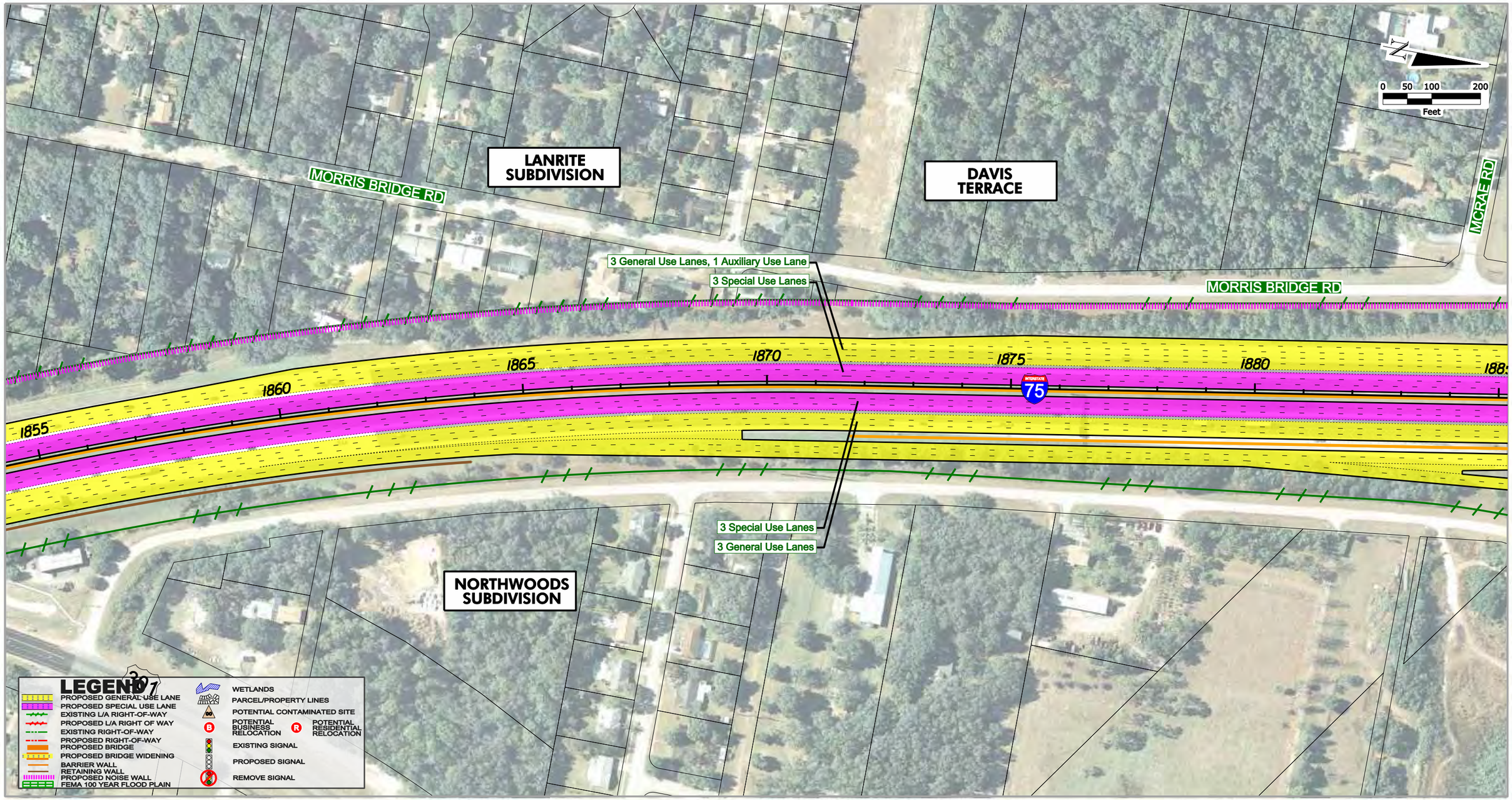
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 46

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

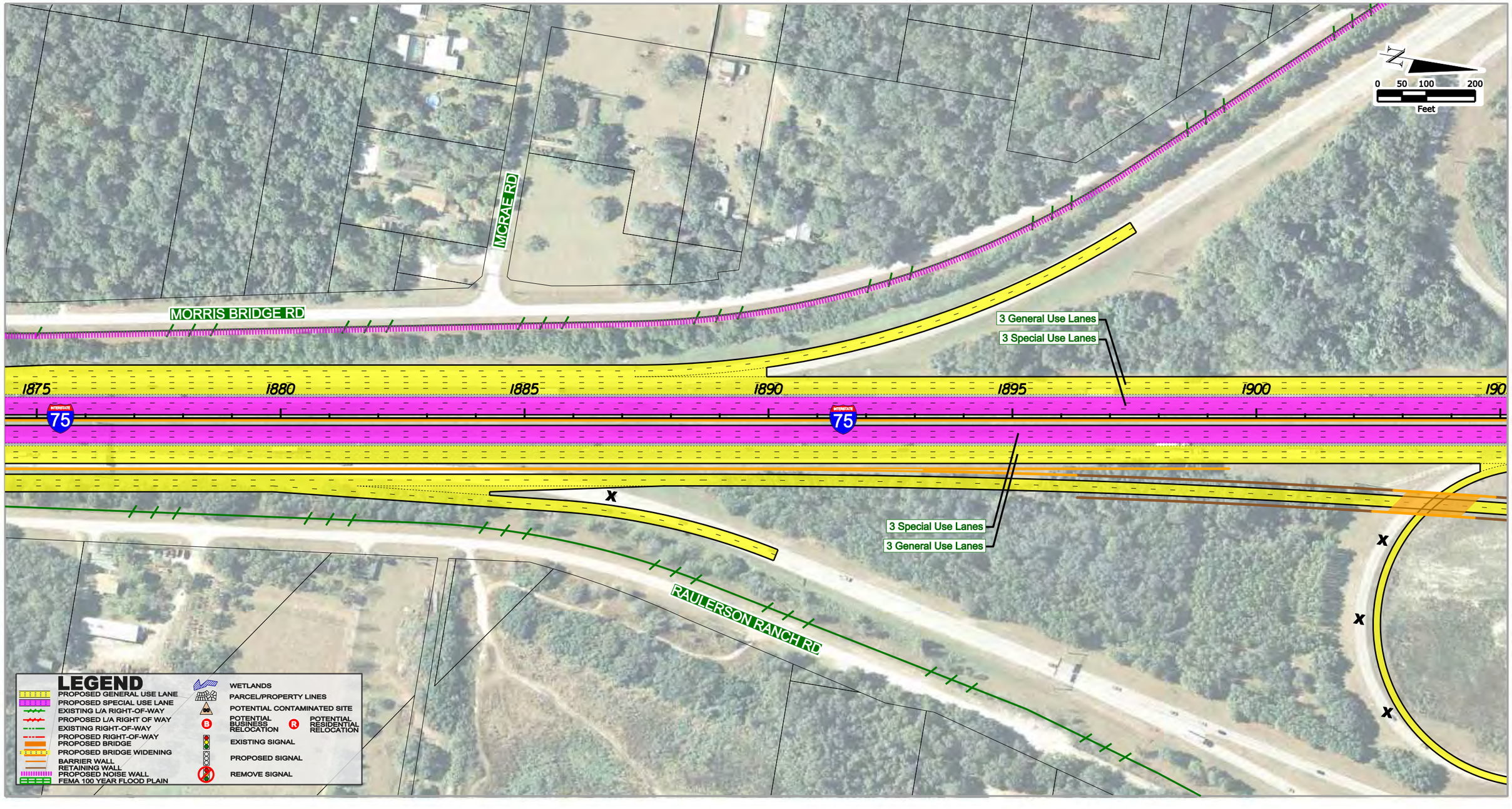
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 47

