COUNTY ROAD 437 IMPROVEMENTS LAKE COUNTY, FLORIDA

ENVIRONMENTAL ASSESSMENT REPORT



PLANNING
DESIGN &
PERMITTING

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COUNTY ROAD 437 IMPROVEMENTS ENVIRONMENTAL ASSESSMENT REPORT

1.0 INTRODUCTION

During July 2016, Modica & Associates conducted an environmental assessment of the referenced ±4.4-mile County Road 437 Improvement project corridor ("Project Corridor"). The Project Corridor contains a segment of the existing County Road 437 and adjacent areas within and outside of the right-of-way. The Project Corridor is specifically located in Sections 7, 18, 19, 30, and 31, Township 19 South, and Range 28 and Sections 25 and 36, Township 19 South, Range 27 East in Lake County, Florida (**Figures 1 & 2**).

The Project Corridor was inspected on various dates for the purpose of documenting the characteristics of land uses and/or vegetative communities, documenting the presence or absence of protected wildlife species, and determining any environmental regulatory jurisdiction and associated development constraints associated with our findings. The assessment included formal surveys for one (1) protected wildlife species: the gopher tortoise (*Gopherus polyphemus*). Depending upon the final recommended Project Alternative, it is possible that a survey for the federally protected sand skink (*Plestiodon reynoldsi*) will need to be conducted prior to development and during the appropriate survey timeframe (March 1-May 15) within suitable habitat identified along the corridor. A separate report would be provided to document the results of that survey, if conducted.

There are two realignment alternatives being considered for this project (Realignment Alternative 1 and 2A). The differences between these two alternatives is the presence of four roundabouts in Realignment Alternative 2A. Because the alignment of these alternatives is generally the same, there are no significant differences from an ecological standpoint.

Findings presented within this report reflect on-site conditions at the time of the investigation and do not preclude the possibility that conditions may change in the future.

2.0 PROJECT SITE CHARACTERISTICS

Prior to the site inspection, published literature and publicly available ArcViewTM GIS data layers were reviewed in an effort to obtain an understanding of site topography, soils, vegetation, and anticipated / documented wildlife use in the vicinity of the CR 437 Project Corridor. The following resources were accessed as part of the subject assessment:

- 2014 Aerial Photographic Imagery, Lake County, Florida;
- Google Earth Aerial Imagery (1995 to present);
- U.S. Department of Agriculture (USDA) Soil Survey of Lake County Florida;



- USGS 7.5 Minute Topographic Map;
- Florida Natural Areas Inventory (FNAI) Species Occurrence Tracking List, Lake County;
- Florida's Endangered & Threatened Species January 2017, FWC;
- Florida Land Use, Cover and Forms Classification System (FLUCFCS) Handbook, U.S. Department of Transportation.
- ArcViewTM shapefiles containing the following wildlife occurrence records:
 - o FWS 2010-2011 bald eagle survey results (eaglenest11.shp),
 - o FWS wildlife observation database (Wildobs2006.shp),
 - o FWS 1992-1993 scrub jay survey results (scrubjay statewide locations 92-93.shp),
 - o Lake County 2003 scrub jay survey results (scrubjay 2003.shp), and

2.1 Soils

According to the Natural Resource Conservation Service's (NRCS) *Soils Survey of Lake County, Florida*, (1990), the Project Corridor contains ten (10) soil map units (**Figure 3**). The soil types are described below in more detail; the descriptions are excerpts from the SCS *Soils Survey of Lake County*.

Sparr sand, 0 to 5 percent slopes (1) is a nearly level to sloping, somewhat poorly drained sandy soil that has a sandy clay loam subsoil. It is found on the upland ridge. Typically, the surface layer of this soil type is very dark gray sand about 7 inches thick. The water table for this soil type is at a depth of 40 to 60 inches for more than 6 months each year. During the wet season, it is a depth of 15 to 40 inches for 1 to 2 months. Permeability of this soil type is rapid in the sandy surface and subsurface layers and moderate in the loamy subsoil.

Apopka sand, 0 to 5 percent slopes (5) is a nearly level to gently sloping, well drained sandy soil that has a sandy clay loam subsoil at a depth of about 55 inches. Typically, the surface layer is dark gray sand about 6 inches thick. The water table is at a depth of more than 84 inches. Permeability of this soil type is rapid in the sandy surface and subsurface layers and moderate or moderately rapid in the subsoil.

Candler sand, 0 to 5 percent slopes (8) is a nearly level to gently sloping, excessively drained soil found on rolling uplands of the central ridge. The surface layer generally consists of dark gray sand about 7 inches thick. The water table is at a depth of more than 120 inches. Permeability is very rapid throughout the profile of this soil type.

Candler sand, 5 to 12 percent slopes (9) is a sloping to strongly sloping, excessively drained soil found on rolling uplands of the central ridge. Typically, the surface layer consists of dark gray sand about 5 to 6 inches thick. The water table is at a depth of more than 120 inches. Permeability is very rapid throughout the profile of this soil type.

Arents (17) consist of loamy soil material that has been mixed, reworked and leveled or



shaped by earth-moving equipment. It is mostly 12 to 60 inches thick. The water table for this soil type is at a depth of 30 to 60 inches except in low-lying areas, where it is at a depth of 10 to 30 inches, and in a few dry areas, where it is at a depth of more than 60 inches.

Orlando fine sand, 0 to 5 percent slopes (34) is a nearly level to gently sloping, well-drained soil. The surface layer is fine sand about 8 inches thick. The water table is at a depth of more than 80 inches. This soil type is rapidly permeable throughout.

Placid sand, depressional (38) is a nearly level, very poorly drained soil in low wet areas on the upland ridge and in the flatwoods. The surface layer consists of sand about 18 inches thick. The upper 12 inches is black and the lower 6 inches is very dark gray mottled with very dark grayish brown and dark grayish brown. The water table is at the surface for the most of the year. During extended dry periods it is within a depth of 15 inches. Shallow water covers many areas for 4 to 6 months in wet seasons. Permeability of this soil type is rapid throughout.

Seffner sand (39) is a nearly level, poorly drained soil. The upper portion of the surface layer generally consists of black sand about 7 inches thick. The water table is normally at a depth of 10 inches for about 2 months of the year and at a depth of 10 to 30 inches the rest of the year. Permeability is rapid throughout the profile of this soil type.

St. Lucie fine sand, 0 to 5 percent slopes (43) is a deep, nearly level to gently sloping, and excessively drained soil in uplands. The slopes generally are uniform and range from 0 to 5 percent. Typically, this soil has a surface layer of gray fine sand about 2 inches thick. The upper part of underlying material, to a depth of about 6 inches, is light gray fine sand. The lower part to a depth of about 80 inches of more is white fine sand. A seasonal high water table is at a depth of 72 inches or more. Permeability is very rapid. The available water capacity is very low. Natural fertility and the organic matter content are very low.

Tavares sand, 0 to 5 percent slopes (45) is a nearly level to gently sloping, moderately well-drained soil. It has a very dark grayish-brown sandy surface layer approximately 7 inches thick. Below this layer are 4 levels of sand beginning at 7 inches, 25 inches, 34 inches, and 61 inches. The water table is at a depth of 40 to 60 inches for more than 6 months out of the year and below 60 inches during dry periods. This soil is rapidly permeable throughout.

