



# Project Development and Corridor Study Report

## Upper Manatee River Road

December 15, 2021

Revision 1



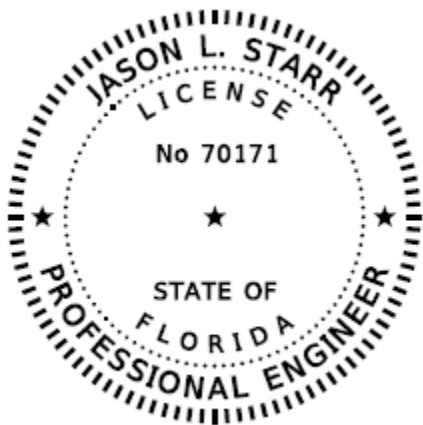
## Professional Engineer Certification

### PROJECT DEVELOPMENT AND CORRIDOR STUDY REPORT

**Project:** Upper Manatee River Road PD&C Study  
**Limits:** From north of SR 64 to north of Winding Stream Way  
**CIP #:** 6107760

This report contains preliminary information that fulfills the purpose and need for the Upper Manatee River Road Project Development and Corridor Study from north of SR 64 to the Fort Hamer Bridge in Manatee County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgement and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with HDR Engineering, Inc. and that I have prepared or approved the evaluation findings, opinions, conclusions, or technical advice for this project.



This item has been digitally signed and sealed by Jason L. Starr, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

## CONTENTS

<b>Professional Engineer Certification .....</b>	<b>2</b>
<b>Executive Summary .....</b>	<b>8</b>
<b>1.0 Project Summary .....</b>	<b>9</b>
1.1 Project Description .....	9
1.2 Purpose and Need.....	9
1.3 Consistency with Other Plans.....	9
1.3.1 Port Harbour Parkway .....	9
1.3.2 Fort Hamer Bridge .....	9
<b>2.0 Existing Roadway Conditions.....</b>	<b>12</b>
2.1 Typical Section .....	12
2.2 Right of Way .....	12
2.3 Adjacent Land Use .....	13
2.4 Posted Speed Limit .....	13
2.5 Horizontal and Vertical Alignment.....	13
2.6 Multimodal Facilities .....	14
2.7 Intersections.....	14
2.7.1 10 <sup>th</sup> Avenue East.....	14
2.7.2 8 <sup>th</sup> Avenue East .....	14
2.7.3 Greenfield Boulevard / Copperlefe Drive.....	14
2.7.4 4 <sup>th</sup> Avenue East .....	15
2.7.5 2 <sup>nd</sup> Avenue East.....	16
2.7.6 Port Harbour Parkway .....	16
2.7.7 3 <sup>rd</sup> Avenue Northeast.....	17
2.7.8 Waterlefe Boulevard .....	17
2.7.9 Fort Hamer Road .....	17
2.7.10 Winding Stream Way .....	18
2.8 Traffic Data.....	19
2.9 Crash Data.....	19
2.10 Drainage System.....	21
2.11 Floodplain.....	21
2.11.1 FEMA / Manatee County 100-Year Floodplain.....	21
2.11.2 Manatee County 25-Year Floodplain .....	21

2.12 Soils and Geotechnical Data .....	21
2.13 Lighting.....	23
2.14 Utilities .....	23
2.14.1 Manatee County Potable Water Mains.....	23
2.14.2 Manatee County Wastewater Mains.....	24
2.14.3 Manatee County Information Technology.....	25
2.14.4 Manatee County ATMS .....	25
2.14.5 Utility CIP Projects.....	25
2.14.6 Private Utility Facilities .....	27
2.15 Signs.....	28
2.16 Structures .....	28
2.16.1 Timber Boardwalk SW2009 .....	28
2.16.2 Signalized Intersections.....	28
<b>3.0 Existing Environmental Conditions .....</b>	<b>29</b>
3.1 Natural Resources.....	29
3.1.1 Protected Species and Habitat .....	29
3.1.2 Wetlands and Other Surface Waters .....	31
3.1.3 Essential Fish Habitat.....	32
3.2 Cultural Resources .....	32
3.3 Contamination .....	34
<b>4.0 Alternatives Analysis.....</b>	<b>35</b>
4.1 Design Criteria.....	35
4.1.1 Reference Manuals .....	35
4.1.2 Design Elements .....	35
4.2 No-Build Alternative .....	37
4.3 Initial Alternatives .....	38
4.3.1 Corridor Analysis .....	38
4.3.2 Typical Section Analysis.....	41
4.4 Viable Alternatives .....	42
4.4.1 Alternative 1 .....	42
4.4.2 Alternative 2 .....	42
4.5 Pond Siting .....	42
4.6 Alternatives Evaluation.....	42

4.6.1	Engineering Considerations.....	43
4.6.2	Environmental Considerations.....	43
4.6.3	Utility Considerations .....	43
4.7	Recommended Alternative.....	44
<b>5.0</b>	<b>Details of the Recommended Alternative.....</b>	<b>45</b>
5.1	Typical Section .....	45
5.2	Horizontal and Vertical Geometry .....	45
5.3	Project Traffic Volumes.....	46
5.4	Intersection Concepts.....	46
5.4.1	10 <sup>th</sup> Avenue East.....	46
5.4.2	8 <sup>th</sup> Avenue East .....	46
5.4.3	Greenfield Boulevard / Copperlefe Drive.....	46
5.4.4	4 <sup>th</sup> Avenue East .....	47
5.4.5	2 <sup>nd</sup> Avenue East.....	47
5.4.6	Port Harbour Parkway .....	47
5.4.7	3 <sup>rd</sup> Avenue Northeast.....	47
5.4.8	Waterlefe Boulevard .....	47
5.4.9	Fort Hamer Road .....	48
5.4.10	Winding Stream Way .....	50
5.5	Access Management Plan.....	50
5.6	Bicycle and Pedestrian Accommodations.....	50
5.7	Right-of-Way Requirements .....	51
5.8	Lighting.....	51
5.9	Utilities .....	51
5.9.1	Manatee County Potable Water Mains.....	51
5.9.2	Manatee County Wastewater Mains.....	51
5.9.3	Manatee County Information Technology and ATMS.....	52
5.9.4	Utility CIP Projects.....	52
5.9.5	Private Utility Facilities .....	52
5.10	Preliminary Drainage Analysis .....	52
5.11	Floodplain Analysis.....	53
5.12	Structures.....	53
5.13	Cost Estimate .....	53

5.13.1 Construction Cost Estimate Assumptions .....	53
5.13.2 Construction Cost Estimate .....	54
5.13.3 Right of Way Cost Estimate.....	54
<b>6.0 Summary of Permits and Mitigation .....</b>	<b>55</b>
6.1 Stormwater.....	55
6.2 Natural Resources.....	55
6.2.1 Anticipated Permits .....	55
6.2.2 Wildlife.....	56
6.2.3 Wetlands and Other Surface Waters .....	56
6.3 Cultural Resources .....	57

## FIGURES

Figure 1-1   Project Location Map .....	10
Figure 1-2   Related Projects Location Map .....	11
Figure 2-1   Upper Manatee River Road Existing Three-Lane Typical Section .....	12
Figure 2-2   Upper Manatee River Road at Greenfield Boulevard / Copperlefe Drive Intersection .....	15
Figure 2-3   Upper Manatee River Road at Port Harbour Parkway Intersection .....	16
Figure 2-4   Upper Manatee River Road looking west to Upper Manatee River Road / Fort Hamer Road .....	18
Figure 2-5   Crash Data Heat Map .....	20
Figure 2-6   Soils Map .....	22
Figure 2-7   Utilities Map .....	26
Figure 2-8   Timber Boardwalk SW2009.....	28
Figure 3-1   Cultural Background Map .....	33
Figure 4-1   Corridor Alternative A Parcel Impacts .....	39
Figure 4-2   Corridor Alternative B Parcel Impacts .....	40
Figure 4-3   Build Typical Section 1.....	41
Figure 4-4   Build Typical Section 2.....	42
Figure 5-1   Upper Manatee River Road at Fort Hamer Road – Florida T Intersection.....	49

## TABLES

Table 2-1   Existing Right of Way Width .....	13
Table 2-2   Existing Year (2021) Design Traffic Volume Characteristics.....	19

Table 2-3   Upper Manatee River Road Parallel Potable Water Mains.....	23
Table 2-4   Upper Manatee River Road Parallel Wastewater Mains .....	24
Table 2-5   Upper Manatee River Road Private Utility Facilities .....	27
Table 3-1   Project Effect Determinations for Federal Listed and Protected Wildlife .....	29
Table 3-2   Project Effect Determinations for State Listed Wildlife .....	30
Table 3-3   Project Effect Determinations for Federal and State Listed Plants.....	31
Table 3-4   Risk Ratings for Potential Contamination Sites.....	34
Table 4-1   General Design Elements .....	35
Table 4-2   Typical Section Design Elements.....	36
Table 4-3   Horizontal Alignment Design Elements.....	36
Table 4-4   Vertical Alignment Design Elements.....	37
Table 4-5   Design Year (2045) No-Build Design Traffic Volume Characteristics.....	37
Table 4-6   Design Year (2045) Build Design Traffic Volume Characteristics .....	38
Table 4-7   Corridor Alternative Right of Way Impacts.....	38
Table 4-8   Alternatives Evaluation .....	43
Table 5-1   Preliminary Horizontal Alignment Data .....	45
Table 5-2   Design Year (2045) Design Traffic Volume Summary .....	46
Table 5-3   Recommended Median Openings .....	50
Table 5-4   Recommended Alternative Construction Cost Estimate .....	54
Table 5-5   Recommended Alternative Right of Way Cost Estimate .....	54

## APPENDICES

Appendix A – Concept Plans .....	59
Appendix B – Design Traffic Memo .....	78
Appendix C – Natural Resources Assessment Memo.....	108
Appendix D – Cultural Resources Memo.....	215
Appendix E – Contamination Screening Memo.....	231
Appendix F – Pond Siting Memo.....	340
Appendix G – Utilities Memo .....	409
Appendix H – Agency Coordination Minutes .....	459
Appendix I – Cost Estimate .....	469

### Executive Summary

Manatee County conducted a Project Development and Corridor Study to evaluate a 2.2-mile segment of Upper Manatee River Road from north of SR 64 to the Fort Hamer Bridge in Manatee County, Florida. The purpose of this project is to enhance safety, improve traffic operations, provide multimodal access, and meet the future transportation demand. The Study evaluated options for widening the existing three-lane roadway to a divided four-lane roadway with buffered bike lanes in each direction, and pedestrian accommodations on both sides of the road. The Manatee County Comprehensive Plan shows Upper Manatee River Road as a future four-lane roadway with 150 feet of right of way.

The existing typical section along Upper Manatee River Road varies throughout the project limits. There are two predominant sections found, the first is an undivided 2-lane roadway with 12-foot travel lanes, 5-foot paved shoulders, a gored 12-foot center lane accommodating left turn lanes, and 5-foot sidewalks on each side of the roadway. The second predominant section is an undivided 2-lane roadway with 12-foot travel lanes, 5-foot paved shoulders, and a 5-foot sidewalk on the west side of the roadway. The right of way varies throughout the Study limits with typical widths between 74-feet and 79-feet. The maximum right of way width is 116-feet, and the minimum width is 74-feet within the Study limits.

Based on the engineering and environmental analysis documented in this report, the recommended alternative for Upper Manatee River Road is Alternative 2, a four-lane roadway with 110 feet of right of way containing an 18-foot median width, 11-foot travel lanes, 6-foot buffered bike lanes, a 10-foot sidewalk on the west side of the roadway and a 5-foot sidewalk on the east side of the roadway. Alternative 2 best meets the project purpose with:

- Additional through lanes for capacity
- Restricted raised median for access management
- Buffered bicycle lanes
- Pedestrian accommodations
- Buffer space between the road and sidewalk for pedestrian safety and comfort
- Minimized right of way impacts

The Recommended Alternative requires right of way acquisition from 35 parcels with 1 relocation. Of the two recommended pond sites, one is a partial acquisition and the other is a recommended total take. The project will require an Environmental Resource Permit (ERP) for stormwater treatment and wetland and surface water impacts, and a Section 404 Permit, for wetland and surface water impacts. There are no properties listed on the National Register of Historic Places (NRHP) within the boundary of the study. However, there are historic-age buildings (those constructed in 1976 or before) that have not been previously surveyed within the boundary of the study. There are no potentially contaminated sites adjacent to the project corridor.

Public involvement was not conducted during this study due to an abbreviated schedule. A public meeting is recommended during the design phase. Cost estimations are based on the best available data at the time of this Study and will be refined during the design phase.



## 1.0 Project Summary

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing six-lane section north of State Road (SR) 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida, as shown in **Figure 1-1**. The Study also included the evaluations of impacts to natural resources and cultural resources within the study area, as well as the potential for impacts to the study area from contamination sites.

### 1.1 Project Description

The study consisted of evaluating alternatives to meet the following objectives:

- Accommodate four (4) vehicular travel lanes,
- Accommodate bicycle and pedestrian traffic,
- Identify stormwater management pond site alternatives,
- Identify project impacts,
- Identify right of way needs, and
- Recommend alternative for further development.

### 1.2 Purpose and Need

The primary purpose of the Upper Manatee River Road Study is to provide congestion relief by providing additional capacity between SR 64 and the Fort Hamer Bridge. Located between the Manatee River and SR 64, additional capacity along Upper Manatee River Road would provide relief to existing major east-west corridors, such as Interstate 75 (I-75) and Lakewood Ranch Boulevard.

The Manatee County Capital Improvement Plan (CIP) includes funding for design and construction of a four-lane urban roadway from north of SR 64 to Fort Hamer Bridge.

To encourage and promote the Complete Streets Concept throughout the County, the Manatee County Comprehensive Plan has identified Upper Manatee River Road with a twenty-year functional classification as an Arterial with a twenty-year Level of Service standard of D, a twenty-year travel lane needs of four lanes, and a right of way needs width of 150 feet.

### 1.3 Consistency with Other Plans

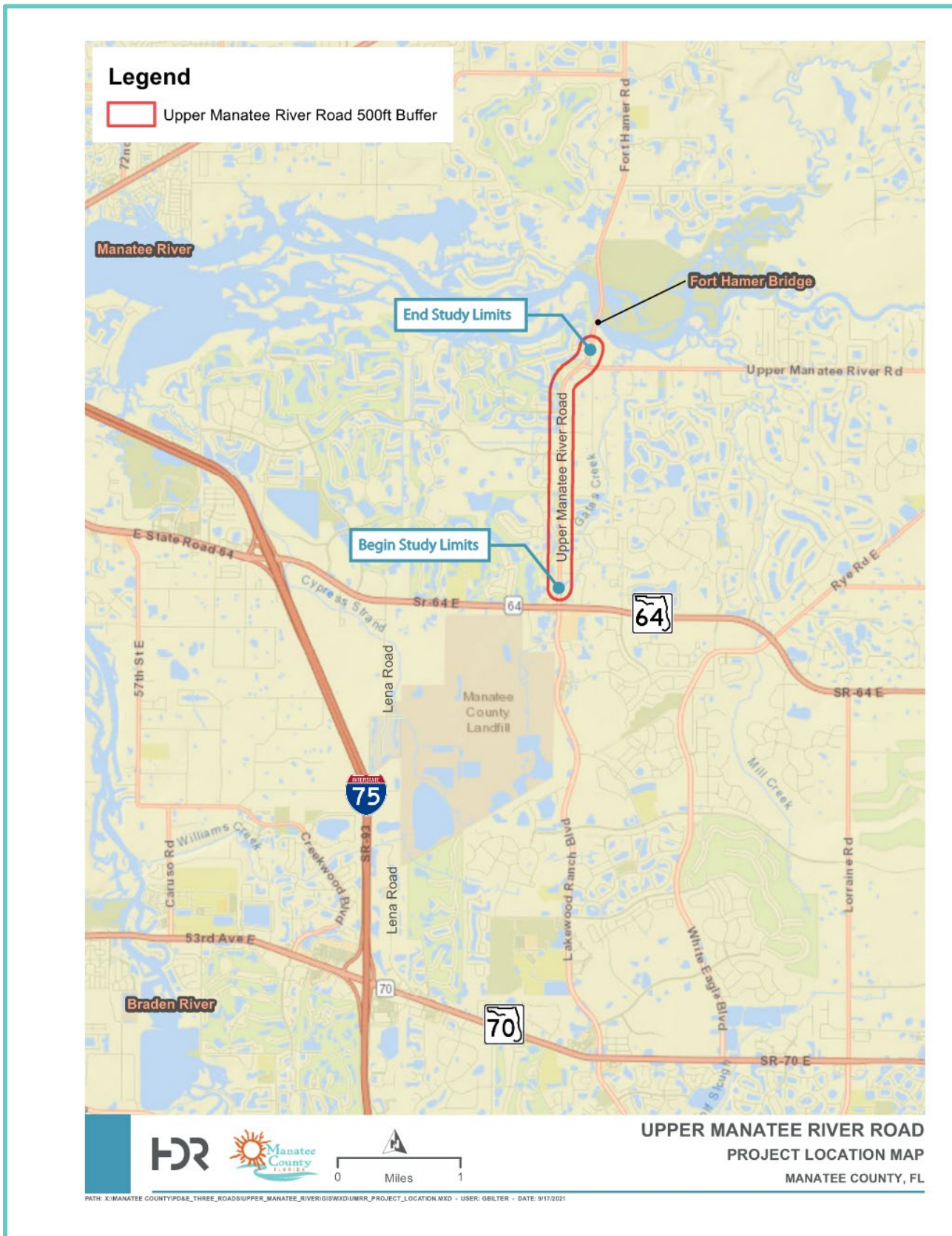
Related projects within the Upper Manatee River Road Study area include the future extension of Port Harbour Parkway and the future 4-lane Fort Hamer Bridge (see **Figure 1-2**).

#### 1.3.1 Port Harbour Parkway

There are potential future plans for Port Harbour Parkway to be extended from its current intersection at Upper Manatee River Road. The corridor under evaluation would extend Port Harbour Parkway eastward to 117<sup>th</sup> Street East, creating a 4-leg intersection.

#### 1.3.2 Fort Hamer Bridge

When the two-lane Fort Hamer Bridge was constructed in 2017, it was designed to accommodate a future secondary bridge that would complete a four-lane crossing of the Manatee River. For the purposes of this Study, the bridge will remain a two-lane section, but will consider a western widening of Fort Hamer Road to accommodate a future bridge located to the west of the current bridge.



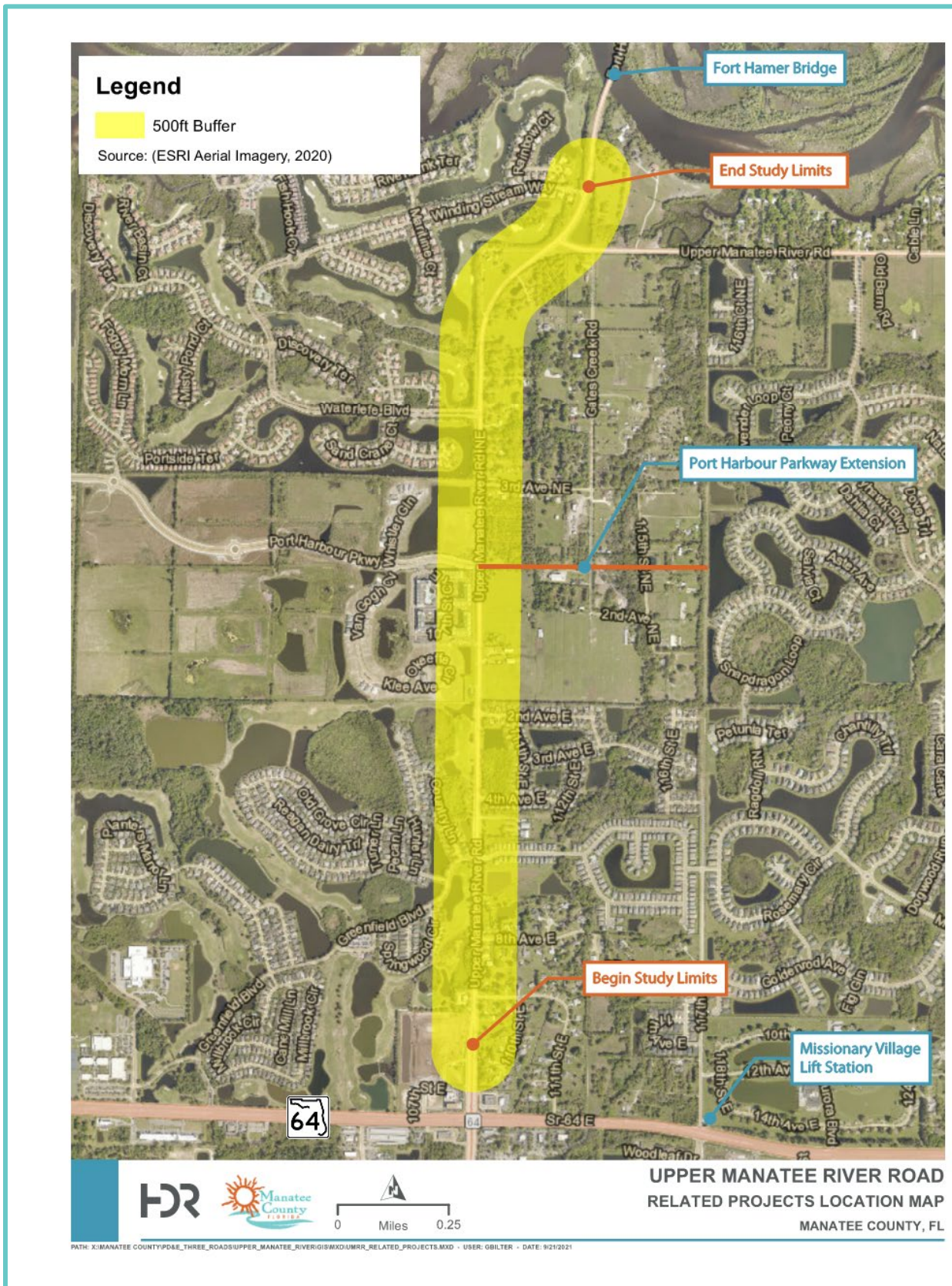


Figure 1-2 | Related Projects Location Map

### 2.0 Existing Roadway Conditions

Upper Manatee River Road is classified as an arterial roadway within Manatee County.

#### 2.1 Typical Section

Upper Manatee River Road near the SR 64 intersection was recently reconstructed as a six-lane divided curbed roadway with turn lanes, 4-foot bike lanes and 5-foot sidewalks in both directions of travel.

The six-lane divided roadway transitions to a three-lane undivided curbed roadway with one travel lane in each with the center lane accommodating left turn lanes, while maintaining bicycle and pedestrian accommodations. This curbed section begins south of 10<sup>th</sup> Avenue East and continues 500 feet north. At this point, the curb and gutter ends and flush shoulders begin, but the three-lane undivided roadway continues maintaining bicycle and pedestrian accommodations until 2<sup>nd</sup> Avenue East.

North of 2<sup>nd</sup> Avenue East, the sidewalk on the east side ends and the roadway transitions to a two-lane undivided roadway with bicycle accommodation on 5-foot paved shoulders and a 5-foot sidewalk on the west side of the roadway, often outside of the existing right of way. This two-lane roadway segment is short, as the roadway transitions back to the three-lane undivided roadway with left turn lane accommodation approaching the new intersection with Port Harbour Parkway. This section continues through the Waterlefe Boulevard intersection then transitions back to the two-lane undivided roadway.

The two-lane undivided roadway is partially guardrail protected with curb and gutter on the west side of Upper Manatee River Road and a flush shoulder on the east side. This section continues to the Fort Hamer Road intersection without the guardrail.

The predominant three-lane undivided roadway typical section is shown in **Figure 2-1**.

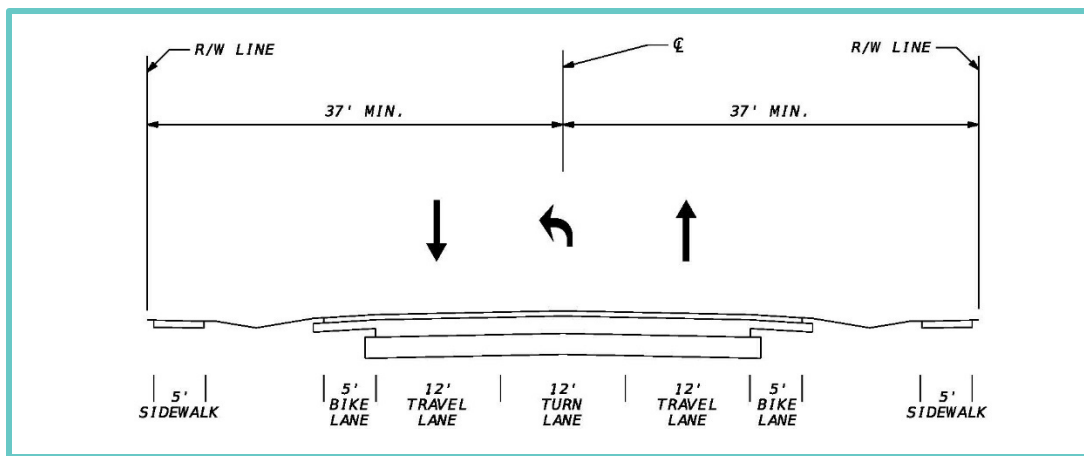


Figure 2-1 | Upper Manatee River Road Existing Three-Lane Typical Section

Existing right of way along Upper Manatee River Road varies, with a minimum width of seventy-four feet.

Table 2-1 | Existing Right of Way Width

Upper Manatee River Road Segment	Minimum Right of Way	Maximum Right of Way
10 <sup>th</sup> Ave East to Greenfield Blvd	79 ft	116 ft
Greenfield Blvd to Port Harbour Pkwy	74 ft	98 ft
Port Harbour Pkwy to Fort Hamer Rd	74 ft	109 ft

As Upper Manatee River Road approaches the eastern curve / intersection with Fort Hamer Road, the right of way width expands heading north to the Fort Hamer Bridge.

### 2.3 Adjacent Land Use

The adjacent land use for Upper Manatee River Road is characterized as Suburban Neighborhood and Future Neighborhood. The project corridor consists of residential communities, a golf course, single family homes, a church, and some commercial properties. Properties of note are:

- Greenfield Plantation, a single family home residential community at Greenfield Boulevard, west side of Upper Manatee River Road
- The Links at Greenfield Plantation golf course located within Greenfield Plantation and adjacent to the west side of Upper Manatee River Road
- CopperLeaf, a single family home residential community at Copperlefe Drive, east side of Upper Manatee River Road
- Christ Presbyterian Church, north of CopperLeaf
- Gates Creek, a single family home residential community with access from 4th Avenue East and 2nd Avenue East, east side of Upper Manatee River Road
- The River Road Stop, east side north of 2nd Avenue East
- Watercolor Place, a planned community with single family homes and multi-story condominiums at Port Harbour Parkway with frontage along the west side of Upper Manatee River Road
- Waterlefe Golf and River Club, a single family home residential community and golf course along the west side of Upper Manatee River Road with access from Waterlefe Boulevard and Winding Stream Way

### 2.4 Posted Speed Limit

The existing posted speed on Upper Manatee River Road is 45 mph for the limits of the Study area.

### 2.5 Horizontal and Vertical Alignment

Upper Manatee River Road is a primarily linear north-south roadway with a large curve on the northern end approaching the Fort Hamer Road intersection. This first curve to the right has an approximate radius of 1,162 feet and an approximate length of 1,031 feet. After a 395-foot tangent segment, the roadway curves back to the left through the intersection with an approximate radius of 1,421 feet and an approximate length of 1,160 feet. The roadway then heads north to the Fort Hamer Bridge.

### 2.6 Multimodal Facilities

Upper Manatee River Road currently accommodates bicyclists with on-street bicycle lanes in both directions for the length of the Study area. In the existing curbed section from north of SR 64 to 2<sup>nd</sup> Avenue East, the bicycle lanes are 4-feet wide. Undesignated bicycle accommodation is provided on the 5-foot paved shoulders outside of the curb and gutter sections. Where the west side curb and gutter is present north of Waterlefe Boulevard intersection, an undesignated 4-foot bicycle accommodation is provided. Designated bicycle keyhole lanes are present adjacent to dedicated right turn lanes along the corridor.

Pedestrians are accommodated by a minimum 5-foot-wide sidewalk on the west side of Upper Manatee River Road from north of SR 64 to the Fort Hamer Road intersection. Most of this sidewalk is within County right of way with exceptions of meandering segments and the frontage of Watercolor Place where it appears to be within the subdivision property. Pedestrians are accommodated by a minimum 5-foot-wide sidewalk on the east side of Upper Manatee River Road from north of SR 64 to north of 2<sup>nd</sup> Avenue East. At the Fort Hamer Road intersection, the sidewalk crosses from the west side to east side on the north leg and remains on the east side to the Fort Hamer Bridge.

There are no MCAT transit routes along Upper Manatee River Road. There is an apparent Manatee County School District bus route along Upper Manatee River Road with stops near Waterlefe Boulevard. Port Harbour Parkway also has apparent school bus stops.

### 2.7 Intersections

#### 2.7.1 10<sup>th</sup> Avenue East

10<sup>th</sup> Avenue East is a two-lane residential roadway on the east side of Upper Manatee River Road. The intersection is a T-intersection with stop-control for 10<sup>th</sup> Avenue East. Upper Manatee River Road provides a dedicated northbound right turn lane from the end of the transition of the four-lane section north of SR 64. A dedicated southbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians and bicyclists are currently accommodated on both sides of Upper Manatee River Road, including a keyhole lane for the northbound right turn lane. A crosswalk is located across the 10<sup>th</sup> Avenue East leg but there are no pedestrian accommodations on the roadway.

#### 2.7.2 8<sup>th</sup> Avenue East

8<sup>th</sup> Avenue East is a two-lane residential roadway on the east side of Upper Manatee River Road. The intersection is a T-intersection with stop-control for 8<sup>th</sup> Avenue East. Upper Manatee River Road provides a dedicated northbound right turn lane. A dedicated southbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians and bicyclists are currently accommodated on both sides of Upper Manatee River Road, including a keyhole lane for the northbound right turn lane. There is a dedicated crosswalk on the north leg of this intersection. A crosswalk is located across the 8<sup>th</sup> Avenue East leg but there are no pedestrian accommodations on the roadway.

#### 2.7.3 Greenfield Boulevard / Copperlefe Drive

Greenfield Boulevard is a two-lane roadway on the west side of Upper Manatee River Road with a divided approach leg containing a landscaped median. This roadway is the entrance to the Greenfield Plantation subdivision and connects to SR 64. Carlos E. Haile Middle School and Freedom Elementary School are both

accessible from Greenfield Boulevard and Upper Manatee River Road has school crossing pavement markings at the intersection.

Copperlefe Drive is a two-lane roadway on the east side of Upper Manatee River Road with a divided approach leg containing a landscaped median. This roadway is the gate-controlled entrance to the CopperLeaf subdivision.

The Greenfield Boulevard / Copperlefe Drive intersection was recently signalized in 2021 with dual mast arms on the NE and SW quadrants. This intersection currently accommodates dedicated left turn and right turn lanes from Upper Manatee River Road. Greenfield Boulevard and Copperlefe Drive each consist of a dedicated left turn lane and a shared through / right turn lane. The intention of this signal design was to allow for temporary traffic control signalization during a 4-lane widening of Upper Manatee River Road.

Pedestrians are currently accommodated on both sides of Upper Manatee River Road and Copperlefe Drive. Greenfield Boulevard accommodates pedestrians on the north side of the roadway. Crosswalks are currently provided on all four legs of this intersection.

Bicycle accommodations are provided with keyhole lanes adjacent to the dedicated right turn lanes on Upper Manatee River Road.



*Figure 2-2 | Upper Manatee River Road at Greenfield Boulevard / Copperlefe Drive Intersection*

### 2.7.4 4<sup>th</sup> Avenue East

4<sup>th</sup> Avenue East is a two-lane residential roadway on the east side of Upper Manatee River Road. The intersection is a T-intersection with stop-control for 4<sup>th</sup> Avenue East. This roadway has a landscaped median at the intersection and is an entrance to the Gates Creek subdivision. Upper Manatee River Road provides a dedicated northbound right turn lane. A dedicated southbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians and bicyclists are currently accommodated on both sides of Upper Manatee River Road, including a keyhole lane for the northbound right turn lane. There is a dedicated crosswalk on the north leg of this

intersection. A crosswalk is located across the 4<sup>th</sup> Avenue East leg and a 5-foot sidewalk is on the north side of the roadway.

### 2.7.5 2<sup>nd</sup> Avenue East

2<sup>nd</sup> Avenue East is a two-lane residential roadway on the east side of Upper Manatee River Road. The intersection is a T-intersection with stop-control for 2<sup>nd</sup> Avenue East. This roadway has a landscaped median at the intersection and is an entrance to the Gates Creek subdivision. Upper Manatee River Road provides a dedicated northbound right turn lane. A dedicated southbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians and bicyclists are currently accommodated on both sides of Upper Manatee River Road, including a keyhole lane for the northbound right turn lane. A crosswalk is located across the 2<sup>nd</sup> Avenue East leg and a 5-foot sidewalk is on the north side of the roadway.

### 2.7.6 Port Harbour Parkway

Port Harbour Parkway is a four-lane divided facility on the west side of Upper Manatee River Road. The roadway currently connects Kay Road to Upper Manatee River Road and has a 30-mph posted speed limit. There is a landscaped median provided on the approach to the intersection.

The Port Harbour Parkway intersection was recently signalized in 2021 with single mast arms on the NW and SW quadrants and pole-mounted control for the eastbound direction. This intersection currently accommodates a northbound left turn lane and a southbound right turn lane from Upper Manatee River Road. Port Harbour Parkway consists of a dedicated left and right turn lane at this T-intersection. The mast arms and uprights are painted black, which is a specific design requirement for this intersection. The intention of this signal design was to allow for temporary traffic control signalization during a 4-lane widening of Upper Manatee River Road.



*Figure 2-3 | Upper Manatee River Road at Port Harbour Parkway Intersection*



Pedestrians are currently accommodated on the west side of Upper Manatee River Road by a 5-foot sidewalk that was constructed with Watercolor Place and appears to be on private property. A 6-foot back of curb sidewalk is provided on both sides of Port Harbour Parkway.

Bicycle accommodations are provided on Upper Manatee River Road with designated 5-foot paved shoulders and a keyhole lane adjacent to the southbound dedicated right turn lanes. Port Harbour Parkway provides 4-foot bicycle lanes on both sides of the curb and gutter facility.

### 2.7.7 3<sup>rd</sup> Avenue Northeast

3<sup>rd</sup> Avenue Northeast is a two-lane local roadway on the east side of Upper Manatee River Road. The intersection is a T-intersection with stop-control for 3<sup>rd</sup> Avenue Northeast. Upper Manatee River Road provides a dedicated northbound right turn lane. A dedicated southbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians are currently accommodated on the west side of Upper Manatee River Road. Bicyclists are currently accommodated on both sides of Upper Manatee River Road, including a keyhole lane for the northbound right turn lane. There are no crosswalks at this intersection.

### 2.7.8 Waterlefe Boulevard

Waterlefe Boulevard is a two-lane divided facility on the west side of Upper Manatee River Road. The roadway has a landscaped median and 30-mph posted speed limit. It is an entrance to the Waterlefe Golf and River Club subdivision.

The intersection is a T-intersection with stop-control for Waterlefe Boulevard. Upper Manatee River Road provides a dedicated southbound right turn lane. A dedicated northbound left turn is provided from the center of the three-lane Upper Manatee River Road section.

Pedestrians are currently accommodated on the west side of Upper Manatee River Road and both sides of Waterlefe Boulevard. There is a crosswalk across the Waterlefe Boulevard leg of this intersection. Bicycle accommodations are provided on both sides of Upper Manatee River Road, including a keyhole lane for the southbound right turn lane.

### 2.7.9 Fort Hamer Road

The Fort Hamer Road intersection was constructed by the County in 2017 as a signalized intersection with a dual mast arm on the SW quadrant and a single mast arms on the NE quadrant. Upper Manatee River Road is the southern and eastern leg of this intersection while Fort Hamer Road is the designation for the northern leg. Upper Manatee River Road heads east from this intersection as a two-lane facility to Rye Road. Fort Hamer Road heads north from this intersection as a two-lane facility with the Fort Hamer Bridge over the Manatee River. The roadway currently ends at the US 301 intersection in Parrish.

The intersection consists of a dedicated southbound left turn lane and a dedicated northbound right turn lane. The eastern leg has a dedicated left and right turn lane due to the T-intersection configuration.

Pedestrians are currently accommodated on the west side of Upper Manatee River Road with termination at a crosswalk that provides access across Fort Hamer Road on the north leg of the intersection. From there an east side sidewalk connects to the Fort Hamer Bridge. On the east leg of the intersection pedestrians are accommodated by a 5-foot sidewalk on the north side of Upper Manatee River Road that terminates at Gates Creek Road. In addition to the crosswalk on the north leg, there is a crosswalk on the east leg with a curb pad on the south side of the intersection.

Bicycle accommodations are provided on Upper Manatee River Road / Fort Hamer Road with designated 5-foot paved shoulders and designated 4-foot bicycle lanes adjacent to curb and gutter sections. A designated 5-foot paved shoulder is provided on the south side of Upper Manatee River Road that terminates at Gates Creek Road.



*Figure 2-4 | Upper Manatee River Road looking west to Upper Manatee River Road / Fort Hamer Road*

### 2.7.10 Winding Stream Way

Winding Stream Way is a two-lane roadway on the west side of Upper Manatee River Road. The roadway has a landscaped median at the intersection approach. It is a gate-controlled entrance to the Waterlefe Golf and River Club subdivision.

The intersection is a T-intersection with stop-control for Winding Stream Way. Upper Manatee River Road provides a dedicated southbound right turn lane and a dedicated northbound left turn. Winding Stream Way provides a short dedicated left turn lane in addition to the dedicated right turn lane at the intersection.

Pedestrians are currently accommodated on the east side of Upper Manatee River Road and the north side of Winding Stream Way. There is a special-emphasis crosswalk across the northern leg of this intersection. Bicycle accommodations are provided on both sides of Upper Manatee River Road, including a keyhole lane for the southbound right turn lane.

### 2.8 Traffic Data

Historical 2019 AADT volumes were utilized to develop the existing year (2021) AADT volumes using a 10.96% growth rate. Manatee County Count Station 11-06 was used as the basis for the AADT volumes as it is located on Upper Manatee River Road, north of SR 64.

*Table 2-2 | Existing Year (2021) Design Traffic Volume Characteristics*

Characteristic	Value
2019 AADT	21,602 vehicles
2021 AADT	25,500 vehicles
Peak-to-Daily Ratio	9.00%
DHV	2,295 vehicles
Directional Distribution	53.80 %
Peak Directional Volume	1,235 vehicles
Off-Peak Directional Volume	1,060 vehicles

The existing corridor volumes were compared to the LOS D maximum service volumes found in the FDOT Quality / LOS Handbook. The Upper Manatee River Road corridor operates at 156% of the peak hour directional LOS D Maximum Service Volume. **Appendix B** contains the Traffic Analysis Memo performed for the Study.

### 2.9 Crash Data

For the five-year crash period from 2016 to 2020, there were 77 reported crashes for Upper Manatee River Road. Three (3) fatal, four (4) incapacitating injury, six (6) non-incapacitating injury, and fifteen (15) possible injury crashes were reported during this time frame. Forty-three (43) crashes (56%) were reported as rear-end incidents, eight (8) crashes (10%) were off-road, and seven (7) crashes (9%) were sideswipes. One (1) crash involved alcohol and one (1) crash involved an animal. A heat map showing the crash data in the Study area is shown in **Figure 2-5**.

The crash rate for Upper Manatee River Road was compared to statewide crash rates for similar facility types. The average crash rate for this segment of Upper Manatee River Road is less than the statewide crash rates for similar facility types. **Appendix B** contains the Traffic Analysis Memo performed for the Study.

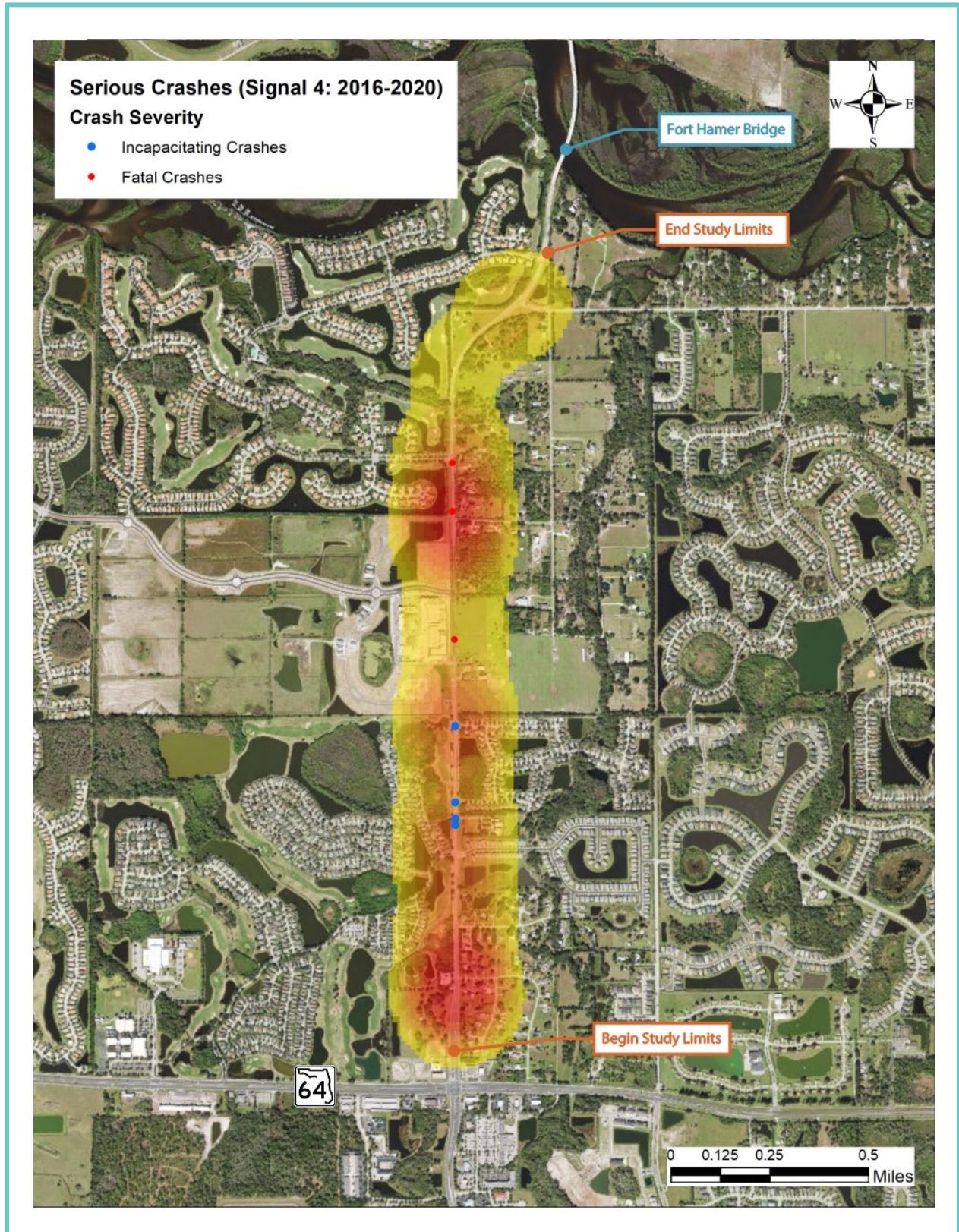


Figure 2-5 | Crash Data Heat Map

### 2.10 Drainage System

Upper Manatee River Road spans two open basin watersheds: Gates Creek (WBID 1874) and Lower Manatee River (WBID 1848B). Basin 2 (Lower Manatee River) is impaired for nutrients. The division between the two watersheds within the project limits is approximately north of 2<sup>nd</sup> Avenue East.

The Upper Manatee River Road corridor has no existing stormwater treatment or attenuation systems. Offsite drainage patterns typically drain to the corridor ditches, flowing north to be intercepted either by a lateral ditch to Gates Creek or a lateral outfall to the Manatee River.

### 2.11 Floodplain

#### 2.11.1 FEMA / Manatee County 100-Year Floodplain

Upper Manatee River Road is within Manatee County Unincorporated Areas shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) 12081C0331E and 12081C0195F with effective dates of March 17, 2014. A summarized review of the FEMA FIRM coverage indicates the Upper Manatee River Road corridor lies within Zone X (areas of 0.2% annual chance flood) from SR 64 to south of Waterlefe Boulevard. Zone AE area (100-year elevation 31+/-) occurs from south of Waterlefe Boulevard through the northern limits of the corridor.

#### 2.11.2 Manatee County 25-Year Floodplain

The County provides mapped delineation of the 25-Year Floodplain. The 25-Year Floodplain map has not been updated for development or the latest FEMA FIRM. The design phase will address 25-Year Floodplain impacts with updated mapping efforts.

### 2.12 Soils and Geotechnical Data

Soils within the Study area are predominantly fine sands with hydrologic soil group A/D. A United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report can be found in the Pond Siting Technical Memorandum in **Appendix F**. A soils map of the Study area appears in **Figure 2-6**.

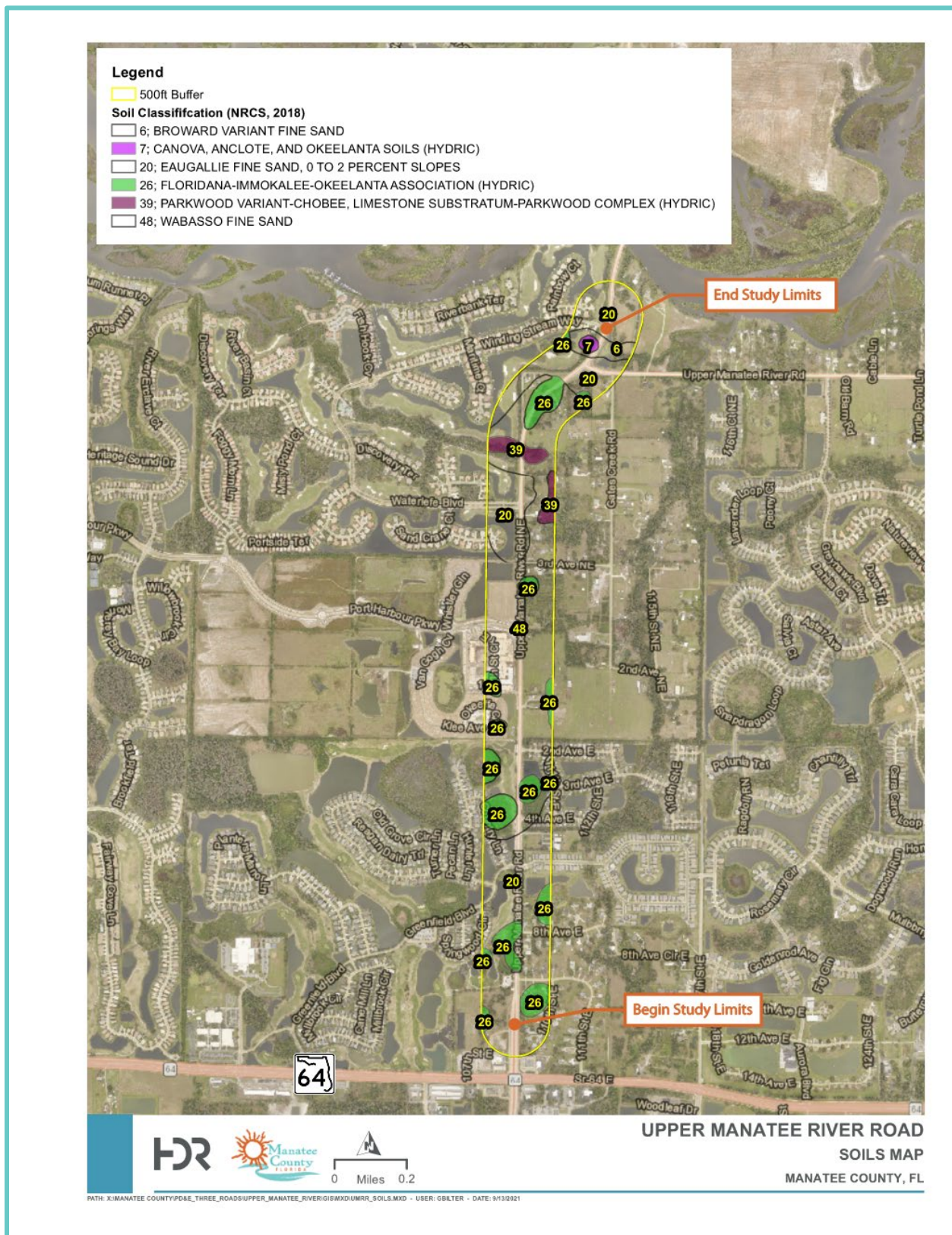


Figure 2-6 | Soils Map

### 2.13 Lighting

There is minimal street lighting provided along Upper Manatee River Road within the Study area. The signalized intersections at Greenfield Boulevard / Copperlefe Drive, Port Harbour Parkway, and Fort Hamer Road have intersection lighting. North of Fort Hamer Road there is corridor lighting provided on the east side of the roadway.

### 2.14 Utilities

An overview of the County owned utilities overlaid with the proposed 500-foot roadway buffer zone is presented below in **Figure 2-7**. Detailed maps based on County GIS information and UAO provided location and alignment information are provided in **Appendix G**.

#### 2.14.1 Manatee County Potable Water Mains

Existing County potable water mains within the Study area include parallel mains and laterals. The parallel mains are summarized in **Table 2-3** and shown in **Figure 2-7**. A full assessment of existing potable water mains including utility age and asset IDs appears in **Appendix G**.

*Table 2-3 | Upper Manatee River Road Parallel Potable Water Mains*

Description	Roadway	Location
42" DIP Water Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the east side of Upper Manatee River Road (under pavement)</li> <li>Crosses to the west side just north of 10<sup>th</sup> Avenue East</li> </ul>
42" PVC Water Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road from north of 10<sup>th</sup> Avenue East to Fort Hamer Road</li> <li>Follows original curvature of Upper Manatee River Road at the Fort Hamer Road intersection and remains on the north side</li> </ul>
6" PVC Water Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the east side of Upper Manatee River Road from 10<sup>th</sup> Avenue East to 8<sup>th</sup> Avenue East</li> </ul>
8" Water Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the east side of Upper Manatee River Road from 2<sup>nd</sup> Avenue East 450 ft to the north</li> <li>Crosses to the west side and connects to 42" water main</li> </ul>
6" PVC Water Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the east side of Upper Manatee River Road after crossing south of 3<sup>rd</sup> Avenue Northeast to Fort Hamer Road</li> <li>Follows original curvature of Upper Manatee River Road at the Fort Hamer Road intersection and remains on the south side</li> </ul>
24" DIP Water Main	Fort Hamer Road	<ul style="list-style-type: none"> <li>Along the east side of Fort Hamer Road behind the stormwater facility heading north to Fort Hamer Bridge</li> </ul>
10" HDPE Water Main	Greenfield Boulevard	<ul style="list-style-type: none"> <li>Along the north side of Greenfield Boulevard / Copperlefe Drive</li> <li>Under sidewalk on both legs of the intersection</li> <li>Connects to 8" water main on north side of Copperlefe Drive</li> </ul>
10" PVC Water Main	Waterlefe Boulevard	<ul style="list-style-type: none"> <li>Along the north side of Waterlefe Boulevard connected to the 42" water main on the west side of Upper Manatee River Road</li> </ul>

### 2.14.2 Manatee County Wastewater Mains

Existing County wastewater mains within the Study area include parallel mains and laterals. The parallel mains are summarized in **Table 2-4** and shown in **Figure 2-7**. A full assessment of existing wastewater mains including utility age and asset IDs appears in **Appendix G**.

There is one (1) lift station on Upper Manatee River Road in the Study area. Lift Station 330 is located on the southeast corner of The Links at Greenfield Plantation, opposite of 10<sup>th</sup> Avenue East.

*Table 2-4 | Upper Manatee River Road Parallel Wastewater Mains*

Description	Roadway	Location
8" PVC Force Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road from SR 64 to Lift Station 330 (under pavement)</li> </ul>
8" PVC Gravity Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road, outside of the right of way from SR 64 to Lift Station 330</li> </ul>
8" PVC Force Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road from Lift Station 330 to the south side of the Greenfield Boulevard / Copperlefe Drive intersection (under pavement)</li> <li>Connects to 6" force main on the west side (Greenfield Boulevard)</li> <li>Connects to 4" force main on the east side (Copperlefe Drive)</li> </ul>
6" PVC Force Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road from the 8" force main at the south side of the Greenfield Boulevard / Copperlefe Drive intersection to 4<sup>th</sup> Avenue East (under pavement)</li> </ul>
8" PVC Force Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the west side of Upper Manatee River Road from 4<sup>th</sup> Avenue East to north of 2<sup>nd</sup> Avenue East (under pavement)</li> <li>North of 2<sup>nd</sup> Avenue East it crosses to the east side of Upper Manatee Road and heads north to a downsizing location south of Port Harbour Parkway (under pavement)</li> </ul>
6" PVC Force Main	Upper Manatee River Road	<ul style="list-style-type: none"> <li>Along the east side of Upper Manatee River Road from the downsizing location south of Port Harbour Parkway to just south of 3<sup>rd</sup> Avenue Northeast (under pavement)</li> <li>South of 3<sup>rd</sup> Avenue Northeast it crosses to the west side of Upper Manatee River Road and heads north to a termination point north of Waterlefe Boulevard</li> </ul>
6" PVC Force Main	4 <sup>th</sup> Avenue East	<ul style="list-style-type: none"> <li>Along the north side of 4<sup>th</sup> Avenue East connected to the 6" force main on the west side of Upper Manatee River Road</li> </ul>
6" PVC Force Main	Waterlefe Boulevard	<ul style="list-style-type: none"> <li>Along the south side of Waterlefe Boulevard connected to the 6" force main on the west side of Upper Manatee River Road</li> </ul>
4" PVC Force Main	Winding Stream Way	<ul style="list-style-type: none"> <li>Along the north side of Winding Stream Way and crossing Fort Hamer Road</li> </ul>



### 2.14.3 Manatee County Information Technology

The County Information Technology system traditionally consists of a 7-way DuraLine FuturePath conduit with pull boxes approximately every 250 feet. The conduit system is located on the west side of Upper Manatee River Road from SR 64 to the Fort Hamer Road intersection. At the south side of the intersection the conduit crosses over to the east side of the corridor and heads north on the east side of Fort Hamer Road to the Fort Hamer Bridge.

The conduit is generally located between the sidewalk and the paved shoulder for the corridor. The location is under pavement starting at the turn lane widening for Port Harbour Parkway and clearing at the pull box north of 3<sup>rd</sup> Avenue Northeast. The County Information Technology system is shown in **Figure 2-7**.

### 2.14.4 Manatee County ATMS

The County ATMS fiber optic system consists of three (3) runs of 2-inch conduit containing 4-single mode fiber optic cable with pull boxes approximately every 250 feet. The conduit system is located on the west side of Upper Manatee River Road from SR 64 to the Fort Hamer Road intersection. At the south side of the intersection the conduit crosses over to the east side of the corridor and heads north on the east side of Fort Hamer Road to Fort Hamer Bridge.

The County ATMS system and the County Information Technology system share the same trench for most of the Study area. Along the Watercolor Place frontage, the County ATMS system departs from the County Information Technology location and is located under the sidewalk as it crosses Port Harbour Parkway.

The County ATMS system connects the signalized intersections on the corridor: Greenfield Boulevard / Copperlefe Drive, Port Harbour Parkway, and Fort Hamer Road. The County ATMS system is shown in **Figure 2-7**.

### 2.14.5 Utility CIP Projects

#### *Missionary Village Lift Station Rehabilitation [CIP 6022385] (Wastewater Lift Station)*

This project includes the evaluation and upsizing of wet well and pumps at Missionary Village lift station (RTU 329) due to known capacity issues. The station will be converted to a Master Lift Station including a new building or enclosure for electrical components.

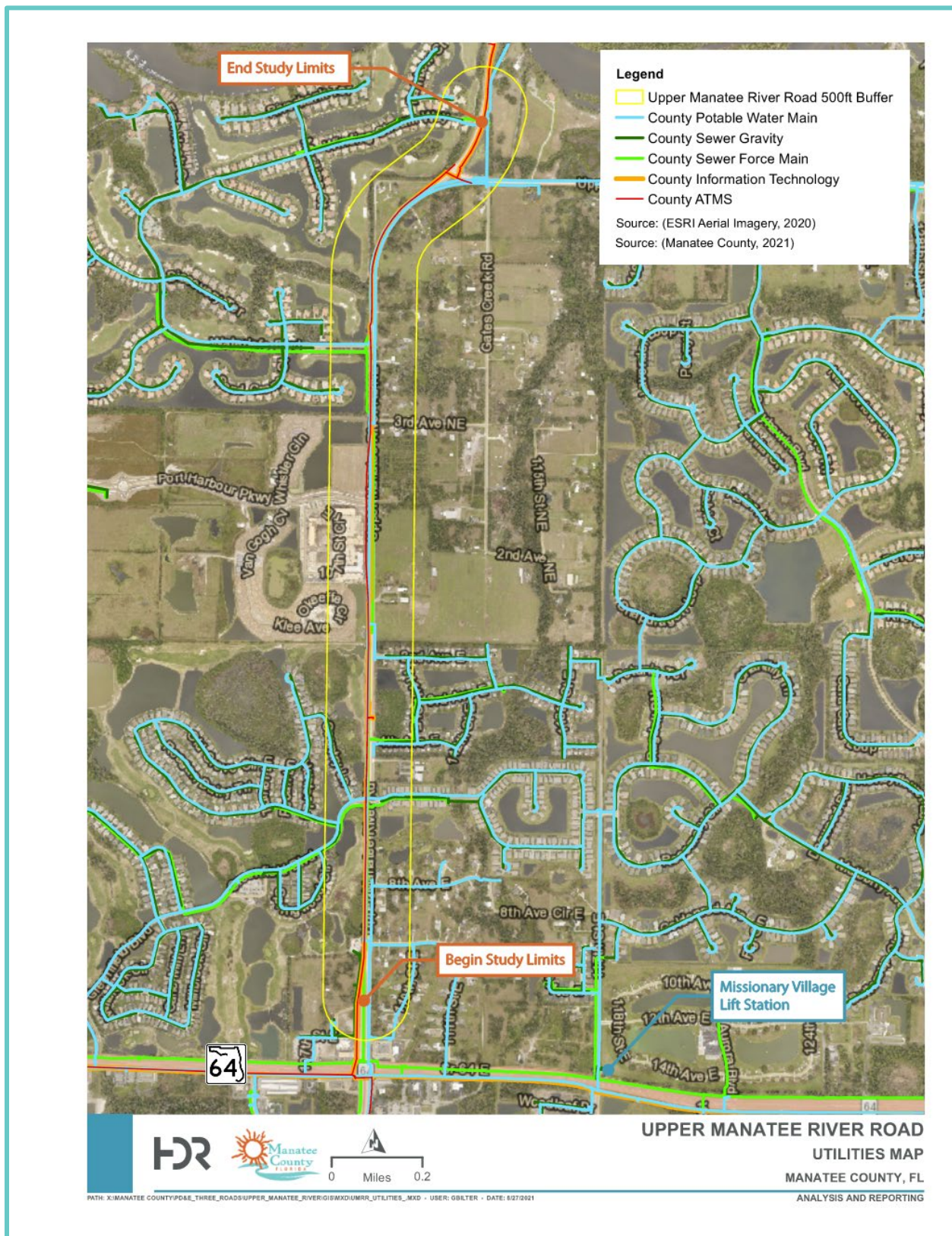


Figure 2-7 | Utilities Map

### 2.14.6 Private Utility Facilities

Private utility agency owners (UAOs) with utilities located within the Study area were contacted for information on their facilities. **Table 2-5** summarizes the information received for these private UAOs. Additional coordination will be required during the design phase of Upper Manatee River Road.

*Table 2-5 | Upper Manatee River Road Private Utility Facilities*

Utility Agency Owner	Description of Facilities
<b>Florida Power and Light (FPL)</b>	<ul style="list-style-type: none"> <li>FPL maintains a Distribution corridor along the east side of Upper Manatee River Road from SR 64 to the curve heading to the Fort Hamer Road intersection</li> <li>The Distribution corridor continues north while Upper Manatee River Road curves, then turns due east at the Waterlefe Golf and River Club maintenance property</li> <li>The Distribution corridor heads east along the south side of Upper Manatee River Road</li> </ul>
<b>Spectrum (Charter) Communications</b>	<ul style="list-style-type: none"> <li>Spectrum maintains aerial facilities along the east and south sides of Upper Manatee River Road, on the FPL poles</li> <li>Spectrum maintains underground facilities that cross Upper Manatee River Road at Greenfield Boulevard, Port Harbour Parkway, and Waterlefe Boulevard</li> </ul>
<b>Uniti Fiber</b>	<ul style="list-style-type: none"> <li>Uniti Fiber maintains underground facilities (two 1.25" HDPE ducts containing 144-ct fiber) along the east side of Upper Manatee River Road from SR 64 to 3<sup>rd</sup> Avenue Northeast</li> <li>Uniti Fiber maintains underground facilities (one 2" 7-way HDPE microduct containing 144-ct and 288-ct fiber) along the east side of Upper Manatee River Road from 3<sup>rd</sup> Avenue Northeast to the south side of the Fort Hamer Road intersection where it crosses to the west side and heads north along Fort Hamer Road</li> </ul>
<b>MCI</b>	<ul style="list-style-type: none"> <li>MCI maintains aerial facilities along the east side of Upper Manatee River Road on the FPL poles</li> </ul>
<b>Zayo</b>	<ul style="list-style-type: none"> <li>Zayo maintains communication throughout the project limits for Upper Manatee River Road</li> </ul>
<b>Frontier Communications</b>	<ul style="list-style-type: none"> <li>Frontier maintains a 6-4" PVC conduit with fiber and copper on the west side of Upper Manatee River Road from SR 64 to north of 10<sup>th</sup> Avenue East</li> <li>Frontier maintains a 1-1.25" polypipe with fiber on the west side of Upper Manatee River Road from the PVC conduit to Greenfield Boulevard</li> <li>Frontier maintains 2-4" PVC conduit with fiber on the east side of Upper Manatee River Road from the PVC conduit to the Fort Hamer Road intersection where it follows the south side of the east leg of the intersection</li> <li>Frontier maintains 3 buried copper cables on the west side of Upper Manatee River Road from north of Port Harbour Parkway to the Fort Hamer Road intersection where it follows the north side of the east leg of the intersection</li> <li>Frontier maintains facilities on 10<sup>th</sup> Avenue East, 8<sup>th</sup> Avenue East, and Waterlefe Boulevard</li> </ul>
<b>Black and Veatch</b>	This UAO from the Sunshine One Call for the Study area has not responded
<b>Braden River Utilities</b>	This UAO from the Sunshine One Call for the Study area has not responded
<b>TECO Peoples Gas</b>	This UAO from the Sunshine One Call for the Study area has not responded

### 2.15 Signs

There are no overhead sign structures along Upper Manatee River Road. Standard ground mounted signs are provided for traffic control (speed limit, stop, etc.).

There are monument signs, primarily for residential communities along the corridor, located outside of the existing right of way.

### 2.16 Structures

#### 2.16.1 Timber Boardwalk SW2009

There is one (1) bridge structure within the Study area. Structure SW2009 is a timber boardwalk located on the west side of Upper Manatee River Road north of Waterlefe Boulevard. This structure was recommended for replacement or incorporation into a sidewalk for the Study.



*Figure 2-8 | Timber Boardwalk SW2009*

#### 2.16.2 Signalized Intersections

Signal mast arm structures exist at the Upper Manatee River Road intersections with Greenfield Boulevard / Copperlefe Drive, Port Harbour Parkway, and Fort Hamer Road.

### 3.0 Existing Environmental Conditions

An analysis of the natural, cultural, and contamination issues/resources was performed as part of the Study. The purpose of this analysis was to determine the existing conditions within the corridor study area and identify potential effects from the proposed modifications to the Upper Manatee River Road. The existing natural and cultural resources within the study area, as well as the potential for impacts to the study area from contamination sites are summarized below.

#### 3.1 Natural Resources

A Natural Resources Assessment Technical Memorandum (see **Appendix C**) was prepared to support the Study through the evaluation of **Protected Species and Habitat, Wetlands and Other Surface Waters, and Essential Fish Habitat**. The Technical Memorandum documents the results of the corridor assessment to support decisions associated with the proposed project as it relates to natural resources potentially present in the Study area.

The natural resources assessment was performed using as guidance Part 2, Chapter 16 Protected Species and Habitat and Chapter 9 Wetlands and Other Surface Waters of the Florida Department of Transportation (FDOT) PD&E Manual (July 1, 2020). However, this assessment is not considered a full Natural Resources Evaluation (NRE) as defined in the FDOT PD&E Manual. For this project, the study area includes a 500-foot buffer, east and west of the existing road centerline (i.e., project limits), totaling a 1,000-foot-wide study corridor. All-natural resources discussed below fall within this Study area. The natural resources assessment did not evaluate proposed stormwater management facilities outside of the corridor study area, such as potential pond locations, if any.

##### 3.1.1 Protected Species and Habitat

The project was evaluated for potential impacts to federal and State of Florida (state) endangered or threatened species of fish, wildlife, and plants (listed species) and habitat of such species that has been designated as critical habitat under Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended. Protected species were also reviewed for their potential to occur within the Study area.

##### *Federal Protected Wildlife and Critical Habitat*

Three federal listed species protected by the U.S. Department of Interior Fish and Wildlife Service (USFWS) potentially occur within the corridor study area. The proposed project would be expected to result in the effect determinations provided in **Table 3-1** for federal listed species. Migratory birds and their habitat, including the non-listed but federally protected bald eagle and osprey were also present in this region and included in **Table 3-1**. However, this list may need to be refined based on the project alternative selected to proceed. USFWS designated critical habitat, as defined by Congress 50 CFR §17.94, was not present within the corridor study area. Therefore, the proposed project would not result in the ***destruction or adverse modification of critical habitat***.

*Table 3-1 | Project Effect Determinations for Federal Listed and Protected Wildlife*

Scientific Name	Common Name	Status	Project Effect Determination
<b>Federal Listed Wildlife</b>			
Drymarchon corais couperi	Eastern indigo snake	Threatened	May affect, not likely to adversely affect
Mycteria americana	Wood stork	Threatened	May affect, not likely to adversely affect
Aphelocoma coerulescens	Florida scrub jay	Threatened	No effect

Scientific Name	Common Name	Status	Project Effect Determination
<b>Federal Protected Wildlife</b>			
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGEPA* MBTA**	No effect
<i>Pandion haliaetus</i>	Osprey	MBTA**	No effect

\* Bald & Golden Eagle Protection Act and Migratory Bird Treaty Act. \*\* Migratory Bird Treaty Act

### State Protected Wildlife

Ten state listed wildlife managed by the Florida Fish and Wildlife Conservation Commission (FWC) could potentially occur within the corridor study area. The proposed project would be expected to result in the effect determinations provided in **Table 3-2** for state listed species. However, this list may need to be refined based on the project alternative selected to proceed.

Table 3-2 | Project Effect Determinations for State Listed Wildlife

Scientific Name	Common Name	Status	Project Effect Determination
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	Threatened	No effect anticipated
<i>Falco sparverius paulus</i>	Southeastern American kestrel	Threatened	No effect anticipated
<i>Gopherus polyphemus</i>	Gopher tortoise	Threatened	No adverse effect anticipated
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	Threatened	No effect anticipated
<b>Wading Birds</b>			
<i>Egretta caerulea</i>	Little blue heron	Threatened	No effect anticipated
<i>Egretta rufescens</i>	Reddish egret	Threatened	No effect anticipated
<i>Egretta tricolor</i>	Tricolored heron	Threatened	No effect anticipated
<i>Platalea ajaja</i>	Rosette spoonbill	Threatened	No effect anticipated
<b>Nesting Shorebirds</b>			
<i>Rynchops niger</i>	Black skimmer	Threatened	No effect anticipated
<i>Sternula antillarum</i>	Least Tern	Threatened	No effect anticipated

### Federal and State Protected Plants

Twelve federal and state listed plants protected by the Florida Department of Agricultural and Consumer Services (FDACS) that have the potential to occur within the corridor study area, including six endangered and six threatened. These listed plant species are shown in **Table 3-3**. None were observed during preliminary field surveys. However, this list may need to be refined based on the project alternative selected to proceed. Due to their low likelihood of occurrence, there is no effect anticipated to these federal and state listed plant species.

Three species are federally listed plants known from Manatee County but associated with sand pine scrub or scrubby pine flatwoods. These habitats are not present within the Study area so there are no effects anticipated.

*Table 3-3 / Project Effect Determinations for Federal and State Listed Plants*

Scientific Name	Common Name	Status	Effect Determination
Andropogon arctatus	Pine-woods Bluestem	State Threatened	No effect anticipated
Bonamia grandiflora	Florida Bonamia	Federal Threatened	No effect anticipated
Calopogon multiflorus	Many-flowered Grass-pink	State Threatened	No effect anticipated
Centrosema arenicola	Sand Butterfly Pea	State Endangered	No effect anticipated
Chionanthus pygmaeus	Pygmy Fringe-tree	Federal Endangered	No effect anticipated
Cladonia perforata	Florida Perforate Cladonia	Federal Endangered	No effect anticipated
Eragrostis pectinacea var. tracyi	Sanibel Lovegrass	State Endangered	No effect anticipated
Lechea cernua	Nodding Pinweed	State Threatened	No effect anticipated
Nemastylis floridana	Celestial Lily	State Endangered	No effect anticipated
Pteroglossaspis ecristata	Giant Orchid	State Threatened	No effect anticipated
Rhynchospora megaplumosa	Large-plumed Beaksedge	State Endangered	No effect anticipated
Zephyranthes simpsonii	Redmargin Zephyrlily	State Threatened	No effect anticipated

### 3.1.2 Wetlands and Other Surface Waters

Wetlands and other surface waters were identified within the corridor study area. The primary wetland types in the study area included: Stream and Lake Swamps, Mixed Wetland Hardwood, Exotic Wetland Hardwoods, Wetland Forested Mixed, Freshwater Marshes, and Wet Prairies. Generally, all wetland systems identified were in moderate to poor condition, having incurred drainage by ditching, watershed conversions to farmland, and/or nearby development. Vegetation communities within the wetlands have also been degraded by agricultural activities, tree harvesting, and nuisance and exotic species growth.

Surface waters were present mostly associated with roadside ditches on the northern half of the study area and some remnant field ditches, derived from agricultural land uses. There are two primary water channels associated with Upper Manatee River Road. These drainages were historically natural and associated with wetlands.

A total of sixteen (16) wetlands were identified within the corridor study area. A total of five (5) surface waters were identified within the corridor study area, all consisting of drainage ditches either running along the

roadside or draining away from the roadway. During evaluation of the road alignment alternatives, potential impacts to wetlands and surface waters would be identified and quantified. Direct impacts would include permanent and temporary impacts and would be quantified and tabulated for the state and federal permit applications.

### 3.1.3 Essential Fish Habitat

Essential fish habitat does not occur within the corridor study area; therefore, an Essential Fish Habitat (EFH) Assessment was not required.

## 3.2 Cultural Resources

To support the Study, background research was conducted to identify known cultural resources within the corridor study area that have the potential to be impacted by the proposed project improvements. The background research informed recommendations for future cultural resources surveys (archaeological and architectural) in the corridor study area. For the cultural resources' assessment, the corridor study area comprises a 500-foot buffer on either side of the existing Upper Manatee River Road centerline.

A desktop review was completed to identify known cultural resources within the corridor study area, and within 1 mile of the corridor study area boundaries. The results of the desktop review are shown in Figure 3-1. The desktop review consisted of a search of Florida Master Site File (FMSF) records to identify previous cultural resources surveys conducted in the corridor study area and vicinity, and previously recorded archaeological sites and architectural resources (buildings and structures) in those areas. Manatee County Appraisal District data, and historic aerials and United States Geological Survey (USGS) maps available online, were used to identify historic-age buildings in the corridor study area.

The desktop review revealed that the entirety of the corridor study area has been surveyed during archaeological surveys performed over the past 20 years. No archaeological sites have been previously recorded in the corridor study area. Since the entire project area has been previously surveyed, no further archaeological work is recommended for the proposed project. It is advised that should any archaeological materials be identified during construction, all construction should cease, and the Florida Division of Historic Resources should be notified.

Three historic-age architectural resources have been previously recorded in the corridor study area. All three buildings are associated with Moore's Dairy, and all have been determined ineligible for listing in the National Register of Historic Places (NRHP). A review of Manatee County Appraisal District (CAD) data online showed 13 historic-age buildings (those constructed in 1976 or before) that have not been previously surveyed in the corridor study area. Given the presence of previously unrecorded historic-age architectural resources in the corridor study area, an architectural resources survey may also be necessary to survey those resources and evaluate their eligibility for listing in the NRHP, depending on the final project design and potential impacts to historic-age architectural resources.



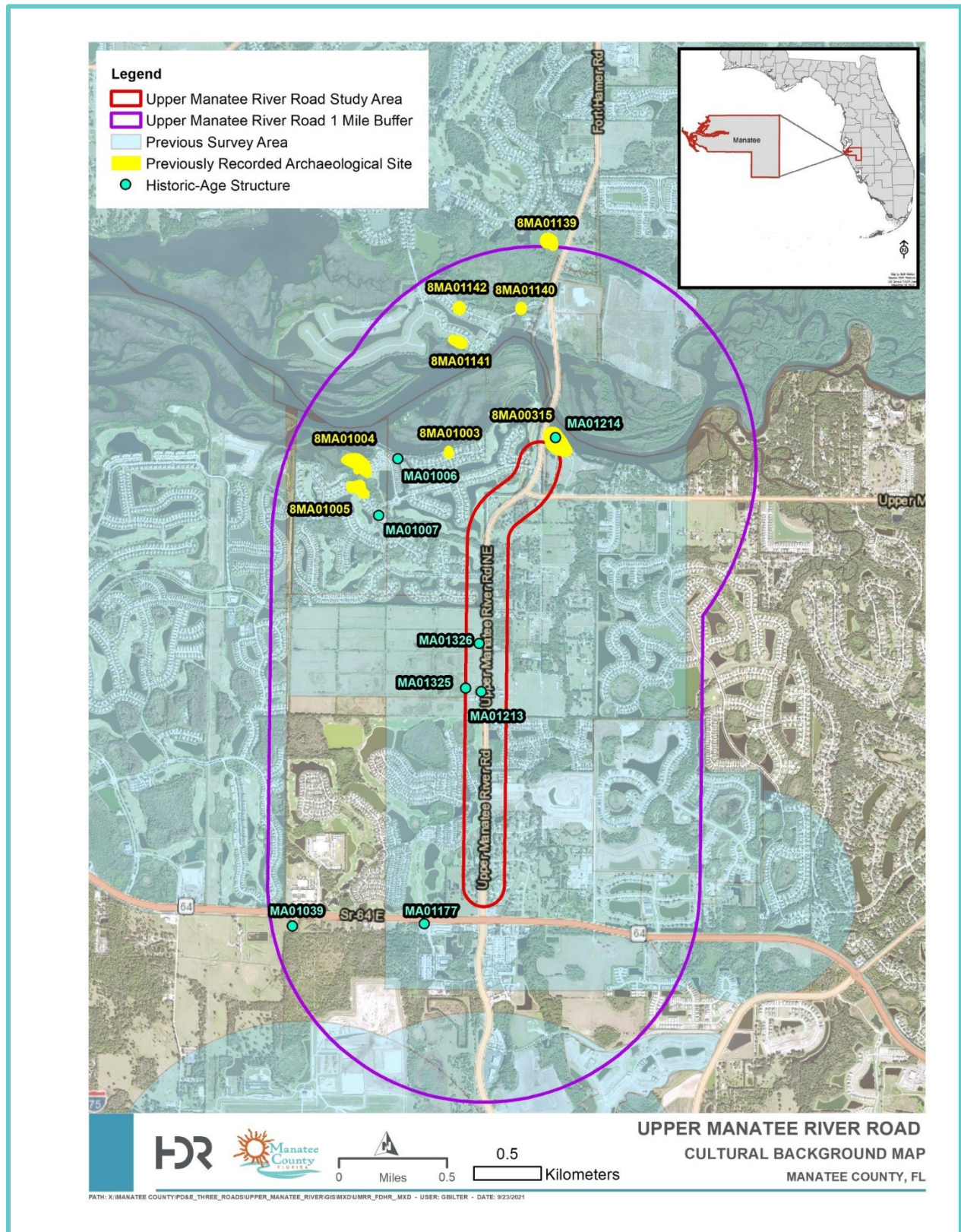


Figure 3-1 | Cultural Background Map

### 3.3 Contamination

A preliminary contamination screening was conducted for the project corridor to support the Study by identifying properties or facilities that have potential contamination that may affect the Upper Manatee River Road corridor. The preliminary contamination screening was performed and documented using the Florida Department of Transportation (FDOT) Project Development and Environment (PD&E) Manual, Chapter 20 as a guide. However, it is not considered a full Contamination Screening Evaluation Report as defined in the FDOT PD&E Manual. The Contamination Screening Technical Memorandum is provided in **Appendix E**.