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



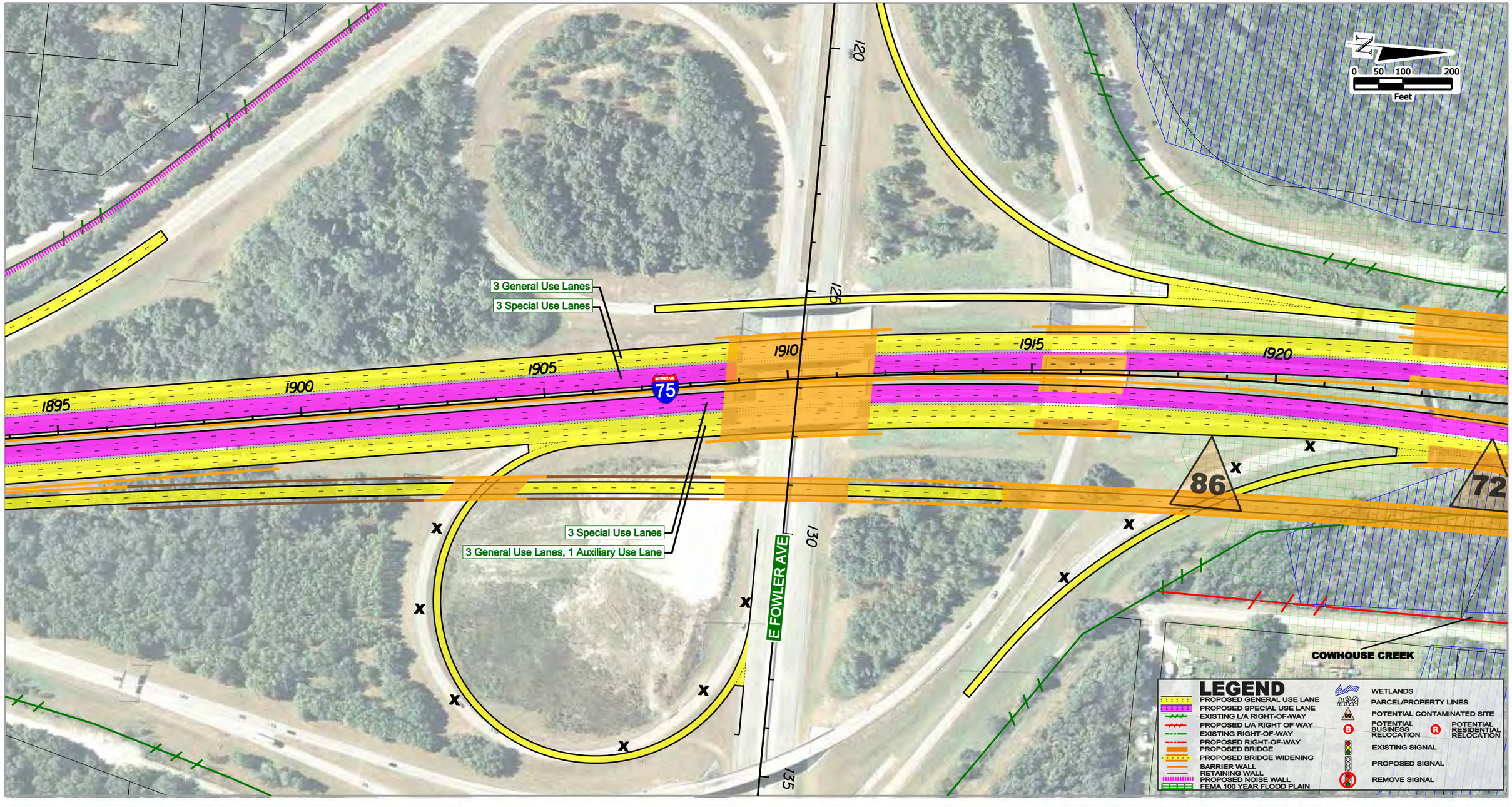
PB 100 YEARS

JACOBS™

Segment Three
Preferred Alternative

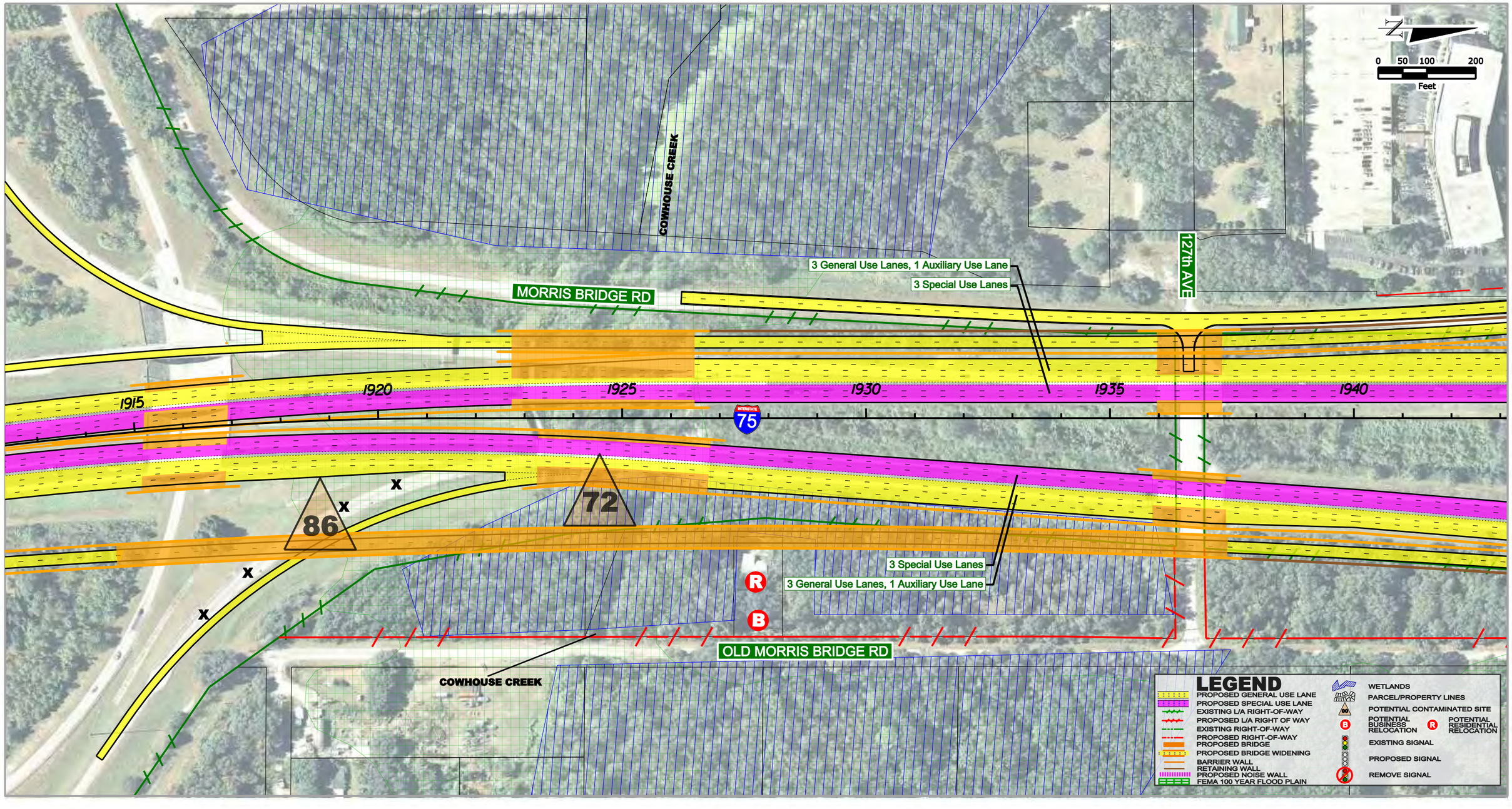
AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 48


3 General Use Lanes
3 Special Use Lanes
3 Special Use Lanes
3 General Use Lanes, 1 Auxiliary Use Lane
E FOWLER AVE
INTERSTATE 75
120
125
130
135
1895
1900
1905
1910
1915
1920
86
72
COWHOUSE CREEK
N
0 50 100 200
Feet
LEGEND
PROPOSED GENERAL USE LANE
PROPOSED SPECIAL USE LANE
EXISTING L/A RIGHT-OF-WAY
PROPOSED L/A RIGHT OF WAY
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED BRIDGE
PROPOSED BRIDGE WIDENING
BARRIER WALL
RETAINING WALL
PROPOSED NOISE WALL
FEMA 100 YEAR FLOOD PLAIN
WETLANDS
PARCEL/PROPERTY LINES
POTENTIAL CONTAMINATED SITE
POTENTIAL BUSINESS RELOCATION
POTENTIAL RESIDENTIAL RELOCATION
EXISTING SIGNAL
PROPOSED SIGNAL
REMOVE SIGNAL

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

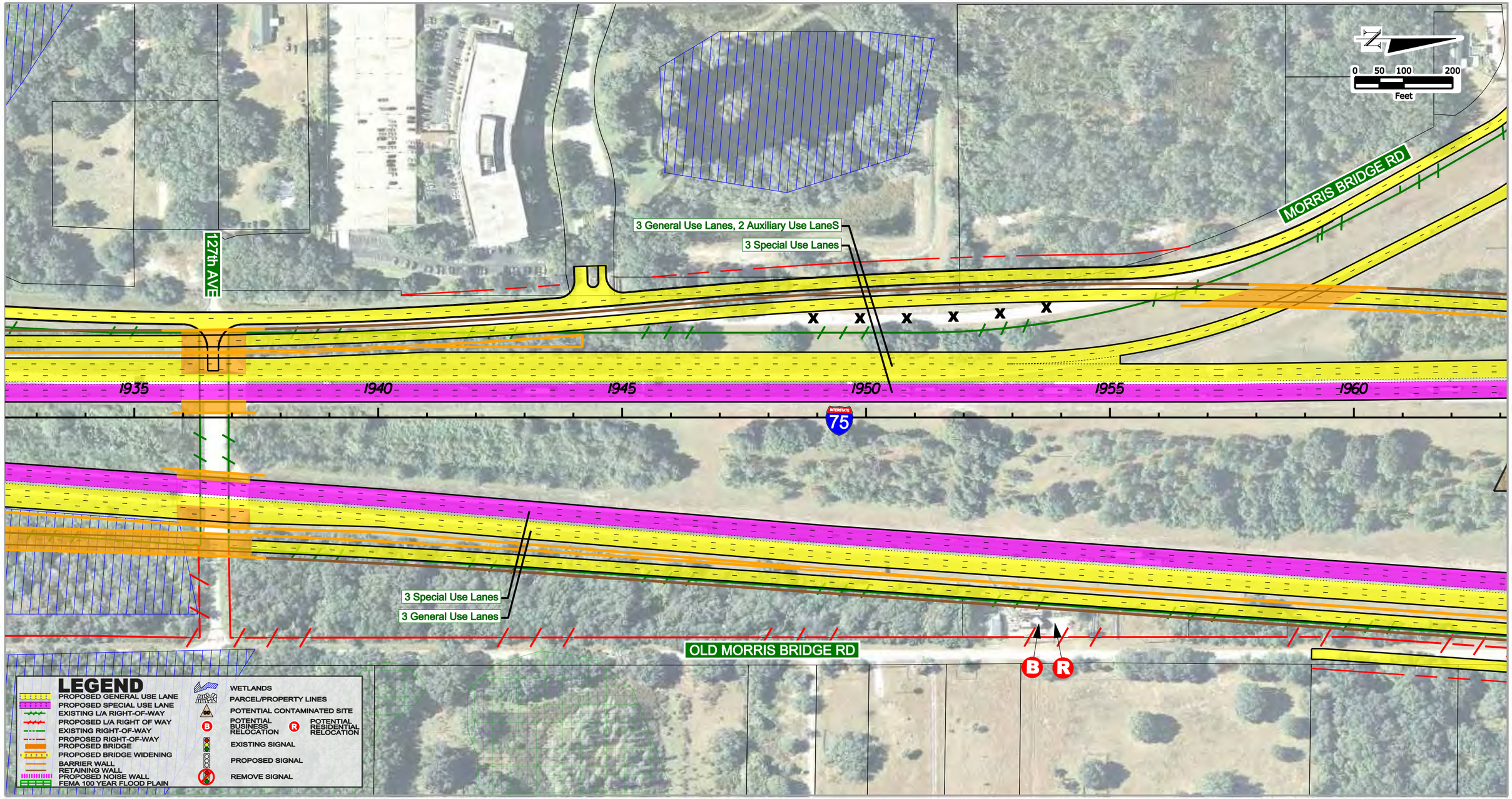
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 50