2.2 Topography

Review of topographic information for the study areas reveals that the Project Corridor ranges between 56 and 139 feet elevation (**Figure 4**). The high point of approximately 139 feet is mapped in the southern extent of the Project Corridor near the intersection of County Road 437 and Adair Avenue. From this high point, the elevation of the Project



Corridor slopes downward toward its intersection with SR 46. In general, the topography mapped by the USGS appears to be consistent with the observed site conditions.

2.3 Floodplain Areas

According to the FEMA Flood Probability Area Map, the majority of Project Corridor is mapped as Zone "X" (**Figure 5**). Zone X indicates low flood probability areas determined to be outside the 500-year floodplain. Zone "A," which indicates special flood hazard areas inundated by the 100-year flood for which no base flood elevations have been determined, is mapped surrounding the Project Corridor. Zone "AE" indicates special flood hazard areas inundated by the 100-year flood and in most instances flood elevations derived from detailed analyses are shown at selected intervals for these zones, and is mapped within some limits of the Project Corridor. In Lake County, any development in the floodplain requires a Building Permit as well as a Floodplain Construction Authorization Permit.

2.4 Land Use Communities

Site reconnaissance conducted by Modica & Associates staff biologists revealed the presence of multiple land uses within the Project Corridor. Each land use identified within the project site was mapped utilizing the Florida Land Use, Cover and Forms Classification System (FLUCFCS, FDOT 1999). A description of each land cover type is provided below and is depicted on the attached Land Use Map (**Figure 6**).

211- Improved Pasture

The majority of the central portion of the Project Corridor consist of improved pasture. A variety of pasture grasses make up this land use type.

434 – Pine- Mesic Oak

A section of the Project Corridor located in the east central portion is best described as Pine-Mesic Oak. This community type is dominated by laurel oak (*Quercus laurifolia*) and slash pine (*Pinus elliottii*). Saw palmetto (*Serenoa repens*) is also scattered throughout the understory.

643 – Wet Prairies

Review of aerial imagery and the National Wetlands Inventory revealed that there is an area of low elevation that may periodically hold water within the Project Corridor. This area is located within the central portion of the Project Corridor, along the eastern side of CR 437 just south of its intersection with SR 46. Site inspections confirmed that this area will likely be claimed as wetlands by the regulatory agencies.



814 – Roads and Highways

The majority of the Project Corridor consists of the existing County Road 437, which is a paved two-lane road. Associated right-of-ways are included within this land use classification, which predominantly consist of maintained bahia grass and utility infrastructure.

There are portions of several single-family residences, commercial service buildings, and lands owned by public schools, churches, and other public facilities that lie within the Project Corridor. Although no structures associated with these facilities lie with the Project Corridor, portions of the associated yards, driveways, and entrance features are located in the proposed right-of-way.

2.5 Listed Species

Using methodologies and guidelines established by the Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service (USFWS), the Project Corridor was surveyed for the presence and/or potential for occurrence of fauna and flora listed by the FWC, the USFWS, or the Florida Department of Agriculture and Consumer Services (FDACS).

Survey methods used were those established by the FWC. Pedestrian and vehicular transects were used to qualitatively survey the project site for designated flora and fauna based on known habitat preference and geographical distribution. Publicly available database queries were used to supplement the field surveys, in order to provide a more accurate and comprehensive assessment of the occurrence and potential for occurrence of listed species on-site or on adjoining properties.

2.5.1 Protected Fauna

Prior to conducting the site inspection, the Florida Natural Areas Inventory (FNAI) species tracking list for Lake County was accessed to determine the potential for listed species of wildlife that may occur within the Project Corridor; this tracking list is included as **Appendix A** for reference.

Due to existing conditions and geographic location of the project site, a comprehensive survey for one (1) protected wildlife species was conducted in July 2016: the gopher tortoise. Survey results are presented below, along with information regarding other protected species that have the potential for occurrence on or in close proximity to the Project Corridor.



2.5.1.1 Gopher Tortoise

The gopher tortoise is listed as "Threatened" by the FWC. Suitable habitat for the gopher tortoise generally includes dry upland areas such as sandhills, scrub, xeric oak hammock, and dry pine flatwoods. The majority of the project site beyond the existing paved roadway consists of maintained grassy right-of-way. These areas provide suitable habitat (although suboptimal) for the gopher tortoise. Similarly, those portions of the Project Corridor which consist of maintained grassy yards and pasture could provide suitable habitat for this species.

Modica & Associates conducted a partial (approximately 50%) gopher tortoise survey of the Project Corridor during July 2016. No gopher tortoises or gopher tortoise burrows were observed. It should be noted that these results reflect site conditions at the time of the investigation and do not preclude the possibility of this species using or inhabiting the site in the future, especially if vegetative habitat characteristics become more favorable. The FWC requires that a 100% survey for gopher tortoises be less than 90-days old prior to development. An updated 100% survey will be required in the future to verify that no gopher tortoises are located within the project footprint.

FWC regulations allow for relocation of gopher tortoises from properties slated for development following issuance of the appropriate permit. A permit must be obtained for the excavation and relocation of all burrows located within a 25-foot radius of the development footprint.

If a permit is needed, the gopher tortoise relocation process involves excavation of all onsite burrows by a backhoe operator that is experienced in gopher tortoise burrow excavation, under the supervision of a state-licensed Authorized Gopher Tortoise Agent. Tortoises should be relocated to the FWC-approved recipient site within 72 hours of being captured. It is highly recommended that mass grading of the site occur immediately following completion of the relocation effort, in order to prevent recolonization of the site by this species. If mass grading is not practical, efforts can be taken to prevent recolonization through the installation of buried silt-fencing along the perimeter of the site.

When comparing project alternatives, there is not a distinct difference in gopher tortoise habitat between Realignment Alternative 1 and 2A (Exhibit A & B).

2.5.1.2 Florida Scrub-Jay

The Florida scrub-jay (*Aphelocoma coerulescens*) is listed as "Threatened" by the FWC and the USFWS. Optimal scrub-jay habitat includes xeric oak scrub with low-growing oaks and a ground layer with 10 to 50 percent un-vegetated, sandy openings. Scrub-jays are also known to inhabit fallow citrus groves within Lake County. The majority of the Project Corridor consists of maintained bahia grass



and is surrounded by development; therefore, would be unlikely to support this species.

The Florida scrub-jay was not observed during the July 2016 site inspection. It should be noted that the subject assessment did not include a comprehensive scrub-jay survey, conducted in accordance with the USFWS *Scrub-Jay Survey Guidelines* (August 2007). A formal scrub-jay survey may be required in the future to rule out the possibility that scrub-jays occur in parts of the Project Corridor.

2.5.1.3 Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is listed as "Threatened" by the FWC. The species is also protected by the USFWS under authority of the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The USFWS has established guidelines regarding activities within a 330-foot zone and 660-foot zone surrounding bald eagle nests. No bald eagles or bald eagle nests were observed during the various site inspections conducted during July 2016.

