

ADMINISTRATIVE ACTION  
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation

NEPTUNE RD. FROM PARTIN SETTLEMENT RD. TO US 192

District: FDOT District 5

County: Osceola County

ETDM Number: 14402

Financial Management Number: 445415-1-00-00

Federal-Aid Project Number: N/A

Project Manager: David Graeber

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

This action has been determined to be a Categorical Exclusion, which meets the definition contained in 40 CFR 1508.4, and based on past experience with similar actions and supported by this analysis, does not involve significant environmental impacts.

Signature below constitutes Location and Design Concept Acceptance:

Director Office of Environmental Management  
Florida Department of Transportation

For additional information, contact:

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This document was prepared in accordance with the FDOT PD&E Manual.

This project has been developed without regard to race, color or national origin, age, sex, religion, disability or family status (Title VI of the Civil Rights Act of 1964, as amended).

On 07/16/2019 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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## 1. Project Information

### 1.1 Project Description

This project involves a 3.9-mile segment of Neptune Road extending from Partin Settlement Road to US 192 in Osceola County. The section east of the St. Cloud canal (approximately 1.1 miles in length) is within the City of St. Cloud. From Partin Settlement Road to Old Canoe Creek Road, the proposed project improves the existing 2-lane roadway to a 4-lane, divided roadway with a curbed median, with bicycle and pedestrian facilities (i.e., bike lanes, shared use path(s), and/or sidewalks). From Old Canoe Creek Road to US 192, the project widens the existing 2-lane roadway to 4-lanes with sidewalks. Bridge structures are to be replaced and stormwater management facilities will be evaluated.

### 1.2 Purpose and Need

#### Purpose

The purpose of the project is to address capacity and safety issues along the 3.9-mile segment of Neptune Road.

#### Need

The need for the project is based on capacity and safety.

#### Capacity

The 2018 annual average daily traffic (AADT) volume on Neptune Road, between Partin Settlement Road and Old Canoe Creek Road was 25,000 resulting in a volume to capacity (V/C) ratio of 1.41, which indicates level of service (LOS) F operating conditions. The 2045 traffic volumes on Neptune Road between Partin Settlement Road and US 192 are projected to range between 14,000 and 32,000 AADT, resulting in LOS F for the entire corridor with V/C ratios ranging from 1.04 to 1.93.

#### Safety

A total of 195 crashes were reported for the five-year period (January 1st, 2013 through December 31st, 2017), including three fatal crashes and 109 injury crashes, which resulted in three fatalities and 187 injuries. The number of reported crashes per year nearly doubled over the five-year period:

- 28 crashes in 2013
- 22 crashes in 2014
- 33 crashes in 2015
- 57 crashes in 2016
- 55 crashes in 2017

A crash type analysis was conducted and the predominant crash type along the corridor was the rear-end crash (47.7 percent). Approximately 49 percent of the rear-end collisions occurred at-fault in the westbound direction and 30 percent occurred at-fault in the eastbound direction. Rear-end crashes occurred along the entire length of the corridor but were most concentrated along the sections in the vicinity of Ames Haven Road, as well as at the Commerce Center Drive and Stroupe Road intersections. The next most common crash types were left-turn crashes (14.4 percent) and run-off-the-road (ROTR) crashes (13.3 percent). Left-turn crashes were most concentrated at the intersection of Neptune Road at Stroupe Road, and ROTR crashes were most concentrated along the section of Neptune Road near Ames Haven Road.

### 1.3 Planning Consistency

Currently Adopted L RTP-CFP	COMMENTS			
Yes				
	Currently Approved	\$	FY	COMMENTS
<b>PE (Final Design)</b>				
TIP	Y	3,228,000	2020	PD&E is being completed to meet potential future federal-aid eligibility. PD&E Study is funded with local funding and expected to finish mid-2020. Design for project is fully funded with local funding. If future federal or state funding becomes available, TIP will be amended to reflect this.
STIP	N			PD&E is being completed to meet potential future federal-aid eligibility. PD&E Study is funded with local funding and expected to finish mid-2020. Design for project is fully funded with local funding. If future federal or state funding becomes available, STIP will be amended to include future phases.
<b>R/W</b>				
TIP	Y	19,759,000	2020-2022	ROW for project is fully funded with local funding. If future federal or state funding becomes available, TIP will be amended to reflect this.
STIP	N			ROW for project is fully funded with local funding. If future federal or state funding becomes available, STIP will be amended to include future phases.
<b>Construction</b>				
TIP	Y	40,751,000	2022-2023	Construction for project is fully funded with local funding. If future federal or state funding becomes available, TIP will be amended to reflect this.
STIP	N			Construction for project is fully funded with local funding. If future federal or state funding becomes available, STIP will be amended to include future phases.

## 2. Environmental Analysis Summary

Issues/Resources	Significant Impacts?*			
	Yes	No	Enhance	NoInv
<b>3. Social and Economic</b>				
1. Social	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Economic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Land Use Changes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Aesthetic Effects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Relocation Potential	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Farmland Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Cultural Resources</b>				
1. Section 106 of the National Historic Preservation Act	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Section 4(f) of the USDOT Act of 1966	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Section 6(f) of the Land and Water Conservation Fund	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Recreational Areas and Protected Lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5. Natural Resources</b>				
1. Protected Species and Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Wetlands and Other Surface Waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Essential Fish Habitat (EFH)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sole Source Aquifer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Water Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Aquatic Preserves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Outstanding Florida Waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Coastal Barrier Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6. Physical Resources</b>				
1. Highway Traffic Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Utilities and Railroads	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**USCG Permit**

- A USCG Permit IS NOT required.
- A USCG Permit IS required.

\* **Impact Determination:** Yes = Significant; No = No Significant Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the referenced attachment(s).

### 3. Social and Economic

The project will not have significant social and economic impacts. Below is a summary of the evaluation performed.

#### 3.1 Social

Osceola County is one of the fastest growing counties in Florida. To accommodate this growth, traffic operations on existing roadways will need to be addressed. This project proposes to improve the overall traffic operations of the existing highway network, improve mobility, and enhance safety, which will help support growth in the area. Based on the analysis conducted during the PD&E Study, the proposed project would enhance multimodal connectivity and provide a safer environment for bicyclists and pedestrians.

This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status. Title VI states that no person shall, on the grounds of race, color, religion, sex, national origin, marital status, handicap or family status, be excluded from participation in, or be denied the benefits of, or be otherwise subject to discrimination under any program of the federal, state or local government.

According to the Sociocultural Data Report for the project, utilizing the 2017 American Community Survey (ACS), there is a total population of 1,012 and a minority population of 58.99% for Census Block Groups 120970429002, 120970431001, 120970432041, and 120970432031. Race and Ethnicity is characterized as follows: White Alone (73.62%), Black or African American Alone (9.68%), Native Hawaiian and Other Pacific Islander Alone (0%), Asian Alone (4.55%), American Indian or Alaska Native Alone (0.20%), Some Other Race Alone (8.20%), Claimed 2 or More Races (3.85%), Hispanic or Latino of Any Race (45.26%), and Not Hispanic or Latino (54.74%). For comparison, Osceola County is 74.40% White, 51.60% Hispanic, and 65.83% Minority.

The 2017 ACS data indicate the median household income is \$41,502 and 15.89% of the households are below the poverty level. For comparison, Osceola County has a median household income of \$47,343 and 16.70% of households are below the poverty level. Lastly, the 2017 ACS data indicate that for individuals aged 5 and over, 6.09% speak English Not Well or Not at All.

Implementing the Preferred Alternative does not result in any disproportionate adverse impacts to any distinct minority, ethnic, elderly, or handicapped groups and/or low-income households.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed on February 11, 1994, directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. This project is not expected to have any adverse or disproportionate impacts on minority or low-income households.

It is anticipated that the project improvements will have minimal impact to community cohesiveness. Therefore, this project complies with Executive Order 12898, Environmental Justice, issued on February 11, 1994.



## 3.2 Economic

The project proposes to improve access to the NeoCity development, which is a future 500-acre technology district and economic resource. The County's East of Lake Toho Conceptual Master Plan is another economic resource that proposes to develop commercial and office space in the area. In addition, the overall population of Osceola County is projected to increase by 92% by 2045. This project proposes to support the projected growth of Osceola County and subsequent economic growth by improving the existing transportation infrastructure. Consequently, traffic operations and safety will also be improved.

Lastly, this project will not result in any business relocations, therefore the local economy/tax base will not be negatively affected by this project. Therefore, it is expected that this project may enhance the economy of the local community.

## 3.3 Land Use Changes

Future land use (FLU) was determined based on a review of Osceola Counties' Future Land Use GIS data. The study area is partially developed with residential and commercial land uses. However, there are some agriculture land uses remaining within the study area. The FLU shows these agriculture areas as either mixed use or low density residential. The population in Osceola County, specifically in Kissimmee and surrounding communities, is growing which is indicative on the FLU maps. The widening of the existing roadway is not expected to change land use substantially in the area.

Two housing developments with access to this portion of Neptune Road are currently under construction. These developments are part of the larger East of Lake Toho Conceptual Master Plan, which is a multi-use development that proposes to add 33,400 dwelling units, approximately two million square feet of commercial development, and approximately three million square feet of office space to the area. To support this current and future development, it will be necessary to improve traffic operations as this project proposes. Much of the study area is located within the County's East of Lake Toho Conceptual Master Plan and there are two DRIs under construction adjacent to Neptune Road.

## 3.4 Mobility

The project proposes improving the connections between downtown Kissimmee, downtown St. Cloud, and NeoCity by extending the existing multi-modal section to create a uniform system linkage. The proposed project would therefore enhance multimodal connectivity and provide a safer environment for cyclists and pedestrians while providing a system linkage between communities. Access to various recreational resources will be improved as well, including access to the Neptune Road Pathway and Neptune Middle School. The proposed improvements will enhance mobility. The inclusion of bicycle lanes and sidewalks will improve pedestrian and bicycle safety and connectivity for the communities of St. Cloud, downtown Kissimmee, and NeoCity.

### **3.5 Aesthetic Effects**

There are trees in the median just west of Old Canoe Creek Road and low-level bushes and shrubs in the medians east and west of Old Canoe Creek Road. Landscaping within the medians is maintained by the County. Other than the median treatments and lighting, there are no aesthetic features (i.e., landscaping) provided along Neptune Road. However, future landscaping will be considered with the proposed improvements.

### **3.6 Relocation Potential**

A Conceptual Stage Relocation Plan (August 2019) was created for this project to evaluate potential relocations from this project. From Partin Settlement Road to west of G and H Drive, the additional ROW for the Preferred Alternative will be acquired primarily on the north side of the existing roadway. From G and H Drive to Canal C-31, additional ROW will be acquired from both the north and south sides of the road to avoid relocating KUA power transmission poles. From Canal C-31 to Old Canoe Creek Road, the additional ROW will be acquired primarily on the south side of the existing roadway.

The Preferred Alternative will require ROW from 61 residential parcels and 11 non-residential parcels. Of the existing residences, nine are expected to require relocation. Of the existing non-residential buildings, none are expected to require relocation.

In order to minimize the unavoidable effects of ROW acquisition and displacement of people, Osceola County will carry out a Right of Way and Relocation Assistance Program in accordance with Florida Statute 421.55, Relocation of displaced persons. Before acquiring ROW, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

In order to minimize the unavoidable effects of Right of Way acquisition and displacement of people, a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

### **3.7 Farmland Resources**

There are approximately 9.3 acres of Farmlands of Unique Importance within the preferred alternative and the preferred pond sites. However, a majority of these farmlands are already converted to other uses such as transportation and institutional. Additionally, these areas are no longer being farmed. The roadway widening is occurring along an already existing roadway and the pond sites selected are expanding existing pond sites. Therefore, although there are areas classified as farmlands within the study area, none of these areas will be converted. A Farmland Conversion Impact Rating was sent to the Natural Resources Conservation Service (NRCS) for concurrence December 2, 2019. NRCS concurrence was received on February 6, 2020.

## 4. Cultural Resources

The project will not have significant impacts to cultural resources. Below is a summary of the evaluation performed.

### 4.1 Section 106 of the National Historic Preservation Act

A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that some of these resources meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) has concurred with this determination. After application of the Criteria of Adverse Effect, and in consultation with SHPO, FDOT has determined that the proposed project will have No Adverse Effect on these resources.

A Cultural Resources Assessment Survey (CRAS) for the Neptune Road PD&E Study from Partin Settlement Road to US 192, Osceola County, Florida was completed in October 2019. The Area of Potential Effects (APE) was defined to include the existing and proposed Neptune Road right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way, or a distance of no more than 328 feet (100 meters) from the maximum ROW line. The archaeological survey was conducted within the existing and the proposed ROW. The historic structure survey was conducted within the entire APE.

The architectural survey resulted in the identification and evaluation of 40 historic resources within the Neptune Road APE, including two previously recorded resources and 38 newly recorded resources. The previously recorded resources include one historic canal (8OS02752) and one historic railway (8OS02822). The newly recorded resources include one historic mobile home park (8OS02983); two historic canals (8OS02981 and 8OS02982); three historic bridges (8OS02942-8OS02944); and 32 historic structures (8OS02945-8OS02976).

One resource within the Neptune Road APE is National Register of Historic Places (NRHP)-eligible. A segment of the St. Cloud Canal (8OS02752) was determined NRHP-eligible by the Florida State Historic Preservation Officer (SHPO) on April 24, 2014 (SEARCH 2014). That segment of the St. Cloud Canal (8OS02752) is considered significant under Criterion A for its association with land reclamation activities in Osceola County, which helped spur the development of the county, and Criterion C as an example of a nineteenth-century canal. Based on the historic context and the results of the present survey, SEARCH recommends that the segment of the St. Cloud Canal (8OS02752) within the Neptune Road APE eligible as contributing to the overall NRHP-eligible St. Cloud Canal (8OS02752). Based upon a review of the current plans, the proposed work will not involve rerouting of the canal, disruption of the canal, widening or loss of width or the severing of the canal from other waterways. While the proposed project will acquire 0.3 acres within the St. Cloud Canal right-of way, none of the proposed improvements will diminish the integrity of the St. Cloud Canal (8OS02752) or its ability to express the characteristics that make it eligible for listing in the NRHP. As such, the proposed improvements will have no adverse effect on 8OS02752. No further architectural work is recommended.

A portion of the St. Cloud and Sugar Belt Railway (8OS02822) was determined ineligible for the NRHP by SHPO on September 4, 2015 (Dickinson and Wayne 2015). It is the opinion of SEARCH that the section of the St. Cloud and Sugar Belt Railway (8OS02822) within the Neptune Road APE remains ineligible for the NRHP due to a lack of historic integrity. The remaining 38 historic resources within the Neptune Road APE are recommended ineligible due to a lack of historic significance.

The archaeological survey consisted of a thorough pedestrian survey within the current and proposed project right-of-way, which included the excavation of 39 subsurface tests. Ground disturbance resulting from buried utilities and drainage features prevented subsurface archaeological testing throughout much of the APE. Of the 39 excavated shovel tests, nine were positive for cultural material, resulting in the documentation of one new archaeological site, 8OS02984. Site 8OS02984 is recommended ineligible for the NRHP based on the level of disturbance and the unremarkable nature of the artifact assemblage.

Based on the results of the CRAS, SHPO concurred that the proposed improvements to Neptune Road will have no adverse effect on any cultural resources listed or eligible for listing in the NRHP on December 20, 2019. The concurrence letter from SHPO is attached.

## **4.2 Section 4(f) of the USDOT Act of 1966, as amended**

The following evaluation was conducted pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, and 23 CFR Part 774.

There are three Section 4(f) resources within the study area: Neptune Middle School Sports Fields, Partin Triangle Park and Boat Ramp and the Neptune Road Pathway. An exception was requested for the Neptune Road Pathway because the Pathway meets the criteria for an exception under 23 CFR Part 774 for the following reasons: the pathway occupies an existing transportation facility right-of-way without limitation to any specific location within that right-of-way and the continuity of the Pathway will be maintained with the Neptune Road widening project.

A Determination of Applicability is in progress completed for the Neptune Middle School Sports Fields. The Preferred Alternative will require some right-of-way from Neptune Middle School, however the alternative will not impact any of the facilities within the Sports Fields. Dedicated left and right turn lanes are proposed that will enhance access to this facility. The Sports Fields will remain open during construction. Therefore, it was recommended that the appropriate type of Section 4(f) documentation for this property is *de minimis*.

A Determination of Applicability is in progress for the Partin Triangle Park and Boat Ramp. The Preferred Alternative will not require acquisition of right-of-way from the park and therefore, does not impact any of the facilities within the park. Access will be enhanced with the inclusion of the dedicated left turn lane and the reconstruction of the right turn lane and the construction of multi-use paths on both sides of Neptune Road. The park will remain open during construction. Therefore, it was recommended that the appropriate type of Section 4(f) documentation for this property is No Use.

## **4.3 Section 6(f) of the Land and Water Conservation Fund Act of 1965**

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

## **4.4 Recreational Areas and Protected Lands**

There are no other protected public lands in the project area.

## 5. Natural Resources

The project will not have significant impacts to natural resources. Below is a summary of the evaluation performed:

### 5.1 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

A protected species and habitat assessment was conducted, and the results are summarized in the *Natural Resource Evaluation Report* (July 2020).

The following table summarizes the likelihood of occurrence for state and federally listed species based on the assessment of potential habitat and/or actual observance of the species. Species were given a 'Low' likelihood of occurrence if they were not observed during field surveys and/or have no or limited suitable habitat within the study area. Species were given a 'Medium' likelihood of occurrence if they were not observed during field surveys, but suitable habitat exists within the study area. Species were given a 'High' likelihood of occurrence if they were observed during field surveys and/or if there is suitable habitat throughout the study area.

#### Listed Species Likelihood of Occurrence

Common Name	Scientific Name	Federal Status	State Status	Likelihood of Occurrence
<b>MAMMALS</b>				
Florida Panther	<i>Puma concolor coryi</i>	E	FE	Low
Florida Bonneted Bat	<i>Eumops floridanus</i>	E	FE	Medium
Florida Black Bear	<i>Ursus americanus floridanus</i>	NL*	NL*	Low
<b>Southern Fox Squirrel</b>	<b><i>Sciurus niger niger</i></b>	<b>NL**</b>	<b>NL**</b>	<b>High</b>
<b>BIRDS</b>				
Audubon's Crested Caracara	<i>Polyborus plancus audubonii</i>	T	FT	Low
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	T	FT	Low
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E	FE	Low
Everglade Snail Kite	<i>Rostrhamus sociabilis plumbeus</i>	E	FE	Low
Wood Stork	<i>Mycteria americana</i>	T	FT	High
Florida Burrowing Owl	<i>Athene cunicularia floridana</i>	NL	ST	Low
<b>Florida Sandhill Crane</b>	<b><i>Grus canadensis pratensis</i></b>	<b>NL</b>	<b>ST</b>	<b>High</b>
<b>Southeastern American kestrel</b>	<b><i>Falco sparverius paulus</i></b>	<b>NL</b>	<b>ST</b>	<b>High</b>
Tricolored Heron	<i>Egretta tricolor</i>	NL	ST	Medium

<b>Little Blue Heron</b>	<b><i>Egretta caerulea</i></b>	<b>NL</b>	<b>ST</b>	<b>High</b>
Roseate Spoonbill	<i>Platalea ajaja</i>	NL	ST	Medium
<b>Bald Eagle</b>	<b><i>Haliaeetus leucocephalus</i></b>	<b>NL***</b>	<b>NL***</b>	<b>High</b>
<b>REPTILES</b>				
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	T	FT	Low
Florida Pine Snake	<i>Pituophis melanoleucus mugitus</i>	NL	ST	Low
Gopher Tortoise	<i>Gopherus polyphemus</i>	C	ST	Low
<b>PLANTS</b>				
Beautiful Pawpaw	<i>Deeringothamnus pulchellus</i>	E	SE	Low
Britton's Beargrass	<i>Nolina brittoniana</i>	E	SE	Low
Florida Blazing Star	<i>Liatis ohlingerae</i>	E	SE	Low
Florida Bonamia	<i>Bonamia grandiflora</i>	T	SE	Low
Lewton's Polygala	<i>Polygala lewtonii</i>	E	SE	Low
Paper-like Nailwort	<i>Paronychia chartacea ssp. chartacea</i>	T	SE	Low
Pygmy Fringe Tree	<i>Chionanthus pygmaeus</i>	E	SE	Low
Scrub Buckwheat	<i>Eriogonum longifolium var. gnaphalifolium</i>	T	SE	Low
Scrub Lupine	<i>Lupinus aridorum</i>	E	SE	Low
Short-leaved Rosemary	<i>Conradina brevifolia</i>	E	SE	Low
Sandlace	<i>Polygonella myriophylla</i>	E	SE	Low
Carter's Mustard	<i>Warea carteri</i>	E	SE	Low
Wide-leaf Warea	<i>Warea amplexifolia</i>	E	FE	Low
Ashe's Savory	<i>Calamintha ashei</i>	NL	ST	Low
Celestial Lily	<i>Nemastylis floridana</i>	NL	SE	Low
Cutthroat Grass	<i>Panicum abscissum</i>	NL	SE	Low
Florida Beargrass	<i>Nolina atopocarpa</i>	NL	ST	Low
Florida Spiny-pod	<i>Matelea floridana</i>	NL	SE	Low
Giant Orchid	<i>Pteroglossaspis ecristata</i>	NL	ST	Low
Hartwrightia	<i>Hartwrightia floridana</i>	NL	ST	Low
Many-flowered Grass-pink	<i>Calopogon multiflorus</i>	NL	ST	Low
Nodding Pinweed	<i>Lechea cernua</i>	NL	ST	Low
Pinewoods Bluestem	<i>Andropogon arctatus</i>	NL	ST	Low
Sand Butterfly Pea	<i>Centrosema arenicola</i>	NL	SE	Low
Scrub Bluestem	<i>Schizachyrium niveum</i>	NL	SE	Low
Star Anise	<i>Illicium parviflorum</i>	NL	SE	Low
Yellow Fringeless Orchid	<i>Platanthera integra</i>	NL	SE	Low

Based on *Florida's Endangered and Threatened Species* updated December 2018 available on <http://myfwc.com/wildlifehabitats/imperiled/> and 5B-40.0055 *Florida Administrative Code (FAC) Regulated Plant Index*.  
Federal Status: E = Endangered; T = Threatened; C = Candidate Species; NL = Not Listed  
State Status: FE = Federally Endangered; FT = Federally Threatened; FT(S/A) = Federally Threatened due to Similarity of Appearance. ST= State Threatened; SE = State Endangered; SSC = Species of Special Concern.  
Note: Coordination is not required with FWC for federally listed species.  
**Bold** = observed during field reconnaissance  
\* The Florida black bear is still protected under Florida Black Bear Conservation Rule 68A-4.009 (F.A.C.) and the FWC Florida Black Bear Management Plan.  
\*\*The fox squirrel is still protected under Regulations Relating to the Taking of Mammals 68A-29.002 (F.A.C.).  
\*\*\* The Bald eagle is still protected under the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act and FWC Management Plan regulations.