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



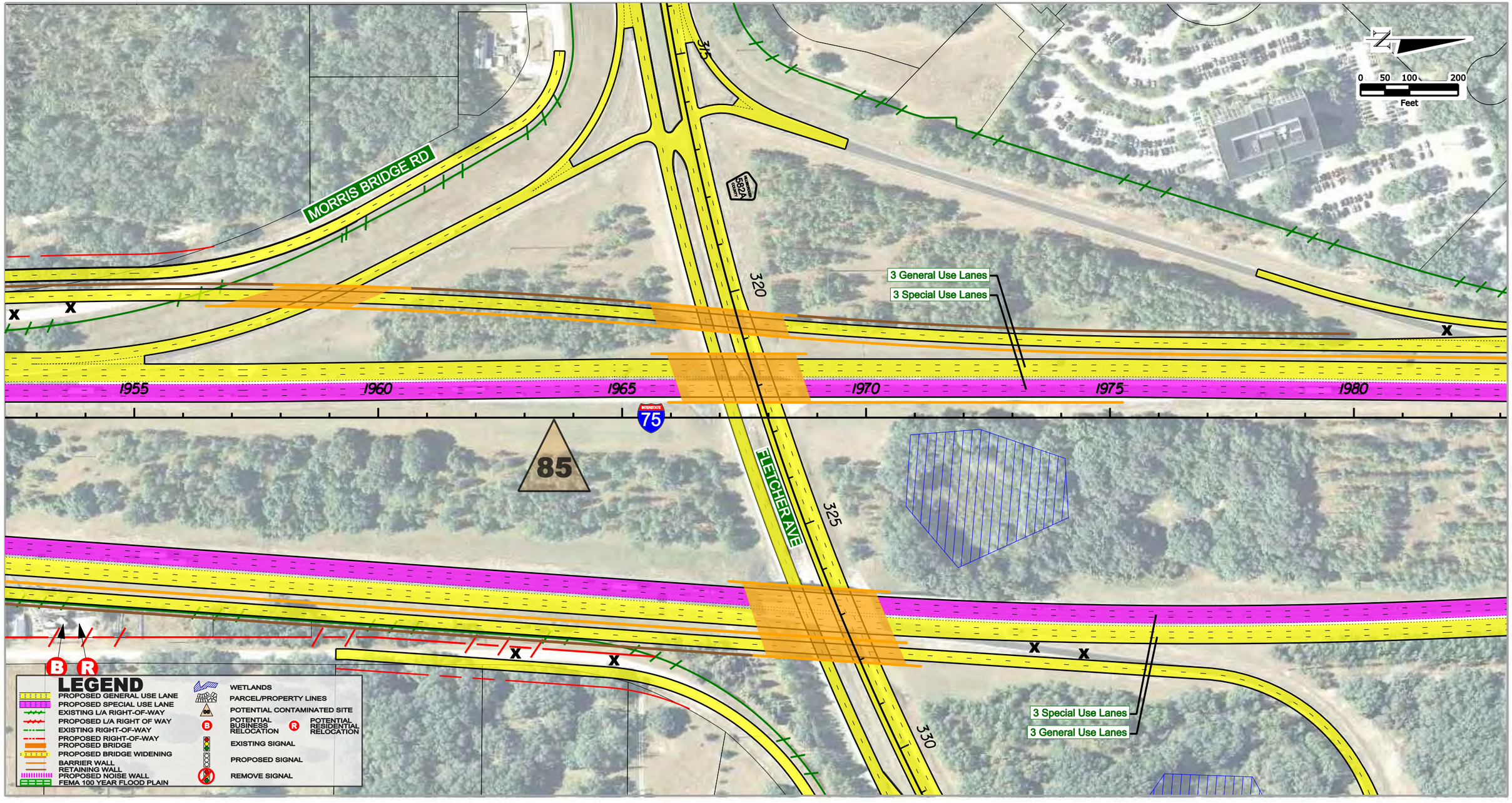
PB 100 YEARS
JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 52

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01

CARP PL

3 General Use Lanes
3 Special Use Lanes

1975 1980 1985 1990 1995 2000

75

3 Special Use Lanes
3 General Use Lanes

87

N

0 50 100 200
Feet

LEGEND

- PROPOSED GENERAL USE LANE
- PROPOSED SPECIAL USE LANE
- EXISTING L/A RIGHT-OF-WAY
- PROPOSED L/A RIGHT OF WAY
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED BRIDGE
- PROPOSED BRIDGE WIDENING
- BARRIER WALL
- RETAINING WALL
- PUBLIC MANAGED LANDS
- HILLSBOROUGH COUNTY PARK
- PROPOSED NOISE WALL
- FEMA 100 YEAR FLOOD PLAIN
- WETLANDS
- PARCEL/PROPERTY LINES
- POTENTIAL CONTAMINATED SITE
- POTENTIAL BUSINESS RELOCATION
- POTENTIAL RESIDENTIAL RELOCATION
- EXISTING SIGNAL
- PROPOSED SIGNAL
- REMOVE SIGNAL

PB 100 YEARS JACOBS™

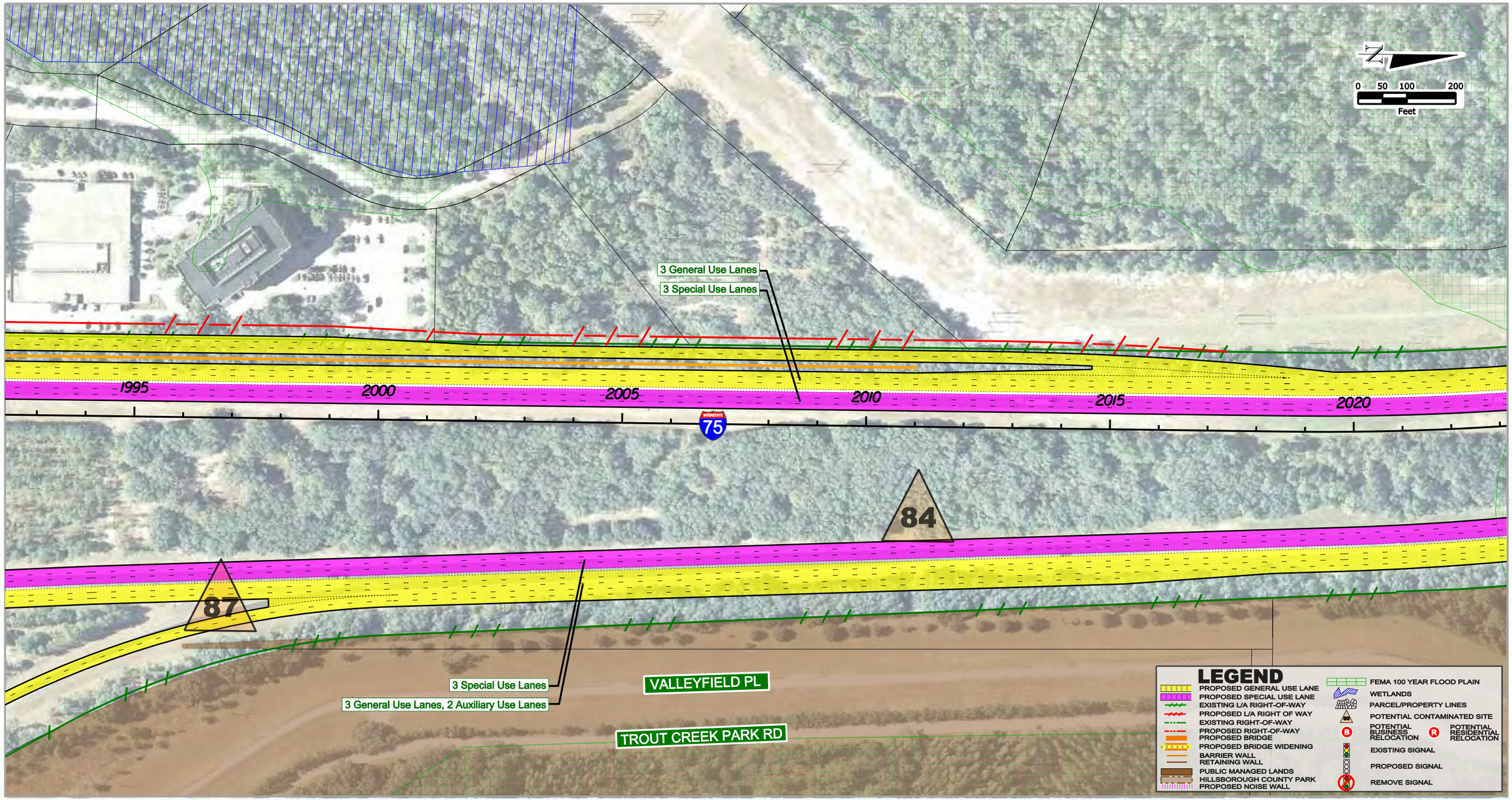
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 53

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



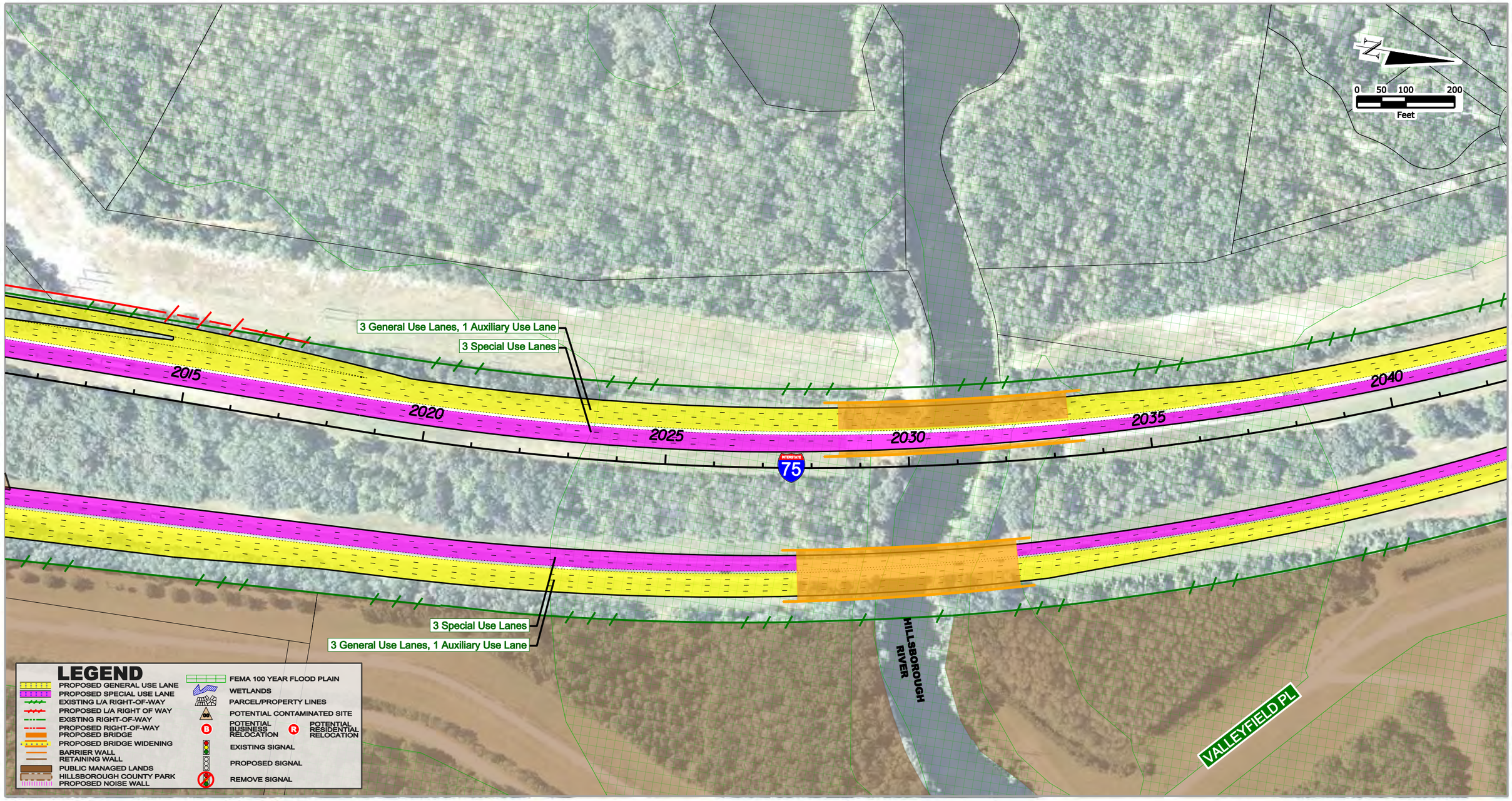
PB 100 YEARS JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