An ArcViewTM GIS database containing bald eagle nest location data (collected and maintained by USFWS) was accessed to determine if there are any documented nests in close proximity to the project site. There are four (4) eagle nests within five (5) miles of the property (**Figure 8**). Nest ID LA120 lies 0.9 miles west of the project corridor, Nest ID LA176 is 3.9 miles west, Nest ID OR058 is 3.6 miles southeast, and Nest ID LA141 is 5 miles north. The management zones for these nests do not extend to or near the Project Corridor. No developmental constraints associated with the bald eagle are anticipated in association with this project. However, this information will need to be reverified during future permitting efforts.

2.5.1.4 Sand Skink

The sand skink (*Neoseps reynoldsi*) is listed as threatened by the USFWS and FWC. The sand skink is a small, nearly legless lizard with smooth shiny scales that spends its lifecycle just beneath the surface of the sandy soils that are characteristic of Central Florida's sandy ridges. Because this lizard lives beneath the surface of the sand, its presence is generally detected by the presence of sinusoidal tracks left in the sand due to the unique manner in which this species moves through the sand.

In February 2012, the USFWS revised their Sand Skinks and Blue-tailed Mole Skinks Survey Protocol, Peninsular Florida (Protocol) for the federally protected sand skink. According to the revised Protocol, if a property lies within the Sand Skink Consultation Area, has an elevation of 82 feet above sea level, and contains



suitable soils, the USFWS assumes presence of sand skinks. The burden is on the landowner to document the absence of skinks. Pedestrian surveys can be conducted during anytime of the year, although the recommended timeframes are spring (March-May) and fall (October-November). Pedestrian surveys can only document presence, not absence. To prove absence, a formal coverboard survey must be conducted between March 1 and May 15 of any given year.

Suitable habitat for this species includes native xeric uplands with sandy substrates. Pedestrian transects conducted during our July 2016 site inspections did not reveal evidence of sand skink activity. The fragmented and anthropogenically disturbed nature of the project corridor has greatly reduced the quality of habitat for use by this species. The presence of densely rooted bahia grass and other vegetation likely precludes the ability of this species to move beneath the sandy substrate. Also, only a portion of the Project Corridor lies above 82 foot sea level. Almost all of the improved pasture and pine-mesic oak land use types located in the central portion of the Project Corridor fall below the 82 foot sea level. The majority of the project site that falls above 82 foot sea level is the assoicated right of way of County Road 437. It is recommended that consultation with the USFWS be initiated to conclusively determine the extent of surveying that will be required for this project site and for the possiblity that the site might qualify for an exemption from surveying.

The differences between the two realignment alteratives occur in the area of the pasture and mesic oak communities in the central portion of the Project Corridor. As mentioned above, these areas lie almost entirely under 82 feet. Therefore, the potential for sand skink habitat is the same for Realignment Alternative 1 and 2A (Exhibit A & B).

2.5.2 Protected Flora

No listed floral species were identified within the Project Corridor. There is a low potential for listed floral species to exist on the project site, due to the anthropogenically disturbed and maintained nature of the majority of the project site and vicinity. Further, there are typically no developmental constraints associated with listed floral species that occur on privately owned lands.

3.0 HYDROLOGIC AND NATURAL FEATURES

3.1 Jurisdictional Wetlands and Drainage Features

There is the likelihood for one marginal jurisdictional wetland to occur within the Project Corridor. Regulatory and development constraints associated with jurisdictional wetlands are outlined below. Realignment Alternatives 1 and 2A both extend through this wetland and include the construction of a man-made surface water in this location.



3.1.1 St. Johns River Water Management District (SJRWMD)

The St. Johns River Water Management District (SJRWMD) has authority over any waterways within the subject boundaries. Any proposed development of the site will require a review of delineations and a submittal of a Statewide Environmental Resource Permit (ERP) application to the SJRWMD.

The ERP review period for SJRWMD is typically between 40 and 100 days for permit approval depending on the size and nature of the project and whether or not wetland impacts are proposed. An Individual Permit requiring approval from the Governing Board will be required if a project site is greater than 100 acres in size or if more than 10 acres of wetland impacts are proposed. These thresholds are not anticipated for this site.

In the event wetland impacts are proposed, the SJRWMD would likely require mitigation. Mitigation for wetland impacts may include creation, restoration, enhancement, or preservation of either on-site or off-site wetland habitat or the purchase of mitigation credits from a permitted mitigation bank. However, the SRWMD preferred mitigation method is the purchase of credits from an approved wetland mitigation bank. The amount of mitigation required varies depending on the quality of the wetlands that are impacted and the quality and type of mitigation that is provided.

3.1.2 Army Corps of Engineers (ACOE)

If dredging or filling wetland impacts is planned in "Waters of the U.S.", a permit from the U.S. Army Corps of Engineers (ACOE) will also be required. The ACOE regulates dredging and filling in wetlands (and surface waters) under authority of the Clean Water Act. If any work is proposed in non-isolated waters of the United States, a permit will be required from the ACOE.

Two types of permits are issued by the ACOE depending on the amount of wetland impacts proposed. The Nationwide program consists of several types of permits that have essentially been approved and issued for certain minor development activities. The current Nationwide program limits wetland impacts to less than one-half acre. If less than one-half acre of impacts is proposed, then the project would qualify for a Nationwide Permit. It takes generally 90 days from the time of a complete application submittal to obtain a Nationwide permit.

Any wetland impacts over one-half acre would require an Individual Permit from the ACOE. Individual Permit applications involve a longer and more intensive review period and are also subject to public noticing requirements. The review process for Individual Permits varies widely and may take over 6 months to 1 year for final approval and issuance. The ACOE is not required to respond to permit



application submittals within 30 days as the state water management districts are by Florida Statutes.

The ACOE requires the purchase of mitigation from an approved wetland mitigation bank. Although the ACOE may sometimes allow on-site wetland creation, restoration, or enhancement of wetlands as mitigation the Project Corridor does not contain any potential mitigation opportunities and it is therefore recommended that mitigation be provided through the purchase of credits in an approved mitigation bank for this project. It should be noted that mitigation is not required for surface water impacts (i.e. ditches) if they were constructed in upland soils and do not support habitat suitable for use by listed species.

3.1.3 Lake County

Lake County's Land Development Regulations generally defer to Water Management District and ACOE regulations. Lake County does, however, require (with exceptions) a 50-foot buffer be preserved around any onsite wetlands. (Lake County Land Development Regulations 6.01.04).

3.2 Outstanding Florida Waters, Aquatic Preserves and Wild and Scenic Rivers

No Outstanding Florida Waters, Aquatic Preserves or Wild and Scenic Rivers are located within the Project Corridor or surrounding area. Therefore, no associated regulatory or development constraints are anticipated in association with this project.

3.3 Unique Upland Areas

The majority of the Project Corridor consists of a two-lane paved roadway and associated maintained right-of-way. Small portions of the adjacent privately-owned properties are included within the Project Corridor, primarily including low-density single family residential lots. Undeveloped upland habitat located within the Project Corridor includes maintained grassy right-of-way and lawn, improved pasture and pine-mesic oak communities. No upland habitats that would be considered critical upland habitat (S2 or S3 FNAI communities) were identified within or adjacent to the project boundary.