Habitat mapping, gopher tortoise surveys, and plant surveys were conducted on November 30, 2019 and February 19, 2019. Additionally, observations of flora and fauna or indicators of wildlife within the corridor were noted such as tracks, burrows, scat, calls (avian), and evidence of foraging activities, in addition to actual observations of plants and animals. Crested caracara surveys were conducted January 2019 through April 2019. The results of the crested caracara surveys are summarized in the *Crested Caracara Report* dated May 2019. A Florida bonneted bat acoustic and roost survey was conducted from May to June 2020 and the results are summarized in the Florida Bonneted Bat Acoustic Survey Report dated July 2020.

Twenty-one (21) federally-listed species and twenty-two (22) state-listed species were evaluated to determine if the proposed project will affect these species. The study area is either partially or wholly within several consultation areas, however, there is no suitable habitat and no documented occurrences for the following species within the study area: Florida scrub-jay, red-cockaded woodpecker, Everglade snail kite, Lake Wales Ridge plants - beautiful pawpaw, Britton's beargrass, Florida blazing star, Florida bonamia, Lewton's polygala, Paper-like nailwort, pygmy fringe tree, scrub buckwheat, scrub lupine, short-leaved rosemary, sandlace, Carter's mustard, and wide-leaf warea. Therefore, the project will have "no effect" on these species.

There are four (4) federally protected species that have the potential to occur within the project area. These species, and their associated effects determinations, are discussed below:

**Crested caracara** - Suitable habitat was documented within the study area during the November 30, 2018 site visit. Based on this site visit, three survey stations were established within the study area. Crested caracara surveys were conducted January through April 2019. Suitable habitats for the crested caracara within the project study area were surveyed in accordance with the USFWS Crested Caracara Survey Protocol (USFWS, 2016). No caracaras were observed during the survey. However, due to the presence of suitable habitat, this project qualifies for a **may affect, not likely to adversely affect** determination.

**Florida bonneted bat** - The project study area is within the USFWS consultation area for the Florida bonneted bat and based on coordination with USFWS an acoustic and roost survey was conducted from May to June 2020. Within the project study area suitable foraging and roosting habitat for this species were surveyed in accordance with the USFWS Florida Bonneted Bat Consultation Guidelines (October 2019). No Florida bonneted bats were detected during the survey;

therefore, this project qualifies for a **no effect** determination.

**Eastern indigo snake** - Habitat for this species is limited within the study area and no indigo snakes were observed during field reconnaissance. Additionally, no gopher tortoise burrows were observed within the study area. Based on agency coordination with John Wrublik, USFWS, there are no records indicating that the indigo snake occurs on or within several miles of the project site and that there is a lack of credible information that would show this species reasonably occurs on or near the project site. The *Standard Protection Measures for the Eastern Indigo Snake* will be implemented during construction to minimize potential impacts to this snake. Based on this information and coordination, this project qualifies for a **no effect** determination.

**Wood stork** - Minimal foraging habitat for this species in the shallow surface waters and stormwater ponds is present but no nesting habitat or wood storks were observed. The project will impact greater than 0.50 acres of suitable foraging habitat (SFH) and is within the core foraging area of a colony site. Mitigation will be provided for lost SFH by creation of stormwater ponds. Using this information, along with the *South Florida Wood Stork Effect Determination Key (May 2010)* it was determined that this project qualifies for a **may affect, not likely to adversely affect** determination.

The project study area also potentially contains eight (8) state protected species including the Florida burrowing owl, Florida sandhill crane, southeastern American kestrel, tricolored heron, little blue heron, roseate spoonbill, Florida pine snake and gopher tortoise and 11 plants. A no effect or no adverse effect is anticipated with any of these state protected plant or animals. The following table shows the anticipated effects determinations based on field surveys and literature and database reviews.

#### Species Effect Determinations

Species	Effect Determination
<b>FEDERALLY-LISTED SPECIES</b>	
Florida Panther	No effect
Florida Bonneted Bat	No effect
Audubon's Crested Caracara	Not likely to adversely affect
Florida Scrub-Jay	No effect
Red-cockaded Woodpecker	No effect
Everglade Snail Kite	No effect
Wood Stork	Not likely to adversely affect
Eastern Indigo Snake	No effect
Beautiful Pawpaw	No effect
Britton's Beargrass	No effect
Scrub Blazing Star	No effect
Florida Bonamia	No effect
Lewton's Polygala	No effect
Paper-like Nailwort	No effect
Pygmy Fringe Tree	No effect
Scrub Buckwheat	No effect
Scrub Lupine	No effect
Short-leaved Rosemary	No effect



Sandlace	No effect
Carter's Mustard	No effect
Wide-leaf Warea	No effect
<b>STATE-LISTED SPECIES</b>	
Florida Burrowing Owl	No adverse effect anticipated
Florida Sandhill Crane	No adverse effect anticipated
Southeastern American Kestrel	No adverse effect anticipated
Tricolored Heron	No adverse effect anticipated
Little Blue Heron	No adverse effect anticipated
Roseate Spoonbill	No adverse effect anticipated
Florida Pine Snake	No effect anticipated
Gopher Tortoise	No adverse effect anticipated
Ashe's Savory	No adverse effect anticipated
Celestial Lily	No adverse effect anticipated
Cutthroat Grass	No adverse effect anticipated
Florida Beargrass	No effect anticipated
Florida Spiny-pod	No adverse effect anticipated
Giant Orchid	No effect anticipated
Hartwrightia	No effect anticipated
Many-flowered Grass-pink	No effect anticipated
Nodding Pinweed	No effect anticipated
Pinewoods Bluestem	No effect anticipated
Sand Butterfly Pea	No effect anticipated
Scrub Bluestem	No effect anticipated
Star Anise	No adverse effect anticipated
Yellow Fringeless Orchid	No adverse effect anticipated

The Florida black bear and bald eagle are not listed as endangered or threatened but are protected under other laws. No adverse effects to the Florida black bear are anticipated. Two bald eagle nests (Nest OS084 and OS169) are located within the project area. For OS084, the Preferred Alternative will encroach slightly upon the 330-foot buffer, but not the 100-foot buffer. An adult bald eagle was observed within this nest during field reconnaissance. The nest is on the south edge of a group of live oaks and slash pines, which provide a vegetative buffer between the nest and Neptune Road. Outside of this vegetative buffer, the nest is surrounded by Neptune Road, Old Canoe Creek Road and a residential neighborhood. Therefore, it is reasonable to assume that the eagles have acclimated to the presence of existing roadway infrastructure and people. A bald eagle survey will be completed during design and permitting to determine current status of the nests. Further coordination should occur with USFWS. Technical assistance and possible permitting would occur following the updated survey, when the current condition of the nest is known.

USFWS has defined some potential minimization measures that could be implemented and may remove the need to obtain a permit:

- Restrictions on construction timing
- Contractor education to avoid impacts.
- Nest monitoring during construction.

- Create a visual buffer between the construction activities and the nest by planting appropriate native pines or hardwoods.
- Shielding of lights so they do not shine directly on the nest.

USFWS concurrence and FWC comments will be included upon receipt.

A summary of the proposed impacts to upland habitat within the project study area are presented in the table below.

Habitat Impacts (Acres)

<b>FLUCFCS CODE</b>	<b>Description</b>	<b>Preferred Alt</b>
<b>211</b>	Improved Pastures	1.47
<b>261</b>	Fallow Crop Land	1.89
<b>434</b>	Hardwood-Conifer Mixed	1.30

## 5.2 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

A wetland evaluation was conducted, and the results are summarized in the Natural Resource Evaluation (NRE) (dated January 2020). Based on this evaluation, 12 wetlands and nine surface waters were documented within the study area. The following two tables summarize the direct and secondary impacts to surface waters and wetlands for the Preferred Alternative.

Summary of Direct Wetland Impacts

<b>SW/WL Number</b>	<b>FLUCFCS</b>	<b>Preferred Alt</b>
<b>SW 2</b>	510	0.14
<b>SW 3</b>	510	1.57
<b>SW 6</b>	534	0.88
<b>SW 7</b>	510	0.12
<b>SW 9</b>	510	0.04
<b>SW 10</b>	510	0.01
<b>SW 11</b>	510	0.01
<b>SW 13</b>	510	0.04

<b>Total Surface Water Impacts</b>	<b>2.81</b>	
<b>WL1</b>	641	0.12
<b>WL4</b>	643	0.23
<b>WL5</b>	643	0.21
<b>WL6</b>	617	0.13
<b>WL7</b>	641	0.15
<b>WL8</b>	617	0.04
<b>WL9</b>	641	0.16
<b>WL11</b>	641	0.05
<b>WL12</b>	617	0.09
<b>WL17</b>	617	0.85
<b>Total Wetland Impacts</b>	<b>2.03</b>	
<b>Grand Total Surface Water and Wetland Impacts</b>	<b>4.84</b>	

Secondary Wetland Impacts

<b>WL Number</b>	<b>Preferred Alt</b>
<b>WL1</b>	0.42
<b>WL2</b>	0.11
<b>WL4</b>	0.45
<b>WL5</b>	0.26
<b>WL6</b>	0.12
<b>WL7</b>	0.24
<b>WL8</b>	0.06
<b>WL9</b>	0.23
<b>WL11</b>	0.07
<b>WL12</b>	0.06
<b>WL15</b>	0.27
<b>WL17</b>	0.39
<b>Total Secondary Wetland Impacts</b>	<b>2.68</b>

A summary of the functional loss for the Preferred Alternative is shown in the table below.

Potential Wetland Functional Loss

Alternative	FLUCFCS	Wetland Number	Direct Impacts (Acres)	UMAM Composite Score	Potential Functional Loss	Sum of Potential Functional Loss by Habitat Type
<b>Preferred Alt</b>	617	WL-6, WL-8, WL-12	0.26	0.57	0.15	Forested: 0.58
	617	WL-17	0.86	0.50	0.43	
	641	WL-1	0.12	0.50	0.06	Herbaceous: 0.41
	641	WL-7, WL-9, WL-11	0.36	0.57	0.21	
	643	WL-4	0.23	0.27	0.06	
	643	WL-5	0.21	0.37	0.08	

After review of the project's potential impacts to wetlands, it has been determined that the proposed project will have no significant short-term or long-term adverse impacts to wetlands, there is no practical alternative to construction in wetlands as the project is the widening of an already existing roadway, and measures have been taken to minimize harm to wetlands along the project corridor. Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV. Chapter 373, F.S. and 33 U.S.C. s. 1344.

The final design of the project will avoid and minimize impacts to wetlands/wildlife and habitat to the greatest extent practicable and appropriate mitigation options will be provided for unavoidable impacts. Wetland mitigation credits will be purchased from a mitigation bank that is permitted by SFWMD and US Army Corps of Engineers (USACE) to service the Lake Tohopekaliga Drainage Basin. Reedy Creek Mitigation Bank and Florida Mitigation Bank service the project area and both have wetland credits available for purchase.

### 5.3 Essential Fish Habitat (EFH)

There is no Essential Fish Habitat (EFH) in the project area.

### 5.4 Floodplains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

The project area is located within FEMA flood zones AE, AE (floodway), and A. Impacts to flood zones by alternative are shown in the following table.

Flood Zone Area Impacts

Alternative	Flood Zone Area (Acres)		
	Zone AE	Zone AE (Floodway)	Zone A
<b>Preferred Alt</b>	0.69	0.10	10.32

There are areas where, based on the mapping, the road itself is mapped in the A and AE zones. But depending on the actual surveyed elevation, the road and adjacent shoulders may have been built above the flood elevation. For purposes of this review, the acreage is shown based on the mapped FEMA-FIRM floodplain.

There is one (1) location where the proposed roadway widening will encroach into the 100-year floodplain. This area is designated as Zone A which are areas of 100-year flooding where the flood elevation has not been federally established. Roadway improvements within this segment will include elevating the roadway section to a level at, or above, the existing roadway resulting in impacts to the storage capacity of the floodplain. This can be categorized as a transverse encroachment. Flood elevations although not federally regulated have been identified by a local flood study and overtopping of the existing road is not anticipated in the 100-year 24 hour storm event. This project is not anticipated to have any impact on the base flood elevation, or the likelihood of flood risk.

The project is proposed to compensate for the encroachment within the 100-year floodplain within the proposed stormwater management facilities. This compensation will be provided by either the dynamic approach within the pond itself or by the "cup for cup" approach outside of the pond. The Pond Siting Report (PSR) describes that a 20% pond size contingency to account for "cup for cup" compensation or dynamic storage.

The floodplain impacts associated with the roadway widening are minimal. These encroachments can be better quantified during the design process. The volumetric impact, even if left uncompensated, would have negligible impact on flood stages. It is important to note that compensating storage will be provided for these impacts. The risk associated with the encroachments are therefore minimal. The focal point regarding floodplain impacts should be associated with the floodway crossings. These crossings will need to be designed to demonstrate "no net rise" in the floodway. The risk of installing new crossings is low due to the design constraint of providing "no net rise" in the floodway.

## 5.5 Sole Source Aquifer

### Biscayne Aquifer

The project limits lie within the boundaries of the Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone which includes portions of Osceola County extending south towards the Everglades. The proposed roadway will have a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed, by closed storm sewer pipes, to one or multiple of the potential pond sites. Captured stormwater will receive treatment and attenuation by the wet detention pond before discharging to the adjacent stormwater outfall. The proposed stormwater facilities will meet all SFWMD criteria, therefore, water quality impacts to downstream receiving waters are not anticipated to occur. A sole source aquifer checklist was sent to the U.S. Environmental Protection Agency (EPA) for concurrence on December 20, 2019. EPA concurrence was received on January 22, 2020 (see attachment).

## 5.6 Water Resources

The study area lies within the jurisdiction of SFWMD and specifically within Waterbody Identification Number 3173B (Kissimmee River). All projects located within the jurisdiction of the SFWMD are required to meet state water quality standard set forth in Chapter 62-302, Florida Administrative Code (FAC). The approach to meet water quality standards is to provide treatment for the increase in impervious area and restore or replace existing treatment facilities impacted by

this project. Stormwater runoff from Neptune Road is generally intercepted to roadside swales and conveyed to the nearest outfall location. Neptune Road has four (4) outfall locations within the limits of this project. These locations are the Partin Canal, Fish Lake Ditch, St. Cloud Canal (C-31), and Peg Horn Slough. Each of these four outfalls convey stormwater to an eventual destination of Lake Tohopekaliga. A Water Quality Impact Evaluation was completed (see attached).

The proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SFWMD in Chapter 62-302 of the FAC. It is therefore anticipated that no adverse effects will occur to the water quality within the project area. Osceola County will continue to coordinate water quality and quantity impacts and stormwater management with the appropriate regulatory agencies as required throughout the design and permitting phases of the project, as well as during and after construction. Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with FDEP's National Pollutant Discharge Elimination System (NPDES) Permit including the preparation of a Stormwater Pollution Prevention Plan (SWPPP); the latest edition of the FDOT Standard Specification for Road and Bridge Construction; and through the use of Best Management Practices (BMPs) including temporary erosion features (e.g. turbidity barriers) during construction.

### **5.7 Aquatic Preserves**

There are no aquatic preserves in the project area.

### **5.8 Outstanding Florida Waters**

There are no Outstanding Florida Waters (OFW) in the project area.

### **5.9 Wild and Scenic Rivers**

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

### **5.10 Coastal Barrier Resources**

There are no Coastal Barrier Resources in the project area.

## 6. Physical Resources

The project will not have significant impacts to physical resources. Below is a summary of the evaluation performed for these resources.

### 6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

A Noise Study was conducted for the proposed project in accordance with Code of Federal Regulations, Title 23, Part 772 (23 CFR 772) *Procedures for Abatement of Highway Traffic Noise and Construction Noise* using methodology established by FDOT in the *Project Development and Environment Manual*, Part 2, Chapter 18 (FDOT, January 14, 2019) and FDOT's *Traffic Noise Modelling Practitioner's Handbook* (FDOT, January 2016). Predicted noise levels were produced using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) version 2.5. A total of 210 receptor points were identified and evaluated for potential traffic noise related impacts for the existing, future no-build, and future build conditions.

The noise sensitive areas evaluated are representative of 361 noise sensitive sites. The results of the analysis indicate that existing (2019) exterior traffic noise levels are predicted to range from 52.1 dB(A) to 69.7 dB(A) at the 361 evaluated noise sensitive sites adjacent to Neptune Road. Future year (2045) no-build alternative exterior traffic noise levels are predicted to range from 53.1 dB(A) to 75.7 dB(A). The maximum increase at any noise sensitive site in the future build condition is 6.7 dB(A). This means that no noise sensitive sites are expected to experience a substantial increase in traffic noise compared to existing conditions.

In addition to residences (NAC B), Title 23 Code of Federal Regulations Part 772 specifies other Activity Categories addressing non-residential noise sensitive sites. Within the project limits, two impacts are predicted at non-residential noise sensitive sites. Noise barriers were evaluated for these impacted locations; however, the noise barriers were not able to provide a benefit to the impacted non-residential noise sensitive sites.

Noise levels at 66 residences are predicted to approach or exceed the NAC (i.e., 66 dB(A) for Activity Category B) established by the FHWA for the Build condition. Noise barriers were evaluated for the impacted residential noise sensitive sites. Noise barriers were determined to be a potentially cost reasonable noise abatement measure in one location, the Battaglia Townhomes in CNE WB07. Because a standard single barrier system in this location would require the relocation of up to 5 transmission power poles, a two-barrier system was analyzed that would leave all the transmission power poles in their current locations. This two-barrier system is predicted to provide a 7 dB(A) benefit to one or more receptor and a 5 dB(A) benefit to two or more impacted receptors. This potential noise barrier system at the Battaglia Townhomes may be considered feasible and reasonable, contingent upon the following conditions:

- Final recommendations on the construction of abatement measures is determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the county; and
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

## 6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.

The project is located in an air quality attainment area, Osceola County, so an air quality screening consistent with the National Ambient Air Quality Standards was not required. Temporary air quality impacts due to construction activities are possible due to emissions from construction equipment and dust from excavation and hauling activities. Air pollution associated with the creation of airborne particles will be effectively controlled using watering or the application of calcium chloride in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* as directed by the FDOT Project Manager. The proposed project is anticipated to decrease congestion which is also anticipated to decrease idling time for vehicles which may have an overall positive benefit to air quality in the project area.

## 6.3 Contamination

The *Contamination Screening Evaluation Report (CSER)*, dated November 2019, prepared for this project identified and evaluated known or potential contamination sites, identified recommendations concerning these sites, and described possible impacts to the proposed project.

A total of 24 sites were assigned Contamination Risk Potential Ratings. A "Low Risk" rating was assigned to 21 of the sites and three sites were assigned a rating of "Medium Risk." There were no High-risk sites identified within the proposed project right-of-way for any alternative considered in the study. The Preferred Alternative may impact 21 low and three medium risk sites. The table below identified each site and its risk potential.