A hazardous materials rating system that expresses the degree of concern for potential contamination problems was used to rank the identified sites. The ratings are No, Low, Medium, and High. Five (5) sites were identified within the contamination screening buffer distances. These sites were investigated for current or past operations that may present the potential for finding contamination concerns and therefore may impact proposed improvements for the study area. The applied risk ratings are provided in **Table 3-4**. No Medium-risk or High-risk sites were identified.

*Table 3-4 | Risk Ratings for Potential Contamination Sites*

Risk Rating	No. of Sites in Study Area
High	0
Medium	0
Low	4
No	1

For sites ranked No and Low for potential contamination, no further action is required at this time. These sites / facilities have the potential to impact the Study area but based on select variables have been determined to have low risk to the project at this time. Variables that may change the risk rating include a facility’s non-compliance to environmental regulations, new discharges to the soil or groundwater, and modifications to current permits. Should any of these variables change additional assessment of the facilities would be conducted.

### 4.0 Alternatives Analysis

#### 4.1 Design Criteria

##### 4.1.1 Reference Manuals

1. Manatee County Public Works Standards (PWA), Part 3. Highway & Traffic Standards Manual, Amended November 2016.
2. Manatee County Comprehensive Plan, Element 5 – Transportation, Table 5-1 (PA-17-02)
3. Florida Greenbook (FGB), Manual of Uniform Standards for Design, 2018 Edition
4. FDOT Design Manual (FDM), 2021

##### 4.1.2 Design Elements

*Table 4-1 | General Design Elements*

Design Element	Criteria	Source
Design Period	20 years	Manatee County
Context	Suburban Neighborhoods	PWS Figure T-15
Functional Classification	Arterial	PA-17-02 Table 5-1
Design Speed	40 mph	FDM Table 201.5.1 C3 Suburban Minimum
Posted Speed	35 mph	
Design Vehicle	WB-62 FL	FDM 201.6.1
Roundabout Control Vehicle	WB-62 FL	FDM 201.6.1, FDM 213.7

Table 4-2 | Typical Section Design Elements

Design Element	Criteria	Source
Number of Lanes	4	PA-17-02 Table 5-1
Lane Width	11 ft	FGB Table 3-20
Median Width	22 ft 15.5 ft	PWS 401.2, FGB Table 3-23 FGB Table 3-23 (Footnote 2)
Right of Way Width	120 ft	PA-17-02 Table 5-1
Bicycle Lane Width	4 ft 4' min. 7' buffered preferred	PWS 401.2, FGB Figure 9-1 FDM 223.2.1.1
Sidewalk Width	5' (4' from back of curb) 5' (2' from back of curb) 6' (adjacent to curb)	PWS 401.2 FGB Ch. 8, B.1 FGB Ch. 8, B.1
Shared Use Path Width	10' minimum 5' (minimum distance from face of curb)	FBG Ch. 9, C.1 FBG Ch. 9, C.1
Lateral Offset	4 ft	FDM Table 215.2.2 (Curbed)

Table 4-3 | Horizontal Alignment Design Elements

Design Element	Criteria	Source
Min. Stopping Sight Distance	305 ft	FGB Table 3-4
Max. Deflection without curve	2° 00' 00"	FGB Ch. 3, C.4.b
Length of Curve	600 ft (15V) 400 ft (min.)	FBG Table 3-8
Max. Curvature (Min. Radius)	10° 45' (534 ft)	FGB Table 3-11
Max. Superelevation	0.05	FBG Ch. 3, C.4.c.2

Table 4-4 | Vertical Alignment Design Elements

Design Element	Criteria	Source
Max. Grade	7 %	FGB Table 3-16 (Level, Urban)
Min. Longitudinal Gutter Grade	0.3 %	FGB Ch. 20, D.6.b
Max. Change in Grade without Vertical Curve	0.8	FGB Table 3-17
Min. Crest Curve K	44	FGB Table 3-18
Min. Sag Curve K	64	FGB Table 3-18
Min. Curve Length	120 ft (3V)	FGB Table 3-18
Vertical Clearance	16.5 ft	FGB Ch. 3, C.7.j.4(b)
Base Clearance above BCWE	3 ft	FDM 210.10.3 (2)

## 4.2 No-Build Alternative

The No-Build Alternative considers the future conditions if the proposed project is not built. It includes the routine maintenance improvements to the existing roadway and project corridor but does not meet the project needs.

The growth rate proposed to forecast the Design Year (2045) traffic volumes reviewed the historic five-year and ten-year growth rates as well as the University of Florida Bureau of Economic and Business Research (BEBR) population data. **Appendix B** contains the Traffic Analysis Memo performed for the Study. The proposed No-Build growth rate for the Study is 3.28%.

Table 4-5 | Design Year (2045) No-Build Design Traffic Volume Characteristics

Characteristic	Value
2021 AADT	25,500 vehicles
2045 AADT	41,200 vehicles
Peak-to-Daily Ratio	9.00%
DHV	3,708 vehicles
Directional Distribution	53.80 %
Peak Directional Volume	1,995 vehicles
Off-Peak Directional Volume	1,713 vehicles

Under the No-Build Alternative, the Upper Manatee River Road corridor is expected to exceed the LOS D maximum service volume by 252%. The peak directional volume is 1,995 vehicles in the design year (2045) compared to a LOS D maximum service volume of 792 vehicles for the facility.

### 4.3 Initial Alternatives

The proposed Build growth rate for the Study is 3.28%.

*Table 4-6 | Design Year (2045) Build Design Traffic Volume Characteristics*

Characteristic	Value
2021 AADT	25,500 vehicles
2045 AADT	41,200 vehicles
Peak-to-Daily Ratio	9.00%
DHV	3,708 vehicles
Directional Distribution	53.80 %
Peak Directional Volume	1,995 vehicles
Off-Peak Directional Volume	1,713 vehicles

Under the Build Alternative, the Upper Manatee River Road corridor is expected to exceed the LOS D maximum service volume by 111%. The peak directional volume is 1,995 vehicles in the design year (2045) compared to a LOS D maximum service volume of 1,800 vehicles for the facility.

#### 4.3.1 Corridor Analysis

As the existing right of way is not sufficient to accommodate a planned four-lane divided facility, the corridor analysis considered three basic alignments based on a 120-foot right of way need.

Corridor Alternative A shifted Upper Manatee River Road predominantly to the west.

Corridor Alternative B shifted Upper Manatee River Road predominantly to the east.

See **Figure 4-1** and **Figure 4-2** for parcel impact areas associated with each corridor alternative. **Table 4-7** below summarizes the impacts.

*Table 4-7 | Corridor Alternative Right of Way Impacts*

Corridor Alternative	A (West Shift)	B (East Shift)
Parcel Impacts	18	27
Residential Relocation Potential	1	0**
Estimated Right of Way Need*	7.18 acres	6.43 acres

\*Excludes right of way for offsite ponds, as this was considered the same for both alternatives.

\*\*Based on impacts to structures, right of way shift would be within 10-15 feet of several houses

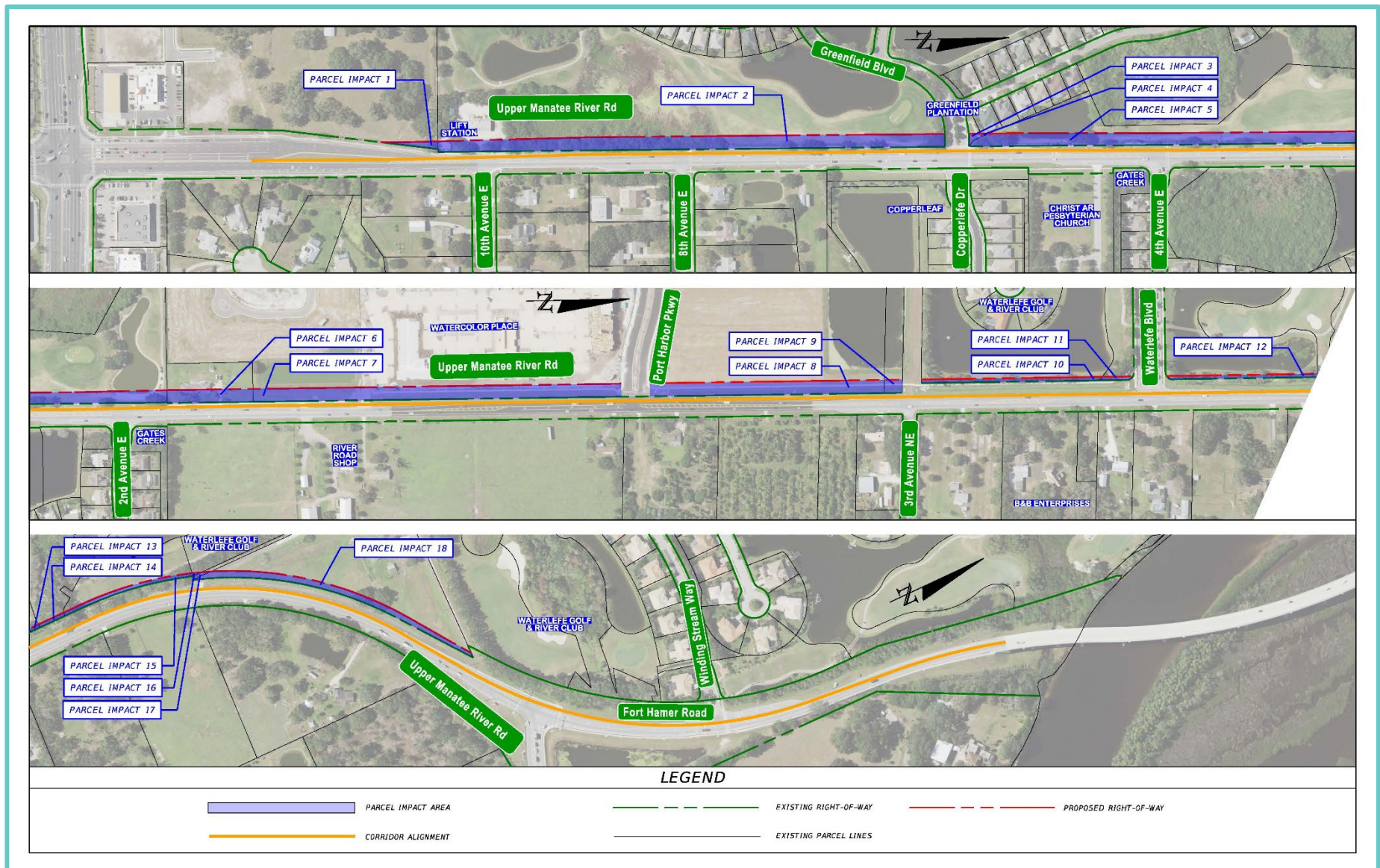


Figure 4-1 | Corridor Alternative A Parcel Impacts

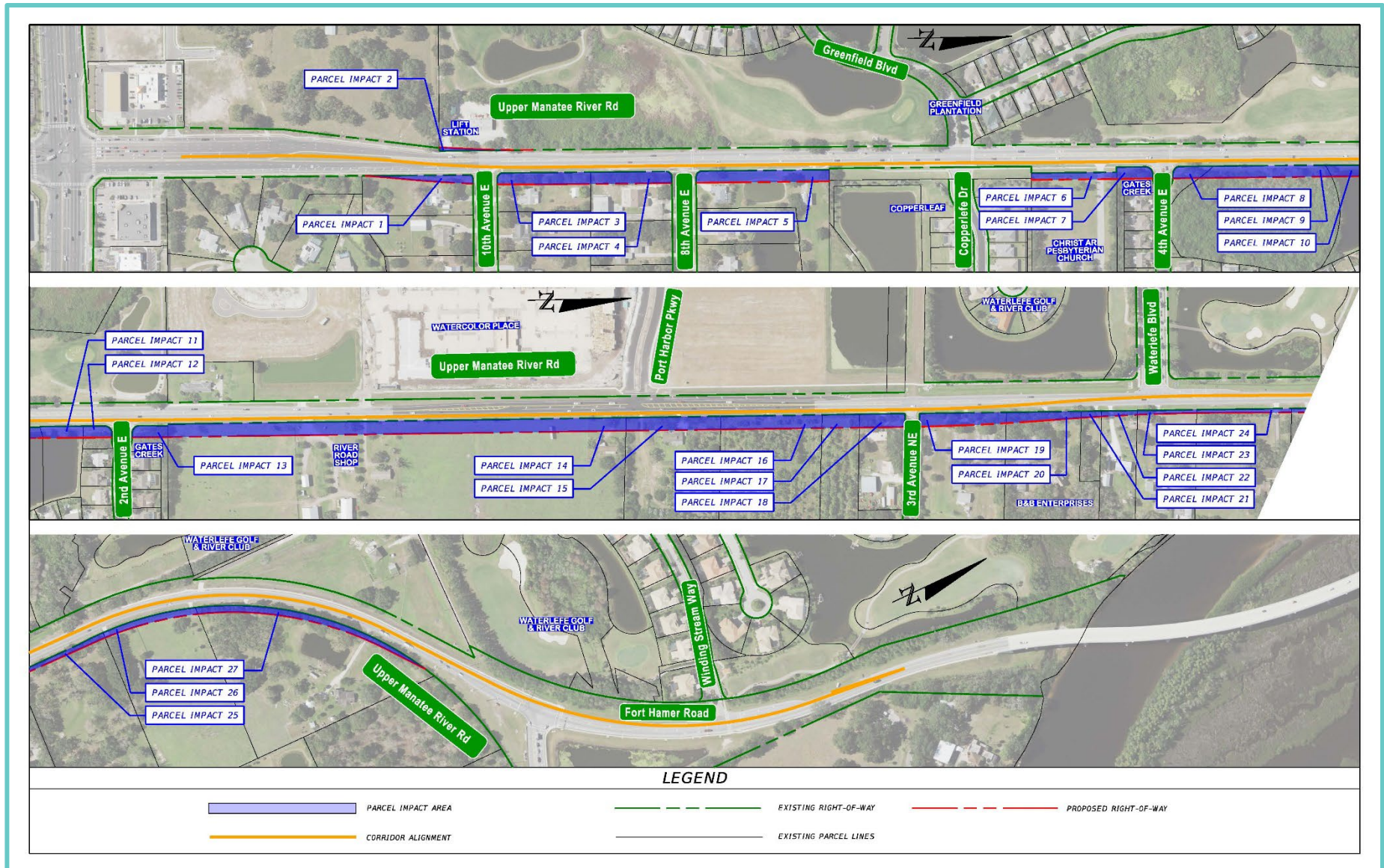


Figure 4-2 | Corridor Alternative B Parcel Impacts



### 4.3.2 Typical Section Analysis

Study objectives for the typical section analysis included four-lane accommodation for capacity, restricted median access control for safety, and bicycle and pedestrian accommodations. Two typical sections were reviewed below for the project limits. While the County standards include a 22-foot wide median, the right of way impacts were minimized for the Study by utilizing an 18-foot wide median. Due to the increased awareness of bicycle level of comfort (BLOC), the County standard 4-foot-wide bicycle lanes were increased for the Study.

#### Build Typical Section 1

Build Typical Section 1 is a four-lane divided curbed roadway with a reduced median and wider bicycle lane. This typical section accommodates vehicular traffic with four 12-foot travel lanes, two lanes in each direction separated by an 18-foot raised median. Bicycle traffic is accommodated by a 7-foot buffered bike lane adjacent to the outside vehicular travel lane. Pedestrian traffic is accommodated by 5-foot sidewalks located within the border of the roadway, offset 4 feet from the back of curb. The required right of way width is 120 feet. Temporary construction easements are anticipated for driveway connections and harmonization with adjacent property, as required.

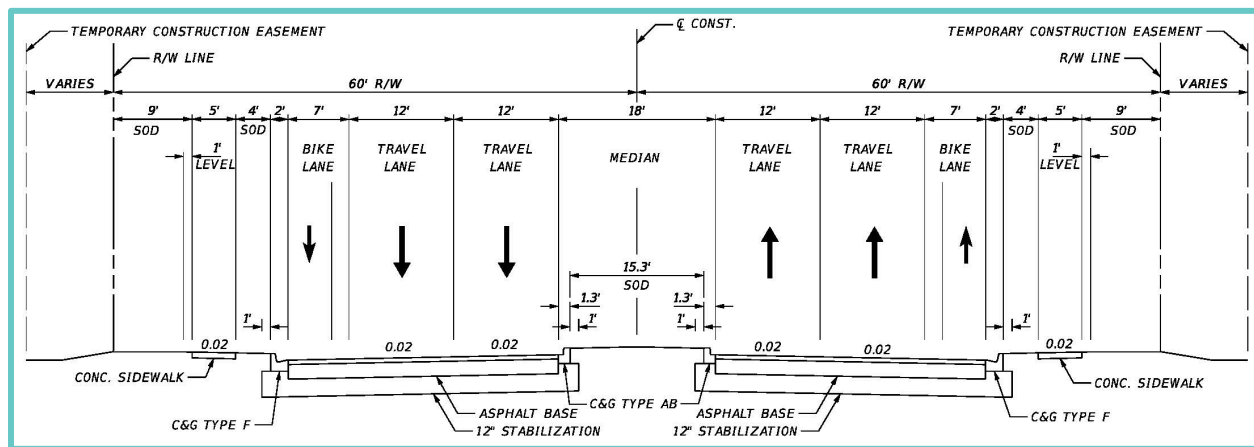


Figure 4-3 | Build Typical Section 1

#### Build Typical Section 2

Build Typical Section 2 is a four-lane divided curbed roadway with a reduced median and wider bicycle lane. This typical section accommodates vehicular traffic with four 11-foot travel lanes, two lanes in each direction separated by an 18-foot raised median. Bicycle traffic is accommodated by a 6-foot buffered bike lane adjacent to the outside vehicular travel lane. Pedestrian traffic is accommodated by a 10-foot sidewalk on the west side of the roadway and a 5-foot sidewalk on the east side of the roadway. The sidewalks are located within the border of the roadway, offset 4 feet from the back of curb. The required right of way width is 110 feet. Temporary construction easements are anticipated for driveway connections and harmonization with adjacent property, as required.

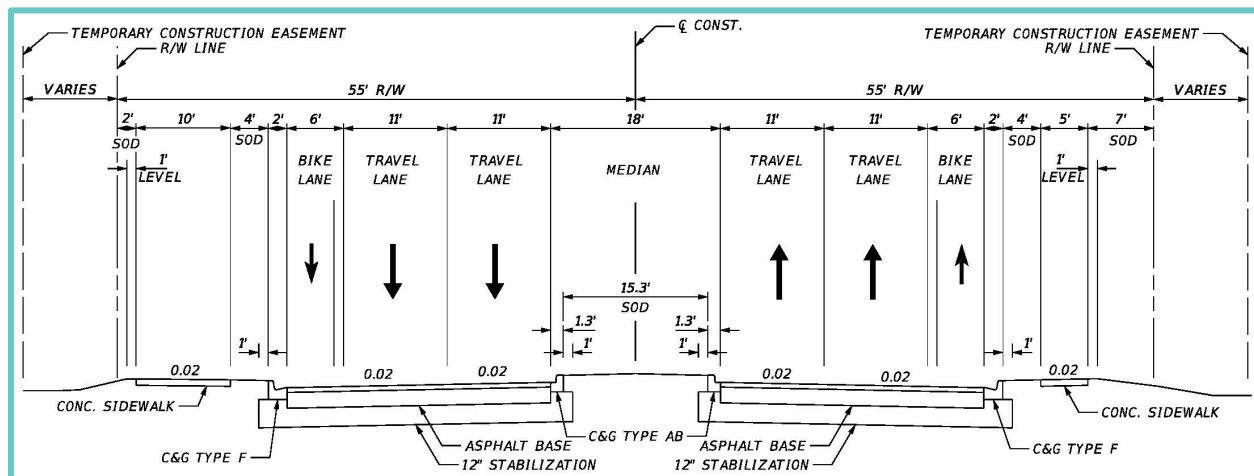


Figure 4-4 | Build Typical Section 2

## 4.4 Viable Alternatives

Corridor Alternative A has less individual parcel impacts, but the respective parcels are large compared to Alternative B. Alternative B has a lower overall right of way need based on a 120-foot-wide width. Initial assessment of the pond siting alternatives identified opportunities on the east side of the corridor, impacting parcels already encumbered by the roadway footprint. Corridor Alternative B was initially selected for advancement of the viable alternatives but was refined for the Recommended Alternative.

### 4.4.1 Alternative 1

Alternative 1 considers Corridor Alternative B with Build Typical Section 1.

### 4.4.2 Alternative 2

Alternative 2 considers Corridor Alternative B with Build Typical Section 2.

## 4.5 Pond Siting

Preliminary pond sizing calculations are based on SWFWMD water quality and quantity requirements and Manatee County stormwater design requirements. Analysis is based on Alternative 1 due to the wider impervious area of the typical section footprint. Two drainage basins were reviewed in the project limits. Each basin evaluated two pond sites and provided a recommended location based on the best available information to date. The full pond siting memo is provided in **Appendix F**.

## 4.6 Alternatives Evaluation

As both viable alternatives follow the same route, evaluation criteria were selected that would assist in the selection of a Recommended Alternative. The No-Build option was also advanced to this evaluation matrix shown in **Table 4-8**. Quantitative assessments were compared as applicable. Natural, Environmental and Utility impacts are listed as qualitative assessments comparing Build Alternative 1 and 2 (Higher, Lower, Neutral) relative to each other.

Table 4-8 / Alternatives Evaluation

Evaluation Criteria	No-Build	Alternative 1 (Build Typical Section 1)	Alternative 2 (Build Typical Section 2)
Meets Purpose and Need	No	Yes	Yes
Number of Travel Lanes	2	4	4
Travel Lane Width (feet)	12	12	11
Multi-Modal Accommodation	Partial	Yes	Yes
Sidewalk Width (Left/Right) (feet)	5 / 5*	5 / 5	10 / 5
Bicycle Lane Width (Left/Right) (feet)	4 / 4	7 / 7	6 / 6
Buffered Bicycle Lane	No	Yes	Yes
Proposed Right of Way Width (feet)	-	120	110
Utility Impacts	-	Neutral	Neutral
Natural Resource Impacts	-	Higher	Lower
Cultural Resource Impacts	-	Neutral	Neutral
Potential Contamination	-	Neutral	Neutral
Construction Cost	-	Higher	Lower
Right of Way Cost	-	Higher	Lower

\*Partial sidewalk accommodations on right side of existing Upper Manatee River Road

### 4.6.1 Engineering Considerations

Both Build Typical Sections provide bicycle lanes that follow the purpose and need for the corridor with buffered lanes in excess of a 6-foot width. The 11-foot travel lanes for Build Typical Section 2 are within acceptable criteria and help to reduce the functional pavement width. Build Typical Section 1 would result in a wider pavement area, potentially contributing to higher speeds for the corridor where safety is a consideration.

### 4.6.2 Environmental Considerations

With both alternatives utilizing Corridor Alternative B, the environmental considerations are primarily neutral. Environmental impacts are anticipated regardless of the Corridor Alternative selection and avoidance was not a primary concern. However, the wider pavement and right of way width for Alternative 1 will result in more impacts.

### 4.6.3 Utility Considerations

Upper Manatee River Road widening and drainage improvements will impact both County-owned and private UAOs along the proposed corridor. Due to the location of County-owned mains under pavement, impacts to the underground facilities are unavoidable with a proposed stormwater conveyance system. The FPL poles, which carry aerial communication lines, are currently located between the existing sidewalk and existing roadway on

Upper Manatee River Road and are impacted with either Corridor Alternative due to the typical section improvements.

### 4.7 Recommended Alternative

The Recommended Alternative is Alternative 2 (Corridor Alternative B with Build Typical Section 2). The selection was based on the improved accommodation of bicycles and pedestrians on Upper Manatee River Road with a smaller functional pavement and right of way footprint compared to Alternative 1. The increased construction cost and right of way cost associated with Alternative 1 are not warranted by the accommodation of a wider pavement section.

Upon review of the initial recommendation, the Study has been refined to optimize the alignment utilizing Build Typical Section 2. This hybrid approach to the alignment primarily follows Corridor Alternative B at the southern end of the corridor, then shifts west onto right of way dedication from Watercolor Place at Port Harbour Parkway. From Port Harbour Parkway to the Upper Manatee River Road / Fort Hamer Road intersection, the Recommended Alternative is centrally aligned, with smaller impacts on both sides of the corridor.

### 5.0 Details of the Recommended Alternative

#### 5.1 Typical Section

Build Typical Section 2 is a four-lane divided curbed roadway with a reduced median and wider bike lane. This typical section accommodates vehicular traffic with four 11-foot travel lanes, two lanes in each direction separated by an 18-foot raised median. Bicycle traffic is accommodated by a 6-foot buffered bike lane adjacent to the outside vehicular travel lane. Pedestrian traffic is accommodated by a 10-foot sidewalk on the west side of the roadway and a 5-foot sidewalk on the east side of the roadway. The sidewalks are located within the border of the roadway, offset 4 feet from the back of curb. The required right of way width is 110 feet. Temporary construction easements are anticipated for driveway connections and harmonization with adjacent property, as required. See **Figure 4-4** and **Appendix A**.

#### 5.2 Horizontal and Vertical Geometry

Beginning north of the SR 64 intersection recent widening, the preliminary horizontal alignment uses a set of reversing curves to shift eastward. The curves do not require superelevation and are a minimum of 400 feet long. The preliminary horizontal alignment then runs north along tangent segments through the 2<sup>nd</sup> Avenue East intersection. A set of reversing curves (no superelevation and minimum length of 400 feet) are used to shift the alignment west to utilize the right of way dedication from Watercolor Place, on both sides of the Port Harbour Parkway intersection. The alignment shifts towards the center of the existing 110-foot right of way approaching Waterlefe Boulevard. Continuing north, the alignment maintains a central location through the large curve approaching the Fort Hamer Road intersection. The alignment continues onto Fort Hamer Road with a series of horizontal curves requiring 0.02 superelevation, maintaining the eastern curb and gutter along Fort Hamer Road.

*Table 5-1 | Preliminary Horizontal Alignment Data*

Point of Tangent Intersection	Deflection	Deflection Direction	Degree of Curvature	Curve Length
1	5° 50' 32"	RT	1° 20'	438.2 ft
2	5° 49' 21"	LT	1° 20'	436.7 ft
3	0° 10' 07"	RT	-	-
4	5° 10' 53"	LT	1°	518.1 ft
5	5° 42' 46"	LT	1°	571.3 ft
6	0° 55' 68"	LT	-	-
7	51° 55' 25"	RT	5° 19' 43"	974.4 ft
8	21° 54' 57"	RT	5° 13' 03"	1,098.1 ft
9	23° 51' 46"	LT	3° 28' 08"	687.9 ft
10	9° 44' 56"	RT	2° 50' 35"	342.9 ft*

\*The curve continues onto the Fort Hamer Bridge over the Manatee River. The alignment ended near the begin bridge.

The vertical geometry will be evaluated during final design when survey is secured. Design parameters should be attainable without significant impact to adjacent property.

### 5.3 Project Traffic Volumes

**Appendix B** contains the Traffic Analysis Memo performed for the Study. The proposed traffic volumes are summarized in **Table 5-2**.

*Table 5-2 | Design Year (2045) Design Traffic Volume Summary*

Characteristic	Value
2045 AADT	41,200 vehicles
Peak-to-Daily Ratio	9.00%
DHV	3,708 vehicles
Directional Distribution	53.80 %
Peak Directional Volume	1,995 vehicles
Off-Peak Directional Volume	1,713 vehicles
LOS D Maximum Service Volume	1,800 vehicles
Peak Directional Volume % of LOS D Maximum Service Volume	111%

### 5.4 Intersection Concepts

The Recommended Alternative will revise intersection access for Upper Manatee River Road as described below. Where turn lanes are provided, they are assumed to be 285 feet in length, including the 50-foot lane taper. This length was chosen to accommodate a 100-foot queue length and 185 feet for deceleration from 45 mph, for a conservative length. The final turn lane length required will be determined in final design based on turning movement counts.

#### 5.4.1 10<sup>th</sup> Avenue East

This intersection will remain an unsignalized T-intersection. A dedicated left turn lane and a right turn lane will be provided on Upper Manatee River Road to access this side street.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at 10<sup>th</sup> Avenue East.

#### 5.4.2 8<sup>th</sup> Avenue East

This intersection will remain an unsignalized T-intersection. A dedicated left turn lane and a right turn lane will be provided on Upper Manatee River Road to access this side street.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at 8<sup>th</sup> Avenue East.

#### 5.4.3 Greenfield Boulevard / Copperlefe Drive

This intersection will remain signalized. While the existing mast arm located in the southwest quadrant is not physically impacted, the existing mast arm is not long enough to accommodate the change in lane configuration and will require replacement. The existing mast arm located in the northeast quadrant is

physically impacted, could not accommodate the future lane configuration if relocated, and will require replacement. Dedicated left turn lanes and right turn lanes will be provided on Upper Manatee River Road.

Pedestrian accommodations will be provided on all four legs of this intersection. Crosswalks will be provided across all legs. Bicycle lane connectivity will exist with the keyhole lane for right turn lanes.

### 5.4.4 4<sup>th</sup> Avenue East

This intersection will remain an unsignalized T-intersection. With 2<sup>nd</sup> Avenue East providing access to Gates Creek, this location will maintain the raised median. The right-in, right-out configuration will have a dedicated right turn lane provided on Upper Manatee River Road to access this side street.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at 4<sup>th</sup> Avenue E.

### 5.4.5 2<sup>nd</sup> Avenue East

This intersection will remain an unsignalized T-intersection. A dedicated left turn lane and a right turn lane will be provided on Upper Manatee River Road to access this side street. The northbound right turn lane will impact an existing stormwater management facility for Gates Creek and will be further reviewed during the design phase.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at 2<sup>nd</sup> Avenue E.

### 5.4.6 Port Harbour Parkway

This intersection will remain signalized. The mast arm located in the southwest quadrant may be salvaged by rotating the mast arm to be more perpendicular to Upper Manatee River Road and the signal heads adjusted to accommodate the future lane configuration. Structural analysis will be required during the design phase to confirm the new configuration. The existing mast arm located in the northwest quadrant and the existing pedestal mounted signals serving Port Harbour Parkway will require replacement with a new double armed mast arm located in the northeast quadrant. Dedicated left turn lanes and right turn lanes will be provided on Upper Manatee River Road. The southbound left turn lane will be chevron striped until the future 4<sup>th</sup> leg is constructed to the east.

Pedestrian accommodations will be provided along the west side of Upper Manatee River Road connecting to the existing sidewalks along Port Harbour Parkway. An east-west crossing of Upper Manatee River Road will be accommodated on the both sides of the intersection to set up the future 4-way intersection. Bicycle lane connectivity will exist with the keyhole lane for right turn lanes and will provide connectivity to the bicycle lanes on Port Harbour Parkway.

### 5.4.7 3<sup>rd</sup> Avenue Northeast

This intersection will remain an unsignalized T-intersection. A dedicated left turn lane and a right turn lane will be provided on Upper Manatee River Road to access this side street.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at 3<sup>rd</sup> Avenue Northeast.

### 5.4.8 Waterlefe Boulevard

This intersection will be recommended for signalization in the Recommended Alternative due in part to the reconfiguration of the Fort Hamer Road intersection to the north. The restricted access due to the raised median requires a dedicated southbound left turn lane addition to this T-intersection. This turn lane will facilitate some

U-turn maneuvers, but design phase coordination will be required to review possible bulb-out pavement needs on the east side of Upper Manatee River Road. A dedicated southbound right turn lane and a dedicated northbound left turn lane will be provided on Upper Manatee River Road to access this side street.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. Bicycle lane continuity will exist with the keyhole lane for right turn lane at Waterlefe Boulevard.

### 5.4.9 Fort Hamer Road

The Fort Hamer Road intersection will be reconfigured to a signalized Florida T intersection (see **Figure 5-1**) that will impact the adjacent intersections at Waterlefe Boulevard and Winding Stream Way. The southbound through lanes will be prioritized with this configuration to allow continuous access from the Fort Hamer Bridge, stopping only when activated by a pedestrian crossing at the intersection. A southbound left turn lane will be signal controlled to head east on Upper Manatee River Road. The westbound left turn lane will be provided with a large turning radius before entry into the median on the south leg of the intersection. Maintaining a median between the northbound through lanes and the receiving acceleration lane will allow curb-protected separation between the receiving acceleration lane and the southbound through lanes. The curb protection will be provided for approximately 205 feet before the receiving acceleration lane pavement connects to the southbound Upper Manatee River Road pavement. This acceleration lane will remain adjacent to the two southbound lanes for approximately 1,325 feet. A merge zone south of the horizontal curve will taper down before tying in at the Waterlefe Boulevard intersection.

For the northbound direction, the two Upper Manatee River Road lanes will carry through the intersection onto Fort Hamer Road before merging to a single lane south of the Fort Hamer Bridge. This merge will occur from the outside lane by gore pavement markings utilizing FDOT FDM criteria for the 45-mph design speed. The northbound right turn lane onto Upper Manatee River Road will be reinforced with a small island in the intersection footprint that provides protection for the northbound key-hole bicycle lane.

The east leg of this intersection currently has median striping for physical separation of the travel lanes. The Recommended Alternative proposes a raised median in this area to strengthen the directive nature of the Florida T intersection configuration.

The existing mast arms will require replacement due to physical impacts with the intersection footprint. While the NE quadrant is not directly impacted, the location of the northbound approach lanes may cause visibility issues that need to be addressed in the design phase. This Study assumes full replacement of the signalization components at this intersection except for the controller cabinet located on the east leg, outside of the proposed improvements.

Pedestrian accommodations will be provided parallel to Upper Manatee River Road on both sides of the road. The northern leg of the intersection will provide a pedestrian activated crosswalk with median refuge area. Bicycle lane continuity will be provided through the intersection to the Fort Hamer Bridge.

A roundabout option was considered during this Study but did not advance due to the proximity of the Fort Hamer Bridge.



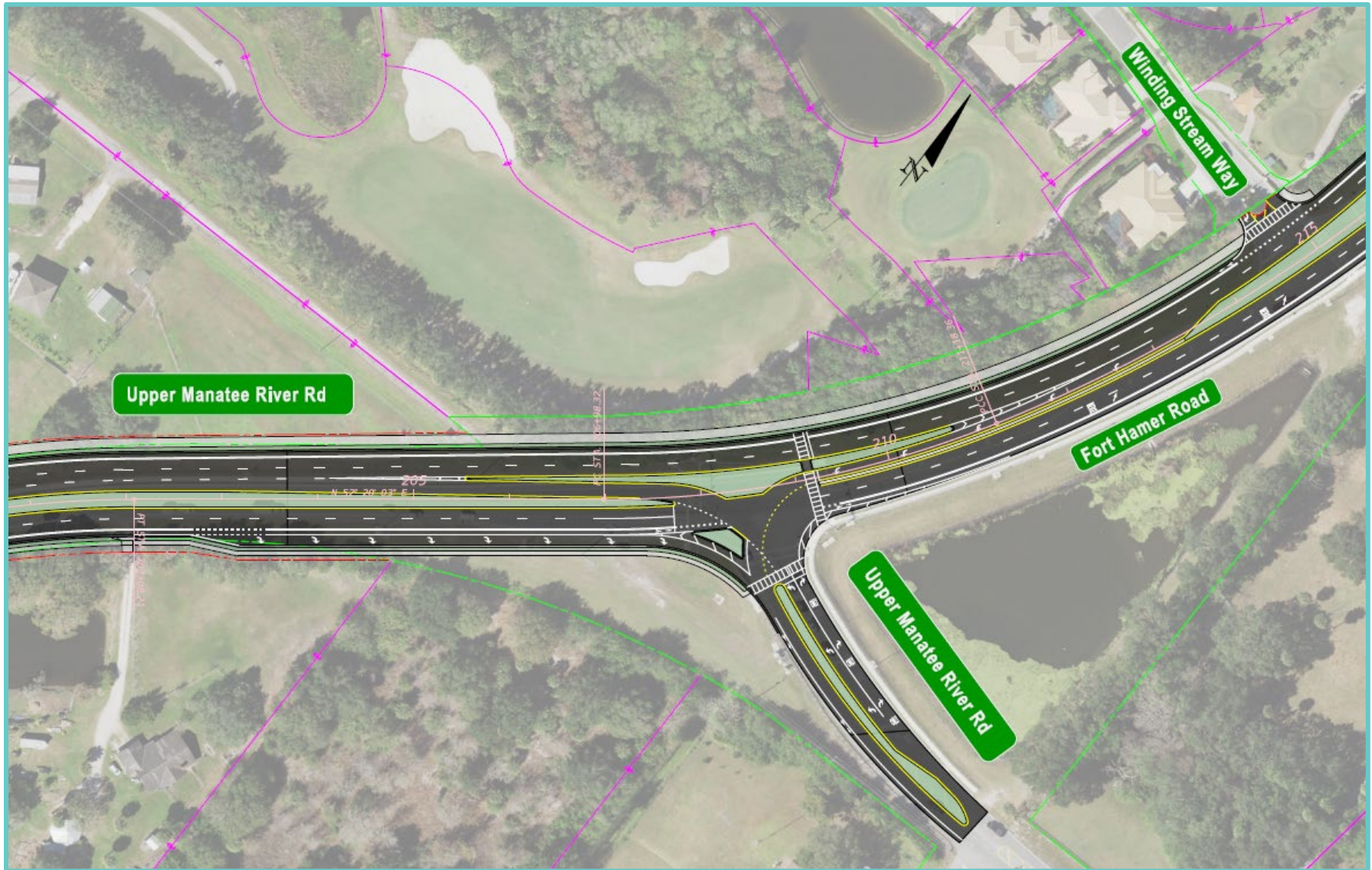


Figure 5-1 | Upper Manatee River Road at Fort Hamer Road – Florida T Intersection

### 5.4.10 Winding Stream Way

Winding Stream Way will have reconfigured access due to the Fort Hamer Road at Upper Manatee River Road intersection improvements. The Fort Hamer Road median will restrict access so that Winding Stream Way becomes right-in, right-out only.

Pedestrian accommodations will be provided on the west side of Fort Hamer Road, terminating at the north side of this intersection. The existing sidewalk on the east side of Fort Hamer Road will continue to the Fort Hamer Bridge, but pedestrians will need to use the Fort Hamer Road / Upper Manatee River Road intersection to access the east side.

Bicycle lane continuity will be provided through this intersection.

## 5.5 Access Management Plan

Median openings are recommended in addition to the full median openings noted above for the intersecting roadway. **Table 5-3** lists the approximate location, spacing, and type (full/directional) of the proposed median openings.

*Table 5-3 / Recommended Median Openings*

Location	Type	Control	Spacing	Intersection / Business
<b>Sta. 100+00</b>	Full	Signalized	-	SR 64
<b>Sta. 108+50</b>	Full	Unsignalized	850 ft	Brixley Development
<b>Sta. 114+60</b>	Full	Unsignalized	610 ft	10 <sup>th</sup> Ave East
<b>Sta. 121+50</b>	Full	Unsignalized	690 ft	8 <sup>th</sup> Ave East
<b>Sta. 131+10</b>	Full	Signalized	960 ft	Greenfield Blvd / Copperlefe Dr
<b>Sta. 148+20</b>	Full	Unsignalized	1,710 ft	2 <sup>nd</sup> Ave East
<b>Sta. 166+05</b>	Full	Signalized	1,785 ft	Port Harbour Pkwy
<b>Sta. 175+60</b>	Full	Unsignalized	955 ft	3 <sup>rd</sup> Ave East
<b>Sta. 184+00</b>	Full	Signalized	840 ft	Waterlefe Blvd
<b>Sta. 208+40</b>	Full	Signalized	2,440 ft	Fort Hamer Rd

## 5.6 Bicycle and Pedestrian Accommodations

Bicycles will be accommodated by a 6-foot buffered bike lane adjacent to the outside travel lane within the curbed roadway. Keyhole lanes will be provided for right turn lanes at intersections.

Pedestrians will be accommodated by a 10-foot sidewalk on the west side of Upper Manatee River Road and a 5-foot sidewalk on the east side of Upper Manatee River Road. The sidewalks will be set four feet from back of curb on both sides.

### 5.7 Right-of-Way Requirements

The existing right of way will require widening and new right of way acquired for the proposed roadway alignment and stormwater management facilities. The recommended pond sites are located on parcels already impacted by the roadway footprint.

The Recommended Alternative is a 110-foot-wide right of way corridor with corner clips to accommodate the 10-foot-wide sidewalk on the west side of Upper Manatee River Road. There are thirty-five (35) parcels anticipated to be impacted, requiring 3.55 acres of property for the roadway corridor. The pond sites account for another 8.22 acres of property. Temporary construction easements are anticipated for driveway connections and harmonization as required beyond the proposed right of way.

### 5.8 Lighting

Corridor lighting for Upper Manatee River Road can be accommodated on either side of the roadway corridor, barring FPL impacts and OSHA offsets. The divided median allows for the potential for median lighting. The proposed medians are 15.3 feet between vertical face of curbs and Manatee County has previously permitted the use of median lighting with similar maintained widths.

The County does not currently have formalized standard lighting. Recent construction projects have tried to set a standard that includes GE Evolve LED fixtures, 40-foot-tall mounting heights, and arm lengths that vary between 8-feet, 12-feet, and 15-feet depending on their usage and location. Intersection lighting standards shall follow the latest FDM guidance at the time of design.

### 5.9 Utilities

The Upper Manatee River Road Recommended Alternative is anticipated to have impacts to County-owned and private utilities. Full impacts will be determined during the design phase based on survey and final roadway and drainage design.

#### 5.9.1 Manatee County Potable Water Mains

The Upper Manatee River Road Recommended Alternative will extend the roadway typical section while providing a closed drainage system with curb and gutter inlets and conveyance stormwater pipes. The mains that are currently under pavement will likely require relocation for conflicts. Based on County maintenance preferences, there is the possibility that entire mains will require relocation outside of the roadway pavement area. Further refinement is needed during the design phase to assess impacts to the potable water system on Upper Manatee River Road and side streets.

#### 5.9.2 Manatee County Wastewater Mains

Lift Station 330 is located approximately 140 feet south of the Upper Manatee River Road and 10<sup>th</sup> Avenue East intersection, on the west side of the corridor. The roadway connection to the existing typical section at the SR 64 intersection will require west side widening of Upper Manatee River Road. This will be a direct impact to the lift station. The 8-inch gravity main that conveys flow to this lift station is not directly impacted by the Recommended Alternative. However, the conflict resolution for Lift Station 330 will impact this main.

The force mains located on Upper Manatee River Road will likely require relocation outside of the roadway pavement area due to conflicts with the proposed stormwater conveyance system. Further refinement is needed during the design phase.

### 5.9.3 Manatee County Information Technology and ATMS

The County Information Technology system and ATMS system will be impacted by the Recommended Alternative due to their existing shared location. These systems will require relocation outside of the roadway pavement area along the entire corridor. The ATMS system is located under the existing sidewalk at Watercolor Place and will not be impacted by the Recommended Alternative.

### 5.9.4 Utility CIP Projects

The Missionary Village Lift Station Rehabilitation project (CIP 6022385) will not be directly impacted by the Recommended Alternative. If the existing Missionary Village lift station is upsized and converted into a master lift station, there is an opportunity to remove flow currently conveyed to Lift Station 330. This would result in a smaller capacity requirement for that lift station that is directly impacted by the Recommended Alternative and should be investigated further in the design phase.

### 5.9.5 Private Utility Facilities

Coordination with private UAOs will be required during the design phase of Upper Manatee River Road.

#### *Power*

FPL overhead distribution lines run along the east side of Upper Manatee River Road and will require coordination due to the extents of the Recommended Alternative.

#### *Communication*

Overhead communication lines attached to the FPL poles on the east side of Upper Manatee River Road will require coordination due to the extents of the Recommended Alternative. Underground communication lines will also require coordination due to the proposed typical section footprint and stormwater conveyance system.

#### *Natural Gas*

TECO owns and operates a natural gas main within the Upper Manatee River Road proposed corridor. However, they have not responded with locations and sizes of their facilities.

## 5.10 Preliminary Drainage Analysis

Wet detention ponds are recommended for the project. Based on preliminary reviews, all recommended alternatives have lower risks to wetlands, contamination, utilities, wildlife, and cultural resources. After the initial assessment of the Study, refinement to the pond siting memo was addressed in Basin 1. The full pond siting memo, including Amendment 1, is provided in **Appendix F**.

Moore's Dairy Farm Phase I Pond G was analyzed for a joint use expansion into Parcel 5469000002. This parcel is a 1.00-acre full acquisition and expands Pond G to a maximized size of 2.42-acres. Within the Moore's Dairy Farm Phase I development, Pond F and Pond G are interconnected, however both pond capacities are maximized. A proposed supplemental control structure from this expanded Pond G is suggested to outfall east to Gates Creek.

Supplemental treatment volume is still required within Basin 1 and the initial recommendation of an alternative pond site on Parcel 548700004 is considered a viable location to consider in the design phase. With proposed development on this parcel, another joint use option should be reviewed in the design phase. The Upper Manatee River Road project will require 2.46 acre-feet of water quality (conservation pool) and 0.59 acre-feet of attenuation volume.

Alternative Pond 2E1 is recommended in Basin 2. It is estimated as a 2.47-acre partial acquisition of Parcel 55451007. The total parcel size is 5.00 acres and contains the lateral ditch that conveys under Upper Manatee

River Road to the outfall at the Manatee River. Since the site has no occupied residence, this parcel is considered for a full acquisition to advance for the design phase of the project.

### 5.11 Floodplain Analysis

There are no floodplain impacts within Upper Manatee River Road Basin 1 (Gates Creek Watershed). Based on the FEMA Zone X designation for Basin 1, "cup for cup" volume mitigation of impacts to the FEMA 100-Year Floodplain is not required. The Upper Manatee River Road Basin 2 (Lower Manatee River Watershed) is located primarily within FEMA Zone AE. Based on this designation, "cup for cup" volume mitigation of impacts to the FEMA 100-Year Floodplain is not required above the overtopping elevation between impacted floodplain and the receiving tidal water body (Manatee River). However, "cup for cup" volume mitigation of impacts to the FEMA 100-Year Floodplain below the overtopping elevation is required.

The Recommended Alternative may have 25-Year Floodplain impacts. Mitigation opportunities exist in the recommended full parcel acquisition for Alternative Pond 2E1. The design phase will address 25-Year Floodplain impacts with updated mapping efforts.

### 5.12 Structures

The existing timber boardwalk (Structure SW 2009) will be replaced as recommended by the County review. Sidewalk accommodations will be made for the entire corridor and the replacement will be incorporated into the final design.

### 5.13 Cost Estimate

#### 5.13.1 Construction Cost Estimate Assumptions

The construction cost estimate for the Recommended Alternative is based on the following assumptions:

- Clearing and Grubbing based on full width of right of way and cost includes removal of concrete on the corridor and the timber boardwalk.
- Earthwork estimated based on a depth of two feet over the cleared area and includes excavation and embankment. Pond earthwork is included in the earthwork estimate.
- Aside from 25 feet of milling and resurfacing where proposed construction ties to existing, the pavement design was assumed to be comprised of 12-inch Type B Stabilization, Optional Base Group 9 (10 inches), 3-inch Superpave Asphalt Concrete, Traffic C, PG 76-22 with 1.5-inch Asphalt Concrete Friction Course, Traffic C, PG 76-22. Milling assumed at 1.5-inch with replacement of friction course.
- 1,000 feet of gravity wall (5-foot tall) with aluminum pipe guiderail assumed for unknown conditions which may require its use, due to right of way constraints.
- Curb inlet spacing assumed at 300 feet.
- Back of sidewalk inlets assumed every 600 feet to address offsite drainage.
- Storm drain main trunk line estimated at 36-inch diameter for length of project.
- Storm drain lateral pipes estimated at 18-inch diameter based on 300 feet spacing.
- Traffic Signal removal and reconstruction based on a lump sum price of \$500,000 per intersection.
- Light poles estimated based on 200 feet spacing, staggered on the left and right sides of the roadway.
- Mobilization estimated based on 10% of project subtotal.
- Maintenance of Traffic estimated based on 15% of project subtotal.

- To account for items not estimated and other project unknowns, a contingency of 25% was applied to the sum of the project subtotal plus mobilization and maintenance of traffic.
- Utility relocation construction costs are not included.
- Wetland mitigation costs are not included.

### 5.13.2 Construction Cost Estimate

The Recommended Alternative construction cost estimate is \$22,775,000. The estimate is summarized in **Table 5-4**. Detailed information is provided in **Appendix I**.

*Table 5-4 | Recommended Alternative Construction Cost Estimate*

Component	Cost Estimate
Roadway and Drainage	\$ 11,761,000
Signing and Pavement Marking	\$ 204,000
Signalization	\$ 1,500,000
Lighting	\$ 1,110,000
Mobilization	\$ 1,459,000
Maintenance of Traffic	\$ 2,186,000
Project Unknowns	\$ 4,555,000
<b>CONSTRUCTION COST TOTAL</b>	<b>\$ 22,775,000</b>

### 5.13.3 Right of Way Cost Estimate

There are thirty-five (35) parcels impacted by the Recommended Alternative and preliminary cost information was determined at a cursory level for the Study. The Recommended Alternative right of way cost estimate is \$1,100,000. The estimate is summarized in **Table 5-5**. Detailed parcel identification is provided in **Appendix I**.

*Table 5-5 | Recommended Alternative Right of Way Cost Estimate*

Component	Cost Estimate
Roadway Partial Takes	\$ 200,000
Pond Partial Takes	\$ 150,000
Roadway and Pond Full Takes	\$ 750,000
<b>RIGHT OF WAY COST TOTAL</b>	<b>\$ 1,100,000</b>

## 6.0 Summary of Permits and Mitigation

### 6.1 Stormwater

A pre-application meeting was completed with Southwest Florida Water Management District (SWFWMD) on October 7, 2021 (see **Appendix H**). Prior on-site / off-site permit activity within the Study area includes:

- Environmental Resource Permit (ERP) 11197.001 (Manatee County – Manatee River Rd Trans Main)
- ERP 41367.000 (Bridge over the Manatee River at Fort Hamer Road)
- ERP 43027367.020 (Moore’s Dairy Subdivision Phase I & Boulevard)

Anticipated permit requirements include the following:

- An ERP from SWFWMD per Florida Administrative Code (FAC) 62-330
- Florida Department of Environmental Protection (FDEP) State 404 Program per FAC 62-331
- A National Pollutant Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) per the Clean Water Act.

### 6.2 Natural Resources

#### 6.2.1 Anticipated Permits

The Upper Manatee River Road project would require permitting with two state of Florida agencies, including SWFWMD and the FDEP Southwest District.

A pre-application meeting was completed with SWFWMD on October 7, 2021, including an Environmental Discussion. See Pre-Application Meeting Notes in **Appendix H**. SWFWMD required that the limits of jurisdictional wetlands and surface waters be provided and that appropriate mitigation for impacts be provided using the Uniform Mitigation Assessment Method (UMAM), including the use of available mitigation banks within the Manatee River Environmental Resource Permit (ERP) Basin. The Applicant must demonstrate elimination and reduction of wetland impacts and use appropriate wetland setbacks. Hydroperiods in wetlands must be maintained and seasonal highwater levels determined at pond locations. A title determination is required from FDEP to confirm if state-owned sovereign submerged lands are present, often associated with named waterways and waterbodies.

In January 2021, the state of Florida assumed the federal Clean Water Act Section 404 Permit program for non-tidally influenced wetlands and waters. The Upper Manatee River Road project would require a Section 404 permit from FDEP. A pre-application meeting was not held with FDEP. In addition, due to impacts to wetlands and other surface waters, the project will require a new Individual Statewide ERP pursuant to 62-330 F.A.C. The following agency permitting actions are anticipated:

- FDEP Section 404 Permit – Individual Permit or General Permit, depending on the extent of wetland and water impacts, 0.5 acres of impact being the threshold.
- FDEP National Pollutant Discharge Elimination System, Stormwater Discharge from Large and Small Construction Activities (62-621.300 F.A.C.) – To be obtained by the contractor.
- SWFWMD Statewide ERP – Individual ERP with the application review fee determined by project work area and extent of wetland impacts.

A second tier of agency involvement includes FWC and USFWS as commenting agencies on the respective permit applications for listed and protected species. Coordination and possible consultation with these agencies would be required to construct the Upper Manatee River Road project.

### 6.2.2 Wildlife

To protect listed wildlife, wildlife habitat, and plants, Manatee County will conduct wildlife surveys of the road corridor and pond sites during permitting and then prior to construction for the presence of protected wildlife species including plants. Manatee County will abide by standard resource protection measures in addition to the following specific commitments:

- The County will adhere to the most current version of USFWS *Standard Protection Measures for the Eastern Indigo Snake* (2013) during construction.
- The County will survey for bald eagle nests during permitting and design. If a bald eagle nest is identified within 660 feet of the project prior to or during construction, the County will coordinate with the USFWS and the FWC in accordance with the BGEPA and MBTA and will adhere to the USFWS Bald Eagle Management Guidelines.
- The County will conduct osprey nest surveys during the permitting phase of the proposed project. If an osprey nest is identified, the County will coordinate with the USFWS and/or the FWC, depending on the activity status of the nest.
- The County will perform pre-construction surveys for nesting Florida sandhill cranes per the FWC species guidelines (2016) to ensure active nests and flightless young are protected.
- If required, the County will perform southeastern American kestrel surveys for breeding and active nest cavities during permitting and pre-construction.
- The County will perform preliminary gopher tortoise surveys during permitting and formal gopher tortoise surveys during pre-construction in areas deemed suitable habitat in accordance with the FWC Gopher Tortoise Permitting Guidelines, and will secure an FWC *Gopher Tortoise Relocation Permit*, if gopher tortoise burrows are found.
- The County will survey wading bird nesting habitat within 330 feet of the project area during permitting. If a wading bird nest is detected, additional surveys may be recommended to determine if an active breeding site is present.
- The County will perform pre-construction surveys for least tern nests and young and for multi-year construction projects. Surveys can be conducted prior to land clearing and earthmoving to ensure nesting birds are not present.
- If protected plants are discovered during pre-construction surveys, the County will initiate coordination with the FDACS.

### 6.2.3 Wetlands and Other Surface Waters

To protect wetland and water resources before, during, and after construction, Manatee County will abide by state and federal permit requirements and water quality protection measures particularly including the following commitments:

- The County will implement provisions to avoid and minimize wetland impacts during design, permitting, and construction.
- The County will use the UMAM to evaluate each wetland impact area to quantify the functional loss based on location and landscape, water environment, and vegetation conditions.
- The County will mitigate for wetland impacts pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344.



- The County will use erosion control measures and Best Management Practices during construction to avoid and minimize direct, indirect, and temporary impacts to habitat and water quality.

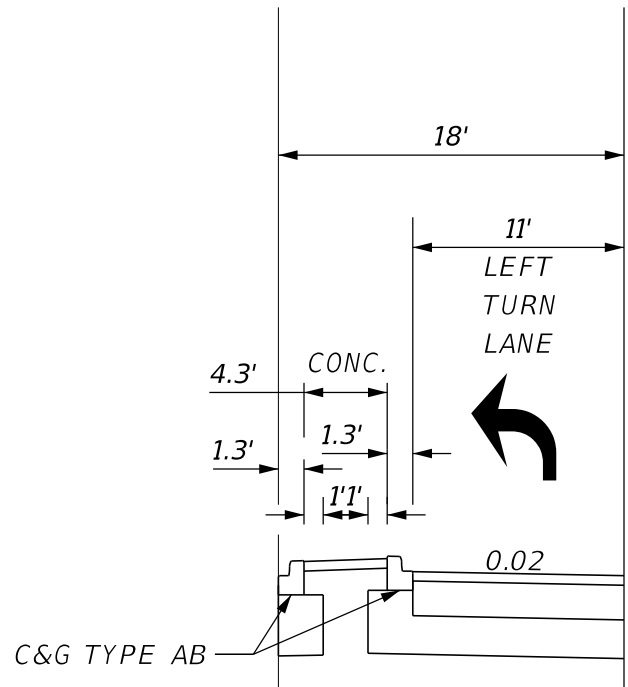
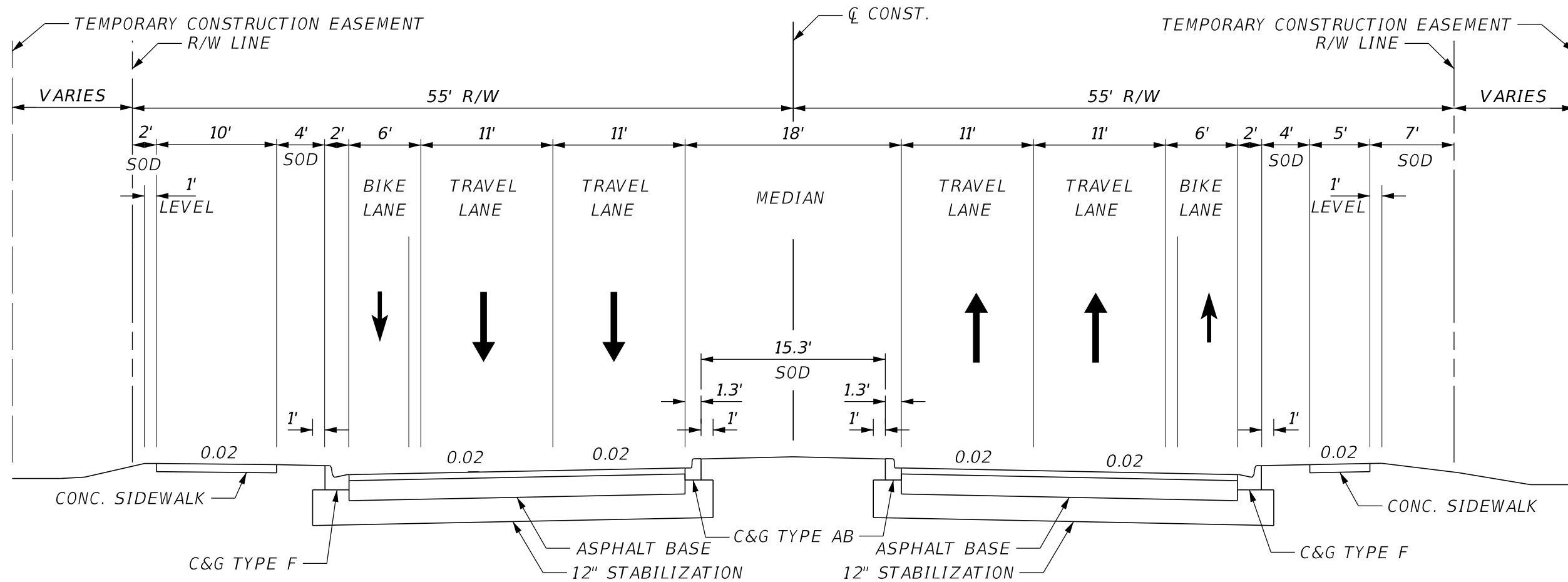
### 6.3 Cultural Resources

Given the presence of previously unrecorded historic-age architectural resources in the Study area, an architectural resources survey may be necessary to survey those resources and evaluate their eligibility for listing in the NRHP, depending on the final project design and potential impacts to historic-age architectural resources.

If prehistoric or historic artifacts, are encountered at any time within the project area, construction activities involving subsurface disturbance in the vicinity of the discovery will cease. The Florida Department of State, Division of Historical Resources, Compliance Review Section will be contacted. The subsurface construction activities will not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during construction activities, all work will stop immediately, and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

# Appendices

## Appendix A – Concept Plans

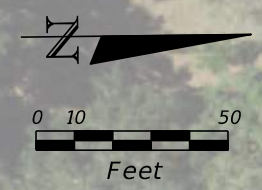


NOT TO SCALE

**BUILD TYPICAL SECTION 2**

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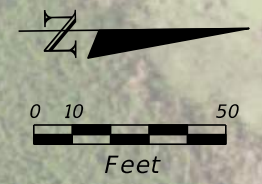


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- PROPOSED GRASS
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)
- PROPOSED POND SITE
- EXISTING PARCEL LINES
- PLAT DEDICATION RIGHT-OF-WAY

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PARCEL ID 566801029

**Upper Manatee River Rd**

MATCHLINE STA. 114+00.00

MATCHLINE STA. 121+00.00

115      116      117      118      119      120

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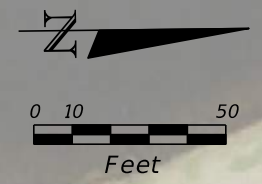
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Upper Manatee River Rd

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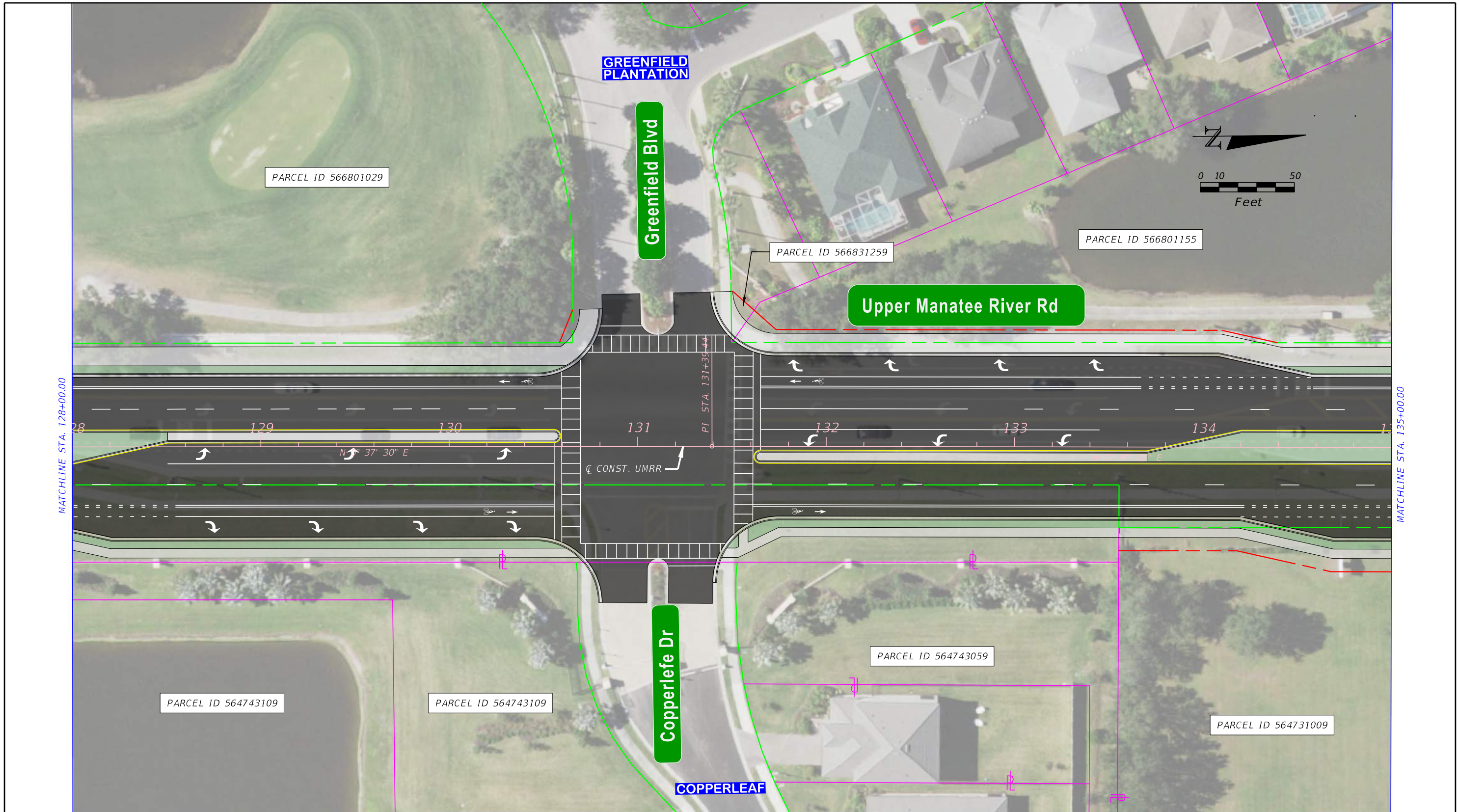


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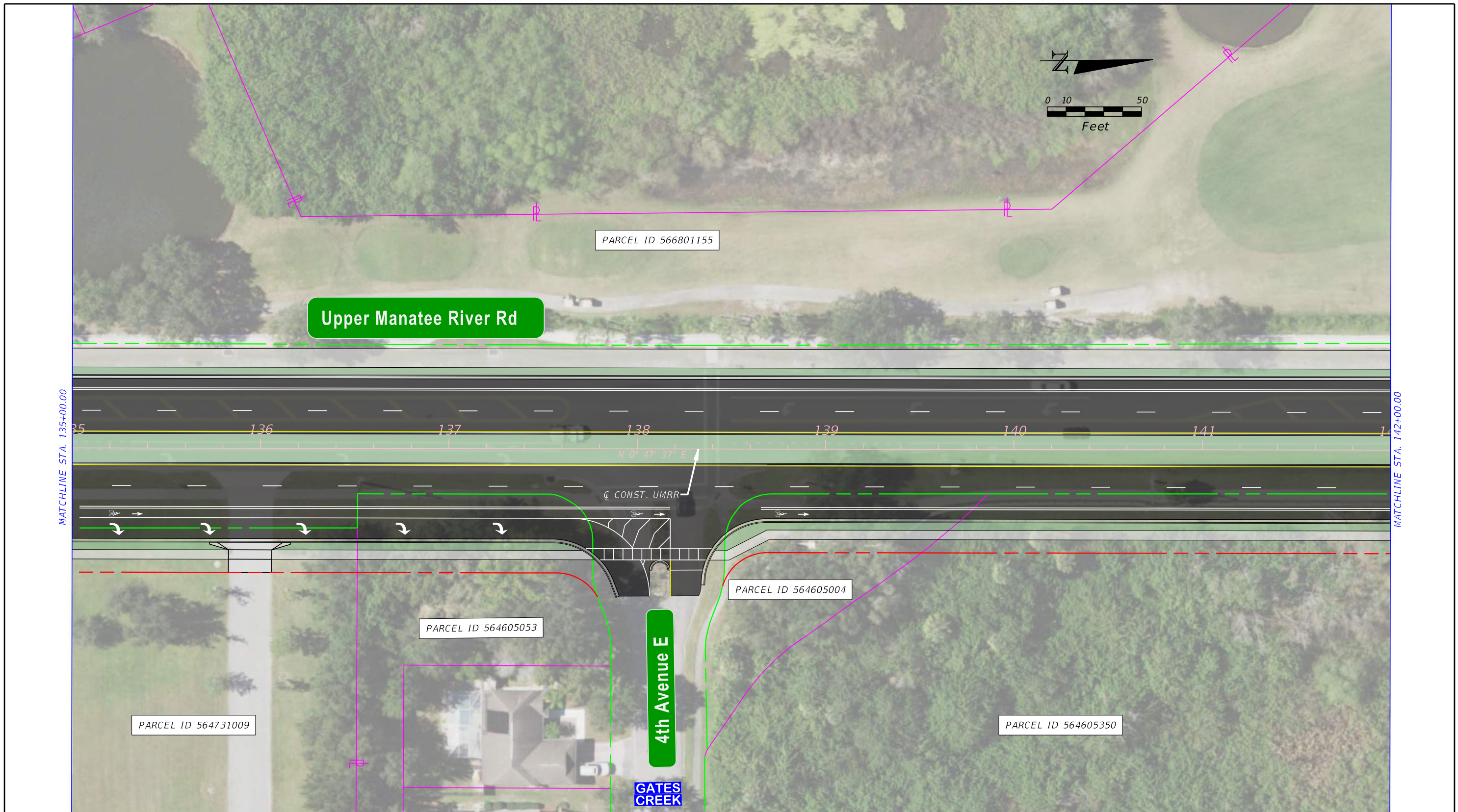
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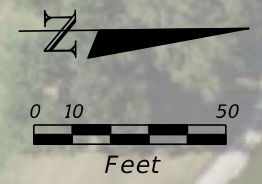


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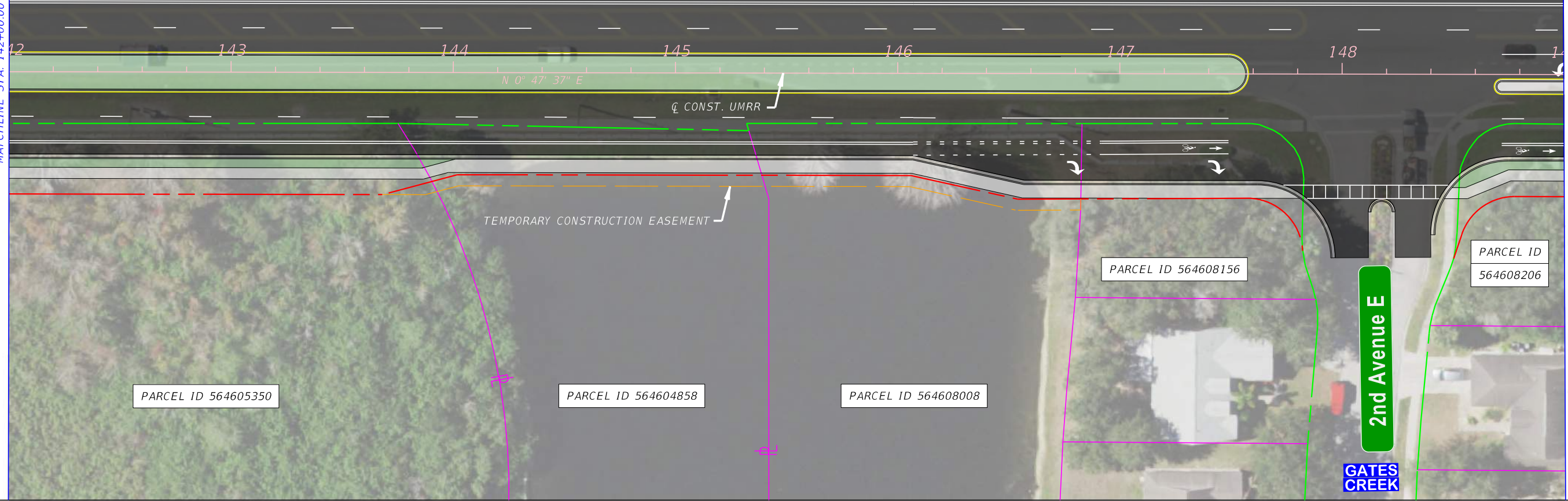