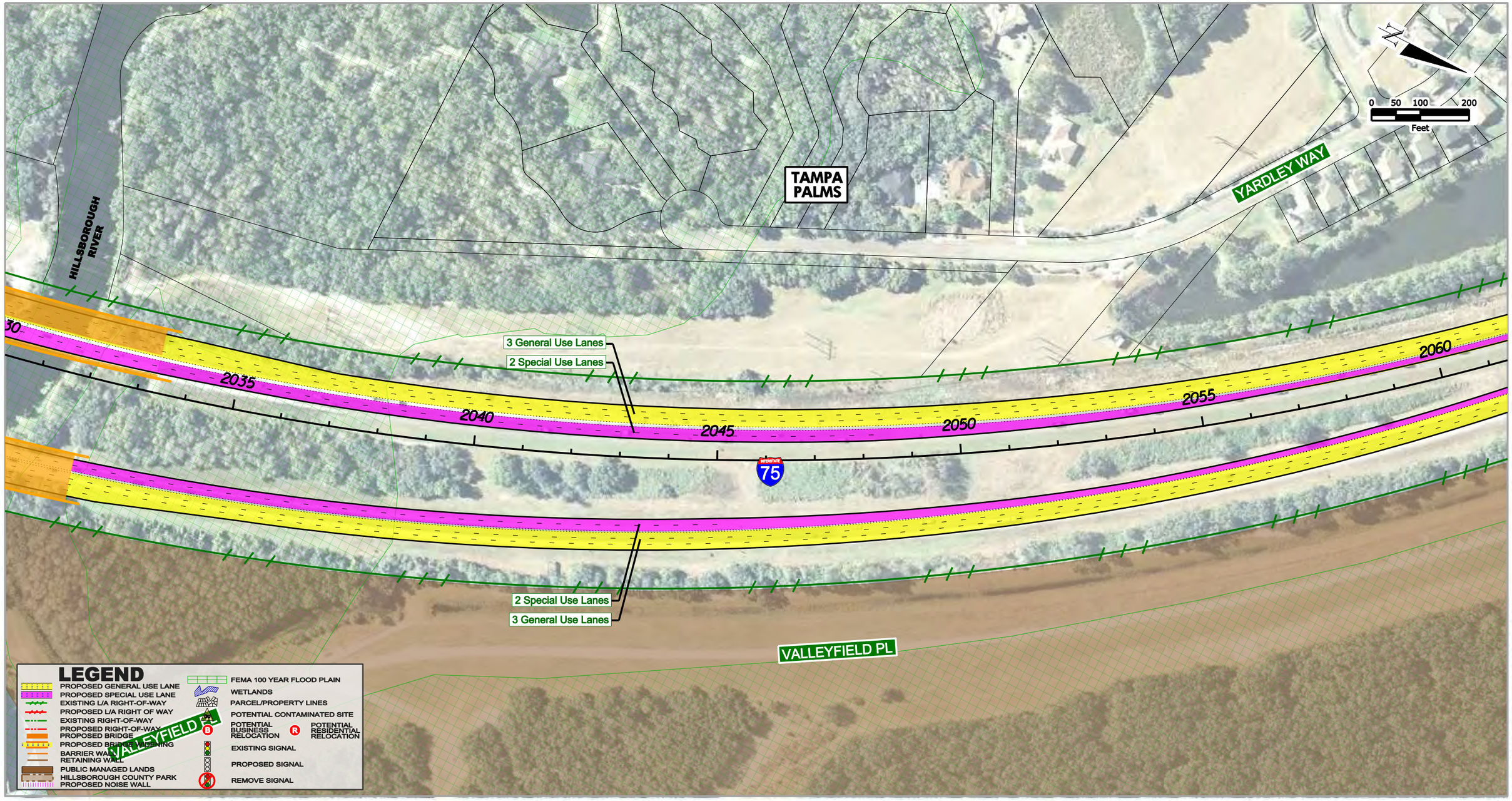
PB 100 YEARS JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



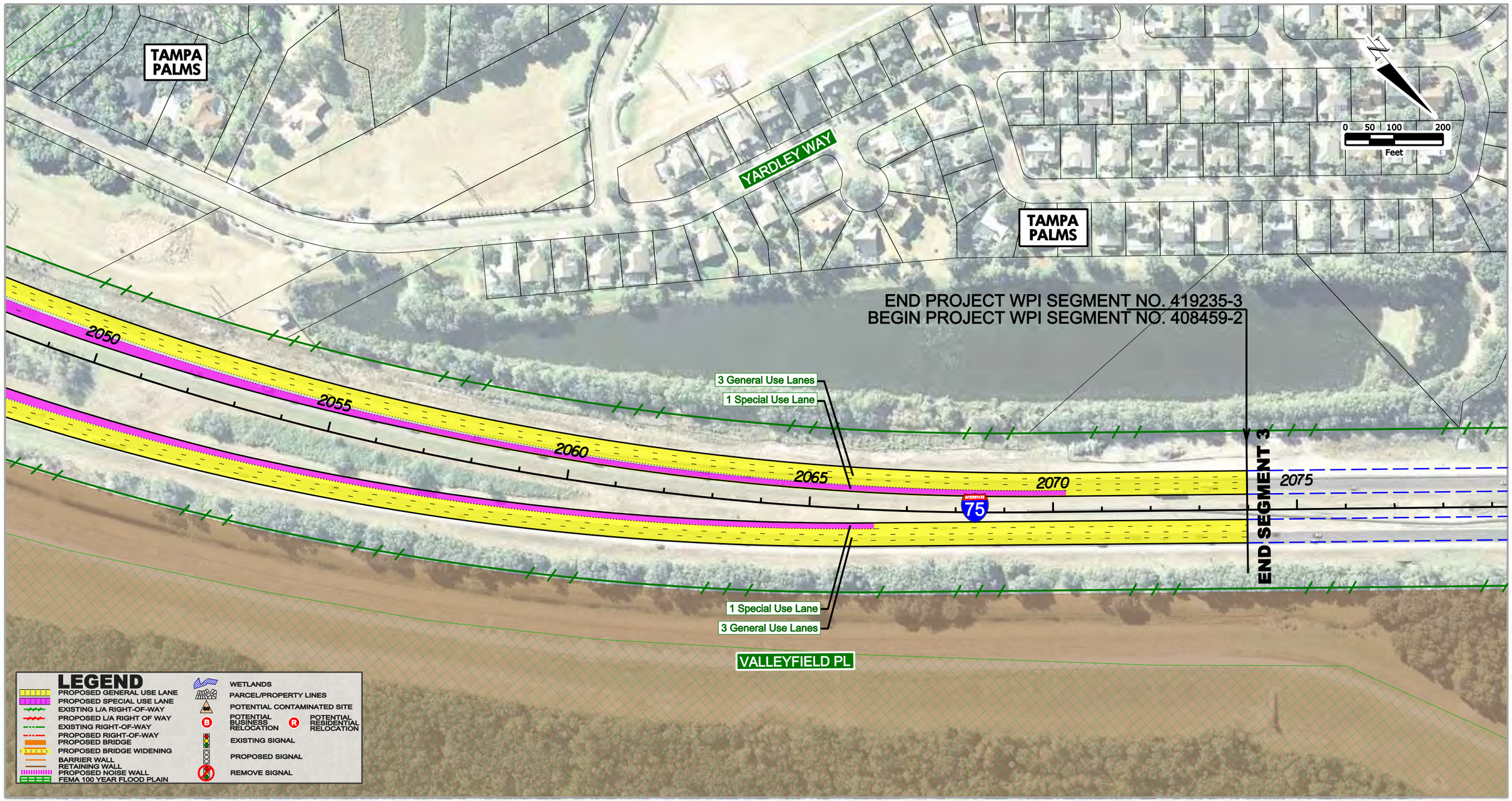
PB 100 YEARS JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS

JACOBS™

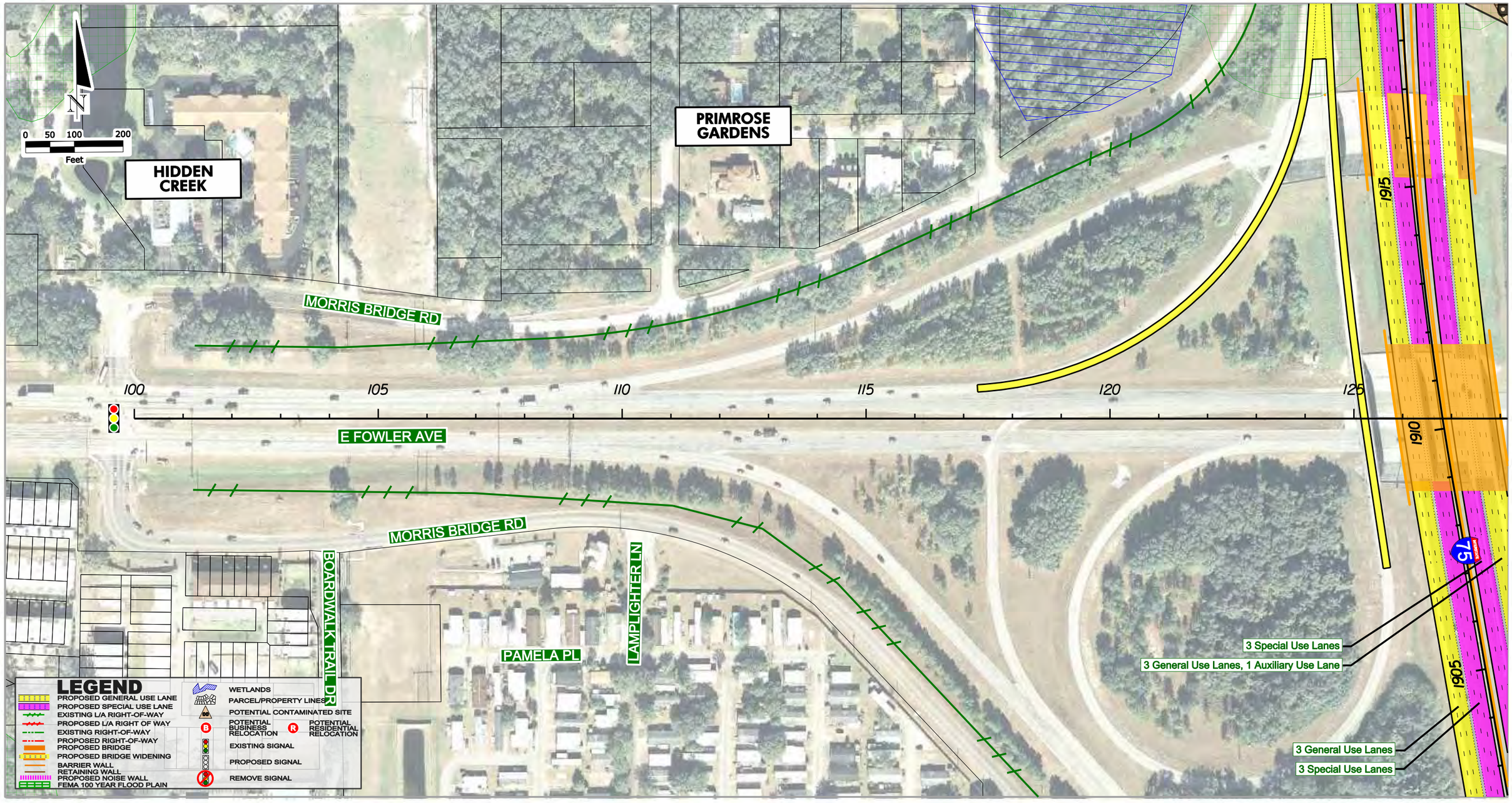
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 57