Site No.	Site Name	Site Address	Risk Potential
1	Parkway Water Treatment Plant	2107 Partin Settlement Road	Low
2	Chevron on Neptune Road	2017 Neptune Road	Medium
3	Cleaners Express Inc	1407 Westminster Way	Low
4	Neptune Middle School	2727 Neptune Road	Low
5	Partin Triangle Park	2830 Neptune Road	Low
6	Crown Castle - W. St. Cloud Or1087-813141	5101 Neptune Road	Low



7	St. Cloud City - Police Department	4700 Neptune Road	Low
8	Avatar Car Wash - St. Cloud	4607 Neptune Road	Low
9	Pinch-A-Penny	4507 Old Canoe Creek Road	Low
10	Tractor Supply Company #506	4267 13th Street	Low
11	Porky's Comedy Club & Dinner Theater	4251/4253 13th Street	Low
12	Jimmy Bear's BBQ/Oak Park Cleaners	4247/4249 13th Street	Low
13	Physical Therapy	4237 13th Street	Low
14	Family Dentistry	4301 Neptune Road	Low
15	Mizu Asian Food Market	4045 13th Street	Low
16	Living Well Chiropractic	4041 13th Street	Low
17	Mattress One/Verizon	3701-3707 13th Street	Low
18	Acupuncture-massage-weight loss-pain mgt-herbs	4119 Neptune Road	Low
19	CVS Pharmacy #3139	3555 13th Street	Low
20	Tire Kingdom #6216	3551 13th Street	Low
21	Urgent Walk-in Clinic/Sports Medicine	3501/3503 13th Street	Low
22	Gerber Collision & Glass	3550 13th Street	Low
23	Agricultural Property	Neptune Road west of Canoe Creek Road	Medium
24	Kissimmee to St. Cloud Rail Line	Neptune Road	Medium

A total of 10 stormwater pond sites were also evaluated in the CSER. Ponds 1B, 2B, 2C, 3A, 3B, 4A, and 5 have been assigned as a "Low Risk". Ponds 1A, 2A and 4B have been assigned a "Medium Risk."

For sites ranked no or low, no additional work is recommended. These facilities are located at a distance that would not be expected to present contamination involvement to the project. Should the facility's permitting or regulatory status change between now and the time acquisitions are initiated, additional screening should be conducted.

The FDOT District 5 District Impact Contamination Coordinator recommended that Level II Impact to Construction Assessments (Level II Assessments) be performed as follows:

- Site No. 2, a Chevron gas station on the southeast corner of the Neptune Road and Partin Settlement Road intersection should be evaluated for petroleum concerns,
- The drainage conveyance near the historical railroad alignment in Pond 1A should be sampled for arsenic, and
- The former and current agricultural land uses at Ponds 2A and 4B should be sampled for arsenic, pesticide, and herbicide constituents.

If dewatering is necessary during construction, a SFWMD Water Use Permit may be required. The contractor would be held responsible for ensuring compliance with any necessary dewatering permit(s). Any dewatering operations near potentially contaminated areas shall be limited to low-flow and short-term. The contractor shall implement appropriate measures to preclude the migration of potentially contaminated ground water into the project area. Additionally, dewatering will be from the surficial aquifer and infiltration basins should be used to direct this dewatering discharge back into the same surficial aquifer from which it was pumped from. If there were space limitations and an infiltration basin of sufficient size could not be constructed, then some dewatering discharge may be directed to local water ways at rates they can handle and at cleanliness levels established by the state. This will be reviewed and permitted through SFWMD.

Any soil excavations and/or dewatering effluent generated during construction should be handled appropriately using BMPs to preclude the potential migration of contaminants within the project corridor. In addition, any construction activities conducted within a potentially contaminated area must protect the health of workers and the public.

Resolution of problems regarding contamination will be coordinated by FDOT with appropriate regulatory agencies and action will be taken, where applicable. Further coordination with the regulatory agencies, and possibly field surveys involving monitoring wells, soil borings and other site-specific methods, can identify potential contamination issues so that avoidance, minimization, and remediation measures can be taken.

## 6.4 Utilities and Railroads

There are no railroad crossings within the project limits.

A total of 14 utility providers were identified through coordination with Sunshine 811 as having utilities within the project area. The table below provides a list of the utility providers from that coordination.

### Existing Utility Providers

<b>Utility Agency/Owner</b>	<b>Contact</b>	<b>Address</b>
AT&T Corporation (buried fiber)	Greg Jacobson (813) 342-0512	6015 Benjamin Road, Suite 306 Tampa, FL 33634
Florida Public Utilities (distribution gas)	Gary Hardy 863-224-3786	1705 7th Street SW Winter Springs, FL 33880
City of St. Cloud (water/wastewater/reuse)	Veronica Miller (407) 957-7265	1300 9th Street St. Cloud, FL 34769
Charter Communications (CATV/phone/fiber)	Marvin Usry (407) 532-8509	3767 All American Boulevard Orlando, FL 32810
Florida Gas Transmission (30" & 24" trans. pipeline)	Joe Sanchez (407) 838-7171	2405 Lucien Way, Suite 200 Maitland, FL 32751
TOHO Water Authority (water/wastewater/reuse)	George Eversole	101 N Church Street Kissimmee, FL 34741
CenturyLink (phone/fiber)	Ty Leslie (407) 814-5293	33 N Main Street Winter Garden, FL 34787
Osceola County Traffic (fiber/traffic)	Rick Cole (407) 742-0623	3850 Old Canoe Creek Road St. Cloud, FL 34769
Summit Broadband (phone/fiber)	Aaron Pickle (321) 356-2995	4558 SW 35th Street, Suite 100 Orlando, FL 32811
KUA-Electric (distribution electric)	Felix Escobar (407) 933-7777	1701 W Carroll Street Kissimmee, FL 34741
KUA-Transmission (transmission electric)	Jeff Santos	1701 W Carroll Street Kissimmee, FL 34741
OUC-Electric (distribution electric)	Vince Montgomery 407-434-4149	6003 Pershing Avenue Orlando, FL 32822

OUC-Transmission (transmission electric)	Dan Slack 407-434-4125	6003 Pershing Avenue Orlando, FL 32822
AT&T Distribution (phone)	Alan Reynolds (407) 351-8180	5100 Steyr Street Orlando, FL 32819

In accordance with Part 2, Chapter 21 of the PD&E Manual, the utility providers listed in the table will be notified of the proposed improvements and provided concept plans to identify the location of their utilities within the project area.

Based on information from existing right-of-way maps, several utilities are located in easements along the project. Utility providers that have facilities identified in easements include Florida Gas Transmission, Orlando Utilities Commission distribution and transmission, KUA distribution and transmission, and communication facilities under-built on the existing power poles.

## 6.5 Construction

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

Construction activities for the proposed improvements would have temporary air, noise, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project.

The air quality impacts would be temporary and would primarily be in the form of emissions from diesel powered construction equipment and dust from embankment and haul road areas. Air pollution associated with the creation of airborne particles would be effectively controlled using watering or the application of calcium chloride in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* as directed by the FDOT Project Manager.

Noise and vibration impacts would be from the heavy equipment movement and the driving of piles for boardwalks and bridge crossings. The contractor shall adhere to the most current version of the FDOT *Standard Specifications for Road and Bridge Construction* in order to minimize or eliminate potential construction noise and vibration impacts. The FDOT Standard Specifications contain the following requirements for construction noise and vibration control:

- The contractor shall operate only factory recommended exhaust mufflers on internal combustion engines;
- Back up alarm noise from heavy equipment and trucks shall be minimized by requiring the contractor to operate in forward passes or in a figure eight pattern when dumping, spreading, or compacting material;
- Adequate equipment maintenance procedures shall be used to ensure the elimination of unnecessary noise caused by loose body parts on all construction equipment;
- Excessive tailgate banging by haul trucks shall be prohibited;
- All stationary equipment shall be screened from noise-sensitive receptor sites if the equipment is to operate beyond normal working hours. If feasible, the equipment shall be screened during normal working hours to reduce noise impacts; and
- When feasible, the contractor shall establish haul routes to direct vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.

Should unanticipated noise or vibration issues arise during the construction process, the Construction Engineer, in coordination with the appropriate FDOT Environmental Specialist, shall investigate additional methods of controlling these impacts.

Water quality impacts resulting from erosion and sedimentation would be controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* and using Best Management Practices (BMPs). Stormwater pollution prevention measures would be developed per FDOT standards and in accordance with NPDES permit requirements.

If the Preferred Alternative were to advance, the following construction guidelines and requirements described herein would be addressed. Maintenance of Traffic and Sequence of Construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of lane closures and other pertinent information to the traveling public. The local news media will be notified in advance of lane closings and other construction related activities, which could excessively inconvenience the community so that motorists, residents, and businesspersons can plan travel routes in advance.

A sign providing the name, address, and telephone number of a Department contact person will be displayed on site to assist the public in obtaining immediate answers to questions and logging complaints about project activity. Access to all businesses, recreational facilities, and residences will be maintained to the extent practical through controlled construction scheduling. Traffic delays will be controlled to the extent possible where many construction operations are in progress at the same time. The contractor will be required to maintain one lane of traffic in each direction at all times, and to comply with the BMPs of FDOT. Also, present traffic movements will be maintained at all times. No locations will require temporary roads or bridges.

The removal of structures and debris will be in accordance with local and state regulatory agencies permitting this operation. The contractor is responsible for methods of controlling pollution on haul roads (if used), in borrow pits, other materials pits, and areas used for disposal of waste materials from the project. Temporary erosion control features, as specified in the

*FDOT's Standard Specifications for Road and Bridge Construction*

, Section 104, will consist of temporary grassing, sodding, mulching, sandbagging, hay bales, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

## 7. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the Preliminary Engineering Report.

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## 8. Permits

The following environmental permits are anticipated for this project:

### Federal Permit(s)

USACE Section 10 or Section 404 Permit  
 USACE Section 408 Permit

### Status

To be acquired  
 To be acquired

### State Permit(s)

DEP or WMD Environmental Resource Permit (ERP)  
 DEP National Pollutant Discharge Elimination System Permit  
 WMD Right of Way Permit

### Status

To be acquired  
 To be acquired  
 To be acquired

### Permits Comments

Both the USACE and SFWMD regulate impacts to wetlands within the project area. Other agencies, including the USFWS, NMFS, U.S. Environmental Protection Agency (EPA), and the FWC, review and comment on wetland permit applications. The FWC permits gopher tortoise relocation activities and nest take for state protected avian species and the USFWS is the lead agency for eagle nest take permitting or coordination. In addition, the FDEP regulates stormwater discharges from construction sites. Additionally, coordination was conducted with the SFWMD Right-of-Way Permitting staff to obtain concurrence on required permits and design considerations for the proposed bridges over the C-31 canal. Based on this coordination and the ETDM comments, it is anticipated that the following permits will be required for this project:

- Section 404 Dredge and Fill Permit - Standard permit
- Individual Environmental Resource Permit (ERP)
- Right of Way Occupancy Permit
- National Pollutant Discharge Elimination System (NPDES)
- Bald Eagle Permit (if necessary-USFWS)
- Species Permits (if necessary -FWC)

## 9. Public Involvement

The following is a summary of public involvement activities conducted for this project:

### Summary of Activities Other than the Public Hearing

The Alternatives Public Meeting was held on April 11, 2019 at the Osceola County Administrative Building Commission Chambers from 5:30 pm to 7:00 pm. The purpose of the meeting was to receive public input on the alternatives being evaluated. The meeting was advertised through several methods, including:

- Notification letters and project newsletters were mailed to 1,253 property owners and tenants (businesses and residences) within the study corridor on March 15, 2019
- Notification letters and project newsletters were emailed to 22 elected officials and their aides, as well as to 86 local, regional, state, and federal agency contacts on March 15, 2019
- A notice was posted on the Florida Administrative Register (FAR) on March 28, 2019
- A display advertisement was published in the Osceola News Gazette on April 4, 2019
- A public meeting notice press release was distributed on April 4, 2019
- An announcement was posted on the project website (<http://www.improveneptuneroad.com>)

The meeting was conducted in an open house format. Community members were able to come at any point during the meeting to view exhibit, ask questions, and provide comments. A looping audiovisual presentation providing an overview of the study was available for viewing throughout the meeting. Aerial display boards and other project-specific information were also on display for review. In general, the meeting highlighted the alternatives being considered and solicited feedback from property owners and other interested parties.

Sixty-nine property owners and interested parties signed in at the Alternatives Meeting. A total of 56 written and emailed comments were received as of March 11, 2020.

For the segment from Partin Settlement Road to Old Canoe Creek Road, 13 people support Alternative 1 (north widening) with five supporting Alternative 2 (south). For the segment from Old Canoe Creek Road to US 192, no one supported Alternative A (4-lane) and three people supported Alternative B (5-lane). Two people prefer the no-build alternative. Four people suggested adjusting the alternatives to reduce impacts, two people support extensive landscaping, two people requested the improvement be constructed as soon as possible, and two people requested additional access to their property.

**Date of Public Hearing:** 05/07/2020

### Summary of Public Hearing

A summary will be provided following the public hearing.

## 10. Commitments Summary

1.  
The *USFWS Standard Protection Measures for the Eastern Indigo Snake* during construction will be implemented.
2. Eagle nest monitoring will take place during design and permitting to determine the current location and status of the two nests documented along the corridor and to confirm no new nests are present. Coordination with USFWS Migratory Bird Division will occur following the updated survey, when the current condition of the nests is known. Minimization measures for the bald eagle should include restrictions on construction timing, contractor education to avoid impacts to nests, creating a visual buffer between construction activities and the nest, and shielding of lights so they do not shine directly on the nest.
3. Pre-construction surveys for Florida sandhill crane, southeastern American kestrel, Florida burrowing owl, and gopher tortoises will be conducted and impacts, if any, coordinated with the FWC.
4. Consistent with the June 2012 FWC Black Bear Management Plan, garbage and food debris will be properly removed during construction to eliminate possible sources of food that could encourage and attract bears. Nuisance bears will be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922.
5. The project limits are within the designated boundaries of the Biscayne Sole Source Aquifer and may result in impacts to the aquifer system when the project's bridge foundations are installed and/or construction dewatering is undertaken. These potential impacts can be adequately reduced or properly mitigated through management practices.



## 11. Technical Materials

The following technical materials have been prepared to support this environmental document.

Cultural Resources Assessment Survey (CRAS)  
Attachment C - WQIE  
Natural Resources Evaluation (NRE)  
Contamination Screening Evaluation Report (CSER)  
Other Supporting Documentation for Utilities  
Preliminary Engineering Report  
Location Hydraulics Report  
Pond Siting Report  
Public Involvement Plan

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## **Attachments**

### **Planning Consistency**

Project Plan Consistency Documentation

Project Plan Consistency Documentation

### **Social and Economic**

Neptune Farmlands Form and Memo

Supporting Documentation Specific to Social Resources

### **Cultural Resources**

SHPO Concurrence Letter

### **Natural Resources**

Sole Source Aquifer Coordination Letter

Sole Source Aquifer Coordination Letter

Sole Source Aquifer Coordination Letter

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## **Planning Consistency Appendix**

### **Contents:**

Project Plan Consistency Documentation

Project Plan Consistency Documentation

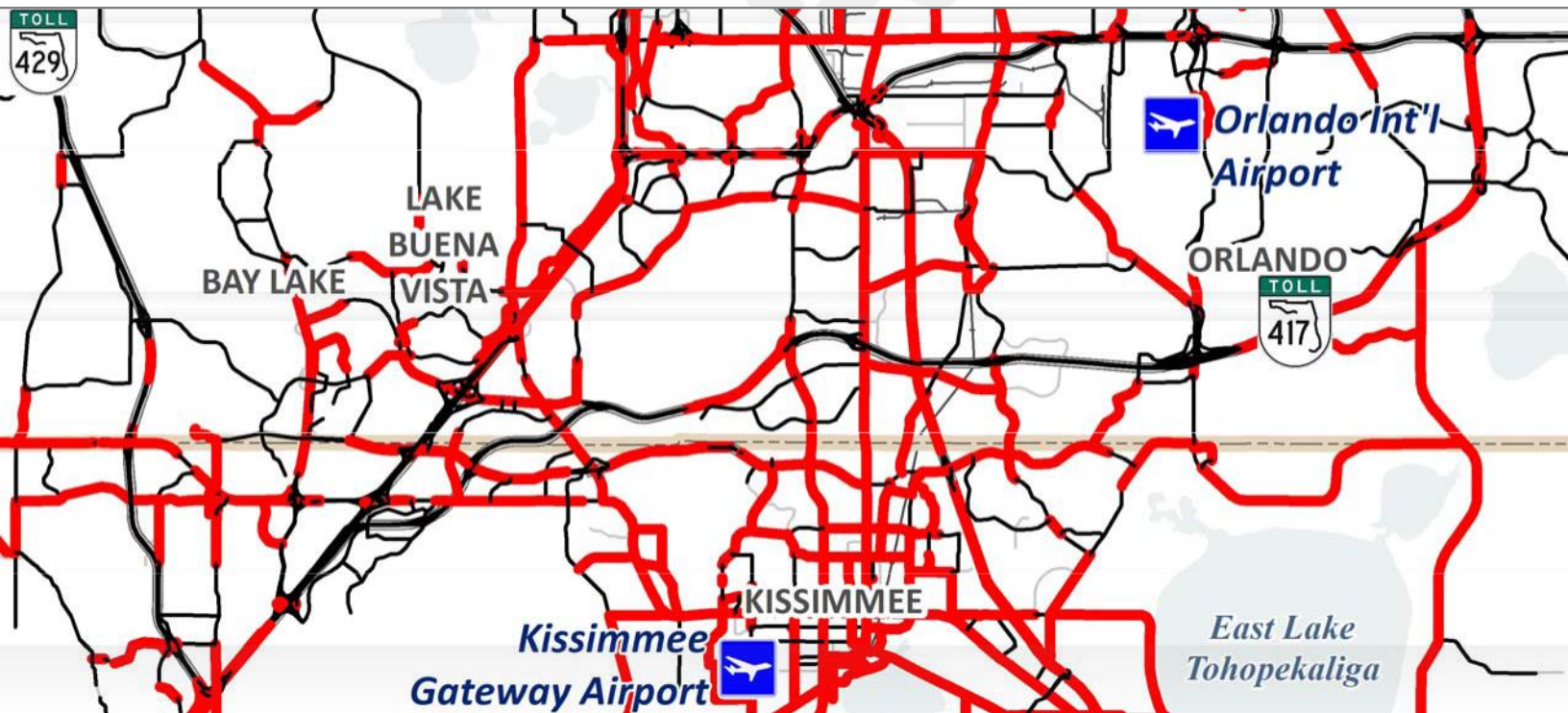
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## 2040 Long Range Transportation Plan

# Technical Report 3: Plan Development & Cost Feasible Projects

Adopted - January 2016  
Updated - December 2019



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Roadway	From	To	Improvement	Phase(s)	Funded by
Kennedy Boulevard	Keller Road	Wymore Road	Widen to 4 Lanes	-	-
Lake Margaret Drive	Bumby Avenue	Semorran Boulevard	Widen to 4 Lanes	-	-
North-South Road	Osceola County Line	Wewahootee Road	Widen to 4 Lanes	-	-
Nova Road (CR 532)	Osceola County Line	SR 520	Widen to 4 Lanes	-	-
Orange Avenue	Osceola County Line	Town Center Boulevard	Widen to 4 Lanes	-	-
Orange Avenue	Taft-Vineland Road	Landstreet Road	Widen to 6 Lanes	-	-
Orange Avenue	Landstreet Road	SR 482	Widen to 6 Lanes	-	-
Palm Parkway/Turkey Lake Road	SR 535	Central Florida Parkway	Widen to 6 Lanes	-	-
Sand Lake Road	Apopka-Vineland Road	Turkey Lake Road	Widen to 6 Lanes	-	-
Silver Star Road	Mercy Drive	SR 441 (Orange Blossom Trail)	Widen to 4 Lanes	-	-
Tradeport Drive	Earhart Drive	SR 528 (BeachLine Expressway)	Widen to 6 Lanes	-	-
West Lake Butler Road	Winter Garden-Vineland Road	McKinnon Road	Widen to 4 Lanes	-	-
Dean Road ***	University Blvd	Orange/Seminole Line	Widen to 4 Lanes	-	-
Richard T Crotty Parkway ***	SR 436	Dean Road	New 4-Lane Road	R	-
Texas Avenue ***	Oak Ridge Road	Holden Avenue	Widen to 4 Lanes	R	-
Augusta National Drive ***	SR 15	Bent Pine Dr.	New 2 Lane Road	D,R	-
Pres Barack Obama Parkway ***	Metrowest Blvd.	Old Winter Garden Rd	New 4 Lane Road & New 2 Lane Extension	D,R	-
Boone Ave Extension ***	Anderson Street	Sylvia Lane	New 2 Lane Road	D,R	-
Hazeltine National Drive ***	Goldenrod Road	Narcoossee Road	New 4 Lane Road	D,R	-
Terry Ave ***	Washington Street	Colonial Drive	New 2 Lane Road	D,R	-

\* Transportation Improvement Program (TIP 2016-2020)  
 \*\* Refer to Prioritized Project List (PPL)  
 \*\*\* Refer to FY14/15 - FY18/19 Transportation Improvement Program (TIP)  
 P = Project Development & Engineering (PD&E), D = Design, R = Right of Way (ROW), C = Construction  
 Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3