PARCEL ID 566801155

**Upper Manatee River Rd**

MATCHLINE STA. 142+00.00

MATCHLINE STA. 149+00.00



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PARCEL ID 564604858

PARCEL ID 564608008

PARCEL ID 564608156

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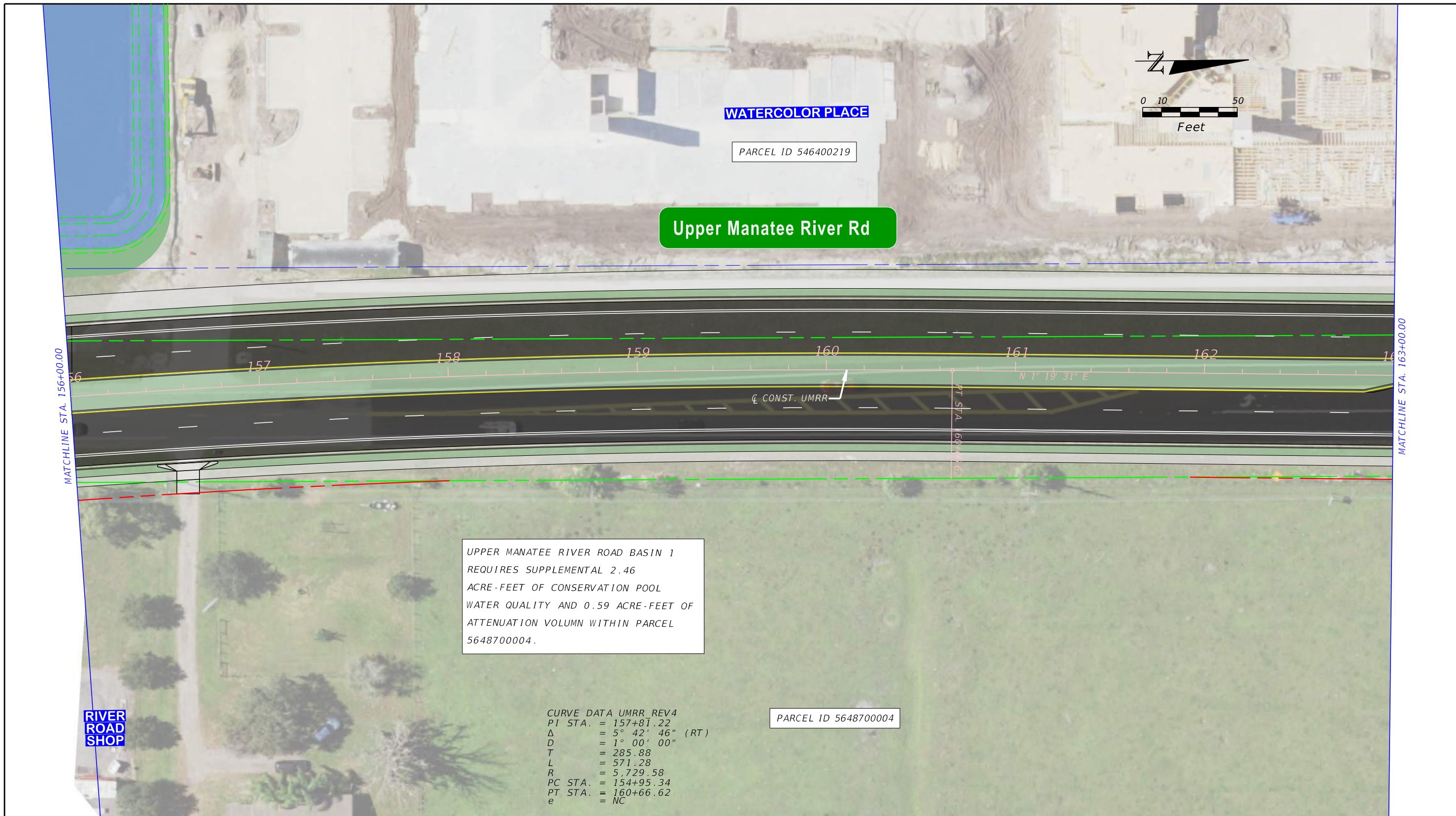
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 REQUIRES SUPPLEMENTAL 2.46  
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 ATTENUATION VOLUMN WITHIN PARCEL  
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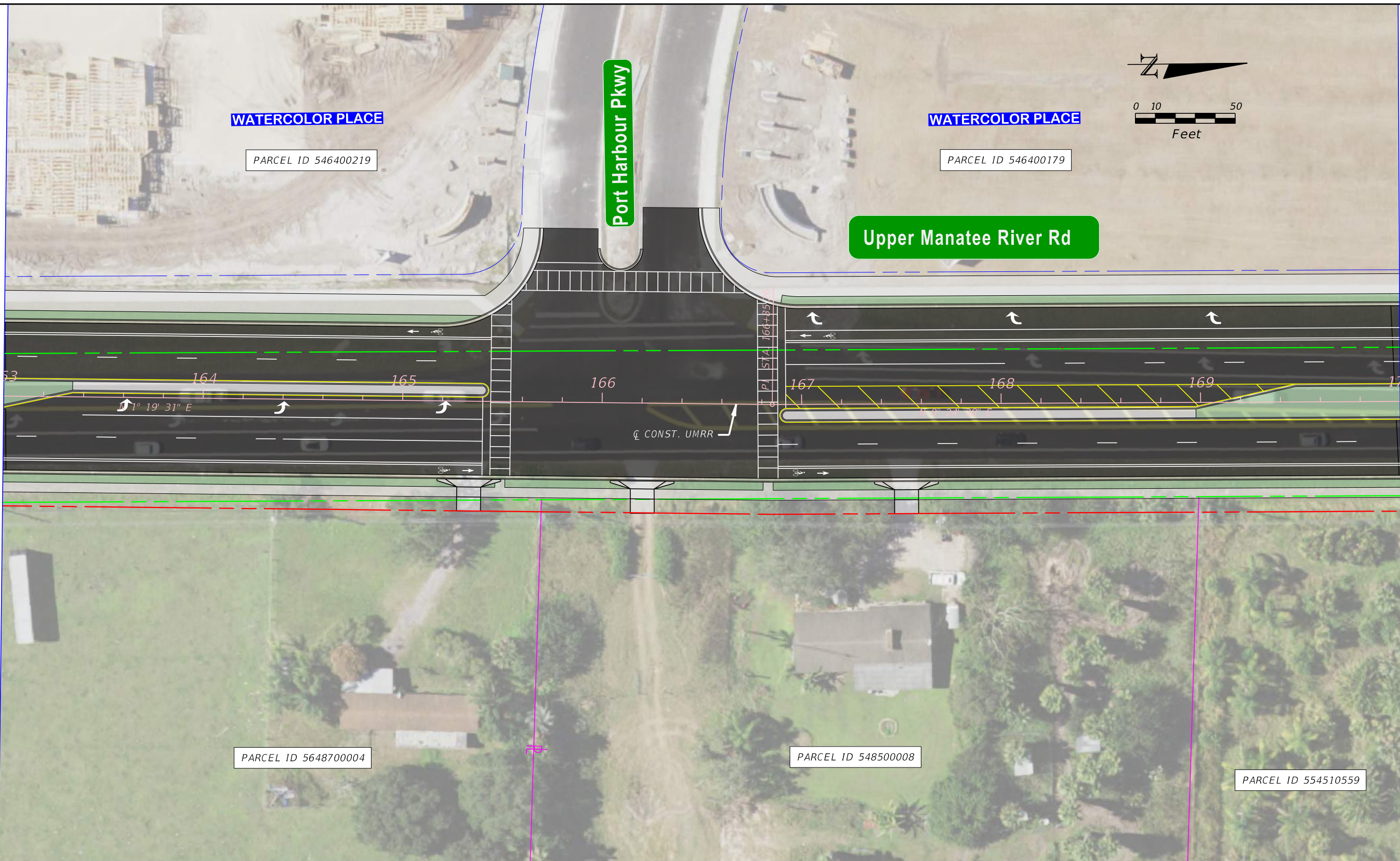
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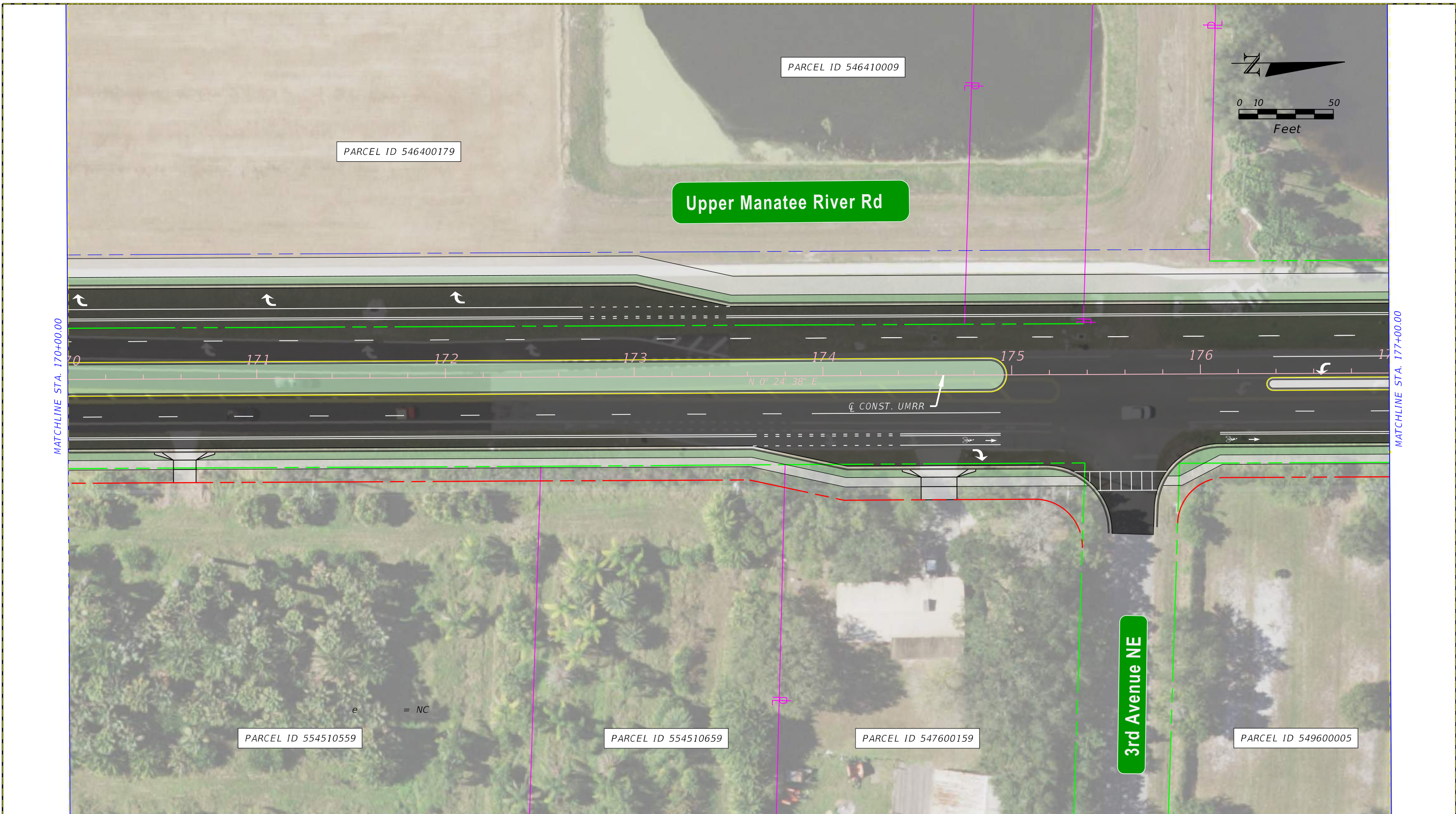
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No.	REVISIONS	DATE	BY	PROJECT NO. 6107760		FL. LICENSE NO. 70171		

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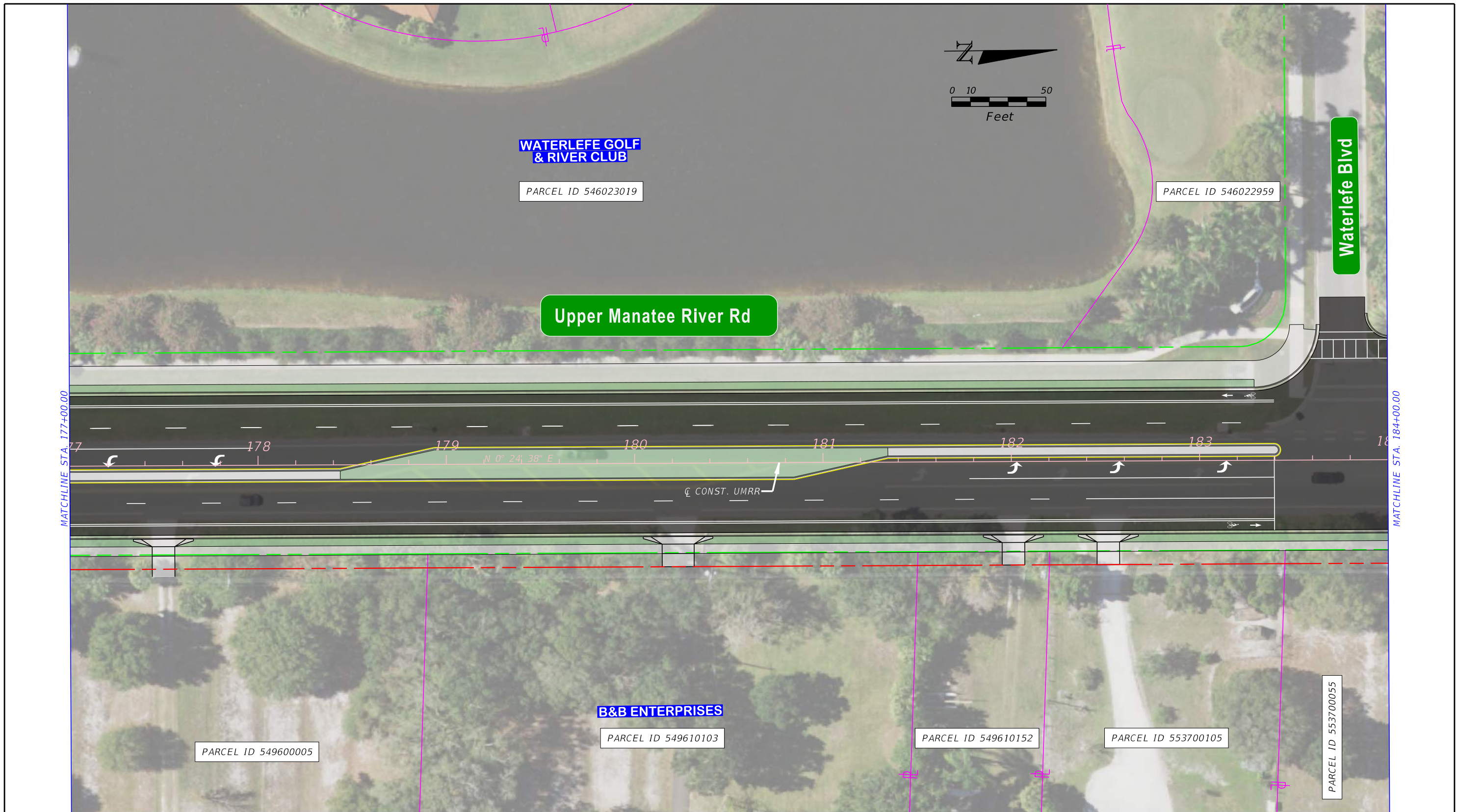


**LEGEND**

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				PROJECT NO. 6107760		FL. LICENSE NO. 70171		II
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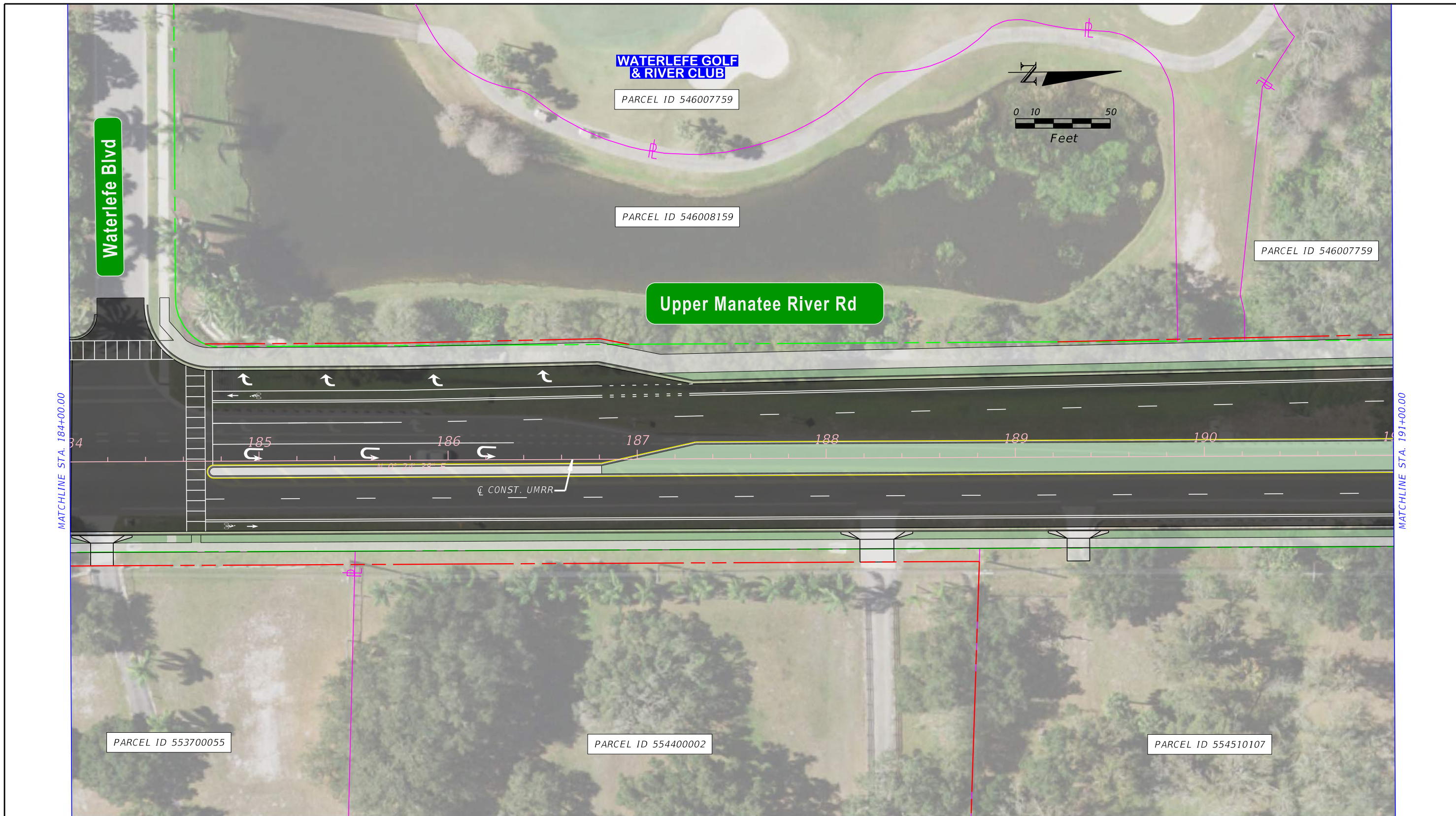
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**LEGEND**

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- PROPOSED GRASS
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- PROPOSED RIGHT-OF-WAY
- IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)
- PROPOSED POND SITE
- EXISTING PARCEL LINES
- PLAT DEDICATION RIGHT-OF-WAY

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- PROPOSED GRASS
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- IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)
- PROPOSED POND SITE
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- PLAT DEDICATION RIGHT-OF-WAY

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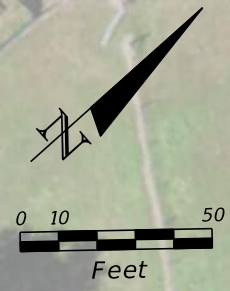
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- PROPOSED POND SITE
- EXISTING PARCEL LINES
- PLAT DEDICATION RIGHT-OF-WAY

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Upper Manatee River Rd



PARCEL ID 547610105

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MATCHLINE STA. 203+60.00

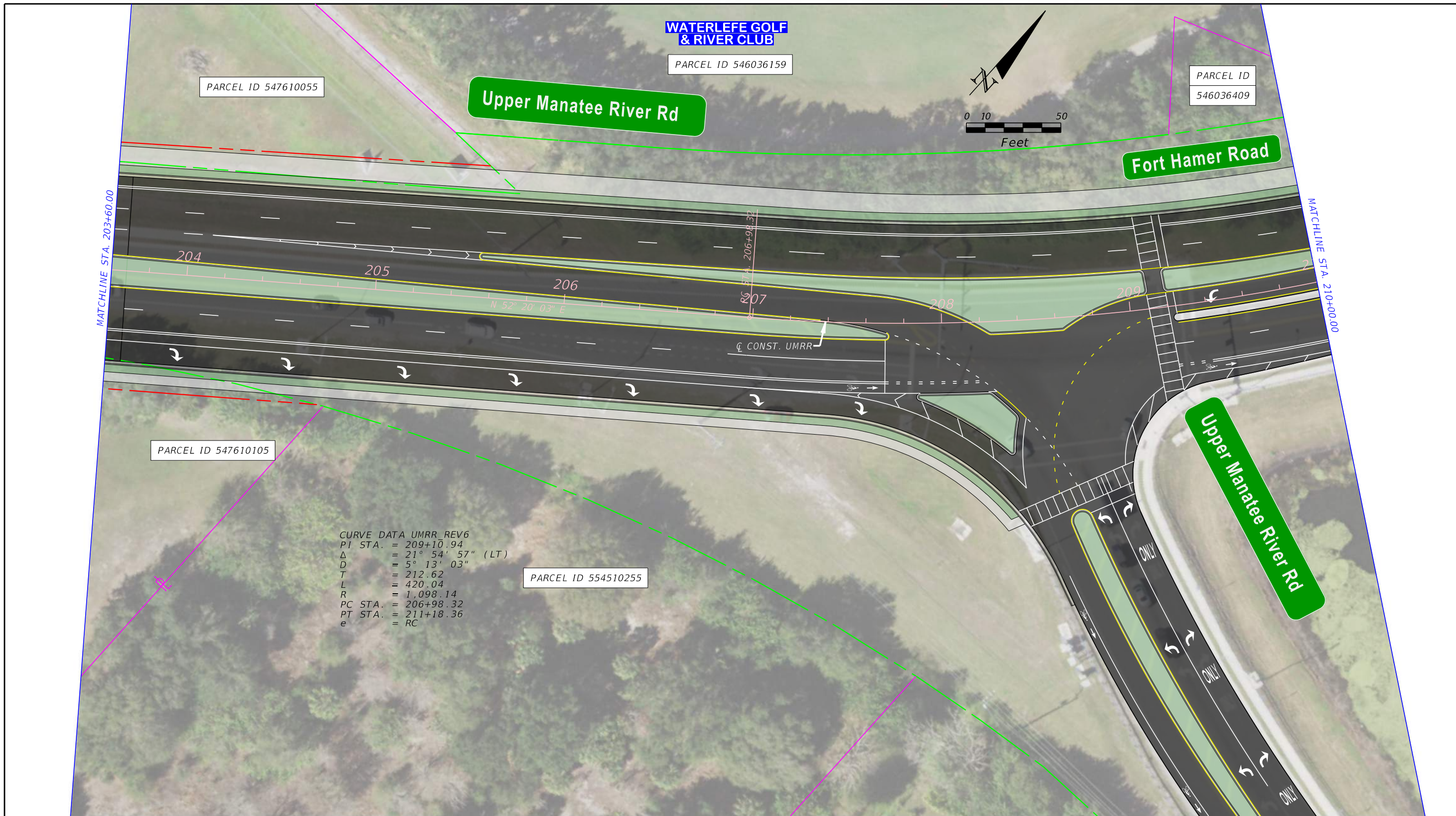
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- PROPOSED RIGHT-OF-WAY
- IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)
- PROPOSED POND SITE
- EXISTING PARCEL LINES
- PLAT DEDICATION RIGHT-OF-WAY

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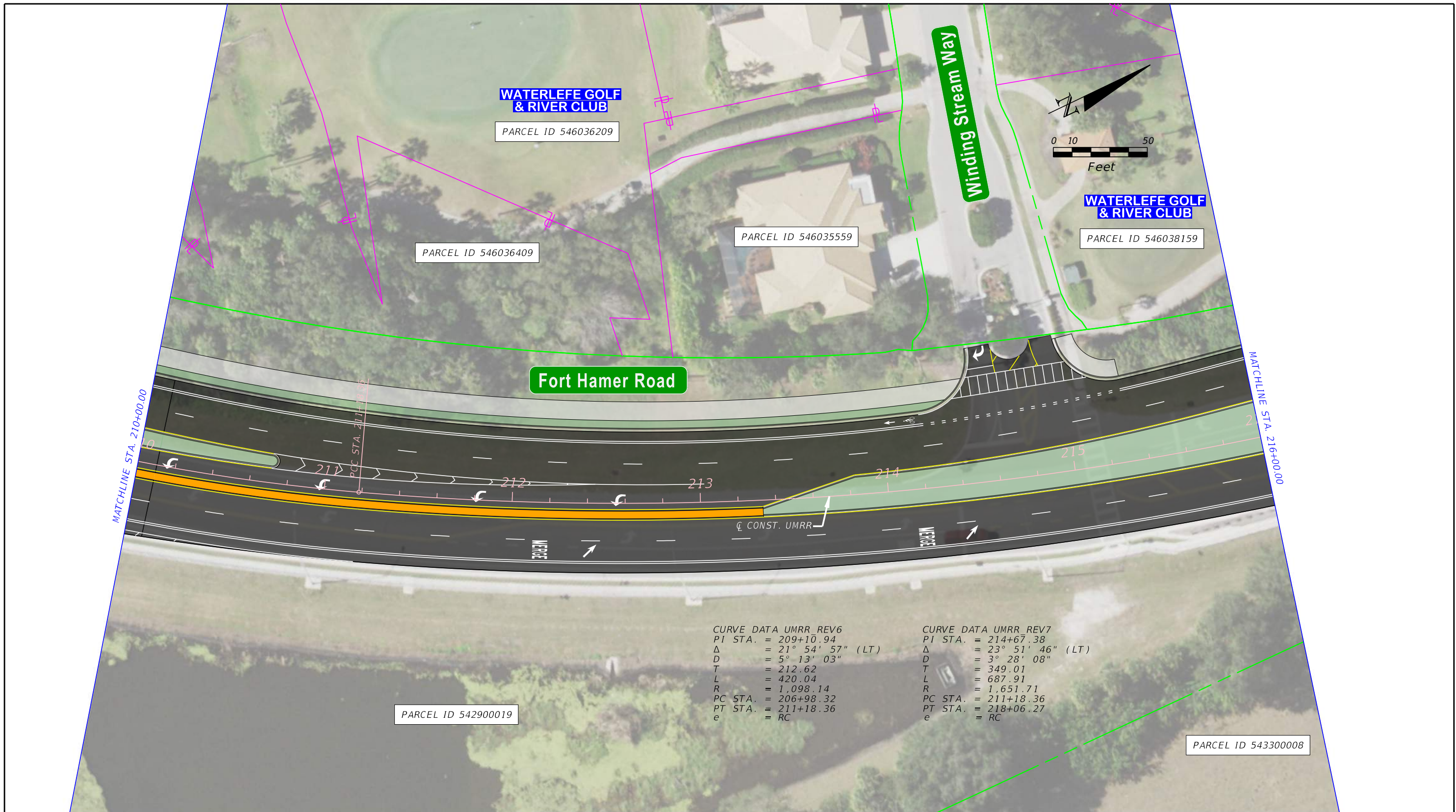
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- IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)
- PROPOSED POND SITE
- EXISTING PARCEL LINES
- PLAT DEDICATION RIGHT-OF-WAY

	SCALE AS NOTED	HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232	DATE 12/2021	<b>MANATEE COUNTY PUBLIC WORKS</b>	DESIGN ENGINEER JASON L. STARR	<b>RECOMMENDED ALTERNATIVE</b>	SHEET NO. 16
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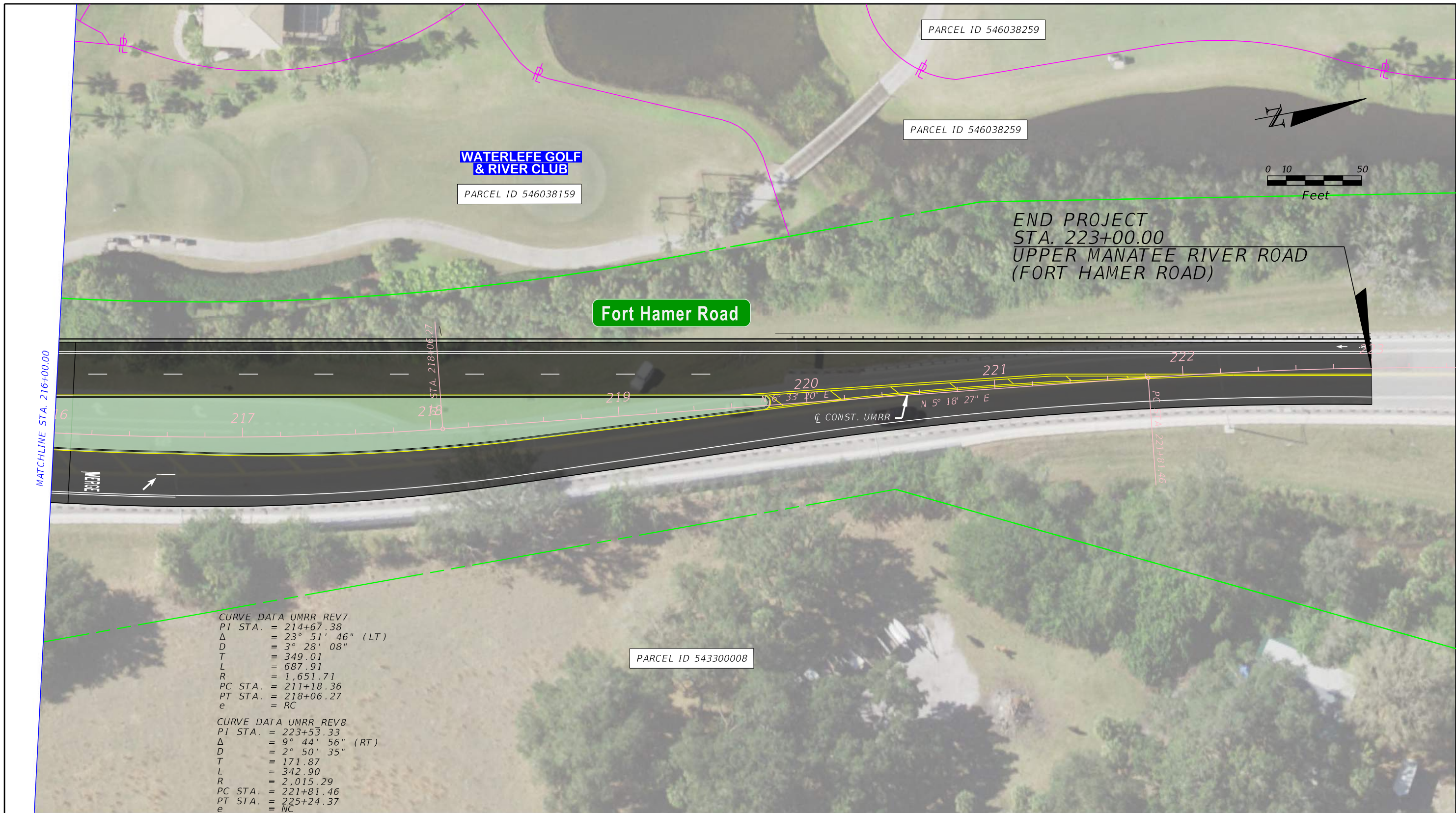


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- IMPROVEMENTS BY OTHERS
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- PROPOSED POND SITE
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	SCALE AS NOTED	HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232	DATE 12/2021	 <b>MANATEE COUNTY PUBLIC WORKS</b>	DESIGN ENGINEER JASON L. STARR	<b>RECOMMENDED ALTERNATIVE</b>	SHEET NO. 17
			PROJECT NO. 6107760		FL. LICENSE NO. 70171		
No.	REVISIONS	DATE	BY	JLS			

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- PROPOSED GRASS
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- IMPROVEMENTS BY OTHERS
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## Appendix B – Design Traffic Memo

# Memorandum

Date: 10/13/2021

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Project: Manatee County Corridor Studies

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To: Eric Shroyer, Manatee County Public Works Project Manager  
Darin Rice, Manatee County Public Works Project Engineer

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From: Jason Starr, PE, HDR Project Manager  
Tarek Lotfy Kamal, EI, HDR Transportation EIT

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Subject: Upper Manatee River Road Corridor Study – Traffic Analysis Memorandum

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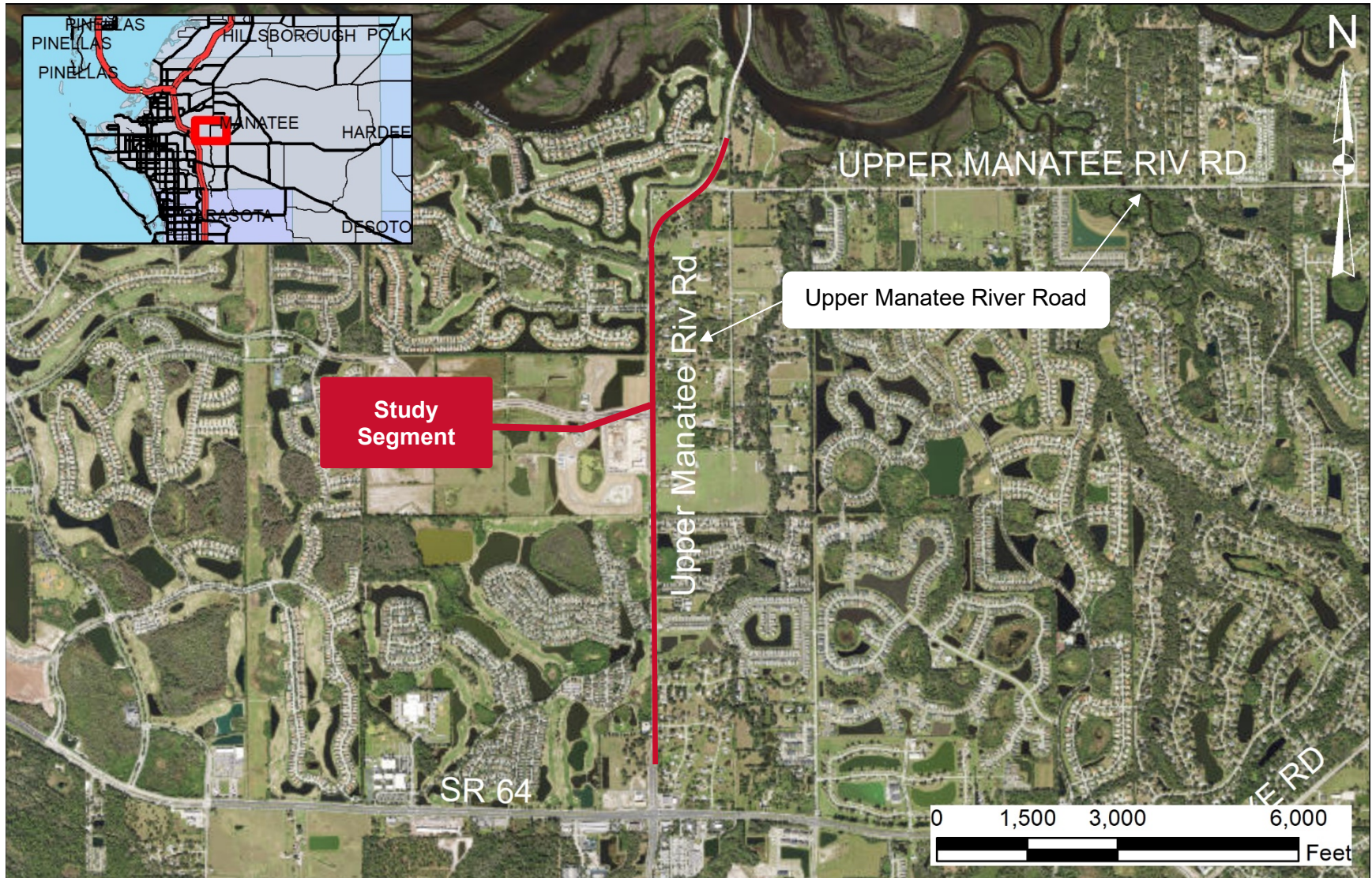
## 1.0 Introduction/Purpose of Memorandum

The purpose of this memorandum is to document the corridor analysis results for the Upper Manatee River Road corridor in Manatee County. Existing year (2021) traffic volumes were developed utilizing the Manatee County 2019 historical Annual Average Daily Traffic (AADT) volumes counts. Volume characteristics were developed using the Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) traffic counts data. Design year (2045) traffic volumes were projected for both the No Build alternative (2-Lane Roadway) and the Build alternative (4-Lane Roadway). The No Build alternative (2-Lane Roadway) and the Build alternative (4-Lane Roadway) were analyzed for capacity using the 2020 FDOT Quality/Level of Service (QLOS) Handbook.

## 2.0 Existing Conditions

The purpose of this section is to summarize the existing geometric and capacity conditions along the Upper Manatee River Road corridor between north of SR 64 and the Fort Hamer Bridge. The determination of current capacity along Upper Manatee River Road provides a baseline condition to assess the need for improvements to the roadway. The project is located in Manatee County, Florida, as illustrated in **Figure 1**.

Figure 1 | Vicinity Map





## 2.1 Roadway Characteristics

Within the study area the Upper Manatee River Road corridor is Minor Arterial roadway with a posted speed of 45 miles per hour (mph). Upper Manatee River Road is a 2-way undivided roadway between north of SR 64 and the Fort Hamer Bridge. There are dedicated bike lanes along the northbound or southbound approaches of the roadway.

## 2.2 Crash Analysis

The most recent five years of crash data for the study area of Upper Manatee River Road between north of SR 64 and the Fort Hamer Bridge. Crash data was obtained from the Signal 4 (S4) Analytics database between years 2016 and 2020. In total, there were 77 reported crashes in the five-year period. Three (3) fatal, four (4) incapacitating, six (6) non-incapacitating injury and 15 possible injury crashes were reported during this timeframe. 43 (56%) were rear end crashes, 8 (10%) were off road, and 7 (9%) were sideswipes. One (1) crash involved alcohol, none of the crashes involved drugs, and one (1) crash involved an animal.

The results are summarized in the tables below. **Table 1** shows the crashes that occurred in a given year by the type of crash. **Table 2** shows the crashes by the highest severity of incident that resulted by year. There were three fatal crashes, a 2016 crash that was an off-road crash, a 2018 crash the was a rollover crash and involved a motorcycle, and a 2019 crash that involved a pedestrian. The 2016 crash occurred under daylight condition, while the other two occurred under dark not lighting conditions.

**Table 1 | Crashes by Year and Type**

Year	Rear End	Off Road	Sideswipe	Left Turn	Pedestrian	Angle	Animal	Rollover	Unknown	Other	Total
2016	5	4	1	1	1	0	0	0	1	3	<b>16</b>
2017	1	1	2	0	0	0	0	0	0	1	<b>5</b>
2018	13	1	1	1	0	1	0	1	0	2	<b>20</b>
2019	17	0	0	1	1	0	0	0	0	0	<b>19</b>
2020	7	2	3	0	0	0	1	0	1	3	<b>17</b>
<b>Total</b>	<b>43</b>	<b>8</b>	<b>7</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>77</b>

**Table 2 | Crashes by Year and Severity**

Year	Fatal	Incapacitating	Non-Incapacitating	Possible	None	Total
2016	1	3	2	6	4	<b>16</b>
2017	0	0	1	0	4	<b>5</b>
2018	1	0	1	3	15	<b>20</b>
2019	1	0	0	5	13	<b>19</b>
2020	0	1	2	1	13	<b>17</b>
<b>Total</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>15</b>	<b>49</b>	<b>77</b>

The crash rate for Upper Manatee River Road between north of SR 64 and the Fort Hamer Bridge was estimated and compared to statewide crash rates for similar facility types. The segment crash rate is estimated by dividing the number of crashes by the Million Vehicle Miles Traveled (MVMT). The MVMT is calculated by multiplying the AADT by the segment length by the number of days in the analysis (365 days per year), then finally dividing by one million. Per Manatee County Traffic Counts, the AADT of Upper Manatee River Road for 2019 is 21,602. As shown in **Table 3** the average crash rate for the segment is 0.913, which is less than statewide crash rates for similar facility types. The critical crash rate for the segment was also calculated and is 2.071; the segment crash rate is lower than the critical crash rate.

**Table 3 | Crash Rates**

Average Crash Rate per Million Vehicles	
Upper Manatee River Road from north of SR 64 to south of the Fort Hamer Bridge	
Upper Manatee River Road AADT	21,602
Segment Length	2.14
Number of Years	5
MVMT	84.37
Number of Reported Crashes	77
Segment Crash Rate	0.913
FDOT Statewide Average Segment Crash Rate*	1.823
Critical Crash Rate	2.071

\*Note: The Average Crash Rate for Suburban Segments 2-3 Lane 2-Way Undivided

### 2.3 Traffic Data Collection

Turning movement counts were not collected for the intersections along the corridor for this study. Historical traffic data obtained from the FDOT 2020 FTO database and historical traffic data provided by Manatee County were used as the basis for the capacity analysis. Historical AADT data from the year 2020 was not used due to COVID-19 causing abnormal traffic patterns.

## 2.4 Traffic Parameters

Traffic parameters, including the design-hour factor (K), design-hour directional distribution factor (D), and design-hour truck percentage (DHT), were determined based on the 2019 historical traffic data obtained from the FDOT 2020 FTO database. Historical traffic data can be found in **Appendix A**.

The design hour traffic factors utilized for the study area are as follows:

K – Factor = 9.00%

D – Factor = 53.80%

T – Factor = 5.60%

## 3.0 Growth Rates

The growth rates were determined by comparing the Manatee County population projections, the historic traffic trends, the travel demand from the District 1 Regional Planning Model (D1RPM), and the socioeconomic (SE) data from the D1RPM.

### 3.1 BEBR Growth Trends

Historical population data obtained from the University of Florida Bureau of Economic and Business Research (BEBR) was used to analyze growth rates that may be applicable in developing future traffic projections. As shown in **Table 4**, Manatee County had a population of about 398,500 in 2020. **Table 4** shows the low, medium, and high population estimates for 2025, 2035, and 2045, along with the corresponding growth rates from 2020 to each future year. The low, medium, and high population growth rates for 2045 range from 0.51% to 2.56%.

Table 4 | BEBR Population Growth Rates – Manatee County

Projection Range	2020 Population	2025		2035		2045	
		Population	Growth	Population	Growth	Population	Growth
Low	398,505	401,400	0.15%	431,900	0.56%	449,200	0.51%
Medium	398,505	437,600	1.96%	498,000	1.66%	544,400	1.46%
High	398,505	470,200	3.60%	566,100	2.80%	653,700	2.56%

### 3.2 Historic Count Trends

A historical count trends analysis was performed using count data provided by Manatee County. Historical AADT volumes were input into the FDOT Trend worksheet to calculate trend growth rates through the design year (2045).

Historical AADT data from the year 2020 was not used due to COVID-19 causing abnormal traffic patterns. The historical growth rates will be used to grow the 2019 AADT values to the existing year (2021) for existing conditions analyses. The trends analysis method relies on historical traffic counts and does not consider future traffic pattern changes due to new traffic generators or network improvements. Manatee County historical counts and trend worksheets can be found in **Appendix A**.

### 3.3 D1RPMv2.0

The D1RPMv2.0 was utilized to calculate model growth rates based on the anticipated future roadway network and planned developments through design year (2045). Socioeconomic (SE) data provided by Manatee County was used to update the future year (2045) ZDATA to reflect planned development within the county, and both No Build and Build scenarios were modeled for the study corridor.

Model AADT volumes for the future year 2045 were compared to those of the model's validated base year (2015) to calculate the implied growth rate on the study corridor. The D1RPMv2.0 SE data was reviewed for both the model's validated base year (2015) and the future year (2045) to assess socioeconomic growth in the project area. D1RPMv2.0 plots and growth rate calculations can be found in **Appendix B**.

### 3.4 Determined Growth Rates

An existing growth rate of 9.11% is proposed to forecast the existing year (2021) traffic volumes from the 2019 Manatee County traffic volume counts. For this short-term projection the growth rate was based on the 3-year (2017-2019) historical traffic trend growth rate from station 11-06, to model the growth after the opening of the Fort Hammer Bridge.

A No Build growth rate of 2.56% was used to forecast the design year (2045) traffic volumes for the No Build scenario 2-lane roadway, based the BEBR – High projected population growth in Manatee County.

A Build growth rate of 2.56% was used to forecast the design year (2045) traffic volumes for the Build scenario 4-lane roadway, based the BEBR – High projected population growth in Manatee County.

**Table 5** shows the growth rate comparison and the determined growth rates for the Upper Manatee River Road corridor.

**Table 5 | Determined Growth Rate**

Source	Calculated Growth Rate
Historical Traffic (2017 - 2019) - Station 11-06*	9.11%
Historical Traffic (5 Years) - Station 11-06**	10.96%
Historical Traffic (10 Years) - Station 11-06	6.89%
BEBR - Low	0.51%
BEBR - Medium	1.46%
BEBR - High	2.56%
D1RPMv2.0 - No Build	3.28%
D1RPMv2.0 - Build	4.74%
D1RPMv2.0 - Project Area SE Data	0.62%
Proposed Growth Rate	Existing 9.11% No Build 2.56% Build 2.56%

\*Historical Trend post Fort Hammer Bridge opening.

\*\* Data missing AADTs for year 2016, trends sheet estimated 2016 AADT value.

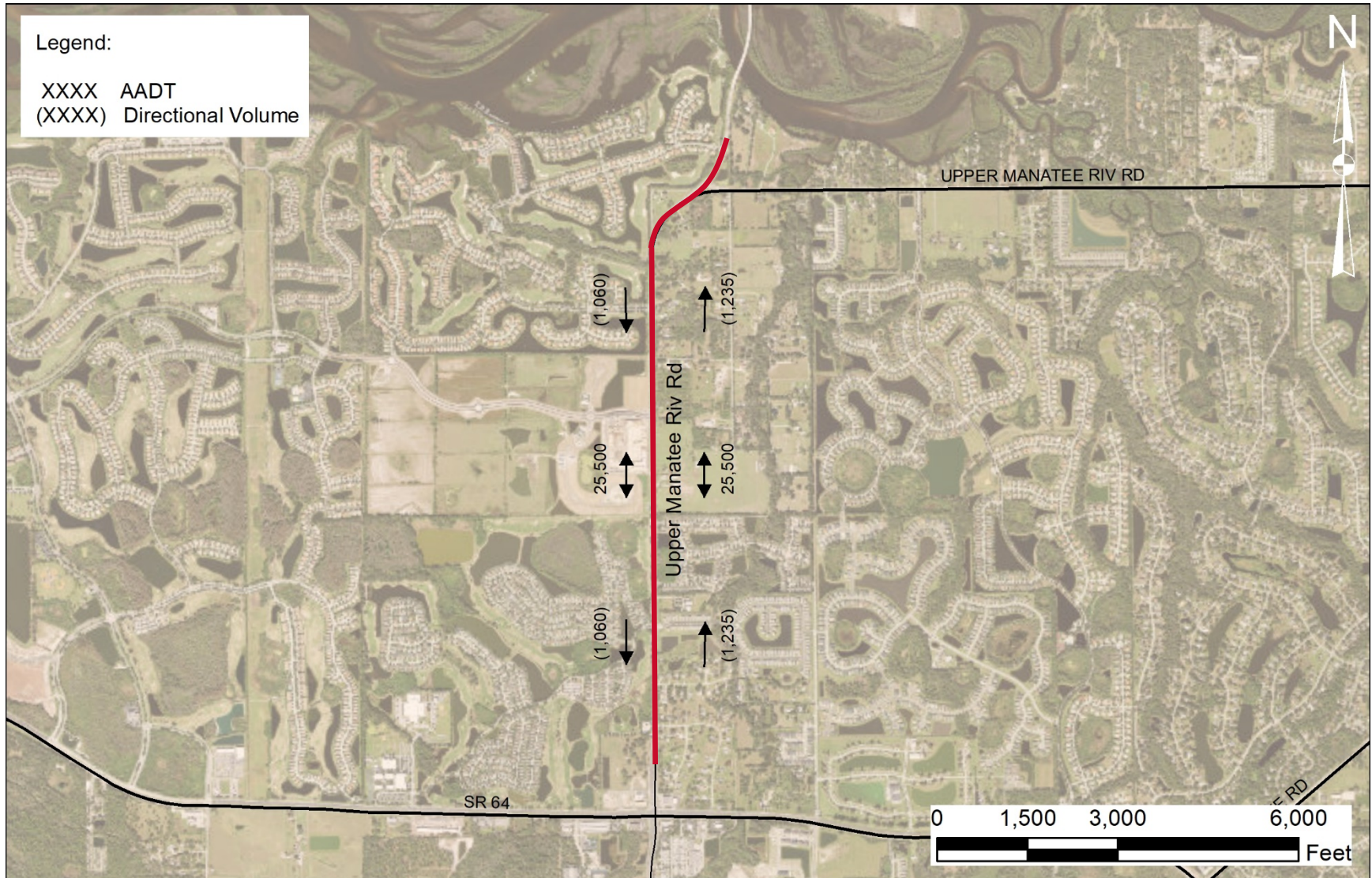
## 4.0 Existing Year (2021) Volume Development

Manatee County 2019 historical AADT volumes were utilized to develop the existing year (2021) AADT volumes using a 9.11% growth rate. Existing year (2021) roadway AADT volumes and design hour directional volumes are shown in **Figure 2. Table 6** shows the existing year (2021) design traffic volumes characteristics along the Upper Manatee River Road corridor between north of SR 64 and the Fort Hamer Bridge. The K-Factor (Peak-To-Daily Ratio) was used to calculate the Design-Hour Volume (DHV) and the D-Factor (Directional Distribution) was used to calculate the directional volumes

**Table 6 | Existing Year (2021) Design Traffic Volume Characteristics**

<b>Corridor</b>	Upper Manatee River Road
<b>Limits</b>	From north of SR 64 to the Fort Hamer Bridge
<b>2019 AADT</b>	21,602
<b>2021 AADT</b>	25,500
<b>Peak -To- Daily Ratio</b>	9.00%
<b>DHV</b>	2,295
<b>Directional Distribution</b>	53.80%
<b>Peak Directional Volume</b>	1,235
<b>Off Peak Directional Volume</b>	1,060

Figure 2 | Existing AADT and Design Hour Directional Volumes





## 5.0 Existing Year (2021) Level of Service Analysis

Generalized Service Volume Tables (GSVT), found in the FDOT Quality/LOS Handbook 2020, were used to perform a corridor capacity analysis. The developed existing year (2021) traffic volumes were compared to the LOS D maximum service volumes found in the GSVTs to determine the volume/LOS D maximum service volume percentage. GSVT Table 7 was used to compare the peak hour directional volumes to the LOS D maximum peak hour directional volumes. **Table 7** provides the capacity analysis for the existing year (2021) peak hour directional volumes along the Upper Manatee River Road corridor. Existing year (2021) volumes indicate that the corridor currently operates over the peak hour directional LOS D maximum service volume.

Under existing conditions, the corridor segment operates at 156% of the peak hour directional LOS D Maximum Service volume, 56% over the peak hour directional LOS D maximum service volume.

Table 7 | Existing Year (2021) LOS D Capacity Analysis

Upper Manatee River Road			
From north of SR 64 to the Fort Hamer Bridge			
Attribute	Volume	Peak Hour Directional LOS D Maximum Service Volume	
		1 Lane	
Peak Directional Volume	1,235	792*	156%

\*Adjusted for non-state roads, reduced by 10%

## 6.0 Design Alternatives and Assumptions

Two design alternatives were assessed for the design year (2045). The first alternative is a No Build alternative which assumes that the existing configuration (2-lane roadway) is maintained for Upper Manatee River Road between north of SR 64 and the Fort Hamer Bridge. The second alternative is the Build alternative which assumes Upper Manatee River Road is widened from a 2-lane roadway to a 4-lane roadway between north of SR 64 and the Fort Hamer Bridge. The Build alternative is anticipated to increase the capacity of Upper Manatee River Road for the planned and approved developments in the area. Additionally, the widening would provide Manatee County with a consistent roadway cross section that will match the number of lanes along Upper Manatee River Road/Lakewood Ranch Boulevard south of SR 64.

## 7.0 Design Year (2045) Volume Development

The existing year (2021) AADT volumes were used to forecast the design year (2045) AADT volumes for the No Build and Build alternatives using a 2.56% growth rate. The No Build alternative design year (2045) roadway AADT volumes and design hour directional volumes are shown in **Figure 3**. The Build alternative design year (2045) roadway AADT volumes and design hour directional volumes are shown in **Figure 4**. **Table 8** and **Table 9** show the design year (2045) traffic volume characteristics along the Upper Manatee River Road corridor between north of SR 64 and the Fort Hamer Bridge for the No Build and the Build alternatives, respectively. The K-Factor (Peak -To- Daily Ratio) was used to calculate the Design-Hour Volume (DHV) and the D-factor (Directional Distribution) was used to calculate the directional volumes.

**Table 8 | Design Year (2045) No Build Design Traffic Volume Characteristics**

Corridor	Upper Manatee River Road
Limits	From north of SR 64 to the Fort Hamer Bridge
2021 AADT	25,500
2045 AADT	41,200
Peak -To- Daily Ratio	9.00%
DHV	3,708
Directional Distribution	53.80%
Peak Directional Volume	1,995
Off Peak Directional Volume	1,713

**Table 9 | Design Year (2045) Build Design Traffic Volume Characteristics**

Corridor	Upper Manatee River Road
Limits	From north of SR 64 to the Fort Hamer Bridge
2021 AADT	25,500
2045 AADT	41,200
Peak -To- Daily Ratio	9.00%
DHV	3,708
Directional Distribution	53.80%
Peak Directional Volume	1,995
Off Peak Directional Volume	1,713

Figure 3 | No Build Design AADT and Design Hour Directional Volumes

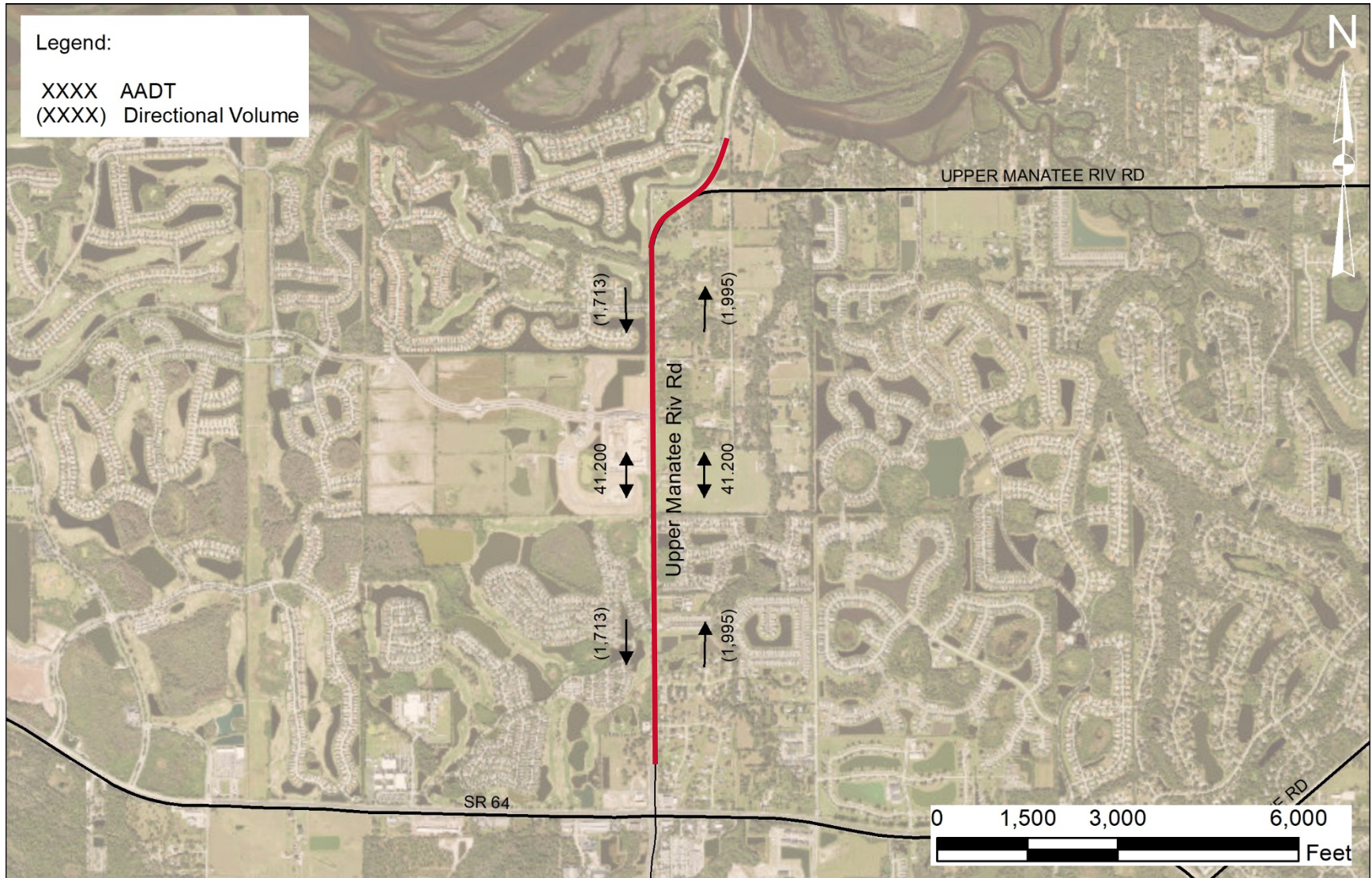
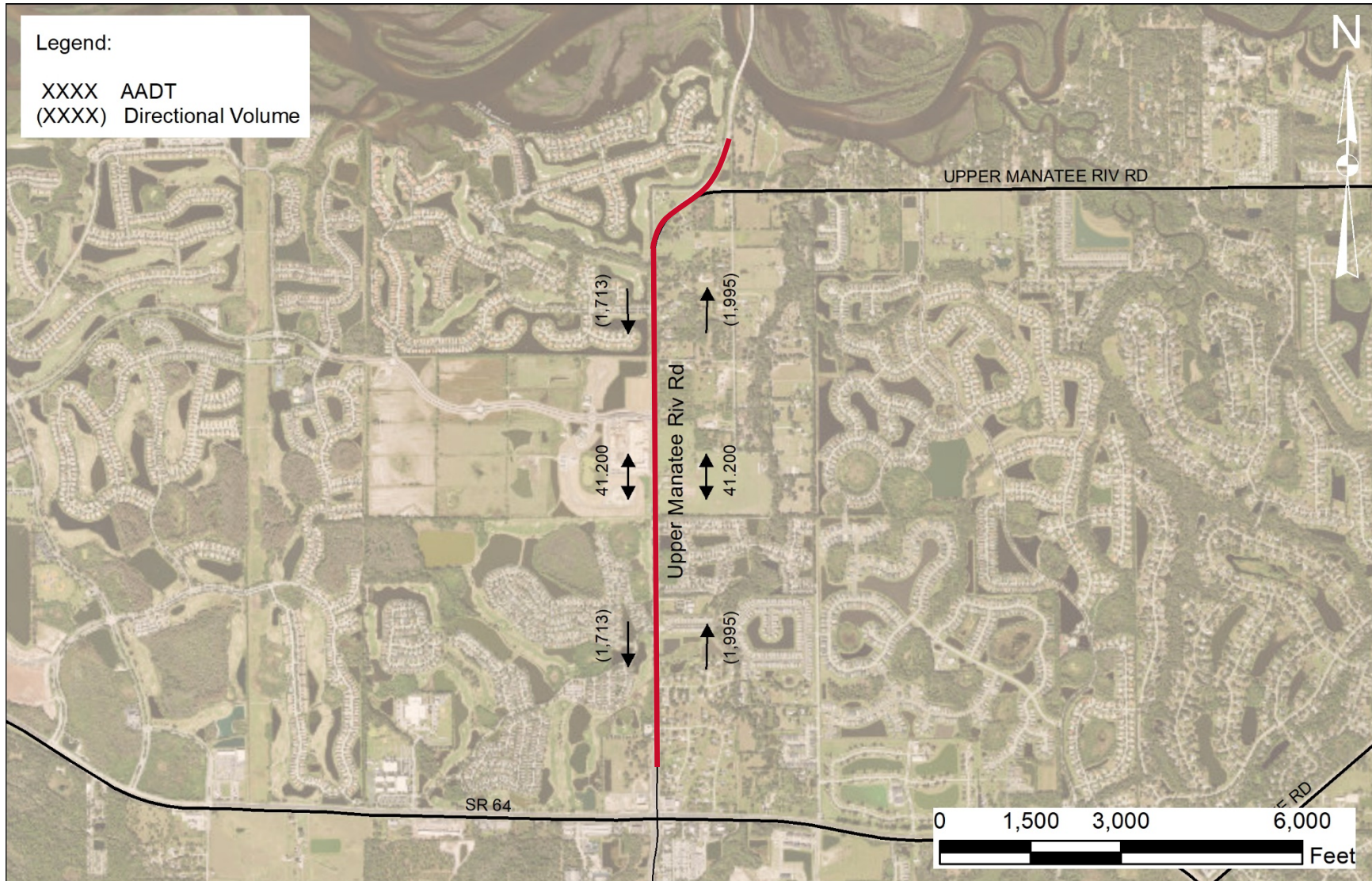


Figure 4 | Build Design AADT and Design Hour Directional Volumes



## 8.0 Design Year (2045) Level of Service Analysis

Generalized Service Volume Tables (GSVT), found in the FDOT Quality/LOS Handbook 2020, were used to perform a corridor capacity analysis. The developed design year (2045) traffic volumes were compared to the LOS D maximum service volumes found in the GSVTs to determine the volume/LOS D maximum service volume percentage. GSVT Table 7 was used to compare the peak hour directional volumes to the LOS D maximum peak hour directional volumes. **Table 10** and **Table 11** provide the capacity analysis for the Design Year (2045) peak hour directional volumes along the Upper Manatee River Road corridor for the No Build alternative and the Build alternative, respectively. For design year (2045) under both the No Build alternative and the Build alternative the corridor is expected to operate over the peak hour directional LOS D maximum service volume.

Under the No Build alternative, the corridor segment operates at 252% of the peak hour directional LOS D maximum service volume. Under the Build alternative, the corridor segment operates at 111% of the peak hour directional LOS D maximum service volume.

The Build alternative offers significant improvements to the capacity of Upper Manatee River Road between north of SR 64 and the Fort Hamer Bridge. While both the No Build alternative and the Build alternative are expected to operate over the peak hour directional LOS D maximum service volume, the Build alternative is expected to exceed the LOS D maximum service volume by 11%, while the No Build alternative which is expected to exceed the LOS D maximum service volume by 152%.

**Table 10 | Design Year (2045) No Build LOS D Capacity Analysis**

Upper Manatee River Road			
From north of SR 64 to the Fort Hamer Bridge			
Attribute	Volume	Peak Hour Directional LOS D Maximum Service Volume	
		1 Lane	
Peak Directional Volume	1,995	792*	252%

\*Adjusted for non-state roads, reduced by 10%

**Table 11 | Design Year (2045) Build LOS D Capacity Analysis**

Upper Manatee River Road			
From north of SR 64 to the Fort Hamer Bridge			
Attribute	Volume	Peak Hour Directional LOS D Maximum Service Volume	
		2 Lane	
Peak Directional Volume	1,995	1,800*	111%

\*Adjusted for non-state roads, reduced by 10%

## 9.0 Summary and Conclusion

The results of the capacity analysis show that for the existing year (2021) under existing conditions the Upper Manatee River Road corridor operates over the peak hour directional LOS D maximum service volume. For design year (2045) under both the No Build alternative and the Build alternative the corridor is expected to operate over the peak hour directional LOS D Maximum Service volume. The Build alternative offers significant improvements to the capacity of Upper Manatee River Road between north of SR 64 and the Fort Hamer Bridge. While both the No Build alternative and the Build alternative are expected to operate over the peak hour directional LOS D maximum service volume, the Build alternative is expected to exceed the LOS D maximum service volume by 11%, while the No Build alternative which is expected to exceed the LOS D maximum service volume by 152%.

**Appendix A**  
Historical Data and Trends Analysis

Count Stat Count Stations

OBJECTID 6747

SHAPE Point

STATION\_ 11-06

ROUTE\_N Upper Manatee River Rd.

DIR N

DIST 200

CROSS\_RSR 64& Manatee Ave.

C86 1885

C87 1863

C88 1841

C89 2146

C90 1938

C91 1853

C92 2565

C93 1812

C94 2589

C95 2176

C96 2791

C97 3609

C98 3966

C99 5024

C2000 6069

C2001 6360

C2002 9147

C2003 8760

C2004 9950

C2005 10937

C2006 10585

C2007 10692

C2008 9212

C2009 8027

C2010 10470

C2011 9754

C2012 8252

C2013 11020

C2014 11527

C2015 11780

C2016 Null

C2017 17739

C2018 19126

C2019 21602

C2020 23390

C2021 Null

C2022 Null

C2023 Null

C2024 Null

C2025 Null

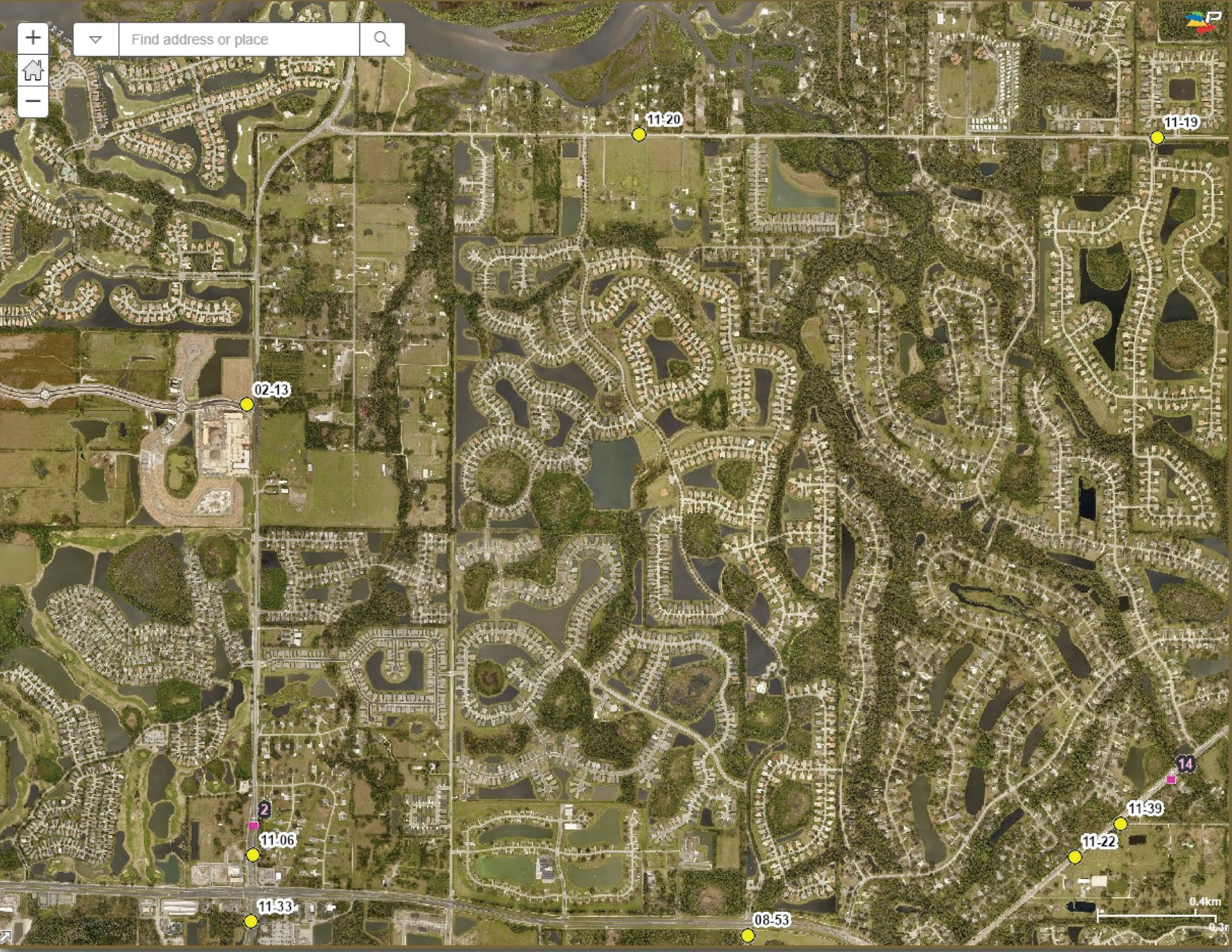
EDITOR N/ MOLMSTEAD

LASTUPD. 3/31/2021 8:05:00 AM

CREATOR Null

CREATION Null





11-20

11-19

02-13

2

11-06

11-33

08-53

11-22

11-39

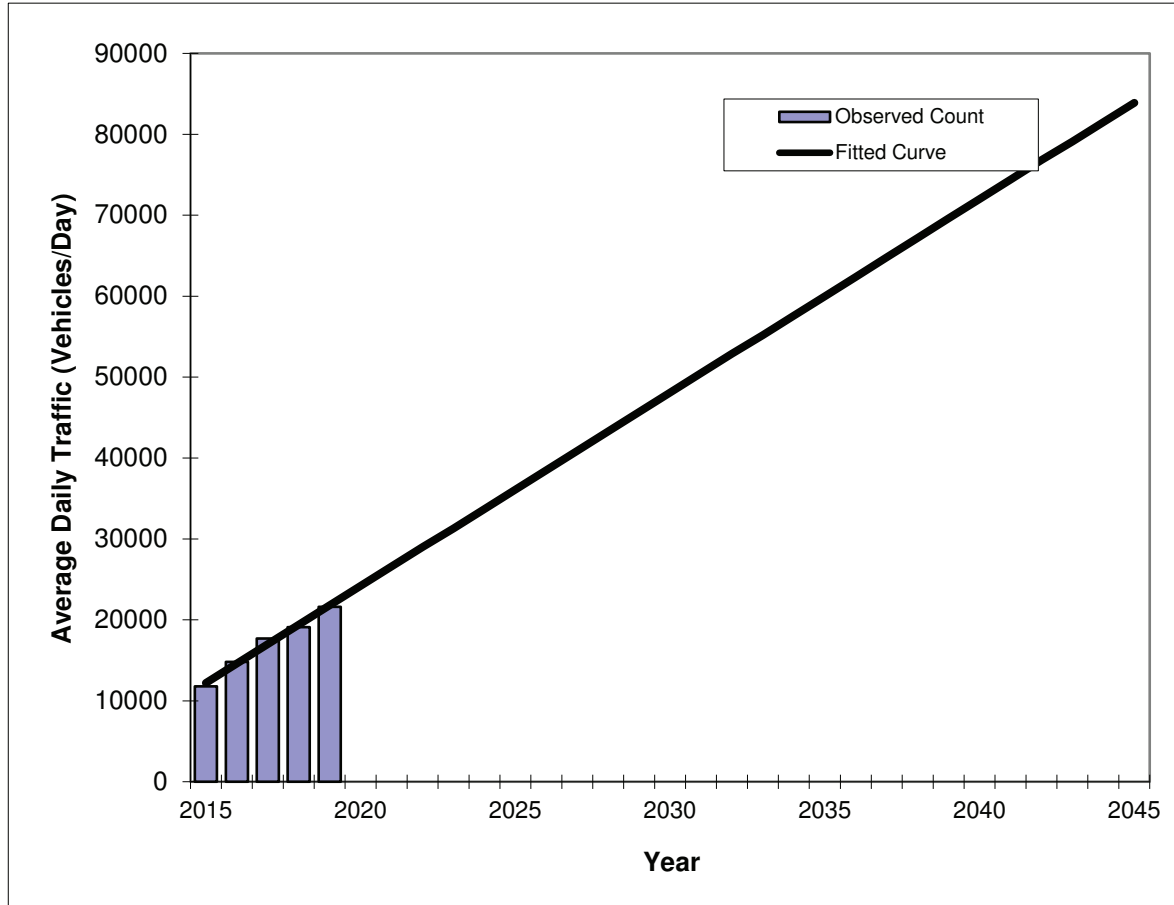
14

0.4km  
0.3m

## Traffic Trends - V03.a UPPER MANATEE RIV.RD --

FIN#	1234
Location	1

County:	Manatee (13)
Station #:	11-06
Highway:	UPPER MANATEE RIV.RD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	11800	12200
2016	14800	14600
2017	17700	17000
2018	19100	19400
2019	21600	21800
<b>2025 Opening Year Trend</b>		
2025	N/A	36100
<b>2035 Mid-Year Trend</b>		
2035	N/A	60000
<b>2045 Design Year Trend</b>		
2045	N/A	83900
<b>TRANPLAN Forecasts/Trends</b>		

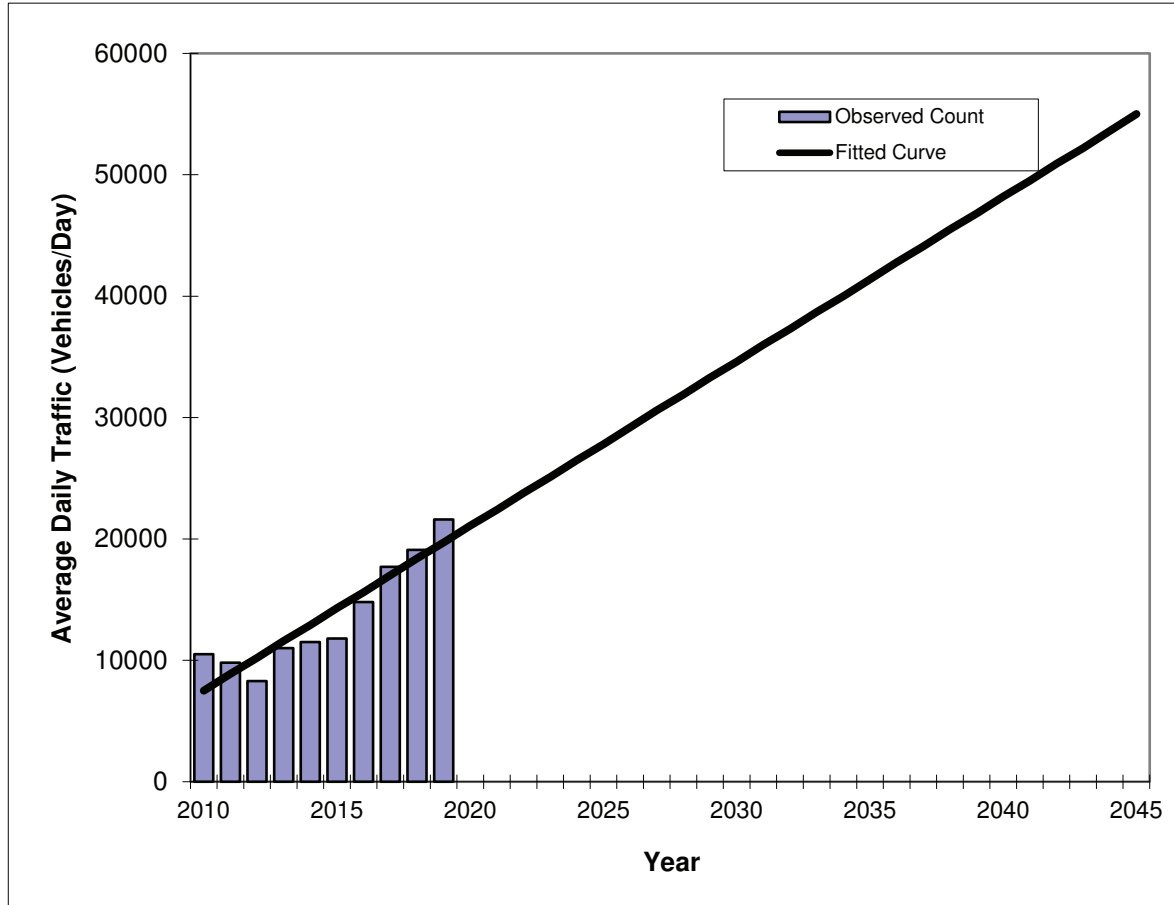
** Annual Trend Increase:	2,390
Trend R-squared:	98.59%
Trend Annual Historic Growth Rate:	19.67%
Trend Growth Rate (2019 to Design Year):	10.96%
Printed:	8-Sep-21
<b>Straight Line Growth Option</b>	

\*Axle-Adjusted

## Traffic Trends - V03.a UPPER MANATEE RIV.RD --

FIN#	1234
Location	1

County:	Manatee (13)
Station #:	11-06
Highway:	UPPER MANATEE RIV.RD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	10500	7500
2011	9800	8900
2012	8300	10200
2013	11000	11600
2014	11500	12900
2015	11800	14300
2016	14800	15600
2017	17700	17000
2018	19100	18400
2019	21600	19700
<b>2025 Opening Year Trend</b>		
2025	N/A	27800
<b>2035 Mid-Year Trend</b>		
2035	N/A	41400
<b>2045 Design Year Trend</b>		
2045	N/A	55000
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	1,356
Trend R-squared:	84.69%
Trend Annual Historic Growth Rate:	18.07%
Trend Growth Rate (2019 to Design Year):	6.89%
Printed:	8-Sep-21
<b>Straight Line Growth Option</b>	

\*Axle-Adjusted

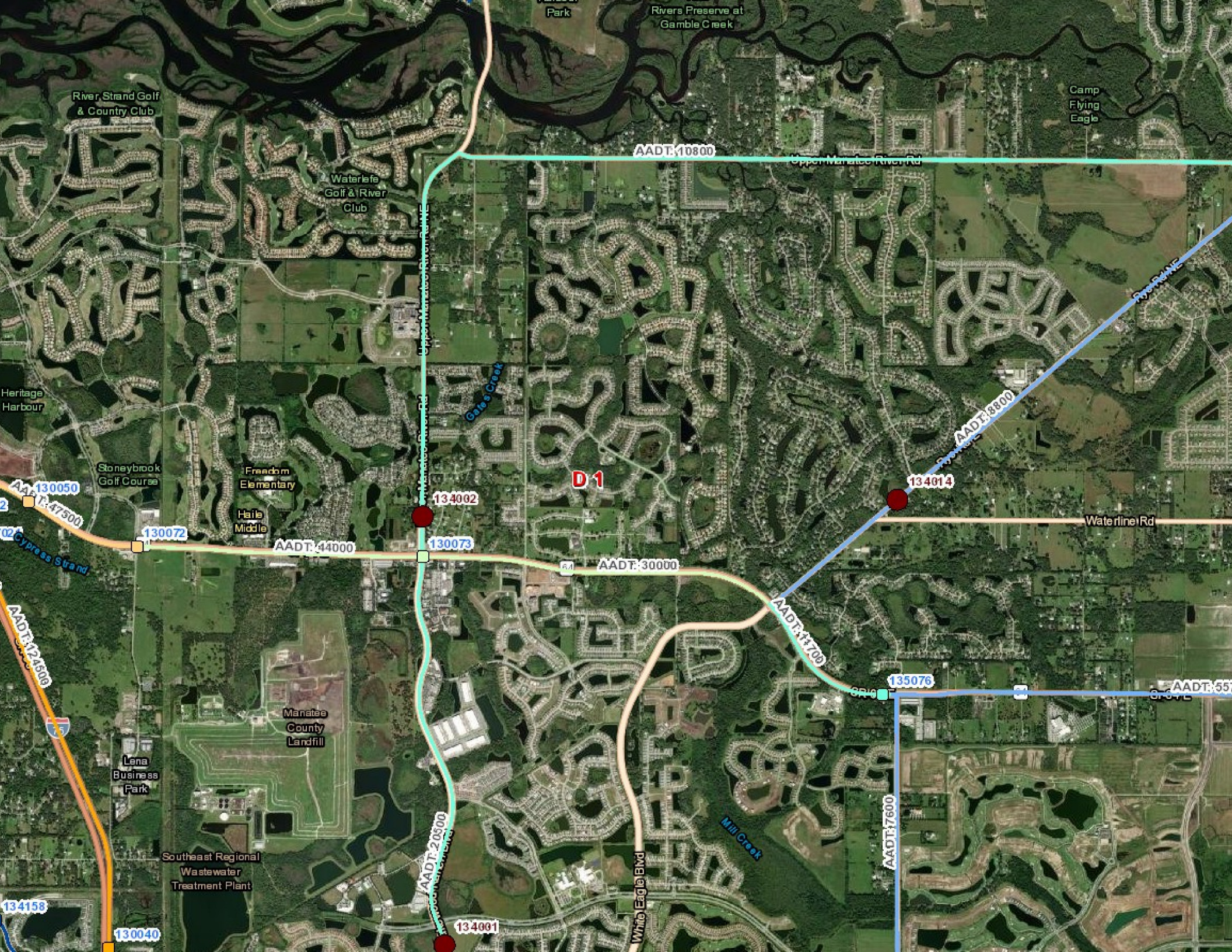
FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2020 HISTORICAL AADT REPORT