Based on the documented history of anthropogenic disturbances and the present altered and maintained site conditions, the proposed project is not expected to adversely affect unique upland areas or critical habitat (Appendix B).

4.0 SUMMARY

During July of 2016, Modica & Associates, Inc. conducted an environmental assessment of the referenced ±4.4- mile county Road 437 Improvement project corridor. The Project



Corridor contains a segment of the existing County Road 437 and adjacent areas within and outside of the right-of-way.

The property was inspected on various dates for the purpose of documenting the characteristics of land uses and/or vegetative communities, documenting the presence or potential for presence of protected wildlife species, and determining any environmental regulatory jurisdiction and associated development constraints associated with our findings. The assessment included formal surveys for one protected wildlife species: the gopher tortoise. It is recommended that at the appropriate time, consultation be initiated with the USFWS regarding sand skinks to determine if the Project Corridor is exempt from survey requirements, or the extent of surveying that will be required.

No gopher tortoises, scrub-jays, bald eagles, or associated nests were observed within or near the Project Corridor. Because wildlife species are mobile, these wildlife surveys will need to be reverified at the appropriate time of permitting. One jurisdictional wetland occurs within the central portion of the Project Corridor along the east side of CR 437 just south of its intersection with SR 46. A formal wetland delineation will be required in the future. A review of historic aerial imagery revealed a history of anthropogenic disturbances throughout the Project Corridor over the past 50 years.

At this time, environmentally-related regulatory requirements are limited to the need for surveying for the gopher tortoise and potentially the sand skink, and the identification of potential jurisdictional wetlands. Following completion of a consultation with the USFWS regarding the need for a sand skink survey, an addendum to this report can be prepared to indicate whether regulatory constraints and permitting requirements are anticipated in association with this federally protected species. A formal wetland delineation will be required and permitting with the SJRWMD and ACOE may be required if wetland impacts are proposed. Mitigation will be required if wetland impacts are proposed.

This ecological assessment does not constitute a Phase I Environmental Assessment and this report makes no representation as to the presence or absence of hazardous materials in association with the project site.



FIGURES



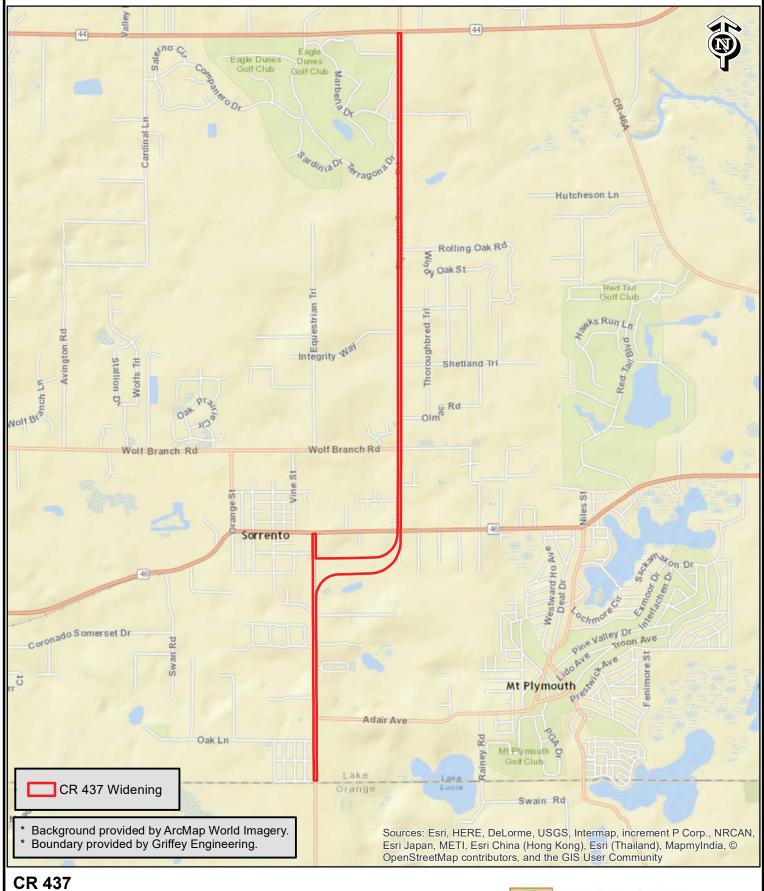
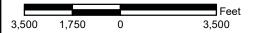


Figure 1- Location Map Sections 7,18, 19, 30, and 31, T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida



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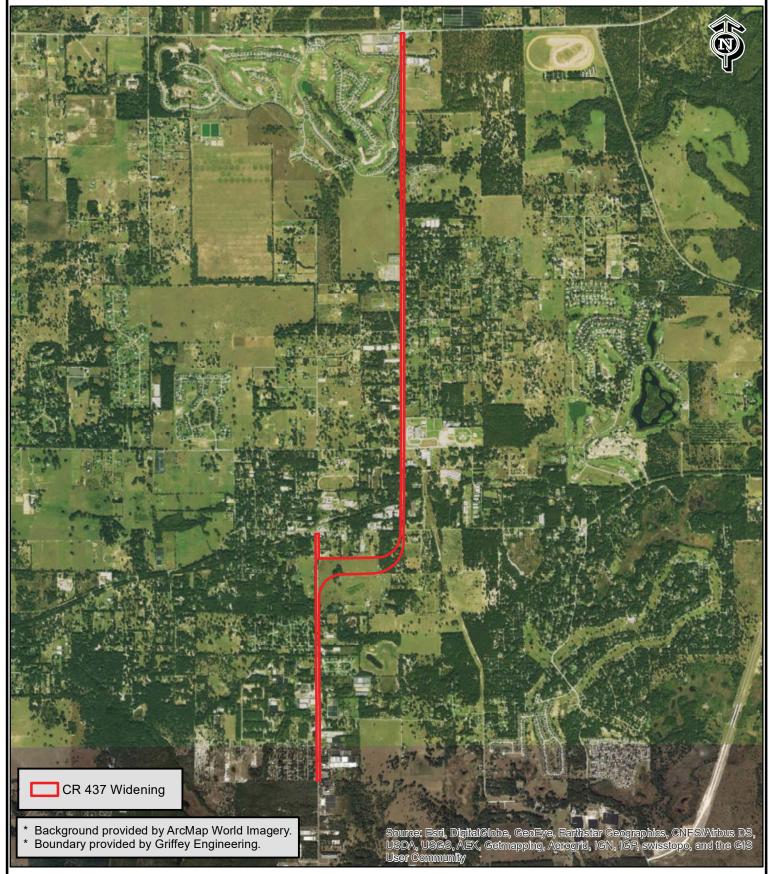


Figure 2- Aerial Map Sections 7 ,18, 19, 30, and 31 , T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida





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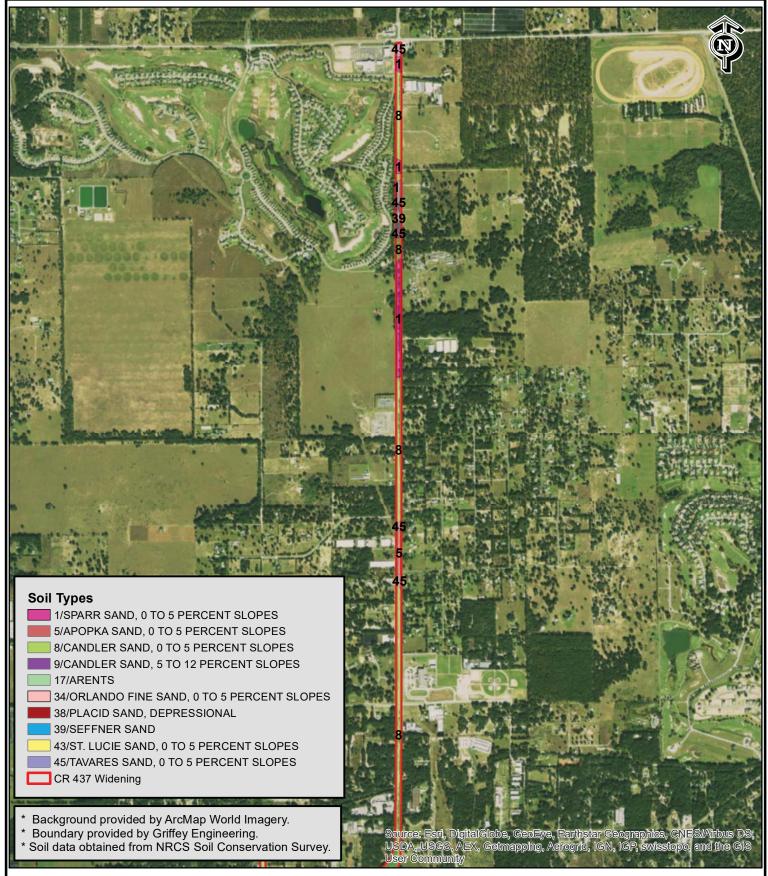


Figure 3- Soil Type Map Sections 7,18, 19, 30, and 31, T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida





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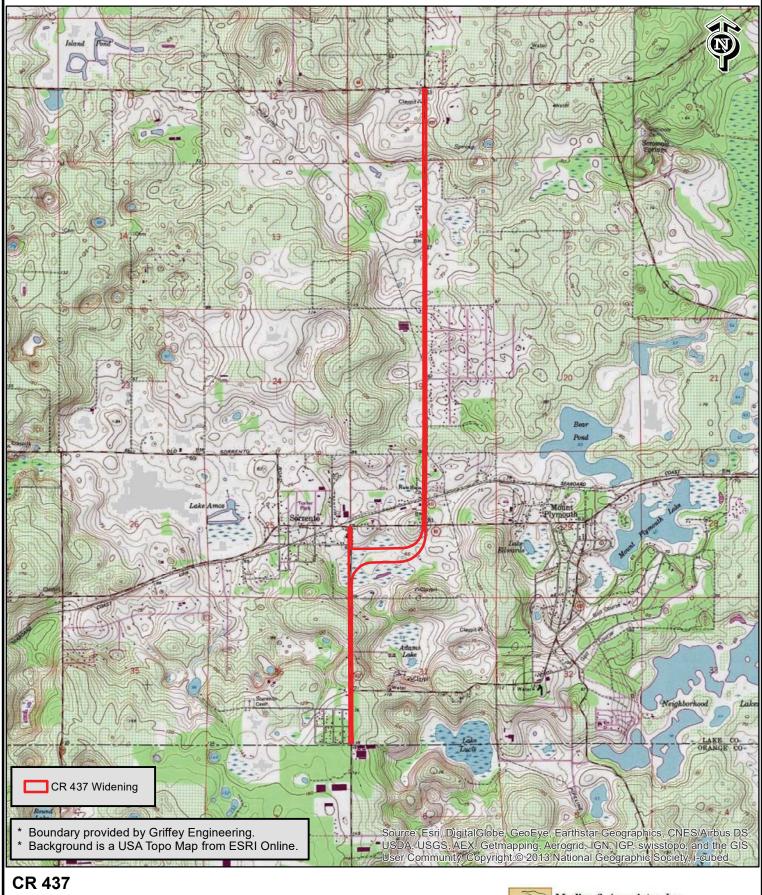
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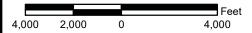
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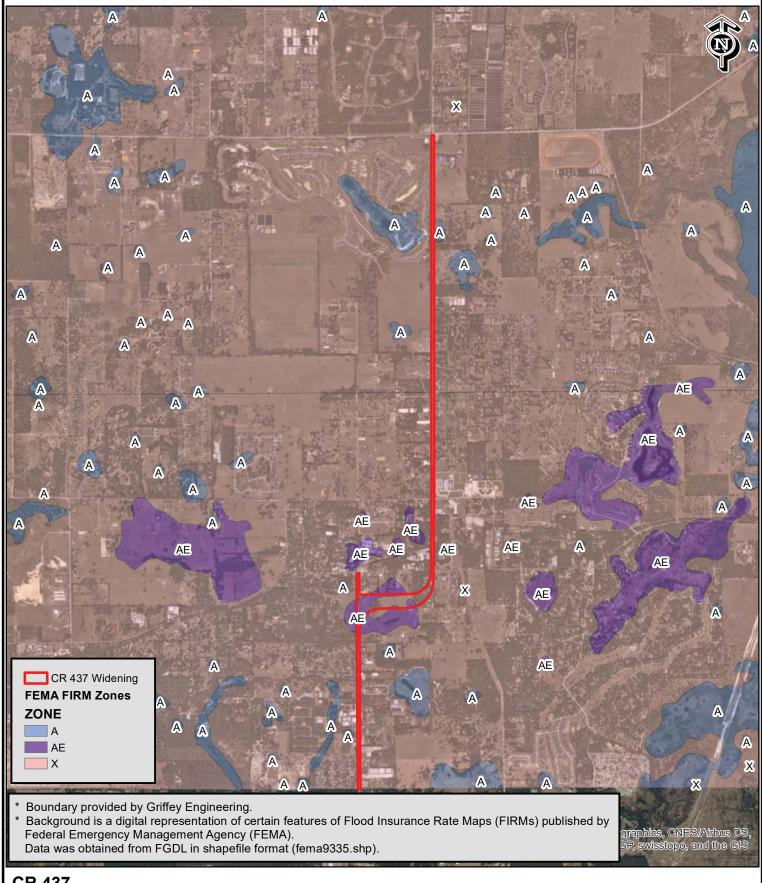
TOPO Map

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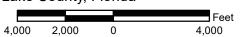