Roadway	From	To	Improvement	Phase(s)	Funded by
Oak St	Central Ave	US 192	Widen to 4 Lanes	D,R,C	2020*
Neptune Rd	Old Canoe Creek Rd	US 192	Widen to 4 Lanes	D,R,C	2020*
Hoagland Blvd **	500' W of Pleasant Hill Blvd	John Young Pkwy	Widen to 6 Lanes	D,R,C	2020*
CR 530 (Simpson Rd)	Osceola Pkwy	Boggy Creek E/ Orange Co	Widen to 4 Lanes	R,C	2020*
Hoagland Blvd **	5th St	500' W of Pleasant Hill Blvd	Widen to 4 Lanes	D,R,C	2020*
Canoe Creek Rd (CR 523)	17th St	US 192	Widen to 4 Lanes	P,D,R,C	2020*
Neptune Rd	Partin Settlement Rd	Henry Partin Rd	Widen to 4 Lanes	D,R,C	2020*

Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3

TABLE 10: OSCEOLA COUNTY PROJECTS (Continued)

TABLE 10: OSCEOLA COUNTY PROJECTS (Continued)					
Neptune Rd	Henry Partin Rd	Old Canoe Creek Rd	Widen to 4 Lanes	D,R,C	2020*
CR 530 (Simpson Rd)	Buenaventura Blvd	Osceola Pkwy	Widen to 6 Lanes	R,C	2020*
Old Canoe Creek Rd	Canoe Creek Rd (CR 523)	Kissimmee Park Rd	Widen to 4 Lanes	D,R,C	2020*
Poinciana Blvd	Old Tampa Hwy	Oren Brown Rd	Widen to 4 Lanes	R,C	2020*
Central Ave	US 192	Donegan Ave	Widen to 4 Lanes	R,C	2020*
Orange Ave	Osceola Pkwy	Orange Co. Line	Widen to 4 Lanes	R,C	2020*
Westside Blvd	Bella Citta Blvd.	Florence Villa Grove Rd	Widen to 4 Lanes	D,R,C	2020*
Carroll St	John Young Pkwy	US 441 (Orange Blossom Tr)	Widen to 4 Lanes	P,D,R,C	2020*
Carroll St	US 441 (Orange Blossom Tr)	Old Dixie Hwy	Widen to 4 Lanes	P,D,R,C	2020*
Carroll St	Old Dixie Hwy	Michigan Ave	Widen to 4 Lanes	P,D,R,C	2020*
Carroll St	Columbia Ave	John Young Pkwy	Widen to 4 Lanes	D,R,C	2025
Dyer Blvd	Donegan Ave	Carroll St	Widen to 4 Lanes	R,C	2025
Dyer Blvd	Carroll St	Osceola Pkwy	Widen to 6 Lanes	C	2025
Bill Beck Blvd	Boggy Creek Rd	Orange Ave	Widen to 2 Lanes	P,D,R,C	2025
Michigan Ave	Mill Slough Rd	Carroll St	Widen to 6 Lanes	P,D,R,C	2025
Michigan Ave	Carroll St	Mill Run Blvd	Widen to 4 Lanes	P,D,R,C	2025
Reaves Rd/Mac Overstreet Rd	Pleasant Hill Rd	Lake Toho	Widen to 4 Lanes	P,D,C	2025
Shady Lane	Partin Settlement Rd	US 192	Widen to 4 Lanes	P,D,R,C	2025
Sinclair Rd	Tradition Blvd	Bella Citta Blvd	Widen to 4 Lanes	D,R,C	2025
Dyer Blvd	Martin Luther King Jr. Blvd	US 192/Vine St	Widen to 4 Lanes	P,D,R,C	2025
Old Pleasant Hill Rd	Amiens Way	Old Pleasant Hill Rd	Widen to 4 Lanes	P,R,C	2025
Poinciana Blvd	Pleasant Hill Rd	Crescent Lakes Way	Widen to 4 Lanes	D,C	2025
Donegan Ave	John Young Pkwy	US 441	Widen to 6 Lanes	P,D,R,C	2025
Donegan Ave	US 441 (Orange Blossom Tr)	Michigan Ave	Widen to 4 Lanes	P,D,R,C	2025
Buenaventura Blvd	Osceola Parkway	Florida Pkwy	Widen to 6 Lanes	P,D,R,C	2025
CR 545 (Old Lake Wilson Rd)	Sinclair Rd	CR 532 (Osceola-Polk Line Rd)	Widen to 4 Lanes	P,D,R,C	2025
Martin Luther King Jr. Blvd	Thacker Ave	John Young Pkwy	Widen to 4 Lanes	P,D,R,C	2025
Thacker Ave	Flora Blvd	Osceola Pkwy	Widen to 4 Lanes	D,R,C	2025
Hoagland Blvd	Columbia Ave	US 192	Widen to 4 Lanes	P,D,R,C	2025
Hickory Tree Rd (CR 534)	US 192	Deer Run Rd	Widen to 4 Lanes	P,D,R,C	2025
Old Vineland Rd	US 192	US 192	Widen to 4 Lanes	P,D,C	2025
Hickory Tree Rd (CR 534)	Deer Run Rd	US 192	Widen to 4 Lanes	P,D,R,C	2025
Reaves Rd	Poinciana Blvd	Ham Brown Rd	Widen to 4 Lanes	D,R,C	2025
Reaves Rd	Ham Brown Rd	Pleasant Hill Rd	Widen to 4 Lanes	D,R,C	2025
Reaves Rd	Marigold Ave	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2025

Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3

TABLE 10: OSCEOLA COUNTY PROJECTS (Continued)

TABLE 10: OSCEOLA COUNTY PROJECTS (Continued)					
Woodcrest Blvd	Michigan Ave	Bill Beck Blvd	Widen to 4 Lanes	P,D,R,C	2025
Martin Luther King Jr. Blvd	Dyer Blvd	Thacker Ave	Widen to 4 Lanes	C	2025
8th Ave	Pine Tree Dr	Deer Run Rd	Widen to 4 Lanes	P,D,R,C	2025
Buenaventura Blvd	Florida Pkwy	Simpson Rd	Widen to 6 Lanes	P,D,R,C	2025
Canoe Creek Rd (CR 523)	Lake Cypress Rd	Deer Run Rd	Widen to 4 Lanes	P,D,R,C	2025
Canoe Creek Rd (CR 523)	Deer Run Rd	Old Canoe Creek Rd (CR 523)	Widen to 4 Lanes	P,D,R,C	2025
Canoe Creek Rd (CR 523)	Old Canoe Creek Rd	Nolte Rd	Widen to 4 Lanes	P,D,R,C	2025
Canoe Creek Rd (CR 523)	Nolte Rd	17th St	Widen to 4 Lanes	P,D,R,C	2025
Champions Gate Blvd	Polk County Line	Interstate 4	Widen to 6 Lanes	P,D,R,C	2025
Country Club Rd	Polk County Line	Doverplum Ave	Widen to 4 Lanes	P,D,R,C	2025
CR 530 (Boggy Creek Rd)	Boggy Creek E/Orange Co Line	Narcoossee Rd	Widen to 4 Lanes	P,D,R,C	2025
CR 530 (Fortune Rd)	US 192	Simpson Rd	Widen to 6 Lanes	P,D,R,C	2030
CR 530 (Simpson Rd)	Fortune Rd	Buenaventura Blvd	Widen to 6 Lanes	P,D,R,C	2030
CR 532 (Osceola-Polk Line Rd)	Interstate 4	Old Lake Wilson Rd (CR 545)	Widen to 6 Lanes	P,D,R,C	2030
CR 532 (Osceola-Polk Line Rd)	Old Lake Wilson Rd (CR 545)	US 17-92	Widen to 4 Lanes	P,D,R,C	2030
CR 545 (Old Lake Wilson Rd)	Westgate Blvd	Sinclair Rd	Widen to 6 Lanes	P,D,R,C	2030
Cypress Pkwy (CR 580)	Marigold Ave	Doverplum Ave	Widen to 6 Lanes	P,D,R,C	2030
Cypress Pkwy (CR 580)	Doverplum Ave	Old Pleasant Hill Rd	Widen to 6 Lanes	P,D,R,C	2030
Deer Run Rd <sup>1</sup>	Canoe Creek Rd (CR 523)	Hickory Tree Rd	Widen to 4 Lanes	P,D,R,C	2030
<sup>1</sup> Hunting Lodge Rd from Turnpike/Canoe Creek Road to Hickory Tree Road, May be improved instead.					
Donegan Ave	Thacker Ave	John Young Pkwy	Widen to 4 Lanes	P,D,R,C	2030
Doverplum Ave	Koa St	Cypress Pkwy	Widen to 4 Lanes	P,D,R,C	2030
Doverplum Ave	Cypress Pkwy	Old Pleasant Hill Rd	Widen to 4 Lanes	P,D,R,C	2030
Dyer Blvd	US 192/Vine St	Donegan Ave	Widen to 4 Lanes	P,D,R,C	2030
Entry Point Blvd	Funie Steed Rd	US 192	Widen to 4 Lanes	P,D,R,C	2030
Fanny Bass Pond Rd	Toho Parkway	Friar's Cove Road	Widen to 4 Lanes	P,D,R,C	2030
Fortune Rd	Simpson Rd	Lakeshore Blvd E	Widen to 4 Lanes	P,D,R,C	2030
Funie Steed Rd	Westside Blvd	Entry Point Blvd	Widen to 4 Lanes	P,D,R,C	2030
Funie Steed Rd	Entry Point Blvd	Old Lake Wilson Rd (CR 545)	Widen to 4 Lanes	P,D,R,C	2030
Garden St	Old Dixie Hwy	Michigan Ave	Widen to 4 Lanes	P,D,R,C	2030
Ham Brown Rd	Reaves Rd	Old Tampa Hwy	Widen to 4 Lanes	P,D,R,C	2030
Happy Trails	Goodman Rd	Sinclair Rd	Widen to 4 Lanes	P,D,R,C	2030
Keystone Ave	Cecil Whaley Road	Clay Whaley Road	Widen to 4 Lanes	P,D,R,C	2030
Kissimmee Park Road	Clay Whaley Rd	Old Canoe Creek Rd	Widen to 4 Lanes	P,D,R,C	2030
Koa St	Rhododendron Ave	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2030
Lakeshore Blvd	Partin Settlement Rd	Mississippi Ave	Widen to 4 Lanes	P,D,R,C	2030
Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3					

TABLE 10: OSCEOLA COUNTY PROJECTS (Continued)

Lakeshore Blvd	Fortune Rd	Remington Blvd	Widen to 4 Lanes	P,D,R,C	2030
Lakeshore Blvd	Remington Blvd	Partin Settlement Rd	Widen to 4 Lanes	P,D,R,C	2030
Lakeview Parkway	Southport Connector	Southlake Blvd	Widen to 4 Lanes	P,D,R,C	2030
Landstar Blvd	Orange County Line	Osceola Parkway	Widen to 6 Lanes	P,D,R,C	2030
Laurel Road Bridge	San Lorenzo Road	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2030
Marigold Ave	Bourne Rd	Cypress Pkwy	Widen to 4 Lanes	P,D,R,C	2030
Michigan Ave	Mill Run Blvd	Osceola Pkwy	Widen to 6 Lanes	P,D,R,C	2030
Michigan Ave (St. Cloud)	US 192	Creek Woods Dr	Widen to 4 Lanes	P,D,R,C	2030
Mill Slough Rd	Michigan Ave	Bill Beck Blvd.	Widen to 4 Lanes	P,D,R,C	2030
Narcoossee Rd	US 192	Orange County Line	Widen to 6 Lanes	P,D,R,C	2030
Nolte Rd	Hickory Tree Rd	Nova Rd (CR 532)	Widen to 4 Lanes	P,D,R,C	2030
Nova Rd (CR 532)	US 192	Pine Grove Rd	Widen to 4 Lanes	P,D,R,C	2030
Nova Rd (CR 532)	Pine Grove Rd	Eden Dr	Widen to 4 Lanes	P,D,R,C	2030
Nova Rd (CR 532)	Eden Dr	Deer Park Rd	Widen to 4 Lanes	P,D,R,C	2030
Nova Rd (CR 532)	Deer Park Rd	Orange County Line	Widen to 4 Lanes	P,D,R,C	2040
Nova Road	Alligator Lake Rd	US 192	Widen to 4 Lanes	P,D,R,C	2040
Old Canoe Creek Rd	Kissimmee Park Rd	Neptune Rd	Widen to 6 Lanes	P,D,R,C	2040
Old Canoe Creek Rd	Neptune Rd	US 192	Widen to 6 Lanes	P,D,R,C	2040
Old Dixie Hwy	Donegan Ave	Osceola Pkwy	Widen to 4 Lanes	P,D,R,C	2040
Old Hickory Tree Rd	US 192	Nolte Rd	Widen to 4 Lanes	P,D,R,C	2040
Old Tampa Hwy	US 17/92	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2040
Old Tampa Hwy	Poinciana Blvd	Pleasant Hill Rd	Widen to 4 Lanes	P,D,R,C	2040
Oren Brown Rd	Poinciana Blvd	US 192	Widen to 4 Lanes	P,D,R,C	2040
Oren Brown Ext	US 192	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2040
Osceola Pkwy	Interstate 4	SR 417	Widen to 8 Lanes	P,D,R,C	2040
Osceola Pkwy	John Young Pkwy	US 441 (Orange Blossom Tr)	Widen to 6 Lanes	P,D,R,C	2040
Osceola Pkwy	Buenaventura Blvd	Boggy Creek Rd	Widen to 6 Lanes	P,D,R,C	2040
Partin Settlement Rd	Neptune Rd	US 192	Widen to 4 Lanes	P,D,R,C	2040
Partin Settlement Rd	US 192	Lakeshore Blvd	Widen to 4 Lanes	P,D,R,C	2040
Pine Tree Dr	Canoe Creek Rd	Hickory Tree Rd	Widen to 4 Lanes	P,D,R,C	2040
Pleasant Hill Rd	Poinciana Blvd	Reaves Rd	Widen to 6 Lanes	P,D,R,C	2040
Pleasant Hill Rd	Reaves Rd	US 17-92	Widen to 6 Lanes	P,D,R,C	2040
Princess Way	Seven Dwarfs Ln	Old Vineland Rd	Widen to 4 Lanes	P,D,R,C	2040
Quail Roost Rd	Rambler Ave	Canoe Creek Rd (CR 523)	Widen to 4 Lanes	P,D,R,C	2040
Rhododendron Ave	Polk County Line	Koa St	Widen to 4 Lanes	P,D,R,C	2040
Rummell Rd	Narcoossee Rd	Mississippi Ave	Widen to 4 Lanes	P,D,R,C	2040
Rummell Rd	Mississippi Ave	Nova Road	Widen to 4 Lanes	P,D,R,C	2040
Seven Dwarfs Ln	US 192	Princess Way	Widen to 4 Lanes	P,D,R,C	2040
Sherberth Rd	US 192	Orange County Line	Widen to 4 Lanes	P,D,R,C	2040

Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3



Roadway	From	To	Improvement	Phase(s)	Funded by
Simpson Rd	Fortune Rd	US 192	Widen to 4 Lanes	P,D,R,C	2040
Southport Rd	Pleasant Hill Rd	Hunt Rd	Widen to 4 Lanes	P,D,R,C	2040
Stewart Ave	Broadway	Mabbette St	Widen to 4 Lanes	P,D,R,C	2040
Tenque Ave	Orange County Line	Nova Road	Widen to 4 Lanes	P,D,R,C	2040
Thacker Ave	Donegan Ave	Flora Blvd	Widen to 6 Lanes	P,D,R,C	2040
Toho Parkway	US 192	Southport Connector	Widen to 4 Lanes	P,D,R,C	2040
Vineland Rd (SR 535)	US 192	Orange County Line	Widen to 6 Lanes	P,D,R,C	2040
US 17-92	Old Tampa Hwy	Poinciana Blvd	Widen to 4 Lanes	P,D,R,C	2040
US 17-92	Ham Brown Rd	Pleasant Hill Rd	Widen to 6 Lanes	P,D,R,C	2040
US 17/92 **	Pleasant Hill Rd	Portage St	Widen to 6 Lanes	P,D,R,C	2040
US 192	Nova Rd (CR 532)	Pine Grove Rd	Widen to 6 Lanes	P,D,R,C	2040
US 441	W Columbia Ave	Carroll St	CSS Improvements	P,D,R,C	2040
US 441	US 192	W Columbia Ave	CSS Improvements	P,D,R,C	2040
US 441	Carroll St	Osceola Pkwy	CSS Improvements	P,D,R,C	2040
US 441	Osceola Pkwy	Orange Co. Line	CSS Improvements	P,D,R,C	2040
Fortune Road Ext. ***	Neptune Road	US 192/US441	New 2 Lane Road	D,R,C	2040
TNR Access Road ***	US 441	End of Property	New 2 Lane Road	D,R,C	2040

\* Transportation Improvement Program (TIP 2016-2020)  
 \*\* Refer to Prioritized Project List (PPL)  
 \*\*\* Refer to FY14/15 - FY18/19 Transportation Improvement Program (TIP)  
 P = Project Development & Engineering (PD&E), D = Design, R = Right of Way (ROW), C = Construction  
 Note: For detailed information related to the estimated cost for each project phase, see page 15 of this Technical Report #3

Roadway	From	To	Improvement	Phase(s)	Funded by
R 426/CR 419	Pine Ave	Avenue B	Widen to 4 Lanes	R, C	2020*
CR 419 **	Avenue B	W of Lockwood Blvd	Widen to 4 Lanes	D,R,C	2020*
SR 419	SR 434	Edgemon Ave	Widen to 4 Lanes	P,D,R,C	2020*
New Oxford Road ***	SR 436	US 17/92	Widen to 4 Lanes & Roadway Extension	C	2020*
SR 419	Edgemon Ave	US 17-92	Widen to 4 Lanes	P,D,R,C	2025
SR 434	CR 427/Ronald Reagan Pkwy	Rangeline Rd	Widen to 6 Lanes	D,R,C	2025
SR 434	SR 417	Mitchell Hammock Rd	Widen to 4 Lanes	P,D,R,C	2025
SR 436	US 17-92	Wilshire Dr	Widen to 8 Lanes	P,D,R,C	2025
CR 46A (HE Thomas Jr. Pkwy)	Orange Blvd (CR 431)	Rinehart Rd	Widen to 6 Lanes	R,C	2030
Rinehart Rd	W Lake Mary Blvd	CR 46A	Widen to 6 Lanes	C	2030
SR 426	Orange Co. Line/Old Howell Branch Rd	Tuskawilla Rd	Widen to 6 Lanes	P,D,R,C	2030
US 17-92	Lake Mary Blvd	SR 417 (Greeneway)	Widen to 6 Lanes	P,D,R,C	2030
SR 414	Orange Co. Line	SR 434/Forest City Rd Ramps	Widen to 6 Lanes	P,D,R,C	2030
SR 434	Wekiva Springs Rd/Montgomery Rd	SR 436	Widen to 6 Lanes	P,D,R,C	2040

**FY 2019/20 - 2023/24**  
**Orlando Urban Area**  
**Transportation Improvement Program**



metroplan orlando

A REGIONAL TRANSPORTATION PARTNERSHIP

Adopted July 10, 2019  
*(Updated December 2019)*

**MetroPlan Orlando**  
**Transportation Improvement Program**  
**Locally Funded Highway Projects**  
**Osceola County**

Project Number	Project Name or Designation	Project Description				2040 LRTP Reference	Historic Cost Prior to 2019/20 (\$000's)	Project Status and Cost (\$000's)						Funding Sources	Project Phases	Estimated Future Cost After 2023/24 (\$000's)	Total Project Cost (\$000's)	Responsible Agency
		From	To	Length (Miles)	Work Description			2019/20	2020/21	2021/22	2022/23	2023/24						
92041	Old Pleasant Hill Rd. Extension	Amiens Rd.	Old Pleasant Rd.	0.40	New 2-Lane Road	Tech. Rep. 3 page 36	0	0	0	0	0	450	MFWZ	PD&E	157	607	Osceola Co.	
92042	Simpson Rd. Phase I (fka Boggy Creek Rd.)	Osceola Pkwy.	Simpson Rd./Boggy Creek Rd.	1.00	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 35	6,271	0	350	318	0	0	MFEZ	PE	0	6,939	Osceola Co.	
92043	Simpson Rd. Phase II (fka Boggy Creek Rd.)	Hilliard Isle Rd.	Myers Rd.	1.30	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 35	680	0	0	0	0	1,350	MFEZ	PE/ROW/CST	2,695	4,725	Osceola Co.	
92070	Canoe Creek Rd.	Deer Run Rd.	US 192	4.70	Widen to 4 Lanes sidewalks & bike lanes	Tech. Rep. 3 page 35 & 36	0	0	0	0	0	4,900	MFEZ	PD&E/PE/ROW/CST	5,000	9,900	Osceola Co.	
92079	Carroll St.	John Young Pkwy.	Michigan Ave.	1.51	Widen to 5 Lanes sidewalks	Tech. Rep. 3 page 35	3,901	0	0	6,729	0	0	SPCF	PD&E/PE/ROW/CST	0	10,630	Osceola Co.	
92096	Thacker Ave. Extension	Flora Ridge Blvd.	Osceola Pkwy.	0.80	New 4 Lane Road sidewalks & bike lanes	Tech. Rep. 3 page 36	0	0	0	0	0	915	MFWZ	PE/ROW/CST	9,170	10,085	Osceola Co.	
92071	Neptune Rd. Phase II	Partin Settlement Rd.	Neptune Middle School Eastern Driveway	2.30	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 35	3,660	2,550	7,246	5,900	8,000	20,153	MFWZ	PE/ROW/CST	0	47,509	Osceola Co.	
92072	Neptune Rd. Phase III	Neptune Middle School Eastern Driveway	Old Canoe Creek Rd.	1.20	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 35	1,818	1,352	500	640	900	11,205	MFEZ	PE/ROW/CST	0	17,257	Osceola Co.	
92097	Neptune Rd. Phase IV	Old Canoe Creek Rd.	E US 192	0.50	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 35	922	500	0	745	2,067	5,616	MFEZ	PE/ROW/CST	0	9,850	Osceola Co.	
92073	Old Canoe Creek Rd.	Kissimmee Park Rd.	Canoe Creek Rd.	2.10	Widen to 4 Lanes sidewalks	Tech. Rep. 3 page 35	0	0	0	0	0	2,100	MFEZ	PE/ROW/CST	0	2,100	Osceola Co.	
92098	Osceola Pkwy. Phase I (east bound)	Thacker Ave	Orange Blossom Tr.	1.40	Add new east bound Lane	Tech. Rep. 3 page 38	0	0	0	0	0	175	MFWZ	CST	1,798	1,973	Osceola Co.	
92085	Osceola Pkwy. Phase II (east bound)	Toll Plaza	Thacker Ave.	1.00	Add new east bound Lane	Tech. Rep. 3 page 38	0	0	0	0	0	175	MFWZ	CST	1,713	1,888	Osceola Co.	
92099	Osceola Pkwy. Phase III (west bound)	Toll Plaza	Greenwald Way	1.40	Add new west bound Lane	Tech. Rep. 3 page 38	0	0	0	0	0	175	MFWZ	CST	1,798	1,973	Osceola Co.	
92100	Osceola Pkwy. Phase IV (west bound)	John Young Pkwy.	Orange Blossom Tr.	1.20	Add new west bound lane	Tech. Rep. 3 page 38	0	0	0	0	0	175	MFWZ	CST	1,713	1,888	Osceola Co.	
92075	Simpson Rd. Phase III.	US 192/441	Fortune Rd.	0.43	Widen to 4 Lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 38	820	0	0	0	0	440	MFWZ	PE/ROW/CST	4,175	6,095	Osceola Co.	
92033	Sinclair Rd.	Goodman Rd.	Tradition Blvd.	1.60	New 4 Lane Road sidewalks & bike lanes	Tech. Rep. 3 page 36	0	0	0	0	0	900	MFWZ	PE/ROW/CST	3,750	4,650	Osceola Co.	
92102	Reaves Rd.	Poinciana Blvd.	Pleasant Hill Rd.	1.80	Widen to 4 lanes sidewalk/bike lane/multi-use trail	Tech. Rep. 3 page 36	0	0	0	0	0	2,000	MFWZ	PE/ROW/CST	830	2,830	Osceola Co.	