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

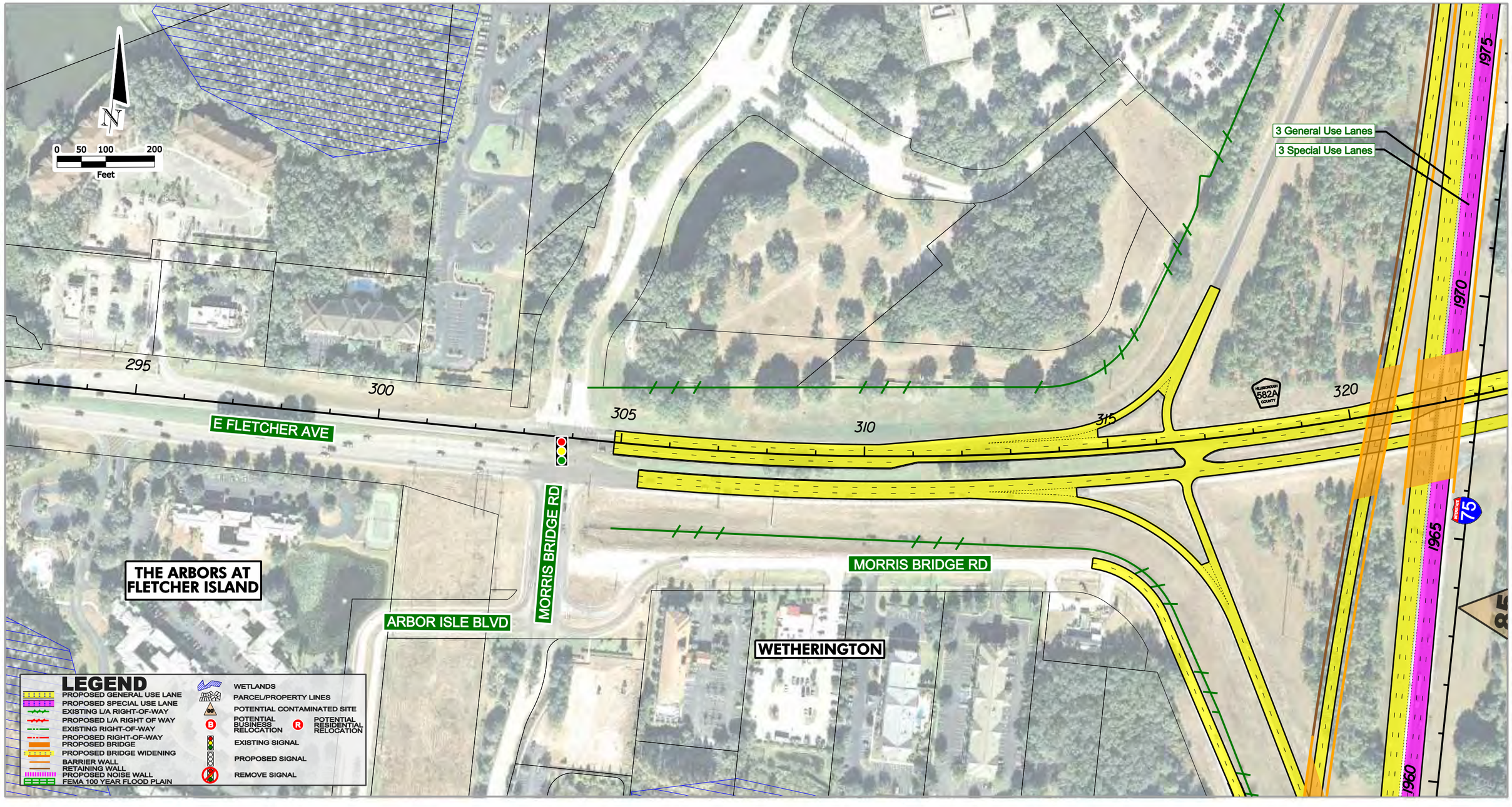
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 58

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS JACOBS™

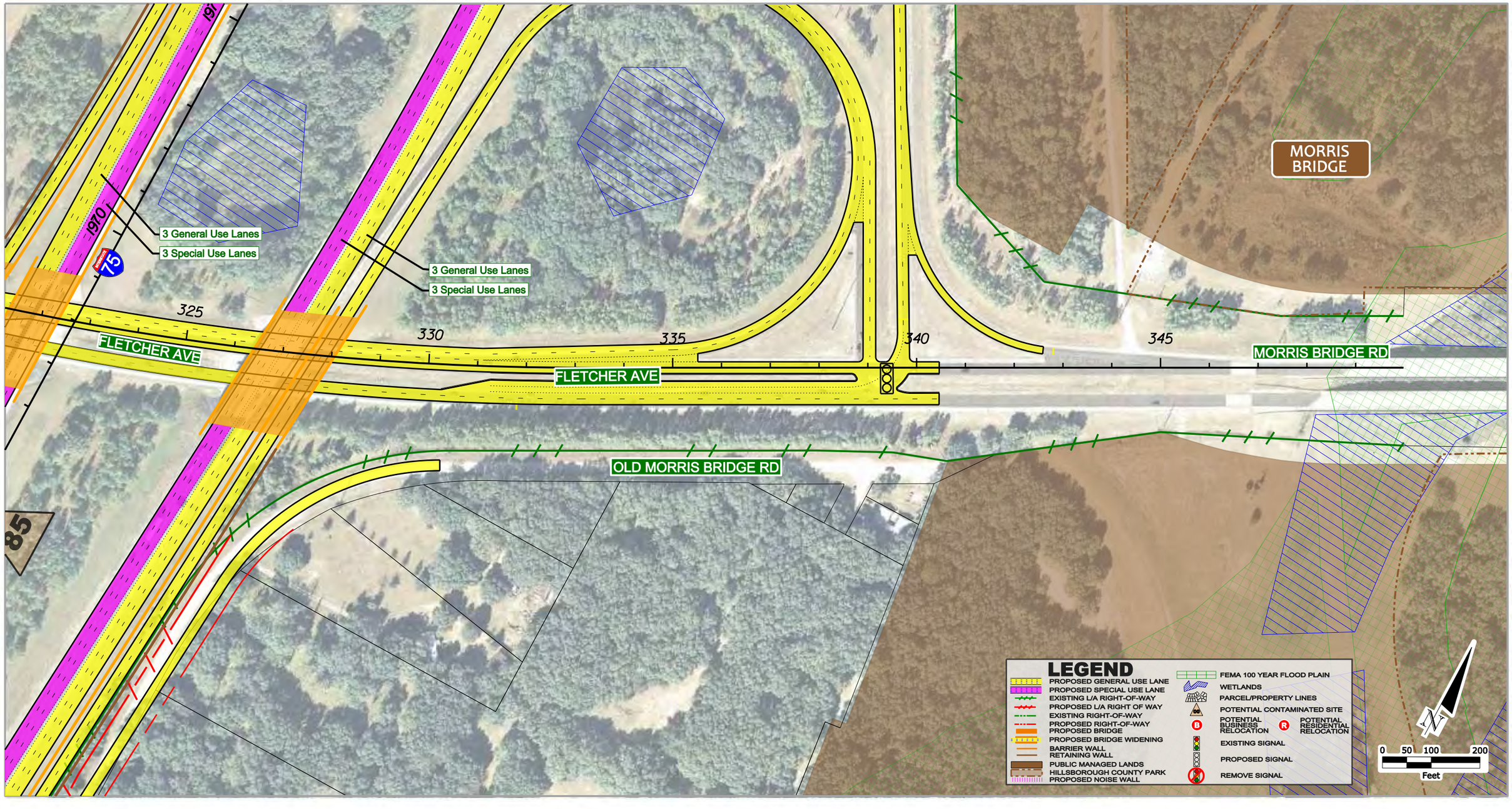
Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 59

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



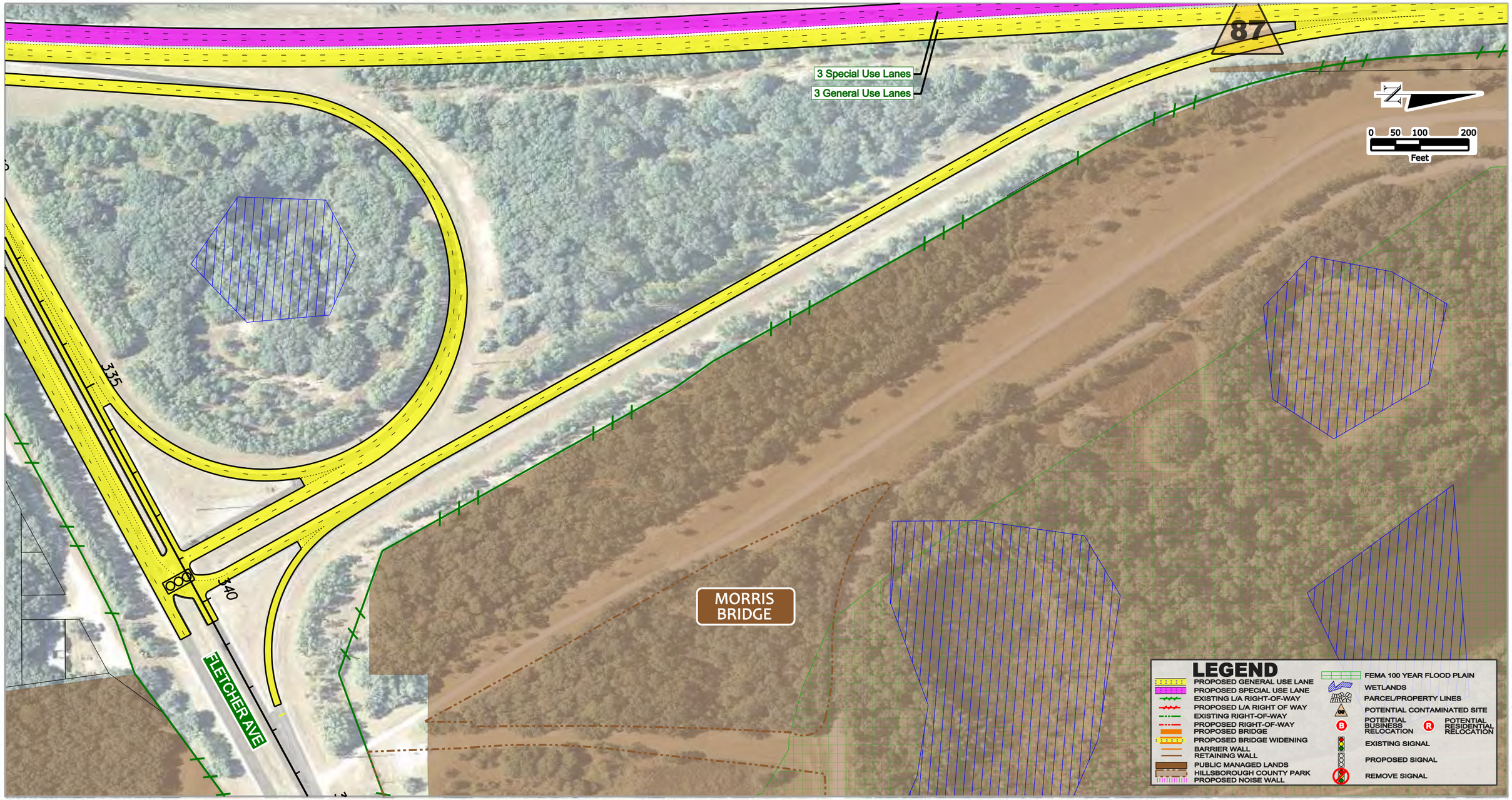
PB 100 YEARS JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
From South of US 301 to North of Fletcher Avenue - Hillsborough County

FPID
419235-3-22-01



PB 100 YEARS
JACOBS™

Segment Three
Preferred Alternative

AERIAL FLIGHT DATE: OCTOBER, 2008

Sheet No. 61

APPENDIX C

UMAM DATA SHEETS

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PEM1 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	**NWI- PEM1**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These systems are commonly adjacent to forested wetland systems within interchange infields. Two of these wetlands are isolated from other wetlands because they are sink holes (within the Fletcher interchange infields). They are surrounded by upland forested communities instead.