COUNTY: 13 - MANATEE

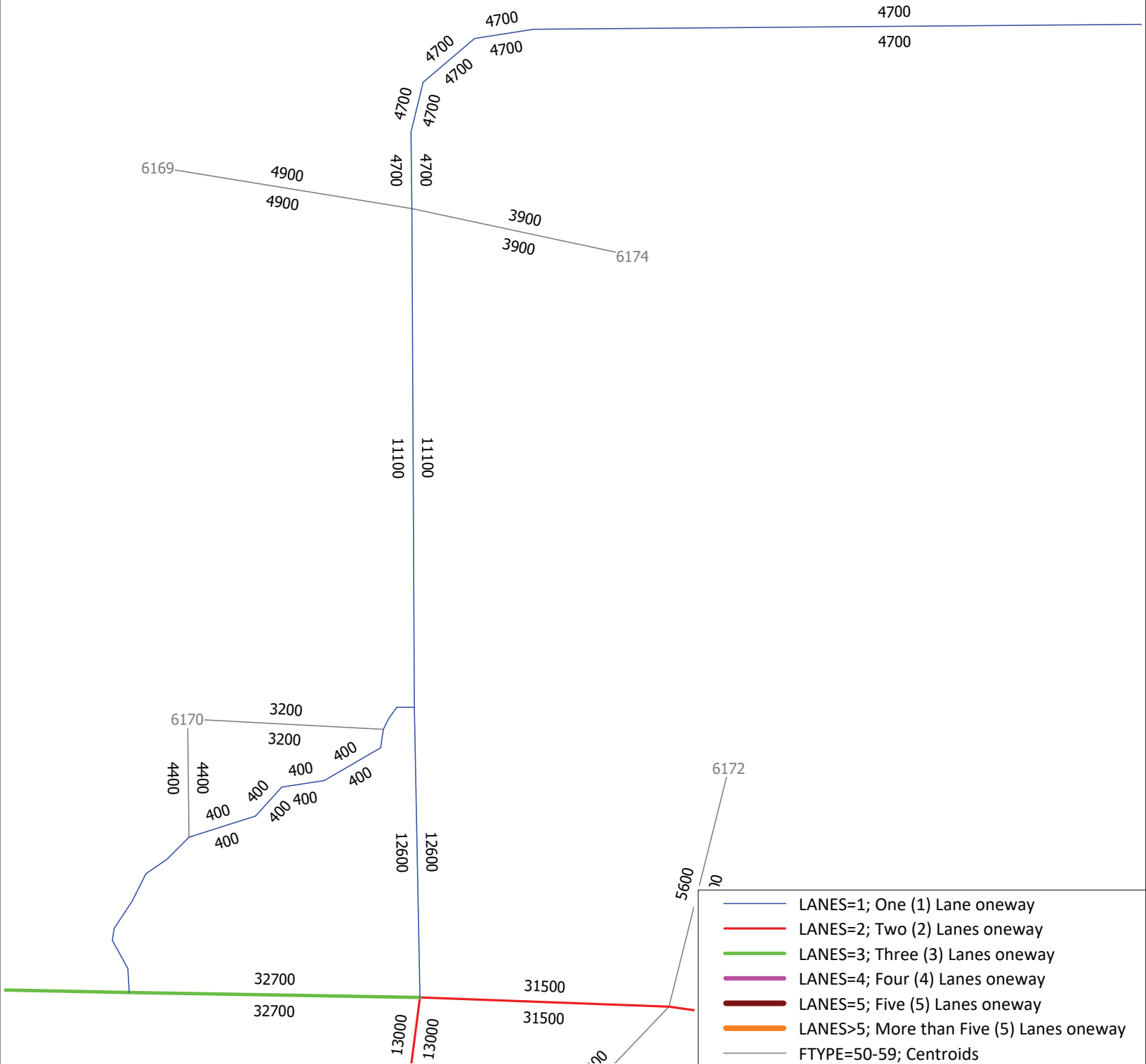
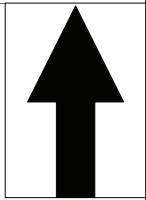
SITE: 4002 - UPPER MANATEE RIVER RD, 974' N OF SR 64/MANATEE AV      PTMS 2002    MCPR 02

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----	-----	-----
2020	10800 E		0		0	9.00	53.40	7.80
2019	10500 S		0		0	9.00	53.80	5.60
2018	10200 F		0		0	9.00	58.60	5.50
2017	10005 C	N	5500	S	4505	9.00	63.20	6.60
2016	10040 C	N	5401	S	4639	9.00	62.20	5.40
2015	10571 C	N	5138	S	5433	9.00	62.20	6.60
2014	10171 C	N	5108	S	5063	9.00	62.20	4.50
2013	9649 C	N	4788	S	4861	9.00	61.90	4.00
2012	9180 C	N	4565	S	4615	9.00	61.90	5.80
2011	9036 C	N	4467	S	4569	9.00	61.10	5.00
2010	7900 F	N	3900	S	4000	10.42	60.90	3.70
2009	8368 C	N	4108	S	4260	10.42	60.90	3.70
2008	8708 C	N	4393	S	4315	10.58	59.34	3.70
2007	10304 C	N	5087	S	5217	10.18	58.34	6.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
 \*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES



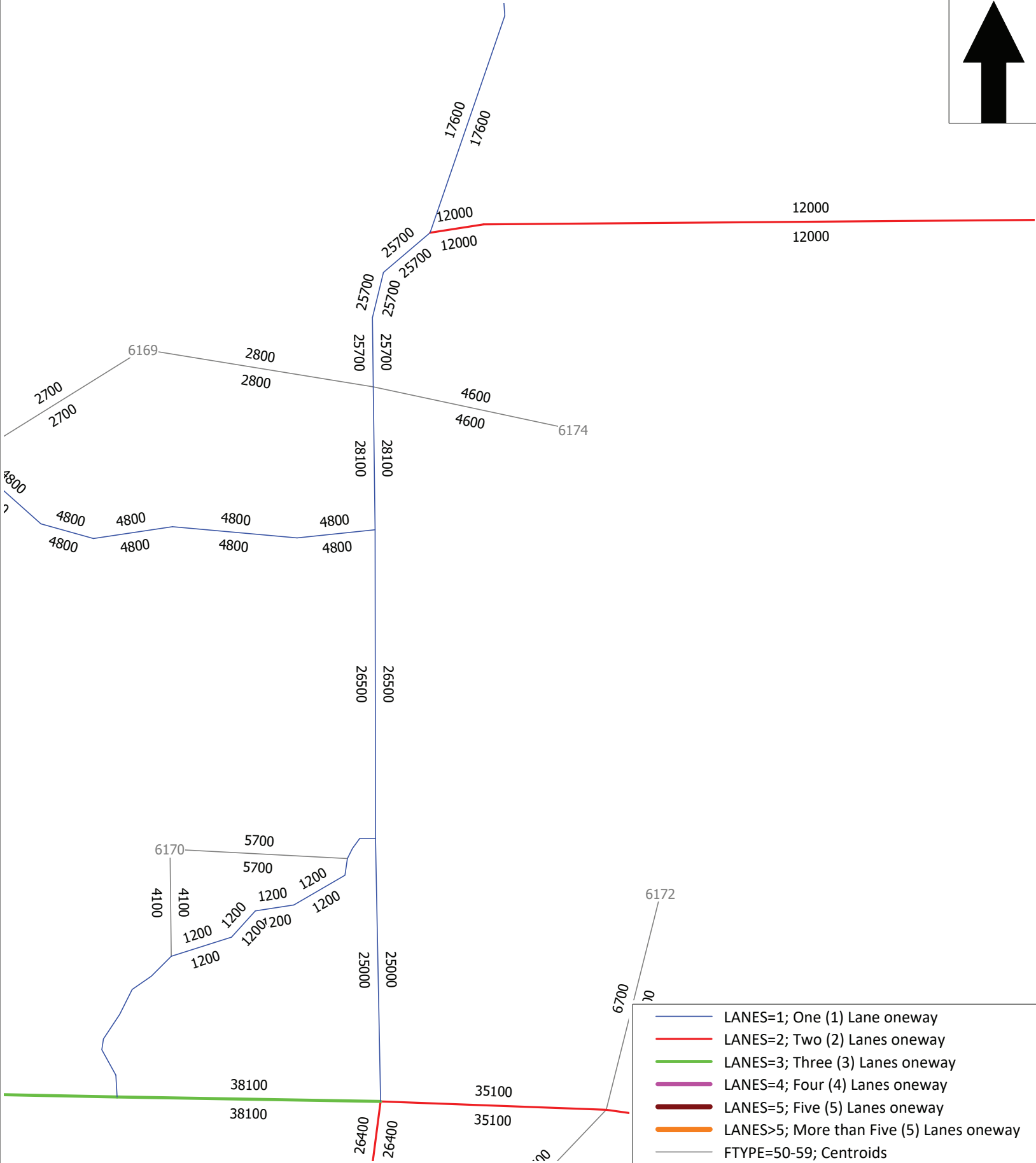
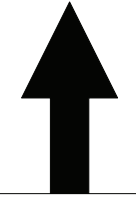
**Appendix B**  
D1RPMv2.0



## Base Year 2015 AADT (Duplicate Posts)

### 2015 Base Year Validation

# D1RPMv2.0

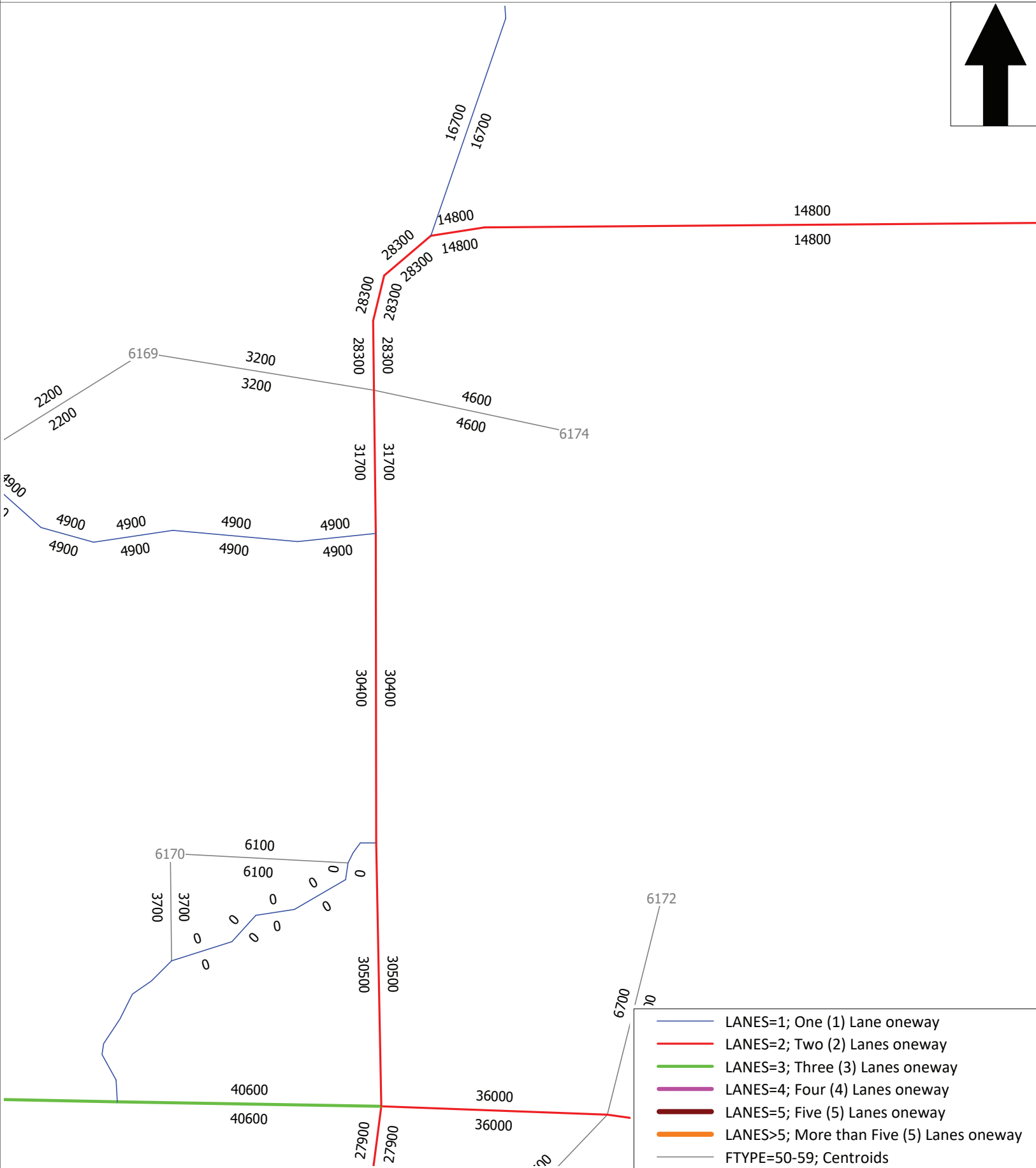
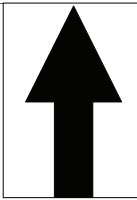


Horizon Year 2045 AADT (Dupliated Posts)

2045 No Build Upper Manatee River Road 2-Lanes



# D1RPMv2.0



Horizon Year 2045 AADT (Duplicate Posts)

2045 Updated Cost Feasible

Corridor	D1RPMv2.0 2015 AADT	D1RPMv2.0 2045 NBUM AADT	D1RPMv2.0 2045 UCF AADT	D1RPMv2.0 - No Build Growth Rate	D1RPMv2.0 - Build Growth Rate
Upper Manatee River Road	12,600	25,000	30,500	3.28%	4.74%

Upper Manatee River Road Immediate Project Area

D1RPMv2.0 2015 Base Model

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6124	543	0	1511	776	3	3	19	25	0	0	0
6169	516	185	1346	694	4	4	91	99	0	0	0
6174	412	7	1148	591	10	3	3	16	0	0	0
6170	718	0	1579	819	7	10	261	278	0	1864	0
6262	0	0	0	0	48	278	286	612	0	0	0

D1RPMv2.0 2045 Cost Feasible Model

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6124	583	23	1663	867	16	14	46	76	0	0	0
6169	554	198	1444	744	25	23	101	149	0	0	0
6174	442	18	1255	649	24	15	48	87	0	0	0
6170	770	67	1814	954	69	68	280	417	0	2349	0
6262	59	31	165	77	58	298	307	663	0	0	0

D1RPMv2.0 2015 Base Model to 2045 Cost Feasible Model Linear Growth

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6124	0.25%	0.00%	0.34%	0.39%	14.44%	12.22%	4.74%	6.80%	0.00%	0.00%	0.00%
6169	0.25%	0.23%	0.24%	0.24%	17.50%	15.83%	0.37%	1.68%	0.00%	0.00%	0.00%
6174	0.24%	5.24%	0.31%	0.33%	4.67%	13.33%	50.00%	14.79%	0.00%	0.00%	0.00%
6170	0.24%	0.00%	0.50%	0.55%	29.52%	19.33%	0.24%	1.67%	0.00%	0.87%	0.00%
6262	0.00%	0.00%	0.00%	0.00%	0.69%	0.24%	0.24%	0.28%	0.00%	0.00%	0.00%
<b>Total Type Growth</b>	<b>0.33%</b>	<b>2.52%</b>	<b>0.45%</b>	<b>0.48%</b>	<b>5.56%</b>	<b>1.34%</b>	<b>0.62%</b>	<b>1.17%</b>	<b>0.00%</b>	<b>0.87%</b>	<b>0.00%</b>
<b>Overall Area Growth</b>	<b>0.62%</b>										

Upper Manatee River Road Expanded Project Area

D1RPMv2.0 2015 Base Model

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6262	0	0	0	0	48	278	286	612	0	0	0
6170	718	0	1579	819	7	10	261	278	0	1864	0
6172	693	123	1494	767	21	38	51	110	0	0	0
6169	516	185	1346	694	4	4	91	99	0	0	0
6174	412	7	1148	591	10	3	3	16	0	0	0
6222	1442	2	4147	2137	29	7	55	91	0	0	0
6124	543	0	1511	776	3	3	19	25	0	0	0
6168	963	142	2399	1238	0	36	31	67	0	0	0

D1RPMv2.0 2045 Cost Feasible Model

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6262	59	31	165	77	58	298	307	663	0	0	0
6170	770	67	1814	954	69	68	280	417	0	2349	0
6172	744	132	1603	823	65	73	188	326	0	0	0
6169	554	198	1444	744	25	23	101	149	0	0	0
6174	442	18	1255	649	24	15	48	87	0	0	0
6222	1547	112	4650	2455	74	60	198	332	0	0	0
6124	583	23	1663	867	16	14	46	76	0	0	0
6168	1033	152	2574	1327	52	64	159	275	0	0	0

D1RPMv2.0 2015 Base Model to 2045 Cost Feasible Model Linear Growth

ZONE	SFDU	MFDU	RESDPOP	WORKERS	IND_EMP	COMM_EMP	SERV_EMP	TOT_EMP	HMDU	SCHOOL	UNIVERSITY
6262	0.00%	0.00%	0.00%	0.00%	0.69%	0.24%	0.24%	0.28%	0.00%	0.00%	0.00%
6170	0.24%	0.00%	0.50%	0.55%	29.52%	19.33%	0.24%	1.67%	0.00%	0.87%	0.00%
6172	0.25%	0.24%	0.24%	0.24%	6.98%	3.07%	8.95%	6.55%	0.00%	0.00%	0.00%
6169	0.25%	0.23%	0.24%	0.24%	17.50%	15.83%	0.37%	1.68%	0.00%	0.00%	0.00%
6174	0.24%	5.24%	0.31%	0.33%	4.67%	13.33%	50.00%	14.79%	0.00%	0.00%	0.00%
6222	0.24%	183.33%	0.40%	0.50%	5.17%	25.24%	8.67%	8.83%	0.00%	0.00%	0.00%
6124	0.25%	0.00%	0.34%	0.39%	14.44%	12.22%	4.74%	6.80%	0.00%	0.00%	0.00%
6168	0.24%	0.23%	0.24%	0.24%	0.00%	2.59%	13.76%	10.35%	0.00%	0.00%	0.00%
<b>Total Type Growth</b>	<b>0.28%</b>	<b>1.99%</b>	<b>0.38%</b>	<b>0.41%</b>	<b>7.13%</b>	<b>2.08%</b>	<b>2.22%</b>	<b>2.64%</b>	<b>0.00%</b>	<b>0.87%</b>	<b>0.00%</b>
<b>Overall Area Growth</b>	<b>0.61%</b>										

---

## **Appendix C – Natural Resources Assessment Memo**

# Natural Resources Assessment Technical Memorandum

Upper Manatee River Road  
Project Development and Corridor Study Report

October 2021



## CONTENTS

<b>Executive Summary .....</b>	<b>5</b>
<b>1.0 Introduction .....</b>	<b>8</b>
1.1 Project Description .....	8
1.2 Purpose and Need.....	8
<b>2.0 Existing Conditions .....</b>	<b>11</b>
2.1 Land Use.....	11
2.2 Soils.....	11
<b>3.0 Protected Species and Habitat .....</b>	<b>16</b>
3.1 Methodology .....	16
3.2 Federal Protected Wildlife and Critical Habitat .....	18
3.2.1 Eastern Indigo Snake ( <i>Drymarchon corais couperi</i> ).....	19
3.2.2 Wood Stork ( <i>Mycteria americana</i> ).....	20
3.2.3 Florida Scrub Jay ( <i>Aphelocoma coerulescens</i> ).....	21
3.2.4 Bald Eagle ( <i>Haliaeetus leucocephalus</i> ).....	21
3.2.5 Osprey ( <i>Pandion haliaetus</i> ).....	21
3.3 State Protected Wildlife.....	22
3.3.1 Florida Sandhill Crane ( <i>Antigone canadensis pratensis</i> ).....	22
3.3.2 Southeastern American Kestrel ( <i>Falco sparverius Paulus</i> ).....	23
3.3.3 Gopher Tortoise ( <i>Gopherus polyphemus</i> ).....	23
3.3.4 Florida Pine Snake ( <i>Pituophis melanoluecus mugitus</i> ).....	24
3.3.5 Wading Birds .....	24
3.3.6 Nesting Shorebirds.....	25
3.4 Federal and State Protected Plants .....	26
<b>4.0 Wetlands and Other Surface Waters.....</b>	<b>27</b>
4.1 Methodology .....	27
4.2 Study Area Wetland and Other Surface Water Features .....	27
4.3 Outstanding Florida Waters.....	31
4.4 Sovereign Submerged Lands .....	31
4.5 Wetland and Other Surface Waters .....	32
4.5.1 Direct Wetland and Other Surface Water Impacts.....	32
4.5.2 Avoidance and Minimization.....	32
4.5.3 Indirect and Cumulative Impacts .....	33

4.5.4 Mitigation .....33

**5.0 Essential Fish Habitat..... 34**

**6.0 Anticipated Permits ..... 34**

**7.0 Conclusions ..... 34**

7.1 Protected Species and Habitat.....34

7.1.1 Federal Protected Wildlife and Critical Habitat .....34

7.1.2 State Protected Wildlife .....35

7.1.3 Federal and State Protected Plants.....36

7.2 Wetlands and Other Surface Waters .....36

7.3 Essential Fish Habitat .....37

7.4 Anticipated Permits .....37

**8.0 Commitments ..... 37**

8.1 Wildlife .....37

8.2 Wetlands and Other Surface Waters .....38

**9.0 References ..... 38**

**FIGURES**

Figure 1-1: Project Location ..... 9

Figure 1-2: Study Area.....10

Figure 2-1: Land Use and Land Cover for Upper Manatee River Road Study Area.....13

Figure 2-2: NRCS Soils Map for the Upper Manatee River Road Study Area.....15

Figure 3-1: Wildlife Occurrence Map for the Upper Manatee River Road Study Area.....17

Figure 4-1: Wetlands and Surface Water Map – South .....29

Figure 4-2: Wetlands and Surface Water Map – North.....30

## TABLES

Table E-1 Project Effect Determinations for Federal Listed and Protected Wildlife.....	5
Table E-2: Project Effect Determinations for State Listed Wildlife .....	6
Table E-3: Project Effect Determinations for Federal and State Listed Plants.....	7
Table 2-1: SWFWMD Land Use Land Cover Summary for the Study Area.....	12
Table 2-2: NRCS Soil Survey of Manatee County, Florida Summary for the Study Area .....	14
Table 3-1: Federally Protected Wildlife Potentially Occurring within the Study Area.....	19
Table 3-2: State Listed Species Potentially Occurring within the Study Area .....	22
Table 3-3: Federal and State Listed Plants Potentially Occurring within the Study Area.....	26
Table 4-1: Wetland and Other Surface Waters, Classification, and Acres in the Study Area .....	28
Table 7-1: Project Effect Determinations for Federal Listed and Protected Wildlife.....	35
Table 7-2: Project Effect Determinations for State Listed Wildlife .....	35
Table 7-3: Project Effect Determinations for Federal and State Listed Plants.....	36

## APPENDICES

- Appendix A – Soil Data Report
- Appendix B – IPaC Resource List
- Appendix C – Affect Determination Keys
- Appendix D – Special Protection Measures



### Executive Summary

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing 4-lane section north of State Road (SR) 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida. This Natural Resources Assessment Technical Memorandum was prepared to support the Study through the evaluation of **Protected Species and Habitat, Wetlands and Other Surface Waters, and Essential Fish Habitat**. This Technical Memorandum documents the results of the corridor assessment in order to support decisions associated with the proposed project as it relates to natural resources potentially present in the corridor study area.

Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas, including wetlands, critical wildlife habitats, and listed species.

The natural resources assessment was performed using as guidance Part 2, Chapter 16 Protected Species and Habitat and Chapter 9 Wetlands and Other Surface Waters of the Florida Department of Transportation (FDOT) PD&E Manual (July 1, 2020). However, this assessment is not considered a full Natural Resources Evaluation (NRE) as defined in the FDOT PD&E Manual. In addition, the natural resources assessment did not evaluate proposed stormwater management facilities outside of the corridor study area, such as potential pond locations, if any.

### Protected Species and Habitat

The project was evaluated for potential impacts to federal and State of Florida (state) endangered or threatened species of fish, wildlife, and plants (listed species) and habitat of such species that has been designated as critical habitat under Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended. Protected species were also reviewed for their potential to occur within the corridor study area.

### Federal Protected Wildlife and Critical Habitat

Three federal listed species protected by the U.S. Department of Interior Fish and Wildlife Service (USFWS) potentially occur within the corridor study area. The proposed project would be expected to result in the effect determinations provided in **Table E-1** for federal listed species. Migratory birds and their habitat, including the non-listed but federally protected bald eagle and osprey were also present in this region and included in **Table E-1**. However, this list may need to be refined based on the project alternative selected to proceed. USFWS designated critical habitat, as defined by Congress 50 CFR §17.94, was not present within the corridor study area. Therefore, the proposed project would not result in the **destruction or adverse modification of critical habitat**.

*Table E-1 Project Effect Determinations for Federal Listed and Protected Wildlife*

Scientific Name	Common Name	Status	Project Effect Determination
<b>Federal Listed Wildlife</b>			
<i>Drymarchon corais couperi</i>	Eastern indigo snake	Threatened	May affect, not likely to adversely affect
<i>Mycteria americana</i>	Wood stork	Threatened	May affect, not likely to adversely affect
<i>Aphelocoma coerulescens</i>	Florida scrub jay	Threatened	No effect
<b>Federal Protected Wildlife</b>			
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGEPA* MBTA**	No effect
<i>Pandion haliaetus</i>	Osprey	MBTA**	No effect

\* Bald & Golden Eagle Protection Act and Migratory Bird Treaty Act. \*\* Migratory Bird Treaty Act

### State Protected Wildlife

Ten state listed wildlife managed by the Florida Fish and Wildlife Conservation Commission (FWC) could potentially occur within the corridor study area. The proposed project would be expected to result in the effect determinations provided in **Table E-2** for state listed species. However, this list may need to be refined based on the project alternative selected to proceed.

*Table E-2: Project Effect Determinations for State Listed Wildlife*

Scientific Name	Common Name	Status	Project Effect Determination
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	Threatened	No effect anticipated
<i>Falco sparverius paulus</i>	Southeastern American kestrel	Threatened	No effect anticipated
<i>Gopherus polyphemus</i>	Gopher tortoise	Threatened	No adverse effect anticipated
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	Threatened	No effect anticipated
<b>Wading Birds</b>			
<i>Egretta caerulea</i>	Little blue heron	Threatened	No effect anticipated
<i>Egretta rufescens</i>	Reddish egret	Threatened	No effect anticipated
<i>Egretta tricolor</i>	Tricolored heron	Threatened	No effect anticipated
<i>Platalea ajaja</i>	Rosette spoonbill	Threatened	No effect anticipated
<b>Nesting Shorebirds</b>			
<i>Rynchops niger</i>	Black skimmer	Threatened	No effect anticipated
<i>Sternula antillarum</i>	Least Tern	Threatened	No effect anticipated

### Federal and State Protected Plants

Twelve federal and state listed plants protected by the Florida Department of Agricultural and Consumer Services (FDACS) that have the potential to occur within the corridor study area, including six endangered and six threatened. These listed plant species are shown in **Table E-3**. None were observed during preliminary field surveys. However, this list may need to be refined based on the project alternative selected to proceed. Due to their low likelihood of occurrence, there is no effect anticipated to these federal and state listed plant species. Three species are federally listed plants known from Manatee County but associated with sand pine scrub or scrubby pine flatwoods. These habitats are not present within the study area so there are no effects anticipated.

Table E-3: Project Effect Determinations for Federal and State Listed Plants

Scientific Name	Common Name	Status	Effect Determination
<i>Andropogon arctatus</i>	Pine-woods Bluestem	State Threatened	No effect anticipated
<i>Bonamia grandiflora</i>	Florida Bonamia	Federal Threatened	No effect anticipated
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	State Threatened	No effect anticipated
<i>Centrosema arenicola</i>	Sand Butterfly Pea	State Endangered	No effect anticipated
<i>Chionanthus pygmaeus</i>	Pygmy Fringe-tree	Federal Endangered	No effect anticipated
<i>Cladonia perforata</i>	Florida Perforate Cladonia	Federal Endangered	No effect anticipated
<i>Eragrostis pectinacea</i> <i>var. tracyi</i>	Sanibel Lovegrass	State Endangered	No effect anticipated
<i>Lechea cernua</i>	Nodding Pinweed	State Threatened	No effect anticipated
<i>Nemastylis floridana</i>	Celestial Lily	State Endangered	No effect anticipated
<i>Pteroglossaspis</i> <i>ecristata</i>	Giant Orchid	State Threatened	No effect anticipated
<i>Rhynchospora</i> <i>megaplumosa</i>	Large-plumed Beaksedge	State Endangered	No effect anticipated
<i>Zephyranthes simpsonii</i>	Redmargin Zephyrlily	State Threatened	No effect anticipated

## Wetlands and Other Surface Waters

Wetlands and other surface waters were identified within the corridor study area. The primary wetland types in the study area included: Stream and Lake Swamps, Mixed Wetland Hardwood, Exotic Wetland Hardwoods, Wetland Forested Mixed, Freshwater Marshes, and Wet Prairies. Generally, all wetland systems identified were in moderate to poor condition, having incurred drainage by ditching, watershed conversions to farmland, and/or nearby development. Vegetation communities within the wetlands have also been degraded by agricultural activities, tree harvesting, and nuisance and exotic species growth.

Surface waters were present mostly associated with roadside ditches on the northern half of the study area and some remnant field ditches, derived from agricultural land uses. There are two primary water channels associated with Upper Manatee River Road. These drainages were historically natural and associated with wetlands.

A total of 16 wetlands were identified within the corridor study area. A total of five surface waters were identified within the corridor study area, all consisting of drainage ditches either running along the roadside or draining away from the roadway. During evaluation of the road alignment alternatives, potential impacts to wetlands and surface waters would be identified and quantified. Direct impacts would include permanent and temporary impacts and would be quantified and tabulated for the state and federal permit applications.

## Essential Fish Habitat

Essential fish habitat does not occur within the corridor study area; therefore, an Essential Fish Habitat (EFH) Assessment was not required.

### 1.0 Introduction

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. This Natural Resources Assessment Technical Memorandum was prepared to support the Study through the evaluation of **Protected Species and Habitat, Wetlands and Other Surface Waters, and Essential Fish Habitat**. This Technical Memorandum documents the results of the corridor assessment to support decisions associated with the proposed modifications to Upper Manatee River Road as it relates to natural resources potentially present in the corridor study area.

Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas, including wetlands, critical wildlife habitats, and listed species.

The purpose of this natural resources assessment is to demonstrate due diligence in accordance with federal and state regulations and to begin conformance with the requirements of Title 23 of the Code of Federal Regulations (CFR) Part 771 and applicable federal and state laws, including the National Environmental Policy Act (NEPA). The natural resources assessment was performed using as guidance Part 2, Chapter 16 Protected Species and Habitat and Chapter 9 Wetlands and Other Surface Waters of the Florida Department of Transportation (FDOT) PD&E Manual (July 1, 2020). However, this assessment is not considered a full Natural Resources Evaluation (NRE) as defined in the FDOT PD&E Manual. In addition, the natural resources assessment did not evaluate proposed stormwater management facilities outside of the corridor study area, such as potential pond locations, if any.

### 1.1 Project Description

Manatee County proposes the widening of Upper Manatee River Road from two- to four-lanes from north of State Road (SR 64) to the Fort Hamer Bridge, a distance of 2.0 miles. The project limits extend from the existing 4-lane section north of SR 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida, as shown in **Figure 1-1**. The County is performing a full range of engineering and environmental studies within the study corridor to support the evaluation of project alternatives and develop a preliminary design.

The project is located in west-central Manatee County within the Gates Creek watershed and Manatee River (Below Dam) watershed. **Figure 1-2** shows the study area on the United States Geologic Survey (USGS), 7.5 Minute “Lorraine NE, Florida” and “Parrish SE, Florida” (2021) Quadrangle topographic maps with an aerial photograph base. For this project, the study area includes a 500-foot buffer, east and west of the existing road centerline (i.e., project limits), totaling a 1,000-foot-wide study corridor. All resources discussed herein fall within this study area.

### 1.2 Purpose and Need

The primary purpose of the Upper Manatee River Road improvements is to provide congestion relief by providing additional capacity between SR 64 and the Fort Hamer Bridge. Located between the Manatee River and SR 64, additional capacity along Upper Manatee River Road would provide relief to existing major east-west corridors, such as Interstate 75 (I-75) and Lakewood Ranch Boulevard.

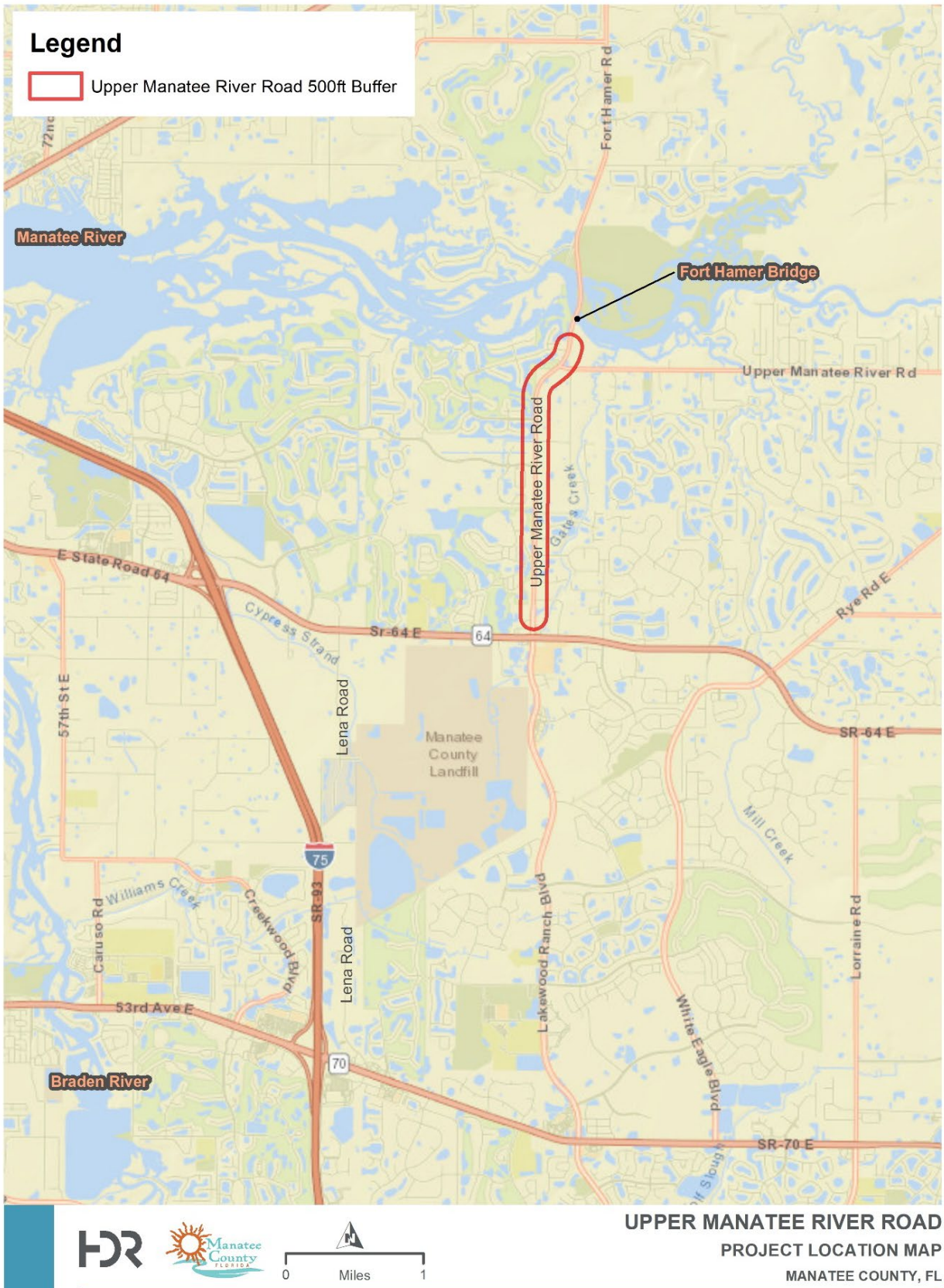


Figure 1-1: Project Location

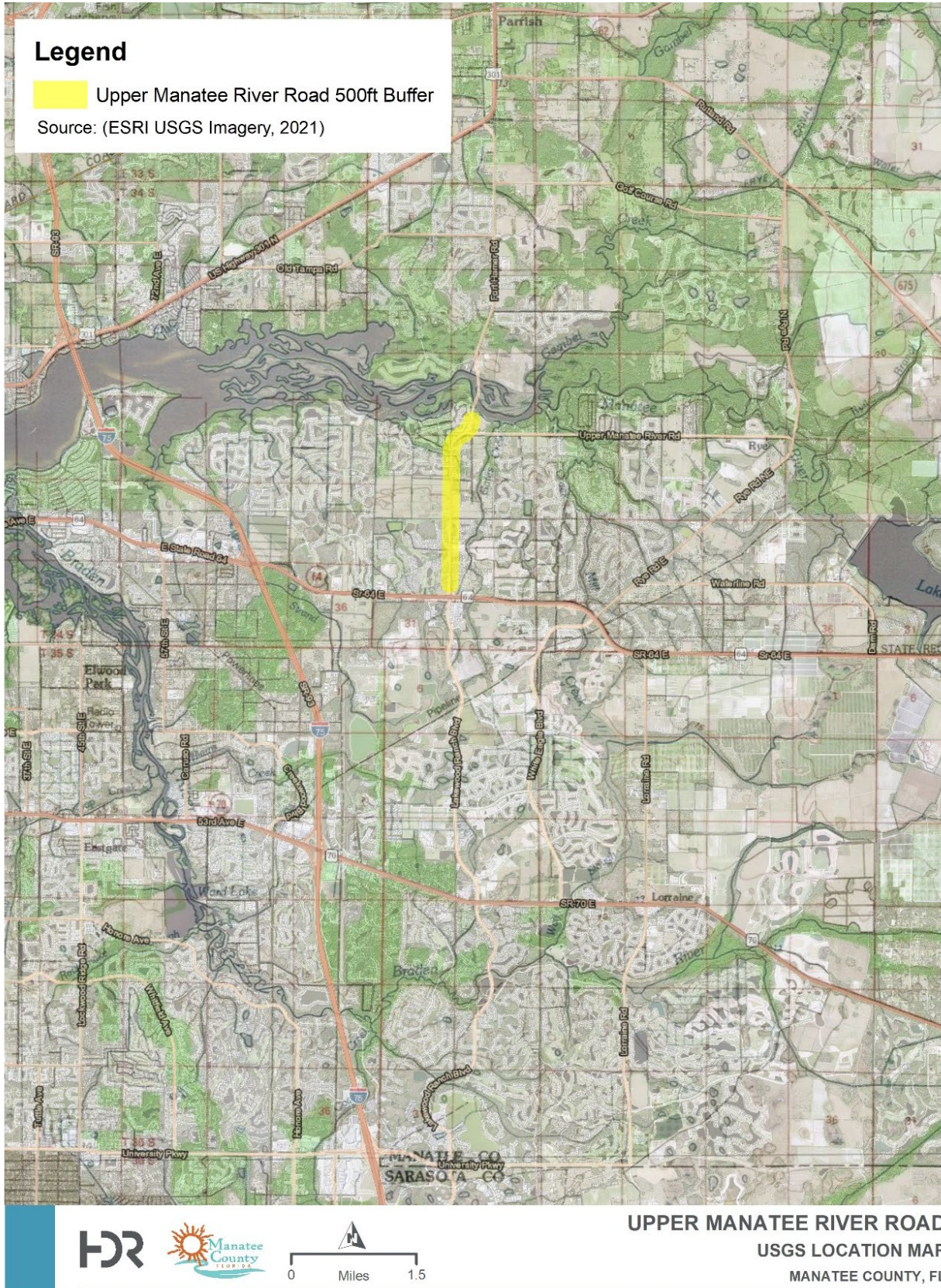


Figure 1-2: Study Area

## 2.0 Existing Conditions

### 2.1 Land Use

The land use in this part of Manatee County has been characterized by agriculture for decades, including vegetable farms, citrus groves, and cattle pastures. The 1954 U.S. Census of Agriculture reported the aggregated land in farms as 309,000 acres, or 69 percent of all county land (USDA 1958). This area of Manatee County is coastal lowlands, comprised mostly of nearly level plains that have undergone little or no dissection since successive sea level withdrawals in the Pleistocene epoch (Ice Age) (USDA 1983). Aerial imagery from the University of Florida Digital Library Collection was reviewed, including photography from 1940, 1951, and 1957, for recent land use conditions and environmental features. The historic aerial photography confirms Upper Manatee River Road was present in 1940 with several home sites and associated farmlands.

The Southwest Florida Water Management District (SWFWMD) Land Use Land Cover data (2017) and 2020 aerial imagery were reviewed for existing land uses within the study area. Land use was categorized using the FDOT Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT, 1999). Site reviews were performed to confirm current conditions and recent changes in land use and land cover types, particularly for this rapidly changing corridor. Natural areas were evaluated for habitat type, quality, and any degradations evident. Overall, the dominant existing land uses within the Upper Manatee River Road study area consist of Low- and Medium-Density Residential (FLUCFCS 110 and 120), including older homes and new communities, and Golf Courses (FLUCFCS 182), totaling approximately 52.5 percent of the study area. **Table 2-1** summarizes the land use classifications within the study area, and **Figure 2-1** is a map of the land use within the study area.

### 2.2 Soils

The United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Soil Survey of Manatee County, Florida dated May 1983 and the Web Soil Survey (2021) (**Appendix A**) were reviewed for near surface soil data. Based on the NRCS soil geodatabase, the study area includes six soil mapping units. The general soil types are listed in **Table 2-2** with their corresponding NRCS map unit number, hydric classification, drainage class, and their coverage in acres and percent cover within the study area. **Figure 2-2** shows soil types within the study area on an aerial image, including their hydric or non-hydric status.

Soils were predominantly non-hydric, including EauGallie-EauGallie Wet, Fine Sand, 0 to 2 Percent Slopes with a depth to water table of about 6 inches to 18 inches, which covers 44 percent of the study area, and Wabasso-Wabasso, Wet, Fine Sand, 0 to 2 Percent Slopes with a depth to water table of about 6 inches to 18 inches, which covers 39 percent of the study area. There were three hydric soils, including the Floridana-Immokalee-Okeelanta Association with a depth to water of 0 inches, which covers 13 percent of the study area; Parkwood Variant-Chobee, Limestone Substratum-Parkwood Complex with a depth to water of 6 inches to 18 inches, which covers 3 percent of the study area; and Canova, Anclote, and Okeelanta soils with a depth to water table of 0 inches, which cover less than 1 percent of the study area. **Table 2-2** lists the soil types, drainage classes, and percent area mapped within the study area.

Table 2-1: SWFWMD Land Use Land Cover Summary for the Study Area

FLUCFCS Code	FLUCFCS Description	Acres within Study Area	Percent within Study Area
<b>Urban Land Uses</b>			
110	Low Density, <2 dwelling units/acre	42.8	16%
120	Medium Density, 2>5 dwelling units/acre	65.8	24.7%
130	130: High Density, 6 or more dwelling units/acre	11.1	4.2%
170	Institutional	3.1	1.2%
182	Golf Courses	31.4	11.8%
190	Open Land (Urban)	5.2	2.0%
810	Transportation	27.5	10.3%
<b>Agriculture</b>			
210	Cropland and Pastureland	7.2	2.7%
230	Feeding Operations	10.8	4.0%
240	Nurseries and Vineyards	8.5	3.2%
<b>Surface Waters and Natural Habitats</b>			
510	Streams and Waterways	3.2	1.2%
530	Reservoirs	22.7	8.5%
615	Stream and Lake Swamps (bottomland)	2.0	0.7%
617	Mixed Wetland Hardwood	0.5	0.2%
619	Exotic Wetland Hardwoods	5.6	2.1%
630	Wetland Forested Mixed	5.3	2.0%
641	Freshwater Marshes	11.3	4.2%
643	Wet Prairies	2.6	1.0%
<b>Total Area of Interest</b>		<b>266.7</b>	<b>100%</b>



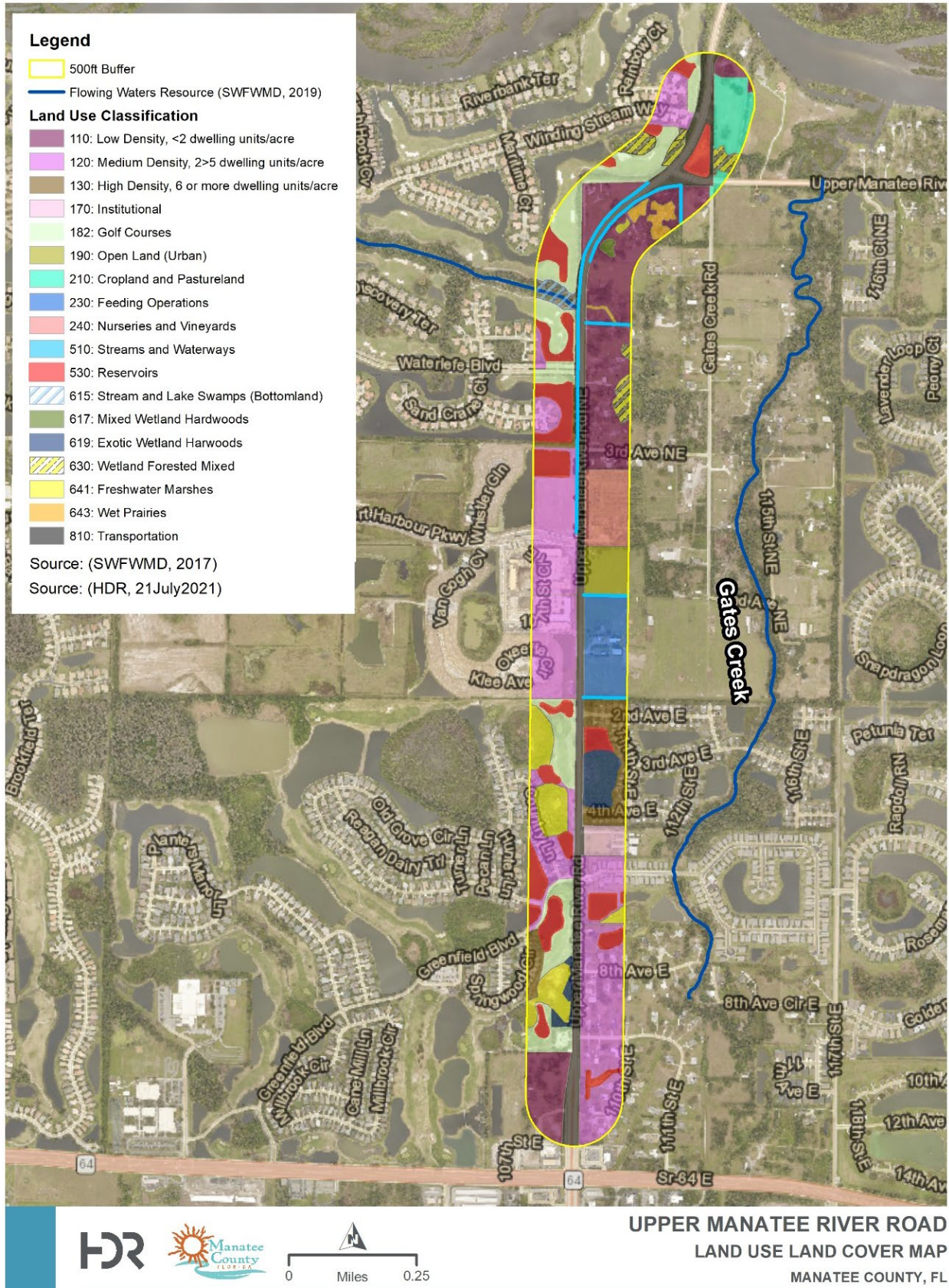


Figure 2-1: Land Use and Land Cover for Upper Manatee River Road Study Area

Table 2-2: NRCS Soil Survey of Manatee County, Florida Summary for the Study Area

Map Unit	NRCS Map Unit Name	Hydric	Drainage Class	Acres Within Study Area	Percent of Study Area
<b>6</b>	Broward Variant Fine Sand	No	Poorly Drained	5.4	2.0%
<b>7</b>	Canova, Anclote, and Okeelanta Soils	Yes	Very Poorly Drained	1.2	0.5%
<b>20</b>	EauGallie-EauGallie Wet, Fine Sand, 0 to 2 Percent Slopes	No	Poorly Drained	116.3	43.6%
<b>26</b>	Floridana-Immokalee-Okeelanta Association	Yes	Very Poorly Drained	33.8	12.7%
<b>39</b>	Parkwood Variant-Chobee, Limestone Substratum-Parkwood Complex	Yes	Poorly Drained	6.7	2.5%
<b>48</b>	Wabasso-Wabasso, Wet, Fine Sand,	No	Poorly Drained	103.3	38.7%
<b>Total Study Area</b>				<b>266.7</b>	<b>100%</b>

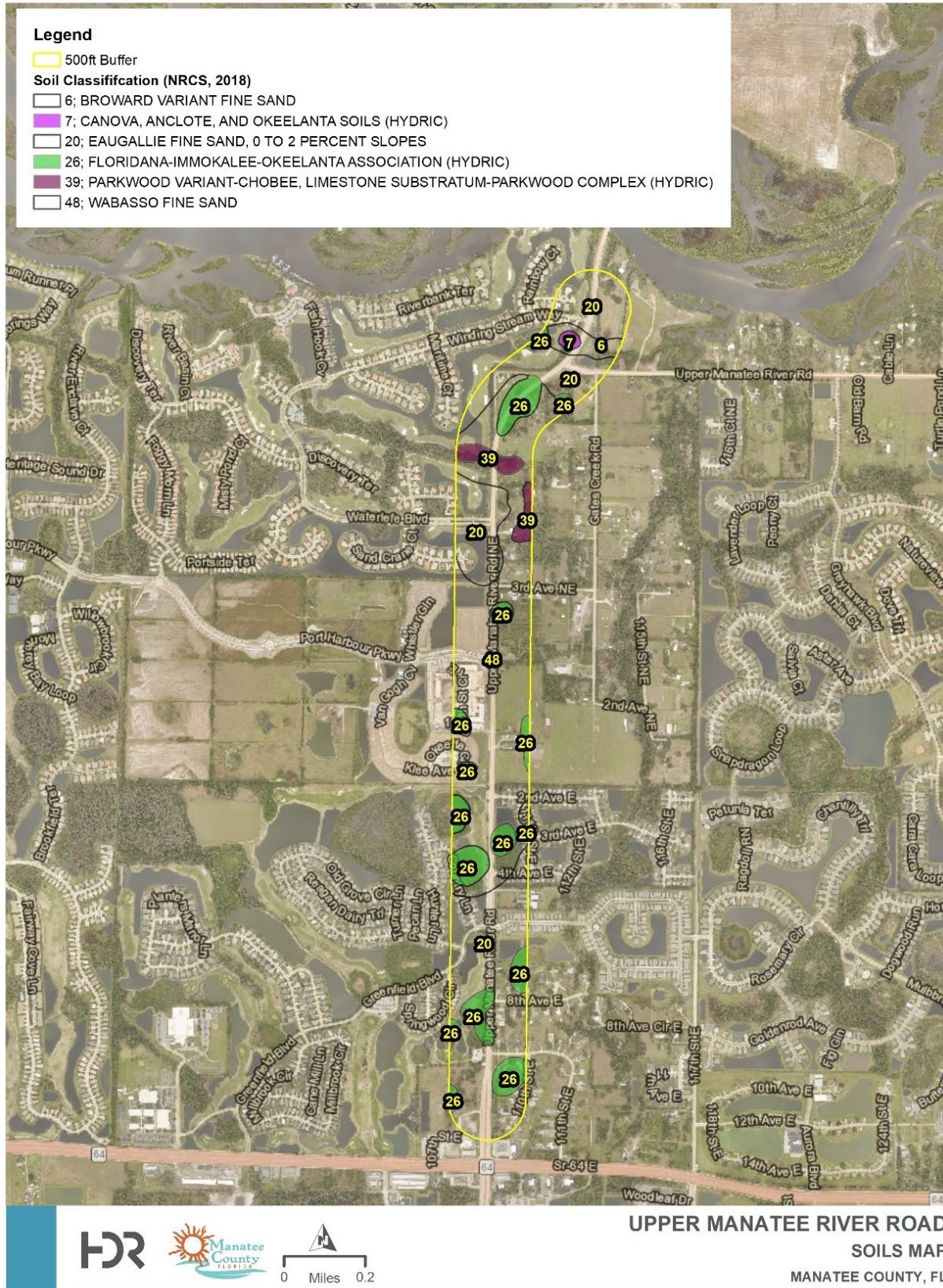


Figure 2-2: NRCS Soils Map for the Upper Manatee River Road Study Area

### 3.0 Protected Species and Habitat

This Technical Memorandum complies with Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended. Section 7(a) (2) of the ESA requires every federal agency, in consultation with and with the assistance of the Secretary, to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. Section 7(a) (3) of the ESA authorizes a prospective permit or license applicant to request the issuing federal agency to enter into early consultation with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) to determine whether the proposed action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

In accordance with 16 United States Code (U.S.C.) 1536[(a)-(d)] of the ESA, as amended, federal agencies impose specific requirements regarding endangered or threatened species of fish, wildlife, or plants (listed species) and habitat of such species that has been designated as critical habitat under Section 7(a) of the ESA. These requirements include the protection of all federal listed species (and their habitats).

The state affords protections to listed animals through the Florida Fish and Wildlife Conservation Commission (FWC) pursuant to Chapter 68A-27, Florida Administrative Code (F.A.C.). The state affords protections to listed plants through the Florida Department of Agriculture and Consumer Services (FDACS) Division of Plant Industry pursuant to Chapter 5B-40, F.A.C.

#### 3.1 Methodology

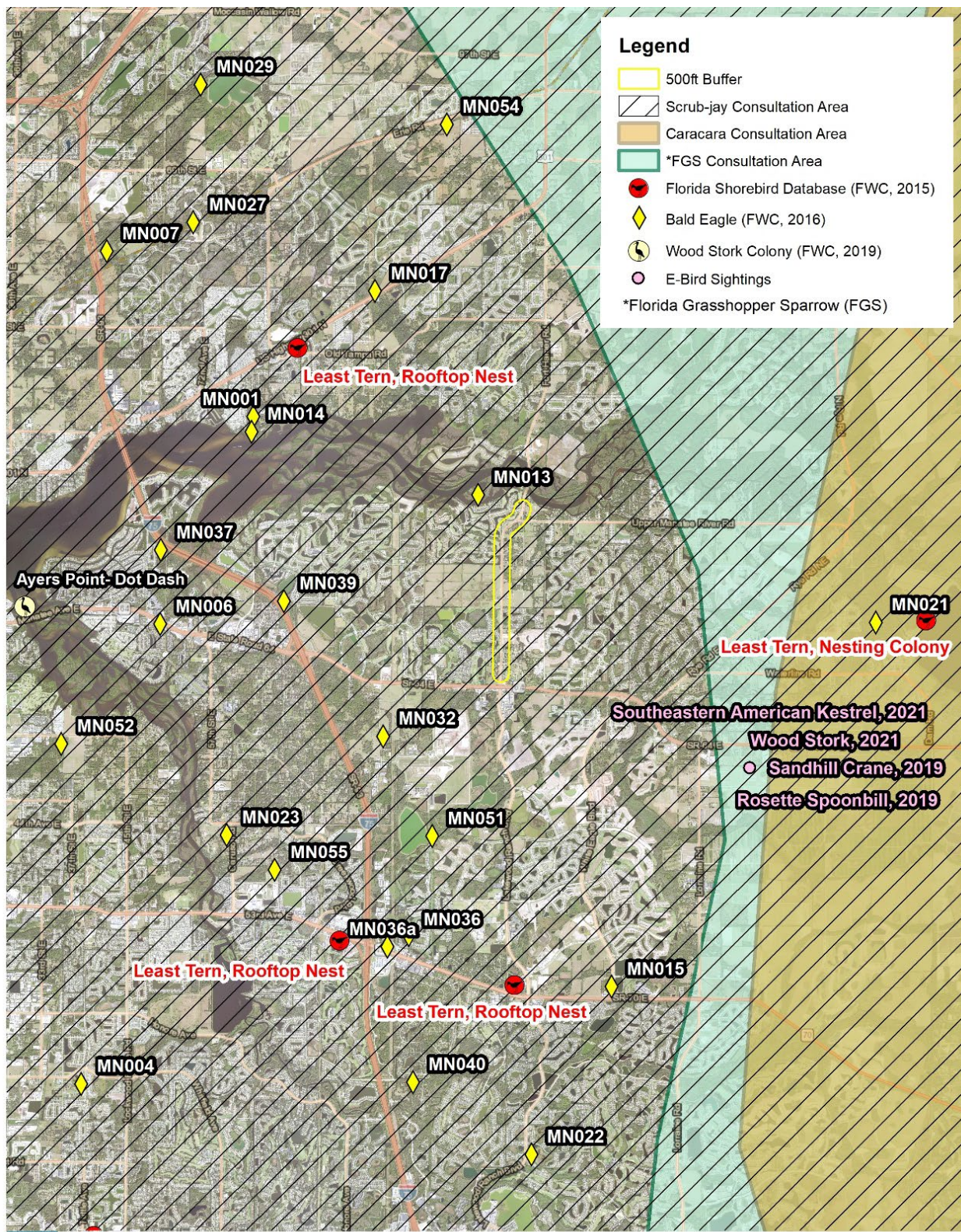
The project was evaluated for potential impacts to federal and state, threatened or endangered species (listed species) and federal protected species. Federally listed species are protected under the ESA. Other species, such as the bald eagle, are not listed but are afforded protection under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d) or Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711). State listed species are protected under Chapter 379, Florida Statutes and Chapters 68A-27 and 5B-40 F.A.C. The purpose of this assessment was to evaluate if listed or protected species would likely utilize the study area and to determine if protected species, or their habitat, could be adversely impacted by the project.

The Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (Unofficial) was queried and a USFWS IPaC Official Species List was generated for the study area listing protected species that have the potential to occur within the study area. The IPaC Official Species List is included in **Appendix B**.

The methodology to identify state or federal listed species potentially occurring within the study area also included review of federal and state agency databases and USFWS Consultation Areas. A GIS desktop analysis was performed referencing this information prior to conducting field surveys to establish baseline information and guide onsite evaluations. **Figure 3-1** is a map of wildlife records showing the results of the GIS desktop analysis. Preliminary wildlife surveys were conducted within the project right-of-way in July and August 2021.

Information sources and databases utilized for the wildlife analysis included the following:

- ESRI ArcGIS World Image Service (2020)
- The Cornell Lab of Ornithology - e-Bird database (2019-2021)
- FNAI Biodiversity Matrix (Unofficial) (August 2021)
- Audubon Center for Birds of Prey Bald Eagle Nest database (2021)
- USDA NRCS, Soils of Manatee County, Florida (1983)
- USFWS Wood Stork Nesting Colonies / Core Foraging Areas (2021)
- USFWS Critical Habitat (2021)







**UPPER MANATEE RIVER ROAD**  
**WILDLIFE MAP**  
 MANATEE COUNTY, FL

PATH: X:\MANATEE COUNTY\PD&E\_THREE\_ROADS\UPPER\_MANATEE\_RIVER\GIS\MXD\MRR\_WILDLIFE.MXD - USER: GBILTER - DATE: 9/11/2021

Figure 3-1: Wildlife Occurrence Map for the Upper Manatee River Road Study Area

- USFWS IPaC Resource List (2021)

Protected species that were identified as having the potential to occur within the study area are discussed in the following sections. The study area was assessed for their habitat requirements and each species was assigned an effect determination. In addition, each potential species was designated as having a no, low, moderate, or high likelihood of occurrence based on range, habitat type, location, patch size, and connectivity, as defined below.

<b>No</b>	Suitable habitat is not believed to be present within the study area.
<b>Low</b>	Species documented within Manatee County, but with a low likelihood to occur within the study area due to the limited presence of suitable habitat.
<b>Moderate</b>	Species documented within Manatee County and for which suitable habitat was present within the study area; however, no documented occurrences exist.
<b>High</b>	Species highly likely to occur within the study area based on known habitat ranges and existence of suitable habitat. Species known to occur within or adjacent to the study area or have been documented within the vicinity.

### 3.2 Federal Protected Wildlife and Critical Habitat

Based on the combined results of the desktop analysis and preliminary field surveys, federal listed and protected species potentially occurring within the corridor study area are provided in **Table 3-1** along with their likelihood of occurrence. Their likelihood of occurrence was based on the above-mentioned data sources and methodology. Three listed federal species have the potential to occur within the study area and are discussed in detail following **Table 3-1**.

Migratory birds and their habitat, including the non-listed but federally protected bald eagle and osprey, and the state listed least tern, were also present in this region and included in **Table 3-1**. Migratory birds are afforded protection under the MBTA (16 U.S.C. 703-711). The least tern is discussed under the state listed wildlife section. The bald eagle is additionally protected under the BGEPA (16 U.S.C. 668-668d), as amended. The bald eagle and osprey are discussed under the federal protected wildlife section. In addition to federal listed endangered and threatened species, the gopher tortoise has been recognized as a candidate species for federal listing. This state threatened reptile is discussed in **Section 3.3**.

The study area was evaluated for Critical Habitat for federal listed species as defined by Congress 50 CFR § 17.94. Review of available information determined that USFWS-designated critical habitat was not present.

Table 3-1: Federally Protected Wildlife Potentially Occurring within the Study Area

Scientific Name	Common Name	Status	Likelihood of Occurrence
<b>Federal Listed Wildlife</b>			
<i>Drymarchon corais couperi</i>	Eastern indigo snake	Threatened	Moderate
<i>Mycteria americana</i>	Wood stork	Threatened	High
<i>Aphelocoma coerulescens</i>	Florida scrub jay	Threatened	Low
<b>Federal Protected Wildlife</b>			
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGEPA* MBTA**	Moderate
<i>Pandion haliaetus</i>	Osprey	MBTA**	Low

\* Bald & Golden Eagle Protection Act and Migratory Bird Treaty Act. \*\* Migratory Bird Treaty Act

### 3.2.1 Eastern Indigo Snake (*Drymarchon corais couperi*)

The federal status for the eastern indigo snake is threatened. The eastern indigo snake is a shiny black snake, which can reach lengths up to eight feet. The indigo snake will use a range of habitats from disturbed open land, pasture, scrub, sandhills, and flatwoods to wet prairies and mangrove swamps. Indigo snakes are known to lay eggs in uplands with a preference for gopher tortoise burrows. These snakes are also known to utilize gopher tortoise burrows for thermal refuge.

The eastern indigo snake is distributed across Florida although no critical habitat has been designated in the study area. Neither gopher tortoise burrows nor eastern indigo snakes were observed during preliminary field surveys. However, the indigo snake has been documented within Manatee County and potential indigo snake habitat was present within and outside the corridor study area. Therefore, the Eastern Indigo Snake Programmatic Effect Determination Key approved for the North Florida Ecological Services Field Offices (USFWS 2013) was reviewed for consistency (**Appendix C**), as keyed out below:

- A** Project is not located in open water or salt marsh...**go to B.**

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- B** Permit will be conditioned for use of the Service's *Standard Protection Measures for the Eastern Indigo Snake* during site preparation and project construction...**go to C.**

---

- C** Project will impact less than 25 acres of eastern indigo snake habitat...**go to D.**

---

- D** There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities...**go to E.**

In line with the consultation key, if found, gopher tortoise burrows, active or inactive, would be excavated prior to site manipulation. If an eastern indigo snake was encountered, the snake would be allowed to vacate the area. Notably, gopher tortoise burrows were not be observed during preliminary surveys, but they could be present within the study area.

- E** Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows be inspected each morning before site manipulation in a particular area, and if occupied by an eastern indigo snake, no work will commence until the snake has vacated the vicinity of proposed work ...**NLAA.**

Projects containing habitat with the potential to support the indigo snake are required to follow the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (2013) (**Appendix D**) during construction, which dictates that contractors be made aware the species could be present and that land clearing, and using heavy equipment be conducted with avoidance and protection of this species in mind. These protection measures will be required for this project during clearing and grubbing and during construction within the project limits, including within pond sites. Due to these commitments and per the *Eastern Indigo Snake Programmatic Effect Determination Key*, it is anticipated that the project **may affect, but is not likely to adversely affect** the eastern indigo snake.

### 3.2.2 Wood Stork (*Mycteria americana*)

The federal status for the wood stork is threatened. The wood stork is a large wading bird with black edged wings and a short black tail. This often-transient wading bird forages in shallow water containing high prey densities and it utilizes freshwater and estuarine habitats for nesting, foraging, and roosting. Wood storks typically nest in rookeries and construct nests in forested wetlands, including hardwood hammocks, cypress swamps, and forested sloughs.

The study area falls within the jurisdiction of the USFWS North Florida Ecological Services Office, which recognizes a 15-mile Core Foraging Area (CFA) radius around wood stork rookeries for central Florida. The CFA is the maximum distance storks typically fly from the colony to capture prey for their young. The USFWS guidelines state that impacts to appropriate wetland systems within the CFA of an active colony may directly affect colony productivity.

Based on USFWS data (2017), the study area falls within the CFA of one wood stork colony at the time of this Technical Memorandum. This nesting colony was approximately 5.5 miles west of the study area. While nesting colonies were not documented within the study area, riverine and forested wetlands and some marshes and roadside ditches were present where intermittent foraging or loafing could occur. The USFWS recognizes the need to protect wood stork suitable foraging habitat (SFH) within a CFA. SFH is defined as calm, relatively open waters, uncluttered by dense vegetation with water levels between 2 to 15 inches (USFWS 2012). Wood storks were not observed during preliminary field surveys; however, potential impacts to SFH could occur due to direct impacts from the future road widening and pond sites.

The Wood Stork Effect Determination Key (**Appendix C**) for the North Florida Ecological Services Field Offices (2008) was reviewed for consistency, as keyed out below:

- A Project more than 2,500 feet from a colony site...**go to B.**

---

- B Project impacts SFH<sup>2</sup>...**go to C.**

---

- C Project impacts to SFH are less than or equal to 0.5-acre<sup>3</sup>...**NLAA.**

---

- D Project impacts to SFH are within the Core Foraging Area of a colony site, or wood storks have been documented foraging on site ...**go to E.**

---

- E Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA or consists of SFH compensation within the CFA consisting of enhancement, restoration or creation in a project phased approach that provides an amount of habitat and foraging function equivalent to that of impacted SFH...**NLAA.**

Construction from the widening of Upper Manatee River Road could impact riverine and forested wetlands, marshes, and some roadside ditches with SFH; therefore, provisions to reduce or minimize impacts would be implemented. These measures would include wetland mitigation pursuant to Section 373.4137, F.S., to satisfy all



mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. Due to these assurances and per the Wood Stork Effect Determination Key (USFWS 2008), it is anticipated that the project **may affect, but is not likely to adversely affect** the wood stork.

### 3.2.3 Florida Scrub Jay (*Aphelocoma coerulescens*)

The federal status for the Florida scrub-jay is threatened. The Florida scrub-jay is blue- and gray-colored and about the size of a blue jay. They have blue wings, head, and tail, gray back and underparts, and a whitish forehead and neck. The jay does not have black markings or a crest as other jays do. Florida scrub-jays live in family groups, consisting of a breeding pair with young helpers that are usually the offspring of the pair.

The study area is within the USFWS Florida Scrub-jay Consultation Area. Florida scrub-jays are habitat-specific and utilize sand pine and oak scrub, as well as scrubby flatwoods. Scrubby flatwoods have an open canopy of widely spaced pine trees and a low, shrubby understory dominated by scrub oak and saw palmetto, often interspersed with patches of barren white sand.

These habitat types were not present within the study area and there are no recent records of scrub-jays occurring in the area. For this reason, it is expected that the project would have **no effect** on the Florida scrub-jay.

### 3.2.4 Bald Eagle (*Haliaeetus leucocephalus*)

The bald eagle was delisted from the USFWS List of Endangered and Threatened Wildlife effective August 8, 2007. The bald eagle continues to receive protections through the BGEPA and the MBTA. To minimize disturbance to nesting eagles, construction activities are restricted within 330 feet of an active nest tree. The USFWS Eagle Management Guidelines (USFWS 2007) are used as guidance if construction is to occur within 660 feet of an active eagle nest during the nesting season (October 1 - May 15).

One bald eagle nest (MN013, active 2013) was known about 0.38 miles northwest from the northern end of the corridor study area (Audubon, 2021). No bald eagles or their nests were observed during preliminary field surveys. There are numerous other known nests in Manatee County west along I-75 and the Braden River, south in Sarasota County, and southeast near Lake Manatee, but all were further than three miles from the study area. Resurvey of the corridor would occur during permitting and design. If a bald eagle nest is identified within 660 feet of the project, the County would coordinate with the USFWS in accordance with the BGEPA and MBTA. Because this project would be consistent with the BGEPA and MBTA, there is no effect anticipated to the bald eagle.

### 3.2.5 Osprey (*Pandion haliaetus*)

Ospreys are afforded protection under the MBTA and are state protected by Chapter 68A of the F.A.C. Ospreys require nest sites in open surroundings for easy approach that are safe from ground predators, such as raccoons. They readily build nests on manmade structures, such as telephone poles and nest platforms designed especially for these birds. Nesting season typically occurs between December and February.

Although both active and inactive osprey nests are federally protected, only active nests require federal permits for taking. Under state rules, only inactive osprey nests may be taken, as determined by the absence of eggs or flightless young at the nest. Typically, a replacement nesting structure located in the immediate vicinity is required to be erected.

Ospreys and their nests were not observed during preliminary field surveys for the study area. Surveys to identify active osprey nests will be conducted during the design and permitting phase of the project, and permits will be acquired if impacts during construction are unavoidable. Nest avoidance will be prioritized, and nest structure replacement will occur if removal is required. Because the project would be consistent with federal and state requirements, it is anticipated that the project would not impact the osprey.

### 3.3 State Protected Wildlife

Based on desktop analysis and preliminary field surveys, state listed wildlife managed by the FWC and potentially occurring within the corridor study area are provided in **Table 3-2** along with their protection status and likelihood of occurrence. Likelihood of occurrence was based on the above-mentioned data sources and methodologies, and on the presence of suitable habitat as defined in Florida’s Imperiled Species Management Plan, as amended (2018). Listing status was in accordance with Florida’s Official Endangered and Threatened Species List (June 2021).

State protected wildlife known to occur or have the potential to use habitat within the study area included ten species. None of the state listed species were observed during preliminary field surveys; however, potential habitat was present for some species.

*Table 3-2: State Listed Species Potentially Occurring within the Study Area*

Scientific Name	Common Name	Status	Likelihood of Occurrence
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	Threatened	Moderate
<i>Falco sparverius paulus</i>	Southeastern American kestrel	Threatened	Low
<i>Gopherus polyphemus</i>	Gopher tortoise	Threatened	Moderate
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	Threatened	Low
<b>Wading Birds</b>			
<i>Egretta caerulea</i>	Little blue heron	Threatened	High
<i>Egretta rufescens</i>	Reddish egret	Threatened	Low
<i>Egretta tricolor</i>	Tricolored heron	Threatened	High
<i>Platalea ajaja</i>	Rosette spoonbill	Threatened	Moderate
<b>Nesting Shorebirds</b>			
<i>Rynchops niger</i>	Black skimmer	Threatened	Moderate
<i>Sternula antillarum</i>	Least Tern	Threatened	Low

#### 3.3.1 Florida Sandhill Crane (*Antigone canadensis pratensis*)

The state protection status of the Florida sandhill crane is threatened. Sandhill cranes are tall gray birds with a patch of red on their head. Sandhill cranes use a variety of habitats, preferring wet prairies, marshy lake margins,

wet pastures, and marshes. Sandhill cranes nest in shallow freshwater ponds and marshes. Sandhill cranes sometimes forage along roadsides and often in pastures.

No sandhill cranes were observed during surveys of the study area although some larger pasture areas to the north could be used by cranes for foraging. There were also large marshes within the golf course to the south and marsh-like littoral zones on several small ponds that could provide nesting habitat.

Per the FWC species guidelines (2016), pre-planning and pre-construction surveys are recommended in areas with potential to support nesting sandhill cranes to ensure active nests and flightless young are protected. Sandhill cranes breed from December through August and nest between February and April. For pre-planning surveys, FWC recommends three survey events during the permitting process to facilitate avoidance, minimization, and mitigation measures. The ideal time for these surveys is in March, early April, and early May. For pre-construction surveys, surveys should occur prior to site clearing. Also, Florida sandhill cranes do not nest in the same location every year, so because construction occurs over several years it would be necessary to reconfirm nesting (or the absence thereof) each year.

Given that the County would be committed to avoiding nesting sandhill cranes during construction, if present, and because freshwater marsh systems would be maintained, there is **no effect anticipated** to the Florida sandhill crane.

### 3.3.2 Southeastern American Kestrel (*Falco sparverius Paulus*)

The state status of the southeastern American kestrel is threatened. Females have brown wings while males have bluish-gray wings, however both have white bellies and black markings around their eyes. There are two kestrel subspecies in Florida. The American kestrel is migratory; the Southeastern American kestrel is not. Identification of southeastern American kestrels can only be confirmed in the field when the migrant is not in Florida (approximately April through August). Kestrels utilize open grassland, pasture, and agricultural land, as well as ephemeral wetlands. They prefer habitats with perches, a diverse prey population, and tree snags with cavities for nesting. The FWC distribution map shows the kestrel as a potential species within this region but not in Manatee County. The FNAI distribution map and Biodiversity Matrix (Unofficial) list the kestrel as a potential species within this region.

The kestrel was not observed during preliminary field surveys although open pasture and fields were present, and snags were available. Within the study area, some land management activities have created disturbed clearings with low-growing vegetation, which could provide substrate for kestrels. The proposed road widening could overlay adjacent cleared areas and habitats.

FWC formal surveys for the southeastern American kestrel are conducted from April through August and are valid until March 1 of the following breeding season. FWC recommends three survey events. Surveys are conducted along transects to document the presence of kestrels (perching or foraging), suitable cavities, and/or active nest cavities. Verification of suitable nest cavities is conducted between March 1 and July 31.

The FWC may recommend kestrel surveys during permitting. If kestrel breeding and/or nesting is confirmed, the FWC will recommend avoidance measures to eliminate a take by maintaining a 490-foot buffer around active nest cavities during the breeding season, retaining cavities in natural structures, and maintaining at least 124 acres of SFH within a 0.31-mile radius of occupied habitat. Given the habitat conditions within portions of the study area, the southeastern American kestrel may use the project area but is not expected. Therefore, there is **no effect anticipated** to the southeastern American kestrel.

### 3.3.3 Gopher Tortoise (*Gopherus polyphemus*)

The state protection status for the gopher tortoise is threatened. The tortoise is a candidate for federal listing in its eastern range, which includes Florida, Georgia, and parts of Alabama and South Carolina. A final decision on

whether to expand the listed range of this species or remove the species from the ESA candidate listing is expected in 2022 or 2023. The gopher tortoise has a brownish-gray, rounded carapace, and the plastron is beige without a hinge. The gopher tortoise has claws adapted for digging deep burrows. Tortoises occupy upland habitats, preferring those with well-drained sandy soils, a seasonal high groundwater table below 18 inches, and open areas with abundant forage. Habitats supportive of healthy gopher tortoise populations include, but are not limited to, dry pastures and fields, flatwoods, sandhills, scrub, xeric oak hammocks, dry prairies, and disturbed open lands such as transportation and utility rights-of-way. Tortoise burrows are used by many commensals such as the eastern indigo snake and the Florida pine snake.