Note: All projects include sidewalks and non-designated bike lanes.

## **Social and Economic Appendix**

### **Contents:**

Neptune Farmlands Form and Memo

Supporting Documentation Specific to Social Resources

DRAFT

**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

<b>PART I (To be completed by Federal Agency)</b>	3. Date of Land Evaluation Request	4. Sheet 1 of _____
---	------------------------------------	---------------------

1. Name of Project	5. Federal Agency Involved
2. Type of Project	6. County and State

<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated	Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ %	7. Amount of Farmland As Defined in FPPA Acres: _____ %	
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS	

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment</b>			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor				

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

**PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)**

<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availability Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>				

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	100				
Total Corridor Assessment (From Part VI above or a local site assessment)	160				
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>				

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?  YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: \_\_\_\_\_ DATE \_\_\_\_\_

**NOTE: Complete a form for each segment with more than one Alternate Corridor**

## CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points  
 90 to 20 percent - 14 to 1 point(s)  
 Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points  
 90 to 20 percent - 9 to 1 point(s)  
 Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points  
 90 to 20 percent - 19 to 1 point(s)  
 Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points  
 Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?

(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)

As large or larger - 10 points  
 Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points  
 Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)  
 Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points  
 Some required services are available - 4 to 1 point(s)  
 No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points  
 Moderate amount of on-farm investment - 19 to 1 point(s)  
 No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points  
 Some reduction in demand for support services if the site is converted - 1 to 24 point(s)  
 No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points  
 Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)  
 Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

## Neptune Road Prime Farmlands Scoring Criteria Assumptions Memo

For more information on Farmland Conversation Impact Rating please see the Farmlands Evaluation Form AD-1006 “Steps in the Processing the Farmlands and Conversion Impact Rating Form” and PD&E Manual, Part 2, Chapter 6 - Farmlands (1/14/19)

Evaluation Assumptions:

- 1) This effort is being done to address Part VI of the Farmland Conversion Impact Rating Form.
- 2) The term “site” on Form AD-1006 is synonymous with the term “corridor” as referenced by 7 CFR Part 658.5 (12)(c).
- 3) Scoring Criteria and Kimley-Horn staff assumptions for each are as follows:

**1. Area in Nonurban Use:** How much land is non-urban use within a radius of 1.0 mile from where the project is intended?

Greater than 90% ----- 15 points

90-20% ----- 14 to 1 points

Less than 20% ----- 0 points

*Assumption:  $[(\text{Area of Non-Urban Land}) / (\text{Total Area of Buffer})] \times 100\% = \% \text{ of Non-Urban Land}$ . The surrounding land use within 1.0 mile is mixed with residential, commercial and services, wetlands and surface waters, and some agricultural land. Approximately 2,792 acres of 6,513 total acres (approximately 43%) would be considered non-urban land, therefore 6 points was assigned.*

**2. Perimeter in Nonurban Use:** How much of the perimeter of the site borders on land in non-urban use?

Greater than 90% ----- 10 points

90-20% ----- 9 to 1 points

Less than 20% ----- 0 points

*Assumption:  $[(\text{Perimeter Bordering Non-Urban Land}) / (\text{Perimeter of Proposed ROW})] \times 100\% = \text{Perimeter in Non-Urban Use}$ . Approximately 15,436 linear feet of the perimeter borders non-urban land. The total perimeter border is approximately 42,126 linear feet. Therefore, approximately 37% of the perimeter borders non-urban land. A score of 3 was assigned.*

**3. Percent of Site Being Farmed:** How much of site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last ten years?

Greater than 90% ----- 20 points

90-20% ----- 19 to 1 points

Less than 20% ----- 0 points

*Assumption: Surrounding FLUCCS Codes are 211 (improved pastures), 245 (floriculture), and 261 (fallow crop land). Neptune Road is already an existing roadway and therefore a majority of the site is already roadway. Therefore, from site visit, less than 20% of the site is being farmed.*

**4. Protection Provided by State and Local Government:** Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected ----- 20 points

Site is not protected ----- 0 points

*Assumption: Site is not protected.*

**5. Size of Present Farm Unit Compared to Average:** Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county? (Average farm sizes in each county are available from the NRCS field offices in each State. Data are from the latest available census of agriculture, acreage of farm units in operation with \$1,000 or more in sales).

As large or larger ----- 10 points

Below average ----- deduct 1 point for each 5% below the average, down to 0 points if 50% or more below average

*Assumption: Average farm size for Osceola County provided by NRCS in Part II of Form AD-1006 = 1499 acres. No farms are being impacted by the proposed project = 0 points.*

**6. Creation of Non-farmable Farmland:** If this site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to or more than 25% of the total ----- 25 points

Acreage equal to between 5 to 25% of the total ----- 24 to 1 points

Acreage equal to or less than 5% of the total ----- 0 points

*Assumption: Form AD-1006 (03-02) instructions indicate transportation projects should be weighed a maximum of 25 points. No loss of access to the remaining farmland will occur as a result of the taking for Neptune ROW = 0 points.*

**7. Availability of Farm Support Services:** Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities, and farmers markets?

All required services are available ----- 5 points

Some required services are available ----- 4 to 1 points

No required services are available ----- 0 points

*Assumption: All required services are available = 5 points.*

**8. On-Farm Investments:** Does the site have substantial and well-maintained on-farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment ----- 20 points

Moderate amount of on-farm investment ----- 19 to 1 points

No on-farm investment ----- 0 points

*Assumption: The site does not contain any on-farm investments = 0 points.*



**9. Effects of Conversion on Farm Support Services:** Would the project at this site, by converting farmland to non-agricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining area?  
Substantial reduction of demand for support services ----- 25 points  
Some reduction in demand for support services ----- 24 to 1 points  
No significant reduction of demand for support services ----- 0 points

*Assumption: Form AD-1006 (03-02) instructions indicate transportation projects should be weighed a maximum of 25 points. No reduction in demand for farm support services is anticipated as a result of the conversion of farmland = 0 points.*

**10. Compatibility with Existing Agricultural Use:** Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to non-agricultural use?  
Proposed project is incompatible ----- 10 points  
Proposed project is tolerable ----- 9 to 1 points  
Proposed project is fully compatible ----- 0 points

*Assumption: The proposed use of the site is the same as the existing use, therefore the project is fully compatible and will not contribute to the eventual conversion of surrounding farmland to non-agricultural use.*

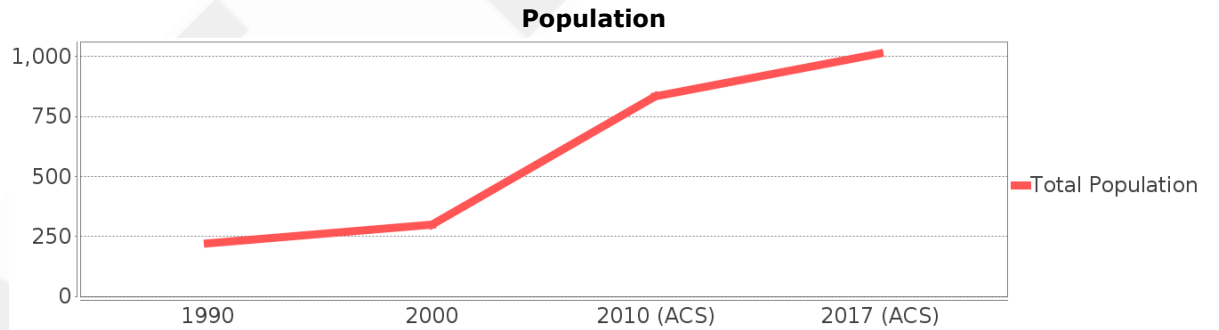
# Sociocultural Data Report

## ETDM #14402 - Alternative #1

**Area:** 0.779 square miles  
**Jurisdiction(s):** Cities: St. Cloud  
 Counties: Osceola

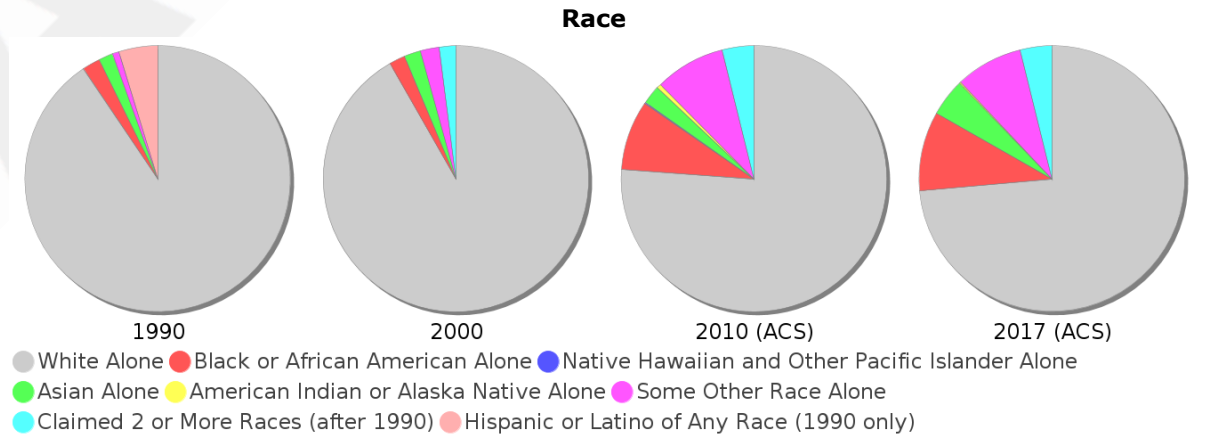
### General Population Trends

Description	1990	2000	2010 (ACS)	2017 (ACS)
Total Population	223	301	833	1,012
Total Households	75	108	312	321
Average Persons per Acre	0.52	0.92	3.37	4.15
Average Persons per Household	3.04	2.61	2.50	2.97
Average Persons per Family	3.02	3.10	3.00	3.81
Males	107	147	391	461
Females	116	154	442	551

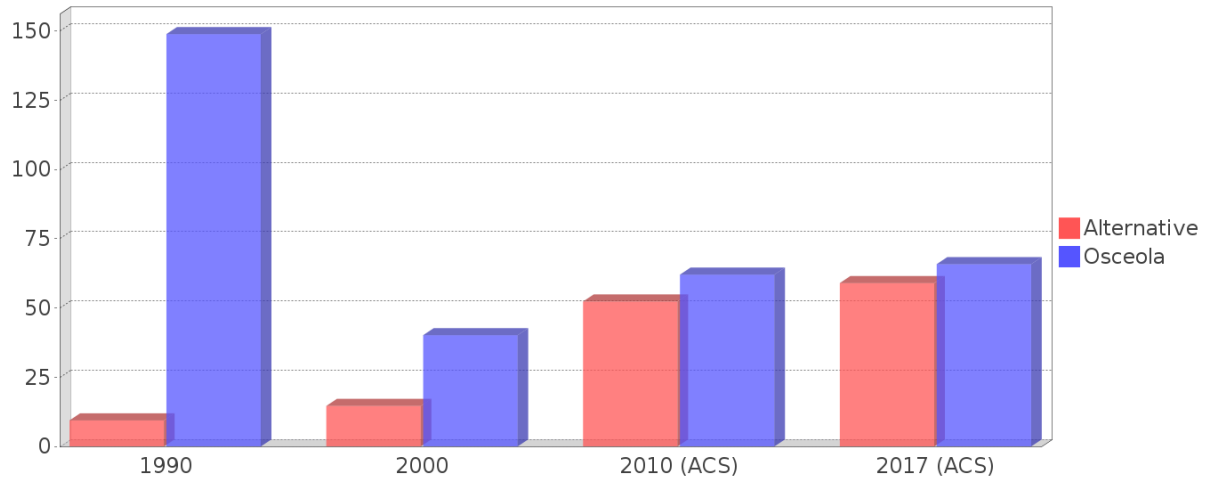


### Race and Ethnicity Trends

Description	1990	2000	2010 (ACS)	2017 (ACS)
White Alone	211 (94.62%)	276 (91.69%)	635 (76.23%)	745 (73.62%)
Black or African American Alone	5 (2.24%)	6 (1.99%)	71 (8.52%)	98 (9.68%)
Native Hawaiian and Other Pacific Islander Alone	0 (0.00%)	0 (0.00%)	1 (0.12%)	0 (0.00%)
Asian Alone	4 (1.79%)	6 (1.99%)	19 (2.28%)	46 (4.55%)
American Indian or Alaska Native Alone	0 (0.00%)	0 (0.00%)	4 (0.48%)	2 (0.20%)
Some Other Race Alone	2 (0.90%)	7 (2.33%)	72 (8.64%)	83 (8.20%)
Claimed 2 or More Races	NA (NA)	6 (1.99%)	32 (3.84%)	39 (3.85%)
Hispanic or Latino of Any Race	11 (4.93%)	31 (10.30%)	352 (42.26%)	458 (45.26%)
Not Hispanic or Latino	212 (95.07%)	270 (89.70%)	481 (57.74%)	554 (54.74%)
Minority	21 (9.42%)	44 (14.62%)	436 (52.34%)	597 (58.99%)



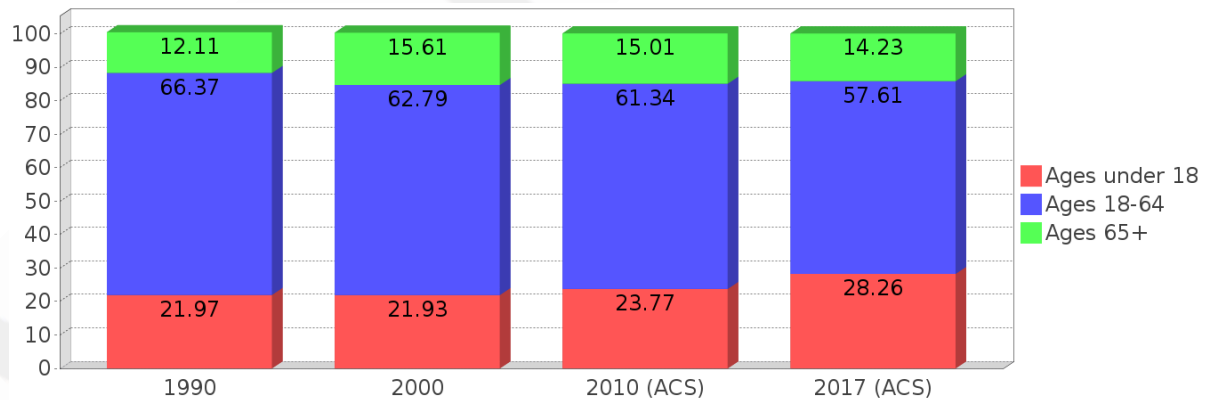
### Minority Percentage Population



### Age Trends

Description	1990	2000	2010 (ACS)	2017 (ACS)
Under Age 5	5.83%	3.99%	6.72%	7.61%
Ages 5-17	16.14%	17.94%	17.05%	20.65%
Ages 18-21	11.21%	5.98%	6.12%	2.87%
Ages 22-29	8.97%	6.64%	12.73%	15.42%
Ages 30-39	13.90%	13.62%	12.73%	14.82%
Ages 40-49	15.70%	17.28%	13.09%	9.19%
Ages 50-64	16.59%	19.27%	16.69%	15.32%
Age 65 and Over	12.11%	15.61%	15.01%	14.23%
-Ages 65-74	8.07%	8.64%	7.68%	7.51%
-Ages 75-84	3.14%	4.98%	5.16%	4.35%
-Age 85 and Over	0.90%	1.66%	2.16%	2.37%
Median Age	NA	40	44	39

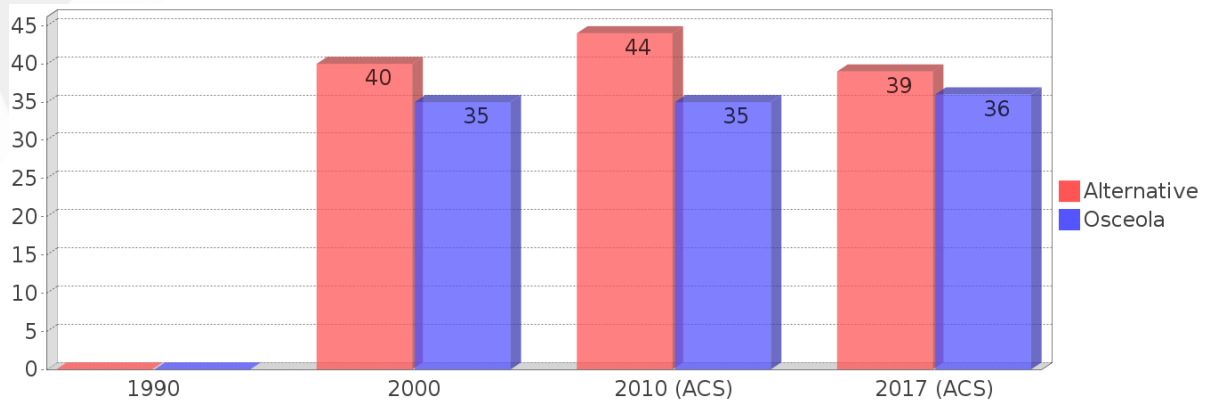
Percentage Population by Age Group



### Income Trends

Description	1990	2000	2010 (ACS)	2017 (ACS)
Median Household Income	\$40,167	\$42,072	\$41,656	\$41,502
Median Family Income	\$45,146	\$48,798	\$47,734	\$48,821
Population below Poverty Level	2.69%	3.32%	16.69%	13.83%
Households below Poverty Level	4.00%	3.70%	15.06%	15.89%
Households with Public Assistance Income	1.33%	0.93%	2.24%	2.49%

Median Age Comparison

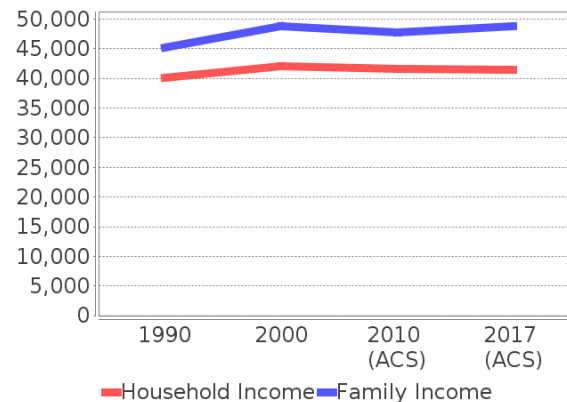


### Disability Trends

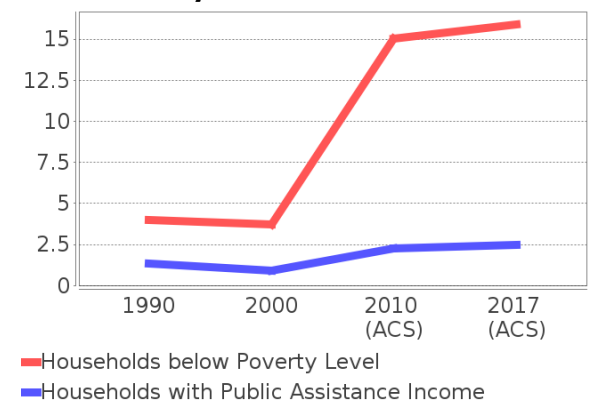
See the Data Sources section below for an explanation about the differences in disability data among the various years.