Assessment area description

These are palustrine emergent systems with persistent vegetation. These marsh wetlands are typically components of larger, forested wetlands. Common plant species include cattail, peruvian primrose willow, a mix of sedges, mock Bishop's weed, soft rush, and scattered Carolina willow, saltbush and wax myrtle.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PEM1 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	0	These systems are commonly adjacent to forested wetland systems within interchange infields. Two of these wetlands are isolated from other wetlands because they are sink holes (within the Fletcher interchange infields). They are surrounded by upland forested communities instead. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). Within the ROW, habitat parcels of any significant size exist within the interchange infields. In general, little habitat support is afforded by the surrounding landuse, particularly because where it does exist (in this case, in the interchange infields), it consists of small parcels completely surrounded by roadway.
.500(6)(b)Water Environment (n/a for uplands)	5	0	These systems typically retain water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, water levels appeared to be low during field reviews but did increase throughout the duration of the surveys as the 2008 rain season began. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but most of the species are weedy, opportunistic, or exotics that do not typically show stress signs. Standing water appeared to be of moderate clarity based on visual inspection at time of field surveys.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	0	Common plant species include cattail, peruvian primrose willow, a mix of sedges, mock Bishop's weed, soft rush, and scattered Carolina willow, saltbush and wax myrtle.

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

Delta = [with-current]
-0.40

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PEM1x wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641x	**NWI- PEM1 (excavated systems)**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These systems commonly connect to larger wetlands within and outside the project area. They typically run alongside grassy, mowed ROW of I-75, both along the edge of the mainline as well as within interchange infields.

Assessment area description

These are excavated palustrine emergent systems with persistent vegetation. These systems fall into two categories: 1) excavated ditches or shallow borrow pit areas within interchange infields that are NOT upland-cut- instead are cut in hydric soils and are therefore considered as wetlands, not surface waters and 2) shallow borrow pit areas within interchange infields that are not located within hydric soils but due to the length of time in existence, display wetland functions. Common plant species include cattail, peruvian primrose willow, a mix of sedges, and scattered Carolina willow, saltbush and wax myrtle. These are maintained systems and therefore fluctuate in the amount of shrub coverage depending on when they are mowed.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage and conveyance, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PEM1X wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	0	These are excavated ditches along the edges of the I-75 mainline and within interchange infields, as well as shallow excavated "ponds" within interchange infields. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). Within the ROW, habitat parcels of any significant size exist within the interchange infields. In general, little habitat support is afforded by the surrounding landuse, particularly because where it does exist, it is separated by ROW fencing and mowed grassy buffers.
.500(6)(b)Water Environment (n/a for uplands)	5	0	These ditches and shallow ponds typically retain water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, water levels appeared to be low during field reviews but did increase throughout the duration of the surveys as the 2008 rain season began. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but most of the species are weedy, opportunistic, or exotics that do not typically show stress signs. Standing water appeared to be of moderate clarity based on visual inspection at time of field surveys.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	3	0	Common plant species include cattail, peruvian primrose willow, a mix of sedges, and scattered Carolina willow, saltbush and wax myrtle. These are maintained systems and therefore fluctuate in the amount of shrub coverage depending on when they are mowed.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.37	0

Delta = [with-current]
-0.37

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

Form 62-345.900(2), F.A.C. [effective date]

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO1 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
615, 617, 630	**NWI- PFO1**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

Most of the wetlands in this category are large systems along the west side of I-75 with small edges that fall within the project ROW. They are typically adjacent to upland habitats and developed areas.

Assessment area description

These are palustrine forested wetlands with broad-leaved deciduous vegetation. Common canopy species include red maple, water oak, sweetgum, and elm. Due to drought conditions and reduced hydroperiod, the shrub layer is somewhat overgrown and the groundcover layer is reduced.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
systems offer foraging habitat and cover for wildlife, breeding habitat for some species, water storage	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 2.	**Refer to Table 2.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO1 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	0	Most of the wetlands in this category are large systems along the west side of I-75 with small edges that fall within the project ROW. They are typically adjacent to upland habitats and developed areas. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). In the areas of these systems, a ROW fence is present but typically the wetland piece within the project ROW is not also separated from the system outside the ROW by a grassy, mowed area. Instead, there is generally a continuous connection.
.500(6)(b)Water Environment (n/a for uplands)	5	0	Due to the drought conditions resulting from several years of low rainfall, standing water was not evident in these systems during the time of field reviews. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	0	Common canopy species include red maple, water oak, sweetgum, and elm. Due to drought conditions and reduced hydroperiod, the shrub layer is somewhat overgrown and the groundcover layer is reduced.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.50	0

Delta = [with-current]
-0.50

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

Form 62-345.900(2), F.A.C. [effective date]

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO1/3 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
615, 617, 630	**NWI- PFO1/3**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

Most of the wetlands in this category are large systems adjacent to I-75 with small edges that fall within the project ROW. They are typically adjacent to upland habitats and developed areas. A few of these systems are located within interchange infields and are located near freshwater marsh systems and grassy, mowed areas.

Assessment area description

These are palustrine forested wetlands with broad-leaved deciduous and broad-leaved evergreen vegetation. Common canopy species include red maple, water oak, bays, and sweetgum. Due to drought conditions and reduced hydroperiod, the shrub layer is somewhat overgrown and the groundcover layer is reduced.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
systems offer foraging habitat and cover for wildlife, breeding habitat for some species, water storage	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 2.	**Refer to Table 2.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO1/3 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

		w/o pres or current	with	
.500(6)(a) Location and Landscape Support	Most of the wetlands in this category are large systems adjacent to I-75 with small edges that fall within the project ROW. They are typically adjacent to upland habitats and developed areas. A few of these systems are located within interchange infields and are located near freshwater marsh systems and grassy, mowed areas. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). Within the ROW, habitat parcels of any significant size exist within the interchange infields. In general, little habitat support is afforded by the surrounding landuse, particularly because where it does exist (in the case of the interchange infields), it consists of small parcels completely surrounded by roadway. Along the edges of the project ROW, there is a buffer of fencing but typically no mowed, grassy areas. Instead, the forested wetland systems are continuous with the main body of the system outside the ROW.	4	0	
.500(6)(b)Water Environment (n/a for uplands)	Due to the drought conditions resulting from several years of low rainfall, standing water was not evident in these systems during the time of field reviews. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted.	5	0	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	Common canopy species include red maple, water oak, bays, and sweetgum. Due to drought conditions and reduced hydroperiod, the shrub layer is somewhat overgrown and the groundcover layer is reduced.	6	0	

Score = sum of above scores/30 (if uplands, divide by 20)		
current or w/o pres	with	
0.50	0	

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

Delta = [with-current]
-0.50

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO2 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
615, 621	**NWI- PFO2**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These systems are located just north of the Hillsborough River and are separated by a small section of shrubs. These wetlands are fairly large and likely have a direct connection to the Hillsborough River.

Assessment area description

These are palustrine forested wetlands with needle-leaved deciduous vegetation. The dominant canopy species was cypress with scattered other hardwood trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
systems offer foraging habitat and cover for wildlife, breeding habitat for some species, water storage	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 2.	**Refer to Table 2.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PFO2 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	0	The wetlands in this category are large systems along the east side of I-75 and within the median just north of Fletcher Ave and contain small areas that fall within the project ROW. Areas adjacent to these wetlands consist of mowed ROW areas and a small section of wetland forested species.
.500(6)(b)Water Environment (n/a for uplands)	5	0	Due to the drought conditions resulting from several years of low rainfall, standing water was not evident in these systems during the time of field reviews. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	0	Dominat canopy species include cypress. Due to drought conditions and reduced hydroperiod, the shrub layer was minimal and the groundcover layer reduced.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.50	0

Delta = [with-current]
-0.50

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
618, 631, 631x	**NWI- PSS1**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These systems commonly connect to other wetlands within or outside the project area. Several of these systems are located within the interchange infields and are directly surrounded by grassy, mowed areas. Other systems are scrub-shrub fringes of excavated, open water systems within interchange infields.

Assessment area description

These are palustrine scrub-shrub wetlands with broad-leaved deciduous vegetation. These systems are typically overgrown with thick shrub layers. Ground cover species are minimal. The most common plant species is Carolina willow. Other species include saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	0	These systems commonly connect to other wetlands within or outside the project area. Several of these systems are located within the interchange infields and are directly surrounded by grassy, mowed areas. Other systems are scrub-shrub fringes of excavated, open water systems within interchange infields. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). Within the ROW, habitat parcels of any significant size exist within the interchange infields. In general, little habitat support is afforded by the surrounding landuse, particularly because where it does exist (in the case of the interchange infields), it consists of small parcels completely surrounded by roadway. Along the edges of the project ROW, there is a buffer of fencing and mowed, grassy areas, which inhibits support from adjacent natural systems.
.500(6)(b)Water Environment (n/a for uplands)	5	0	These systems typically retain water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, standing water was generally not evident; however, standing water did appear in some systems throughout the duration of the surveys as the 2008 rain season began. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but the most common species in this type of system is Carolina willow, a plant known to be opportunistic. Standing water, where observed, appeared to be of moderate clarity based on visual inspection at time of field surveys.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	0	These systems are typically overgrown with thick shrub layers. Ground cover species are minimal. The most common plant species is Carolina willow. Other species include saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

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

Delta = [with-current]
-0.40

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1x wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631x	**NWI- PSS1 (excavated system)**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

This system is adjacent to another wetland within the interchange area. It is directly surrounded by grassy, mowed areas.