Potential gopher tortoise habitat was present in the corridor study area; however, no gopher tortoises or potentially occupied tortoise burrows were observed during preliminary surveys. Formal tortoise surveys were not performed during the field survey.

Preliminary gopher tortoise surveys would be recommended within the project area during permitting. These surveys typically cover approximately 15 percent of potential gopher tortoise habitat. Prior to construction, formal gopher tortoise surveys will be required in areas deemed suitable for the gopher tortoise in accordance with the FWC *Gopher Tortoise Permitting Guidelines*. If potentially occupied tortoise burrows are found within the project area, a gopher tortoise capture, relocation, and release permit will be acquired from the FWC in accordance with F.A.C. 68A-27.007 and 68A-27.003.

Because gopher tortoise habitat would be surveyed, potentially occupied gopher tortoise burrows verified, and any gopher tortoise relocated, there is **no adverse effect anticipated** on the species.

### 3.3.4 Florida Pine Snake (*Pituophis melanoleucus mugitus*)

The state protection status for the Florida pine snake is threatened. The Florida pine snake can reach a length of up to 84 inches. It has a brown back with dark blotches, white belly, ridged scales, small head, and pointed snout. This snake utilizes dry, sandy open areas and has been found using gopher tortoise burrows. The FNAI Biodiversity Matrix (Unofficial) documents potential pine snake habitat and lists sightings of the pine snake in this region. Neither the pine snake nor gopher tortoise burrows were observed during preliminary field surveys within the study area. Due to the disturbed project area lacking suitable habitat and the requirement to excavate all potentially occupied gopher tortoise burrows, which would include a requirement to protect commensal species, there is **no effect anticipated** to the Florida pine snake.

### 3.3.5 Wading Birds

Wading birds, including the little blue heron, reddish egret, roseate spoonbill, and tricolored heron would be expected to utilize the study area, and in particular, the wetlands found within the study area. The state protection status of all three wading birds is threatened.

- Little blue herons have a grayish blue body. Their head is dark maroon during breeding season and purplish during non-breeding season.
- The reddish egret in central Florida is the dark morph and has a grayish-brown body with a reddish head and neck with dark blue legs and feet and a pink bill with a black tip.
- The roseate spoonbill has pink and red wings with a white neck and back and reddish legs and feet.
- The tricolored heron has a dark blue colored head and upper body, a purple chest, and a white belly.

The breeding season varies somewhat for each species and by location. All four birds are year-round residents in Florida, but none were observed in the study area. These wading birds could use the study area for foraging and loafing particularly the larger creek system at the north end of Upper Manatee River Road, and some of the adjacent smaller surface waters and roadside ditches.

Wading birds rely on wetlands for breeding, foraging, and sheltering and will build nests of sticks, twigs, and fibers in trees or shrubs on hummocks or in branches overhanging water. Wading birds typically nest in multi-species colonies, although tricolored herons also will nest in single-species groups or build solitary nests. These three wading birds are known to forage in shallow herbaceous and forested wetlands, as well as along the edges of riverine habitat.

The FWC recommends surveys to determine if wading bird nesting habitat is present within 330 feet of a project area. These surveys are usually conducted during the permitting process and generally focus on identifying nesting habitat rather than foraging habitat. If a wading bird nest is detected, additional surveys are recommended to determine if an active breeding site is present. Conducting surveys during the dates specified as follows is recommended:

<b>Little Blue Heron</b>	April 15 – June 30
<b>Reddish Egret</b>	February 15 – June 15
<b>Rosette Spoonbill</b>	February 15 – April 30
<b>Tricolored Heron</b>	April 15 – June 30

Impacts to wading bird foraging habitat is addressed through wetland mitigation that meets the requirements of Rule 68A-27.007, F.A.C. However, if nesting is detected, additional measures are necessary to develop appropriate avoidance, minimization, and mitigation measures. FWC will also recommended pre-construction surveys prior to site clearing or excavation to ensure active nests or flightless young are not present. With adherence to the FWC guidelines and wetland impacts minimized and mitigated, there is no effect anticipated to these species.

### 3.3.6 Nesting Shorebirds

#### *Black Skimmer*

The state protection status for the black skimmer is threatened. Skimmers are seabirds that can reach a height of 20 inches and have a wingspan of three feet or more. They have a black back, black wings with white edges, and a white belly and head. Their other distinctive characteristic is a large red and black bill, the lower part of which is longer than the top and is used to skim along the top of the water surface to catch fish. When they contact prey, they bend their head forward and up and snap the upper bill closed. Breeding occurs during the summer, generally between May and early September. Skimmers nest on sand along beaches, sandbars, and islands. Nesting occurs in colonies, consisting of one to several hundred pairs of skimmers.

The black skimmers are known from the study area, but they were not observed during field surveys. There are records of sightings within the region, particularly associated with the Manatee River. They could opportunistically utilize the nearby golf course ponds for foraging and loafing, and the road construction site if bare ground is exposed. However, protection of potential black skimmer nests and young can be ensured through construction planning and management. For multi-year construction projects, where construction activities cannot be avoided during their nesting season, pre-construction surveys can be conducted prior to land clearing and earthmoving to ensure nesting skimmers are not present. If nesting or flightless young are encountered, construction should be suspended in that area and the sighting reported to the FWC. Assuming these basic construction practices, there is **no effect anticipated** to the black skimmer.

#### *Least Tern*

The state protection status for the least tern is threatened. The least tern is a small shorebird approximately eight to nine inches in length, with a forked tail and long pointed wings. Least terns are gray backed with a white belly, yellow beak, and a black cap. Terns typically nest on beaches with coarse sand and shell but have been reported

to use interior shoreline habitats for nesting, including substrates such as dredged spoil and manmade structures. The least tern breeding season is April 1 through September 30. Least tern protection measures should focus on construction management techniques that avoid taking shorebird nests and young.

The least tern has not been documented in the study area and they were not observed during field surveys. They could opportunistically utilize the project area during construction if bare ground is exposed. However, protection of potential least tern nests and young can be ensured through construction planning and management. For multi-year construction projects, where construction activities cannot be avoided during least tern nesting season, pre-construction surveys can be conducted prior to land clearing and earthmoving to ensure nesting birds are not present. If nesting or flightless young are encountered, construction should be suspended in that area and the sighting reported to the FWC. Assuming these basic construction practices, there is no effect anticipated to the least tern.

### 3.4 Federal and State Protected Plants

The FNAI Biodiversity Matrix (Unofficial) identified 12 federal and state listed plants protected by the FDACS that have the potential to occur within the corridor study area including six endangered and six threatened. These listed plant species are shown in **Table 3-3**. None of these species were observed within the study area during preliminary field surveys. Due to their low likelihood of occurrence, there is no effect anticipated to these federal and state listed plant species. Three species are federally listed plants known from Manatee County but associated with sand pine scrub or scrubby pine flatwoods. These habitats are not present within the study area so there are no effects anticipated. If protected plants are discovered during field surveys for permitting or at the time of construction, coordination with the FDACS will be initiated.

*Table 3-3: Federal and State Listed Plants Potentially Occurring within the Study Area*

Scientific Name	Common Name	Status	Likelihood of Occurrence
<i>Andropogon arctatus</i>	Pine-woods Bluestem	State Threatened	Low
<i>Bonamia grandiflora</i>	Florida Bonamia	Federal Threatened	None
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	State Threatened	Low
<i>Centrosema arenicola</i>	Sand Butterfly Pea	State Endangered	None
<i>Chionanthus pygmaeus</i>	Pygmy Fringe-tree	Federal Endangered	Low
<i>Cladonia perforata</i>	Florida Perforate Cladonia	Federal Endangered	None
<i>Eragrostis pectinacea var. tracyi</i>	Sanibel Lovegrass	State Endangered	None
<i>Lechea cernua</i>	Nodding Pinweed	State Threatened	None
<i>Nemastylis floridana</i>	Celestial Lily	State Endangered	Low
<i>Pteroglossaspis ecristata</i>	Giant Orchid	State Threatened	Low
<i>Rhynchospora megaplumosa</i>	Large-plumed Beaksedge	State Endangered	Low
<i>Zephyranthes simpsonii</i>	Redmargin Zephyrlily	State Threatened	Low

### 4.0 Wetlands and Other Surface Waters

#### 4.1 Methodology

A GIS desktop analysis was performed prior to the field survey to establish baseline information and guide the onsite evaluations for conducting wetland, riverine, and other surface water delineation estimates. Data sources utilized for this analysis included the following:

- ESRI ArcGIS World Image Service (2013-2015)
- SWFWMD Land Use Land Cover (2018)
- U.S.D.A. Natural Resources Conservation Service, Soils of Manatee County, Florida (1983)
- USFWS National Wetland Inventory (NWI)
- USGS Topographic Maps
- Florida Department of Environmental Protection (FDEP) Outstanding Florida Water (2019)

Estimated delineations of wetlands and other surface waters were performed within the study area in July and August 2021. Features outside the existing right-of-way were estimated based on ground-truthing aerial photography to the extent possible considering private property and access limitations. Delineations were completed in accordance with the U.S. Army Corps of *Engineers Wetland Delineation Manual* (1987); *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (2010); *Rule 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters*; and the *Florida Wetlands Delineation Manual* (1995).

#### 4.2 Study Area Wetland and Other Surface Water Features

Wetlands are present within the corridor study area and were mapped and classified according to FLUCFCS and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et.al. 1979). **Table 4-1** lists the wetlands, surface waters, and other surface water features within the study area along with their estimated acreages and FLUCFCS and USFWS classifications. **Figures 4-1** and **4-2** show the south and north areas of the study area with all wetlands and other surface waters observed within the 500-foot buffer limits. The primary wetland types in the study area included:

- Stream and Lake Swamps (FLUCFCS 615),
- Mixed Wetland Hardwood (FLUCFCS 617),
- Exotic Wetland Hardwoods (FLUCFCS 619),
- Wetland Forested Mixed (FLUCFCS 630),
- Freshwater Marshes (FLUCFCS 641), and
- Wet Prairies (FLUCFCS 643).

The natural forested systems were typically smaller areas away from the road right-of-way except for the forested system associated with the unnamed freshwater creek (WL-9) that drains northwest to the Manatee River at the north end of the study area. On the southern portion of the study area there are larger areas of Brazilian pepper-dominated wetlands (WL-1 and WL-5).

Historic aerial photography shows a trend toward land clearing, ditching, and agricultural uses, beginning in 1940 and dominant by 1957 along Manatee River Road. Nearly all marshes are bisected by or proximal to ditches

Table 4-1: Wetland and Other Surface Waters, Classification, and Acres in the Study Area

Wetland and OSW	FLUCFCS Description	USFWS Classification	Area within Study Area
<b>WL-1</b>	619 - Exotic Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.17
<b>WL-2</b>	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.77
<b>WL-3</b>	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	0.57
<b>WL-4</b>	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.7
<b>WL-5</b>	619 -Exotic Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	4.48
<b>WL-6</b>	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.0
<b>WL-7</b>	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.88
<b>WL-8</b>	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	0.27
<b>WL-9</b>	615 - Stream and Lake Swamps	PFO3 - Palustrine, Forested, Broad-leaved, Evergreen	1.98
<b>WL-10</b>	617- Mixed Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	0.49
<b>WL-11</b>	641 – Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	0.26
<b>WL-12</b>	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	0.6
<b>WL-13</b>	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	1.67
<b>WL-14</b>	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.16
<b>WL-15</b>	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	0.97
<b>WL-16</b>	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.3
<b>OSW-1</b>	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
<b>OSW-2</b>	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
<b>OSW-3</b>	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	1.8
<b>OSW-4</b>	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
<b>OSW-5</b>	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.78





Figure 4-1: Wetlands and Surface Water Map – South



PATH: X:\MANATEE COUNTY\PD&E\_THREE\_ROADS\UPPER\_MANATEE\_RIVER\GIS\MXD\UMRR\_WL\_SW\_SEG\_2.MXD - USER: GBILTER - DATE: 9/17/2021

Figure 4-2: Wetlands and Surface Water Map – North

(Streams and Waterways, FLUCFCS 510), which have had reduced water levels and hydroperiods for decades. Many larger freshwater marshes are part of the golf course at the south end of the study area.

To the north, there are smaller forested and herbaceous wetlands within the study area, both alongside and away from the roadway.

Generally, all wetland systems are in moderate to poor condition, having incurred drainage by ditching, watershed conversions to farmland, and/or nearby development. Vegetation communities within the wetlands have also been degraded by agricultural activities, tree harvesting, and nuisance and exotic species growth.

Surface waters were present mostly associated with roadside ditches on the northern half of the study area and some remnant field ditches, derived from agricultural land uses. There are two primary water channels associated with Upper Manatee River Road. These drainages were historically natural and associated with wetlands, including:

- **Gates Creek** lies outside the corridor study area, ranging from about 1,700 feet (0.3 miles) to 2,300 feet (0.45 miles) east of Upper Manatee River Road. The creek drains north to the Manatee River through agricultural lands and low-density residential areas with a canopy primarily characterized by upland mixed coniferous/hardwood forest. The southern third of the road project is within the Gates Creek watershed.
- **Unnamed tributary** includes the creek channel associated with **(WL-9)** at the northern extent of the project. The creek receives surface water flows from the east side of Upper Manatee Road and conveys it northwest through a stream swamp for 4,200 feet (0.8 miles) to the Manatee River. It is bounded by a golf course residential community.

Smaller roadside ditches and field ditches intersect Upper Manatee River Road along the middle and northern portion of the project from 2nd Avenue East north to the Ft. Hamer Road intersection, including **OSW-1** through **OSW-5**.

### 4.3 Outstanding Florida Waters

FDEP-designated Outstanding Florida Waters (OFW) receive special protection to maintain ambient water quality in accordance with Chapter 62-302.700 F.A.C. and under the authority granted by Section 403.061(27) F.S. (FDEP, 2021). These waters are provided the highest level of water quality protection in the state of Florida, including requirements for additional water quality treatment above and beyond usual standards.

The corridor study area does not cross any OFWs so these criteria do not apply to this project.

### 4.4 Sovereign Submerged Lands

Sovereign Submerged Lands (SSL) are lands, including but not limited to, tidal lands, islands, sand bars, shallow banks, and lands waterward of the ordinary or mean high water line, beneath navigable fresh water, or beneath tidally influenced waters, which the State of Florida acquired title to on March 3, 1845, by virtue of statehood, and which have not been heretofore conveyed or alienated per Chapter 18-21.003, F.A.C. The corridor study area does not contain SSL listed, per Title XVIII Public Lands and Property Chapter 253 F.S. or per the Florida TIITF Land Records Spatial Index of the FDEP. Special SSL provisions and proprietary easements are not required for the widening of Upper Manatee River Road.

### 4.5 Wetland and Other Surface Waters

#### 4.5.1 Direct Wetland and Other Surface Water Impacts

Direct impacts to wetlands and other surface waters must be quantified and assessed for the proposed Upper Manatee River Road project alignment and footprint. During evaluation of the road alignment alternatives, potential impacts to wetlands and other surface waters would be identified and quantified. Direct impacts would include permanent and temporary impacts and would be quantified and tabulated for the state and federal permit applications.

The Uniform Mitigation Assessment Method (UMAM) will be utilized to evaluate each wetland impact area to quantify the anticipated functional loss for each area based on location and landscape, water environment, and vegetation conditions. UMAM assessment forms would be prepared at a later design stage to document existing conditions of the wetlands to determine the functional loss for each impact.

#### 4.5.2 Avoidance and Minimization

The proposed widening of Upper Manatee River Road would use the existing disturbed and cleared right-of-way for the road and other project improvements as much as possible. Every effort would be made to avoid and minimize wetland impacts for the road widening. Additional impacts outside the existing right-of-way could result in impacts to wetland and other surface water habitats of better quality further from the disturbed right-of-way limits. Unavoidable direct wetland impacts would be expected within the existing right-of-way. Other impacts would be expected outside the existing right-of-way for the additional widening required, causing further disturbance to wetland and wildlife habitats.

Degradation of water quality, resulting from construction or excess stormwater runoff from the project, has the potential to adversely impact flowing waters and associated habitats. Best Management Practices (BMPs) would be implemented during construction to protect water quality. Direct, indirect, and temporary impacts to habitat and water quality would be avoided and then minimized using erosion control measures and BMPs during construction. Measures to minimize project impacts could include construction phasing, sediment barriers, floating turbidity barriers, and other construction techniques identified during design and permitting in cooperation with the regulatory agencies.

In addition, maintenance of an Erosion Control Plan that addresses protecting wetland areas and implements FDOT design standards, including those measures designed to protect aquatic environments, would be used as outlined in the following manuals:

- Standard Specifications for Road and Bridge Construction (Section 7, 104, and 110) (July 2020),
- State of Florida Erosion and Sediment Control Manual (E&SC Manual) (July 2013), and
- FDOT Design Manual (2020).

Based on the avoidance and minimization measures discussed above and in accordance with Section 404 of the Clean Water Act, the proposed project alternatives within the corridor study area would represent the most practicable alignment for the Upper Manatee River Road widening. Given that the project involves improvements to an existing roadway, opportunities to completely avoid wetland impacts would not be available. Although unavoidable impacts to wetlands and other surface waters would occur within the existing and proposed right-of-way, these would be the least impactful as compared to an alternate new roadway alignment outside of the existing right-of-way.

This evaluation would consider all practicable measures to avoid and minimize impact and impairment to wetlands and other surface water habitats, resulting from the proposed road widening. Mitigation of direct and

indirect wetland and riverine surface water impacts would be provided to reduce the short-term and long-term adverse impacts to wetland resources in this region of Manatee County. Habitat quality, water quality and quantity, and hydroperiods would be protected and maintained in all wetlands and riverine surface waters that remain undisturbed.

### 4.5.3 Indirect and Cumulative Impacts

Short-term and long-term impacts to water quality and the resultant effects on wetland resources caused by construction, maintenance, and operation of the widened Upper Manatee River Road would be managed using erosion control measures and BMPs during construction and use of stormwater management protocols. Measures to protect water quality within the waterways and wetlands will be required to meet state water quality standards.

Indirect wetland impacts are to habitat functions of wetlands associated with adjacent upland activities. The offset buffer of the indirect impact varies by agency. During the permitting process, indirect impacts would be evaluated at each wetland impact. For the state regulatory agencies, per the Environmental Resource Permit (ERP) Applicant's Handbook Volume I, Part III, Section 10.2.7, an average 25-foot buffer is the guidance used to estimate secondary impacts to the habitat functions of wetlands associated with adjacent upland activities. The exact buffer width would be site-specific and would be finalized during design and permitting.

The guidance for establishing the secondary impact buffer distance would be specific to landscape conditions (e.g., natural versus urban setting), wetland type (e.g., forested versus herbaceous) and wetland quality (e.g., low, medium, or high). The actual buffer distances for each wetland would be finalized in cooperation with the agencies, following formal wetland delineations and wetland quality characterizations at the time of permitting.

Cumulative effects of potential future projects on the natural resources adjacent to the widened road would be considered. Wetlands are present however these systems are limited in area, protected by federal and state regulations, and would not be expected to be impacted by future development. While development would be expected near these wetland areas, wetland buffers required by regulations would provide adequate protection. Therefore, cumulative impacts from the proposed project would be expected to be insignificant.

### 4.5.4 Mitigation

Wetland and riverine surface water impacts, resulting from the widening of Upper Manatee River road would be mitigated pursuant to Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. Final mitigation requirements would be determined during permitting based on the project design, extent and type of impacts, and use of the UMAM habitat scoring.

Some wetland impacts are expected to be unavoidable for the Upper Manatee River Road widening and would occur within the Gates Creek and Manatee River (Below Dam) Watersheds. To compensate these impacts, Manatee County would be first directed to use available mitigation banks with service areas that cover the project limits. Braden River Mitigation Bank and the Manatee Mitigation Bank would be two candidates for these requirements. These banks have available state credits however, federal credits are limited but could be available soon.

- **Braden River Mitigation Bank** - The service area for this mitigation bank includes the project area; however, it does not offer federal mitigation credits. It only offers state approved, freshwater herbaceous and forested wetland mitigation credits.
- **Manatee Mitigation Bank** - The service area for this mitigation bank includes the project area; however, the federal permit remains pending. Issuance is expected in October 2021.

If adequate mitigation bank credits are not available, permittee-responsible, onsite or offsite wetland mitigation could be proposed within the project watershed limits, potentially on Manatee County-owned land. A project-specific wetland mitigation plan has not been developed. A feasibility study and review of potential sites would be required to determine selection of a viable and suitable site for mitigation.

### 5.0 Essential Fish Habitat

Essential Fish Habitat (EFH) Assessments are conducted in accordance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act of 1996. However, essential fish habitat does not occur within the corridor study area. Therefore, an EFH Assessment is not required.

### 6.0 Anticipated Permits

Coordination with regulatory agencies is recommended for the Upper Manatee River Road widening project primarily involving two state of Florida agencies, including SWFWMD and the FDEP Southwest District. In January 2021, the state of Florida assumed the federal Clean Water Act Section 404 permit program for non-tidally influenced wetlands and waters. The Upper Manatee River Road widening project would require a Section 404 permit from FDEP. In addition, due to impacts to wetlands and other surface waters, the project will require a Statewide ERP pursuant to 62-330 F.A.C. The following agency permitting actions are anticipated:

- FDEP Section 404 Permit – Individual Permit or General Permit, depending on the extent of wetland and other surface water impacts, 0.5 acres of impact being the threshold.
- FDEP National Pollutant Discharge Elimination System, Stormwater Discharge from Large and Small Construction Activities (62-621.300 F.A.C.). This permit is to be obtained by the contractor.
- SWFWMD Statewide ERP – Individual ERP with the application review fee determined by project work area and extent of wetland impacts.

A second tier of agency involvement includes FWC and USFWS as commenting agencies on the respective permit applications for listed and protected species. Coordination and possible consultation with these agencies would be required to construct the Upper Manatee River Road widening project.

## 7.0 Conclusions

### 7.1 Protected Species and Habitat

#### 7.1.1 Federal Protected Wildlife and Critical Habitat

The federal listed and protected wildlife species provided in **Table 7-1** were determined to have the potential to occur within the corridor study area. Each species is listed with its federal status and the project effect determination based on the study results. The study area is not located within designated Critical Habitat for any federal protected species. Therefore, the proposed project would not result in the ***destruction or adverse modification of critical habitat***.

Table 7-1: Project Effect Determinations for Federal Listed and Protected Wildlife

Scientific Name	Common Name	Status	Project Effect Determination
<b>Federal Listed Wildlife</b>			
<i>Drymarchon corais couperi</i>	Eastern indigo snake	Threatened	May affect, not likely to adversely affect
<i>Mycteria americana</i>	Wood stork	Threatened	May affect, not likely to adversely affect
<i>Aphelocoma coerulescens</i>	Florida scrub jay	Threatened	No effect
<b>Federal Protected Wildlife</b>			
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGEPA* MBTA**	No effect
<i>Pandion haliaetus</i>	Osprey	MBTA**	No effect

\* Bald & Golden Eagle Protection Act and Migratory Bird Treaty Act. \*\* Migratory Bird Treaty Act

### 7.1.2 State Protected Wildlife

The state listed wildlife species provided in **Table 7-2** were determined to have the potential to occur within the corridor study area. Each species is listed with its state status and the project effect determination based on the study results.

Table 7-2: Project Effect Determinations for State Listed Wildlife

Scientific Name	Common Name	Status	Project Effect Determination
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	Threatened	No effect anticipated
<i>Falco sparverius paulus</i>	Southeastern American kestrel	Threatened	No effect anticipated
<i>Gopherus polyphemus</i>	Gopher tortoise	Threatened	No adverse effect anticipated
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	Threatened	No effect anticipated
<b>Wading Birds</b>			
<i>Egretta caerulea</i>	Little blue heron	Threatened	No effect anticipated
<i>Egretta rufescens</i>	Reddish egret	Threatened	No effect anticipated
<i>Egretta tricolor</i>	Tricolored heron	Threatened	No effect anticipated
<i>Platalea ajaja</i>	Rosette spoonbill	Threatened	No effect anticipated
<b>Nesting Shorebirds</b>			
<i>Rynchops niger</i>	Black skimmer	Threatened	No effect anticipated
<i>Sternula antillarum</i>	Least Tern	Threatened	No effect anticipated

### 7.1.3 Federal and State Protected Plants

The federal and state listed plants protected by the FDACS provided in **Table 7-3** were determined to have the potential to occur within the corridor study area. Each species is listed with its status and the project effect determination based on the study results. None of these species were observed during preliminary surveys and therefore there is no effect anticipated to these species.

*Table 7-3: Project Effect Determinations for Federal and State Listed Plants*

Scientific Name	Common Name	Status	Effect Determination
<i>Andropogon arctatus</i>	Pine-woods Bluestem	State Threatened	No effect anticipated
<i>Bonamia grandiflora</i>	Florida Bonamia	Federal Threatened	No effect anticipated
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	State Threatened	No effect anticipated
<i>Centrosema arenicola</i>	Sand Butterfly Pea	State Endangered	No effect anticipated
<i>Chionanthus pygmaeus</i>	Pygmy Fringe-tree	Federal Endangered	No effect anticipated
<i>Cladonia perforata</i>	Florida Perforate Cladonia	Federal Endangered	No effect anticipated
<i>Eragrostis pectinacea</i> <i>var. tracyi</i>	Sanibel Lovegrass	State Endangered	No effect anticipated
<i>Lechea cernua</i>	Nodding Pinweed	State Threatened	No effect anticipated
<i>Nemastylis floridana</i>	Celestial Lily	State Endangered	No effect anticipated
<i>Pteroglossaspis</i> <i>ecristata</i>	Giant Orchid	State Threatened	No effect anticipated
<i>Rhynchospora</i> <i>megaplumosa</i>	Large-plumed Beaksedge	State Endangered	No effect anticipated
<i>Zephyranthes simpsonii</i>	Redmargin Zephyrlily	State Threatened	No effect anticipated

### 7.2 Wetlands and Other Surface Waters

Wetlands were present in the corridor study area and were mapped and classified according to FLUCFCS and the USFWS *Classification of Wetlands and Deepwater Habitats of the United States*.

A total of 16 wetlands were identified within the corridor study area. Seven wetlands were identified along the west side of the road consisting of three herbaceous wetlands totaling approximately 10.5 acres and four forested wetlands totaling approximately 5.4 acres. Nine wetlands were identified along the east side of the road consisting of five herbaceous wetlands totaling approximately 3.4 acres and four forested wetlands totaling approximately eight acres.

A total of five surface waters were identified within the corridor study area. They all consist of drainage ditches either running along the roadside or draining away from the roadway. Potential impacts to wetlands and other surface waters would be estimated and assessed during an alternative's analysis. Each alternative would have a unique total UMAM functional loss on which to determine the eventual mitigation cost for each alternative. Additional wetland functional losses associated with the preferred pond site impacts would also be evaluated and compared. Mitigation will be required for all project impacts.



Final mitigation requirements would be determined during permitting based on the project design and using the UMAM scoring of impact areas at that time of review with the environmental agencies. Impacts to wetlands that result from the project would be mitigated pursuant to Section 373.4137, F.S., to satisfy all requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344.

There are no FDEP-designated OFWs within the corridor study area protected in accordance with 62-302.700 F.A.C. and under the authority granted by Section 403.061(27) F.S.

There are no sovereign submerged lands designated with the corridor study area per Title XVIII Public Lands and Property Chapter 253 F.S.

### 7.3 Essential Fish Habitat

There is no essential fish habitat present within the corridor study area.

### 7.4 Anticipated Permits

The Upper Manatee River Road project would require permitting with two state of Florida agencies, including SWFWMD and the FDEP Southwest District.

- FDEP Section 404 Permit – Individual Permit or General Permit, depending on the extent of wetland and water impacts, 0.5 acres of impact being the threshold.
- FDEP National Pollutant Discharge Elimination System, Stormwater Discharge from Large and Small Construction Activities (62-621.300 F.A.C.) – To be obtained by the contractor.
- SWFWMD Statewide ERP – Individual ERP with the application review fee determined by project work area and extent of wetland impacts.

## 8.0 Commitments

### 8.1 Wildlife

To protect listed wildlife, wildlife habitat, and plants, Manatee County will conduct wildlife surveys of the road corridor and pond sites during permitting and then prior to construction for the presence of protected wildlife species including plants. Manatee County will abide by standard resource protection measures in addition to the following specific commitments:

1. The County will adhere to the most current version of USFWS *Standard Protection Measures for the Eastern Indigo Snake* (2013) during construction.
2. The County will survey for **bald eagle** nests during permitting and design. If a bald eagle nest is identified within 660 feet of the project prior to or during construction, the County will coordinate with the USFWS and the FWC in accordance with the BGEPA and MBTA and will adhere to the USFWS Bald Eagle Management Guidelines.
3. The County will conduct **osprey** nest surveys during the permitting phase of the proposed project. If an osprey nest is identified, the County will coordinate with the USFWS and/or the FWC, depending on the activity status of the nest.
4. The County will perform pre-construction surveys for nesting **Florida sandhill cranes** per the FWC species guidelines (2016) to ensure active nests and flightless young are protected.
5. If required, the County will perform **southeastern American kestrel** surveys for breeding and active nest cavities during permitting and preconstruction.

6. The County will perform preliminary **gopher tortoise** surveys during permitting and formal gopher tortoise surveys during pre-construction in areas deemed suitable habitat in accordance with the FWC *Gopher Tortoise Permitting Guidelines*, and will secure an FWC Gopher Tortoise Relocation Permit, if gopher tortoise burrows are found.
7. The County will survey **wading bird** nesting habitat within 330 feet of the project area during permitting. If a wading bird nest is detected, additional surveys may be recommended to determine if an active breeding site is present.
8. The County will perform pre-construction surveys for **least tern** nests and young and for multi-year construction projects. Surveys can be conducted prior to land clearing and earthmoving to ensure nesting birds are not present.
9. If **protected plants** are discovered during pre-construction surveys, the County will initiate coordination with the FDACS.

## 8.2 Wetlands and Other Surface Waters

To protect wetland and water resources before, during, and after construction, Manatee County will abide by state and federal permit requirements and water quality protection measures particularly including the following commitments:

1. The County will implement provisions to avoid and minimize wetland impacts during design, permitting, and construction.
2. The County will use the UMAM to evaluate each wetland impact area to quantify the functional loss based on location and landscape, water environment, and vegetation conditions.
3. The County will mitigate for wetland impacts pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344.
4. The County will use erosion control measures and Best Management Practices during construction to avoid and minimize direct, indirect, and temporary impacts to habitat and water quality.

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## Appendices

**Appendix A – Soil Data Report**



United States  
Department of  
Agriculture

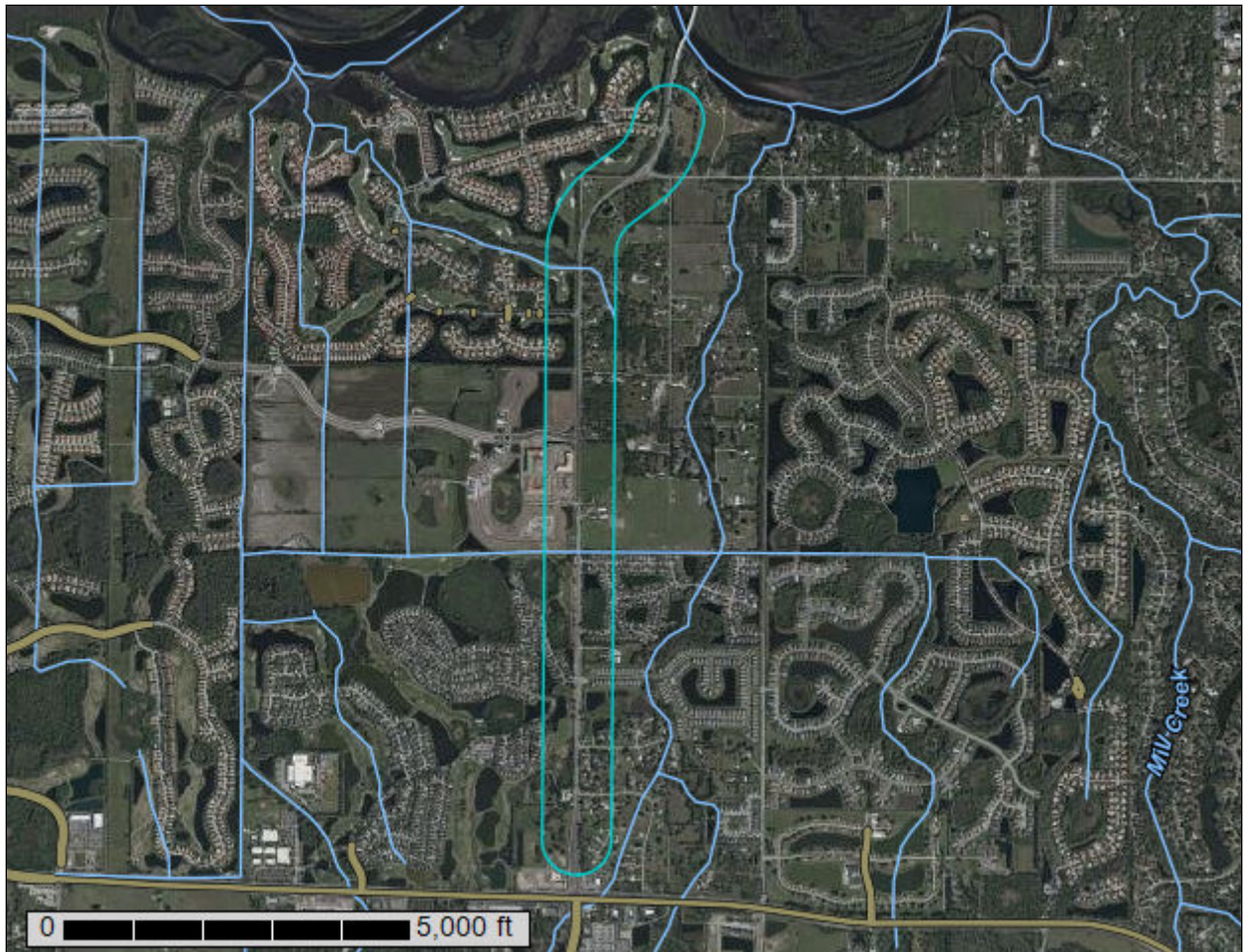
**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Manatee County, Florida**

## UMRR Soil Report



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

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<b>Preface</b> .....	2
<b>How Soil Surveys Are Made</b> .....	5
<b>Soil Map</b> .....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Manatee County, Florida.....	13
6—Broward variant fine sand.....	13
7—Canova, Anclote, and Okeelanta soils.....	15
20—EauGallie-EauGallie wet, fine sand, 0 to 2 percent slopes.....	18
26—Floridana-Immokalee-Okeelanta association.....	21
39—Parkwood variant-Chobee, limestone substratum-Parkwood complex.....	25
48—Wabasso-Wabasso, wet, fine sand, 0 to 2 percent slopes.....	28
<b>References</b> .....	32

# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

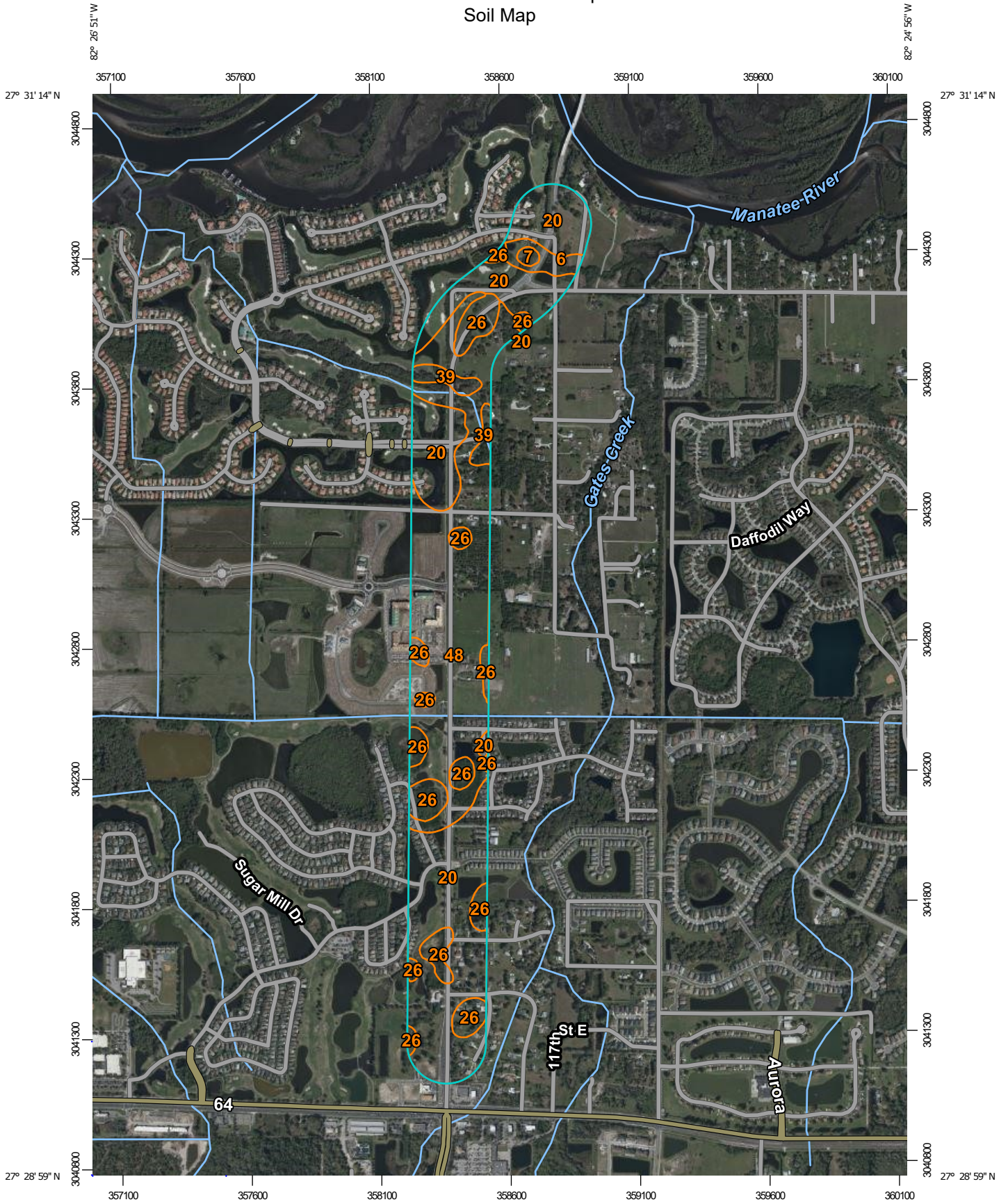
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

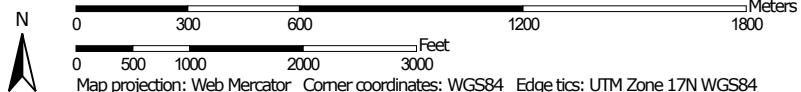
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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



Map Scale: 1:20,300 if printed on A portrait (8.5" x 11") sheet.



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

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)




















**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Manatee County, Florida  
 Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 5, 2020—Mar 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Broward variant fine sand	5.5	2.0%
7	Canova, Anclote, and Okeelanta soils	1.2	0.4%
20	EauGallie-EauGallie wet, fine sand, 0 to 2 percent slopes	116.2	43.6%
26	Floridana-Immokalee-Okeelanta association	33.8	12.7%
39	Parkwood variant-Chobee, limestone substratum-Parkwood complex	6.7	2.5%
48	Wabasso-Wabasso, wet, fine sand, 0 to 2 percent slopes	103.3	38.8%
<b>Totals for Area of Interest</b>		<b>266.7</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it



## Custom Soil Resource Report

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Manatee County, Florida

### 6—Broward variant fine sand

#### Map Unit Setting

*National map unit symbol:* 1hg99  
*Elevation:* 20 to 40 feet  
*Mean annual precipitation:* 48 to 56 inches  
*Mean annual air temperature:* 68 to 75 degrees F  
*Frost-free period:* 350 to 365 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Broward variant, non-hydric, and similar soils:* 70 percent  
*Broward variant, hydric, and similar soils:* 20 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Broward Variant, Non-hydric

##### Setting

*Landform:* Flatwoods on marine terraces, rises on marine terraces  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Sandy marine deposits over limestone

##### Typical profile

*A - 0 to 6 inches:* fine sand  
*E - 6 to 14 inches:* fine sand  
*Bh - 14 to 20 inches:* fine sand  
*C - 20 to 34 inches:* fine sand  
*2R - 34 to 55 inches:* unweathered bedrock  
*3Cg - 55 to 80 inches:* fine sand

##### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Very low (about 2.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C/D

## Custom Soil Resource Report

*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands  
(G155XB141FL)

*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands  
(G155XB141FL), South Florida Flatwoods (R155XY003FL)

*Hydric soil rating:* No

### Description of Broward Variant, Hydric

#### Setting

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Sandy marine deposits over limestone

#### Typical profile

*A - 0 to 6 inches:* fine sand

*E - 6 to 14 inches:* fine sand

*Bh - 14 to 20 inches:* fine sand

*C - 20 to 34 inches:* fine sand

*2R - 34 to 55 inches:* unweathered bedrock

*3Cg - 55 to 80 inches:* fine sand

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)

*Depth to water table:* About 0 to 12 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 15 percent

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 4.0

*Available water capacity:* Very low (about 2.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4w

*Hydrologic Soil Group:* C/D

*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands  
(G155XB141FL)

*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands  
(G155XB141FL), South Florida Flatwoods (R155XY003FL)

*Hydric soil rating:* Yes

### Minor Components

#### Myakka, non-hydric

*Percent of map unit:* 5 percent

*Landform:* Flatwoods on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

## Custom Soil Resource Report

*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

### **Wabasso variant**

*Percent of map unit:* 5 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

## **7—Canova, Anclote, and Okeelanta soils**

### **Map Unit Setting**

*National map unit symbol:* 1hg9b  
*Elevation:* 0 to 130 feet  
*Mean annual precipitation:* 48 to 56 inches  
*Mean annual air temperature:* 68 to 75 degrees F  
*Frost-free period:* 350 to 365 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Canova and similar soils:* 40 percent  
*Anclote and similar soils:* 25 percent  
*Okeelanta and similar soils:* 20 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Canova**

#### **Setting**

*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Loamy marine deposits

#### **Typical profile**

*Oa - 0 to 8 inches:* muck  
*A - 8 to 24 inches:* fine sand  
*B/C - 24 to 68 inches:* sandy clay loam

#### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Runoff class:* Negligible

## Custom Soil Resource Report

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 5.95 in/hr)

*Depth to water table:* About 0 inches

*Frequency of flooding:* None

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum content:* 15 percent

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 4.0

*Available water capacity:* Moderate (about 6.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* A/D

*Forage suitability group:* Organic soils in depressions and on flood plains  
(G155XB645FL)

*Other vegetative classification:* Organic soils in depressions and on flood plains  
(G155XB645FL)

*Hydric soil rating:* Yes

### Description of Anclote

#### Setting

*Landform:* Drainageways on marine terraces, depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Linear, concave

*Across-slope shape:* Concave

*Parent material:* Sandy marine deposits

#### Typical profile

*A - 0 to 16 inches:* fine sand

*Cg2 - 16 to 80 inches:* fine sand

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95  
to 19.98 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* None

*Frequency of ponding:* Frequent

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 4.0

*Available water capacity:* Low (about 5.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* A/D

*Forage suitability group:* Sandy soils on stream terraces, flood plains, or in  
depressions (G155XB145FL)

*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in  
depressions (G155XB145FL)

*Hydric soil rating:* Yes

## Description of Okeelanta

### Setting

*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Herbaceous organic material over sandy marine deposits

### Typical profile

*Oa - 0 to 20 inches:* muck  
*C - 20 to 54 inches:* sand

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* A/D  
*Forage suitability group:* Organic soils in depressions and on flood plains (G155XB645FL)  
*Other vegetative classification:* Organic soils in depressions and on flood plains (G155XB645FL)  
*Hydric soil rating:* Yes

## Minor Components

### Manatee

*Percent of map unit:* 5 percent  
*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

### Chobee

*Percent of map unit:* 5 percent  
*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave

## Custom Soil Resource Report

*Across-slope shape:* Concave

*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)

*Hydric soil rating:* Yes

### **Floridana**

*Percent of map unit:* 5 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Freshwater Marshes and Ponds (R155XY010FL)

*Hydric soil rating:* Yes

## **20—EauGallie-EauGallie wet, fine sand, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2y9gx

*Elevation:* 10 to 150 feet

*Mean annual precipitation:* 45 to 61 inches

*Mean annual air temperature:* 68 to 77 degrees F

*Frost-free period:* 335 to 365 days

*Farmland classification:* Farmland of unique importance

### **Map Unit Composition**

*Eaugallie and similar soils:* 70 percent

*Eaugallie, wet, and similar soils:* 15 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of EauGallie**

#### **Setting**

*Landform:* Flatwoods on marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Sandy and loamy marine deposits

#### **Typical profile**

*A - 0 to 6 inches:* fine sand

*E - 6 to 23 inches:* fine sand

*Bh - 23 to 47 inches:* fine sand

*Bw - 47 to 55 inches:* fine sand

*Btg - 55 to 80 inches:* sandy clay loam

## Custom Soil Resource Report

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 6.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* A/D  
*Ecological site:* R155XY003FL - South Florida Flatwoods  
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

### Description of Eaugallie, Wet

#### Setting

*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Sandy and loamy marine deposits

#### Typical profile

*A - 0 to 5 inches:* fine sand  
*E - 5 to 17 inches:* fine sand  
*Bh - 17 to 26 inches:* fine sand  
*Bw - 26 to 48 inches:* fine sand  
*E'g - 48 to 72 inches:* fine sand  
*Btg - 72 to 80 inches:* fine sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 3 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Low (about 5.3 inches)



## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* R155XY003FL - South Florida Flatwoods  
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* Yes

### Minor Components

#### Wabasso

*Percent of map unit:* 6 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

#### Delray

*Percent of map unit:* 3 percent  
*Landform:* Drainageways on marine terraces, flats on marine terraces  
*Landform position (three-dimensional):* Tread, dip  
*Down-slope shape:* Concave, convex, linear  
*Across-slope shape:* Concave, linear  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Hydric soil rating:* Yes

#### Pinellas

*Percent of map unit:* 3 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Cabbage Palm Flatwoods (R155XY005FL)  
*Hydric soil rating:* No

#### Myakka

*Percent of map unit:* 2 percent  
*Landform:* Drainageways on flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, dip, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear, concave  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

#### Riviera

*Percent of map unit:* 1 percent  
*Landform:* Drainageways on marine terraces, flats on marine terraces

## Custom Soil Resource Report

*Landform position (three-dimensional):* Tread, dip, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear, concave  
*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Slough (R155XY011FL)  
*Hydric soil rating:* Yes

## 26—Floridana-Immokalee-Okeelanta association

### Map Unit Setting

*National map unit symbol:* 1hg86  
*Elevation:* 0 to 150 feet  
*Mean annual precipitation:* 48 to 56 inches  
*Mean annual air temperature:* 68 to 75 degrees F  
*Frost-free period:* 350 to 365 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Floridana, depressional, and similar soils:* 35 percent  
*Immokalee and similar soils:* 30 percent  
*Okeelanta and similar soils:* 20 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Floridana, Depressional

#### Setting

*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Sandy and loamy marine deposits

#### Typical profile

*A - 0 to 19 inches:* fine sand  
*E - 19 to 36 inches:* fine sand  
*Btg - 36 to 63 inches:* sandy clay loam  
*Cg - 63 to 80 inches:* fine sand

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent

## Custom Soil Resource Report

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C/D  
*Forage suitability group:* Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)  
*Other vegetative classification:* Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

### Description of Immokalee

#### Setting

*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Interfluve, talf  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Sandy marine deposits

#### Typical profile

*A - 0 to 10 inches:* fine sand  
*E - 10 to 34 inches:* fine sand  
*Bh - 34 to 43 inches:* fine sand  
*C - 43 to 80 inches:* fine sand

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Low (about 3.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* B/D  
*Forage suitability group:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)  
*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

## Description of Okeelanta

### Setting

*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Interfluve, talf  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear, concave  
*Parent material:* Herbaceous organic material over sandy marine deposits

### Typical profile

*Oa - 0 to 20 inches:* muck  
*C - 20 to 54 inches:* sand

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* A/D  
*Forage suitability group:* Organic soils in depressions and on flood plains (G155XB645FL)  
*Other vegetative classification:* Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

## Minor Components

### Delray

*Percent of map unit:* 3 percent  
*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

### Anclote

*Percent of map unit:* 3 percent  
*Landform:* Drainageways on marine terraces, depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Concave

## Custom Soil Resource Report

*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)

*Hydric soil rating:* Yes

### **Chobee**

*Percent of map unit:* 3 percent

*Landform:* Depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)

*Hydric soil rating:* Yes

### **Pomona, non-hydric**

*Percent of map unit:* 2 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)

*Hydric soil rating:* No

### **Manatee**

*Percent of map unit:* 2 percent

*Landform:* Depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL), Freshwater Marshes and Ponds (R155XY010FL)

*Hydric soil rating:* Yes

### **Myakka, non-hydric**

*Percent of map unit:* 2 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Other vegetative classification:* South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)

*Hydric soil rating:* No

### **39—Parkwood variant-Chobee, limestone substratum-Parkwood complex**

#### **Map Unit Setting**

*National map unit symbol:* 1hg8n  
*Elevation:* 10 to 100 feet  
*Mean annual precipitation:* 48 to 56 inches  
*Mean annual air temperature:* 68 to 75 degrees F  
*Frost-free period:* 350 to 365 days  
*Farmland classification:* Not prime farmland

#### **Map Unit Composition**

*Parkwood variant and similar soils:* 40 percent  
*Chobee, limestone substratum, and similar soils:* 30 percent  
*Parkwood and similar soils:* 15 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Parkwood Variant**

##### **Setting**

*Landform:* Drainageways on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Sandy and loamy marine deposits over soft limestone

##### **Typical profile**

*A - 0 to 9 inches:* loamy fine sand  
*Btkg - 9 to 37 inches:* fine sandy loam  
*2R - 37 to 41 inches:* weathered bedrock

##### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* 30 to 60 inches to paralithic bedrock  
*Drainage class:* Poorly drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 20 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Low (about 3.8 inches)

## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* A/D

*Forage suitability group:* Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL)

*Other vegetative classification:* Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL), Wetland Hardwood Hammock (R155XY012FL)

*Hydric soil rating:* Yes

### Description of Chobee, Limestone Substratum

#### Setting

*Landform:* Depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Loamy alluvium

#### Typical profile

*A - 0 to 6 inches:* loamy fine sand

*Bt - 6 to 22 inches:* fine sandy loam

*Bt - 22 to 50 inches:* sandy clay loam

*2R - 50 to 54 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* 40 to 79 inches to lithic bedrock

*Drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 0 inches

*Frequency of flooding:* None

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum content:* 15 percent

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 4.0

*Available water capacity:* Moderate (about 7.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* C/D

*Forage suitability group:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)

*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL), Wetland Hardwood Hammock (R155XY012FL)

*Hydric soil rating:* Yes

### Description of Parkwood

#### Setting

*Landform:* Drainageways on marine terraces

*Landform position (three-dimensional):* Dip

## Custom Soil Resource Report

*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Sandy and loamy marine deposits

### Typical profile

*A - 0 to 9 inches:* fine sand  
*Btkg1 - 9 to 22 inches:* fine sandy loam  
*Btkg2 - 22 to 52 inches:* loamy fine sand  
*Ck - 52 to 80 inches:* loamy fine sand

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)  
*Depth to water table:* About 0 to 12 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 20 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* C/D  
*Forage suitability group:* Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL)  
*Other vegetative classification:* Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL), Wetland Hardwood Hammock (R155XY012FL)  
*Hydric soil rating:* Yes

### Minor Components

#### Delray

*Percent of map unit:* 4 percent  
*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Freshwater Marshes and Ponds (R155XY010FL)  
*Hydric soil rating:* Yes

#### Felda

*Percent of map unit:* 4 percent  
*Landform:* Drainageways on marine terraces  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Wetland Hardwood Hammock (R155XY012FL)  
*Hydric soil rating:* Yes



## Custom Soil Resource Report

### **Anclote**

*Percent of map unit:* 4 percent

*Landform:* Drainageways on marine terraces, depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Linear, concave

*Across-slope shape:* Concave

*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)

*Hydric soil rating:* Yes

### **Manatee**

*Percent of map unit:* 3 percent

*Landform:* Depressions on marine terraces

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Other vegetative classification:* Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL), Freshwater Marshes and Ponds (R155XY010FL)

*Hydric soil rating:* Yes

## **48—Wabasso-Wabasso, wet, fine sand, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2y9dx

*Elevation:* 0 to 150 feet

*Mean annual precipitation:* 43 to 60 inches

*Mean annual air temperature:* 68 to 77 degrees F

*Frost-free period:* 335 to 365 days

*Farmland classification:* Farmland of unique importance

### **Map Unit Composition**

*Wabasso and similar soils:* 70 percent

*Wabasso, wet, and similar soils:* 15 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Wabasso**

#### **Setting**

*Landform:* Flatwoods on marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Convex, linear

*Across-slope shape:* Linear

*Parent material:* Sandy and loamy marine deposits

## Custom Soil Resource Report

### Typical profile

*A - 0 to 7 inches:* fine sand  
*E - 7 to 24 inches:* fine sand  
*Bh - 24 to 35 inches:* fine sand  
*Bw - 35 to 39 inches:* fine sand  
*Btg - 39 to 80 inches:* sandy clay loam

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* B/D  
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

### Description of Wabasso, Wet

#### Setting

*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Sandy and loamy marine deposits

#### Typical profile

*A - 0 to 7 inches:* fine sand  
*E - 7 to 24 inches:* fine sand  
*Bh - 24 to 35 inches:* fine sand  
*Bw - 35 to 39 inches:* fine sand  
*Btg - 39 to 80 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 3 to 18 inches

## Custom Soil Resource Report

*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water capacity:* Moderate (about 7.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* B/D  
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* Yes

### Minor Components

#### Eaugallie

*Percent of map unit:* 5 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)  
*Hydric soil rating:* No

#### Malabar

*Percent of map unit:* 3 percent  
*Landform:* Drainageways on marine terraces, flats on marine terraces  
*Landform position (three-dimensional):* Tread, dip, talf  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Slough (R155XY011FL)  
*Hydric soil rating:* Yes

#### Riviera

*Percent of map unit:* 3 percent  
*Landform:* Drainageways on marine terraces, flats on marine terraces  
*Landform position (three-dimensional):* Tread, dip, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Slough (R155XY011FL)  
*Hydric soil rating:* Yes

#### Aripeka

*Percent of map unit:* 2 percent  
*Landform:* Rises on karstic marine terraces  
*Landform position (three-dimensional):* Tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear

## Custom Soil Resource Report

*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G155XB521FL), Wetland Hardwood Hammock (R155XY012FL)

*Hydric soil rating:* No

### **Basinger**

*Percent of map unit:* 1 percent

*Landform:* Depressions on flats on marine terraces

*Landform position (three-dimensional):* Tread, dip, talf

*Down-slope shape:* Concave, linear

*Across-slope shape:* Concave, linear

*Other vegetative classification:* Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Freshwater Marshes and Ponds (R155XY010FL)

*Hydric soil rating:* Yes

### **Paisley**

*Percent of map unit:* 1 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Other vegetative classification:* Wetland Hardwood Hammock (R155XY012FL), Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL)

*Hydric soil rating:* Yes

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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## Appendix B – IPaC Resource List

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## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
North Florida Ecological Services Field Office  
7915 Baymeadows Way, Suite 200  
Jacksonville, FL 32256-7517  
Phone: (904) 731-3336 Fax: (904) 731-3045

In Reply Refer To:  
Consultation Code: 04EF1000-2021-SLI-1218  
Event Code: 04EF1000-2021-E-01888  
Project Name: Upper Manatee River Road

July 06, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)



(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - Migratory Birds
-

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**North Florida Ecological Services Field Office**

7915 Baymeadows Way, Suite 200

Jacksonville, FL 32256-7517

(904) 731-3336

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## Project Summary

Consultation Code: 04EF1000-2021-SLI-1218

Event Code: 04EF1000-2021-E-01888

Project Name: Upper Manatee River Road

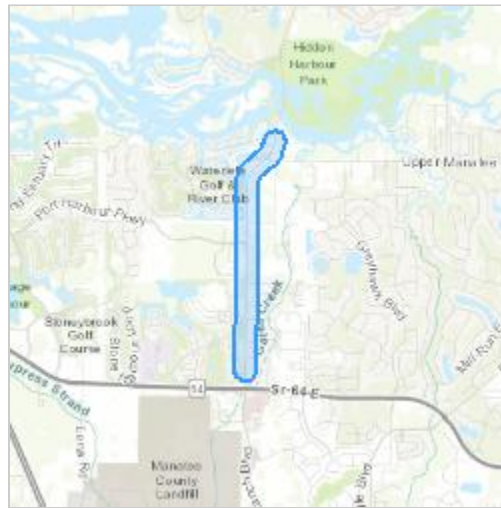
Project Type: TRANSPORTATION

Project Description: The purpose is to evaluate the future roadway needs of the corridor and intersections.

Project Location:

Approximate location of the project can be viewed in Google Maps: [https://](https://www.google.com/maps/@27.5018607,-82.43364702239334,14z)

[www.google.com/maps/@27.5018607,-82.43364702239334,14z](https://www.google.com/maps/@27.5018607,-82.43364702239334,14z)



Counties: Manatee County, Florida

## Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Birds

NAME	STATUS
Audubon's Crested Caracara <i>Polyborus plancus audubonii</i> Population: FL pop. No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8250">https://ecos.fws.gov/ecp/species/8250</a>	Threatened
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8477">https://ecos.fws.gov/ecp/species/8477</a>	Threatened

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## Reptiles

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon corais couperi</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/646">https://ecos.fws.gov/ecp/species/646</a>	Threatened
Gopher Tortoise <i>Gopherus polyphemus</i> Population: eastern No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6994">https://ecos.fws.gov/ecp/species/6994</a>	Candidate
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a>	Threatened
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/1110">https://ecos.fws.gov/ecp/species/1110</a>	Threatened

## Flowering Plants

NAME	STATUS
Pygmy Fringe-tree <i>Chionanthus pygmaeus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1084">https://ecos.fws.gov/ecp/species/1084</a>	Endangered

## Lichens

NAME	STATUS
Florida Perforate Cladonia <i>Cladonia perforata</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7516">https://ecos.fws.gov/ecp/species/7516</a>	Endangered

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

## Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9587">https://ecos.fws.gov/ecp/species/9587</a>	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
<b>Black Skimmer <i>Rynchops niger</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/5234">https://ecos.fws.gov/ecp/species/5234</a>	Breeds May 20 to Sep 15
<b>Clapper Rail <i>Rallus crepitans</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Oct 31
<b>Common Ground-dove <i>Columbina passerina exigua</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 1 to Dec 31
<b>Least Tern <i>Sterna antillarum</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 20 to Sep 10
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Limpkin <i>Aramus guarauna</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 15 to Aug 31
<b>Prairie Warbler <i>Dendroica discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
<b>Reddish Egret <i>Egretta rufescens</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/7617">https://ecos.fws.gov/ecp/species/7617</a>	Breeds Mar 1 to Sep 15
<b>Swallow-tailed Kite <i>Elanoides forficatus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8938">https://ecos.fws.gov/ecp/species/8938</a>	Breeds Mar 10 to Jun 30
<b>Yellow Warbler <i>Dendroica petechia gundlachi</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Aug 10

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

### No Data (-)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

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project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no

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data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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**Appendix C – Affect Determination Keys**



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
South Florida Ecological Services Office  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960

January 25, 2010

David S. Hobbie  
Chief, Regulatory Division  
Jacksonville District Corps of Engineers  
Post Office Box 4970  
Jacksonville, Florida 32232-0019

Service Federal Activity Code: 41420-2007-FA-1494  
Service Consultation Code: 41420-2007-I-0964  
Subject: South Florida Programmatic  
Concurrence  
Species: Wood Stork

Dear Mr. Hobbie:

The Fish and Wildlife Service's (Service) South Florida Ecological Services Office (SFESO) and the U.S. Army Corps of Engineers Jacksonville District (Corps) have been working together to improve the consultation process for federally listed species associated with the Corps' wetland permitting program. The Service provided letters to the Corps dated March 23, 2007, and October 18, 2007, in response to a request for a multi-county programmatic concurrence with a criteria-based determination of "may affect, not likely to adversely affect" (NLAA) for the threatened eastern indigo snake (*Drymarchon corais couperi*) and the endangered wood stork (*Mycteria americana*) for projects involving freshwater wetland impacts within specified Florida counties. In our letters, we provided effect determination keys for these two federally listed species, with specific criteria for the Service to concur with a determination of NLAA.

The Service has revisited these keys recently and believes new information provides cause to revise these keys. Specifically, the new information relates to foraging efficiencies and prey base assessments for the wood stork and permitting requirements for the eastern indigo snake. This letter addresses the wood stork key and is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*). The eastern indigo snake key will be provided in a separate letter.

## **Wood stork**

### Habitat

The wood stork is primarily associated with freshwater and estuarine habitats that are used for nesting, roosting, and foraging. Wood storks typically construct their nests in medium to tall trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water (Ogden 1991, 1996; Rodgers et al. 1996). Successful colonies are those



that have limited human disturbance and low exposure to land-based predators. Nesting colonies protected from land-based predators are characterized as those surrounded by large expanses of open water or where the nest trees are inundated at the onset of nesting and remain inundated throughout most of the breeding cycle. These colonies have water depths between 0.9 and 1.5 meters (3 and 5 feet) during the breeding season.

Successful nesting generally involves combinations of average or above-average rainfall during the summer rainy season and an absence of unusually rainy or cold weather during the winter-spring breeding season (Kahl 1964; Rodgers et al. 1987). This pattern produces widespread and prolonged flooding of summer marshes, which maximize production of freshwater fishes, followed by steady drying that concentrate fish during the season when storks nest (Kahl 1964). Successful nesting colonies are those that have a large number of foraging sites. To maintain a wide range of foraging sites, a variety of wetland types should be present, with both short and long hydroperiods. The Service (1999) describes a short hydroperiod as a 1 to 5-month wet/dry cycle, and a long hydroperiod as greater than 5 months. During the wet season, wood storks generally feed in the shallow water of the short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as they progressively dry-down (though usually retaining some surface water throughout the dry season).

Wood storks occur in a wide variety of wetland habitats. Typical foraging sites for the wood stork include freshwater marshes and stock ponds, shallow, seasonally flooded roadside and agricultural ditches, narrow tidal creeks and shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas with highly concentrated prey. Through tactolocation, or grope feeding, wood storks in south Florida feed almost exclusively on fish between 2 and 25 centimeters [cm] (1 and 10 inches) in length (Ogden et al. 1976). Good foraging conditions are characterized by water that is relatively calm, uncluttered by dense thickets of aquatic vegetation, and having a water depth between 5 and 38 cm (5 and 15 inches) deep, although wood storks may forage in other wetlands. Ideally, preferred foraging wetlands would include a mosaic of emergent and shallow open-water areas. The emergent component provides nursery habitat for small fish, frogs, and other aquatic prey and the shallow, open-water areas provide sites for concentration of the prey during seasonal dry-down of the wetland.

### Conservation Measures

The Service routinely concurs with the Corps' "may affect, not likely to adversely affect" determination for individual project effects to the wood stork when project effects are insignificant due to scope or location, or if assurances are given that wetland impacts have been avoided, minimized, and adequately compensated such that there is no net loss in foraging potential. We utilize our *Habitat Management Guidelines for the Wood Stork in the Southeast Region* (Service 1990) (Appendix 1) (HMG) in project evaluation. The HMG is currently under review and once final will replace the enclosed HGM. There is no designated critical habitat for the wood stork.

The SFESO recognizes a 29.9 kilometer [km] (18.6-mile) core foraging area (CFA) around all known wood stork colonies in south Florida. Appendix 2 (to be updated as necessary) provides locations of colonies and their CFAs in south Florida that have been documented as active within the last 10 years. The Service believes loss of suitable wetlands within these CFAs may reduce foraging opportunities for the wood stork. To minimize adverse effects to the wood stork, we recommend compensation be provided for impacts to foraging habitat. The compensation should consider wetland type, location, function, and value (hydrology, vegetation, prey utilization) to ensure that wetland functions lost due to the project are adequately offset. Wetlands offered as compensation should be of the same hydroperiod and located within the CFAs of the affected wood stork colonies. The Service may accept, under special circumstances, wetland compensation located outside the CFAs of the affected wood stork nesting colonies. On occasion, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFAs could be acceptable to the Service, depending on location of impacted wetlands relative to the permitted service area of the bank, and whether or not the bank has wetlands having the same hydroperiod as the impacted wetland.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing the Wood Stork Effect Determination Key below. If the use of this key results in a Corps determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination<sup>1</sup>. This Key is subject to revisitation as the Corps and Service deem necessary.

The Key is as follows:

A. Project within 0.76 km (0.47 mile)<sup>2</sup> of an active colony site<sup>3</sup> ..... "may affect"<sup>4</sup>

Project impacts Suitable Foraging Habitat (SFH) at a location greater than 0.76 km (0.47 mile) from a colony site..... "go to B"

Project does not affect SFH<sup>5</sup>..... "no effect".

<sup>1</sup> With an outcome of "no effect" or "NLAA" as outlined in this key, and the project has less than 20.2 hectares (50 acres) of wetland impacts, the requirements of section 7 of the Act are fulfilled for the wood stork and no further action is required. For projects with greater than 20.2 hectares (50 acres) of wetland impacts, written concurrence of NLAA from the Service is necessary.

<sup>2</sup> Within the secondary zone (the average distance from the border of a colony to the limits of the secondary zone is 0.76 km (2,500 feet, or 0.47 mi).

<sup>3</sup> An active colony is defined as a colony that is currently being used for nesting by wood storks or has historically over the last 10 years been used for nesting by wood storks.

<sup>4</sup> Consultation may be concluded informally or formally depending on project impacts.

<sup>5</sup> Suitable foraging habitat (SFH) are wetlands that typically have shallow-open water areas that are relatively calm and having a permanent or seasonal water depth between 5 to 38 cm (2 to 15 inches) deep. Other shallow non-wetland water bodies are also SFH. SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to freshwater marshes, small



- B. Project impact to SFH is less than 0.20 hectare (one-half acre)<sup>6</sup>.....*NLAA*<sup>1</sup>”
  - Project impact to SFH is greater in scope than 0.20 hectare (one-half acre).....*go to C*
- C. Project impacts to SFH not within the CFA (29.9 km, 18.6 miles) of a colony site .....*go to D*
  - Project impacts to SFH within the CFA of a colony site .....*go to E*
- D. Project impacts to SFH have been avoided and minimized to the extent practicable, and compensation (Service approved mitigation bank or as provided in accordance with Mitigation Rule 33 CFR Part 332) for unavoidable impacts is proposed in accordance with the CWA section 404(b)(1) guidelines and habitat compensation replaces the foraging value matching the hydroperiod<sup>7</sup> of the wetlands affected and provides foraging value similar to, or higher than, that of impacted wetlands. See Appendix 3 for a detailed discussion of the hydroperiod foraging values, an example, and further guidance<sup>8</sup> ..... *NLAA*<sup>1</sup>”
  - Project not as above..... “*may affect*<sup>4</sup>”
- E. Project provides SFH compensation in accordance with the CWA section 404(b)(1) guidelines and is not contrary to the HMG; habitat compensation is within the appropriate CFA or within the service area of a Service-approved mitigation bank; and habitat compensation replaces foraging value, consisting of wetland enhancement or restoration

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ponds, shallow, seasonally flooded roadside or agricultural ditches, seasonally flooded pastures, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs.

<sup>6</sup> On an individual basis, SFH impacts to wetlands less than 0.20 hectare (one-half acre) generally will not have a measurable effect on wood storks, although we request that the Corps require mitigation for these losses when appropriate. Wood storks are a wide ranging species, and individually, habitat change from impacts to SFH less than one-half acre are not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

<sup>7</sup> Several researchers (Flemming et al. 1994; Ceilley and Bortone 2000) believe that the short hydroperiod wetlands provide a more important pre-nesting foraging food source and a greater early nestling survivor value for wood storks than the foraging base (grams of fish per square meter) that short hydroperiod wetlands provide. Although the short hydroperiod wetlands may provide less fish, these prey bases historically were more extensive and met the foraging needs of the pre-nesting storks and the early-age nestlings. Nest productivity may suffer as a result of the loss of short hydroperiod wetlands. We believe that most wetland fill and excavation impacts permitted in south Florida are in short hydroperiod wetlands. Therefore, we believe that it is especially important that impacts to these short hydroperiod wetlands within CFAs are avoided, minimized, and compensated for by enhancement/restoration of short hydroperiod wetlands.

<sup>8</sup> For this Key, the Service requires an analysis of foraging prey base losses and enhancements from the proposed action as shown in the examples in Appendix 3 for projects with greater than 2.02 hectares (5 acres) of wetland impacts. For projects with less than 2.02 hectares (5 acres) of wetland impacts, an individual foraging prey base analysis is not necessary although type for type wetland compensation is still a requirement of the Key.

matching the hydroperiod<sup>6</sup> of the wetlands affected, and provides foraging value similar to, or higher than, that of impacted wetlands. See Appendix 3 for a detailed discussion of the hydroperiod foraging values, an example, and further guidance<sup>8</sup>..... “NLAA<sup>1</sup>”

Project does not satisfy these elements .....“may affect<sup>4</sup>”

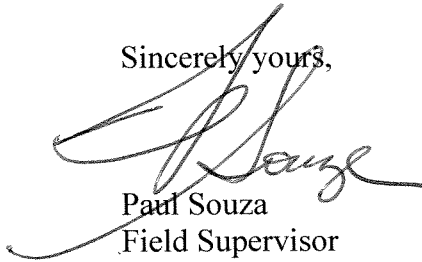
This Key does not apply to Comprehensive Everglades Restoration Plan projects, as they will require project-specific consultations with the Service.

Monitoring and Reporting Effects

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued where the effect determination was: “may affect, not likely to adversely affect.” We request that the Corps send us an annual summary consisting of: project dates, Corps identification numbers, project acreages, project wetland acreages, and project locations in latitude and longitude in decimal degrees.

Thank you for your cooperation and effort in protecting federally listed species. If you have any questions, please contact Allen Webb at extension 246.

Sincerely yours,



Paul Souza  
Field Supervisor  
South Florida Ecological Services Office

Appendices

- cc: w/Appendices
- Corps, Jacksonville, Florida (Stu Santos)
- EPA, West Palm Beach, Florida (Richard Harvey)
- FWC, Vero Beach, Florida (Joe Walsh)
- Service, Jacksonville, Florida (Billy Brooks)

**LITERATURE CITED**

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# United States Department of the Interior

## U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200  
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:

August 13, 2013

Colonel Alan M. Dodd, District Engineer  
Department of the Army  
Jacksonville District Corps of Engineers  
P.O Box 4970  
Jacksonville, Florida 32232-0019  
(Attn: Mr. David S. Hobbie)

RE: Update Addendum to USFWS Concurrence Letter to U.S. Army Corps of Engineers  
Regarding Use of the Attached Eastern Indigo Snake Programmatic Effect Determination Key

Dear Colonel Dodd:

This letter is to amend the January 25, 2010, letter to the U.S. Army Corps of Engineers regarding the use of the attached eastern indigo snake programmatic effect determination key (key). It supersedes the update addendum issued January 5, 2012.

We have evaluated the original programmatic concurrence and find it suitable and appropriate to extend its use to the remainder of Florida covered by the Panama City Ecological Services Office.

### **On Page 2**

The following replaces the last paragraph above the signatures:

“Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to Annie Dziergowski (North Florida ESO) at 904-731-3089, Harold Mitchell (Panama City ESO) at 850-769-0552, or Victoria Foster (South Florida ESO) at 772-469-4269.”

### **On Page 3**

The following replaces both paragraphs under “Scope of the key”:

“This key should be used only in the review of permit applications for effects determinations for the eastern indigo snake within the State of Florida, and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH).”

### **On Page 4**

The following replaces the first paragraph under Conservation Measures:

“The Service routinely concurs with the Corps’ “not likely to adversely affect” (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that

our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013) located at: <http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes.htm> will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.”

**On Page 4 and Page 5 (Couplet D)**

The following replaces D. under Conservation Measures:

D. The project will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or less than 25 active and inactive gopher tortoise burrows.....go to E

The project will impact more than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested<sup>2</sup>..... ”may affect”


**On Page 5**

The following replaces footnote #3:

“<sup>3</sup>If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a FWC Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise> .”

Thank you for making these amendments concerning the Eastern Indigo Snake Key. If you have any questions, please contact Jodie Smithem of my staff at the address on the letterhead, by email at [jodie\\_smithem@fws.gov](mailto:jodie_smithem@fws.gov), or by calling (904)731-3134.

Sincerely,



Dawn Jennings  
Acting Field Supervisor

cc:

- Panama City Ecological Services Field Office, Panama City, FL
- South Florida Ecological Services Field Office, Vero Beach, FL



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
South Florida Ecological Services Office  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960



January 25, 2010

David S. Hobbie  
Chief, Regulatory Division  
U.S. Army Corps of Engineers  
Post Office Box 4970  
Jacksonville, Florida 32232-0019

Service Federal Activity Code: 41420-2009-FA-0642

Service Consultation Code: 41420-2009-I-0467

41910-2010-I-0045

Subject: North and South Florida  
Ecological Services Field Offices  
Programmatic Concurrence for Use  
of Original Eastern Indigo Snake  
Key(s) Until Further Notice

Dear Mr. Hobbie:

The U.S. Fish and Wildlife Service's (Service) South and North Florida Ecological Services Field Offices (FO), through consultation with the U.S. Army Corps of Engineers Jacksonville District (Corps), propose revision to both Programmatic concurrence letters/keys for the federally threatened Eastern Indigo Snake (*Drymarchon corais couperi*), (indigo snake), and now provide one key for both FO's. The original programmatic key was issued by the South Florida FO on November 9, 2007. The North Florida FO issued a revised version of the original key on September 18, 2008. Both keys were similar in content, but reflected differences in geographic work areas between the two Field Offices. The enclosed key satisfies each office's responsibilities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*).

Footnote number 3 in the original keys indicated "A member of the excavation team should be authorized for Incidental Take during excavation through either a section 10(a)(1)(A) permit issued by the Service or an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission (FWC)." We have removed this reference to a Service issued Section 10(a)(1)(A) permit, as one is not necessary for this activity. We also referenced the FWC's revised April 2009 Gopher Tortoise Permitting Guidelines with a link to their website for updated excavation guidance, and have provided a website link to our Standard Protection Measures. All other conditions and criteria apply.

We believe the implementation of the attached key achieves our mutual goal for all users to make consistent effect determinations regarding this species. The use of this key for review of projects

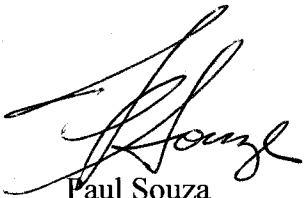
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located in all referenced counties in our respective geographic work areas leads the Service to concur with the Corps' determination of "may affect, not likely to adversely affect" (MANLAA) for the Eastern indigo snake. The biological rationale for the determinations is contained within the referenced documents and is submitted in accordance with section 7 of the Act.

Should circumstances change or new information become available regarding the eastern indigo snake or implementation of the key, the determinations may be reconsidered as deemed necessary.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to either Allen Webb (Vero Beach) at 772-562-3909, extension 246, or Jay Herrington (Jacksonville) at 904-731-3326.