Description	1990	2000	2010 (ACS)	2017 (ACS)
Population 16 To 64 Years with a disability	7 (3.93%)	32 (11.55%)	(NA)	(NA)
Population 20 To 64 Years with a disability	(NA)	(NA)	(NA)	64 (11.29%)

Income Trends



Poverty and Public Assistance

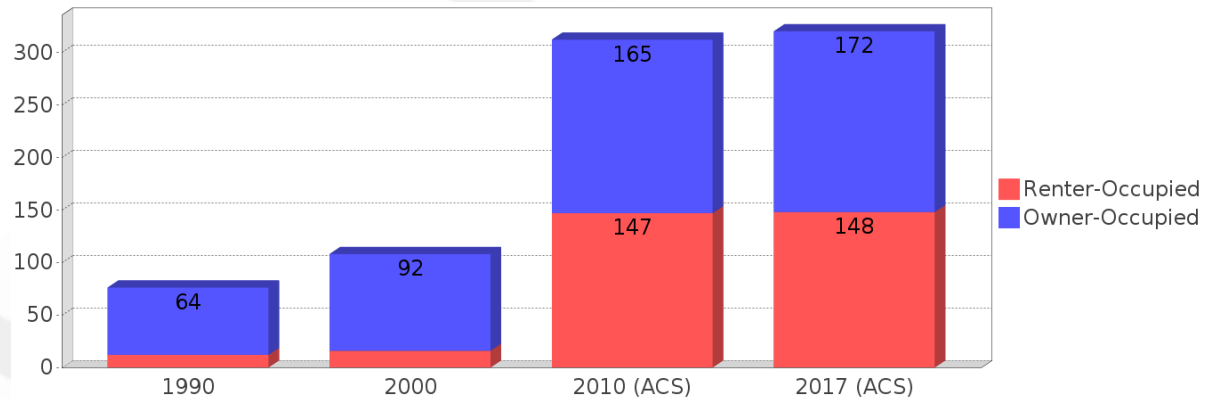


### Educational Attainment Trends

Age 25 and Over

Description	1990	2000	2010 (ACS)	2017 (ACS)
Less than 9th Grade	7 (4.90%)	8 (3.79%)	25 (4.85%)	13 (2.02%)
9th to 12th Grade, No Diploma	14 (9.79%)	28 (13.27%)	29 (5.63%)	45 (7.01%)
High School Graduate or Higher	123 (86.01%)	175 (82.94%)	461 (89.51%)	584 (90.97%)
Bachelor's Degree or Higher	29 (20.28%)	49 (23.22%)	99 (19.22%)	164 (25.55%)

### Housing Tenure

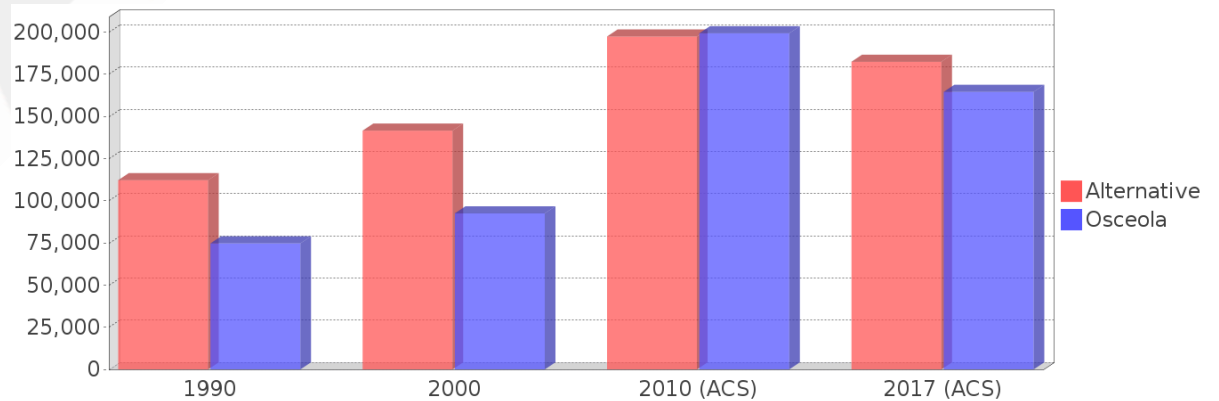


### Language Trends

Age 5 and Over

Description	1990	2000	2010 (ACS)	2017 (ACS)
Speaks English Well	3 (1.44%)	8 (2.77%)	66 (8.88%)	58 (6.20%)
Speaks English Not Well	NA	4 (1.38%)	32 (4.31%)	42 (4.49%)
Speaks English Not at All	NA	1 (0.35%)	9 (1.21%)	15 (1.60%)
Speaks English Not Well or Not at All	1 (0.48%)	5 (1.73%)	41 (5.52%)	57 (6.09%)

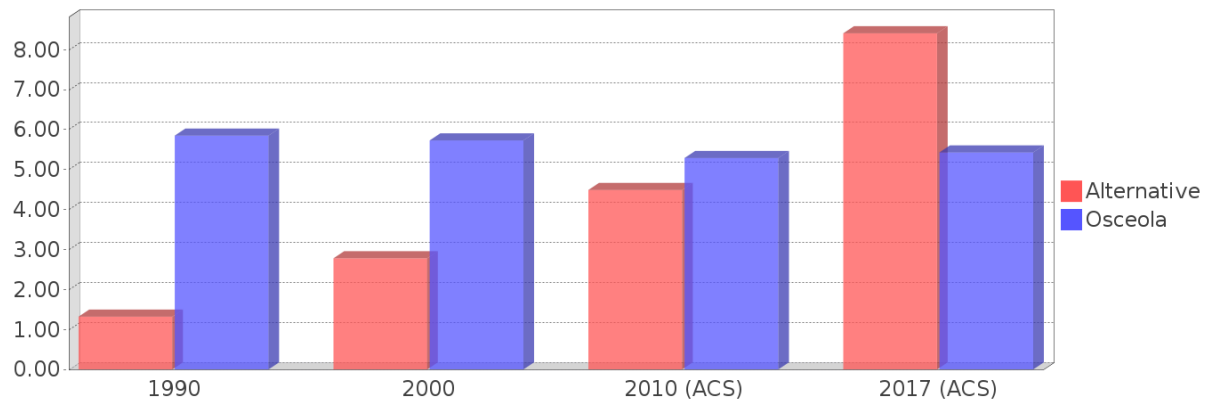
### Median Housing Value Comparison



### Housing Trends

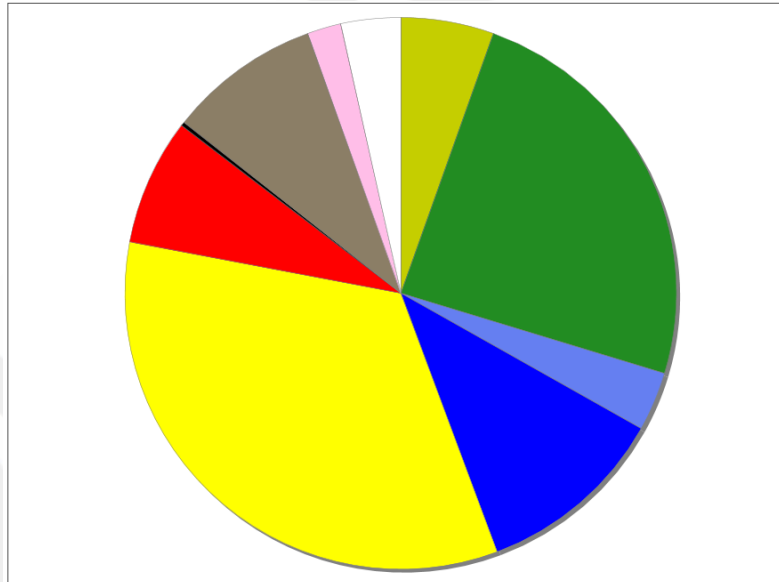
Description	1990	2000	2010 (ACS)	2017 (ACS)
Total	90	117	381	393
Units per Acre	0.25	0.33	1.12	1.16
Single-Family Units	61	89	181	222
Multi-Family Units	7	13	140	141
Mobile Home Units	7	14	43	30
Owner-Occupied Units	64	92	165	172
Renter-Occupied Units	12	16	147	148
Vacant Units	14	9	69	72
Median Housing Value	\$112,150	\$141,500	\$197,300	\$182,350
Occupied Housing Units w/No Vehicle	1 (1.32%)	3 (2.78%)	14 (4.49%)	27 (8.41%)

### Occupied Units With No Vehicles Available



### Existing Land Use

Land Use Type	Acres	Percentage
Acreage Not Zoned For Agriculture	22	4.41%
Agricultural	98	19.66%
Centrally Assessed	0	0.00%
Industrial	0	0.00%
Institutional	14	2.81%
Mining	0	0.00%
Other	0	0.00%
Public/Semi-Public	45	9.03%
Recreation	0	0.00%
Residential	136	27.28%
Retail/Office	30	6.02%
Row	1	0.20%
Vacant Residential	36	7.22%
Vacant Nonresidential	8	1.60%
Water	0	0.00%
Parcels With No Values	14	2.81%



- Acreage Not Zoned For Agriculture
- Agricultural
- Centrally Assessed
- Industrial
- Institutional
- Mining
- Other
- Public/Semi-Public
- Recreation
- Residential
- Retail/Office
- Row
- Vacant Residential
- Vacant Nonresidential
- Water
- Parcels With No Values

### Location Maps

No Map available

No Map available

## Community Facilities

The community facilities information below is useful in a variety of ways for environmental evaluations. These community resources should be evaluated for potential socio-cultural effects, such as accessibility and relocation potential. The facility types may indicate the types of population groups present in the project study area. Facility staff and leaders can be sources of community information such as who uses the facility and how it is used. Additionally, community facilities are potential public meeting venues.

### Community and Fraternal Centers

Facility Name	Address	Zip Code
KNIGHTS OF COLUMBUS 6624 - ST CLOUD KISSIMMEE	2000 NEPTUNE RD	34744

### Law Enforcement Facilities

Facility Name	Address	Zip Code
ST CLOUD POLICE DEPARTMENT	4700 NEPTUNE RD	34769

### Florida Parks and Recreational Facilities

Facility Name	Address	Zip Code
PARTIN TRIANGLE PARK	2830 NEPTUNE RD	34744

### Religious Centers

Facility Name	Address	Zip Code
IGLESIA BAUTISTA RESURRECCION	2534 NEPTUNE RD	34744
FAITH BAPTIST CHURCH	1990 NEPTUNE ROAD	34744

### Public and Private Schools

Facility Name	Address	Zip Code
HANSEL & GRETEL LEARNING CENTER	4513 NEPTUNE RD	34769
ESTHER'S SCHOOL KISSIMMEE	1990 NEPTUNE RD	34744
NEPTUNE MIDDLE SCHOOL	2727 NEPTUNE RD	34744

### Group Care Facilities

Facility Name	Address	Zip Code
NEPTUNE MIDDLE SCHOOL	2727 NEPTUNE ROAD	34744
ESTHER'S SCHOOL KISSIMMEE	522 SIMPSON ROAD	34744
ROYAL GARDENS OF ST. CLOUD INC.	4511 NEPTUNE ROAD	34769
ELITE GARDEN LLC D/B/A PALAMAR HOUSE	4319 NEPTUNE ROAD	34769
FAITH COMMUNITY CHURCH / CENTRAL POINTE HIGH SCHOOL	1990 NEPTUNE ROAD	34744

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<https://www.census.gov/programs-surveys/acs/guidance/comparing-acs-data/2017.html>

Census Bureau provides help with this process:

questionnaire for the Decennial Census 2000. (Source: <http://mcdc.missouri.edu/pub/data/acs/Readme.shtml>) The U.S. one in eight households will receive the questionnaire, as compared to about one in six that received the long form year, about one in 40 or 2.5% of U.S. households will receive the ACS questionnaire. Over any five-year period, about Use caution when comparing the 100% count data (Decennial Census) to the sample-based data (ACS). In any given

Note that there may be areas where there is no population.

demographics within each block group were then recalculated, assuming an equal area distribution of the population. block groups. Next, the portion of the block group that lies outside of the community or AOI boundary was removed. The exclude all census blocks with a population of two or fewer. These areas were eliminated from the corresponding years' population. To improve the accuracy of such estimates in the SDR report, the census block group data was adjusted to instances, adjustment of the geographic area and data for affected block groups is required to estimate the actual

User-specified community boundaries and AOIs do not always correspond precisely to block group boundaries. In these

### About the Census Data:

information (Census Summary File 3 or ACS).

counties. Depending on the dataset, the data represents 100% counts (Census Summary File 1) or sample-based data was gathered at the block group level for user-specified community boundaries and AOIs, and at the county level for Census (1990, 2000) and the American Community Survey (ACS) 5-year estimates from 2006-2010 and 2013-2017. The Income Trends, Educational Attainment Trends, Language Trends, and Housing Trends is from the U.S. Decennial Demographic data reported under the headings General Population Trends, Race and Ethnicity Trends, Age Trends,

### Demographic Data

Jurisdiction(s) includes local government boundaries that intersect the community or AOI boundary.

### Jurisdiction

The geographic area of the community based on a user-specified community boundary or area of interest (AOI) boundary.

### Area

### Data Sources

### Census Block Groups

120970432041, 120970429002, 120970431001, 120970432031

### 2010 Census Block Groups

120970431001, 120970432031, 120970432041, 120970429002

### 2000 Census Block Groups

120970429001, 120970431001, 120970429002, 120970432001

### 1990 Census Block Groups

120970404002, 120970405051, 120970404003, 120970405031

The following Census Block Groups were used to calculate demographics for this report.

### Block Groups

Use caution when interpreting changes in Race and Ethnicity over time. Starting with the 2000 Decennial Census, respondents were given a new option of selecting one or more race categories. Also in 2000, the placement of the question about Hispanic origin changed, helping to increase responsiveness to the Hispanic-origin question. Because of these and other changes, the 1990 data on race and ethnicity are not directly comparable with data from later censuses. (Source: <http://www.census.gov/prod/2001pubs/c2kbr01-1.pdf>;  
<http://www.census.gov/pred/www/rpts/Race%20and%20Ethnicity%20FINAL%20report.pdf>)

The "Minority" calculations are derived from Census and ACS data using both the race and ethnicity responses. On this report, "Minority" refers to individuals who list a race other than White and/or list their ethnicity as Hispanic/Latino. In other words, people who are multi-racial, any single race other than White, or Hispanic/Latino of any race are considered minorities.

Disability data is not included in the 2010 Decennial Census, or the 2006-2010 ACS. This data is available in the 2013-2017 ACS.

Because of changes made to the Census and ACS questions between 1990 and 2017, disability variables should not be compared from year to year. For example: 1) With the 1990 data the disabilities are listed as a "work disability" while this distinction is not made with 2000 or 2017 ACS data; 2) The 2017 ACS data includes persons in prisons and group homes), while this population is not included in 1990 or 2000; 3) the age groupings changed over the years.

Please take the following two concerns into account when viewing this data: 1) With the 1990 data the disabilities are listed as a "work disability" while this distinction is not made with 2000 or 2017 ACS data; 2) The 2017 ACS data includes the institutionalized population (e.g. persons in prisons and group homes), while this population is not included in 1990 or 2000.

The category Bachelor's Degree or Higher under the heading Educational Attainment Trends is a subset of the category High School Graduate or Higher.

Income of households. This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income.  
 Income of families. In compiling statistics on family income, the incomes of all members 15 years old and over related to the householder are summed and treated as a single amount.  
 Age Trends median age for 1990 is not available.

### Land Use Data

The Land Use information indicates acreages and percentages for the generalized land use types used to group parcel-specific, existing land use assigned by the county appraiser office according to the Florida Department of Revenue land use codes.

### Community Facilities Data

- Assisted Rental Housing Units - Identifies multifamily rental developments that receive funding assistance under federal, state, and local government programs to offer affordable housing as reported by the Shimberg Center for Housing Studies, University of Florida.
- Mobile Home Parks - Identifies approved or acknowledged mobile home parks reported by the Florida Department of Business and Professional Regulation and Florida Department of Health.
- Migrant Camps - Identifies migrant labor camp facilities inspected by the Florida Department of Health.
- Group Care Facilities - Identifies group care facilities inspected by the Florida Department of Health.



- Community Center and Fraternal Association Facilities - Identifies facilities reported by multiple sources.
- Law Enforcement Correctional Facilities - Identifies facilities reported by multiple sources.
- Cultural Centers - Identifies cultural centers including organizations, buildings, or complexes that promote culture and arts (e.g., aquariums and zoological facilities; arboreta and botanical gardens; dinner theaters; drive-ins; historical places and services; libraries; motion picture theaters; museums and art galleries; performing arts centers; performing arts theaters; planetariums; studios and art galleries; and theater producers stage facilities) reported by multiple sources.
- Fire Department and Rescue Station Facilities - Identifies facilities reported by multiple sources.
- Government Buildings - Identifies local, state, and federal government buildings reported by multiple sources.
- Health Care Facilities - Identifies health care facilities including abortion clinics, dialysis clinics, medical doctors, nursing homes, osteopaths, state laboratories/clinics, and surgicenters/walk-in clinics reported by the Florida Department of Health.
- Hospital Facilities - Identifies hospital facilities reported by multiple sources.
- Law Enforcement Facilities - Identifies law enforcement facilities reported by multiple sources.
- Parks and Recreational Facilities - Identifies parks and recreational facilities reported by multiple sources.
- Religious Center Facilities - Identifies religious centers including churches, temples, synagogues, mosques, chapels, centers, and other types of religious facilities reported by multiple sources.
- Private and Public Schools - Identifies private and public schools reported by multiple sources.
- Social Service Centers - Identifies social service centers reported by multiple sources.
- Veteran Organizations and Facilities

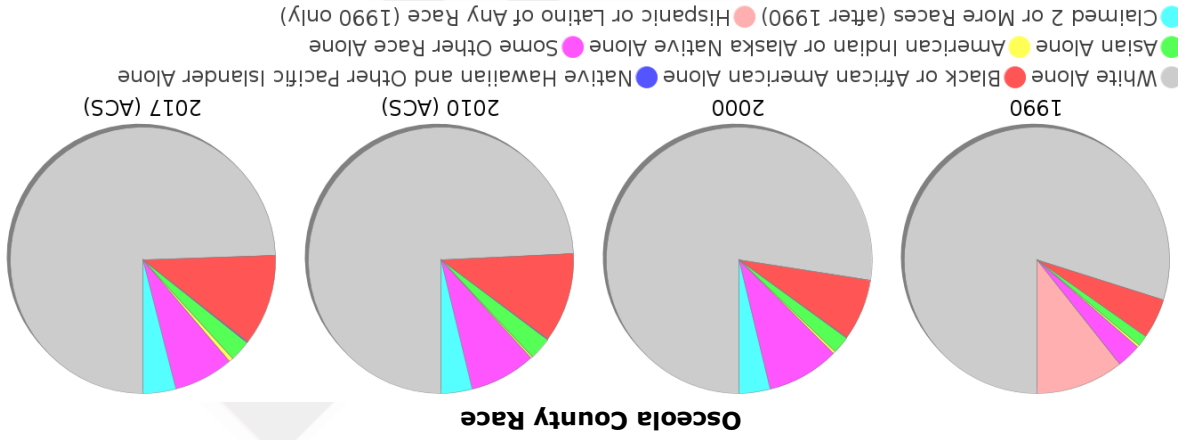
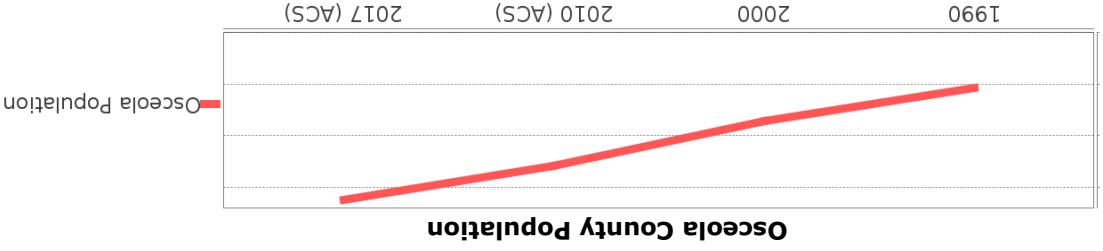
# Osceola County Demographic Profile

## General Population Trends - Osceola

Description	1990	2000	2010	2017 (ACS)
Total Population	107,728	172,493	258,531	325,168
Total Households	39,150	60,977	92,526	96,250
Average Persons per Acre	0.112	0.179	0.268	0.337
Average Persons per Household	2.752	2.79	3.00	3.36
Average Persons per Family	3.152	3.296	3.233	3.995
Males	52,716	85,185	126,812	160,216
Females	55,012	87,308	131,719	164,952

## Race and Ethnicity Trends - Osceola

Description	1990	2000	2010	2017 (ACS)
White Alone	96,231	133,590	191,793	241,940
Black or African American Alone	5,902	12,873	28,224	36,275
American Indian or Alaska Native Alone	(5.48%)	(7.46%)	(10.92%)	(11.16%)
Native Hawaiian and Other Pacific Islander Alone	(NA)	103	283	418
Asian Alone	1,571	3,642	7,090	8,252
American Indian or Alaska Native Alone	360	493	594	1,573
Some Other Race Alone	3,598	15,286	20,727	23,691
Some Other Race Alone	(3.34%)	(8.86%)	(8.02%)	(7.29%)
Claimed 2 or More Races	(NA)	6,506	9,820	13,019
Hispanic or Latino of Any Race	12,866	50,742	112,439	167,797
Hispanic or Latino	(11.94%)	(29.42%)	(43.49%)	(51.60%)
Not Hispanic or Latino	94,862	121,751	146,092	157,371
Minority	160,393	69,306	160,393	214,056
	(148.89%)	(40.18%)	(62.04%)	(65.83%)



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**Disability Trends - Osceola**

See the Data Sources section below for an explanation about the differences in disability data among the various years.