Assessment area description

This is a palustrine scrub-shrub wetland with broad-leaved deciduous vegetation. It is an excavated area within the interchange area and is NOT upland-cut- instead it is cut in hydric soils and are therefore considered as a wetland, not a surface water. This system is typically overgrown with thick shrub layers. Ground cover species are minimal. The most common plant species is Carolina willow. Other species include saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1x wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	2	0	This wetland is located on the northwest side of the I-75 and I-4 interchange area and is surrounded by a grassy mowed area. Little landscape support exists due to the on and off ramps associated with the I-75 and I-4 interchange.
.500(6)(b)Water Environment (n/a for uplands)	3	0	This system typically retains little to no water water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, standing water was not evident. Water level indicators are not distinct and soil erosion, deposition, or subsidence was not noted. There was no treatment of water from roadway runoff. Vegetation stress not noted but the most common species in this type of system is Carolina willow, a plant known to be opportunistic.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	0	These systems are typically overgrown with thick shrub layers. Ground cover species are minimal. The most common plant species is Carolina willow. Other species include saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.30	0

Delta = [with-current]
-0.30

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS3 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631	**NWI- PSS3**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

This system is isolated between I-75 and a off ramp and does not appear to have any above ground connection to other wetland systems.

Assessment area description

This is a palustrine scrub-shrub wetlands with broad-leaved evergreen vegetation. This system is is dominated by the shrub strata but contains some ground cover species. The most common plant species is Brazilian pepper and other species include wax myrtle.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS3 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	2	0	This wetland is located on the northwest side of the I-75 and SR 60 interchange area and is surrounded by a grassy mowed area to the north, south, and west and a hardwood-conifer upland to the east. Minimal landscape support exists due to the on and off ramps associated with the I-75 and SR 60 interchange.
.500(6)(b)Water Environment (n/a for uplands)	3	0	This system typically retains little to no water water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, standing water was not evident. Water level indicators are not distinct and soil erosion, deposition, or subsidence was not noted. There was no treatment of water from roadway runoff. Vegetation stress not noted but the most common species in this type of system is Brazilian pepper, a plant known to be opportunistic.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	3	0	The dominate species was Brazilian pepper with scattered wax myrtle. Nuisance/exotic species coverage was approximately 15-20 percent.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.27	0

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

Delta = [with-current]
-0.27

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1/3 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
619, 631	**NWI- PSS1/3**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These systems commonly connect to other wetlands within or outside the project area. Many of these systems are located within the interchange infields and are directly surrounded by grassy, mowed areas. Other systems are scrub-shrub fringes of excavated, open water systems within interchange infields. Some of these systems are linear, located along the edges of the mainline. Because they are located within hydric soils, they are considered wetlands, not surface waters.

Assessment area description

These are palustrine scrub-shrub wetlands with a mix of broad-leaved deciduous and broad-leaved evergreen vegetation. These systems are typically overgrown with thick shrub layers. Ground cover species are minimal. Common plant species include Carolina willow, Brazilian pepper, saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
water storage and conveyance, some stormwater treatment for existing roadway, limited food source and cover for small wildlife species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**PSS1/3 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	0	These systems commonly connect to other wetlands within or outside the project area. Several of these systems are located within the interchange infields and are directly surrounded by grassy, mowed areas. Other systems are scrub-shrub fringes of excavated, open water systems within interchange infields. Some of these systems are linear, located along the edges of the mainline. Land use adjacent to the mainline ROW is urban with scattered natual habitat areas consisting of both uplands (forests and shrubland) and wetlands (forests and some marshes). Within the ROW, habitat parcels of any significant size exist within the interchange infields. In general, little habitat support is afforded by the surrounding landuse, particularly because where it does exist (in the case of the interchange infields), it consists of small parcels completely surrounded by roadway. Along the edges of the project ROW, there is a buffer of fencing and mowed, grassy areas, which inhibits support from adjacent natural systems.
.500(6)(b)Water Environment (n/a for uplands)	4	0	These systems typically retain water within the project ROW. Due to the drought conditions resulting from several years of low rainfall, standing water was generally not evident; however, standing water did appear in some systems throughout the duration of the surveys as the 2008 rain season began. In most systems, water level indicators are not distinct. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but the most common species in this type of system is Carolina willow, a plant known to be opportunistic. Standing water, where observed, appeared to be of moderate clarity based on visual inspection at time of field surveys.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	3	0	These systems are typically overgrown with thick shrub layers. Ground cover species are minimal. Common plant species include Carolina willow, Brazilian pepper, saltbush, wax myrtle, elderberry, peruvian primrose willow, and small red maples.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.33	0

Delta = [with-current]
-0.33

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2AB4 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510	**NWI- R2AB4**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

These streams/canals are buffered by upland habitat but a roadside ditch along the west side of I-75 flows into one of the systems (unnamed creek). Delaney Creek ultimately drains to Hillsborough Bay and the unnamed creek drains to the Tampa Bypass Canal.

Assessment area description

These are riverine, lower perenial, aquatic bed, floating vascular vegetation systems. One wetland is an unnamed creek/canal and the other is Delaney Creek; both flow under I-75 via culverts. Delaney Creek is characterized by a predominance of water lettuce and the unnamed creek contains water hyacinth.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is somewhat common throughout the project landscape**

Functions	Mitigation for previous permit/other historic use
systems offer water conveyance, some treatment, and some foraging habitat and cover for fish and other aquatic species	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2AB4 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	5	0	These systems are channelized creeks that run beneath the I-75 roadway, flowing west. Delaney Creek passes through urban areas to the east of the project and through undeveloped upland communities to the west. The unnamed creek is generally surrounded by natural habitats on both sides of the interstate.
.500(6)(b)Water Environment (n/a for uplands)	6	0	Water levels appeared lower than normal; there has been a several-year drought in the project area. However, there is still flow in these systems. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but the dominant species in both creeks are highly nuisance/exotic species. Water clarity appeared moderate based on visual inspection.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	1	0	Delaney Creek is characterized by a predominance of water lettuce and the unnamed creek contains water hyacinth.

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

Delta = [with-current]
-0.40

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

Form 62-345.900(2), F.A.C. [effective date]

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2EM4 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510	**NWI- R2EM4**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**III**	**N/A**

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

This stream/canal is buffered by upland habitat but drains to wetland systems along its path to ultimately drain to the Tampa Bypass Canal.

Assessment area description

This is a riverine, lower perenial, emergent, broad-leaved non-persistent vegetation system. This unnamed creek flows under I-75 via culverts. The creek is completely overgrown primarily with shrub, but also ground, vegetation such as peruvian primrose willow and torpedo grass.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is not common in the project landscape but does not provide ecological value.**

Functions	Mitigation for previous permit/other historic use
systems offer water conveyance and some treatment. Due to the overgrowth, little habitat is afforded to wildlife.	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 1.	**Refer to Table 1.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2EM4 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	0	This system is a channelized creek that run beneath the I-75 roadway, flowing west. It passes through urban areas primarily, but there is a forested wetland to the immediate west that appears to be a mitigation area.
.500(6)(b)Water Environment (n/a for uplands)	5	0	Water level appeared lower than normal; there has been a several-year drought in the project area. Standing water evident but no obvious signs of flow. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted but the dominant species are nuisance/exotics. Water clarity appeared moderate based on visual inspection.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	1	0	The creek is completely overgrown primarily with shrub, but also ground, vegetation such as peruvian primrose willow and torpedo grass.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.30	0

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

Delta = [with-current]
-0.30

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

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

Form 62-345.900(2), F.A.C. [effective date]

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2AB3/PFO1 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510/615	**NWI- R2AB3/PFO1**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**I**	**N/A**

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

This river is buffered by upland habitat and drains from and to wetland systems along its path.

Assessment area description

This is a riverine, lower perennial, aquatic bed system with a component of palustrine forested with broad-leaved deciduous vegetation. This is Hillsborough River, a Class I Water and Outstanding Florida Waterbody, that flows under I-75. The river is somewhat narrow with a wider PFO1 component and is therefore given the joint coding. The river bed is generally contains some spatterdock, broad-leaf arrowhead, torpedo grass, and water hyacinth. The forested component contains red maple, elm, sweetgum, water oak, cabbage palm, cypress, and Carolina willow.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is not common in the project landscape.**

Functions	Mitigation for previous permit/other historic use
Water conveyance, treatment, and storage, foraging, breeding, and cover for a variety of wildlife species.	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 2.	**Refer to Table 2.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2AB3/PFO1 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	8	0	This wetland is Hillsborough Rivered, buffered by upland habitat but drains from and to wetland systems along its path, outside the ROW, to ultimately drain to the Hillsborough River. The I-75 roadway crosses this system via a bridge.
.500(6)(b)Water Environment (n/a for uplands)	9	0	Hillsborough River is a Class I and a Florida Outstanding Water. Water level appeared lower than normal; there has been a several-year drought in the project area. However, there is still flow. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted. Water clarity appeared good based on visual inspection.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	The creek bed has minimal vegetation but does contain some spatterdock, broad-leaf arrowhead, torpedo grass, and water hyacinth. The forested floodplain component contains red maple, elm, sweetgum, water oak, cabbage palm, cypress, and Carolina willow.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.80	0

Delta = [with-current]
-0.80

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2UB2/PFO1 wetlands (see Table 4-1)**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510/615	**NWI- R2UB2/PFO1**	**Impact**	**Refer to Table 4-1**

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay and Coastal Areas & Hillsborough River Basins	**I**	**N/A**

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

This stream is buffered by upland habitat but drains from and to wetland systems along its path, outside the ROW, to ultimately drain to the Hillsborough River.