Sincerely,



Paul Souza  
Field Supervisor  
South Florida Ecological Services Office



David L. Hankla  
Field Supervisor  
North Florida Ecological Services Office

Enclosure

cc: electronic only  
FWC, Tallahassee, Florida (Dr. Elsa Haubold)  
Service, Jacksonville, Florida (Jay Herrington)  
Service, Vero Beach, Florida (Sandra Sneckenberger)

## Eastern Indigo Snake Programmatic Effect Determination Key

### Scope of the key

This key should be used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR), and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH). Counties within the **North** Florida GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

Counties in the **South** Florida GAR include Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, St. Lucie.

### Habitat

Over most of its range, the eastern indigo snake frequents several habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Eastern indigo snakes appear to need a mosaic of habitats to complete their life cycle. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with the gopher tortoise (*Gopherus polyphemus*), the burrows of which provide shelter from winter cold and summer desiccation (Speake et al. 1978; Layne and Steiner 1996). Interspersion of tortoise-inhabited uplands and wetlands improves habitat quality for this species (Landers and Speake 1980; Auffenberg and Franz 1982).

In south Florida, agricultural sites, such as sugar cane fields, created in former wetland areas are occupied by eastern indigo snakes (Enge pers. comm. 2007). Formerly, indigo snakes would have only occupied higher elevation sites within the wetlands. The introduction of agriculture and its associated canal systems has resulted in an increase in rodents and other species of snakes that are prey for eastern indigo snakes. The result is that indigos occur at higher densities in these areas than they did historically.

Even though thermal stress may not be a limiting factor throughout the year in south Florida, indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigos use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumii*) burrows in coastal areas (Service 2006). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges. In extreme south Florida (the Everglades and Florida Keys), indigo snakes are found in tropical



hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats (Steiner et al. 1983). It is suspected that they prefer hammocks and pine forests, because most observations occur in these habitats disproportionately to their presence in the landscape (Steiner et al. 1983). Hammocks may be important breeding areas as juveniles are typically found there. The eastern indigo snake is a snake-eater so the presence of other snake species may be a good indicator of habitat quality.

**Conservation Measures**

The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004) located at: <http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes> will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing an Eastern Indigo Snake Effect Determination Key, similar in utility to the West Indian Manatee Effect Determination Key and the Wood Stork Effect Determination Keys presently being utilized by the Corps. If the use of this key results in a Corps' determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary<sup>1</sup>. This key is subject to revisitation as the Corps and Service deem necessary.

- A. Project is not located in open water or salt marsh.....go to B  
     Project is located solely in open water or salt marsh..... "no effect"
- B. Permit will be conditioned for use of the Service's *Standard Protection Measures For The Eastern Indigo Snake* during site preparation and project construction.....go to C  
     Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested<sup>2</sup> ..... "may affect"
- C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....go to D  
     There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities ..... "NLAA"
- D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows.....go to E

The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested<sup>2</sup>..... "may affect"

- E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow<sup>3</sup>. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... "NLAA"

Permit will not be conditioned as outlined above and consultation with the Service is requested<sup>2</sup> ..... "may affect"

<sup>1</sup>With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required.

<sup>2</sup>Consultation may be concluded informally or formally depending on project impacts.

<sup>3</sup> If burrow excavation is utilized, it should be performed by experienced personnel. The method used should minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the Florida Fish and Wildlife Conservation Commission's revised April 2009 Gopher Tortoise Permitting Guidelines located at [http://myfwc.com/License/Permits\\_ProtectedWildlife.htm#gophertortoise](http://myfwc.com/License/Permits_ProtectedWildlife.htm#gophertortoise). A member of the excavation team should be authorized for Incidental Take during excavation through an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission.

**Appendix D – Special Protection Measures**

**STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE**  
**U.S. Fish and Wildlife Service**  
**August 12, 2013**

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: [jaxregs@fws.gov](mailto:jaxregs@fws.gov); South Florida Field Office: [verobeach@fws.gov](mailto:verobeach@fws.gov); Panama City Field Office: [panamacity@fws.gov](mailto:panamacity@fws.gov)). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

**POSTER INFORMATION**

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

**DESCRIPTION:** The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

**SIMILAR SNAKES:** The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

**LIFE HISTORY:** The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

**PROTECTION UNDER FEDERAL AND STATE LAW:** The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

**IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

**IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

**Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:**

**North Florida Field Office – (904) 731-3336**  
**Panama City Field Office – (850) 769-0552**  
**South Florida Field Office – (772) 562-3909**

## **PRE-CONSTRUCTION ACTIVITIES**

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

## **DURING CONSTRUCTION ACTIVITIES**

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

## **POST CONSTRUCTION ACTIVITIES**

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

## Appendix D – Cultural Resources Memo

# Cultural Resources

## Technical Memorandum

Upper Manatee River Road  
Project Development and Corridor Study Report

October 2021





## CONTENTS

**Executive Summary ..... 3**

**1.0 Introduction ..... 4**

    1.1 Purpose ..... 4

**2.0 Environmental Setting ..... 4**

**3.0 Methodology ..... 4**

**4.0 Findings ..... 6**

    4.1 Cultural Resource Surveys ..... 6

    4.2 Archaeological Sites ..... 6

    4.3 Historic-age Architectural Resources ..... 6

        4.3.1 Previously Recorded Historic-age Architectural Resources ..... 6

        4.3.2 Unrecorded Historic-age Architectural Resources ..... 6

**5.0 Summary and Recommendations ..... 13**

**6.0 References ..... 14**

## FIGURES

Figure 1 | Project Location ..... 5

Figure 2 | Cultural Resources and Previous Surveys within 1 Mile of the Study Area ..... 7

## TABLES

Table 1 | Mapped Soil Units in the Study Area ..... 4

Table 2 | Previous Cultural Resources Surveys Conducted within 1 Mile of the Study Area ..... 8

Table 3 | Previously Recorded Archaeological Sites Located within 1 Mile of the Study Area ..... 11

Table 4 | Previously Recorded Historic-Age Structures Located within 1 Mile of the Study Area ..... 12

Table 5 | Previously Unrecorded Historic-Age Architectural Resources Located within Study Area ..... 13

## Executive Summary

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing 4-lane section north of State Road (SR) 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida. Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas.

To support the Study, background research was conducted to identify known cultural resources within the corridor study area (Study Area) that have the potential to be impacted by the proposed project improvements. The background research informed recommendations for future cultural resources surveys (archaeological and architectural) in the Study Area. For this project, the Study Area comprises a 500-foot buffer on either side of the existing Upper Manatee River Road centerline.

The desktop review revealed that the entirety of the Study Area has been surveyed during archaeological surveys performed over the past 20 years. No archaeological sites have been previously recorded in the Study Area. Since the entire project area has been previously surveyed, no further archaeological work is recommended for the proposed project. It is advised that should any archaeological materials be identified during construction, all construction should cease, and the Florida Division of Historic Resources should be notified.

Three historic-age architectural resources have been previously recorded in the Study Area. All three buildings are associated with Moore's Dairy, and all have been determined ineligible for listing in the National Register of Historic Places (NRHP). A review of Manatee County Appraisal District (CAD) data online showed 13 historic-age buildings (those constructed in 1976 or before) that have not been previously surveyed in the Study Area. Given the presence of previously unrecorded historic-age architectural resources in the Study Area, an architectural resources survey may also be necessary to survey those resources and evaluate their eligibility for listing in the NRHP, depending on the final project design and potential impacts to historic-age architectural resources.

### 1.0 Introduction

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing 4-lane section north of SR 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida, as shown in **Figure 1**. Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas.

To support the Study, background research was conducted to identify known cultural resources within the corridor study area (Study Area) that have the potential to be impacted by the proposed project improvements. The background research informed recommendations for future cultural resources surveys (archaeological and architectural) in the Study Area. For this project, the Study Area comprises a 500-foot buffer on either side of the existing Upper Manatee River Road centerline.

#### 1.1 Purpose

The primary purpose of the Upper Manatee River Road improvements is to provide congestion relief by providing additional capacity between SR 64 and the Fort Hamer Bridge. Located between the Manatee River and SR 64, additional capacity along Upper Manatee River Road would provide relief to existing major east-west corridors, such as Interstate 75 (I-75) and Lakewood Ranch Boulevard.

### 2.0 Environmental Setting

The Study Area is underlain by the Hawthorn Group of the Peace River Formation of Miocene and Pliocene age (USGS 2021). According to the University of California and U.S. Department of Agriculture Natural Resources Conservation Service Soil Web (2019), six mapped soil units occur within the Study Area, as listed in **Table 1**.

*Table 1 | Mapped Soil Units in the Study Area*

Map Symbol	Soil Unit	Landforms
20	EauGallie-EauGallie wet, fine sand, 0 to 2 percent slopes	Flatwoods
6	Broward variant fine sand	Flatwoods
7	Canova, Anclote, and Okeelanta soils	Depressions
26	Floridana-Immokalee-Okeelanta association	Depressions
48	Wabasso-Wabasso wet, fine sand, 0 to 2 percent slopes	Flatwoods
39	Parkwood variant-Chobee, limestone substratum-Parkwood complex	Drainageways

### 3.0 Methodology

A desktop review was completed to identify known cultural resources within the Upper Manatee River Road Study Area, and within 1 mile of the Study Area boundaries. The desktop review consisted of a search of Florida Master Site File (FMSF) records to identify previous cultural resources surveys conducted in the Study Area and vicinity, and previously recorded archaeological sites and architectural resources (buildings and structures) in those areas. Manatee County Appraisal District data, and historic aerials and United States Geological Survey (USGS) maps available online, were used to identify historic-age buildings in the Study Area.



Figure 1 | Project Location

## 4.0 Findings

### 4.1 Cultural Resource Surveys

At the time of the desktop review, FMSF data revealed the boundaries of 22 previous cultural resources surveys that overlap the 1-mile search area. Survey areas of five of the 22 previous surveys partially overlap the Study Area. Survey 6743 overlaps the entirety of the Study Area. The locations of the six previous surveys are shown in **Figure 2**. Details for all previous surveys within 1 mile of the Study Area are listed in **Table 2**.

### 4.2 Archaeological Sites

FMSF data shows eight previously recorded archaeological sites located within 1 mile of the Study Area. Site 8MA00315 (Fort Hamer) overlaps a small portion of the north end of the Study Area. The site has been determined eligible for inclusion in the National Register of Historic Places (NRHP). The remainder of the known archaeological sites have been evaluated as ineligible for inclusion in the NRHP, except for Site 8MA01139, which has not been evaluated. Details for all previously recorded archaeological sites within 1 mile of the Study Area are listed in **Table 3**.

### 4.3 Historic-age Architectural Resources

#### 4.3.1 Previously Recorded Historic-age Architectural Resources

FMSF data shows eight historic-age structures within 1 mile of the Study Area. Three (MA01213, MA01325, and MA01326) are in the Study Area—all three have been determined ineligible for listing in the NRHP. Details for all historic-age structures within 1 mile of the Study Area are listed in **Table 4**.

#### 4.3.2 Unrecorded Historic-age Architectural Resources

For projects requiring compliance with Section 106 of the National Historic Preservation Act (NHPA), an Area of Potential Effects (APE) is defined to assess potential effects of the project on historic properties. An APE is defined as the geographic area or areas within which a project may directly or indirectly cause alterations in the character or use of historic properties, including changes to historic setting via visual impacts. All buildings and structures (including bridges) 50 years of age or older in the APE must be identified, surveyed, and evaluated for potential eligibility for listing in the NRHP. For most projects, a five-year buffer is applied to allow for project completion, meaning all resources 45 years of age or older (built in 1976 or earlier) in the APE should be recorded and evaluated as part of a cultural resources survey.

A review of Manatee County Appraisal District (CAD) data online showed 13 buildings constructed in 1976 or before located within the Study Area that have not been previously recorded by a cultural resources survey (**Table 5**). Of those 13 buildings, 12 are classified as residential in use and 1 is classified as a manufactured home in the CAD data. The oldest of the buildings was built in 1941, and the most recently constructed was built in 1976. The final project design, including potential right-of-way (ROW) acquisitions and introduction of new vertical elements, would determine which, if any, of those buildings would be included in the APE for a historic-age resources architectural survey, in accordance with Section 106.

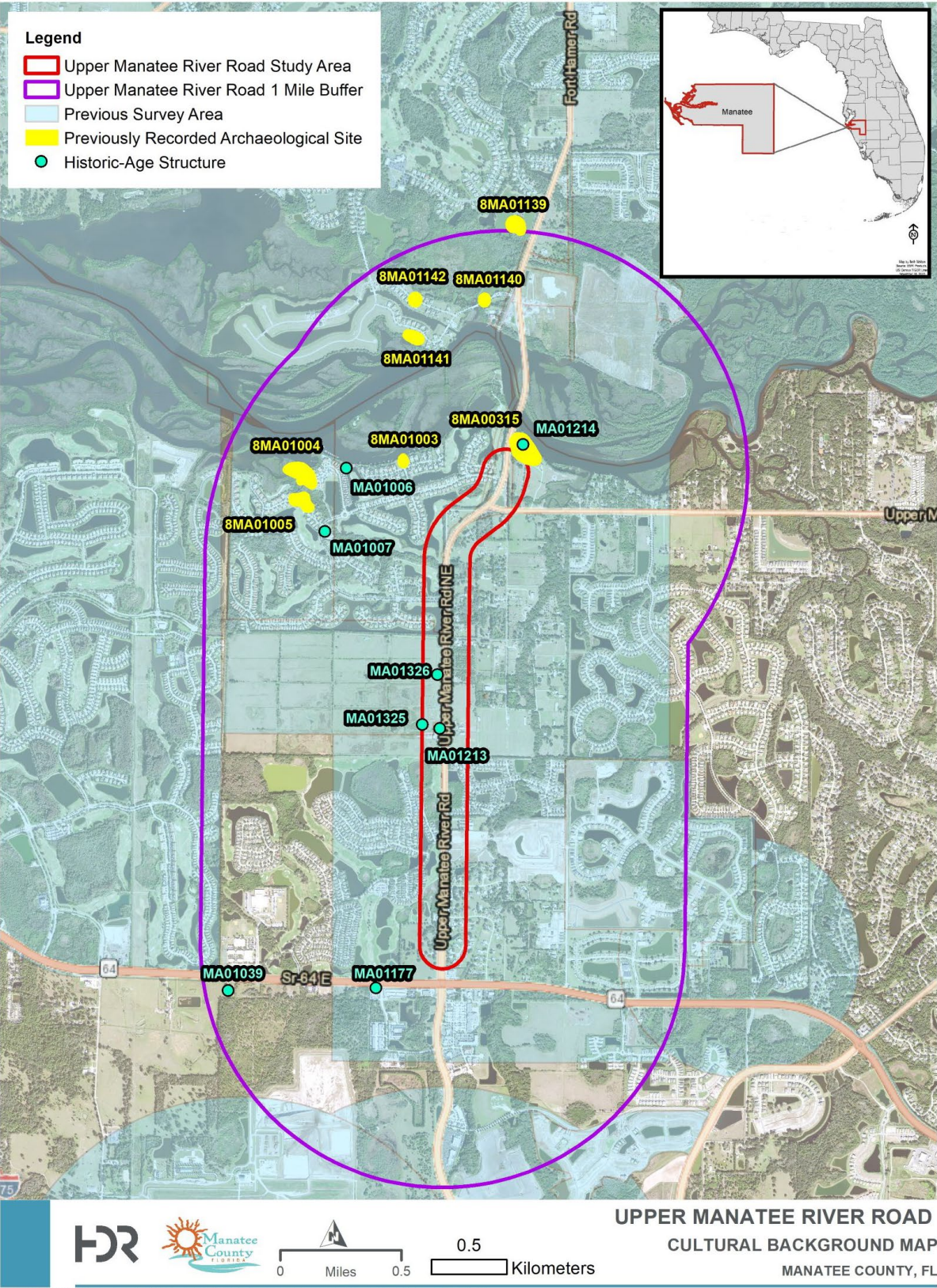


Figure 2 | Cultural Resources and Previous Surveys within 1 Mile of the Study Area

Table 2 | Previous Cultural Resources Surveys Conducted within 1 Mile of the Study Area

ID	Agency	Report Title	Contractor	Year	Comments
26974	-	FCC Form 620 for Trileaf Project 662768 (Ft Hamer Bridge North)	Johnson, Mirmiran, & Thompson	2020	-
26237	-	Cultural Resource Assessment Survey Update Technical Memorandum: SR 64 at Greyhawk Boulevard (Pope Road Roundabout)	-	2019	-
24773	-	Section 106 Review of the Proposed Hidden Harbor Emergency Communications Tower, Parrish, Manatee County, Florida (Addendum 1)	Janus Research	2017	-
22909	-	Section 106 Review of the Hidden Harbor Emergency Communications Tower, Manatee County	Janus Research	2016	-
21684	-	Cultural Resource Assessment Survey of Lakewood Centre DRI, Parcel BB, Manatee County, Florida	Archaeological Consultants, Inc.	2014	-
19639	-	Cultural Resource Assessment Survey, Fort Hamer Bridge EIS, Manatee County, Florida	Archaeological Consultants, Inc.	2011	-
15573	-	Manatee County Historical Structures Survey Phase I Project, Manatee County, Florida	Renker, Eich, Parks Architects, Inc.	2008	-
14656	-	FCC Form 620: Upper Manatee Telecommunications Tower Site (Main Site, LLC Number MS-002), Manatee County, Florida	Dynamic Environmental Associates, Inc.	2007	-
17978	-	Final Cultural Resource Assessment Survey Upper Manatee River PD&E Study SR 64 to US 301- Manatee County	Archaeological Consultants, Inc.	2007	Overlaps approx. 2.3 mi (3.7 km) of the Study Area
10851	-	Cultural Resource Assessment Survey of the Greyhawk	Janus Research	2004	-

		Landing West Project Area, Manatee County			
<b>9144</b>	-	Cultural Resource Reconnaissance Survey/Section 106 Proposed Lena Road Communication Tower Site 3331 Lena Road, Bradenton, Manatee County, Florida	Archaeological Consultants, Inc.	2003	-
<b>9413</b>	-	Cultural Resource Assessment Survey of the Manatee River Plantation Project Site Manatee County, Florida	Janus Research	2003	-
<b>10632</b>	-	A Cultural Resource Assessment Survey of the Moore's Dairy Addition to the Heritage Harbour DRI/ADA in Manatee County	Janus Research	2003	Overlaps approx. 0.47 mi (0.76 km) of the Study
<b>6743</b>	-	A Cultural Resource Assessment Survey Upper Manatee River Road from SR 64 to US 301 Manatee County, Florida	Archaeological Consultants, Inc.	2001	Overlaps the entire Study Area
<b>7393</b>	-	Cultural Resource Assessment/ Section 106 Review Proposed Cellular Tower: Foxleigh 12705 State Road 64 East, Bradenton, Manatee County, Florida	Archaeological Consultants, Inc.	2001	-
<b>7917</b>	-	Historic Properties Survey and Assessment Within the One Mile Area of Potential Effects of the Proposed Schroeder Ranch #1 Telecommunications Tower, Manatee County, Florida	Florida Archaeological Consulting, Inc.	2001	-
<b>6079</b>	-	A Cultural Resource Assessment Survey S.R. 64 from East of I-75 to Lorraine Road, Manatee County Florida	Archaeological Consultants, Inc.	2000	-



<b>6330</b>	-	A Cultural Resource Assessment Survey of Two Potential Sarasota Lateral Contractor Yards, Florida Gas Transmission Company, Manatee County, Phase IV Expansion, Florida	Southeastern Archaeological Research	2000	-
<b>6448</b>	-	A Cultural Resource Assessment Survey of The River Wilderness Golf and Country Club Mainland Project Area in Manatee County, Florida	Janus Research	1999	-
<b>5208</b>	-	Cultural Resource Assessment Survey for the Wading Bird Golf and Country Club Project Site in Manatee County, Florida	Janus Research	1998	Overlaps approx. 1 mi (1.6 km) of the Study Area
<b>5540</b>	-	Cultural Resource Assessment for the Heritage Sound DRI/ADA Project Site, Manatee County, Florida	Janus Research	1998	-
<b>3084</b>	-	Cultural Resource Assessment Survey of the Heartland Development Property, Manatee County, Florida	Piper Archaeological Research, Inc.	1991	-

*Table 3 | Previously Recorded Archaeological Sites Located within 1 Mile of the Study Area*

<b>Identifier</b>	<b>Affiliation</b>	<b>Features/ Function</b>	<b>NRHP Eligibility</b>	<b>Comments/ Recommendations</b>
<b>8MA00315</b>	Historic	Historic fort	Eligible	Overlaps the Study Area
<b>8MA01003</b>	Prehistoric	Low density artifact scatter	Ineligible	Site name "Broken pot"; Approx. 0.25 mi (0.40 km) from the Study Area
<b>8MA01004</b>	Prehistoric	Low density artifact scatter	Ineligible	Site name "Ancient Oaks Hammock"; Approx. 0.52 mi (0.84 km) from the Study Area
<b>8MA01005</b>	Prehistoric	Low density artifact scatter	Ineligible	Site name "Round the Bend"; Approx. 0.51 mi (0.82 km) from the Study Area
<b>8MA01139</b>	Prehistoric	-	Unknown	Site name "Swamside"; Approx. 0.90 mi (1.4 km) from the Study Area
<b>8MA01140</b>	Prehistoric	-	Ineligible	Site name "Boat Ramp"; Approx. 0.61 mi (0.98 km) from the Study Area
<b>8MA01141</b>	Prehistoric	-	Ineligible	Site name "Cumba"; Approx. 0.56 mi (0.90 km) from the project area
<b>8MA01142</b>	Prehistoric	-	Ineligible	Site name "River's Edge"; Approx. 0.70 mi (1.1 km) from the Study Area

Table 4 | Previously Recorded Historic-Age Structures Located within 1 Mile of the Study Area

Site ID	Name	Address	NRHP Eligibility	Comments/ Recommendations
<b>MA01006</b>	Ancient Oaks House	Bradenton	Unknown	Approx. 0.43 mi (0.69 km) from the Study Area
<b>MA01007</b>	Ancient Oaks Barn	Bradenton	Unknown	Approx. 0.42 mi (0.68 km) from the Study Area
<b>MA01039</b>	9408 SR 64	9408 SR 64, Parrish	Ineligible	Approx. 0.81 mi (1.31 km) from the Study Area
<b>MA01177</b>	10508 SR 64	10508 SR 64, Bradenton	Ineligible	Approx. 0.23 mi (0.37 km) from the Study Area
<b>MA01213</b>	Moore's Dairy	108 Upper Manatee River Road, Bradenton	Ineligible	Within the Study Area
<b>MA01214</b>	11311 Upper Manatee River Road	11311 Upper Manatee River Road, Bradenton	Ineligible	Approx. 230 ft (70 m) from the Study Area
<b>MA01325</b>	Moore Dairy-South Shed	110 Upper Manatee River Road, Bradenton	Ineligible	Within the Study Area
<b>MA01326</b>	Moore Dairy Building #1	112 Upper Manatee River Road, Bradenton	Ineligible	Within the Study Area

*Table 5 | Previously Unrecorded Historic-Age Architectural Resources Located within Study Area*

<b>Address</b>	<b>Year Built</b>	<b>Classification</b>
<b>108 Upper Manatee River Road NE, Bradenton</b>	1950	Residential
<b>108 Upper Manatee River Road NE, Bradenton</b>	1975	Manufactured Home
<b>257 Upper Manatee River Road NE, Bradenton</b>	1963	Residential
<b>303 Upper Manatee River Road NE, Bradenton</b>	1974	Residential
<b>303 Upper Manatee River Road NE, Bradenton</b>	1974	Residential
<b>407 Upper Manatee River Road NE, Bradenton</b>	1976	Residential
<b>507 Upper Manatee River Road NE, Bradenton</b>	1974	Residential
<b>607 Upper Manatee River Road NE, Bradenton</b>	1972	Residential
<b>807 Upper Manatee River Road NE, Bradenton</b>	1974	Residential
<b>11108 Upper Manatee River Road NE, Bradenton</b>	1976	Residential
<b>11109 Upper Manatee River Road NE, Bradenton</b>	1972	Residential
<b>11208 Upper Manatee River Road NE, Bradenton</b>	1966	Residential
<b>11311 Upper Manatee River Road NE, Bradenton</b>	1941	Residential

## 5.0 Summary and Recommendations

The desktop review revealed that the entirety of the Study Area has been surveyed during archaeological surveys performed over the past 20 years. No archaeological sites have been previously recorded in the Study Area. Since the entire project area has been previously surveyed, no further archaeological work is recommended for the proposed project.

Three historic-age architectural resources have been previously recorded in the Study Area. All three buildings are associated with Moore’s Dairy, and all have been determined ineligible for listing in the NRHP. A review of Manatee County Appraisal District (CAD) data online showed 13 buildings constructed in 1976 or before located within the Study Area that have not been previously surveyed. Given the presence of previously unrecorded historic-age architectural resources in the Study Area, an architectural resources survey may also be necessary to survey those resources and evaluate their eligibility for listing in the NRHP, depending on the final project design and potential impacts to historic-age architectural resources.

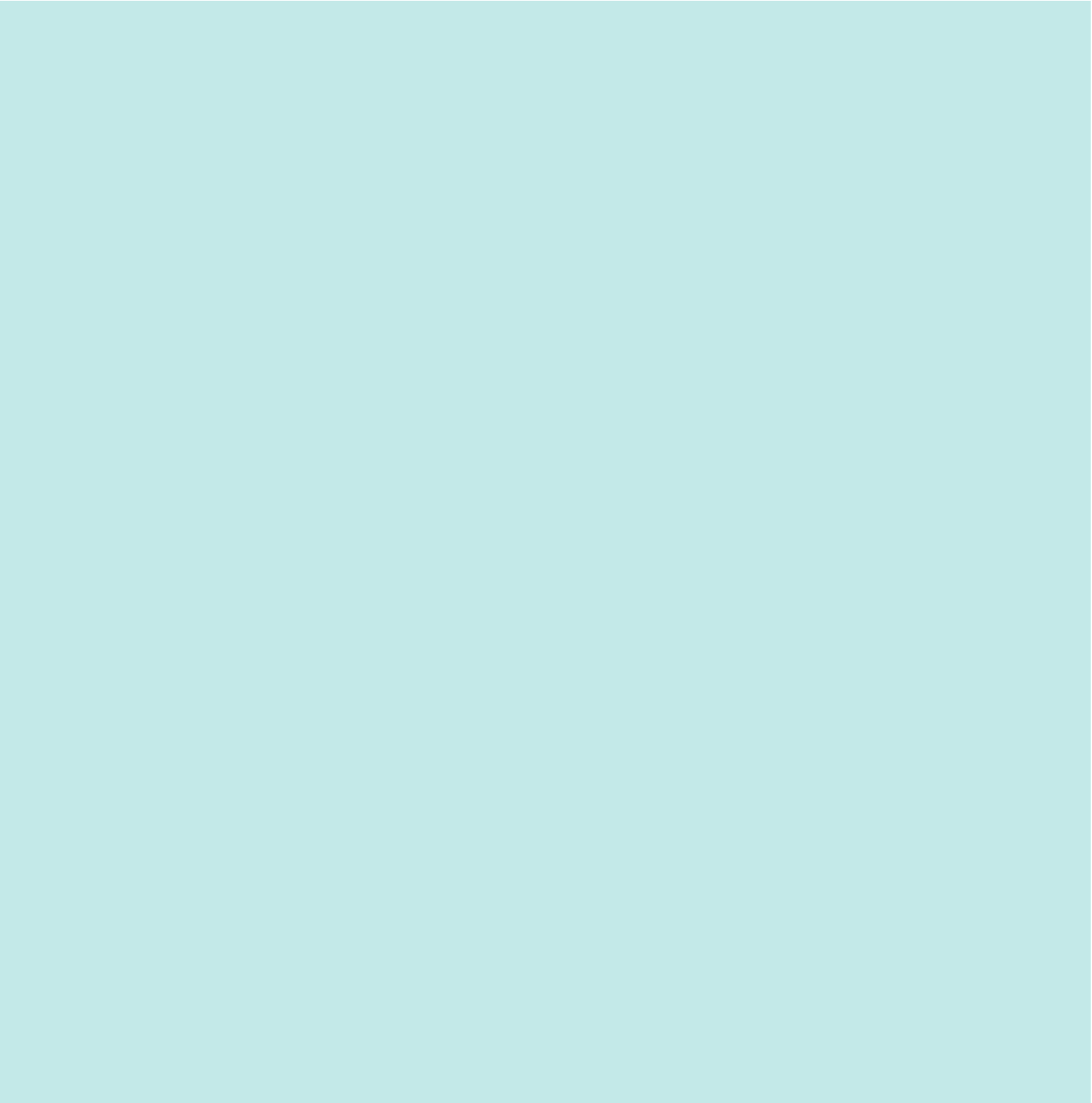
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2021 Florida Geologic Map Data. Available online at <https://mrdata.usgs.gov/geology/state/state.php?state=FL>. Accessed July 2021.

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## Appendix E – Contamination Screening Memo

# Contamination Screening Technical Memorandum

Upper Manatee River Road  
Project Development and Corridor Study Report

September 2021





## CONTENTS

Executive Summary ..... 3

1.0 Introduction ..... 4

    1.1 Purpose ..... 4

2.0 Methodology ..... 4

3.0 Risk Ratings ..... 8

4.0 Findings ..... 9

5.0 Recommendations ..... 12

## FIGURES

Figure 1 | Project Location ..... 5

Figure 2 | Cavalli Creek Farms Compost (FDEP Records 2019 Inspection) ..... 10

Figure 3 | County Lift Station (2021 HDR Site Reconnaissance) ..... 11

Figure 4 | WAWA (2021 HDR Site Reconnaissance) ..... 12

## TABLES

Table 1 | Federal Databases ..... 6

Table 2 | State Databases ..... 7

Table 3 | Summary of Potential Contamination Sites ..... 9

## APPENDICES

Appendix A – EDR

### Executive Summary

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing 4-lane section north of State Road (SR) 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida.

A preliminary contamination screening was conducted for the project corridor to support the Study by identifying properties or facilities that have potential contamination that may affect the Upper Manatee River Road corridor. The preliminary contamination screening was performed using the Florida Department of Transportation (FDOT) Project Development and Environment (PD&E) Manual, Chapter 20 as a guide. This preliminary screening uses the reporting format and standard environmental assessment practices of reviewing records of regulatory agencies, site reconnaissance, literature review and when necessary, personal interviews of individuals and business owners within the limits of the study area, outlined in the FDOT PD&E Manual, Chapter 20. However, this preliminary contamination screening is not considered a full Contamination Screening Evaluation Report as defined in the FDOT PD&E Manual.

Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas, including potential contamination concerns.

Five (5) sites were investigated along the project corridor for current or past operations that may present the potential for finding contamination concerns and therefore may impact proposed improvements for the study area. The following risk ratings have been applied:

Risk Rating	No. of Sites
High	0
Medium	0
Low	4
No	1

However, this list may need to be refined based on the project alternative selected to proceed.

For sites ranked No and Low for potential contamination, no further action is required at this time. These sites/facilities have the potential to impact the study area, but based on select variables have been determined to have low risk to the project at this time. Variables that may change the risk rating include a facility's non-compliance to environmental regulations, new discharges to the soil or groundwater, and modifications to current permits. Should any of these variables change, additional assessment of the facilities would be conducted.

Additional information may become available or site-specific conditions may change from the time this memorandum was prepared and should be considered prior to proceeding with roadway construction.

### 1.0 Introduction

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from the existing 4-lane section north of SR 64 to the Fort Hamer Bridge in Bradenton, Manatee County, Florida, as shown in **Figure 1**.

This Contamination Technical Memorandum has been prepared to support the Study by identifying properties or facilities that have potential contamination/hazardous materials that may affect the corridor study area. Manatee County will use the results of the Study to evaluate alternatives to avoid or minimize impacts to environmental sensitive areas, including potential contamination concerns.

#### 1.1 Purpose

The primary purpose of the Upper Manatee River Road improvements is to provide congestion relief by providing additional capacity between SR 64 and the Fort Hamer Bridge. Located between the Manatee River and SR 64, additional capacity along Upper Manatee River Road would provide relief to existing major east-west corridors, such as Interstate 75 (I-75) and Lakewood Ranch Boulevard.

### 2.0 Methodology

A preliminary contamination screening of the corridor study area was conducted to determine the potential for contamination within the corridor right-of-way. A desktop review was performed of electronically available information on the Florida Department of Environmental Protection (FDEP) Oculus website. This review identified locations including but not limited to underground storage tanks (USTs), petroleum discharges, registered drycleaners, superfund sites, solid waste sites, and brownfield sites. The Florida Department of Transportation (FDOT) Project Development and Environment (PD&E) Manual Part 2 Chapter 20, Contamination provides a standard contamination screening buffer, an area within and adjacent to the project that should be evaluated for possible additional contamination assessment. The following buffer distances are recommended by FDOT and were used for the desktop review:

- 500 feet from the right-of-way line for petroleum, drycleaners, and non-petroleum sites. Corridor projects in heavily industrialized or urbanized areas with dewatering planned near the contaminated sites need to be addressed with FDEP, Water Management District, or the local delegated program lead.
- 1,000 feet from the right-of-way line for non-landfill solid waste sites (such as recycling facilities, transfer stations, and debris placement areas).
- 1/2 -mile (2,640 feet) from the right-of-way line for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) registered sites, National Priorities List (NPL) Superfund sites, or Landfill sites.

Additionally, an environmental database search was performed by Environmental Data Resources, Inc. The resulting Environmental Data Report (EDR), dated July 1, 2021 (provided in Appendix A), includes potential hazardous material and petroleum contamination sites that were listed in the United States Environmental Protection Agency (USEPA) and the FDEP databases. The databases listed in **Table 1** and **Table 2** were reviewed with the Oculus or EDR databases.

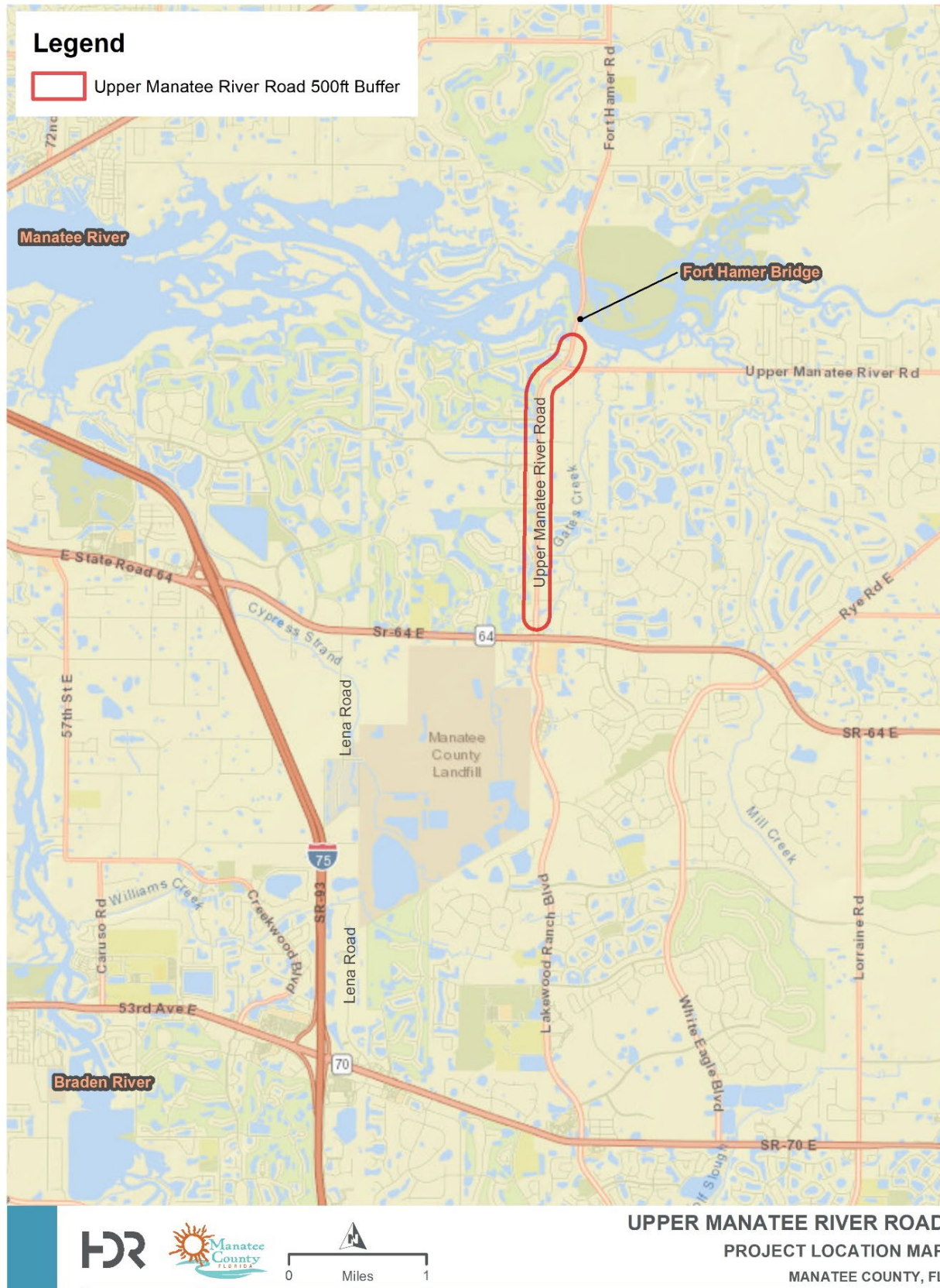


Figure 1 | Project Location

Table 1 | Federal Databases

Database Name	Database Description
<b>National Priorities List (NPL)</b>	This list contains facilities and/or locations where environmental contamination has been confirmed and prioritized for cleanup activities.
<b>Comprehensive Environmental Response, Compensation and Liability Information System List (CERCLIS)</b>	This Superfund database tracks facilities and/or locations that the USEPA is investigating to determine if an existing or threatened release of hazardous substances is present.
<b>Records of Decisions (ROD) System</b>	This system documents information relative to site history, community participation, enforcement activities, site characteristics, scope and role of response action, and remedies applied to Superfund sites.
<b>Archived CERCLIS Sites (No Further Remedial Action Planned List (NFRAP))</b>	This list contains archived data on CERCLIS sites where the USEPA has completed assessment activities and determined no further steps to list the site on the NPL will be taken.
<b>Emergency Response Notification System (ERNS) List</b>	This database stores information on the notification of oil discharges and hazardous substance releases. It is a cooperative data sharing effort among the USEPA, US Department of Transportation, and the National Response Center.
<b>Resource Conservation and Recovery Information System (RCRIS) Handlers with Corrective Action Activity (CORRACTS)</b>	This database lists hazardous waste handlers that have undergone Resource Conservation and Recovery Act (RCRA) corrective action activity.
<b>Hazardous Waste Data Management System (HWDMS)</b>	This historical database was replaced by the USEPA RCRA Information System (RCRIS). The HWDMS list formerly tracked sites involved in the generation, transportation, treatment, storage, and/or disposal of hazardous waste.
<b>RCRA-Large Quantity Generator (LQG), Small Quantity Generator (SQG), Conditionally Exempt SQG and Transporters (NONTSD)</b>	This list is a subset of the USEPA RCRIS list and identifies facilities that generate and transport hazardous wastes.
<b>RCRA Treatment, Storage and/or Disposal Sites (TSD)</b>	This list is a subset of the RCRIS and identifies facilities that treat, store, and/or dispose of hazardous waste.
<b>RCRA Administrative Action Tracking System (RAATS)</b>	This list is a historical RCRA enforcement database that tracked facilities found to be major violators under RCRA. Data entry in this database discontinued in 1995.
<b>Tribal Lust List (TRIBLLUST)</b>	This database lists active and closed storage tank facilities on Native American lands. The database is created by extracting records from the storage tank databases that have indicated current or past releases.
<b>Tribal Tanks List (TRIBLTANKS)</b>	This database lists active and closed storage tanks on Native American lands.

<b>Facility Registry System (FRS)</b>	The FRS is a centrally-managed database of sites regulated by Program Offices of the USEPA, such as air, water, and waste. The FRS has replaced the Facility Index System List (FINDS).
<b>Toxic Release Inventory System (TRIS) List</b>	This list identifies facilities that are required to submit annual reports relative to the estimated routine and accidental release of toxic chemicals to the environment, as stipulated under current federal laws.
<b>Biennial Reporting System</b>	This system collects data on the generation and management of hazardous waste from large quantity generators and treatment, storage, and disposal facilities. The data are reported on even years by the facilities to state environmental agencies that provide the information to regional and national USEPA offices.
<b>PCB Activity Data System (PADS)</b>	This list contains sites that have notified the USEPA of their activities relative to the generation, transportation, permitted storage, and permitted disposal of polychlorinated biphenyls (PCBs) under the Toxic Substances Control Act.
<b>Permit Compliance System (PCS)</b>	This is a data system for the National Pollutant Discharge Elimination System (NPDES) permit holding facilities.
<b>Brownfields Management System (USBRWNFLDS)</b>	This database stores information reported by USEPA brownfields grant recipients on brownfields properties assessed or cleanup up with grant funding.

Table 2 | State Databases

Database Name	Database Description
<b>Underground/Aboveground Storage Tanks (TANKS)</b>	This database contains sites with registered aboveground (AST) or underground storage tanks (UST) containing regulated petroleum products.
<b>Leaking Underground Storage Tanks List (LUST)</b>	This list identifies facilities and/or locations that have notified the FDEP of a possible release of contaminants from petroleum storage systems.
<b>Solid Waste Facilities List (SLDWST)</b>	This list identifies locations that have been permitted to conduct solid waste handling activities. Activities may include landfills, transfer stations, and sites handling bio-hazardous wastes.
<b>State Sites List (STCERC)</b>	This historical list contains sites that the Florida Department of Environmental Regulation (now FDEP) compiled to track suspect contamination sites. The FDER updated this list, previously known as the Florida SITES list, in 1989.
<b>State Funded Action Sites (STNPL)</b>	This list contains facilities and/or locations that have been identified by the FDEP as having known environmental contamination and are currently being addressed through state funded cleanup action.
<b>State Hazardous Waste Notifiers (STRCRA)</b>	This list identifies facilities that generate, transport, treat, store, and dispose of hazardous waste.
<b>State Institutional and/or Engineering Controls (INSTENG)</b>	This list contains sites that have had institutional and/or engineering controls implemented to regulate exposure to environmental hazards.

<b>State Designated Brownfields (BRWNFLDS)</b>	This database contains a listing of state-designated brownfield areas. Brownfield areas are typically abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.
<b>State Voluntary Cleanup (VOLCLNUP)</b>	Derived from the FDEP Brownfields Site Rehabilitation Agreement database, the VOLCLNUP database identifies sites that have signed an agreement to voluntarily cleanup a brownfield site in accordance with the FDEP's requirements.
<b>Florida Dry Cleaners List (DRY)</b>	This list is comprised of data from the FDEP Storage Tank and Contamination Monitoring database and the Dry Cleaning Solvent Cleanup Program Priority Ranking List. This list contains dry cleaning sites (and suspected historical dry cleaning sites) that have registered with the FDEP for the Dry Cleaning Solvent Cleanup Program.

In addition to the database search of potential contamination sites, field reviews were conducted on August 6, 2021 to verify the locations of the sites included in the EDR and identified through the FDEP Oculus search. Site reconnaissance was completed from the public areas for each facility having the potential for contamination involvement of the corridor. The sites were evaluated for possible contamination risks to the project right-of-way and construction activities.

### 3.0 Risk Ratings

A hazardous materials rating system that expresses the degree of concern for potential contamination problems was used to rank the identified sites. The ratings are No, Low, Medium, and High and are generally explained as follows:

- No – A review of available information on the property and a review of the conceptual or design plans indicates there is minimal potential contamination impact to the project. It is possible that contaminants have been handled on the property. However, findings from this preliminary contamination screening indicate that contamination impacts are not expected.
- Low – A review of available information indicates that past or current activities on the property have an ongoing compliance or regulatory issue, the site has a hazardous waste generator identification (ID) number, or the site stores, handles, or manufacturers hazardous materials. However, based on the review of conceptual or design plans and/or findings from this preliminary contamination screening, it is not likely that there would be any contamination impacts to the project.
- Medium – After a review of conceptual or design plans and findings from a preliminary contamination screening, a potential contamination impact to the project has been identified. If there was insufficient information (such as regulatory records or site historical documents) to make a determination as to the potential for contamination impact, and there was reasonable suspicion that contamination may exist that would impact the proposed design and construction, the property was rated at least as a “Medium.” Properties used historically as gasoline stations and which have not been evaluated or assessed by regulatory agencies, sites with abandoned in place underground petroleum storage tanks or currently operating gasoline stations received this rating.

- High – After a review of all available information and conceptual or design plans, there is appropriate analytical data or regulatory information that shows contamination would impact construction activities, have implications to right-of-way acquisition or have other potential transfer of contamination related liability to the FDOT.

### 4.0 Findings

Following the desktop review, five (5) sites were identified within the contamination screening buffer distances. Of the five (5) sites, four (4) were identified as having the potential for contamination concern to the corridor study area. Of the four (4) sites investigated, these four sites were identified as having a Low risk to the project corridor. No Medium-risk or High-risk sites were identified. The one remaining site would have No impact to the project corridor. **Table 3** lists the potential contamination sites along the project corridor. Individual site descriptions follow **Table 3**.

*Table 3 | Summary of Potential Contamination Sites*

Site No.	Site Name	Address	Oculus or EDR Database <sup>1</sup>	Distance from ROW	Details	Risk Rating
1	Cavalli Creek Farms	758 Gates Creek Road, Bradenton FL, 34212	SWF	850 ft	On-site Compositing Animal Waste	Low
2	Copperleaf / Copperlefe	600 Upper Manatee River Road, Bradenton FL, 34212	NPDES, FINDS, ECHO	150 ft	Construction Permit	No
3	Manatee County Utilities Lift Station	1000 Upper Manatee River Road, Bradenton FL 34212	AST	30 ft	Closed AST	Low
4	Moore Property	108 Upper Manatee River Road, Bradenton, FL 34212	LUST, UST	70 ft	Historic Discharge	Low
5	WAWA Food Market #5258	10807 SR 64, Bradenton, FL 34212	UST, Financial Assurance, RCRA-VSQQ	100 ft	Gas Station	Low

Sources: Environmental Data Resources, Inc. Environmental Data Report (EDR), dated July 1, 2021, FDEP Map Direct

Notes:

ROW: right-of-way.

<sup>1</sup> Tables 1 and 2 list the Oculus or EDR databases reviewed and the description for each.



### *Site No. 1 – Cavalli Creek Farms*

*758 Gates Creek Road, Bradenton, FL 34212*

- Concern: Solid Waste Facility, Agricultural Products
- Risk Rating: Low

Photos of the facility are provided in **Figure 2**. During site reconnaissance, this site was a residential property. The site is located 850 feet from the existing right-of-way. According to the FDEP records, during an inspection in 2019, it was observed that the facility representatives blend manure with hay and/or pine straw to create compost material. The manure is generated by the farm animals on the property and the hay is used in the stable areas for the farm animals’ quarters. The manure and hay are removed from the stables and put into a composting machine purchased by the facility representatives. The machine operates in a manner to disinfect the compost and to treat the compost for vector attraction reduction. The compost created on-site is reused by the facility representatives as a means of leveling out the land areas heavily trafficked by the farm animals. It appears that this compost material is removed from the compost machine every 45 days. No off-site material is composted or reused at this facility. FDEP has determined that this facility is exempt from operating with a Separated Source Organics Processing registration per Rule 62-709.305(2)(a), Florida Administrative Code. Based on the site visit and regulatory review, the site is given a risk rating of “Low” for potential contamination to impact the corridor.



*Figure 2 | Cavalli Creek Farms Compost (FDEP Records 2019 Inspection)*

### *Site No. 2 – Copperleaf/Copperlefe*

*600 Upper Manatee River Road, Bradenton, FL 34212*

- Concern: Construction Permit
- Risk Rating: No

According to the EDR Map, this site is located at Waterlefe Boulevard, however according to the FDEP records, this site is located at Copperlefe Drive. Site reconnaissance was conducted at both locations, but based on further regulatory review, it is assumed this site is located at Copperlefe Drive. Both addresses are residential neighborhoods. According to the historic aerial photographs, the Copperlefe parcel was undeveloped in 2016, and the neighborhood began under construction in 2017. According to the EDR, the site has a construction stormwater permit issued in February 2017 and set to expire March 2022. Based on the site visit and regulatory review, the site is given a risk rating of “No” for potential contamination to impact the corridor.

*Site No. 3 – Manatee County Utilities Lift Station  
1000 Upper Manatee River Road, Bradenton, FL 34212*

- Concern: Aboveground Storage Tank
- Risk Rating: Low

Photos of the facility are provided in **Figure 3**. During site reconnaissance, this site was a lift station. The site is located 30 feet from the existing right-of-way. According to the EDR, an AST containing hazardous substances was installed in 1999 and removed in 2008. The facility status is considered closed. Based on the site visit and regulatory review, the site is given a risk rating of “Low” for potential contamination to impact the corridor.



*Figure 3 | County Lift Station (2021 HDR Site Reconnaissance)*

*Site No. 4 – Moore Property  
108 Upper Manatee River Road, Bradenton, FL 34212*

- Concern: Underground Storage Tank Leak
- Risk Rating: LOW

During site reconnaissance, this site was a residential property. The site is located 70 feet from the existing right-of-way. According to the FDEP records, a 2,000-gasoline UST was installed in the 1960s by the property owner to store unleaded gasoline. The UST was removed in 1997. A discharge reporting form was submitted in July 1997 in response to dissolved hydrocarbons reported above the groundwater cleanup target levels during tank closure activities. Soil boring and groundwater sampling began in 2007. Further testing was conducted in February 2008 and verified groundwater impacts no longer remain. The discharge was granted No Further Action status March 2009. Based on the site visit and regulatory review, the site is given a risk rating of “Low” for potential contamination to impact the corridor.

*Site No. 5 – WAWA Food Market #5258  
10807 SR 64, Bradenton, FL 34212*

- Concern: Petroleum Products, Hazardous Waste Generator
- Risk Rating: Low

Photos of the facility are provided in **Figure 4**. During site reconnaissance, this site was a WAWA. The site is located 100 feet from the existing right-of-way. According to the FDEP records, the facility is a fuel station and

convenience store, with three USTs installed in 2018. An inspection was conducted in November 2019 noting that the facility may occasionally generate hazardous waste from spilled ignitable products sold in the store or from fuel spills at the pumps outside. Any spilled products are cleaned up with absorbent and then stored in one of the closed, labeled, and dated 35-gallon poly drums, located outside behind the store in a shed. Liquid wastes are also stored in a 55-gallon metal drum in the storage shed. The facility was operating in compliance with state and federal regulations for very small quantity generators (VSQGs) of hazardous waste. Another inspection was conducted in February 2021 and found the site to be in compliance with FDEP’s storage tank rules and regulations. Based on the site visit and regulatory review, the site is given a risk rating of “Low” for potential contamination to impact the corridor.



*Figure 4 | WAWA (2021 HDR Site Reconnaissance)*

## 5.0 Recommendations

For the sites ranked “No” for potential contamination, no further action is required. These sites have been evaluated and determined not to have any potential environmental risk to the study area at this time.

For sites ranked “Low” for potential contamination, no further action is required at this time. These sites/facilities have the potential to impact the study area but based on select variables have been determined to have low risk to the corridor at this time. Variables that may change the risk rating include a facility’s non-compliance to environmental regulations, new discharges to the soil or groundwater, and modifications to current permits. Should any of these variables change, additional assessment of the facilities would be conducted.

Additional information may become available or site-specific conditions may change from the time this memorandum was prepared and should be considered prior to proceeding with any roadway construction.

## Appendices

## Appendix A – EDR

**Upper Manatee River Road UMRR**  
Upper Manatee River Road UMRR  
Bradenton, FL 34212

Inquiry Number: 6558351.11s  
June 30, 2021

## EDR Area / Corridor Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# TABLE OF CONTENTS

SECTION	PAGE
Executive Summary .....	ES1
Mapped Sites Summary .....	2
Key Map .....	2
Map Findings Summary .....	3
Focus Maps .....	7
Map Findings .....	19
Orphan Summary .....	OR-1
Government Records Searched/Data Currency Tracking .....	GR-1

***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### SUBJECT PROPERTY INFORMATION

#### ADDRESS

UPPER MANATEE RIVER ROAD UMRR  
BRADENTON, FL 34212

### TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

### STANDARD ENVIRONMENTAL RECORDS

#### ***State and tribal registered storage tank lists***

UST: Storage Tank Facility Information

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b><i>WAWA FOOD MARKET# 52</i></b>	<b><i>1405 UPPER MANATEE R</i></b>	<b><i>4 / 5</i></b>	<b><i>20</i></b>
Database: UST, Date of Government Version: 01/26/2021			
Tank Status: U			
Facility-Site Id: 9816327			
Facility Status: OPEN			

AST: Storage Tank Facility Information

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
MANATEE CNTY UTILITI	1000 UPPER MANATEE R	3 / 3	19
Database: AST, Date of Government Version: 01/26/2021			
Facility-Site Id: 9802023			
Facility Status: CLOSED			
Facility Status: CLOSED			



# EXECUTIVE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORDS

### ***Other Ascertainable Records***

FINDS: Facility Index System/Facility Registry System

A review of the FINDS list, as provided by EDR, and dated 02/03/2021 has revealed that there is 1 FINDS site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b>COPPERLEFE</b> Registry ID:: 110070064287	<b>600 UPPER MANATEE RI</b>	<b>A1 / 3</b>	<b>18</b>

ECHO: Enforcement & Compliance History Information

A review of the ECHO list, as provided by EDR, and dated 04/04/2021 has revealed that there is 1 ECHO site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b>COPPERLEFE</b> Registry ID: 110070064287	<b>600 UPPER MANATEE RI</b>	<b>A1 / 3</b>	<b>18</b>

Financial Assurance: Financial Assurance Information Listing

A review of the Financial Assurance list, as provided by EDR, has revealed that there is 1 Financial Assurance site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b>WAWA FOOD MARKET# 52</b> Database: Financial Assurance 3, Date of Government Version: 01/26/2021 Facility Status: OPEN Facility ID: 9816327	<b>1405 UPPER MANATEE R</b>	<b>4 / 5</b>	<b>20</b>

NPDES: Wastewater Facility Regulation Database

A review of the NPDES list, as provided by EDR, and dated 01/29/2021 has revealed that there is 1 NPDES site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b>COPPERLEAF</b> Status: A Facility ID: FLR20BE48	<b>600 UPPER MANATEE RI</b>	<b>A2 / 3</b>	<b>18</b>

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

## EXECUTIVE SUMMARY

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal RCRA generators list***

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/22/2021 has revealed that there are 2 RCRA-VSQG sites within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
WAWA FLORIDA LLC #52 EPA ID:: FLR000227595	10807 SR 64	SSW 1/8 - 1/4 (0.164 mi.)	6 / 5	28
CVS PHARMACY #7892 EPA ID:: FLR000191932	1520 LAKEWOOD RANCH	S 1/8 - 1/4 (0.195 mi.)	9 / 5	42

#### ***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF: Solid Waste Facility Database

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CAVALLI CREEK FARMS Database: SWF/LF, Date of Government Version: 04/12/2021 Facility-Site Id: 105022 Class Status: ACTIVITY NOT PERMITTED/REGISTERED (N)	758 GATES CREEK RD	SE 1/8 - 1/4 (0.182 mi.)	8 / 4	41
PLAIN JANE, INC. Database: SWF/LF, Date of Government Version: 04/12/2021 Facility-Site Id: 97250 Class Status: INACTIVE (I)	11903 UPPER MANATEE	ESE 1/4 - 1/2 (0.406 mi.)	10 / 2	50

#### ***State and tribal leaking storage tank lists***

LUST: Petroleum Contamination Detail Report

A review of the LUST list, as provided by EDR, and dated 01/25/2021 has revealed that there are 2 LUST sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b><i>MOORE PROPERTY</i></b>	<b><i>108 UPPER MANATEE RI</i></b>	<b><i>W 0 - 1/8 (0.019 mi.)</i></b>	<b><i>5 / 3</i></b>	<b><i>24</i></b>

## EXECUTIVE SUMMARY

Discharge Cleanup Status: NFA - NFA COMPLETE

Facility Status: CLOSED

Facility-Site Id: 9700838

**DESOTO SPEEDWAY**                      **12000 HWY 64 E**                      **ESE 1/4 - 1/2 (0.489 mi.)**    **11 / 6**                      **51**

Discharge Cleanup Status: SRCR - SRCR COMPLETE

Facility Status: CLOSED

Facility-Site Id: 9045626

### **State and tribal registered storage tank lists**

UST: Storage Tank Facility Information

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the requested target property.

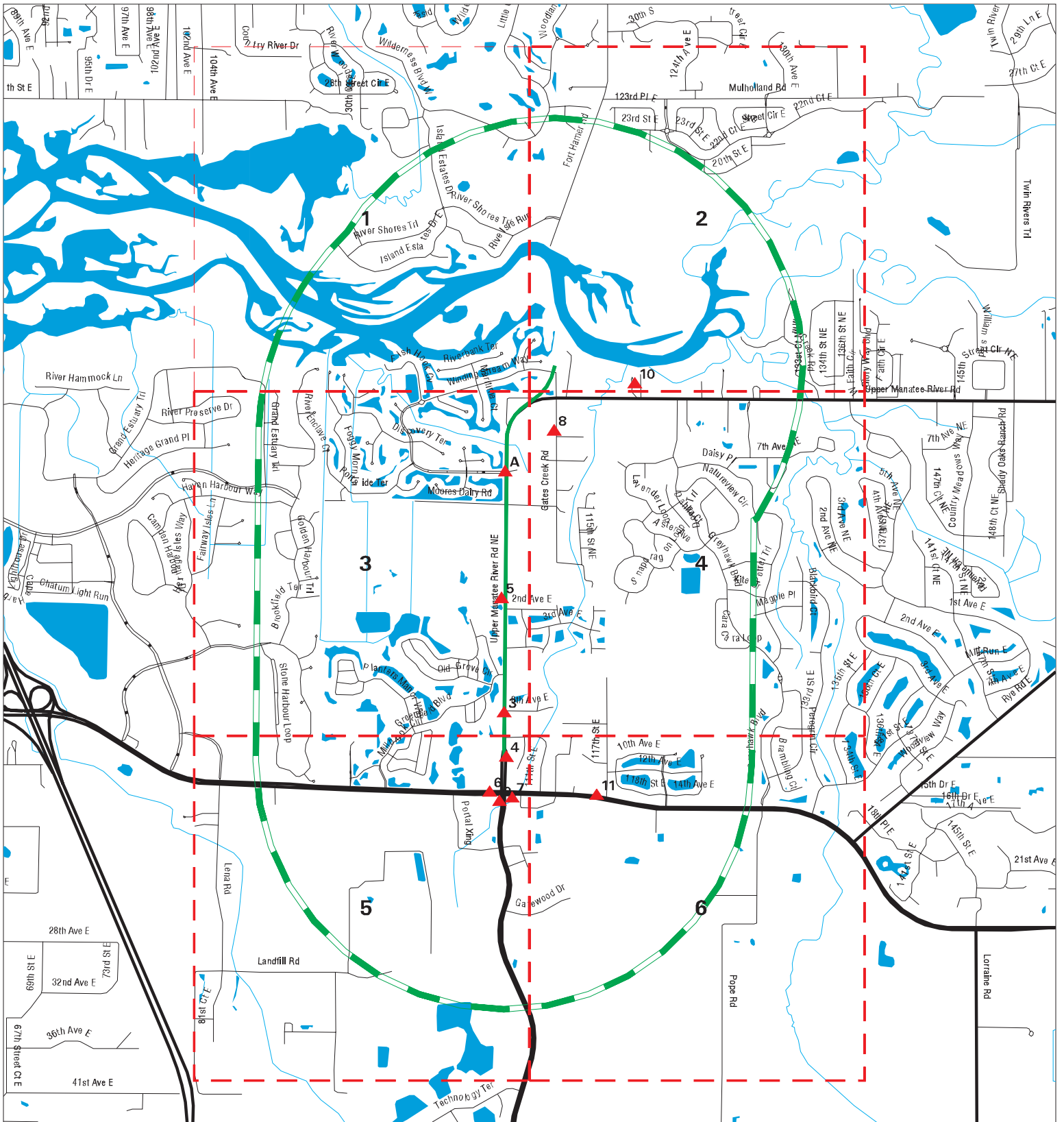
<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<b>MOORE PROPERTY</b> Database: UST, Date of Government Version: 01/26/2021 Tank Status: B Facility-Site Id: 9700838 Facility Status: CLOSED	<b>108 UPPER MANATEE RI</b>	<b>W 0 - 1/8 (0.019 mi.)</b>	<b>5 / 3</b>	<b>24</b>
<b>SPEEDWAY #6595</b> Database: UST, Date of Government Version: 01/26/2021 Tank Status: U Facility-Site Id: 9803398 Facility Status: OPEN	<b>11002 E HWY 64</b>	<b>SSE 1/8 - 1/4 (0.181 mi.)</b>	<b>7 / 5</b>	<b>32</b>

MAPPED SITES SUMMARY
----------------------

Target Property:  
 UPPER MANATEE RIVER ROAD UMRR  
 BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 3	COPPERLEFE	600 UPPER MANATEE RI	FINDS, ECHO	TP
A2 / 3	COPPERLEAF	600 UPPER MANATEE RI	NPDES	TP
3 / 3	MANATEE CNTY UTILITI	1000 UPPER MANATEE R	AST	TP
4 / 5	WAWA FOOD MARKET# 52	1405 UPPER MANATEE R	UST, Financial Assurance	TP
5 / 3	MOORE PROPERTY	108 UPPER MANATEE RI	LUST, UST	98 0.019 West
6 / 5	WAWA FLORIDA LLC #52	10807 SR 64	RCRA-VSQQ	864 0.164 SSW
7 / 5	SPEEDWAY #6595	11002 E HWY 64	UST, Financial Assurance	956 0.181 SSE
8 / 4	CAVALLI CREEK FARMS	758 GATES CREEK RD	SWF/LF	959 0.182 SE
9 / 5	CVS PHARMACY #7892	1520 LAKEWOOD RANCH	RCRA-VSQQ	1031 0.195 South
10 / 2	PLAIN JANE, INC.	11903 UPPER MANATEE	SWF/LF	2143 0.406 ESE
11 / 6	DESOTO SPEEDWAY	12000 HWY 64 E	LUST, AST	2580 0.489 ESE

# Key Map - 6558351.11s



- ▲ Sites
- ✓ Target Property
- ✓ Search Buffer
- / / Focus Map - Sites
- / / Focus Map - No Sites
- FL Brownfield
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21 10:33 PM

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>STANDARD ENVIRONMENTAL RECORDS</u></b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	2	NR	NR	NR	2
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	1.000		0	0	0	0	NR	0
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	1	1	NR	NR	2
<b><i>State and tribal leaking storage tank lists</i></b>								
LAST	0.500		0	0	0	NR	NR	0
LUST	0.500		1	0	1	NR	NR	2
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b><i>State and tribal registered storage tank lists</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FF TANKS	0.250		0	0	NR	NR	NR	0
UST	0.250	1	1	1	NR	NR	NR	3
AST	0.250	1	0	0	NR	NR	NR	1
INDIAN UST TANKS	0.250		0	0	NR	NR	NR	0
	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
PRIORITYCLEANERS	0.500		0	0	0	NR	NR	0
FI Sites	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
ECHO	TP	1	NR	NR	NR	NR	NR	1
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
CLEANUP SITES	TP		NR	NR	NR	NR	NR	0
DEDB	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
DWM CONTAM	0.500		0	0	0	NR	NR	0
Financial Assurance	TP	1	NR	NR	NR	NR	NR	1
FL Cattle Dip. Vats	0.250		0	0	NR	NR	NR	0
HW GEN	0.250		0	0	NR	NR	NR	0
RESP PARTY	0.500		0	0	0	NR	NR	0
SITE INV SITES	0.500		0	0	0	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP	1	NR	NR	NR	NR	NR	1
MINES MRDS	TP		NR	NR	NR	NR	NR	0



## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>EDR HIGH RISK HISTORICAL RECORDS</u></b>								
<b><i>EDR Exclusive Records</i></b>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
<b><u>EDR RECOVERED GOVERNMENT ARCHIVES</u></b>								
<b><i>Exclusive Recovered Govt. Archives</i></b>								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		6	2	4	2	0	0	14

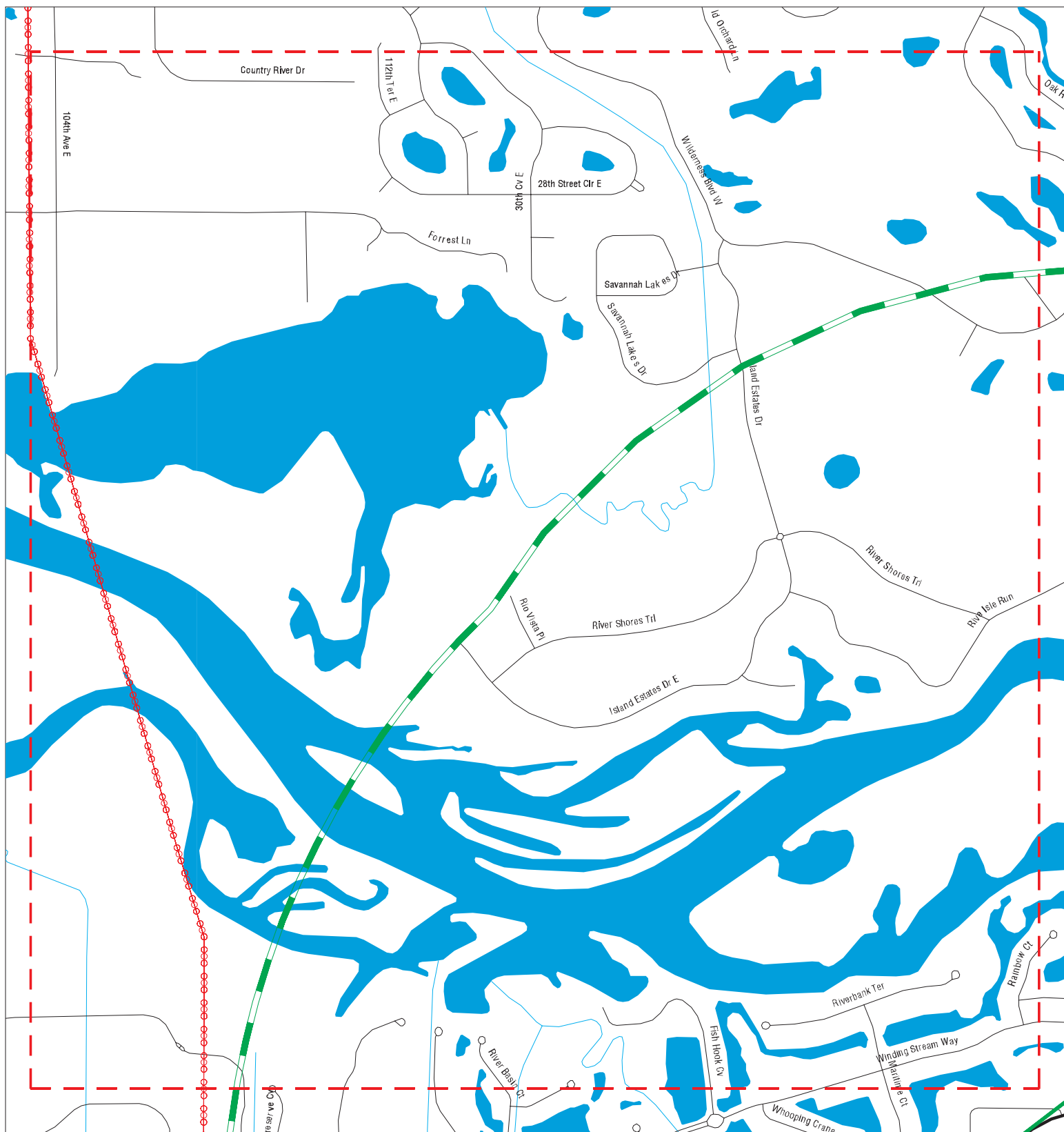
**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

# Focus Map - 1 - 6558351.11s



- |                      |                              |                         |
|----------------------|------------------------------|-------------------------|
| Sites                | Focus Map - Sites            | Dept. Defense Sites     |
| Target Property      | Power Line                   | Indian Reservations BIA |
| Search Buffer        | Pipe Line                    | FL Brownfield           |
| Focus Map - No Sites | National Priority List Sites |                         |



SITE NAME: Upper Manatee River Road UMRR  
 ADDRESS: Upper Manatee River Road UMRR  
 CITY/STATE: Bradenton FL  
 ZIP: 34212

CLIENT: HDR Engineering Inc.  
 CONTACT: Chelsea Williams  
 INQUIRY #: 6558351.11s  
 DATE: 06/30/21

MAPPED SITES SUMMARY - FOCUS MAP 1

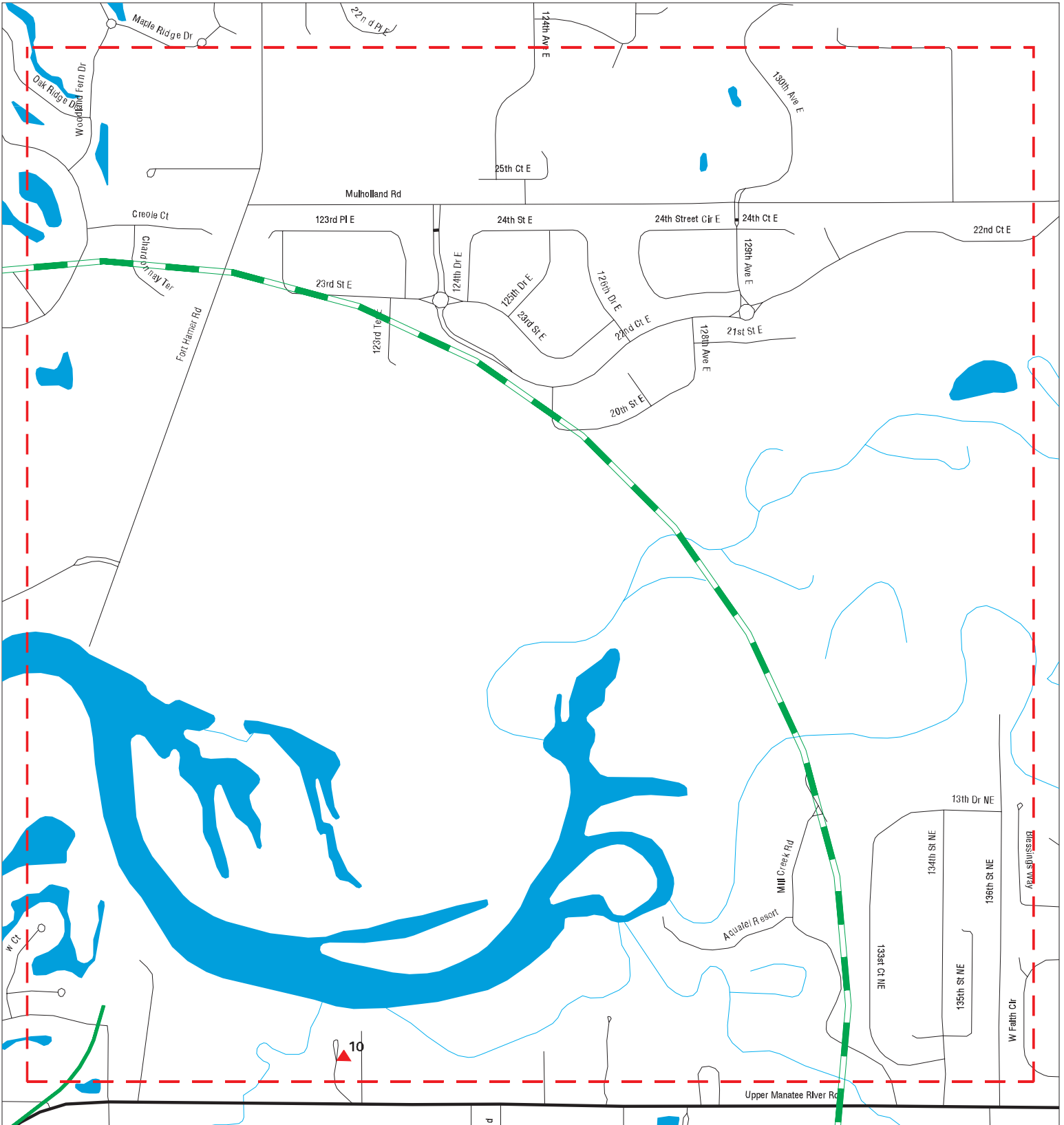
Target Property:  
UPPER MANATEE RIVER ROAD UMRR  
BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

# Focus Map - 2 - 6558351.11s



- |                      |                              |                         |
|----------------------|------------------------------|-------------------------|
| Sites                | Focus Map - Sites            | Dept. Defense Sites     |
| Target Property      | Power Line                   | Indian Reservations BIA |
| Search Buffer        | Pipe Line                    | FL Brownfield           |
| Focus Map - No Sites | National Priority List Sites |                         |



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

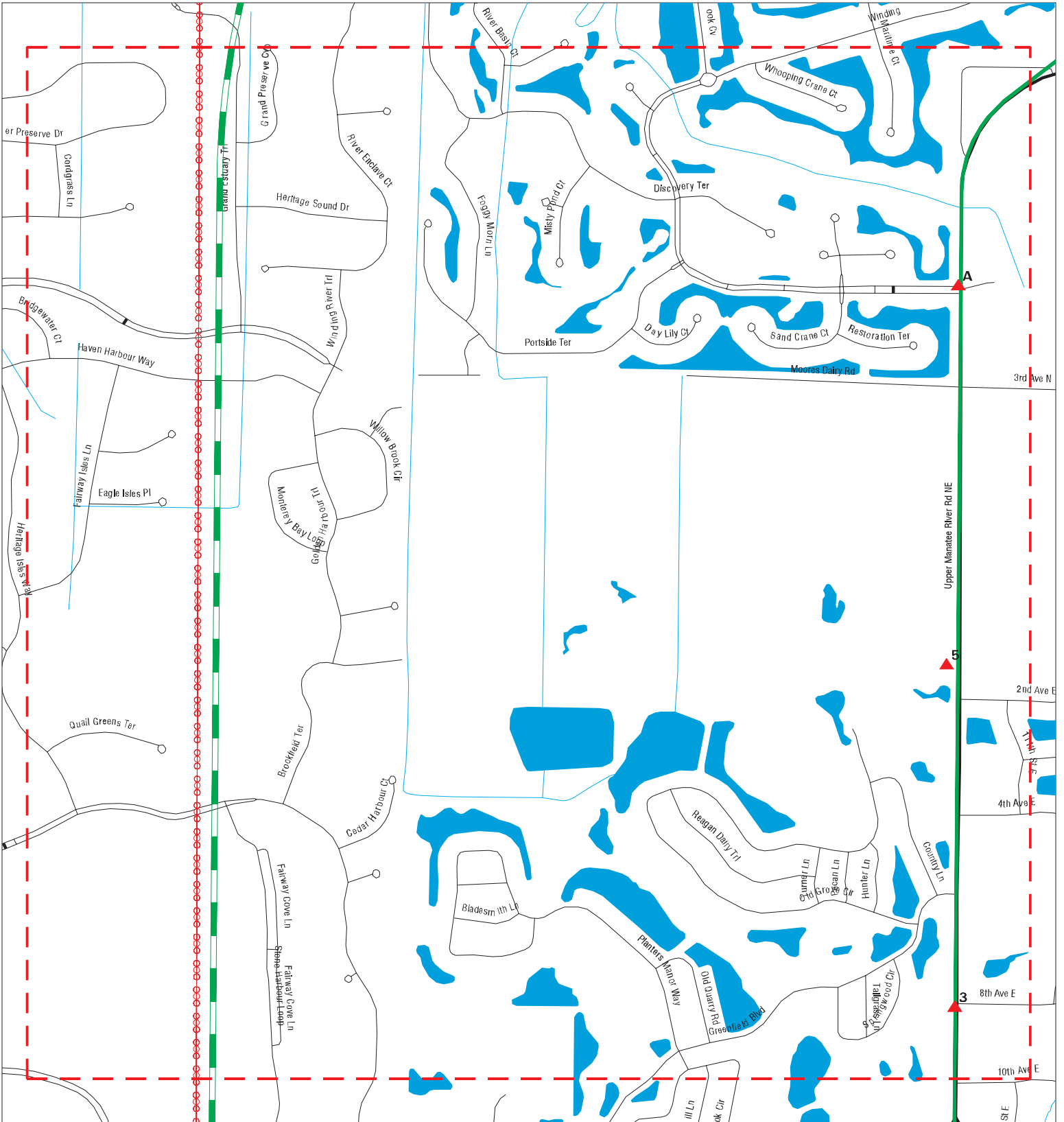
**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21

MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:  
UPPER MANATEE RIVER ROAD UMRR  
BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
10 / 2	PLAIN JANE, INC.	11903 UPPER MANATEE	SWF/LF	2143 0.406 ESE

# Focus Map - 3 - 6558351.11s



- |                      |                              |                         |
|----------------------|------------------------------|-------------------------|
| Sites                | Focus Map - Sites            | Dept. Defense Sites     |
| Target Property      | Power Line                   | Indian Reservations BIA |
| Search Buffer        | Pipe Line                    | FL Brownfield           |
| Focus Map - No Sites | National Priority List Sites |                         |



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21

MAPPED SITES SUMMARY - FOCUS MAP 3

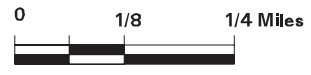
Target Property:  
 UPPER MANATEE RIVER ROAD UMRR  
 BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 3	COPPERLEFE	600 UPPER MANATEE RI	FINDS, ECHO	TP
A2 / 3	COPPERLEAF	600 UPPER MANATEE RI	NPDES	TP
3 / 3	MANATEE CNTY UTILITI	1000 UPPER MANATEE R	AST	TP
5 / 3	MOORE PROPERTY	108 UPPER MANATEE RI	LUST, UST	98 0.019 West

# Focus Map - 4 - 6558351.11s



- |  |                      |  |                              |  |                         |
|--|----------------------|--|------------------------------|--|-------------------------|
|  | Sites                |  | Focus Map - Sites            |  | Dept. Defense Sites     |
|  | Target Property      |  | Power Line                   |  | Indian Reservations BIA |
|  | Search Buffer        |  | Pipe Line                    |  | FL Brownfield           |
|  | Focus Map - No Sites |  | National Priority List Sites |  |                         |



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21

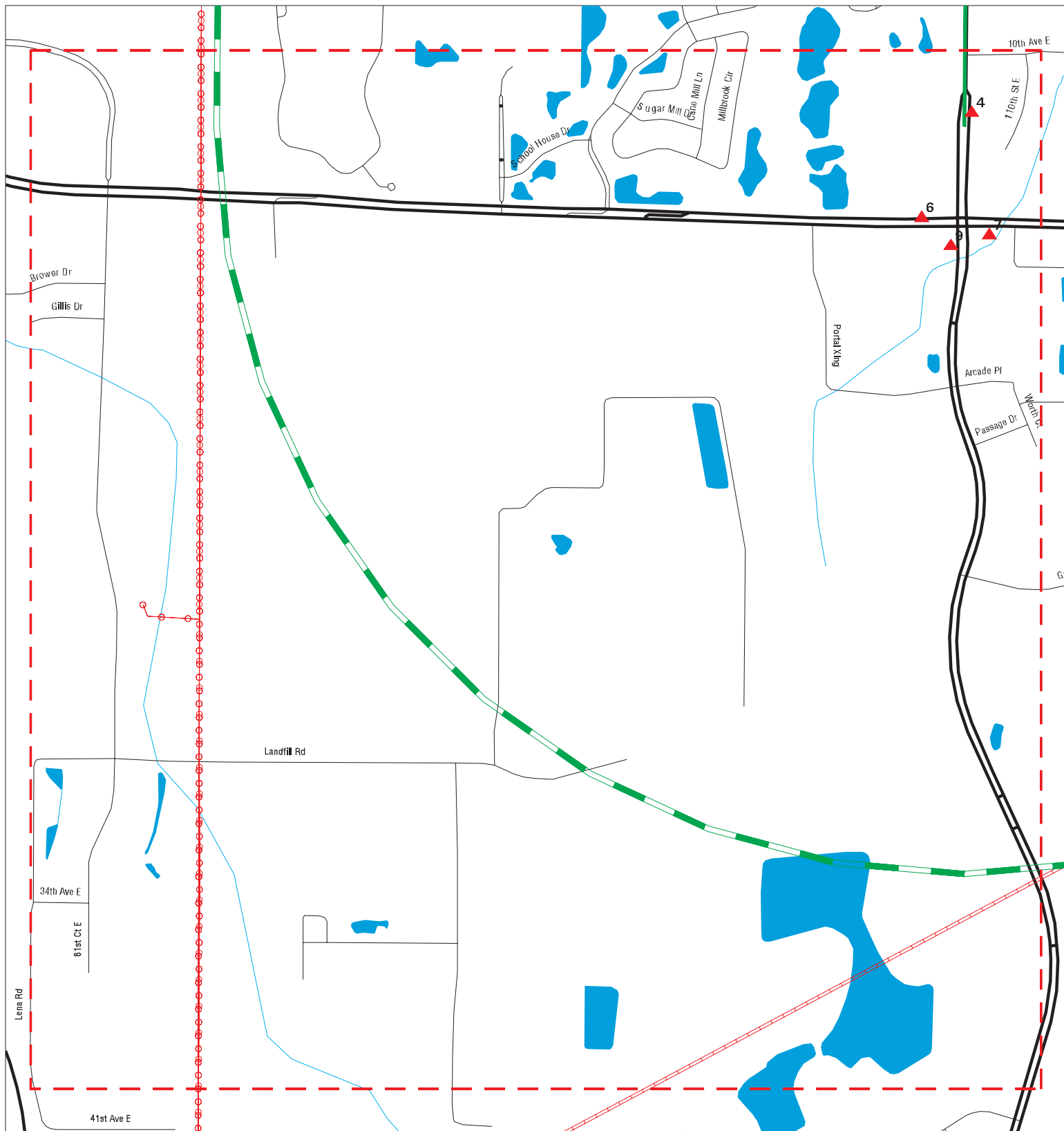


MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:  
UPPER MANATEE RIVER ROAD UMRR  
BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
8 / 4	CAVALLI CREEK FARMS	758 GATES CREEK RD	SWF/LF	959 0.182 SE

# Focus Map - 5 - 6558351.11s



- |  |                      |  |                              |  |                         |
|--|----------------------|--|------------------------------|--|-------------------------|
|  | Sites                |  | Focus Map - Sites            |  | Dept. Defense Sites     |
|  | Target Property      |  | Power Line                   |  | Indian Reservations BIA |
|  | Search Buffer        |  | Pipe Line                    |  | FL Brownfield           |
|  | Focus Map - No Sites |  | National Priority List Sites |  |                         |



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

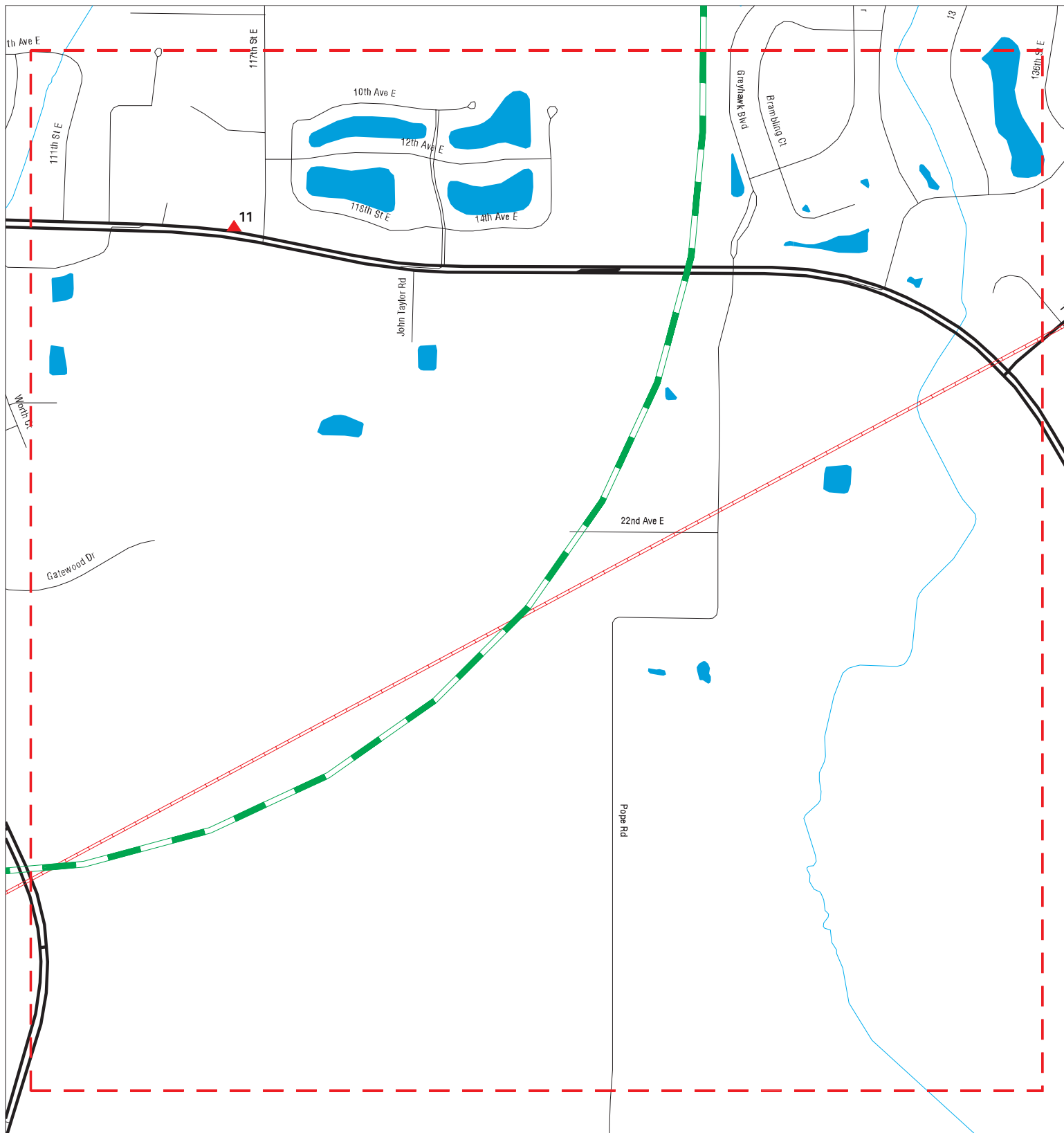
**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21

MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:  
 UPPER MANATEE RIVER ROAD UMRR  
 BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
4 / 5	WAWA FOOD MARKET# 52	1405 UPPER MANATEE R	UST, Financial Assurance	TP
6 / 5	WAWA FLORIDA LLC #52	10807 SR 64	RCRA-VSQQ	864 0.164 SSW
7 / 5	SPEEDWAY #6595	11002 E HWY 64	UST, Financial Assurance	956 0.181 SSE
9 / 5	CVS PHARMACY #7892	1520 LAKEWOOD RANCH	RCRA-VSQQ	1031 0.195 South

# Focus Map - 6 - 6558351.11s



- |                      |                              |                         |
|----------------------|------------------------------|-------------------------|
| Sites                | Focus Map - Sites            | Dept. Defense Sites     |
| Target Property      | Power Line                   | Indian Reservations BIA |
| Search Buffer        | Pipe Line                    | FL Brownfield           |
| Focus Map - No Sites | National Priority List Sites |                         |



**SITE NAME:** Upper Manatee River Road UMRR  
**ADDRESS:** Upper Manatee River Road UMRR  
**CITY/STATE:** Bradenton FL  
**ZIP:** 34212

**CLIENT:** HDR Engineering Inc.  
**CONTACT:** Chelsea Williams  
**INQUIRY #:** 6558351.11s  
**DATE:** 06/30/21

MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:  
UPPER MANATEE RIVER ROAD UMRR  
BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
11 / 6	DESOTO SPEEDWAY	12000 HWY 64 E	LUST, AST	2580 0.489 ESE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**A1** **COPPERLEFE**  
**Target** **600 UPPER MANATEE RIVER RD**  
**Property** **BRADENTON, FL 34212**

**FINDS** **1023653479**  
**ECHO** **N/A**

**Site 1 of 2 in cluster A**

**Actual:** FINDS:  
**9 ft.** Registry ID: 110070064287

**Focus Map:**  
**3** Click Here:

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1023653479  
Registry ID: 110070064287  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070064287>  
Name: COPPERLEFE  
Address: 600 UPPER MANATEE RIVER RD  
City,State,Zip: BRADENTON, FL 34212

**A2** **COPPERLEAF**  
**Target** **600 UPPER MANATEE RIVER RD**  
**Property** **BRADENTON, FL**

**NPDES** **S121058048**  
**N/A**

**Site 2 of 2 in cluster A**

**Actual:** WASTEWATER:  
**9 ft.** Name: COPPERLEAF  
**Focus Map:** Address: 600 UPPER MANATEE RIVER RD  
**3** City,State,Zip: BRADENTON, FL  
Facility ID: FLR20BE48  
Facility Type: Construction Generic Dewatering  
Status: Active - Existing, permitted facility/site for which effluent, reclaimed water or wastewater residual discharge into the environment and/or monitoring is taking place.  
  
District Office: TLST  
NPDES Permitted Site: Not reported  
Environmental Interest: Not reported  
Owner Type: Unknown  
Permit Capacity: Not reported  
Party Name: Darin McMurray, PMTE  
Company Name: WCI Communities, LLC  
RP Address: 24301 Walden Center Dr Ste 300  
RP Address 2: Not reported  
RP City,Stat,Zip: Bonita Springs FL 34134  
Telephone: 2392781199  
Email: Darin.McMurray@Lennar.com  
Issue Date: 02/04/2017  
Effective Date: 02/04/2017

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COPPERLEAF (Continued)**

**S121058048**

Expiration Date: 02/03/2022  
DOC Description: Generic Permit  
Latitude Degrees: 27  
Latitude Minutes: 29  
Latitude Seconds: 42  
Longitude Degrees: 82  
Longitude Minutes: 25  
Longitude Seconds: 30  
Treatment: Not reported  
Decode For Fstatus: Active

**3**  
**Target** **MANATEE CNTY UTILITIES LIFT STATION**  
**Property** **1000 UPPER MANATEE RIVER RD**  
**BRADENTON, FL 34202**

**AST** **A100325597**  
**N/A**

**Actual:**  
**23 ft.**  
**Focus Map:**  
**3**

AST:

Name: MANATEE CNTY UTILITIES LIFT STATION  
Address: 1000 UPPER MANATEE RIVER RD  
Facility ID: 9802023  
Facility Status: CLOSED  
Type Description: County Government  
Facility Phone: 9417551853  
DEP Contractor Own: P  
Region: STATE  
Positioning Method: ADDM  
Lat/Long (dms): 27 30 15.4224 / 82 26 1.5144

Owner:

Owner Id: 5436  
Owner Name: SIEMENS WATER TECHNOLOGIES  
Owner Address: 2650 TALLEVAST RD  
Owner Address 2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: SARASOTA, FL 34243  
Owner Contact: CHARLES MALTBY  
Owner Phone: 9413597942

Tank Id: 1  
Status: Removed  
Status Date: 06/27/2008  
Install Date: 8/1/1999  
Substance: Hazardous substance  
Content Description: Hazardous Substance  
Gallons: 550  
Tank Location: ABOVEGROUND

[Click here for Florida Oculus:](#)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**4**      **WAWA FOOD MARKET# 5258**  
**Target**    **1405 UPPER MANATEE RIVER RD**  
**Property**   **BRADENTON, FL 34212**

**UST**    **U004289333**  
**Financial Assurance**    **N/A**

**Actual:**  
**26 ft.**  
**Focus Map:**  
**5**

UST:

Facility Id:                    9816327  
Facility Status:              OPEN  
Type Description:             Retail Station  
Facility Phone:               Not reported  
Region:                         STATE  
Positioning Method:         Not reported  
Lat/Long (dms):              Not reported

Owner:

Owner Id:                      68130  
Owner Name:                   WAWA FLORIDA LLC  
Owner Address:               7022 TPC DR #200  
Owner Address 2:             ATTN: FUEL EQUIP & COMPLIANCE  
Owner City,St,Zip:          ORLANDO, FL 32822  
Owner Contact:               JOSH WORTH  
Owner Phone:                  6103613839

Tank Info:

Name:                          WAWA FOOD MARKET# 5258  
Address:                       1405 UPPER MANATEE RIVER RD  
City:                            BRADENTON  
Zip:                              34212  
Tank Id:                         1  
Status:                         In service  
Status Date:                  07/12/2018  
Install Date:                  7/12/2018  
Substance:                     I  
Content Description:         Ultra Low Sulfur Diesel  
Gallons:                        22000  
Vessel Indicator:              TANK  
Tank Location:                UNDERGROUND  
DEP Contractor:               C

Construction:

Tank Id:                         1  
Construction Category:      Overfill/Spill  
Construction Description:   Spill containment bucket

Tank Id:                         1  
Construction Category:      Overfill/Spill  
Construction Description:   Level gauges/alarms

Tank Id:                         1  
Construction Category:      Primary Construction  
Construction Description:   Fiberglass

Tank Id:                         1  
Construction Category:      Miscellaneous Attributes  
Construction Description:   Compartmented

Tank Id:                         1  
Construction Category:      Secondary Containment  
Construction Description:   Double wall



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FOOD MARKET# 5258 (Continued)**

**U004289333**

Monitoring:

Tank ID: 1  
Monitoring Description: Automatic tank gauging - USTs

Tank ID: 1  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 1  
Monitoring Description: Mechanical line leak detector

Tank ID: 1  
Monitoring Description: Continuous electronic sensing

Tank ID: 1  
Monitoring Description: Monitor dbl wall pipe space

Tank ID: 1  
Monitoring Description: Electronic monitor pipe sumps

Tank ID: 1  
Monitoring Description: Electronic monitor dispenser liners

Piping:

Tank ID: 1  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Tank ID: 1  
Piping Category: Primary Construction  
Piping Description: Approved synthetic material

Tank ID: 1  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Tank ID: 1  
Piping Category: Secondary Containment  
Piping Description: Double wall

Name: WAWA FOOD MARKET# 5258  
Address: 1405 UPPER MANATEE RIVER RD  
City: BRADENTON  
Zip: 34212  
Tank Id: 2  
Status: In service  
Status Date: 07/12/2018  
Install Date: 7/12/2018  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 20000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: C

Construction:

Tank Id: 2

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FOOD MARKET# 5258 (Continued)**

**U004289333**

Construction Category: Primary Construction  
Construction Description: Fiberglass

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Spill containment bucket

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Level gauges/alarms

Tank Id: 2  
Construction Category: Secondary Containment  
Construction Description: Double wall

Monitoring:  
Tank ID: 2  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 2  
Monitoring Description: Monitor dbl wall pipe space

Tank ID: 2  
Monitoring Description: Electronic monitor pipe sumps

Tank ID: 2  
Monitoring Description: Continuous electronic sensing

Tank ID: 2  
Monitoring Description: Mechanical line leak detector

Tank ID: 2  
Monitoring Description: Automatic tank gauging - USTs

Tank ID: 2  
Monitoring Description: Electronic monitor dispenser liners

Piping:  
Tank ID: 2  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Tank ID: 2  
Piping Category: Secondary Containment  
Piping Description: Double wall

Tank ID: 2  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Tank ID: 2  
Piping Category: Primary Construction  
Piping Description: Approved synthetic material

Name: WAWA FOOD MARKET# 5258

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FOOD MARKET# 5258 (Continued)**

**U004289333**

Address: 1405 UPPER MANATEE RIVER RD  
City: BRADENTON  
Zip: 34212  
Tank Id: 3  
Status: In service  
Status Date: 07/12/2018  
Install Date: 7/12/2018  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 22000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: C

Construction:

Tank Id: 3  
Construction Category: Secondary Containment  
Construction Description: Double wall

Tank Id: 3  
Construction Category: Primary Construction  
Construction Description: Fiberglass

Tank Id: 3  
Construction Category: Overfill/Spill  
Construction Description: Level gauges/alarms

Tank Id: 3  
Construction Category: Miscellaneous Attributes  
Construction Description: Compartmented

Tank Id: 3  
Construction Category: Overfill/Spill  
Construction Description: Spill containment bucket

Monitoring:

Tank ID: 3  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 3  
Monitoring Description: Electronic monitor dispenser liners

Tank ID: 3  
Monitoring Description: Electronic monitor pipe sumps

Tank ID: 3  
Monitoring Description: Automatic tank gauging - USTs

Tank ID: 3  
Monitoring Description: Continuous electronic sensing

Tank ID: 3  
Monitoring Description: Mechanical line leak detector

Tank ID: 3  
Monitoring Description: Monitor dbl wall pipe space

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FOOD MARKET# 5258 (Continued)**

**U004289333**

Piping:

Tank ID: 3  
Piping Category: Secondary Containment  
Piping Description: Double wall

Tank ID: 3  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Tank ID: 3  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Tank ID: 3  
Piping Category: Primary Construction  
Piping Description: Approved synthetic material

[Click here for Florida Oculus:](#)

FL Financial Assurance 3:

Name: WAWA FOOD MARKET# 5258  
Address: 1405 UPPER MANATEE RIVER RD  
City,State,Zip: BRADENTON, FL 34212  
Region: 3  
Facility ID: 9816327  
Facility Phone: Not reported  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: C  
Financial Responsibility: INSURANCE  
Insurance Company: GREAT AMERICAN  
Effective Date: 07/30/2014  
Expire Date: 07/30/2019  
Owner ID: 68130  
Owner Name: WAWA FLORIDA LLC  
Owner Address: 7022 TPC DR #200  
Owner Address2: ATTN: FUEL EQUIP & COMPLIANCE  
Owner City,St,Zip: ORLANDO, FL 32822  
Contact: JOSH WORTH  
Resp Party Phone: 6103613839

5  
West  
< 1/8  
0.019 mi.  
98 ft.

**MOORE PROPERTY**  
**108 UPPER MANATEE RIVER RD NE**  
**BRADENTON, FL 34202**

**LUST U003180884**  
**UST N/A**

**Actual:**  
**17 ft.**  
**Focus Map:**  
**3**

**LUST:**  
Name: MOORE PROPERTY  
Address: 108 UPPER MANATEE RIVER RD NE  
City,State,Zip: BRADENTON, FL 34202  
Region: STATE  
Facility Id: 9700838  
Facility Status: CLOSED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOORE PROPERTY (Continued)**

**U003180884**

Facility Type: B - Residential  
Facility Phone: (941)746-5584  
Facility Cleanup Rank: 3609  
District: Southwest District  
Lat/Long (dms): 27 29 58.5297 / 82 26 2.399  
Section: Not reported  
Township: Not reported  
Range: Not reported  
Feature: Not reported  
Method: UNVR  
Datum: Not reported  
Score: 45  
Score Effective Date: 2003-11-18 00:00:00  
Score When Ranked: 45  
Operator: VIRGINIA MOORE  
Name Update: Not reported  
Address Update: 2012-03-07 00:00:00

Discharge Cleanup Summary:  
Discharge Date: 7/17/1997  
PCT Discharge Combined: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: NFA - NFA COMPLETE  
Disch Cleanup Status Date: 3/18/2009  
Cleanup Work Status: COMPLETED  
Information Source: D - DISCHARGE NOTIFICATION  
Other Source Description: Not reported  
Eligibility Indicator: E - ELIGIBLE  
Site Manager: GAVAGAN\_PH  
Site Mgr End Date: 3/18/2009  
Tank Office: PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT

Petroleum Cleanup Program Eligibility:  
Facility ID: 9700838  
Discharge Date: 7/17/1997  
Pct Discharge Combined With: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: NFA - NFA COMPLETE  
Disch Cleanup Status Date: 3/18/2009  
Cleanup Work Status: COMPLETED  
Information Source: Not reported  
Other Source Description: Not reported  
Application Received Date: Not reported  
Cleanup Program: C - PETROLEUM CLEANUP PARTICIPATION PROGRAM  
Eligibility Status: Not reported  
Elig Status Date: Not reported  
Letter Of Intent Date: Not reported  
Redetermined: Not reported  
Inspection Date: Not reported  
Site Manager: GAVAGAN\_PH  
Site Mgr End Date: 3/18/2009  
Tank Office: PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT  
Deductible Amount: Not reported  
Deductible Paid To Date: Not reported  
Co-Pay Amount: Not reported  
Co-Pay Paid To Date: Not reported  
Cap Amount: 0  
Facility ID: 9700838

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOORE PROPERTY (Continued)**

**U003180884**

Discharge Date: 7/17/1997  
Pct Discharge Combined With: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: NFA - NFA COMPLETE  
Disch Cleanup Status Date: 3/18/2009  
Cleanup Work Status: COMPLETED  
Information Source: Not reported  
Other Source Description: Not reported  
Application Received Date: Not reported  
Cleanup Program: I - INNOCENT VICTIM PETROLEUM STORAGE SYSTEM RESTORATION PROGRAM  
Eligibility Status: Not reported  
Elig Status Date: Not reported  
Letter Of Intent Date: Not reported  
Redetermined: Not reported  
Inspection Date: Not reported  
Site Manager: GAVAGAN\_PH  
Site Mgr End Date: 3/18/2009  
Tank Office: PCLP50 - PALM BEACH CNTY ENVIRONMENTAL RESOURCES MGMT  
Deductible Amount: Not reported  
Deductible Paid To Date: Not reported  
Co-Pay Amount: Not reported  
Co-Pay Paid To Date: Not reported  
Cap Amount: 0

Contaminated Media:  
Discharge Date: 7/17/1997  
Pct Discharge Combined With: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: NFA - NFA COMPLETE  
Disch Cleanup Status Date: 3/18/2009  
Cleanup Work Status: COMPLETED  
Information Source: D - DISCHARGE NOTIFICATION  
Other Source Description: Not reported  
Elig Indicator: E - ELIGIBLE  
Site Manager: GAVAGAN\_PH  
Site Mgr End Date: 3/18/2009  
Tank Office: PCLP50 - PALM BEACH CNTY ENVIR  
Contaminated Drinking Wells: 0  
Contaminated Monitoring Well: Yes  
Contaminated Soil: No  
Contaminated Surface Water: No  
Contaminated Ground Water: No  
Pollutant: B - Unleaded Gas  
Pollutant Other Description: Not reported  
Gallons Discharged: Not reported

Task Information:  
District: SWD  
Facility ID: 9700838  
Facility Status: CLOSED  
Facility Type: B - Residential -  
County: MANATEE  
County ID: 41  
Cleanup Eligibility Status: E  
Source Effective Date: 03-18-2009  
Discharge Date: 07-17-1997  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: NFA - NFA COMPLETE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOORE PROPERTY (Continued)**

**U003180884**

Disch Cleanup Status Date: 03-18-2009  
SRC Action Type: NFA - NO FURTHER ACTION  
SRC Submit Date: 06-17-2008  
SRC Review Date: 06-17-2008  
SRC Completion Status: A - APPROVED  
SRC Issue Date: 03-18-2009  
SRC Comment: PATRICIA GAVAGAN  
Cleanup Work Status: COMPLETED  
Site Mgr: GAVAGAN\_PH  
Site Mgr End Date: 03-18-2009  
Tank Office: PCLP50 - Palm Beach County  
SR Task ID: 81829  
SR Cleanup Responsible: -  
SR Funding Eligibility Type: -  
SR Actual Cost: Not reported  
SR Completion Date: Not reported  
SR Payment Date: Not reported  
SR Oral Date: Not reported  
SR Written Date: Not reported  
SR Soil Removal: Not reported  
SR Free Product Removal: Not reported  
SR Soil Tonnage Removed: Not reported  
SR Soil Treatment: Not reported  
SR Other Treatment: Not reported  
SR Alternate Proc Received Date: Not reported  
SR Alternate Procedure Status: Not reported  
SR Alternate Procedure Status Date: Not reported  
SR Alternate Procedure Comments: Not reported  
SA Task ID: 81808  
SA Cleanup Responsible: -  
SA Funding Eligibility Type: -  
SA Actual Cost: Not reported  
SA Completion Date: Not reported  
SA Payment Date: Not reported  
RAP Task ID: Not reported  
RAP Cleanup Responsible ID: -  
RAP Funding Eligibility Type: -  
RAP Actual Cost: Not reported  
RAP Completion Date: Not reported  
RAP Payment Date: Not reported  
RAP Last Order Approved: Not reported  
RA Task ID: 83259  
RA Cleanup Responsible: -  
RA Funding Eligibility Type: -  
RA Years to Complete: 0  
RA Actual Cost: Not reported

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UST:

Facility Id: 9700838  
Facility Status: CLOSED  
Type Description: Residential  
Facility Phone: 9417465584  
Region: STATE  
Positioning Method: UNVR  
Lat/Long (dms): 27 29 58 / 82 26 3

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOORE PROPERTY (Continued)**

**U003180884**

Owner Records Not Found for this facility id:

Tank Info:

Name: MOORE PROPERTY  
Address: 108 UPPER MANATEE RIVER RD NE  
City: BRADENTON  
Zip: 34202  
Tank Id: 1  
Status: Removed  
Status Date: 07/15/1997  
Install Date: Not reported  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 2000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: P

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6  
SSW  
1/8-1/4  
0.164 mi.  
864 ft.

**WAWA FLORIDA LLC #5258**  
**10807 SR 64**  
**BRADENTON, FL 34212**

**RCRA-VSQG 1024878692**  
**FLR000227595**

**Actual:**  
29 ft.

**Focus Map:**  
5

RCRA-VSQG:  
Date Form Received by Agency: 2019-11-19 00:00:00.0  
Handler Name: WAWA FLORIDA LLC #5258  
Handler Address: 10807 SR 64  
Handler City,State,Zip: BRADENTON, FL 34212-0000  
EPA ID: FLR000227595  
Contact Name: STEVEN HUNTER  
Contact Address: 260 W BALTIMORE PIKE  
Contact City,State,Zip: WAWA, PA 19063-0000  
Contact Telephone: 610-361-6134  
Contact Fax: Not reported  
Contact Email: STEVE.HUNTER@WAWA.COM  
Contact Title: ENVIRO SPECIALIST  
EPA Region: 04  
Land Type: Private  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
Non-Notifier: Not reported  
Biennial Report Cycle: Not reported  
Accessibility: Not reported  
Active Site Indicator: Handler Activities  
State District Owner: FL  
State District: SW  
Mailing Address: 10807 SR 64  
Mailing City,State,Zip: BRADENTON, FL 34212-0000  
Owner Name: 64 & UPPER MANATEE LLC  
Owner Type: Private  
Operator Name: WAWA FLORIDA LLC  
Operator Type: Private  
Short-Term Generator Activity: No  
Importer Activity: No  
Mixed Waste Generator: No



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**WAWA FLORIDA LLC #5258 (Continued)**

**1024878692**

Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRC Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDs Where RCRA CA has Been Imposed Universe:	No
TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2020-05-13 18:00:49.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code: D001  
 Waste Description: IGNITABLE WASTE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FLORIDA LLC #5258 (Continued)**

**1024878692**

Waste Code: D018  
Waste Description: BENZENE

Handler - Owner Operator:

Owner/Operator Indicator: Operator  
Owner/Operator Name: WAWA FLORIDA LLC  
Legal Status: Private  
Date Became Current: 2018-06-11 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 260 W BALTIMORE PIKE  
Owner/Operator City,State,Zip: WAWA, PA 19063-0000  
Owner/Operator Telephone: 601-361-6134  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner  
Owner/Operator Name: 64 & UPPER MANATEE LLC  
Legal Status: Private  
Date Became Current: 2017-07-14 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5422 BAY CENTER DR STE 120  
Owner/Operator City,State,Zip: TAMPA, FL 33609-0000  
Owner/Operator Telephone: 305-934-4727  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner  
Owner/Operator Name: 64 & UPPER MANATEE LLC  
Legal Status: Private  
Date Became Current: 2017-07-14 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5422 BAY CENTER DR STE 120  
Owner/Operator City,State,Zip: TAMPA, FL 33609-0000  
Owner/Operator Telephone: 601-361-6134  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator  
Owner/Operator Name: WAWA FLORIDA LLC  
Legal Status: Private  
Date Became Current: 2018-06-11 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 260 W BALTIMORE PIKE  
Owner/Operator City,State,Zip: WAWA, PA 19063-0000  
Owner/Operator Telephone: 601-361-6134  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 2019-11-19 00:00:00.0  
Handler Name: WAWA FLORIDA LLC #5258  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FLORIDA LLC #5258 (Continued)**

**1024878692**

State District Owner: FL  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: Yes  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

Receive Date: 2018-07-10 00:00:00.0  
Handler Name: WAWA FLORIDA LLC #5258  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: FL  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 447110  
NAICS Description: GASOLINE STATIONS WITH CONVENIENCE STORES

Facility Has Received Notices of Violation:

Found Violation: No  
Agency Which Determined Violation: Not reported  
Violation Short Description: Not reported  
Date Violation was Determined: Not reported  
Actual Return to Compliance Date: Not reported  
Return to Compliance Qualifier: Not reported  
Violation Responsible Agency: Not reported  
Scheduled Compliance Date: Not reported  
Enforcement Identifier: Not reported  
Date of Enforcement Action: Not reported  
Enforcement Responsible Agency: Not reported  
Enforcement Docket Number: Not reported  
Enforcement Attorney: Not reported  
Corrective Action Component: Not reported  
Appeal Initiated Date: Not reported  
Appeal Resolution Date: Not reported  
Disposition Status Date: Not reported  
Disposition Status: Not reported  
Disposition Status Description: Not reported  
Consent/Final Order Sequence Number: Not reported  
Consent/Final Order Respondent Name: Not reported  
Consent/Final Order Lead Agency: Not reported  
Enforcement Type: Not reported  
Enforcement Responsible Person: Not reported  
Enforcement Responsible Sub-Organization: Not reported  
SEP Sequence Number: Not reported  
SEP Expenditure Amount: Not reported  
SEP Scheduled Completion Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WAWA FLORIDA LLC #5258 (Continued)**

**1024878692**

SEP Actual Date: Not reported  
SEP Defaulted Date: Not reported  
SEP Type: Not reported  
SEP Type Description: Not reported  
Proposed Amount: Not reported  
Final Monetary Amount: Not reported  
Paid Amount: Not reported  
Final Count: Not reported  
Final Amount: Not reported

**Evaluation Action Summary:**

Evaluation Date: 2019-11-19 00:00:00.0  
Evaluation Responsible Agency: State  
Found Violation: No  
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Evaluation Responsible Person Identifier: SBS  
Evaluation Responsible Sub-Organization: SW  
Actual Return to Compliance Date: Not reported  
Scheduled Compliance Date: Not reported  
Date of Request: Not reported  
Date Response Received: Not reported  
Request Agency: Not reported  
Former Citation: Not reported

**7**  
**SSE**  
**1/8-1/4**  
**0.181 mi.**  
**956 ft.**

**SPEEDWAY #6595**  
**11002 E HWY 64**  
**BRADENTON, FL 34202**

**UST** **U003798846**  
**Financial Assurance** **N/A**

**Actual:**  
**27 ft.**  
**Focus Map:**  
**5**

**UST:**  
Facility Id: 9803398  
Facility Status: OPEN  
Type Description: Retail Station  
Facility Phone: 9417475976  
Region: STATE  
Positioning Method: AGPS  
Lat/Long (dms): 27 29 6 / 82 25 59

**Owner:**  
Owner Id: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address 2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Owner Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Owner Phone: 9378637071

**Tank Info:**  
Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City: BRADENTON  
Zip: 34202  
Tank Id: 1  
Status: In service  
Status Date: 10/01/2000

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Install Date: 10/1/2000  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 10000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: P

Construction:

Tank Id: 1  
Construction Category: Overfill/Spill  
Construction Description: Ball check valve

Tank Id: 1  
Construction Category: Primary Construction  
Construction Description: Fiberglass

Tank Id: 1  
Construction Category: Secondary Containment  
Construction Description: Double wall

Tank Id: 1  
Construction Category: Overfill/Spill  
Construction Description: Tight fill

Tank Id: 1  
Construction Category: Overfill/Spill  
Construction Description: Spill containment bucket

Tank Id: 1  
Construction Category: Overfill/Spill  
Construction Description: Flow shut-Off

Tank Id: 1  
Construction Category: Overfill/Spill  
Construction Description: Level gauges/alarms

Monitoring:

Tank ID: 1  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 1  
Monitoring Description: Continuous electronic sensing

Tank ID: 1  
Monitoring Description: Visual inspect dispenser liners

Tank ID: 1  
Monitoring Description: Visual inspect pipe sumps

Tank ID: 1  
Monitoring Description: Mechanical line leak detector

Tank ID: 1  
Monitoring Description: Monitor dbl wall pipe space

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Piping:

Tank ID: 1  
Piping Category: Secondary Containment  
Piping Description: Double wall

Tank ID: 1  
Piping Category: Primary Construction  
Piping Description: Fiberglass

Tank ID: 1  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Tank ID: 1  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City: BRADENTON  
Zip: 34202  
Tank Id: 2  
Status: In service  
Status Date: 10/01/2000  
Install Date: 10/1/2000  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 10000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: P

Construction:

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Ball check valve

Tank Id: 2  
Construction Category: Primary Construction  
Construction Description: Fiberglass

Tank Id: 2  
Construction Category: Secondary Containment  
Construction Description: Double wall

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Tight fill

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Spill containment bucket

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Flow shut-Off

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Tank Id: 2  
Construction Category: Overfill/Spill  
Construction Description: Level gauges/alarms

Monitoring:  
Tank ID: 2  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 2  
Monitoring Description: Continuous electronic sensing

Tank ID: 2  
Monitoring Description: Visual inspect dispenser liners

Tank ID: 2  
Monitoring Description: Monitor dbl wall pipe space

Tank ID: 2  
Monitoring Description: Visual inspect pipe sumps

Piping:  
Tank ID: 2  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Tank ID: 2  
Piping Category: Secondary Containment  
Piping Description: Double wall

Tank ID: 2  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Tank ID: 2  
Piping Category: Primary Construction  
Piping Description: Fiberglass

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City: BRADENTON  
Zip: 34202  
Tank Id: 3  
Status: In service  
Status Date: 10/01/2000  
Install Date: 10/1/2000  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 10000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: P

Construction:  
Tank Id: 3  
Construction Category: Overfill/Spill  
Construction Description: Ball check valve

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Tank Id:	3
Construction Category:	Primary Construction
Construction Description:	Fiberglass
Tank Id:	3
Construction Category:	Secondary Containment
Construction Description:	Double wall
Tank Id:	3
Construction Category:	Overfill/Spill
Construction Description:	Tight fill
Tank Id:	3
Construction Category:	Overfill/Spill
Construction Description:	Spill containment bucket
Tank Id:	3
Construction Category:	Overfill/Spill
Construction Description:	Flow shut-Off
Tank Id:	3
Construction Category:	Overfill/Spill
Construction Description:	Level gauges/alarms
Monitoring:	
Tank ID:	3
Monitoring Description:	Monitor dbl wall tank space
Tank ID:	3
Monitoring Description:	Continuous electronic sensing
Tank ID:	3
Monitoring Description:	Visual inspect dispenser liners
Tank ID:	3
Monitoring Description:	Mechanical line leak detector
Tank ID:	3
Monitoring Description:	Monitor dbl wall pipe space
Tank ID:	3
Monitoring Description:	Visual inspect pipe sumps
Piping:	
Tank ID:	3
Piping Category:	Primary Construction
Piping Description:	Fiberglass
Tank ID:	3
Piping Category:	Miscellaneous Attributes
Piping Description:	Dispenser liners
Tank ID:	3
Piping Category:	Secondary Containment
Piping Description:	Double wall



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Tank ID: 3  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City: BRADENTON  
Zip: 34202  
Tank Id: 4  
Status: In service  
Status Date: 10/01/2000  
Install Date: 10/1/2000  
Substance: Vehicular diesel  
Content Description: Vehicular Diesel  
Gallons: 10000  
Vessel Indicator: TANK  
Tank Location: UNDERGROUND  
DEP Contractor: P

Construction:

Tank Id: 4  
Construction Category: Overfill/Spill  
Construction Description: Ball check valve

Tank Id: 4  
Construction Category: Primary Construction  
Construction Description: Fiberglass

Tank Id: 4  
Construction Category: Secondary Containment  
Construction Description: Double wall

Tank Id: 4  
Construction Category: Overfill/Spill  
Construction Description: Tight fill

Tank Id: 4  
Construction Category: Overfill/Spill  
Construction Description: Spill containment bucket

Tank Id: 4  
Construction Category: Overfill/Spill  
Construction Description: Flow shut-Off

Tank Id: 4  
Construction Category: Overfill/Spill  
Construction Description: Level gauges/alarms

Monitoring:

Tank ID: 4  
Monitoring Description: Monitor dbl wall tank space

Tank ID: 4  
Monitoring Description: Continuous electronic sensing

Tank ID: 4

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Monitoring Description: Visual inspect dispenser liners

Tank ID: 4  
Monitoring Description: Mechanical line leak detector

Tank ID: 4  
Monitoring Description: Monitor dbl wall pipe space

Tank ID: 4  
Monitoring Description: Visual inspect pipe sumps

Piping:

Tank ID: 4  
Piping Category: Primary Construction  
Piping Description: Fiberglass

Tank ID: 4  
Piping Category: Miscellaneous Attributes  
Piping Description: Dispenser liners

Tank ID: 4  
Piping Category: Secondary Containment  
Piping Description: Double wall

Tank ID: 4  
Piping Category: Miscellaneous Attributes  
Piping Description: Pressurized piping system

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FL Financial Assurance 3:

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC  
Insurance Company: Not reported  
Effective Date: 04/29/2011  
Expire Date: 04/30/2012  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC  
Insurance Company: Not reported  
Effective Date: 04/30/2009  
Expire Date: 04/30/2010  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC  
Insurance Company: Not reported  
Effective Date: 04/30/2010  
Expire Date: 04/30/2011  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC  
Insurance Company: Not reported  
Effective Date: 04/30/2012  
Expire Date: 04/30/2013

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC  
Insurance Company: Not reported  
Effective Date: 04/30/2014  
Expire Date: 04/29/2015  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SURETY BOND  
Insurance Company: LIBERTY MUTUAL  
Effective Date: 01/01/2017  
Expire Date: 12/31/2019  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SPEEDWAY #6595 (Continued)**

**U003798846**

Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SURETY BOND  
Insurance Company: LIBERTY MUTUAL  
Effective Date: 11/01/2015  
Expire Date: 12/31/2016  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

Name: SPEEDWAY #6595  
Address: 11002 E HWY 64  
City,State,Zip: BRADENTON, FL 34202  
Region: 3  
Facility ID: 9803398  
Facility Phone: 9417475976  
Facility Status: OPEN  
Facility Type: A  
Type Description: Retail Station  
DEP CO: P  
Financial Responsibility: SURETY BOND  
Insurance Company: TRAVELERS  
Effective Date: 12/31/2014  
Expire Date: 12/31/2015  
Owner ID: 71776  
Owner Name: SPEEDWAY LLC  
Owner Address: 500 SPEEDWAY DR  
Owner Address2: ATTN: STORAGE TANK REGIS  
Owner City,St,Zip: ENON, OH 45449  
Contact: BRIAN C DAVIS /BRANDIE LEHMAN  
Resp Party Phone: 9378637071

8  
SE  
1/8-1/4  
0.182 mi.  
959 ft.

**CAVALLI CREEK FARMS  
758 GATES CREEK RD  
BRADENTON, FL 34212**

**SWF/LF S121405588  
N/A**

**Actual:  
6 ft.**

SWF/LF:

**Focus Map:  
4**

Name: CAVALLI CREEK FARMS  
Address: 758 GATES CREEK RD  
City,State,Zip: BRADENTON, FL 34212  
Facility ID: 105022  
District: SWD  
Lat/Long: 27:30:41.7174 / 82:25:50.8846  
Class Type: 330  
Classification: SOURCE-SEPARATED ORGANICS PROC. FAC. (SOPF)  
Class Status: ACTIVITY NOT PERMITTED/REGISTERED (N)  
Section: Not reported  
Township: Not reported  
Range: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CAVALLI CREEK FARMS (Continued)**

**S121405588**

Responsible Authority Name: Not reported  
 Responsible Authority Address: Not reported  
 Responsible Authority City,St,Zip: Not reported  
 Responsible Authority Phone: Not reported  
 EMail Address1: Not reported  
 EMail Address2: Not reported  
 Site Supervisor Name: Not reported  
 Site Supervisor Addr: Not reported  
 Site Supervisor City/State/Zip: Not reported  
 Site Supervisor Telephone: Not reported  
 Land Owner Name: Not reported  
 Land Owner Address: Not reported  
 Land Owner City/State/Zip: Not reported  
 Land Owner Telephone: Not reported

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**9**  
 South  
 1/8-1/4  
 0.195 mi.  
 1031 ft.

**CVS PHARMACY #7892**  
**1520 LAKEWOOD RANCH BLVD**  
**BRADENTON, FL 34208**

**RCRA-VSQQ 1014951862**  
**FLR000191932**

**Actual:**  
**28 ft.**  
**Focus Map:**  
**5**

RCRA-VSQQ:  
 Date Form Received by Agency: 2019-10-21 00:00:00.0  
 Handler Name: CVS PHARMACY #7892  
 Handler Address: 1520 LAKEWOOD RANCH BLVD  
 Handler City,State,Zip: BRADENTON, FL 34208-4915  
 EPA ID: FLR000191932  
 Contact Name: NICOLE WILKINSON  
 Contact Address: 1 CVS DR MALL CODE 2340  
 Contact City,State,Zip: WOONSOCKET, RI 02895-6146  
 Contact Telephone: 401-770-7032  
 Contact Fax: Not reported  
 Contact Email: NICOLE.WILKINSON@CVSHEALTH.COM  
 Contact Title: DIR CORPORATE ENVIRONMENTAL  
 EPA Region: 04  
 Land Type: Private  
 Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
 Non-Notifier: Not reported  
 Biennial Report Cycle: Not reported  
 Accessibility: Not reported  
 Active Site Indicator: Handler Activities  
 State District Owner: FL  
 State District: SW  
 Mailing Address: 1520 LAKEWOOD RANCH BLVD  
 Mailing City,State,Zip: BRADENTON, FL 34211-4915  
 Owner Name: BACKEAST LLC  
 Owner Type: Private  
 Operator Name: HOLIDAY CVS LLC  
 Operator Type: Private  
 Short-Term Generator Activity: No  
 Importer Activity: No  
 Mixed Waste Generator: No  
 Transporter Activity: No  
 Transfer Facility Activity: No  
 Recycler Activity with Storage: No  
 Small Quantity On-Site Burner Exemption: No

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRC Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDs Where RCRA CA has Been Imposed Universe:	No
TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSD Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2020-08-26 08:04:48.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	H

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CVS PHARMACY #7892 (Continued)

1014951862

Waste Code:	D004
Waste Description:	ARSENIC
Waste Code:	D005
Waste Description:	BARIUM
Waste Code:	D006
Waste Description:	CADMIUM
Waste Code:	D007
Waste Description:	CHROMIUM
Waste Code:	D008
Waste Description:	LEAD
Waste Code:	D009
Waste Description:	MERCURY
Waste Code:	D010
Waste Description:	SELENIUM
Waste Code:	D011
Waste Description:	SILVER
Waste Code:	D016
Waste Description:	2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
Waste Code:	D018
Waste Description:	BENZENE
Waste Code:	D024
Waste Description:	M-CRESOL
Waste Code:	D026
Waste Description:	CRESOL
Waste Code:	D035
Waste Description:	METHYL ETHYL KETONE
Waste Code:	D039
Waste Description:	TETRACHLOROETHYLENE
Waste Code:	P001
Waste Description:	2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%
Waste Code:	P012
Waste Description:	ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE
Waste Code:	P042
Waste Description:	1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE
Waste Code:	P075
Waste Description:	NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

Waste Code:	P081
Waste Description:	1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)
Waste Code:	P188
Waste Description:	BENZOIC ACID, 2-HYDROXY-, COMPD. WITH (3AS-CIS)-1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYLPYRROLO[2,3-B]INDOL-5-YL METHYLCARBAMATE ESTER (1:1) (OR) PHYSOSTIGMINE SALICYLATE
Waste Code:	U002
Waste Description:	2-PROPANONE (I) (OR) ACETONE (I)
Waste Code:	U010
Waste Description:	AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[[AMINOCARBONYLOXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-MET HOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C
Waste Code:	U031
Waste Description:	1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)
Waste Code:	U034
Waste Description:	ACETALDEHYDE, TRICHLORO- (OR) CHLORAL
Waste Code:	U035
Waste Description:	BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL
Waste Code:	U044
Waste Description:	CHLOROFORM (OR) METHANE, TRICHLORO-
Waste Code:	U058
Waste Description:	2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE
Waste Code:	U059
Waste Description:	5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[[[3-AMINO-2,3,6-TRIDEOXY)-ALPHA-L-LYXO-HEXOPYRANOSYL)OXY]- 7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8S-CIS)- (OR) DAUNOMYCIN
Waste Code:	U070
Waste Description:	BENZENE, 1,2-DICHLORO- (OR) O-DICHLOROBENZENE
Waste Code:	U072
Waste Description:	BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE
Waste Code:	U089
Waste Description:	DIETHYLSTILBESTEROL (OR) PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS, (E)-
Waste Code:	U122
Waste Description:	FORMALDEHYDE
Waste Code:	U129
Waste Description:	CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE
Waste Code:	U132

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

Waste Description:	HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-
Waste Code:	U150
Waste Description:	L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN
Waste Code:	U151
Waste Description:	MERCURY
Waste Code:	U154
Waste Description:	METHANOL (I) (OR) METHYL ALCOHOL (I)
Waste Code:	U165
Waste Description:	NAPHTHALENE
Waste Code:	U188
Waste Description:	PHENOL
Waste Code:	U200
Waste Description:	RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-
Waste Code:	U201
Waste Description:	1,3-BENZENEDIOL (OR) RESORCINOL
Waste Code:	U204
Waste Description:	SELENIOUS ACID (OR) SELENIUM DIOXIDE
Waste Code:	U205
Waste Description:	SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)
Waste Code:	U206
Waste Description:	D-GLUCOSE, 2-DEOXY-2-[[[(METHYLNITROSOAMINO)-CARBONYL]AMINO]- (OR) GLUCOPYRANOSE, 2-DEOXY-2-(3-METHYL-3-NITROSOUREIDO)-,D- (OR) STREPTOZOTOCIN
Waste Code:	U210
Waste Description:	ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE
Waste Code:	U279
Waste Description:	U279
Waste Code:	U411
Waste Description:	U411

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	HOLIDAY CVS LLC
Legal Status:	Private
Date Became Current:	2005-05-08 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	1 CVS DR
Owner/Operator City,State,Zip:	WOONSOCKET, RI 02895-6146
Owner/Operator Telephone:	401-765-1500
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

Owner/Operator Indicator: Owner  
Owner/Operator Name: BACKEAST LLC  
Legal Status: Private  
Date Became Current: 2004-11-03 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5803 15TH ST E  
Owner/Operator City,State,Zip: BRADENTON, FL 34203-0000  
Owner/Operator Telephone: 941-755-8933  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator  
Owner/Operator Name: HOLIDAY CVS LLC  
Legal Status: Private  
Date Became Current: 2004-08-01 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 1 CVS DR  
Owner/Operator City,State,Zip: WOONSOCKET, RI 28950-6146  
Owner/Operator Telephone: 401-765-1500  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner  
Owner/Operator Name: BACKEAST LLC  
Legal Status: Private  
Date Became Current: 2004-11-03 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5803 15TH ST E  
Owner/Operator City,State,Zip: BRADENTON, FL 34203-0000  
Owner/Operator Telephone: 941-755-8933  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner  
Owner/Operator Name: BACKEAST LLC  
Legal Status: Private  
Date Became Current: 2004-11-03 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5803 15TH ST E  
Owner/Operator City,State,Zip: BRADENTON, FL 34203  
Owner/Operator Telephone: 941-755-8933  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner  
Owner/Operator Name: BACKEAST LLC  
Legal Status: Private  
Date Became Current: 2004-11-03 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 5803 15TH ST E  
Owner/Operator City,State,Zip: BRADENTON, FL 34203  
Owner/Operator Telephone: 941-755-8933  
Owner/Operator Telephone Ext: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported  
  
Owner/Operator Indicator: Operator  
Owner/Operator Name: HOLIDAY CVS LLC  
Legal Status: Private  
Date Became Current: 2004-08-01 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 1 CVS DR  
Owner/Operator City,State,Zip: WOONSOCKET, RI 28950-6146  
Owner/Operator Telephone: 401-765-1500  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator  
Owner/Operator Name: HOLIDAY CVS LLC  
Legal Status: Private  
Date Became Current: 2004-08-01 00:00:00.  
Date Ended Current: Not reported  
Owner/Operator Address: 1 CVS DR  
Owner/Operator City,State,Zip: WOONSOCKET, RI 02895-6146  
Owner/Operator Telephone: 401-770-7457  
Owner/Operator Telephone Ext: Not reported  
Owner/Operator Fax: Not reported  
Owner/Operator Email: Not reported

**Historic Generators:**

Receive Date: 2012-09-27 00:00:00.0  
Handler Name: CVS PHARMACY #7892  
Federal Waste Generator Description: Small Quantity Generator  
State District Owner: FL  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: Not reported  
Recognized Trader Exporter: Not reported  
Spent Lead Acid Battery Importer: Not reported  
Spent Lead Acid Battery Exporter: Not reported  
Current Record: No  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

Receive Date: 2012-02-28 00:00:00.0  
Handler Name: CVS PHARMACY #7892  
Federal Waste Generator Description: Small Quantity Generator  
State District Owner: FL  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

Receive Date: 2015-02-03 00:00:00.0  
Handler Name: CVS PHARMACY #7892  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

State District Owner:	FL
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	2019-10-21 00:00:00.0
Handler Name:	CVS PHARMACY #7892
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	FL
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	446110
NAICS Description:	PHARMACIES AND DRUG STORES

Facility Has Received Notices of Violation:

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	State Statute or Regulation
Date Violation was Determined:	2012-09-27 00:00:00.0
Actual Return to Compliance Date:	2012-09-27 00:00:00.0
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	105
Date of Enforcement Action:	2012-09-27 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	SDC
Enforcement Responsible Sub-Organization:	SW
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CVS PHARMACY #7892 (Continued)**

**1014951862**

SEP Actual Date: Not reported  
SEP Defaulted Date: Not reported  
SEP Type: Not reported  
SEP Type Description: Not reported  
Proposed Amount: Not reported  
Final Monetary Amount: Not reported  
Paid Amount: Not reported  
Final Count: Not reported  
Final Amount: Not reported

**Evaluation Action Summary:**

Evaluation Date: 2012-09-27 00:00:00.0  
Evaluation Responsible Agency: State  
Found Violation: Yes  
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Evaluation Responsible Person Identifier: SDC  
Evaluation Responsible Sub-Organization: SW  
Actual Return to Compliance Date: 2012-09-27 00:00:00.0  
Scheduled Compliance Date: Not reported  
Date of Request: Not reported  
Date Response Received: Not reported  
Request Agency: Not reported  
Former Citation: Not reported

**10**  
**ESE**  
**1/4-1/2**  
**0.406 mi.**  
**2143 ft.**

**PLAIN JANE, INC.**  
**11903 UPPER MANATEE RIVER RD**  
**BRADENTON, FL 34212**

**SWF/LF S113899903**  
**N/A**

**Actual:**  
**6 ft.**

**Focus Map:**  
**2**

SWF/LF:  
Name: PLAIN JANE, INC.  
Address: 11903 UPPER MANATEE RIVER RD  
City,State,Zip: BRADENTON, FL 34212  
Facility ID: 97250  
District: SWD  
Lat/Long: :: / ::  
Class Type: 754  
Classification: WASTE TIRE COLLECTOR  
Class Status: INACTIVE (I)  
Section: Not reported  
Township: Not reported  
Range: Not reported  
Responsible Authority Name: Not reported  
Responsible Authority Address: Not reported  
Responsible Authority City,St,Zip: Not reported  
Responsible Authority Phone: Not reported  
EMail Address1: Not reported  
EMail Address2: Not reported  
Site Supervisor Name: Not reported  
Site Supervisor Addr: Not reported  
Site Supervisor City/State/Zip: Not reported  
Site Supervisor Telephone: Not reported  
Land Owner Name: Not reported  
Land Owner Address: Not reported  
Land Owner City/State/Zip: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**PLAIN JANE, INC. (Continued)**

**S113899903**

Land Owner Telephone: Not reported

[Click here for Florida Oculus:](#)

**11**  
**ESE**  
**1/4-1/2**  
**0.489 mi.**  
**2580 ft.**

**DESOTO SPEEDWAY**  
**12000 HWY 64 E**  
**BRADENTON, FL 34202**

**LUST S104148960**  
**AST N/A**

**Actual:**  
**25 ft.**  
**Focus Map:**  
**6**

**LUST:**

Name: DESOTO SPEEDWAY  
 Address: 12000 HWY 64 E  
 City,State,Zip: BRADENTON, FL 34202  
 Region: STATE  
 Facility Id: 9045626  
 Facility Status: CLOSED  
 Facility Type: A - Retail Station  
 Facility Phone: Not reported  
 Facility Cleanup Rank: 3609  
 District: Southwest District  
 Lat/Long (dms): 27 27 51.6924 / 82 19 26.0976  
 Section: Not reported  
 Township: Not reported  
 Range: Not reported  
 Feature: Not reported  
 Method: UNVR  
 Datum: 0  
 Score: 45  
 Score Effective Date: 2003-11-25 00:00:00  
 Score When Ranked: 45  
 Operator: Not reported  
 Name Update: 2002-09-27 00:00:00  
 Address Update: 1999-11-09 00:00:00

**Discharge Cleanup Summary:**

Discharge Date: 10/6/1989  
 PCT Discharge Combined: Not reported  
 Cleanup Required: R - CLEANUP REQUIRED  
 Discharge Cleanup Status: SRCR - SRCR COMPLETE  
 Disch Cleanup Status Date: 2/17/2009  
 Cleanup Work Status: COMPLETED  
 Information Source: D - DISCHARGE NOTIFICATION  
 Other Source Description: Not reported  
 Eligibility Indicator: E - ELIGIBLE  
 Site Manager: TIANG\_I  
 Site Mgr End Date: 2/17/2009  
 Tank Office: PCTM5 - PETROLEUM CLEANUP TEAM 5

**Petroleum Cleanup Program Eligibility:**

Facility ID: 9045626  
 Discharge Date: 10/6/1989  
 Pct Discharge Combined With: Not reported  
 Cleanup Required: R - CLEANUP REQUIRED  
 Discharge Cleanup Status: SRCR - SRCR COMPLETE  
 Disch Cleanup Status Date: 2/17/2009  
 Cleanup Work Status: COMPLETED  
 Information Source: Not reported  
 Other Source Description: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DESOTO SPEEDWAY (Continued)**

**S104148960**

Application Received Date: Not reported  
Cleanup Program: C - PETROLEUM CLEANUP PARTICIPATION PROGRAM  
Eligibility Status: Not reported  
Elig Status Date: Not reported  
Letter Of Intent Date: Not reported  
Redetermined: Not reported  
Inspection Date: Not reported  
Site Manager: TIANG\_I  
Site Mgr End Date: 2/17/2009  
Tank Office: PCTM5 - PETROLEUM CLEANUP TEAM 5  
Deductible Amount: Not reported  
Deductible Paid To Date: Not reported  
Co-Pay Amount: Not reported  
Co-Pay Paid To Date: Not reported  
Cap Amount: 400000

Contaminated Media:

Discharge Date: 10/6/1989  
Pct Discharge Combined With: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: SRCR - SRCR COMPLETE  
Disch Cleanup Status Date: 2/17/2009  
Cleanup Work Status: COMPLETED  
Information Source: D - DISCHARGE NOTIFICATION  
Other Source Description: Not reported  
Elig Indicator: E - ELIGIBLE  
Site Manager: TIANG\_I  
Site Mgr End Date: 2/17/2009  
Tank Office: PCTM5 - PETROLEUM CLEANUP TEAM

Contaminated Drinking Wells: 0  
Contaminated Monitoring Well: No  
Contaminated Soil: No  
Contaminated Surface Water: No  
Contaminated Ground Water: Yes  
Pollutant: A - Leaded Gas  
Pollutant Other Description: Not reported  
Gallons Discharged: Not reported  
Discharge Date: 10/6/1989  
Pct Discharge Combined With: Not reported  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: SRCR - SRCR COMPLETE  
Disch Cleanup Status Date: 2/17/2009  
Cleanup Work Status: COMPLETED  
Information Source: D - DISCHARGE NOTIFICATION  
Other Source Description: Not reported  
Elig Indicator: E - ELIGIBLE  
Site Manager: TIANG\_I  
Site Mgr End Date: 2/17/2009  
Tank Office: PCTM5 - PETROLEUM CLEANUP TEAM

Contaminated Drinking Wells: 0  
Contaminated Monitoring Well: No  
Contaminated Soil: No  
Contaminated Surface Water: No  
Contaminated Ground Water: Yes  
Pollutant: Z - Other Non Regulated  
Pollutant Other Description: HIGH OCTANE RACIN  
Gallons Discharged: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DESOTO SPEEDWAY (Continued)**

**S104148960**

Task Information:

District: SWD  
Facility ID: 9045626  
Facility Status: CLOSED  
Facility Type: A - Retail Station -  
County: MANATEE  
County ID: 41  
Cleanup Eligibility Status: E  
Source Effective Date: 02-17-2009  
Discharge Date: 10-06-1989  
Cleanup Required: R - CLEANUP REQUIRED  
Discharge Cleanup Status: SRCR - SRCR COMPLETE  
Disch Cleanup Status Date: 02-17-2009  
SRC Action Type: SRCR - SITE REHABILITATION COMPLETION REPORT  
SRC Submit Date: 01-27-2009  
SRC Review Date: 02-16-2009  
SRC Completion Status: A - APPROVED  
SRC Issue Date: 02-17-2009  
SRC Comment: Not reported  
Cleanup Work Status: COMPLETED  
Site Mgr: TIANG\_I  
Site Mgr End Date: 02-17-2009  
Tank Office: PCTM5 - Team 5  
SR Task ID: 68223  
SR Cleanup Responsible: -  
SR Funding Eligibility Type: -  
SR Actual Cost: Not reported  
SR Completion Date: 10-30-1989  
SR Payment Date: Not reported  
SR Oral Date: Not reported  
SR Written Date: Not reported  
SR Soil Removal: Y  
SR Free Product Removal: Not reported  
SR Soil Tonnage Removed: 1879  
SR Soil Treatment: Not reported  
SR Other Treatment: 3/27/07 384.86 TONS  
SR Alternate Proc Received Date: Not reported  
SR Alternate Procedure Status: Not reported  
SR Alternate Procedure Status Date: Not reported  
SR Alternate Procedure Comments: Not reported  
SA Task ID: 50494  
SA Cleanup Responsible: -  
SA Funding Eligibility Type: -  
SA Actual Cost: Not reported  
SA Completion Date: Not reported  
SA Payment Date: Not reported  
RAP Task ID: 79366  
RAP Cleanup Responsible ID: -  
RAP Funding Eligibility Type: -  
RAP Actual Cost: Not reported  
RAP Completion Date: Not reported  
RAP Payment Date: Not reported  
RAP Last Order Approved: Not reported  
RA Task ID: 78239  
RA Cleanup Responsible: -  
RA Funding Eligibility Type: -  
RA Years to Complete: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DESOTO SPEEDWAY (Continued)**

**S104148960**

RA Actual Cost: Not reported

[Click here for Florida Oculus:](#)

AST:

Name: DESOTO SPEEDWAY  
Address: 12000 HWY 64 E  
Facility ID: 9045626  
Facility Status: CLOSED  
Type Description: Retail Station  
Facility Phone: Not reported  
DEP Contractor Own: P  
Region: STATE  
Positioning Method: UNVR  
Lat/Long (dms): 27 28 31 / 82 19 30

Owner Records Not Found for this facility id:

Tank Id: 2  
Status: Removed  
Status Date: 05/31/1993  
Install Date: 2/1/1989  
Substance: Leaded gas  
Content Description: Leaded Gas  
Gallons: 3000  
Tank Location: ABOVEGROUND

Tank Id: 1  
Status: Removed  
Status Date: 05/31/1993  
Install Date: 2/1/1989  
Substance: Unleaded gas  
Content Description: Unleaded Gas  
Gallons: 3000  
Tank Location: ABOVEGROUND

[Click here for Florida Oculus:](#)

Count: 4 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRADENTON	2020270709		REAR OF PROPERTY OF 2101 2ND AVE E		ERNS
BRADENTON	S118683328		MANATEE RIVER, AT ROSSI WATERFRONT PARK, 3RD AVE W		SPILLS
BRADENTON	S121163991		SR 64 / GREENFIELD BLVD		SPILLS
BRADENTON	S117396480		WATERWAY NEAR 530 3RD AVENUE WEST		SPILLS

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

#### NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2021	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: N/A
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 16	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Quarterly

#### NPL Site Boundaries

##### Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2021	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: N/A
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 16	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Quarterly

#### NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## ***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2021  
Date Data Arrived at EDR: 05/03/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 16

Source: EPA  
Telephone: N/A  
Last EDR Contact: 06/29/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 02/22/2021  
Date Data Arrived at EDR: 03/30/2021  
Date Made Active in Reports: 06/17/2021  
Number of Days to Update: 79

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 06/23/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2021  
Date Data Arrived at EDR: 05/03/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 16

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 06/29/2021  
Next Scheduled EDR Contact: 07/26/2021  
Data Release Frequency: Quarterly

## ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2021	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: 800-424-9346
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 16	Next Scheduled EDR Contact: 07/26/2021
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021	Source: EPA
Date Data Arrived at EDR: 03/23/2021	Telephone: 800-424-9346
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (404) 562-8651
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (404) 562-8651
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (404) 562-8651
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

## RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (404) 562-8651
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

## ***Federal institutional controls / engineering controls registries***

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021	Source: Department of the Navy
Date Data Arrived at EDR: 02/11/2021	Telephone: 843-820-7326
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 05/05/2021
Number of Days to Update: 39	Next Scheduled EDR Contact: 08/23/2021
	Data Release Frequency: Varies

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 05/21/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/06/2021
	Data Release Frequency: Varies

### US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 05/21/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/06/2021
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal ERNS list***

### **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2021  
Date Data Arrived at EDR: 03/24/2021  
Date Made Active in Reports: 06/17/2021  
Number of Days to Update: 85

Source: National Response Center, United States Coast Guard  
Telephone: 202-267-2180  
Last EDR Contact: 06/17/2021  
Next Scheduled EDR Contact: 10/04/2021  
Data Release Frequency: Quarterly

## ***State- and tribal - equivalent CERCLIS***

### **SHWS: Florida's State-Funded Action Sites**

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 01/13/2020  
Date Data Arrived at EDR: 02/19/2020  
Date Made Active in Reports: 04/28/2020  
Number of Days to Update: 69

Source: Department of Environmental Protection  
Telephone: 850-488-0190  
Last EDR Contact: 05/21/2020  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Semi-Annually

## ***State and tribal landfill and/or solid waste disposal site lists***

### **SWF/LF: Solid Waste Facility Database**

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/12/2021  
Date Data Arrived at EDR: 04/13/2021  
Date Made Active in Reports: 06/28/2021  
Number of Days to Update: 76

Source: Department of Environmental Protection  
Telephone: 850-922-7121  
Last EDR Contact: 04/13/2021  
Next Scheduled EDR Contact: 07/26/2021  
Data Release Frequency: Quarterly

## ***State and tribal leaking storage tank lists***

### **LUST: Petroleum Contamination Detail Report**

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/25/2021  
Date Data Arrived at EDR: 01/27/2021  
Date Made Active in Reports: 04/16/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8839  
Last EDR Contact: 04/27/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Quarterly

### **LAST: Leaking Aboveground Storage Tank Listing**

The file for Leaking Aboveground Storage Tanks. Please remember STCM does not track the source of the discharge so the agency provides a list of facilities with an aboveground tank and an open discharge split by facilities with aboveground tanks only and facilities with aboveground and underground tanks.

Date of Government Version: 02/01/2021  
Date Data Arrived at EDR: 02/02/2021  
Date Made Active in Reports: 04/23/2021  
Number of Days to Update: 80

Source: Department of Environmental Protection  
Telephone: 850-245-8799  
Last EDR Contact: 04/21/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020	Source: EPA Region 10
Date Data Arrived at EDR: 12/16/2020	Telephone: 206-553-2857
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land  
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020	Source: EPA, Region 5
Date Data Arrived at EDR: 12/16/2020	Telephone: 312-886-7439
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2020	Telephone: 415-972-3372
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/09/2020	Source: EPA Region 8
Date Data Arrived at EDR: 12/16/2020	Telephone: 303-312-6271
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020	Source: EPA Region 7
Date Data Arrived at EDR: 12/22/2020	Telephone: 913-551-7003
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020	Source: EPA Region 4
Date Data Arrived at EDR: 12/18/2020	Telephone: 404-562-8677
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/17/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land  
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020	Source: EPA Region 1
Date Data Arrived at EDR: 12/16/2020	Telephone: 617-918-1313
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-6597
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 06/11/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## **State and tribal registered storage tank lists**

FEMA UST: Underground Storage Tank Listing  
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021	Source: FEMA
Date Data Arrived at EDR: 02/17/2021	Telephone: 202-646-5797
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 33	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Varies

FF TANKS: Federal Facilities Listing  
A listing of federal facilities with storage tanks.

Date of Government Version: 03/29/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/30/2021	Telephone: 850-245-8250
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 06/15/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

UST: Storage Tank Facility Information  
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 01/26/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/28/2021	Telephone: 850-245-8839
Date Made Active in Reports: 02/02/2021	Last EDR Contact: 04/21/2021
Number of Days to Update: 5	Next Scheduled EDR Contact: 08/09/2021
	Data Release Frequency: Quarterly

AST: Storage Tank Facility Information  
Registered Aboveground Storage Tanks.

Date of Government Version: 01/26/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/28/2021	Telephone: 850-245-8839
Date Made Active in Reports: 02/02/2021	Last EDR Contact: 04/21/2021
Number of Days to Update: 5	Next Scheduled EDR Contact: 08/09/2021
	Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020	Source: EPA Region 5
Date Data Arrived at EDR: 12/16/2020	Telephone: 312-886-6136
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-7591
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 06/11/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020	Source: EPA Region 8
Date Data Arrived at EDR: 12/16/2020	Telephone: 303-312-6137
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/30/2020	Source: EPA Region 7
Date Data Arrived at EDR: 12/22/2020	Telephone: 913-551-7003
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020	Source: EPA Region 9
Date Data Arrived at EDR: 12/16/2020	Telephone: 415-972-3368
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020	Source: EPA, Region 1
Date Data Arrived at EDR: 12/16/2020	Telephone: 617-918-1313
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020	Source: EPA Region 4
Date Data Arrived at EDR: 12/18/2020	Telephone: 404-562-9424
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/17/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2020	Source: EPA Region 10
Date Data Arrived at EDR: 12/16/2020	Telephone: 206-553-2857
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

## TANKS: Storage Tank Facility List

This listing includes storage tank facilities that do not have tank information. The tanks have either be closed or removed from the site, but the facilities were still registered at some point in history.

Date of Government Version: 01/26/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/28/2021	Telephone: 850-245-8841
Date Made Active in Reports: 02/02/2021	Last EDR Contact: 04/21/2021
Number of Days to Update: 5	Next Scheduled EDR Contact: 08/09/2021
	Data Release Frequency: Quarterly

## ***State and tribal institutional control / engineering control registries***

### ENG CONTROLS: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to engineering controls. Engineering Controls encompass a variety of engineered remedies to contain and/or reduce contamination, and/or physical barriers intended to limit access to property. ECs include fences, signs, guards, landfill caps, provision of potable water, slurry walls, sheet pile (vertical caps), pumping and treatment of groundwater, monitoring wells, and vapor extraction systems.

Date of Government Version: 03/29/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/30/2021	Telephone: 850-245-8927
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 06/24/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Semi-Annually

### Inst Control: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to institutional and engineering controls.

Date of Government Version: 03/29/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/30/2021	Telephone: 850-245-8927
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 06/24/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Semi-Annually

## ***State and tribal voluntary cleanup sites***

### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/15/2021
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Varies

### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

## VCP: Voluntary Cleanup Sites

Listing of closed and active voluntary cleanup sites.

Date of Government Version: 12/13/2020  
Date Data Arrived at EDR: 01/13/2021  
Date Made Active in Reports: 03/29/2021  
Number of Days to Update: 75

Source: Department of Environmental Protection  
Telephone: 850-245-8705  
Last EDR Contact: 05/14/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Varies

## State and tribal Brownfields sites

### BROWNFIELDS: Brownfields Sites Database

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Date of Government Version: 01/06/2021  
Date Data Arrived at EDR: 03/30/2021  
Date Made Active in Reports: 06/17/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8927  
Last EDR Contact: 06/24/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Semi-Annually

### BSRA: Brownfield Site Rehabilitation Agreements Listing

The BSRA provides DEP and the public assurance that site rehabilitation will be conducted in accordance with Florida Statutes and DEP's Contaminated Site Cleanup Criteria rule. In addition, the BSRA provides limited liability protection for the voluntary responsible party. The BSRA contains various commitments by the voluntary responsible party, including milestones for completion of site rehabilitation tasks and submittal of technical reports and plans. It also contains a commitment by DEP to review technical reports according to an agreed upon schedule. Only those brownfield sites with an executed BSRA are eligible to apply for a voluntary cleanup tax credit incentive pursuant to Section 376.30781, Florida Statutes.

Date of Government Version: 07/14/2020  
Date Data Arrived at EDR: 09/29/2020  
Date Made Active in Reports: 12/17/2020  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8934  
Last EDR Contact: 06/24/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Varies

### BROWNFIELDS AREAS: Brownfields Areas Database

A "brownfield area" means a contiguous area of one or more brownfield sites, some of which may not be contaminated, that has been designated as such by a local government resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency (EPA) designated brownfield pilot projects. This layer provides a polygon representation of the boundaries of these designated Brownfield Areas in Florida.

Date of Government Version: 12/28/2020  
Date Data Arrived at EDR: 03/30/2021  
Date Made Active in Reports: 06/17/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8934  
Last EDR Contact: 06/24/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Quarterly

## ADDITIONAL ENVIRONMENTAL RECORDS

### *Local Brownfield lists*

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/15/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/16/2021	Telephone: 202-566-2777
Date Made Active in Reports: 06/10/2021	Last EDR Contact: 06/10/2021
Number of Days to Update: 86	Next Scheduled EDR Contact: 09/27/2021
	Data Release Frequency: Semi-Annually

## Local Lists of Landfill / Solid Waste Disposal Sites

### SWRCY: Recycling Centers

A listing of recycling centers located in the state of Florida.

Date of Government Version: 12/03/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/15/2019	Telephone: 850-245-8718
Date Made Active in Reports: 03/14/2019	Last EDR Contact: 04/16/2021
Number of Days to Update: 58	Next Scheduled EDR Contact: 07/26/2021
	Data Release Frequency: Varies

### INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 04/22/2021
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/09/2021
	Data Release Frequency: Varies

### DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/14/2021
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: No Update Planned

### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

### IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 08/06/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service  
Telephone: 301-443-1452  
Last EDR Contact: 04/29/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Varies

## **Local Lists of Hazardous waste / Contaminated Sites**

### **US HIST CDL: National Clandestine Laboratory Register**

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 12/07/2020  
Date Data Arrived at EDR: 12/09/2020  
Date Made Active in Reports: 03/02/2021  
Number of Days to Update: 83

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 05/22/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: No Update Planned

### **PRIORITYCLEANERS: Priority Ranking List**

The Florida Legislature has established a state-funded program to cleanup properties that are contaminated as a result of the operations of a drycleaning facility.