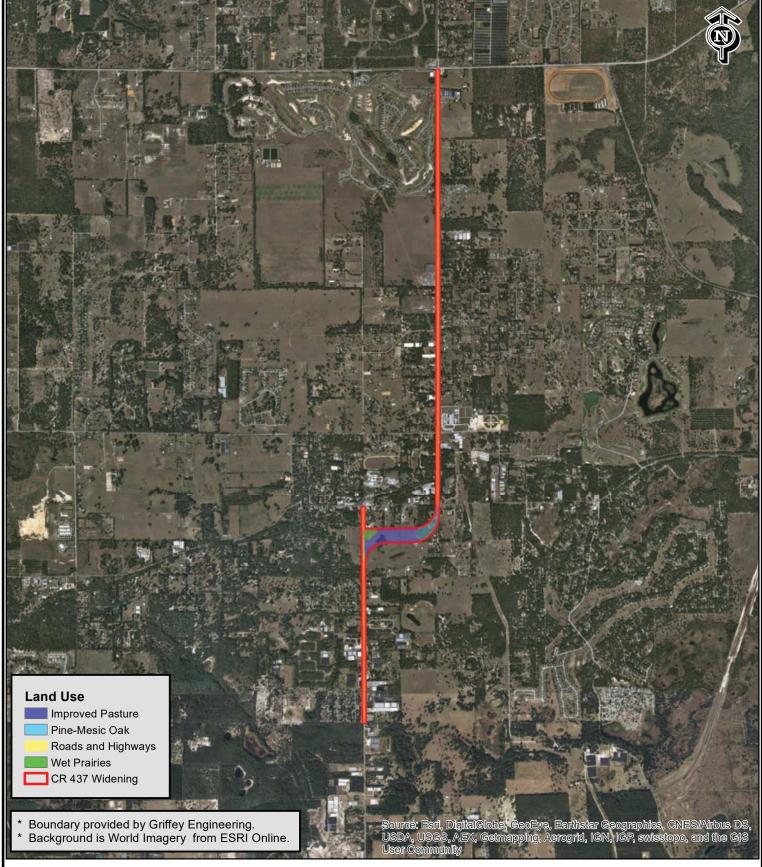
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FEMA FIRM ZONES Sections 7,18, 19, 30, and 31, T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida



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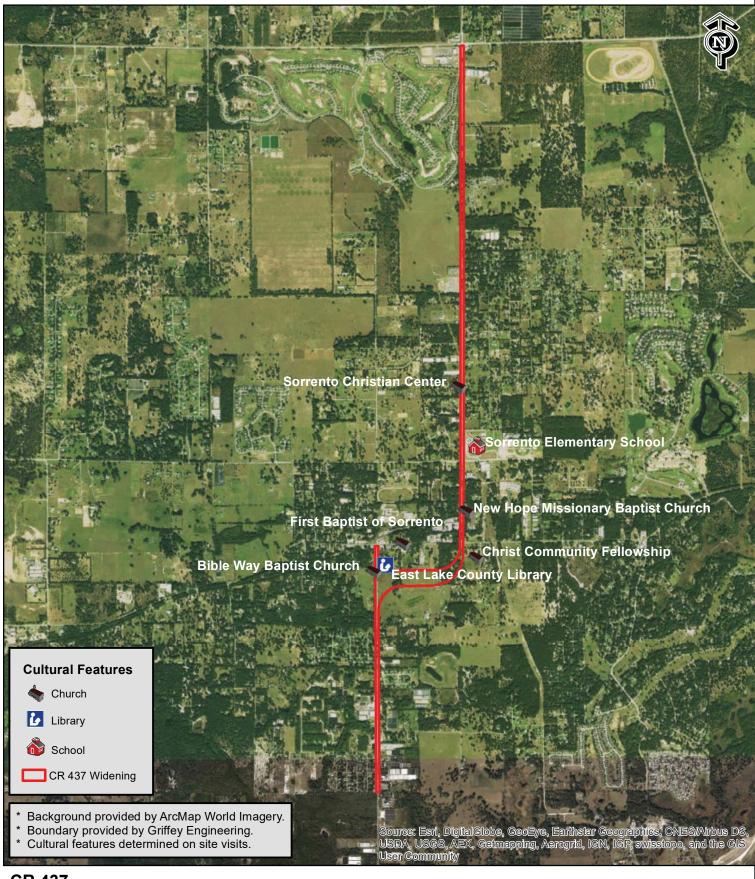


Land Use Map Sections 7,18, 19, 30, and 31, T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida





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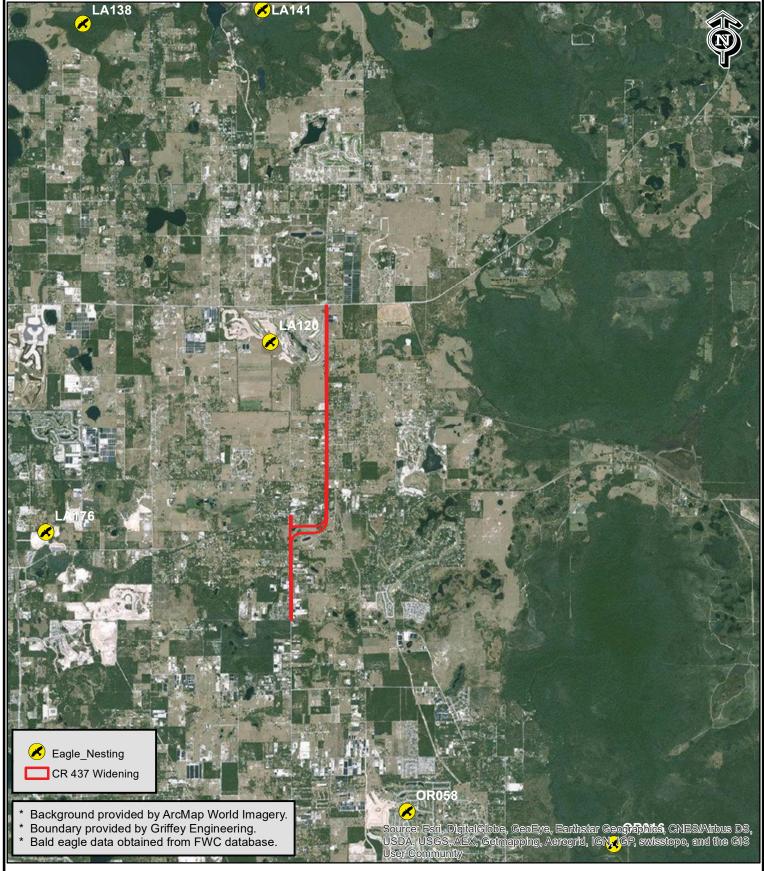
Cultural Features Map Sections 7,18, 19, 30, and 31, T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida





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Bald Eagle Nest Location Map Sections 7 ,18, 19, 30, and 31 , T19S, R28E and Sections 25 and 36, T19S, R27E Lake County, Florida