Assessment area description

This is a riverine, lower perenial, unconsolidated bottom (sand) system with a heavy component of palustrine forested with broad-leaved deciduous vegetation. This is Cow House Creek, a Class I Water, that flows under I-75 via culverts. The creek is somewhat narrow with a wider PFO1 component and is therefore given the joint coding. The creek bed is generally devoid of vegetation but does contain some broad-leaf arrowhead, torpedo grass, and water hyacinth. The forested component contains red maple, elm, sweetgum, water oak, cabbage palm, cypress, and Carolina willow.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
None	**This type of system is not common in the project landscape.**

Functions	Mitigation for previous permit/other historic use
Water conveyance, treatment, and storage, foraging, breeding, and cover for a variety of wildlife species.	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Refer to Table 2.	**Refer to Table 2.**

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

None observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Kristin Caruso, Scheda Ecological Associates	**July 2008**

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-75 PD&E From South of US 301 to North of Fletcher Avenue; WPI No. 419235-3		**R2UB2/PFO1 wetland (see Table 4-1)**
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	**Kristin Caruso, Scheda Ecological Associates**	**July 2008**

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	8	0	This stream is Cow House Creek, buffered by upland habitat but drains from and to wetland systems along its path, outside the ROW, to ultimately drain to the Hillsborough River. The I-75 roadway crosses this system via a bridge.
.500(6)(b)Water Environment (n/a for uplands)	9	0	Cow House Creek is a Class I Water. Water level appeared lower than normal; there has been a several-year drought in the project area. However, there is still flow. Soil erosion, deposition, or subsidence not noted. Vegetation stress not noted. Water clarity appeared good based on visual inspection.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	The creek bed is generally devoid of vegetation but does contain some broad-leaf arrowhead, torpedo grass, and water hyacinth. The forested floodplain component contains red maple, elm, sweetgum, water oak, cabbage palm, cypress, and Carolina willow.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.80	0

Delta = [with-current]
-0.80

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

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

For impact assessment areas
FL = delta x acres = **see Table 4-2**

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

APPENDIX D

AGENCY COORDINATION

SCHEDA
ECOLOGICAL
ASSOCIATES
INCORPORATED

July 17, 2008

Ms. Donelle White
Department of Environmental Protection
Mail Station 108
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Re: **Interstate 75 (I-75) Project Development & Environment (PD&E) Study**
From South of US 301 to North of Fletcher Avenue
Financial Project ID: 419235-3-22-01
Hillsborough County, Florida
Determination of State Lands

Dear Ms. White:

The Florida Department of Transportation is in the process of conducting a PD&E Study of the I-75 corridor from South of US 301 to North of Fletcher Avenue in Hillsborough County, Florida. We are gathering information in a variety of disciplines including wetlands, aquatic crossings, any applicable state land ownership/jurisdiction, and any applicable regulations that may apply. I am therefore writing to request a determination of state-owned lands in four creek crossings of this roadway project. Information collected from your agency will be addressed in our PD&E documentation. Copies of USGS Quad maps that display the locations in question are attached. These crossings are as follows:

Delaney Creek (south of SR 60)	Section 29, T 29S, R 20E
Cow House Creek (north of Fowler Avenue)	Section 12, T 28S, R 19E
Unnamed canal #1 (south of Martin Luther King Blvd.)	Section 8, T 29S, R 20E
Unnamed canal #2 (north of I-4)	Section 32, T 28S, R 20E

Please contact me by telephone at (813) 989-9600 or by e-mail at kcaruso@scheda.com if you require additional information to make a determination.

Sincerely,
SCHEDA ECOLOGICAL ASSOCIATES, INC.

Kristin A. Caruso, MS
Senior Environmental Scientist

Enclosure – USGS Quad Map exhibits
Cc: Katasha Cornwell, FDOT District Seven

5892 E. Fowler Avenue · Tampa, Florida 33617
TEL / 813.989.9600 · FAX / 813.989.9670
6151 Lake Osprey Drive, Ste 313; Sarasota, FL 34240
TEL / 941.373.1547 FAX / 941.373.1401
1486-E Skees Road ·West Palm Beach, Florida 33411
TEL / 561.689.9198 ·FAX / 561.253.0898

BOUNDARY
TAMPA
South Tampa
BM 23
UNDER CONSTRUCTION
Substation
Woodbury Lake
Gornto Lake
Chapman Lake
Tenmile Lake
BM 46
BM 47
Commemorative Cem
Delaney Creek
Tower (WFLA-FM)
Trailer Park
Tower (WTVT-TV)
Cem
Landing
Strip
Providence Ch
BM 42
Hackney Cem
ALAFIA
Riverview
project begins south of US 301
I-75
R. 19 E.
R. 20 E.
II MI. TO FLA. 674
BRADENTON 35 MI.
(RIVERVIEW)
4539 IV SE
d, and published by the Geological Survey

UNITED STATES
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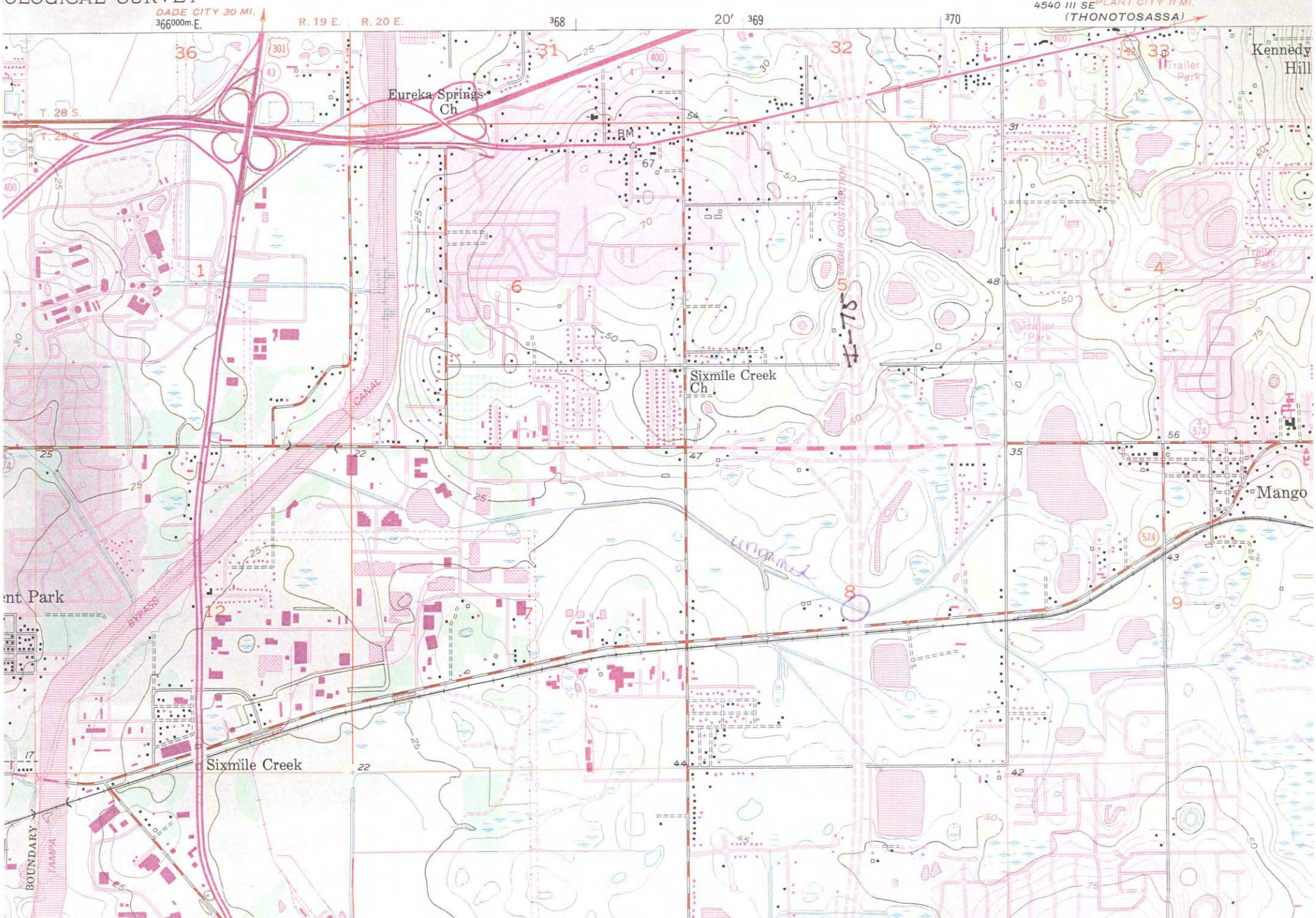
(2)



3

Project ends just north of Fletcher

RIVER
HILLSBOROUGH
BRIDGE
Trailer Park
MORRIS
LETTUCE LAKE PARK
Creek
HOLLOW STUMP ROAD
I-75
House
Cow
Golden Gate Speedway
Radio Tower
Marshall Ch
Clarkwild
OHIO ST
Thonotosassa
FOWLER AVE
BM 45
SKEW LEE
ROAD
Substation
DAVIS
CANAL
Sunset Gardens (Cem)
FOLSOM
TIMMONS
JOE EBERT ROAD
Quarry
Calvary Temple Ch
Temple Terrace Junction
HARNEY
BYPASS
WILLIAMS
Loving Care Cem
BESSIE
DIX
Juvenile Home
Sandpit
Sander Chapel
Oak Grove Ch
Faith City Ch
Sixmile Creek
TAMPA
Harney Flats
HAMILTON AVE
SLIGH AVE
MAPLE LANE
Vandenberg Airport
Eureka Springs Ch
SLIGH
SR 574
Trailer Park
000 FEET
366
R 19 E
R 20 E

APPENDIX E

EASTERN INDIGO SNAKE STANDARD PROTECTION MEASURES

FDOT CONSTRUCTION PRECAUTIONS FOR THE EASTERN INDIGO SNAKE

THE EASTERN INDIGO SNAKE (*DRYMARCHON CORAIS COUPERI*) COULD BE PRESENT IN THE PROJECT AREA. IN ORDER TO MINIMIZE HARM TO THIS SPECIES, THE FDOT HAS COMMITTED TO IMPLEMENT THE FOLLOWING PROTECTION MEASURES:

A. PROVIDE EASTERN INDIGO SNAKE EDUCATIONAL INFORMATION TO EMPLOYEES PRIOR TO THE INITIATION OF ANY CLEARING OR CONSTRUCTION ACTIVITIES. AN EDUCATIONAL EXHIBIT THAT HAS BEEN APPROVED BY USFWS SHALL BE POSTED CONSPICUOUSLY AT A SITE ACCESSIBLE TO ALL EMPLOYEES AND A HANDOUT WILL BE DISTRIBUTED TO EMPLOYEES.

B. THE CONTRACTOR SHALL POST AND DISTRIBUTE EDUCATIONAL INFORMATION TO ALL ITS WORKERS. THE EXHIBIT AND BROCHURES SHALL INCLUDE PHOTOGRAPHS OF THE EASTERN INDIGO SNAKE, INFORMATION ON LIFE HISTORY, AND LEGAL PROTECTION OF THE SPECIES IN FLORIDA, AND HOW TO AVOID IMPACTS TO THE SPECIES. THIS MATERIAL SHALL BE SUPPLIED TO THE CONTRACTOR BY THE CONSTRUCTION ENVIRONMENTAL LIAISON AT THE PRE-CONSTRUCTION CONFERNCE.

C. ALL CONSTRUCTION ACTIVITIES SHALL CEASE IF LIVE EASTERN INDIGO SNAKES ARE FOUND WITHIN THE PROJECT AREA. WORK MAY RESUME AFTER THE SNAKE OR SNAKES ARE ALLOWED TO LEAVE THE AREA ON THEIR OWN.

D. LOCATION OF LIVE SIGHTINGS SHALL BE REPORTED TO THE CONSTRUCTION ENVIRONMENTAL LIAISON.

E. IF A DEAD EASTERN INDIGO SNAKE IS FOUND ON THE PROJECT SITE, THE SNAKE SHALL BE FROZEN AS SOON AS POSSIBLE AND THE CONSTRUCTION ENVIRONMENTAL LIAISON SHALL BE NOTIFIED IMMEDIATELY FOR FURTHER INSTRUCTIONS.

APPENDIX F

WETLAND PHOTOGRAPHS

Photo 1.Freshwater Marsh FLUCFCS 641.

Photo 2. Streams and Waterways FLUCFCS 510.

Photo 3. Wetland Shrub FLUCFCS 631.

Photo 4. Mixed Wetland Hardwoods FLUCFCS 617.

Photo 5. Other Surface Waters.