Description	1990	2000	2010 (ACS)	2017 (ACS)
Population 16 To 64 Years with a disability	5,763 (7.01%)	24,744 (15.56%)	NA	NA
Population 20 To 64 Years with a disability	NA	NA	NA	25,071 (12.95%)

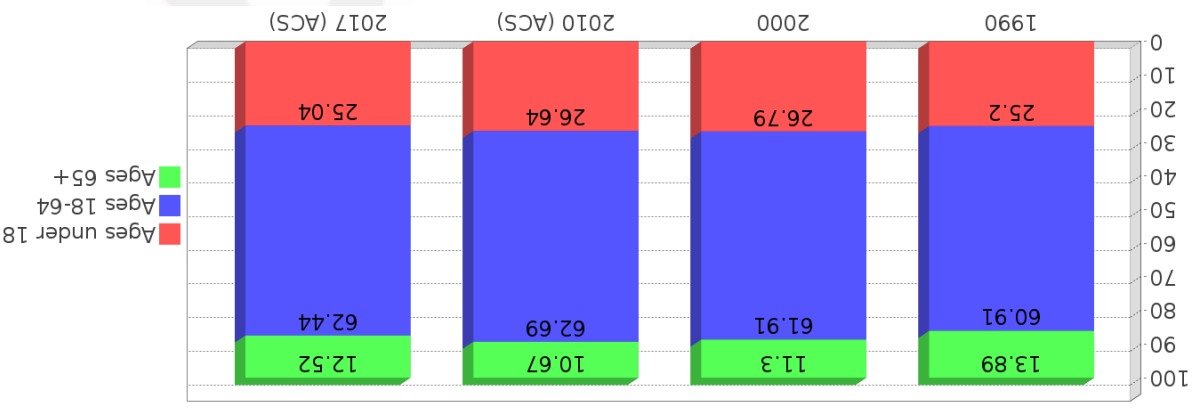
**Income Trends - Osceola**

Description	1990	2000	2010 (ACS)	2017 (ACS)
Median Household Income	\$27,260	\$38,214	\$46,328	\$47,343
Median Family Income	\$31,006	\$42,061	\$50,203	\$51,905
Population below Poverty Level	9.39%	11.52%	13.25%	17.79%
Households below Poverty Level	8.91%	10.59%	12.57%	16.70%
Households with Public Assistance Income	4.11%	2.78%	1.47%	3.39%

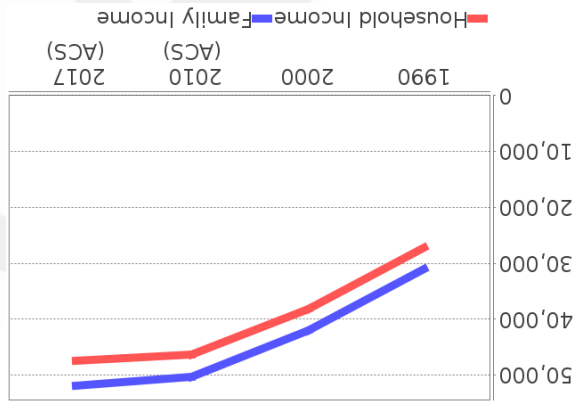
**Age Trends - Osceola**

Description	1990	2000	2010 (ACS)	2017 (ACS)
Under Age 5	7.34%	6.55%	6.87%	6.47%
Ages 5-17	17.86%	20.14%	19.77%	18.57%
Ages 18-21	5.74%	4.99%	5.73%	5.33%
Ages 22-29	12.81%	11.16%	10.65%	11.45%
Ages 30-39	16.19%	16.18%	14.33%	13.83%
Ages 40-49	12.71%	14.88%	15.16%	14.43%
Ages 50-64	13.45%	14.70%	16.81%	17.41%
Age 65 and Over	13.89%	11.30%	10.67%	12.52%
-Ages 65-74	8.33%	6.38%	6.33%	7.68%
-Ages 75-84	4.19%	3.75%	3.37%	3.37%
-Age 85 and Over	1.38%	1.17%	0.97%	1.47%
Median Age	NA	35	35	36

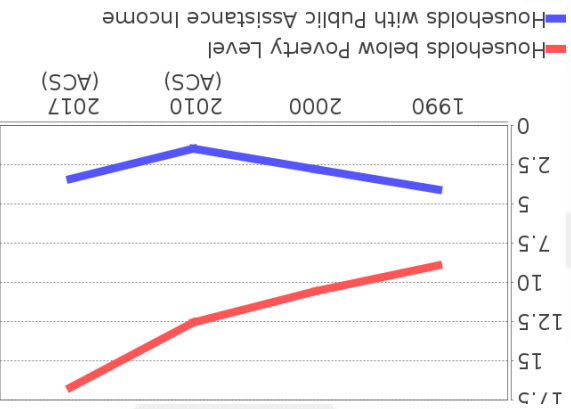
**Percentage Population by Age Group - Osceola**



**Income Trends**



**Poverty and Public Assistance**



**Educational Attainment Trends - Osceola**

Description	1990	2000	2010 (ACS)	2017 (ACS)
Less than 9th Grade	6,200 (8.83%)	6,810 (6.16%)	10,668 (6.48%)	11,540 (5.43%)
9th to 12th Grade, No Diploma	12,307 (17.52%)	16,285 (14.72%)	15,080 (9.16%)	18,148 (8.54%)
High School Graduate or Higher	51,737 (73.65%)	87,512 (79.12%)	138,898 (84.36%)	182,879 (86.03%)
Bachelor's Degree or Higher	7,873 (11.21%)	17,416 (15.75%)	30,086 (18.27%)	40,391 (19.00%)

Age 25 and Over

**Language Trends - Osceola**

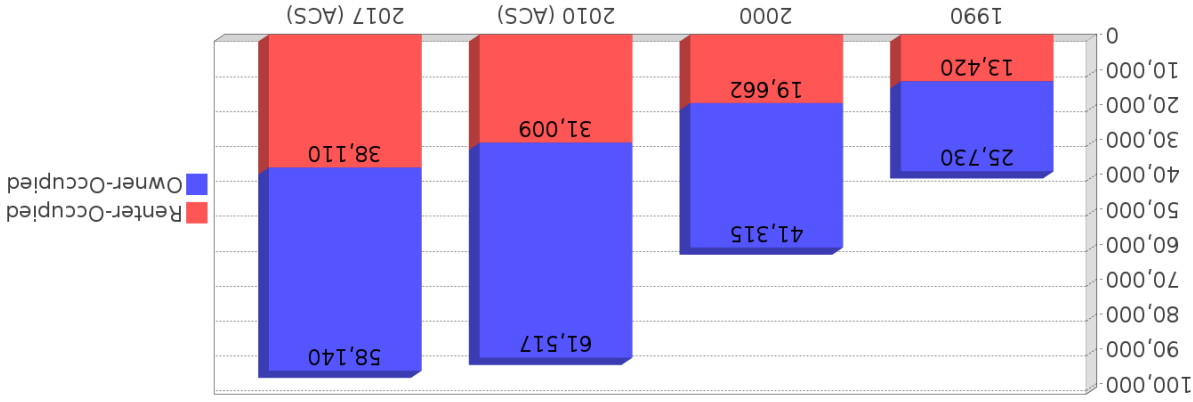
Description	1990	2000	2010 (ACS)	2017 (ACS)
Speaks English Well	3,735 (3.74%)	12,514 (7.77%)	22,965 (9.54%)	26,583 (8.74%)
Speaks English Not Well	NA (NA)	7,938 (4.93%)	16,582 (6.89%)	19,000 (6.25%)
Speaks English Not at All	NA (NA)	2,437 (1.51%)	5,376 (2.23%)	10,432 (3.43%)
Speaks English Not Well or Not at All	2,530 (2.54%)	10,375 (6.44%)	21,958 (9.12%)	29,432 (9.68%)

Age 5 and Over

**Housing Trends - Osceola**

Description	1990	2000	2010 (ACS)	2017 (ACS)
Total	47,959	72,293	122,823	139,796
Units per Acre	0.05	0.075	0.127	0.145
Single-Family Units	23,390	46,340	79,778	91,896
Multi-Family Units	7,666	14,477	29,807	36,640
Mobile Home Units	7,802	10,989	12,794	11,154
Owner-Occupied Units	25,730	41,315	61,517	58,140
Renter-Occupied Units	13,420	19,662	31,009	38,110
Vacant Units	8,809	11,316	30,297	43,546
Median Housing Value	\$74,700	\$92,500	\$199,200	\$164,500
Occupied Housing Units w/No Vehicle	2,291 (5.85%)	3,492 (5.73%)	4,897 (5.29%)	5,229 (5.43%)

**Housing Tenure - Osceola**



## County Data Sources

Demographic data reported is from the U.S. Decennial Census (1990, 2000) and the American Community Survey (ACS) 5-year estimates from 2006-2010 and 2013-2017. The data was gathered at the county level. Depending on the dataset, the data represents 100% counts (Census Summary File 1) or sample-based information (Census Summary File 3 or ACS).

### About the Census Data:

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source:

<https://www.census.gov/people/disability/methodology/acs.html>

<https://www.census.gov/population/www/cen2000/90vs00/index.html>

The category Bachelor's Degree or Higher under the heading Educational Attainment Trends is a subset of the category High School Graduate or Higher.

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## Metadata

- Community and Fraternal Centers [https://etdmpub.fl.a-etat.org/metadata/gc\\_communitycenter.htm](https://etdmpub.fl.a-etat.org/metadata/gc_communitycenter.htm)
- Correctional Facilities in Florida [https://etdmpub.fl.a-etat.org/metadata/gc\\_correctional.htm](https://etdmpub.fl.a-etat.org/metadata/gc_correctional.htm)
- Cultural Centers in Florida [https://etdmpub.fl.a-etat.org/metadata/gc\\_culturecenter.htm](https://etdmpub.fl.a-etat.org/metadata/gc_culturecenter.htm)
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- Local, State, and Federal Government Buildings in Florida [https://etdmpub.fl.a-etat.org/metadata/gc\\_govbuild.htm](https://etdmpub.fl.a-etat.org/metadata/gc_govbuild.htm)
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- Migrant Camps in Florida <https://etdmpub.fl.a-etat.org/metadata/migrant.htm>
- Veteran Organizations and Facilities [https://etdmpub.fl.a-etat.org/metadata/gc\\_veterans.htm](https://etdmpub.fl.a-etat.org/metadata/gc_veterans.htm)
- Generalized Land Use - Florida DOT District 5 [https://etdmpub.fl.a-etat.org/metadata/d5\\_lu\\_gen.htm](https://etdmpub.fl.a-etat.org/metadata/d5_lu_gen.htm)
- Census Block Groups in Florida [https://etdmpub.fl.a-etat.org/metadata/e2\\_cenacs\\_cci.htm](https://etdmpub.fl.a-etat.org/metadata/e2_cenacs_cci.htm)
- 1990 Census Block Groups in Florida [https://etdmpub.fl.a-etat.org/metadata/e2\\_cenblkgrp\\_1990\\_cci.htm](https://etdmpub.fl.a-etat.org/metadata/e2_cenblkgrp_1990_cci.htm)
- 2000 Census Block Groups in Florida [https://etdmpub.fl.a-etat.org/metadata/e2\\_cenblkgrp\\_2000\\_cci.htm](https://etdmpub.fl.a-etat.org/metadata/e2_cenblkgrp_2000_cci.htm)
- 2010 Census Block Groups in Florida [https://etdmpub.fl.a-etat.org/metadata/e2\\_cenblkgrp\\_2010\\_cci.htm](https://etdmpub.fl.a-etat.org/metadata/e2_cenblkgrp_2010_cci.htm)

## **Cultural Resources Appendix**

Contents:

SHPO Concurrence Letter

DRAFT



Florida Department of Transportation

RON DESANTIS  
GOVERNOR

719 S. Woodland Blvd.  
DeLand, FL 32720

KEVIN J. THIBAUT, P.E.  
SECRETARY

October 14, 2019

Timothy A. Parsons, Ph.D.,  
Director and State Historic Preservation Officer  
Florida Division of Historical Resources  
Florida Department of State  
R.A. Gray Building  
500 South Bronough Street  
Tallahassee, Florida 32399-0250

Attn: Dr. Adrienne Daggett, Transportation Compliance Review Program

RE: **Cultural Resource Assessment Survey**  
Neptune Road PD&E Study from Partin Settlement Road to US 192  
Osceola County, Florida  
Financial Management No.: 445415-1  
EDTM No.: 14402

RECEIVED  
BUREAU OF  
HISTORIC PRESERVATION  
2019 OCT 16 P 1:41

Dear Dr. Parsons,

Enclosed please find one copy of the report titled *Neptune Road Project Development and Environment (PD&E) Study from Partin Settlement Road to US 192 Osceola County, Florida*. This report presents the findings of a CRAS conducted in support of proposed improvements to Neptune Road in Osceola County, Florida. The Osceola County Department of Transportation and Transit in conjunction with the FDOT, District 5, is proposing improvements to a 3.9-mile (6.3 kilometer) segment of Neptune Road from Partin Settlement Road to US Highway 192. The proposed improvements include widening the existing two-lane roadway to a four-lane divided roadway with a curbed median and premium bicycle and pedestrian facilities (i.e., bike lanes, multiuse path(s), and/or sidewalks) from Partin Settlement Road to Old Canoe Creek Road. From Old Canoe Creek Road to US 192, the project widens the existing two-lane roadway to four lanes with sidewalks. In addition, bridge structures are to be replaced and stormwater management facilities will be evaluated for the entire project corridor.

The project Area of Potential Effect (APE) was defined to include the existing and proposed right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way, or a distance of no more than 328 feet (100 meters) from the maximum right-of-way line. The archaeological survey was conducted within the existing and proposed right-of-way. The historic structure survey was conducted within the entire APE.



Dr. Parsons, SHPO

October 14, 2019

Page 2

FM# 445415-1

This CRAS was conducted in accordance with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code and Section 267.12, Florida Statutes, Chapter 1A-32. All work was performed in accordance with Part 2, Chapter 8 of FDOT's PD&E Manual (revised January 2019), FDOT's Cultural Resources Management Handbook, and the standards stipulated in the Florida Division of Historical Resources' (FDHR) *Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals*. The Principal Investigator for this project meets the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716-42).

The archaeological survey included pedestrian reconnaissance and the excavation of 39 subsurface tests. Of the 39 excavated shovel tests, nine were positive for cultural material, resulting in the documentation of one new archaeological site, 8OS02984. Site 8OS02984 is recommended ineligible for the National Register of Historic Places (NRHP) based on the level of disturbance and the unremarkable nature of the artifact assemblage.

as expressed in the APE.

The architectural survey resulted in the identification and evaluation of 40 historic resources within the Neptune Road APE, including two previously recorded resources and 38 newly recorded resources. The previously recorded resources include one historic canal (8OS02752) and one historic railway (8OS02822). The newly recorded resources include one historic mobile home park (8OS02983); two historic canals (8OS02981 and 8OS02982); three historic bridges (8OS02942-8OS02944); and 32 historic structures (8OS02945-8OS02976).

One resource within the Neptune Road APE is NRHP-eligible. A segment of the St. Cloud Canal (8OS02752) was determined NRHP-eligible by the Florida State Historic Preservation Officer (SHPO) on April 24, 2014. That segment of the St. Cloud Canal (8OS02752) is considered significant under Criterion A for its association with land reclamation activities in Osceola County, which helped spur the development of the county, and Criterion C as an example of a nineteenth-century canal. Furthermore, the District recommends the portion of the St. Cloud Canal (8OS02752) within the Neptune Road APE locally significant under Criterion B for its association with Hamilton Disston, an important figure in Osceola County history. Based on the historic context and the results of the present survey, the District recommends that the segment of the St. Cloud Canal (8OS02752) within the Neptune Road APE eligible as contributing to the overall NRHP-eligible St. Cloud Canal (8OS02752). A portion of the St. Cloud and Sugar Belt Railway (8OS02822) was determined ineligible for the NRHP by SHPO on September 4, 2015. It is the opinion of the District that the section of the St. Cloud and Sugar Belt Railway (8OS02822) within the Neptune Road APE remains ineligible for the NRHP due to a lack of historic integrity. The remaining 38 historic resources within the Neptune Road APE are recommended ineligible due to a lack of historic significance.

Based upon a review of the current plans, the proposed work will not involve rerouting of the canal, disruption of the canal, widening or loss of width or the severing of the canal from other waterways. While the proposed project will acquire 0.3 acres within the St. Cloud Canal right-of-way, none of the proposed improvements will diminish the integrity of the St. Cloud Canal


Dr. Parsons, SHPO  
October 14, 2019  
Page 3  
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(8OS02752) or its ability to express the characteristics that make it eligible for listing in the NRHP.

Based on the results of the CRAS, it is the opinion of the District that the proposed improvements to Neptune Road will have no adverse effect on 8OS02752 or any other resources listed or eligible for listing in the NRHP. No further work is recommended. I respectfully request your concurrence with the findings of the enclosed report.

If you have any questions or need further assistance, please contact Catherine Owen, District Cultural Resource Coordinator, at (386) 943-5383 or me at (386) 943-5411.

Sincerely,

*for*   
William G. Walsh  
Environmental Manager  
FDOT, District Five

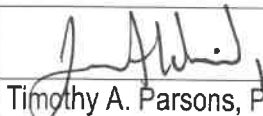
The Florida Division of Historical Resources finds the attached Cultural Resource Assessment Report complete and sufficient and  concurs /  does not concur with the determinations of historic significance provided in this cover letter and  does /  does not find applicable the determinations of effects provided in this cover letter for SHPO/FDHR Project File Number

2019-6049

FDHR Comments:

*Site 8052984 remains unevaluated as it*

*has not been delineated outside the current APE.*

*for*  Deputy SHPO  
Timothy A. Parsons, PhD, Director

12/20/2019  
Date

Florida Division of Historical Resources

## **Natural Resources Appendix**

### **Contents:**

Sole Source Aquifer Coordination Letter

Sole Source Aquifer Coordination Letter

Sole Source Aquifer Coordination Letter

DRAFT



## Florida Department of Transportation

RON DESANTIS  
GOVERNOR

719 S. Woodland Boulevard  
DeLand, Florida 32720-6834

KEVIN THIBAUT  
SECRETARY

November 8, 2019

Mr. Larry T. Cole  
U.S. Environmental Protection Agency, Region 4  
Water Protection Division  
Ground Water & UCIC Section  
61 Forsyth Street, S.W.  
Mail Code 9T25  
Atlanta, GA 30303-8960

**SUBJECT: Request for Sole Source Aquifer Concurrence**  
**Project Name:** Neptune Road Widening from Partin Settlement Road to US 192  
**ETDM #:** 14402  
**Financial Project #:** 445415-1  
**County:** Osceola

Dear Mr. Cole:

The Osceola County Department of Transportation and Transit in conjunction with the Florida Department of Transportation (FDOT), District Five, is conducting a Project Development and Environment (PD&E) Study for the widening of Neptune Road from Partin Settlement Road to US 192 in Osceola County (see attached **Figure 1 – Project Location Map**). The primary purpose of improving Neptune Road is to enhance mobility from US 192 and St. Cloud to Downtown Kissimmee, improve access to NeoCity, and improve overall traffic operations of the existing highway network within the project study area. The secondary objectives are to provide transportation infrastructure to support economic growth, provide consistency with local plans and policies, and enhance safety.