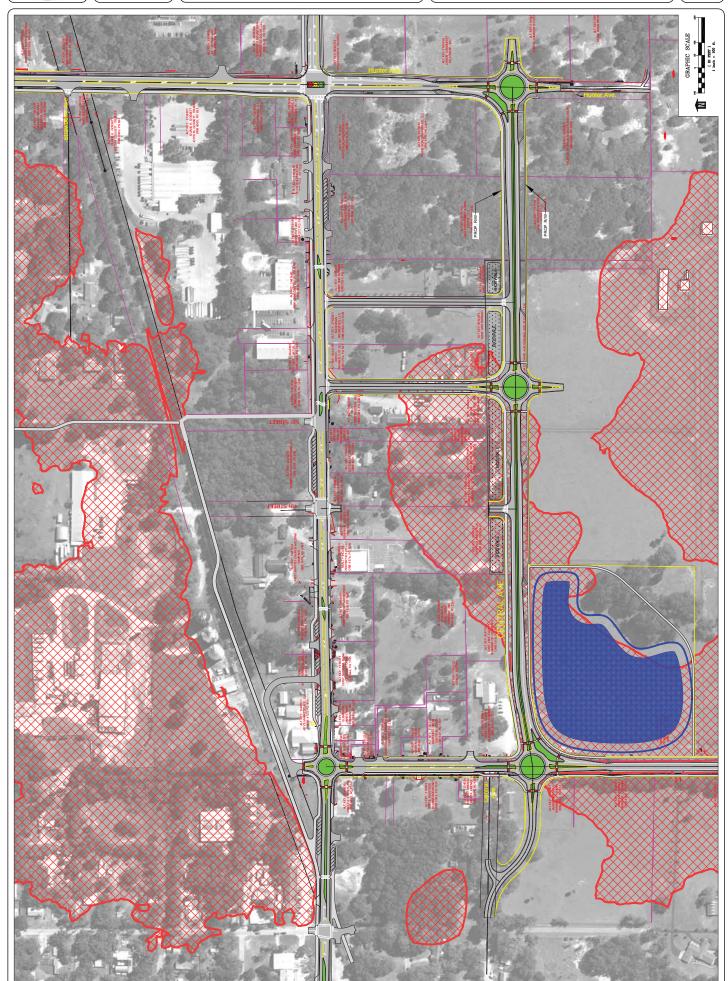


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EXHIBITS







APPENDICES





FRAT tracking list

LAKE COUNTY

55 Vertebrates Found **Last Updated: June 2014**

Key

Scientific Name is linked to the FNAI Online Field Guides when available.

- links to <u>NatureServe Explorer</u>, an online encyclopedia of more than 55,000 plants, animals, and natural communities in North America, compiled by the <u>NatureServe</u> network of natural heritage programs, of which the Florida Natural Areas Inventory is a member.

- links to a species distribution map (<u>Adobe SVG viewer</u> required). If your browser does not support Adobe SVG, try this <u>link</u>

New Search

SEARCH RESULTS

NOTE: This is not a comprehensive list of all species and natural communities occurring in the location searched. Only elements documented in the FNAI database are included.

Fishes EXPLANATION

Scientific Name		Common Name	Global Rank		Federal Status	State Status
Ameiurus brunneus	27	Snail Bullhead	G4	S3	N	N
Cyprinodon variegatus hubbsi	47	Lake Eustis Pupfish	G5T2Q	S2	N	SSC
Enneacanthus chaetodon	47	Blackbanded Sunfish	G3G4	S3	N	N
Petromyzon marinus	47	Sea Lamprey	G5	SNA	N	N
Pteronotropis welaka	47	Bluenose Shiner	G3G4	S3S4	N	SSC

Amphibians EXPLANATION

Scientific Name		Common Name			Federal Status	
Lithobates capito	4	Carolina Gopher Frog	G3	S3	N	SSC
Notophthalmus perstriatus	4	Striped Newt	G2G3	S2S3	С	N

Reptiles

Scientific Name		Common Name	Global Rank		Federal Status	State Status
Alligator mississippiensis	4 7	American Alligator	G5	S4	SAT	FT(S/A)
Clemmys guttata	4 7	Spotted Turtle	G5	S3?	N	N
<u>Crotalus adamanteus</u>	47	Eastern Diamondback Rattlesnake	G4	S3	N	N
Drymarchon couperi	4 7	Eastern Indigo Snake	G3	S3	LT	FT
Gopherus polyphemus	47	Gopher Tortoise	G3	S3	С	ST
<u>Heterodon simus</u>	4 7	Southern Hognose Snake	G2	S2	N	N
Lampropeltis calligaster	47	Mole Snake	G5	S2S3	N	N
Lampropeltis extenuata	47	Short-tailed Snake	G3	S3	N	ST
Lampropeltis getula	4	Common Kingsnake	G5	S2S3	N	N
Pituophis melanoleucus mugitus	4	Florida Pine Snake	G4T3	S3	N	SSC
Plestiodon reynoldsi	4	Sand Skink	G2	S2	LT	FT
Pseudemys concinna suwanniensis	4 7	Suwannee Cooter	G5T3	S3	N	SSC
<u>Sceloporus woodi</u>	4	Florida Scrub Lizard	G3	S3	N	N

Birds

Scientific Name		Common Name	Global Rank		Federal Status	State Status
Aphelocoma coerulescens	47	Florida Scrub-Jay	G2	S2	LT	FT
<u>Aramus guarauna</u>	47	Limpkin	G5	S3	N	SSC
Ardea alba	47	Great Egret	G5	S4	N	N
Athene cunicularia floridana	47	Florida Burrowing Owl	G4T3	S3	N	SSC
<u>Buteo brachyurus</u>	47	Short-tailed Hawk	G4G5	S1	N	N
Egretta caerulea	47	Little Blue Heron	G5	S4	N	SSC
Egretta thula	47	Snowy Egret	G5	S3	N	SSC
Egretta tricolor	47	Tricolored Heron	G5	S4	N	SSC