The project was reviewed through FDOT's Efficient Transportation Decision Making (ETDM) process where members of the Environmental Technical Advisory Team (ETAT) provided input/comments. Prior to FDOT participation, Osceola County prepared an Advance Notification (AN) package dated August 31, 2019. Comments were received by US Environmental Protection Agency (USEPA) based on the AN review. The ETDM Preliminary Programming Screening Summary Report is in process (ETDM #14402). This ETDM report, including agency comments, GIS analysis, and additional project information can be accessed at the following website: <http://etdmpub.flas-etat.org/est>. The project's class of action is anticipated to be a Type 2 Categorical Exclusion.

### **ETDM Screening Comments**

During the ETDM Programming Screen, comments were provided by the Florida Department of Environmental Protection (FDEP), South Florida Water Management District (SFWMD), and the USEPA

under the “Water Quality and Quantity” section. FDEP assigned a degree of effect of “Minimal”, while the SFWMD and USEPA assigned a degree of effect of “Moderate.”

The USEPA stated that the project is located within a Principal Aquifer (Surficial Aquifer System) and the Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone. Additionally, there are two waterbodies, Partin Canal and St. Cloud Canal, within a 500-foot buffer. The USEPA also stated that the Floridan Aquifer is more vulnerable to contamination within the corridor. Therefore, The USEPA assigned a “Moderate” degree of effect to Water Quality and Quantity. For the environmental evaluation of the widening of Neptune Road, the USEPA recommended the following practices for direct water quality and quantity impacts:

- Explain how adequate sediment and erosion control measures will be used to prevent the discharge of pollutants into the waterbody.
- Maximize the collection and treatment of storm water.
- Reduce the impact of pollution runoff from construction activities.
- Use best management practices to control erosion, sediment release, and storm water surface runoff to minimize adverse impacts on water resources.
- Stabilize soils to reduce the effects of erosion, sedimentation, and runoff to maintain or improve water quality.
- Identify and quantify incremental and cumulative impacts on water quality as a result of the past, present, and reasonably foreseeable actions, including the proposed project and other land use actions.
- The drainage design should be a major part of planning for the project.

The USEPA also assigned a “Moderate” degree of effect for Contamination in the ETDM Programming Screen. The USEPA stated that contaminants have the potential to degrade water quality from activities on land, pollution of surface water bodies, or by infiltration through soils. Contamination of ground water can result in poor drinking water quality and/or loss of water supply. The USEPA recommended the following avoidance, minimization, and mitigation opportunities:

- The USEPA acknowledges and supports a Contamination Screening Evaluation Report in the Project Development and Environment Study as stated in the Preliminary Environmental Discussion (PED).
- The USEPA recommends corrective action is completed before commencement of project activities, if applicable.

### **Water Quality**

The study area lies within the jurisdiction of SFWMD and specifically within Waterbody Identification Number 3173B (Kissimmee River). All projects located within the jurisdiction of the SFWMD are required to meet state water quality standard set forth in Chapter 62-302, Florida Administrative Code (FAC). The approach to meet water quality standards is to provide treatment for the increase in impervious area and restore or replace existing treatment facilities impacted by this project. Stormwater runoff from Neptune Road is generally intercepted to roadside swales and conveyed to the nearest outfall location. Neptune Road has four (4) outfall locations within the limits of this project. These locations are the Partin Canal, Fish Lake Ditch, St. Cloud Canal (C-31), and Peg Horn Slough. Each of these four outfalls convey stormwater to an eventual destination of Lake Tohopekaliga.

The attached Water Quality Impact Evaluation (WQIE) Checklist was completed for the project. The results confirm that the proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SFWMD in Chapter 62-302 of the FAC. It is therefore anticipated that no adverse effects will occur to the water quality within the project area. Osceola County will continue to coordinate water quality and quantity impacts and stormwater management with the appropriate regulatory agencies as required throughout the design and permitting phases of the project, as well as during and after construction. Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with FDEP's National Pollutant Discharge Elimination System (NPDES) Permit including the preparation of a Stormwater Pollution Prevention Plan (SWPPP); the latest edition of the FDOE Standard Specification for Road and Bridge Construction; and through the use of Best Management Practices (BMPs) including temporary erosion features (e.g. turbidity barriers) during construction.

Any dewatering operations in the vicinity of potentially contaminated areas shall be managed properly following SFWMD/FDEP guidance and coordination. In the event that any hazardous material or suspected contamination is encountered during construction, or if any spills caused by construction-related activities should occur, the Contractor shall be instructed to stop work immediately and conduct the appropriate notification process with the Osceola County Department of Transportation and Transit and the appropriate regulatory agencies.

#### **Sole Source Aquifer**

The project limits lie within the boundaries of the Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone which includes portions of Osceola County extending south towards the Everglades. As such, the Sole Source Aquifer Checklist was completed for this project and attached for your review. The proposed roadway will have a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed, by closed storm sewer pipes, to one or multiple of the potential pond sites. Captured stormwater will receive treatment and attenuation by the wet detention pond before discharging to the adjacent stormwater outfall. The proposed stormwater facilities will meet all SFWMD criteria, therefore, water quality impacts to downstream receiving waters are not anticipated to occur.

In accordance with the Sole Source Aquifer Program, authorized by Section 1424 (e) of the Safe Drinking Water Act of 1974, the FDOT is requesting your concurrence that no adverse impacts to the Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone are anticipated as a result of the proposed project.

If you have any questions, please feel free to contact me at 386-943-5411 or [William.Walsh@dot.state.fl.us](mailto:William.Walsh@dot.state.fl.us).

Sincerely,

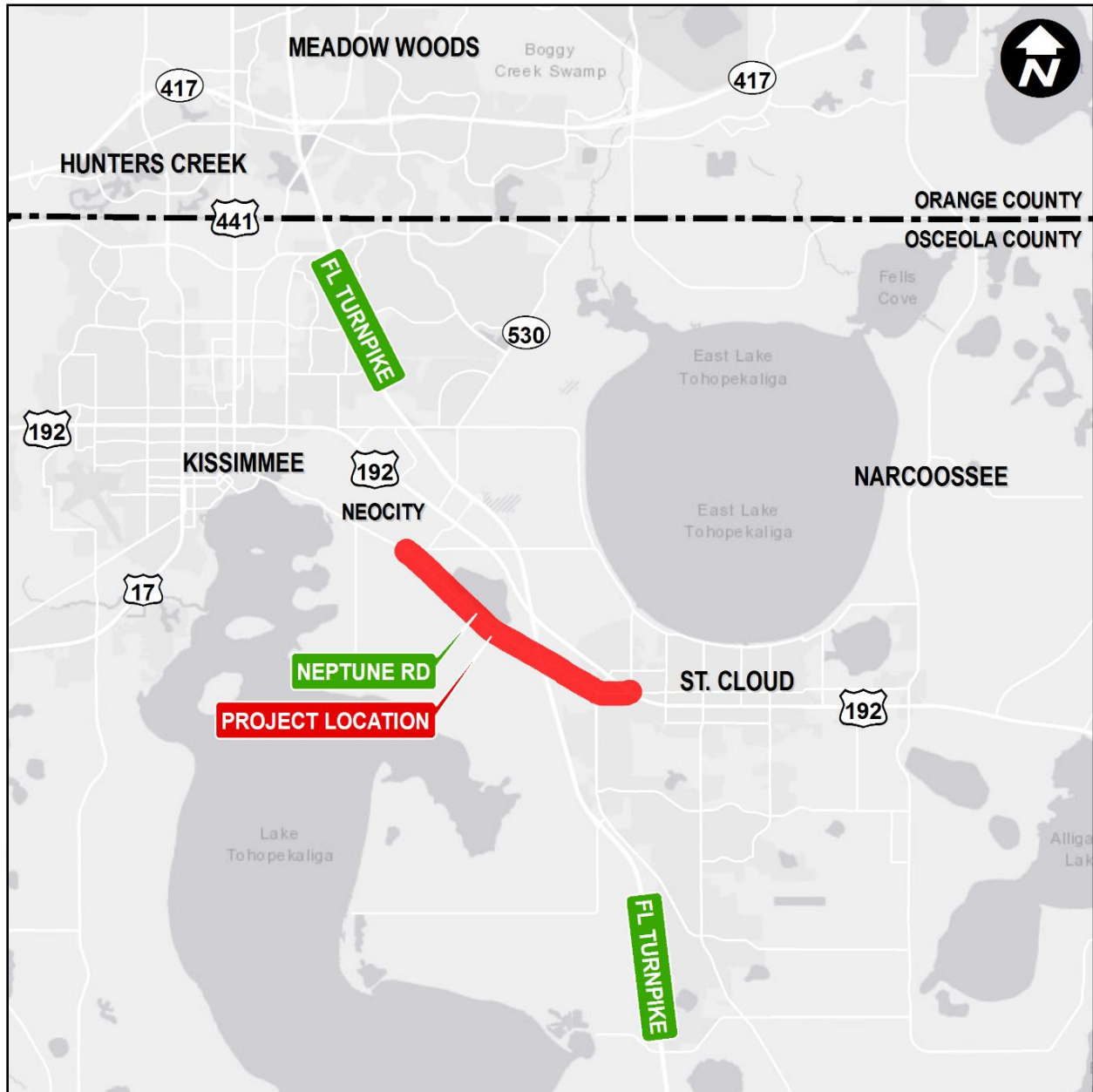
William G. Walsh  
Environmental Manager  
FDOT, District Five

Cc: Catherine Owen, FDOT  
Joshua DeVries, AICP, Osceola County

Clif Tate, P.E. Kimley-Horn  
Tori Bacheler, Environmental Scientist, Kimley-Horn

Attachments

Figure 1: Project Location Map



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**WATER QUALITY IMPACT EVALUATION CHECKLIST**

**PART 1: PROJECT INFORMATION**

Project Name:	Neptune Road Project Development and Environment Study
County:	Osceola
FM Number:	445415-1
Federal Aid Project No:	N/A
Brief Project Description:	This PD&E Study includes evaluating alternatives for proposed widening of Neptune Road, including stormwater management system

**PART 2: DETERMINATION OF WQIE SCOPE**

- Does project discharge to surface or ground water?  Yes  No
- Does project alter the drainage system?  Yes  No
- Is the project located within a permitted MS4?  Yes  No  
 Name: \_\_\_\_\_

If the answers to the questions above are no, complete the applicable sections of Part 3 and 4, and then check Box A in Part 5.

**PART 3: PROJECT BASIN AND RECEIVING WATER CHARACTERISTICS**

**Surface Water**

Receiving water(s) names: Lake Tohopekaliga

Water Management District: South Florida Water Management District

Environmental Look Around meeting date: Click here to enter a date.  
 Attach meeting minutes/notes to the checklist.

Water Control District Name (list all that apply): NA

Is the project located within a springshed or recharge area?  Yes  No

**Ground Water**

Sole Source Aquifer (SSA)?  Yes  No

Name Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone

If yes, complete Part 5, D and complete SSA Checklist shown in Part 2, Chapter 11 of the PD&E Manual

Other Aquifer?  Yes  No

Name Floridan Aquifer

Springs vents?  Yes  No

Name \_\_\_\_\_



Well head protection area?  Yes  No

Name \_\_\_\_\_

Groundwater recharge?  Yes  No

Name Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone

Notify District Drainage Engineer if karst conditions are expected or if a higher level of treatment may be needed due to a project being located within a WBID verified as Impaired in accordance with Chapter 62-303, F.A.C.

Date of notification: [Click here to enter a date.](#)

#### PART 4: WATER QUALITY CRITERIA

List all WBIDs and all parameters for which a WBID has been verified impaired, or has a TMDL in [Table 1](#). This information must be updated during each Re-evaluation.

Note: If BMAP or RAP has been identified in [Table 1](#), [Table 2](#) must also be completed. Attach notes or minutes from all coordination meetings identified in [Table 2](#).

EST recommendations confirmed with agencies?  Yes  No

BMAP Stakeholders contacted:  Yes  No

TMDL program contacted: \_\_\_\_\_  Yes  No

RAP Stakeholders contacted:  Yes  No

Regional water quality projects identified in the ELA  Yes  No

If yes, describe:

Potential direct effects associated with project construction and/or operation identified?  Yes  No

If yes, describe:

The proposed roadway will have a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed, by closed storm sewer pipes, to one or multiple of the potential pond sites. Captured stormwater will receive treatment and attenuation by the wet detention pond before discharging to the adjacent stormwater outfall.

Discuss any other relevant information related to water quality.

Proposed stormwater management facilities have been discussed and coordination is ongoing with FDOT and Osceola County.

**PART 5: WQIE DOCUMENTATION**

- A. No involvement with water quality
- B. No water quality regulatory requirements apply.
- C. Water quality regulatory requirements apply to this project (provide Evaluator’s information below). Water quality and quantity issues will be mitigated through compliance with the design requirements of authorized regulatory agencies.
- D. EPA Ground/Drinking Water Branch review required.  Yes  No  
 Concurrence received?  Yes  No  
 If Yes, Date of EPA Concurrence: [Click here to enter a date..](#)  
*Attach the concurrence letter*

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

Evaluator Name (print): Tori Bacheler	
Title: Environmental Scientist	
Signature:	Date: 11/8/2019



**Table 2: REGULATORY Agencies/Stakeholders Contacted**

Receiving Water Name (list all that apply)	Contact and Title	Date Contacted	Follow-up Required (Y/N)	Comments
Lake Tohopekaliga	Osceola County	N/A	No	
Lake Tohopekaliga	SFWMD	TBD	Yes	A pre-application meeting with SFWMD will take place in design phase.

**PROJECT NAME:** Neptune Road Widening

**NAME OF SOLE SOURCE AQUIFER:** Biscayne Sole Source Aquifer Streamflow and Recharge Source Zones

1. **Location of project:** Neptune Rd from Partin Settlement Rd to US 192
2. **Project description.** Widening of Neptune Road and new stormwater ponds.
3. **Is there any increase of impervious surface? If so, what is the area?**  
 Yes, the 2 lane roadway will be widened to a four lane roadway.
4. **Describe how storm water is currently treated on the site?** Stormwater runoff from Neptune Road is generally intercepted to roadside swales and conveyed to the nearest outfall location.
5. **How will storm water be treated on this site during construction and after the project is complete?** During construction, erosion and sedimentation will be treated in accordance with FDEP's NPDES Permit and Stormwater Pollution Prevention Plan (SWPPP). After construction, It will be a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed, by closed storm sewer pipes, to one or multiple of the potential pond sites. Captured stormwater will receive treatment and attenuation by the wet detention pond before discharging to the adjacent stormwater outfall.
6. **Are there any underground storage tanks present or to be installed? Include details of such tanks.** Yes, there are several USTs present. None will need to be removed for construction.
7. **Will there be any liquid or solid waste generated? If so how will it be disposed Of?** No liquid or solid waste will be generated.
8. **What is the depth of excavation?** Excavation associated with the project will be associated with the creation of ponds (approximately 1-5 feet).
9. **Are there any wells in the area that may provide direct routes for contaminants to access the aquifer and how close are they to the project?** Yes there are wells however they appear to be used to monitor aquifer conditions and are not indicative of contamination concerns.
10. **Are there any hazardous waste sites in the project area, especially if the waste site has an underground plume with monitoring wells that may be disturbed? Include details.** There are no documented hazardous waste sites within a mile.
11. **Are there any deep pilings that may provide access to the aquifer?** There will be piles driven for the Neptune Road Bridge replacement over the Florida's Turnpike and the C-31 Canal. There is an existing bridge at both of these locations. The piles would not be considered deep piles that would provide access to the aquifer.
12. **Are Best Management Practices planned to address any possible risks or concerns?** Yes, SWPPP will be utilized.
13. **Is there any other information that could be helpful in determining if this project may have an effect on the aquifer?** Impacts to the aquifer are not anticipated as all stormwater will meet state water quality standards set forth in Chapter 62-302 of the Florida Administrative Code.
14. **Does this Project include any improvements that may be beneficial to the aquifer, such as improvements to the wastewater treatment plan?** Not at present

**Figure 11-2 Sole Source Aquifer Checklist**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

**JAN 22 2020**

Mr. William G. Walsh  
Environmental Manager  
Florida Department of Transportation, District 5  
1000 North West 111<sup>th</sup> Avenue  
Miami, Florida 33172

Subject: Sole Source Aquifer Review/Concurrence for Neptune Road widening from Partin Settlement Road to US 192.

Dear Mr. Walsh:

The U.S. Environmental Protection Agency, Region 4 received the Florida Department of Transportation's (FDOT) December 20, 2019 request to review the above referenced project pursuant to Section 1424(e) of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300h-3. The objective of the EPA's review is to determine if the project lies within the boundaries, including recharge and streamflow source zones, of an EPA designated Sole Source Aquifer (SSA), and to determine if the project poses potential adverse health or environmental impacts. A SSA is the sole or principal water source for a designated area.

The Neptune Road widening from Partin Settlement Road to US 192 project (Project) has been determined to lie **inside** the designated boundaries of the Biscayne Sole Source Aquifer and based on the information provided, may cause a significant impact to the aquifer system when the Project's bridge foundations are installed and/or construction dewatering is undertaken. However, with proper implementation of best management practices (BMPs), these potential impacts can be adequately reduced or properly mitigated. To that effect, when installing bridge foundations, the FDOT must adhere to the list of BMPs provided as items 1 and 2 below. The dewatering operation BMPs are listed in item 3 below:

1. FDOT Design Manual Chapter 320 Stormwater Pollution Prevention Plan (SWPPP)
2. FDOT Standard Specification for Road and Bridge Construction,
  - a. Section 6 – Control of Materials
  - b. Section 104 – Prevention, Control, And Abatement of Erosion and Water Pollution
  - c. Section 455 – Structures Foundations
3. U.S. Bureau of Reclamation Engineering Geology Field Manual – Chapter 20 Water Control. <https://www.usbr.gov/tsc/techreferences/mands/geologyfieldmanual-vol2/Chapter20.pdf>

Furthermore, all debris from any demolition of the existing structures must be properly contained and removed from the site prior to construction of the new structure. If applicable, all county flood plain management plans and public notification processes must be followed. During construction, it is the EPA's understanding and expectation that those responsible for the project will strictly adhere to all

Federal, State, and local government permits, ordinances, planning designs, construction codes, operation, maintenance, and engineering requirements, and any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control must also be followed and State and local environmental offices must be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. The following website provides information regarding the Florida Department of Environmental Protection's Source Water Assessment and Protection Program.  
<http://www.dep.state.fl.us/swapp/Default.htm>

The EPA finds that, if the conditions outlined above are adhered to, this Project should have no significant impact to the aquifer system. Please note that this "no significant impact" finding has been determined based on compliance with the requirements outlined above and, on the information provided. Further, this finding only relates to Section 1424(e) of the SDWA, 42 U.S.C. § 300h-3. If there are any significant changes to the project, the EPA Region 4 office should be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or [Rafi.Khurram@epa.gov](mailto:Rafi.Khurram@epa.gov) or Mr. Larry Cole at 404-562-9474 or [Cole.Larry@epa.gov](mailto:Cole.Larry@epa.gov).

Sincerely,



Alanna M. Conley, Chief  
Groundwater, UIC and GIS Section  
Safe Drinking Water Branch  
EPA, Region 4, Atlanta, GA



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

**JAN 22 2020**

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Environmental Manager  
Florida Department of Transportation, District 5  
1000 North West 111<sup>th</sup> Avenue  
Miami, Florida 33172

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The Neptune Road widening from Partin Settlement Road to US 192 project (Project) has been determined to lie **inside** the designated boundaries of the Biscayne Sole Source Aquifer and based on the information provided, may cause a significant impact to the aquifer system when the Project's bridge foundations are installed and/or construction dewatering is undertaken. However, with proper implementation of best management practices (BMPs), these potential impacts can be adequately reduced or properly mitigated. To that effect, when installing bridge foundations, the FDOT must adhere to the list of BMPs provided as items 1 and 2 below. The dewatering operation BMPs are listed in item 3 below:

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Federal, State, and local government permits, ordinances, planning designs, construction codes, operation, maintenance, and engineering requirements, and any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control must also be followed and State and local environmental offices must be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. The following website provides information regarding the Florida Department of Environmental Protection's Source Water Assessment and Protection Program.  
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The EPA finds that, if the conditions outlined above are adhered to, this Project should have no significant impact to the aquifer system. Please note that this "no significant impact" finding has been determined based on compliance with the requirements outlined above and, on the information provided. Further, this finding only relates to Section 1424(e) of the SDWA, 42 U.S.C. § 300h-3. If there are any significant changes to the project, the EPA Region 4 office should be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or [Rafi.Khurram@epa.gov](mailto:Rafi.Khurram@epa.gov) or Mr. Larry Cole at 404-562-9474 or [Cole.Larry@epa.gov](mailto:Cole.Larry@epa.gov).

Sincerely,



Alanna M. Conley, Chief  
Groundwater, UIC and GIS Section  
Safe Drinking Water Branch  
EPA, Region 4, Atlanta, GA