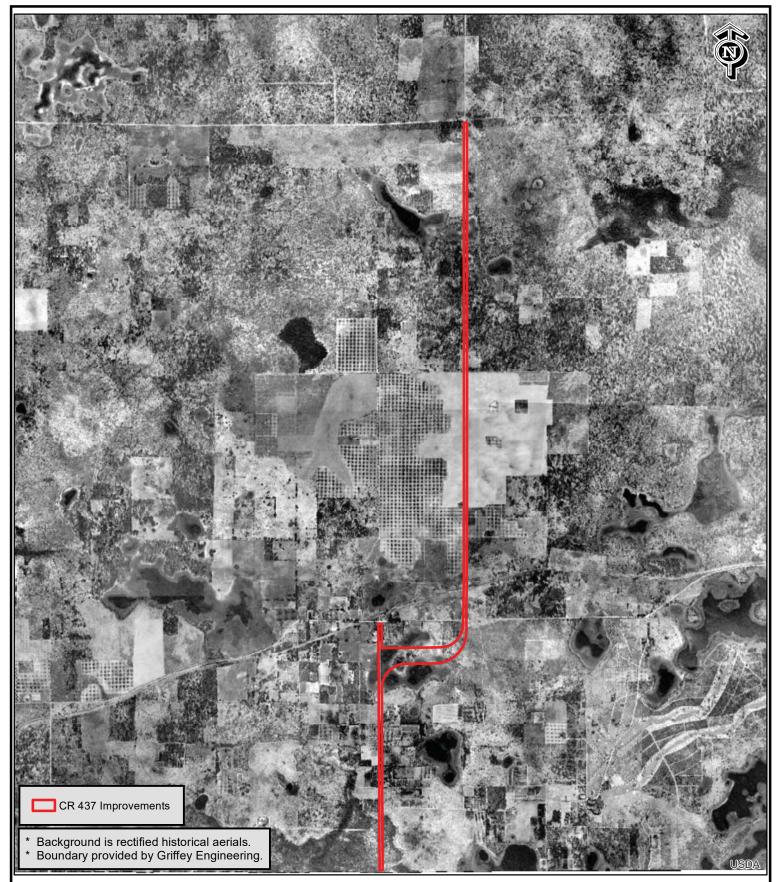
Elanoides forficatus	47	Swallow-tailed Kite	G5	S2	N	N
<u>Eudocimus albus</u>	27	White Ibis	G5	S4	N	SSC
Falco columbarius	27	Merlin	G5	S2	N	N
Falco peregrinus	47	Peregrine Falcon	G4	S2	N	N
Falco sparverius paulus	27	Southeastern American Kestrel	G5T4	S3	N	ST
Grus canadensis pratensis	27	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Haliaeetus leucocephalus	47	Bald Eagle	G5	S3	N	N
Ixobrychus exilis	27	Least Bittern	G5	S4	N	N
Laterallus jamaicensis	27	Black Rail	G3G4	S2	N	N
<u>Mycteria americana</u>	27	Wood Stork	G4	S2	LE	FE
Nyctanassa violacea	47	Yellow-crowned Night- heron	G5	S3	N	N
Nycticorax nycticorax	47	Black-crowned Night- heron	G5	S3	N	N
Pandion haliaetus	47	Osprey	G5	S3S4	N	SSC*
Peucaea aestivalis	47	Bachman's Sparrow	G3	S3	N	N
<u>Picoides borealis</u>	47	Red-cockaded Woodpecker	G3	S2	LE	FE
Picoides villosus	27	Hairy Woodpecker	G5	S3	N	N
Plegadis falcinellus	47	Glossy Ibis	G5	S3	N	N
Sternula antillarum	47	Least Tern	G4	S3	N	ST

Mammals EXPLANATION

Scientific Name		Common Name	Global Rank	State Rank		State Status
Corynorhinus rafinesquii	27	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Mustela frenata olivacea	47	Southeastern Weasel	G5T4	S3?	N	N
Mustela frenata peninsulae	47	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	47	Southeastern Bat	G3G4	S3	N	N
Neofiber alleni	07	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	47	Florida Mouse	G3	S3	N	SSC

Sciurus niger shermani	4	Sherman's Fox Squirrel	G5T3	S3	N	SSC
<u>Trichechus manatus</u>	47	Manatee	G2	S2	LE	FE
<u>Ursus americanus floridanus</u>	47	Florida Black Bear	G5T2	S2	N	ST*

New Search



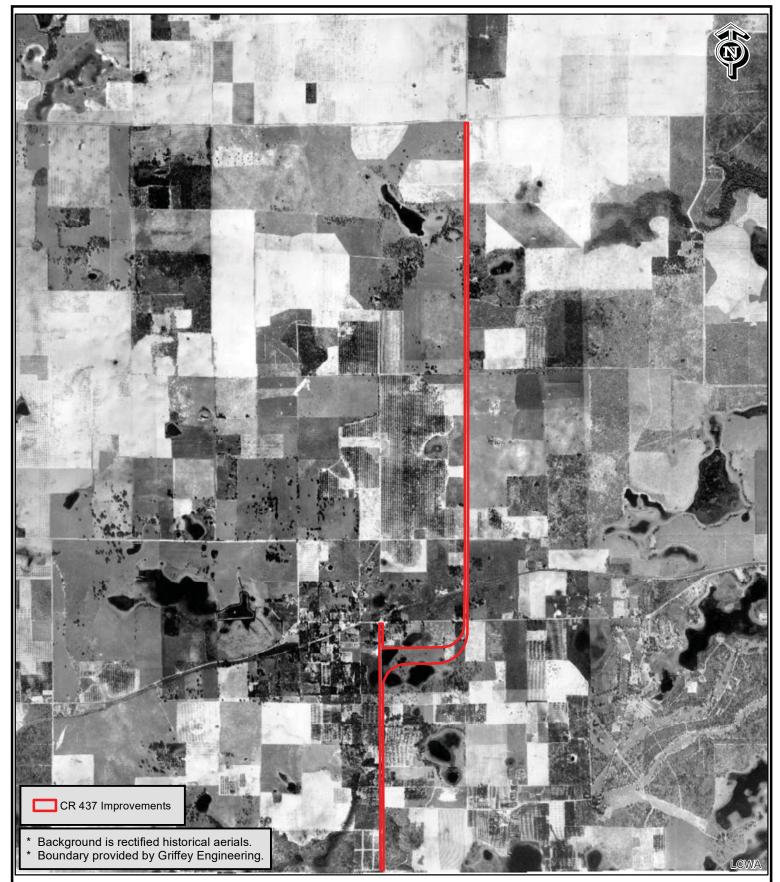
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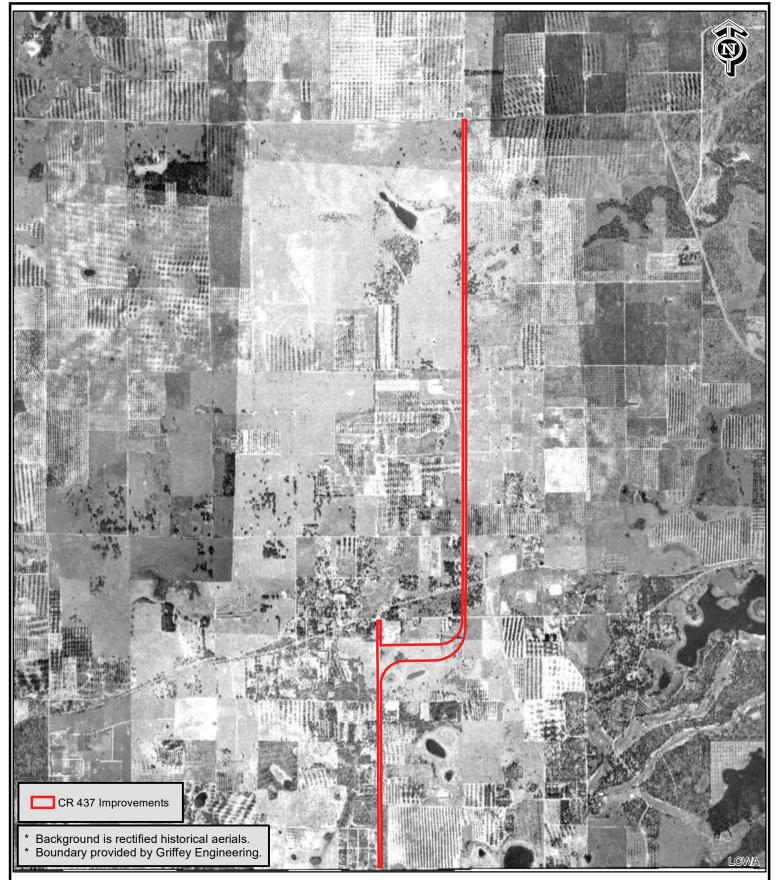


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