Date of Government Version: 10/26/2020  
Date Data Arrived at EDR: 11/10/2020  
Date Made Active in Reports: 01/27/2021  
Number of Days to Update: 78

Source: Department of Environmental Protection  
Telephone: 850-245-8927  
Last EDR Contact: 05/11/2021  
Next Scheduled EDR Contact: 08/23/2021  
Data Release Frequency: Varies

### **FL SITES: Sites List**

This summary status report was developed from a number of lists including the Eckhardt list, the Moffitt list, the EPA Hazardous Waste Sites list, EPA's Emergency & Remedial Response information System list (RCRA Section 3012) & existing department lists such as the obsolete uncontrolled Hazardous Waste Sites list. This list is no longer updated.

Date of Government Version: 12/31/1989  
Date Data Arrived at EDR: 05/09/1994  
Date Made Active in Reports: 08/04/1994  
Number of Days to Update: 87

Source: Department of Environmental Protection  
Telephone: 850-245-8705  
Last EDR Contact: 03/24/1994  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### **US CDL: Clandestine Drug Labs**

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020  
Date Data Arrived at EDR: 12/09/2020  
Date Made Active in Reports: 03/02/2021  
Number of Days to Update: 83

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 05/18/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Quarterly

### **PFAS: PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid**

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 10/26/2020  
Date Data Arrived at EDR: 10/27/2020  
Date Made Active in Reports: 11/06/2020  
Number of Days to Update: 10

Source: Department of Environmental Protection  
Telephone: 850-245-8690  
Last EDR Contact: 04/20/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **Local Land Records**

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/03/2021	Telephone: 202-564-6023
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 16	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Semi-Annually

## **Records of Emergency Release Reports**

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/22/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/24/2021	Telephone: 202-366-4555
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 06/17/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

### SPILLS: Oil and Hazardous Materials Incidents

Statewide oil and hazardous materials inland incidents.

Date of Government Version: 04/05/2021	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/06/2021	Telephone: 850-245-2010
Date Made Active in Reports: 06/24/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Semi-Annually

### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/10/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/04/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 60	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

### SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 09/01/2001	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## **Other Ascertainable Records**

### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/2021  
Date Data Arrived at EDR: 03/23/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 57

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 06/21/2021  
Next Scheduled EDR Contact: 10/04/2021  
Data Release Frequency: Quarterly

## FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021  
Date Data Arrived at EDR: 02/17/2021  
Date Made Active in Reports: 04/05/2021  
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285  
Last EDR Contact: 05/18/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Varies

## DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 11/10/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 62

Source: USGS  
Telephone: 888-275-8747  
Last EDR Contact: 04/16/2021  
Next Scheduled EDR Contact: 07/26/2021  
Data Release Frequency: Semi-Annually

## FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018  
Date Data Arrived at EDR: 04/11/2018  
Date Made Active in Reports: 11/06/2019  
Number of Days to Update: 574

Source: U.S. Geological Survey  
Telephone: 888-275-8747  
Last EDR Contact: 04/05/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: N/A

## SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017  
Date Data Arrived at EDR: 02/03/2017  
Date Made Active in Reports: 04/07/2017  
Number of Days to Update: 63

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 05/18/2021  
Next Scheduled EDR Contact: 08/23/2021  
Data Release Frequency: Varies

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/22/2021  
Date Data Arrived at EDR: 03/23/2021  
Date Made Active in Reports: 06/17/2021  
Number of Days to Update: 86

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 06/21/2021  
Next Scheduled EDR Contact: 10/04/2021  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/30/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/16/2021
	Data Release Frequency: Quarterly

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/07/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/16/2021
	Data Release Frequency: Varies

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/17/2020	Telephone: 202-260-5521
Date Made Active in Reports: 09/10/2020	Last EDR Contact: 06/17/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/27/2021
	Data Release Frequency: Every 4 Years

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018	Source: EPA
Date Data Arrived at EDR: 08/14/2020	Telephone: 202-566-0250
Date Made Active in Reports: 11/04/2020	Last EDR Contact: 05/17/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/30/2021
	Data Release Frequency: Annually

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/20/2021	Source: EPA
Date Data Arrived at EDR: 01/21/2021	Telephone: 202-564-4203
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 04/20/2021
Number of Days to Update: 60	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2021	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: 703-416-0223
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 16	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Annually

### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/18/2021	Telephone: 202-564-8600
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 04/19/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Varies

### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020	Source: EPA
Date Data Arrived at EDR: 01/14/2021	Telephone: 202-564-6023
Date Made Active in Reports: 03/05/2021	Last EDR Contact: 06/29/2021
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/16/2021
	Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 04/09/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/19/2021
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 06/29/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Quarterly

**FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

**FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/11/2021	Telephone: 301-415-7169
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 04/16/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Quarterly

## COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019	Source: Department of Energy
Date Data Arrived at EDR: 12/01/2020	Telephone: 202-586-8719
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 05/27/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 05/27/2021
Number of Days to Update: 251	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/07/2021
Number of Days to Update: 96	Next Scheduled EDR Contact: 08/16/2021
	Data Release Frequency: Varies

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 06/22/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 10/11/2021
	Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/27/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/09/2021
	Data Release Frequency: Quarterly

## CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 01/13/2021  
Date Made Active in Reports: 03/22/2021  
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 04/05/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Varies

## BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 06/22/2020  
Date Made Active in Reports: 11/20/2020  
Number of Days to Update: 151

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 06/21/2021  
Next Scheduled EDR Contact: 10/04/2021  
Data Release Frequency: Biennially

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 04/06/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Semi-Annually

## FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017  
Date Data Arrived at EDR: 09/11/2018  
Date Made Active in Reports: 09/14/2018  
Number of Days to Update: 3

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 04/28/2021  
Next Scheduled EDR Contact: 08/16/2021  
Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019  
Date Data Arrived at EDR: 11/15/2019  
Date Made Active in Reports: 01/28/2020  
Number of Days to Update: 74

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 05/21/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Varies

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021  
Date Data Arrived at EDR: 05/03/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 16

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 06/29/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2021  
Date Data Arrived at EDR: 02/24/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 05/25/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021  
Date Data Arrived at EDR: 05/27/2021  
Date Made Active in Reports: 06/10/2021  
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi  
Telephone: 202-693-9424  
Last EDR Contact: 05/26/2021  
Next Scheduled EDR Contact: 09/13/2021  
Data Release Frequency: Quarterly

## US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020  
Date Data Arrived at EDR: 05/27/2020  
Date Made Active in Reports: 08/13/2020  
Number of Days to Update: 78

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 05/27/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 05/27/2021
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/06/2021
	Data Release Frequency: Varies

## ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/23/2021	Source: Department of Interior
Date Data Arrived at EDR: 03/25/2021	Telephone: 202-208-2609
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 06/14/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/20/2021
	Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021	Source: EPA
Date Data Arrived at EDR: 03/03/2021	Telephone: (404) 562-9900
Date Made Active in Reports: 04/05/2021	Last EDR Contact: 05/18/2021
Number of Days to Update: 33	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Quarterly

## DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/17/2020	Telephone: 202-564-0527
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 05/21/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/06/2021
	Data Release Frequency: Varies

## ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/06/2021	Telephone: 202-564-2280
Date Made Active in Reports: 06/25/2021	Last EDR Contact: 04/06/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 07/19/2021
	Data Release Frequency: Quarterly

## UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 07/02/2020  
Date Made Active in Reports: 09/17/2020  
Number of Days to Update: 77

Source: Department of Defense  
Telephone: 703-704-1564  
Last EDR Contact: 04/13/2021  
Next Scheduled EDR Contact: 07/26/2021  
Data Release Frequency: Varies

## FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021  
Date Data Arrived at EDR: 02/17/2021  
Date Made Active in Reports: 03/22/2021  
Number of Days to Update: 33

Source: EPA  
Telephone: 800-385-6164  
Last EDR Contact: 05/14/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Quarterly

## AIRS: Permitted Facilities Listing

A listing of Air Resources Management permits.

Date of Government Version: 01/26/2021  
Date Data Arrived at EDR: 01/28/2021  
Date Made Active in Reports: 02/03/2021  
Number of Days to Update: 6

Source: Department of Environmental Protection  
Telephone: 850-921-9558  
Last EDR Contact: 04/21/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Varies

## ASBESTOS: Asbestos Notification Listing

Asbestos sites

Date of Government Version: 02/16/2021  
Date Data Arrived at EDR: 02/17/2021  
Date Made Active in Reports: 05/07/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-717-9086  
Last EDR Contact: 05/12/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Varies

## CLEANUP SITES: DEP Cleanup Sites - Contamination Locator Map Listing

This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state funded cleanup), Storage Tank Contamination Monitoring.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/24/2021  
Date Made Active in Reports: 05/14/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 866-282-0787  
Last EDR Contact: 05/21/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Quarterly

## DEDB: Ethylene Dibromide Database Results

Ethylene dibromide (EDB), a soil fumigant, that has been detected in drinking water wells. The amount found exceeds the maximum contaminant level as stated in Chapter 62-550 or 520. It is a potential threat to public health when present in drinking water.

Date of Government Version: 12/09/2020  
Date Data Arrived at EDR: 12/10/2020  
Date Made Active in Reports: 02/25/2021  
Number of Days to Update: 77

Source: Department of Environmental Protection  
Telephone: 850-245-8335  
Last EDR Contact: 06/22/2021  
Next Scheduled EDR Contact: 09/27/2021  
Data Release Frequency: Varies

## DRYCLEANERS: Drycleaning Facilities

The Drycleaners database, maintained by the Department of Environmental Protection, provides information about permitted dry cleaner facilities.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/20/2021  
Date Data Arrived at EDR: 01/20/2021  
Date Made Active in Reports: 04/09/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8927  
Last EDR Contact: 04/20/2021  
Next Scheduled EDR Contact: 08/02/2021  
Data Release Frequency: Semi-Annually

## DWM CONTAM: DWM CONTAMINATED SITES

A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).

Date of Government Version: 11/13/2020  
Date Data Arrived at EDR: 11/17/2020  
Date Made Active in Reports: 02/10/2021  
Number of Days to Update: 85

Source: Department of Environmental Protection  
Telephone: 850-245-7503  
Last EDR Contact: 04/09/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

A list of hazardous waste facilities required to provide financial assurance under RCRA.

Date of Government Version: 01/25/2021  
Date Data Arrived at EDR: 01/27/2021  
Date Made Active in Reports: 04/14/2021  
Number of Days to Update: 77

Source: Department of Environmental Protection  
Telephone: 850-245-8793  
Last EDR Contact: 04/26/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Semi-Annually

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities.

Date of Government Version: 01/07/2021  
Date Data Arrived at EDR: 02/26/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 82

Source: Department of Environmental Protection  
Telephone: 850-245-8743  
Last EDR Contact: 04/26/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Semi-Annually

## Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for storage tanks sites.

Date of Government Version: 01/26/2021  
Date Data Arrived at EDR: 01/28/2021  
Date Made Active in Reports: 02/03/2021  
Number of Days to Update: 6

Source: Department of Environmental Protection  
Telephone: 850-245-8853  
Last EDR Contact: 04/21/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Quarterly

## FL Cattle Dip. Vats: Cattle Dipping Vats

From the 1910's through the 1950's, these vats were filled with an arsenic solution for the control and eradication of the cattle fever tick. Other pesticides, such as DDT, were also widely used. By State law, all cattle, horses, mules, goats, and other susceptible animals were required to be dipped every 14 days. Under certain circumstances, the arsenic and other pesticides remaining at the site may present an environmental or public health hazard.

Date of Government Version: 09/27/2019  
Date Data Arrived at EDR: 01/10/2020  
Date Made Active in Reports: 02/11/2020  
Number of Days to Update: 32

Source: Department of Environmental Protection  
Telephone: 850-245-4444  
Last EDR Contact: 04/09/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: No Update Planned

## HW GEN: Hazardous Waste Generators

Small Quantity Hazardous Waste Generators are regulated under the federal Resource Conservation and Recovery Act (RCRA) and applicable state regulations as generators of hazardous wastes in quantities greater than 100 Kg but less than 1,000 Kg in any one calendar month. Large Quantity Generators of Hazardous Waste are tracked in this coverage based on their notification to the Department of Environmental Protection as to their handler status, or based on inspections conducted at their facilities. These facilities are regulated under the federal Resource Conservation and Recovery Act (RCRA) and applicable state regulations as generators of hazardous wastes in quantities equal to or greater than 1,000 Kg in any one calendar month.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/23/2021  
Date Data Arrived at EDR: 03/24/2021  
Date Made Active in Reports: 06/10/2021  
Number of Days to Update: 78

Source: Department of Environmental Protection  
Telephone: 850-245-8758  
Last EDR Contact: 06/17/2021  
Next Scheduled EDR Contact: 10/04/2021  
Data Release Frequency: Quarterly

## RESP PARTY: Responsible Party Sites Listing

Open, inactive and closed responsible party sites

Date of Government Version: 03/29/2021  
Date Data Arrived at EDR: 03/30/2021  
Date Made Active in Reports: 06/21/2021  
Number of Days to Update: 83

Source: Department of Environmental Protection  
Telephone: 850-245-8758  
Last EDR Contact: 06/28/2021  
Next Scheduled EDR Contact: 10/11/2021  
Data Release Frequency: Quarterly

## SITE INV SITES: Site Investigation Section Sites Listing

Statewide coverage of Site Investigation Section (SIS) sites. Site Investigation is a Section within the Bureau of Waste Cleanup, Division of Waste Management. SIS provides technical support to FDEP District Waste Cleanup Programs and conducts contamination assessments throughout the state.

Date of Government Version: 02/16/2021  
Date Data Arrived at EDR: 02/17/2021  
Date Made Active in Reports: 05/07/2021  
Number of Days to Update: 79

Source: Department of Environmental Protection  
Telephone: 850-245-8953  
Last EDR Contact: 05/14/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Quarterly

## TIER 2: Tier 2 Facility Listing

A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

Date of Government Version: 12/31/2019  
Date Data Arrived at EDR: 06/05/2020  
Date Made Active in Reports: 08/19/2020  
Number of Days to Update: 75

Source: Department of Environmental Protection  
Telephone: 850-413-9970  
Last EDR Contact: 06/02/2021  
Next Scheduled EDR Contact: 09/20/2021  
Data Release Frequency: Varies

## UIC: Underground Injection Wells Database Listing

A listing of Class I wells. Class I wells are used to inject hazardous waste, nonhazardous waste, or municipal waste below the lowermost USDW.

Date of Government Version: 01/20/2021  
Date Data Arrived at EDR: 01/21/2021  
Date Made Active in Reports: 04/12/2021  
Number of Days to Update: 81

Source: Department of Environmental Protection  
Telephone: 850-245-8655  
Last EDR Contact: 04/14/2021  
Next Scheduled EDR Contact: 08/02/2021  
Data Release Frequency: Varies

## WASTEWATER: Wastewater Facility Regulation Database

Domestic and industrial wastewater facilities.

Date of Government Version: 01/29/2021  
Date Data Arrived at EDR: 02/02/2021  
Date Made Active in Reports: 04/23/2021  
Number of Days to Update: 80

Source: Department of Environmental Protection  
Telephone: 850-245-8600  
Last EDR Contact: 04/30/2021  
Next Scheduled EDR Contact: 08/16/2021  
Data Release Frequency: Quarterly

## PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014  
Date Data Arrived at EDR: 01/06/2015  
Date Made Active in Reports: 05/06/2015  
Number of Days to Update: 120

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 03/31/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 02/05/2015  
Date Made Active in Reports: 03/06/2015  
Number of Days to Update: 29

Source: EPA  
Telephone: 202-564-2497  
Last EDR Contact: 03/31/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Varies

## PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011  
Date Data Arrived at EDR: 08/05/2011  
Date Made Active in Reports: 09/29/2011  
Number of Days to Update: 55

Source: EPA, Office of Water  
Telephone: 202-564-2496  
Last EDR Contact: 03/31/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Semi-Annually

## MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018  
Date Data Arrived at EDR: 10/21/2019  
Date Made Active in Reports: 10/24/2019  
Number of Days to Update: 3

Source: USGS  
Telephone: 703-648-6533  
Last EDR Contact: 05/27/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Varies

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

## EDR RECOVERED GOVERNMENT ARCHIVES

### *Exclusive Recovered Govt. Archives*

#### RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Florida.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Florida.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/10/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 193	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Florida.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

## COUNTY RECORDS

### ALACHUA COUNTY:

#### FACILITY LIST ALACHUA: Facility List

List of all regulated facilities in Alachua County.

Date of Government Version: 03/19/2021	Source: Alachua County Environmental Protection Department
Date Data Arrived at EDR: 03/23/2021	Telephone: 352-264-6800
Date Made Active in Reports: 06/09/2021	Last EDR Contact: 06/15/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Annually

### BROWARD COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## AST BROWARD: Aboveground Storage Tanks

Aboveground storage tank locations in Broward County.

Date of Government Version: 02/12/2021  
Date Data Arrived at EDR: 06/10/2021  
Date Made Active in Reports: 06/11/2021  
Number of Days to Update: 1

Source: Broward County Environmental Protection Department  
Telephone: 954-818-7509  
Last EDR Contact: 05/18/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Varies

## UST BROWARD: Underground Storage Tanks

All known regulated storage tanks within Broward County, including those tanks that have been closed

Date of Government Version: 02/12/2021  
Date Data Arrived at EDR: 06/10/2021  
Date Made Active in Reports: 06/11/2021  
Number of Days to Update: 1

Source: Broward County Environmental Protection Department  
Telephone: 954-818-7509  
Last EDR Contact: 05/18/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Varies

## HILLSBOROUGH COUNTY:

### LF HILLSBOROUGH: Hillsborough County LF

Hillsborough county landfill sites.

Date of Government Version: 04/07/2021  
Date Data Arrived at EDR: 04/07/2021  
Date Made Active in Reports: 06/24/2021  
Number of Days to Update: 78

Source: Hillsborough County Environmental Protection Commission  
Telephone: 813-627-2600  
Last EDR Contact: 06/29/2021  
Next Scheduled EDR Contact: 10/18/2021  
Data Release Frequency: Varies

## MIAMI-DADE COUNTY:

### DADE CO AP: Air Permit Sites

Facilities that release or have a potential to release pollutants.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Department of Environmental Resources Management  
Telephone: 305-372-6755  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

### DADE CO AW: Agricultural Waste Listing

A listing of agricultural waste sites

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Miami-Dade County Division of Environmental Resources Management  
Telephone: 305-372-6715  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Varies

### DADE CO LW: Liquid Waste Transporter List

The Liquid Waste Transporter permit regulates the transportation of various types of liquid and solid waste, including hazardous waste, waste oil and oily waste waters, septic and grease trap waste, biomedical waste, spent radiator fluid, photo chemical waste, dry sewage sludge, and other types of non-hazardous industrial waste. The Liquid Waste Transporter permits needed to protect the environment and the public from improperly handled and transported waste.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: DERM  
Telephone: 305-372-6755  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## DADE GTO: Grease Trap Sites

Any non-residential facility that discharges waste to a sanitary sewer.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Dade County Dept. of Env. Resources Mgmt.  
Telephone: 305-372-6508  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## DADE MOP: Marine Facilities Operating Permit

What is this permit used for? Miami-Dade County Ordinance 89-104 and Section 24-18 of the Code of Miami-Dade County require the following types of marine facilities to obtain annual operating permits from DERM: All recreational boat docking facilities with ten (10) or more boat slips, moorings, davit spaces, and vessel tie-up spaces. All boat storage facilities contiguous to tidal waters in Miami-Dade County with ten (10) or more dry storage spaces including boatyards and boat manufacturing facilities.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: DERM  
Telephone: 305-372-3576  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Quarterly

## DADE MRE: Maimi River Enforcement

The Miami River Enforcement database files were created for facilities and in some instances vessels that were inspected by a workgroup within the Department that was identified as the Miami River Enforcement Group. The files do not all necessarily reflect enforcement cases and some were created for locations that were permitted by other Sections within the Department.

Date of Government Version: 06/05/2013  
Date Data Arrived at EDR: 06/06/2013  
Date Made Active in Reports: 08/06/2013  
Number of Days to Update: 61

Source: DERM  
Telephone: 305-372-3576  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Quarterly

## DADE\_IW2\_4: Industrial Waste Type 2-4 Sites

IW2s are facilities having reclaim or recycling systems with no discharges, aboveground holding tanks or spill prevention and countermeasure plans. IW4s are facilities that discharge an effluent to the ground.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Department of Environmental Resources Management  
Telephone: 305-372-6700  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## DADE\_IW5: Industrial Waste Type 5 Sites

Generally these facilities fall under the category of "conditionally exempt small quantity generator" or "small quantity generator".

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Department of Environmental Resources Management  
Telephone: 305-372-6700  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## DADE\_IW6: Industrial Waste Type 6

Permits issued to those non-residential land uses located within the major drinking water wellfield protection areas that are not served by sanitary sewers. These facilities do not handle hazardous materials but are regulated because of the env. sensitivity of the areas where they are located.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Department of Environmental Resources Management  
Telephone: 305-372-6700  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## DADE\_IWP: Industrial Waste Permit Sites

Facilities that either generate more than 25,000 of wastewater per day to sanitary sewers or are pre-defined by EPA.

Date of Government Version: 02/23/2021  
Date Data Arrived at EDR: 02/23/2021  
Date Made Active in Reports: 05/12/2021  
Number of Days to Update: 78

Source: Department of Environmental Resources Management  
Telephone: 305-372-6700  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## ENF: Enforcement Case Tracking System Sites

Enforcement cases monitored by the Dade County Department of Environmental Resources Management.

Date of Government Version: 02/25/2021  
Date Data Arrived at EDR: 02/26/2021  
Date Made Active in Reports: 05/19/2021  
Number of Days to Update: 82

Source: Department of Environmental Resources Management  
Telephone: 305-372-6755  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## SPILLS DADE: Fuel Spills Cases

DERM documents fuel spills of sites that are not in a state program.

Date of Government Version: 01/08/2009  
Date Data Arrived at EDR: 01/13/2009  
Date Made Active in Reports: 02/05/2009  
Number of Days to Update: 23

Source: Department of Environmental Resources Management  
Telephone: 305-372-6755  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## UST DADE: Storage Tanks

A listing of aboveground and underground storage tank site locations.

Date of Government Version: 06/03/2019  
Date Data Arrived at EDR: 11/19/2020  
Date Made Active in Reports: 02/03/2021  
Number of Days to Update: 76

Source: Department of Environmental Resource Management  
Telephone: 305-372-6700  
Last EDR Contact: 05/24/2021  
Next Scheduled EDR Contact: 09/06/2021  
Data Release Frequency: Semi-Annually

## PALM BEACH COUNTY:

### LF PALM BEACH: Palm Beach County LF

Palm Beach County Inventory of Solid Waste Sites.

Date of Government Version: 09/01/2011  
Date Data Arrived at EDR: 09/20/2011  
Date Made Active in Reports: 10/10/2011  
Number of Days to Update: 20

Source: Palm Beach County Solid Waste Authority  
Telephone: 561-640-4000  
Last EDR Contact: 06/10/2021  
Next Scheduled EDR Contact: 09/20/2021  
Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 10/05/2020  
Date Data Arrived at EDR: 02/17/2021  
Date Made Active in Reports: 05/10/2021  
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 05/11/2021  
Next Scheduled EDR Contact: 08/23/2021  
Data Release Frequency: No Update Planned

### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 04/10/2019  
Date Made Active in Reports: 05/16/2019  
Number of Days to Update: 36

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 04/09/2021  
Next Scheduled EDR Contact: 07/19/2021  
Data Release Frequency: Annually

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019  
Date Data Arrived at EDR: 04/29/2020  
Date Made Active in Reports: 07/10/2020  
Number of Days to Update: 72

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 04/30/2021  
Next Scheduled EDR Contact: 08/09/2021  
Data Release Frequency: Quarterly

### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018  
Date Data Arrived at EDR: 07/19/2019  
Date Made Active in Reports: 09/10/2019  
Number of Days to Update: 53

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 04/09/2021  
Next Scheduled EDR Contact: 07/26/2021  
Data Release Frequency: Annually

### RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2019  
Date Data Arrived at EDR: 02/11/2021  
Date Made Active in Reports: 02/24/2021  
Number of Days to Update: 13

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 05/13/2021  
Next Scheduled EDR Contact: 08/30/2021  
Data Release Frequency: Annually

### WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018  
Date Data Arrived at EDR: 06/19/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 76

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 06/03/2021  
Next Scheduled EDR Contact: 09/20/2021  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

### Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### Daycare Centers: Department of Children & Families

Source: Provider Information

Telephone: 850-488-4900

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetlands Inventory

Source: Department of Environmental Protection

Telephone: 850-245-8238

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

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## Appendix F – Pond Siting Memo

# Pond Siting

## Technical Memorandum

Upper Manatee River Road  
Project Development and Corridor Study Report

October 2021



## CONTENTS

<b>Executive Summary .....</b>	<b>4</b>
<b>1.0 Introduction .....</b>	<b>4</b>
1.1 Project Location .....	5
1.2 Project Description .....	6
<b>2.0 CUDEM Elevations Data / Vertical Datum .....</b>	<b>6</b>
<b>3.0 Land Use.....</b>	<b>6</b>
<b>4.0 Soils .....</b>	<b>6</b>
<b>5.0 Storm Surge Hazard / Evacuation Zones.....</b>	<b>8</b>
<b>6.0 Sea Level Rise.....</b>	<b>9</b>
<b>7.0 Floodplains.....</b>	<b>9</b>
7.1 FEMA / Manatee County 100-Year Floodplain .....	9
7.2 Manatee County 25-Year Floodplain .....	10
<b>8.0 Right of Way.....</b>	<b>10</b>
<b>9.0 Existing Cross Drains.....</b>	<b>10</b>
<b>10.0 Existing Drainage.....</b>	<b>11</b>
10.1 FDEP Impaired Waters .....	13
10.2 Drainage Conveyance.....	13
10.3 Roadway Design High Water .....	14
10.4 Roadway Base Clearance .....	14
10.5 Environmental Resource Permits.....	14
<b>11.0 Proposed Typical Section .....</b>	<b>15</b>
<b>12.0 Floodplain Impacts.....</b>	<b>16</b>
<b>13.0 Pond Design Criteria.....</b>	<b>16</b>
<b>14.0 Permitting Requirements .....</b>	<b>19</b>
<b>15.0 Proposed Drainage .....</b>	<b>19</b>
<b>16.0 Preliminary Pond Site Analysis.....</b>	<b>20</b>
16.1 Basin 1 .....	20
16.2 Basin 2 .....	22
<b>17.0 Wetlands, T&amp;E Species, Cultural Resource and Contamination Pond Site Assessments .....</b>	<b>23</b>
<b>18.0 Conclusion.....</b>	<b>24</b>

## FIGURES

Figure 1 | Location Map.....5

Figure 2 | NRCS Soil Survey Map.....7

Figure 3 | Manatee County Evacuation Zones.....9

Figure 4 | Watershed Map.....12

Figure 5 | Proposed Typical Section .....15

Figure 6 | Basin 1 Preliminary Pond Sites.....21

Figure 7 | Basin 2 Preliminary Pond Sites.....23

## TABLES

Table 1 | Summary of Preliminary Pond Sites (Gates Creek Watershed).....4

Table 2 | Summary of Preliminary Pond Sites (Manatee River Watershed – Below Dam).....4

Table 3 | NRCS Hydrologic Soil Groups and SHGWT.....8

Table 4 | FEMA Flood Insurance Rate Maps (FIRM).....10

Table 5 | Environmental Resource Permits .....14

Table 6 | Pond Design Criteria – Gates Creek Watershed.....17

Table 7 | Pond Design Criteria – Lower Manatee River (Above Braden River) .....18

Table 8 | Proposed Basins .....19

Table 9 | Pond Site Wetlands, T&E Species, Cultural Resources and Contamination .....23

## APPENDICES

Appendix A – Drainage Maps.....

Appendix B – Preliminary Pond Site Sizing Analysis .....

Appendix C – FEMA FIRM and FIS Flood Profile Panels.....

Appendix D – Corpscon6 Datum Conversion.....

Appendix E – Sea Level Rise Tidal Datum .....

### Executive Summary

HDR Engineering, Inc. has been retained by Manatee County Government for conducting a Project Development and Corridor Study for Upper Manatee River Road from SR 64 to Fort Hamer Road. This Preliminary Drainage and Pond Site Location Analysis is conducted for the project corridor study using Manatee County Roadway and Drainage Design Standards, and Florida Department of Transportation (FDOT) 2021 Drainage Manual and Drainage Design Guide, Chapter 9.1 “Selecting a Pond Site” as references. The focus of this analysis is for estimating preliminary corridor drainage requirements and stormwater management pond site locations and sizes (volume and area), based on corridor topography, development, proximity to outfalls and SWFWMD / Manatee County water quality and water quantity criteria applicable to the receiving watershed. In addition, corridor drainage system and the applicability of floodplain mitigation site (FMS) needs are investigated for a future design phase.

The Upper Manatee River Road corridor study limits is segmented into two (2) corridor drainage basins, resulting from hydraulic divides associated with two watershed divides. Due to the degree of development occurring along the corridor, only two (2) pond site alternates per corridor basin are evaluated. The resulting four (4) preliminary pond site investigations are summarized by watershed in **Tables 1 and 2** below by watershed, and categorized as the “Preferred Site” or “2<sup>nd</sup> Alternate Site” ranking based on conditions further outlined in this analysis:

*Table 1 | Summary of Preliminary Pond Sites (Gates Creek Watershed)*

SUMMARY OF PRELIMINARY POND SITES (GATES CREEK WATERSHED)					
CORRIDOR BASIN	POND SITE	LOCATION OFFSET	POND SITE AREA (ACRES)	PREFERRED SITE	2 <sup>nd</sup> ALTERNATE SITE
1	1W	LT.	1.76		(*)
	1E	RT.	2.22	X	

(\*) Pond Site 1W lacks adequate parcel size for pond refinements and is removed as a viable alternative.

*Table 2 | Summary of Preliminary Pond Sites (Manatee River Watershed – Below Dam)*

SUMMARY OF PRELIMINARY POND SITES (MANATEE RIVER WATERSHED – BELOW DAM)					
CORRIDOR BASIN	POND SITE	LOCATION OFFSET	POND SITE AREA (ACRES)	PREFERRED SITE	2 <sup>nd</sup> ALTERNATE SITE
2	2E1	RT.	2.47	X	
	2E2	RT.	2.47		X

### 1.0 Introduction

Manatee County Government is conducting a Project Development and Corridor Study for Upper Manatee River Road. The purpose of the Corridor Study is to develop corridor alternatives for reducing congestion, improving safety and operational performance, and addressing future transportation needs. Proposed improvements also include improvements at the intersection with Fort Hamer Road.

This Preliminary Drainage and Pond Site Location Analysis is included within the Upper Manatee River Road Corridor Study to assess right of way acquisition alternatives for required stormwater ponds and to determine if floodplain impact mitigation is required. The analysis follows Southwest Florida Water Management District (SWFWMD) and Manatee County requirements and guidelines. The stormwater and pond site sizing analysis



herein are preliminary and does not benefit from detailed survey or geotechnical investigation. For the purposes of estimating basin limits and drainage feature locations along the corridor, an assumed baseline station 100+00 at the centerline of SR 64 and Upper Manatee Road is referenced in this technical memorandum.

The existing segment of Upper Manatee River Road is typically a two-lane two-way rural arterial road, with median or outside turn lanes and flush shoulders. Existing two-lane Upper Manatee River Road has no formal stormwater treatment or attenuation systems and is drained by roadside grassed conveyance ditches that discharge directly into lateral open channel outfalls.

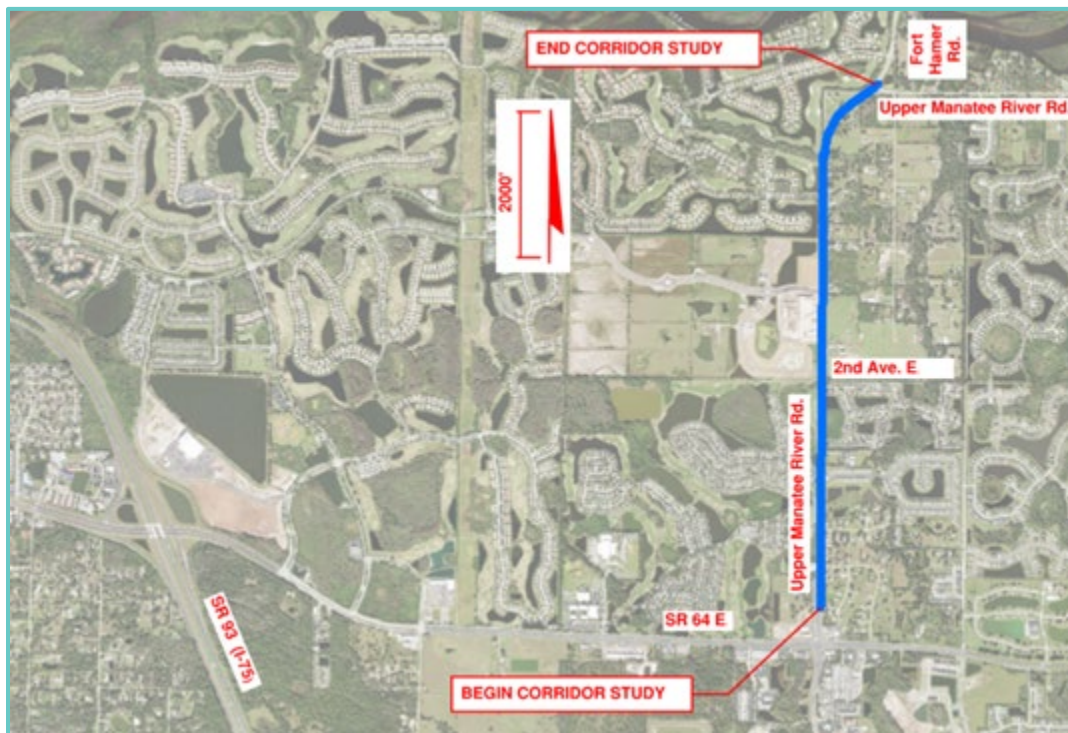
Drainage Maps are found in **Appendix A**. The study corridor is situated within two (2) watersheds and stormwater runoff basins. Basin 1 outfall to Gates Creek (WBID 1874) tributary to the Lower Manatee River Watershed. Basin 2 is direct outfall to the Lower Manatee River (above the Braden River) Watershed (WBID 1848B). Corridor Basin 2 is impaired for nutrients. In addition, both watersheds may be subject to Tampa Bay Estuary “Reasonable Assurance” water quality criteria. The proposed project requires an Environmental Resource Permit (ERP) from SWFWMD.

Although a reduced corridor width typical section is being evaluated with this study, the preliminary pond siting analysis is based on 120-ft. right-of-way four-lane typical section for Upper Manatee River Road, with presumption of the entire 120-ft right-of-way width as impervious for conservatively accounting for median turn lanes, driveway connections and accepting minor areas of “back of sidewalk” offsite flows to the stormwater treatment and attenuation volumes. Two pond site alternatives are evaluated for each runoff basin where right of way acquisition is triggered by the need for a stormwater facility.

### 1.1 Project Location

The Upper Manatee River Road corridor study is located east of I-75 within Sections 17, 19, 20, 29 and 30, Township 35S, Range 19E of eastern unincorporated Manatee County, (See **Figure 1**). The project limits include approximately 1.85 miles of Upper Manatee River Road from SR 64 to Fort Hamer Road.

*Figure 1 | Location Map*



### 1.2 Project Description

The future project resulting from this corridor study will add vehicular capacity and shared use access to Upper Manatee River Road. The proposed improvements to Upper Manatee River Road will increase north-south vehicular capacity between SR 64 East to the Fort Hamer Road connection to US 301.

### 2.0 CUDEM Elevations Data / Vertical Datum

For the purposes of the preliminary analysis, approximate elevations used in estimating elevations for pond sites and roadway grades are based on Continuously Updated Digital Elevation Model (CUCUDEM) data from the National Oceanic Atmospheric Administration (NOAA), updated on 3/1/2020. All analysis herein is based on North American Vertical Datum 1988 (NAVD88). Data sources in National Geodetic Vertical Datum 1929 (NGVD29) including the FEMA effective FIS and FIRMs, historical plans and SWFWMD existing permit records are converted to NAVD88 as required. The conversion from NGVD29 to NAVD88 used in this report is:

**NAVD88 = NGVD29 – 1.00-FT.** Datum conversion estimated by Corpscon6 software (see Appendix D).

### 3.0 Land Use

The existing land use conditions along the Upper Manatee River Road corridor study limits include agricultural - cattle range lands transitioning to residential developments. Based on Manatee County Future Land Use (FLU) Mapping, the Upper Manatee River Road corridor study limits is defined as “Urban Fringe” low to mid-density residential and short term agricultural (UF-3).

### 4.0 Soils

A preliminary soils and seasonal high groundwater table (SHGWT) evaluation of the Upper Manatee River Road corridor study limits has been performed, based on evaluation of the Natural Resources Conservation Service (NRCS) Soil Survey for Manatee County, Florida (see Figure 2). The NRCS soils information is used to estimate SCS hydrologic soil groups of in situ soils for basin stormwater runoff estimates, and pond site SHGWT for estimating pond control elevations. A summary of NRCS soil types, hydrologic soil groups and SHGWT depths is provided in Table 3.

Figure 2 | NRCS Soil Survey Map

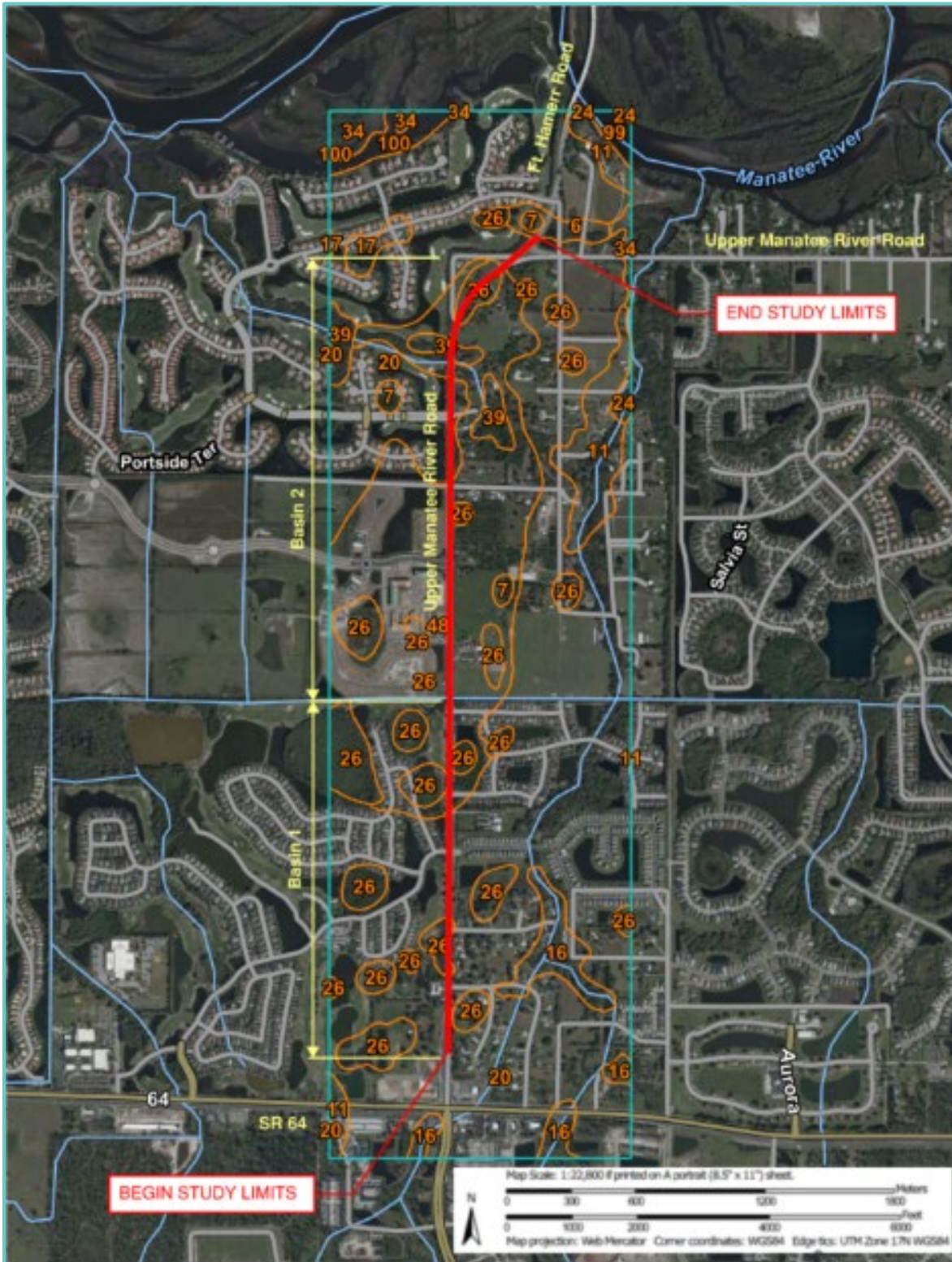


Table 3 | NRCS Hydrologic Soil Groups and SHGWT

Map Unit	Map Unit Name	HSG	Depth to SHGWT (in.)
20	EauGallie fine sand	A/D	6 – 18
26	Floridana, Immokalee, Okeelanta soils	C/D, B/D, A/D	0
39	Parkwood – Limestone Substratum	B/D	6 - 18
48	Wabasso	C/D	0

## 5.0 Storm Surge Hazard / Evacuation Zones

The National Oceanic and Atmospheric Administration (NOAA), in conjunction with the National Hurricane Center (NHC), simulates storm surge inundation from tropical cyclones utilizing the hydrodynamic computer model “Sea, Lake and Overland Surges for Hurricanes” (SLOSH). The NHC provides storm surge information to Federal, State, and local partners to assist in planning processes and risk assessment studies. The SLOSH model simulates hypothetical “near worst-case” scenarios for each hurricane category (1-5). The SLOSH is a composite of the maximum storm surge from numerous hypothetical storm scenarios. Manatee County Emergency Management references hurricane coastal evacuation zones which roughly correspond to the SLOSH-2009 storm tide (surge) limit delineations (see Figure 3). Storm surge inundation height is measured as the rise in water level above the normal tidal level and does not include waves.

Upper Manatee River Road with Fort Hamer Road serves as a north-south connector between two hurricane evacuation routes; SR 64 to the south US 301 to the north, with access to I-75. The proposed four-lane improvements to Upper Manatee River Road should enhance the effectiveness of the roads functionality and lessen risks to the traveling public during an emergency evacuation. Based on NOAA National Storm Surge Hazard Maps, Upper Manatee River Road project limits would be subject to the following storm surge probability:

Category 1 (Evacuation Zone A): Potential surge inundation 11-feet along the Upper Manatee River Road to the north towards the curve at Fort Hamer Road is likely to flood from inland flooding storm surge.

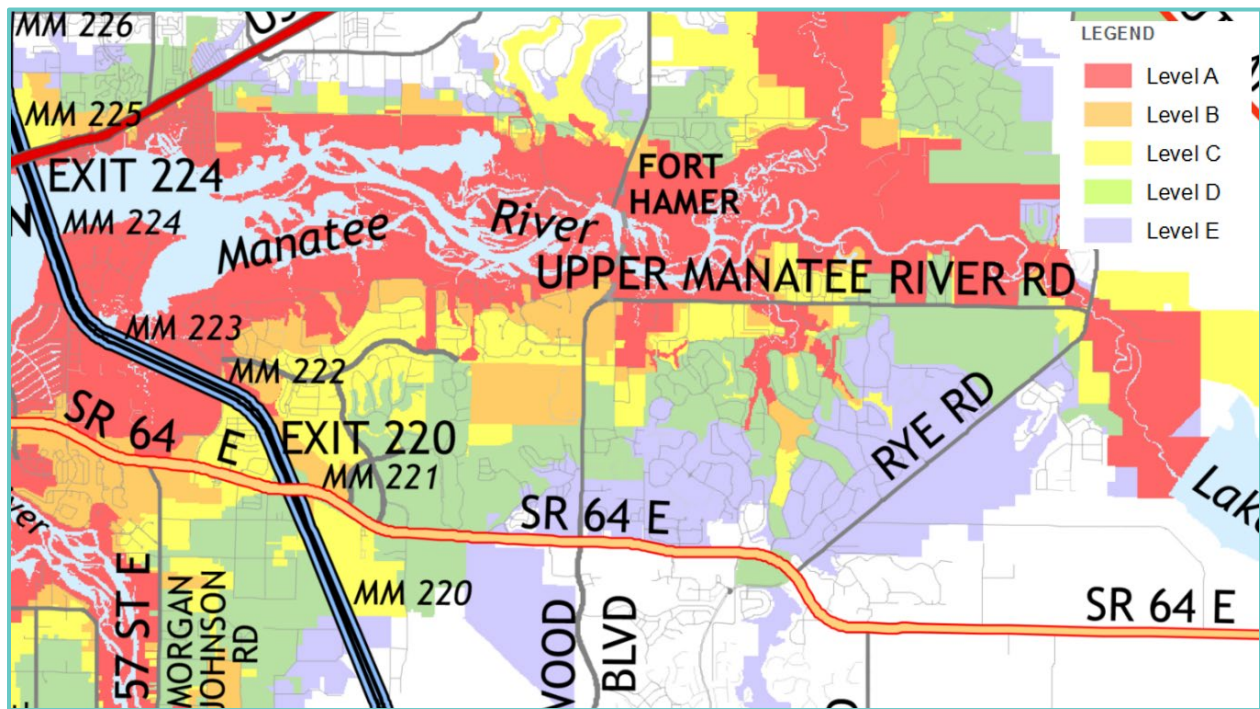
Category 2 (Evacuation Zone B): Potential surge inundation 14-feet could encroach Upper Manatee River Road from Fort Hamer Road south to Waterlefe Boulevard. The NHC Category 2 storm surge approximates FEMA FIRM Zone AE coverage.

Category 3 (Evacuation Zone C): Potential surge inundation 18-feet could encroach Upper Manatee River Road from Fort Hamer Road to south of 3rd Avenue NE.

Category 4 (Evacuation Zone D): Potential surge inundation 27-feet could encroach Upper Manatee River Road from Fort Hamer Road to south of Copperlefe Drive.

Category 5 (Evacuation Zone E): Potential surge inundation 33-feet could encroach Upper Manatee River Road for the entire corridor study limits from Fort Hamer Road, south to the intersection approach to SR 64.

Figure 3 | Manatee County Evacuation Zones



## 6.0 Sea Level Rise

Another risk factor identified by Manatee County Planning is Sea-Level Rise. NOAA Tides and Currents “Sea Level Trends” references Tide Gauge Station 8726520 in St. Petersburg for estimation of the relative sea-level trend in Tampa Bay. The mean higher high tide (MHHW) at this station is +0.78 FT NAVD-88. Based on evaluation of monthly mean sea-level data from 1947 to 2021, the relative sea-level trend is an increase of 2.75 mm / year, or a predicted sea-level rise of 0.90-feet in 100-years, i.e., future MHHW EL. 1.68 NAVD-88 (see Appendix E).

The FDOT Drainage Manual specifies coastal projects must incorporate sea-level rise analysis to assess the vulnerability of flooding over the design life of the facility. However, based on inland proximity and estimated road crown EL. 10 at the approach to the Fort Hamer bridge, Upper Manatee River Road could be affected by coastal sea level rise during a storm surge scenario, applied to watershed modeling during a future phase.

## 7.0 Floodplains

### 7.1 FEMA / Manatee County 100-Year Floodplain

The Federal Emergency Management Agency (FEMA) provides Flood Insurance Rate Maps (FIRMs) to estimate a community’s flooding risks. FEMA provides ongoing coordination with regulatory agencies and municipalities for establishing FIRM coverage of floodplain boundaries and base flood elevations. There are two (2) FIRM panels defining floodplains and floodways along the Upper Manatee River Road corridor study limits (see Appendix B). A summarized review of the FEMA FIRM coverage indicates the Upper Manatee River Road corridor lies within Zone X (Areas outside of the 0.2% annual chance flood) from SR 64 E to the south of Waterlefe Boulevard.

FEMA Zone AE (100-yr. EL. 8.5+/-) categorized as a “Coastal Flood Hazard Area” occurs from south of Waterlefe Boulevard through the northerly limits of the corridor study. **Table 4** below provides a summary of FEMA Flood Insurance Rate Maps (FIRM) coverage for the Upper Manatee River Road corridor study limits.

*Table 4 | FEMA Flood Insurance Rate Maps (FIRM)*

SUMMARY OF FEMA FLOOD INSURANCE RATE MAPS (FIRM)		
UPPER MANATEE RIVER ROAD CORRIDOR		
FIRM PANEL NO.	FROM	TO
<b>12081C0331E</b>	4.5-miles south of SR 64	4.0-miles north of SR 64
<b>12081C0195F</b>	4.0-miles north of SR 64	1.2-miles north of UMRR

## 7.2 Manatee County 25-Year Floodplain

The Manatee County Land Development Code (LDL) Section 717.3.1 indicates that “within any twenty-five (25) year floodplain defined by the County, it shall be a condition of any permit to provide equal excavation on the same lot to compensate for any filling. This prohibition of habitable structure applies only to areas where the mapping of the twenty-five (25) year floodplain has been completed, or where existing water surface profiles can permit the identification of the twenty-five (25) year floodplain”. Therefore, the evaluation of the hydraulic adequacy of cross-drains and storm drains will apply the intent of the LDL by demonstrating no adverse impacts to the documented 25-Year floodplain stage, in concert with “cup-for-cup” volume mitigation as warranted.

## 8.0 Right of Way

The Upper Manatee River Road existing right-of-way has variable width, but it is typically 75-ft wide from 10<sup>th</sup> Avenue E. to 3<sup>rd</sup> Avenue NE. From north of 3<sup>rd</sup> Avenue E, the existing right-of-way widens to approximately 107-feet to the intersection with Fort Hamer Road. Consequently, frontage right-of-way acquisition would be required for the proposed four-lane urban typical section with 120-ft, although reduced width typical section alternatives are being explored with this study. In addition, there are no publicly owned lands available for stormwater management ponds or floodplain mitigation sites. Therefore, acquisition of privately owned parcels will be required. It is anticipated that pond site acquisitions contiguous with the Upper Manatee River Road corridor will typically include frontage acquisition for the proposed roadway corridor expansion.

## 9.0 Existing Cross Drains

The Upper Manatee River Road corridor study limits includes three (3) major cross drains, with locations shown on the drainage maps in **Appendix A**:

Cross Drain 1 is an existing single 30” RCP located approximately 170-ft north of 2<sup>nd</sup> Avenue East (Sta. 149+92). This cross drain has been modified with longitudinal pipe connection to facilitate swale drainage along the

corridor. This cross drain is received by a lateral ditch which ultimately outfalls to Gates Creek, approximately 1,950-ft to the east. It is anticipated this cross drain would be replaced with future improvements.

Cross Drain 2 is an existing single 42" RCP located approximately 647-ft north of Waterlefe Boulevard (Sta. 190+50). This cross drain conveys roadway swale drainage to an existing lateral canal outfall to the Manatee River. It is anticipated this cross drain would be replaced with future improvements.

There is a triple 34"x52" elliptical RCP cross drain under the Waterlefe Boulevard intersection with Upper Manatee River Road. This cross drain conveys comingled offsite drainage along the west side of the corridor. The functionality of this hydraulic crossing must be maintained with future improvements to the corridor.

## 10.0 Existing Drainage

Corridor drainage patterns can be found on the **Appendix A** Drainage Maps. Runoff basins are delineated using LiDar contours, historical plans, permit documents, and aerials.

The Upper Manatee River Road existing corridor is typically a two-lane two-way rural arterial road, with median turn lanes and flush shoulders. Intermittent locations with outside turn lanes with restricted right-of-way width require brief curb and gutter sections with shallow storm drain segments. The existing corridor includes sidewalk along the east side from SR 64 to 2nd Avenue East, along west side from SR 64 to Waterlefe Boulevard. The corridor drains to shallow open grassed conveyance ditches with intermittent driveway side drains and minor cross drains under side street intersections. The corridor roadside ditches are a primary means for conveying offsite drainage.

The Upper Manatee River Road study corridor has no existing stormwater treatment or attenuation systems. Offsite drainage patterns typically drain to the corridor ditches, flowing north to be intercepted either by Cross Drain 1 / lateral ditch to Gates Creek, or Cross Drain 2 / lateral outfall to the Manatee River.

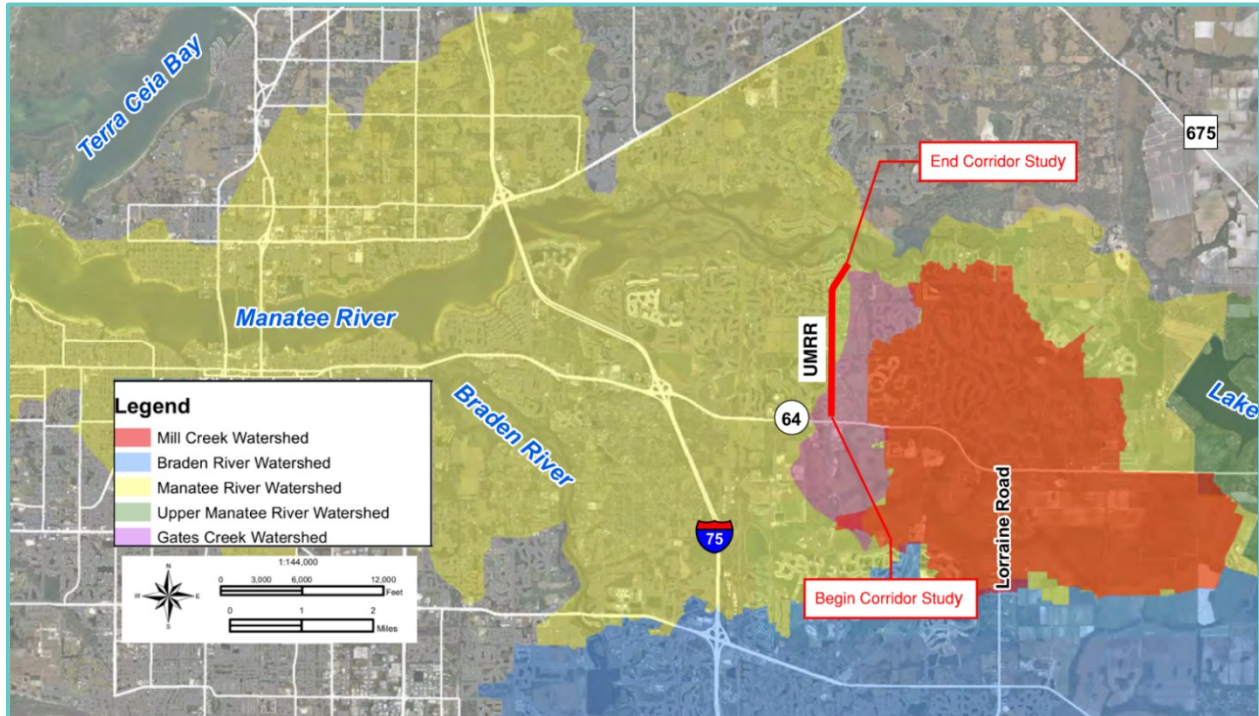
Manatee County Public Works noted the following drainage related maintenance issues along the Upper Manatee River Road corridor study limits, which should be investigated as part of the formal design phase:

- The east side of the corridor between SR 64 and 10<sup>th</sup> Avenue East is an area of concern where maintenance has completed numerous improvements to keep houses from flooding.
- At 108 Upper Manatee River Road, field maintenance and STW Engineering have been working with the property owner to address flooding concerns related to the addition of sidewalk and ditch piping along the frontage to this property.
- The intersection of 3<sup>rd</sup> Avenue NE and Upper Manatee River Road experiences flooding of both lanes during heavy rain events.
- The Upper Manatee River Road southerly extents of the curved alignment between Waterlefe Boulevard and Fort Hamer Bridge experiences overtopping of the northbound lane during heavy rain events.

The Upper Manatee River Road corridor study is situated within two (2) open basin watersheds; The Gates Creek Watershed (Manatee River tributary) from Begin Corridor Study limits to approximately 2<sup>nd</sup> Avenue E. The Manatee River Watershed extends north from 2<sup>nd</sup> Avenue East to End Corridor Study Limits (**see Figure 4**).

The southerly limits of the Upper Manatee River Road approach to the SR 64 intersection is an urban curb and gutter section, with a curb inlet storm drain system (SWFWMD ERP 43016872.061, 43016872.071). From the north leg of the SR 64 intersection, approximately 1,950-ft of Upper Manatee River Road receives treatment and attenuation within the FDOT's Pond 5, located within the Copperlefe subdivision. Pond 5 outfalls to Gates Creek, northeast of SR 64.

Figure 4 | Watershed Map



The Upper Manatee River Road corridor study limits is situated within the Gates Creek from SR 64 to just to the north of 2nd Avenue East. Gates Creek is a 4-mile stream that encompasses approximately 7 square miles within the overall Manatee River Watershed. Gates Creek Watershed is bounded to the west and north by the Manatee River (Above Braden River) Watershed, and to the south and the east by the Mill Creek Watershed. The watershed discharges to the Manatee River downstream of the Manatee Reservoir dam.

The Upper Manatee River Road corridor study limits is situated within the Manatee River Watershed from just to the north of 2nd Avenue East, through the north end of the corridor study limits at Fort Hamer Road. The Lower Manatee River Watershed is a 23.6-mile stream in central Manatee County, of which approximately 4 square miles is encompassed by the Manatee River Watershed above the Braden River.

At the time of this corridor evaluation, Gates Creek has no watershed management plan. Therefore, Gates Creek and the Manatee River Watershed within the Upper Manatee River Road corridor study limits have not been thoroughly evaluated or modeled by Manatee County. Consequently, the preliminary sizing of stormwater management ponds for the Upper Manatee River Road corridor evaluation are based on SWFWMD presumptive water quality and water quantity volumes, with no special basin criteria. Manatee County Watershed Management staff offered the following recommendations for implementation of the watershed models in the future design phase of Upper Manatee River Road:

- The design phase for Upper Manatee River Road will involve creating existing and post condition watershed models for establishing tailwater conditions.
- The Mill Creek Watershed Model could be used to set tailwater conditions for the Manatee River at Fort Hamer Road, adjusted based on location.
- Post stormwater management would be integrated into post-condition watershed models to demonstrate no stage increase over pre-condition throughout the models.



- Watershed models should be used to set pond control elevations to match initial stage of receiving nodes, considered lowest SHW for pond design.
- Use watershed models to analyze existing crossings and areas of inundation, including improvements to receiving outfalls if warranted.

### 10.1 FDEP Impaired Waters

The Florida Department of Environmental Protection has established a Waterbody Identification System (WBID) for monitoring and addressing water quality impairment. There are two (2) WBID basins covering the Upper Manatee River Road corridor study limits, each under the group 2 Tampa Bay Tributaries designation:

WBID 1874 represents Gates Creek basin coverage, which extends from south of SR 64 to just to the north of 2<sup>nd</sup> Avenue E. The FDEP 2021 Comprehensive Verified List assesses this WBID as being Impaired by Fecal Coliform Bacteria. Consequently, WBID 1874 is not impaired for nutrients or dissolved oxygen, and therefore does not require demonstration of pre/post pollutant loading net improvement at the time of this study.

WBID 1848B represents Manatee River above Braden River which extends north of 2nd Avenue E. to beyond the northerly limits of the corridor study. The FDEP classifies this WBID as "Waters Not Attaining Standards" (WNAS) and is assessed as being Impaired by Nutrients (Chlorophyll-a).

In addition to WBID 1848B being assessed for nutrient impairment, this WBID lies within the Upper Manatee River Road corridor study limits are identified under the Group 2 Tampa Bay Tributaries. The Tampa Bay National Estuary Program (NEP) was established in 1991, in conjunction with the FDEP. The NEP has adopted the 2009 Reasonable Assurance Addendum to pursue the continued attainment of water quality standards for Tampa Bay related to nutrients. The NEP has designated Tampa Bay as a Category 4b waterbody (impaired, but no Total Maximum Daily Load determination required). Therefore, the stormwater management pond for Upper Manatee River Road within WBID 1848B must provide demonstration of net improvement of nutrient loads by performing a pre/post pollutant loading analysis based on existing land use and proposed land use. The need to comply with this requirement for both WBIDs 1874 and 1848B should be investigated in the final design phase.

### 10.2 Drainage Conveyance

Internal Storm drain System Design Event: Upper Manatee River Road, being designated as part of the Manatee County "Major Thoroughfare Plan" shall have the roadway's internal drainage system design for the 25-year Rational event (instead of the standard 10-year Rational event), critical duration based on project site's time of concentration.

Inlet Spacing: Inlets to be spaced as to limit the spread from a 10-year frequency rainfall to have five -feet measured longitudinally on a continuous grade. Inlet spacing based on a maximum of 400-feet gutter flow.

Urban curb and gutter roadways require a minimum 0.3% longitudinal grade in conjunction with the curb inlet storm drain systems.

Tailwater Effect: Tailwater effects shall be included in storm drain design - receiving pond tailwater computed by routing storm frequency commensurate with the storm drain design event. In all cases, the hydraulic grade line shall not be higher than 0.25-feet below the gutter line elevation at any structure. All energy losses (entrance, exit, friction, structure, etc.) must be considered.

Storm Drain Pipes: Where possible, place pipes on minimum grade of 0.2 percent and provide  $V = 2.5$  fps (full or half full). Minimum pipe size is 15" for longitudinal pipe runs 75-feet or less. Minimum pipe size 18" for low points on roadways.

Existing offsite drainage interception within the roadway corridor storm drains or ditches is a key drainage element with the Upper Manatee River Road corridor and must be maintained with this project. Roadway grading may consider accepting minor areas of offsite runoff over the sidewalks to be received by the internal storm drain system. Alternatively, offsite drainage may require back of sidewalk inlet interception to the internal storm drain or a separate offsite conveyance system with direct discharge to the existing condition outfall. Offsite sheet flow toward the corridor may require back of sidewalk swale interception, in conjunction with inlet / storm drain collector systems.

### 10.3 Roadway Design High Water

New streets shall be designed with traffic lanes a minimum of six-inches free board above the design storm base flood elevation measured from the crown of the road: Streets, bridges, and culverts of arterial and collector facilities not within the published 100-year floodplain, the design storm shall be the fifty (50) year return frequency.

Multi-lane roads shall have the outside lane with one-half of the lane width clear of the 100-year base flood.

### 10.4 Roadway Base Clearance

Roadway FDOT Context Classifications C4 Urban General may be designed to provide a minimum of 1-foot Base Clearance Water Elevation (BCWE) between base course of the roadway and the seasonal high groundwater table. However, BCWE less than 3-feet will require reduction in pavement design resilient modulus per FDOT criteria. In all situations, the crown of the proposed roadway shall be no lower than 18-inches below the elevation of the adjacent ground after development.

### 10.5 Environmental Resource Permits

The Southwest Florida Water Management District (SWFWMD) existing Environmental Resource Permits (ERPs) listed in **Table 5** were used as resources for drainage basin patterns, permitted control elevations and design highwater stages considered in the preliminary pond site sizing analysis

*Table 5 | Environmental Resource Permits*

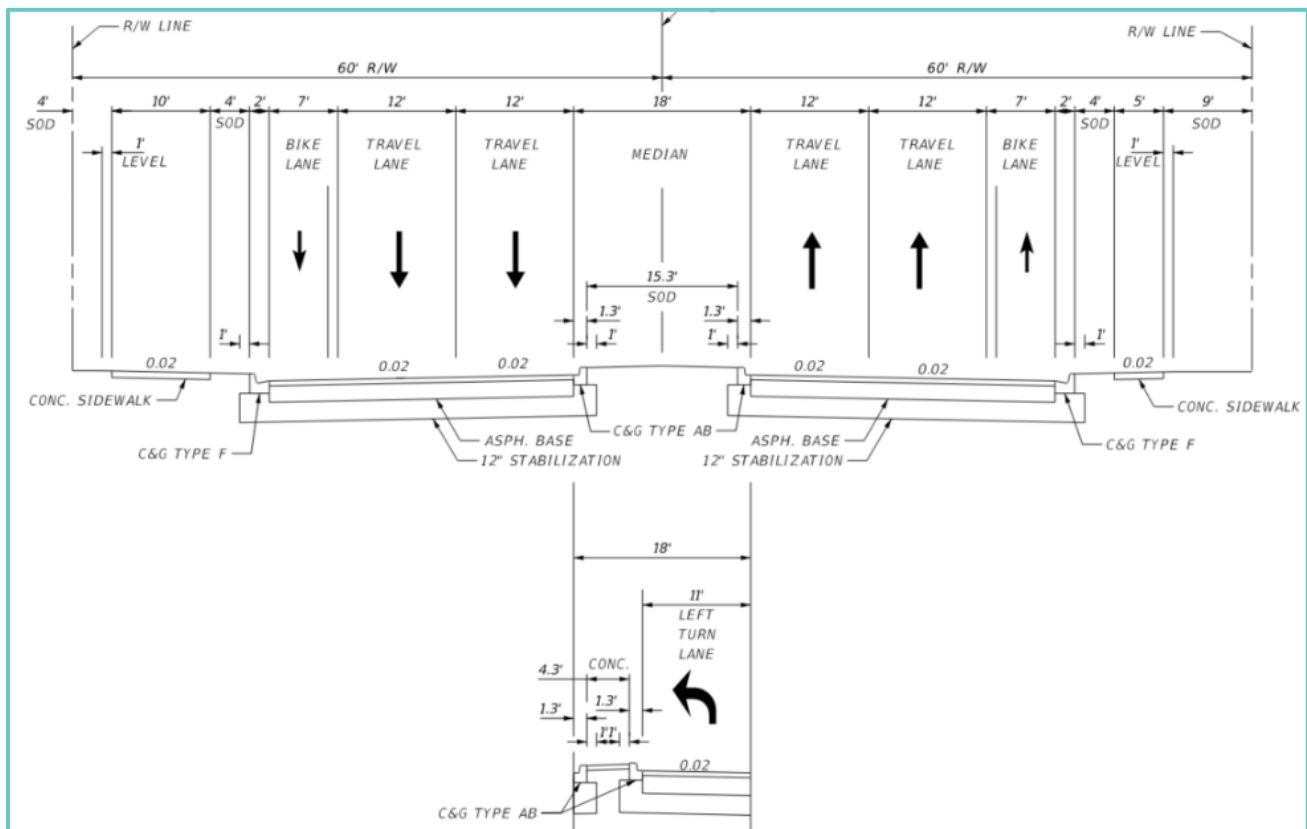
Permit Number	Project
43016872.061	SR 64 FDOT Pond Revision (Copperlefe)
43016872.071	FDOT SR 64 (E. of Lena Road to E. of Lakewood Ranch Blvd.
43071721.000 /003	Copperlefe
43041721.000	MI Homes
430220025.020	Brixley – Manatee Warner Crossing, LLC
43041367.000	Fort Hamer Bridge
4413882.000	Gates Creek Subdivision

<b>434265.02 / 03 / 04</b>	Green Field Plantation
<b>43027367.020</b>	Moors Dairy Subdivision, Phase 1 and Boulevard
<b>Exemption 673045</b>	Upper Manatee River Road Improvements
<b>Exemption 691024</b>	Upper Manatee River Road Improvements
<b>43011197.002</b>	Upper Manatee River Road (Permit Withdrawn)
<b>43011706.000</b>	Waterlefe Golf and River Club

### 11.0 Proposed Typical Section

The Upper Manatee River Road Corridor study is based on implementation of one typical section throughout the study limits. The typical section is based on a proposed 120-ft right-of-way corridor which will require property acquisition to expand the existing right-of-way average width of 66-ft. The proposed typical section provides four 12-ft lanes, with 7-ft bike lanes, 5-ft sidewalk, and 10-ft multi-use path. The typical section includes urban curb and gutter which will be drained by curb inlet longitudinal storm drain system connections to the proposed stormwater management ponds. The Upper Manatee River Road Typical Section is depicted in **Figure 5**.

Figure 5 | Proposed Typical Section



### 12.0 Floodplain Impacts

No floodplain impacts are anticipated to occur within Upper Manatee River Road Basin 1 (Gates Creek Watershed), as a result of the roadway widening being located within FEMA Zone X, “Areas determined to be located outside of the 0.2% annual chance flood”.

required for the four-lane improvements to Upper Manatee River Road. Based on the described FEMA Zone X designation for corridor Basin 1, “cup for cup” volume mitigation of impacts to the FEMA 100-Year floodplain is not required, and the preferred Pond Site 1E does not require a floodplain mitigation site (FMS) in this preliminary analysis.

The Upper Manatee River Road Basin 2 limits is located primarily within FEMA Zone AE, categorized as a “Coastal Flood Hazard Area” associated with the Manatee River. According to the FEMA Flood Insurance Study (FIS) No. 12081CV001B (August 26, 2021), Coastal Flood Hazard Areas are typically caused by storm events. For areas on or near ocean coasts, large rivers, or large bodies of water, the base flood elevation and floodplain boundaries may need to be based on additional components, including storm surges and waves. Based on FIS Flood Profile Panel 34T for the Manatee River, the corridor study limits is located within the “Coastal Flood Effects from Tampa Bay”, downstream of the still water riverine 100-Year floodplain. In addition, FIS Flood Profile Panel 31P for Gates Creek indicates coastal flood effects extend to the north of 2<sup>nd</sup> Avenue., although the Gates Creek floodplain is east of the Upper Manatee River Road corridor at this location (see **Appendix C** for FEMA FIRM and FIS Flood Profile Panels).

Based on the described FEMA Zone AE “Coastal Flood Hazard Area” designation for corridor Basin 2, “cup for cup” volume mitigation of impacts to the FEMA 100-Year floodplain is not required above the overtopping elevation between impacted floodplain and the receiving tidal water body. However, “cup for cup” volume mitigation of impacts to the FEMA 100-Year floodplain below the overtopping elevation is required. Outfall ditch inverts or seasonal high water level (SHWL) of wetlands are examples of overtopping elevations (see SWFWMD Pre-Application Meeting notes in the **Master Study Report**).

Manatee County Public Works provides mapped delineation of the 25-Year Floodplain. The 25-Year Floodplain map has not been updated within the corridor study limits which reflect development or the latest FEMA FIRM. The design phase will address 25-Year Floodplain Impacts with the updated mapping efforts.

### 13.0 Pond Design Criteria

Coordination / Pre-application meetings were held with Manatee County and the Southwest Florida Water Management District (SWFWMD), respectively for the purpose of outlining pond design criteria and regulatory permitting requirements (see meeting notes in the **Master Study Report**). The pond design criteria provided by Manatee County and SWFWMD criteria is summarized in **Tables 6** and **7**.

There are two (2) primary watersheds within the Upper Manatee River Road corridor study limits; Basin 1; Gates Creek watershed from SR 64 E. to the north of 2nd Ave. East, and Basin 2; Lower Manatee River (Above Braden River) watershed from north of 2<sup>nd</sup> Avenue East to north of Hamer Road. Each watershed has SWFWMD presumptive water quality and water quantity criteria with no special basin criteria. However, a pre / post nutrient loading analysis is required for Basin 2.

The preliminary pond sizing analysis in this study conservatively estimates water quality requirements based on treating the entire 120-foot proposed corridor width as impervious area. However, for the future design phase,

the SWFWMD allows presumptive water quality to be based on the area of new impervious only, including equivalent treatment of comingled existing and new impervious areas to the pond.

Each preliminary pond site analysis includes a cursory hydraulic feasibility analysis. The purpose of the analysis is to estimate if a reasonable hydraulic gradient slope for a storm drain system projected from the pond's design high water stage will result in freeboard below a predicted critical low edge of travel lane at the top of the basin. The preliminary pond sizing analysis in this study is based on SWFWMD presumptive criteria outlined in the **Tables 6 and 7** for Gates Creek and Lower Manatee River, respectively.

Basin 1 ponds in WBID 1874 do not require a pre/post pollutant loading analysis. However, the pond Site analysis is based on use of the SWFWMD's "Wet Retention Conservation Pool" criteria which is a preferred wet treatment methodology for nutrient removal if the NEP's "Reasonable Assurance" criteria is enforced in the future.

The Upper Manatee River Road Basin 2 encompassed by WBID 1848B is FDEP assessed as being Impaired by Nutrients (Chlorophyll-a). Therefore, the Basin 2 preliminary pond sites include a cursory pre / post nutrient removal analysis, which estimates NEP "Reasonable Assurance" water quality standards can be met.

None of the preferred pond sites are estimated to be within the radius of influences for private water supply wells (75-feet) or public water supply wells (100-feet) identified on the SWFWMD permitting website.

*Table 6 | Pond Design Criteria – Gates Creek Watershed*

Pond Design Criteria – Gates Creek Watershed		
Pond Design Criteria – Lower Manatee River Watershed		
Design Element	Source	Criteria
<b>Water Quality, Wet Detention</b>	SWFWMD Applicant's Handbook Vol. II, Part IV, Section 4.1a.	SWFWMD wet detention water quality one inch of runoff from the contributing area.
<b>Water Quality Conservation Pool</b>	SWFWMD TP/SWP022 (Alt. 3), June 1997	Design pool volume below the control elevation to eight feet depth must be equal to one inch of runoff plus the calculated volume based on the average residence time of 14 days and average total rainfall during the wet season (122 days, June through September), and must be no less than 1.667 inches from contributing area.
<b>Water Quantity, Rate Control</b>	SWFWMD Applicant's Handbook Vol. II, Part III, Section 3.1	SWFWMD 25-Yr, 24 Hr. (FLMOD Rainfall Distribution) Post Rate ≤ Pre. Rate Attenuation (Criteria full description truncated as applied to this preliminary pond sizing analysis based on pond size detention volume equal to post-runoff volume – pre-runoff volume).
<b>Pond Geometry</b>	SWFWMD Applicant's Handbook Vol. II, Part V, Section	1:4 pond slopes down to 2-ft below control elevation, 1:2 slopes in conservation pool down to 8-ft max. depth.

	5.4.1 / TP/SWP022 (Alt. 3), June 1997	
	Manatee County Stormwater Management Design Manual, Section 2.3.16	Retention basins constructed for flow attenuation purposes must have sufficient volume to contain the volume of post development runoff from the design storm rainfall, or shall have sufficient volume to contain said runoff volume with a minimum of one (1) foot of freeboard.
	Manatee County Stormwater Management Design Manual, Section 2.4.11	Detention and retention basins shall have an unobstructed access route at least 20-feet wide from the nearest street and shall have unobstructed maintenance access area a minimum of 20-feet from the top of bank completely around their perimeter.

Table 7 | Pond Design Criteria – Lower Manatee River (Above Braden River)

Pond Design Criteria – Lower Manatee River Watershed		
Design Element	Source	Criteria
<b>Water Quality, Wet Detention</b>	SWFWMD Applicant's Handbook Vol. II, Part IV, Section 4.1a.	SWFWMD wet detention water quality one inch of runoff from the contributing area.
<b>Water Quality Conservation Pool</b>	SWFWMD TP/SWP022 (Alt. 3), June 1997	Design pool volume below the control elevation to eight feet depth must be equal to one inch of runoff plus the calculated volume based on the average residence time of 14 days and average total rainfall during the wet season (122 days, June through September), and must be no less than 1.667 inches from contributing area.
<b>Water Quantity, Rate Control</b>	SWFWMD Applicant's Handbook Vol. II, Part III, Section 3.1	SWFWMD 25-Yr, 24 Hr. (FLMOD Rainfall Distribution) Post Rate <= Pre. Rate Attenuation (Criteria full description truncated as applied to this preliminary pond sizing analysis based on pond size detention volume equal to post-runoff volume – pre-runoff volume).
<b>Pond Geometry</b>	SWFWMD Applicant's Handbook Vol. II, Part V, Section 5.4.1 / TP/SWP022 (Alt. 3), June 1997	1:4 pond slopes down to 2-ft below control elevation, 1:2 slopes in conservation pool down to 8-ft max. depth.

	Manatee County Stormwater Management Design Manual, Section 2.3.16	Retention basins constructed for flow attenuation purposes must have sufficient volume to contain the volume of post development runoff from the design storm rainfall, or shall have sufficient volume to contain said runoff volume with a minimum of one (1) foot of freeboard.
	Manatee County Stormwater Management Design Manual, Section 2.4.11	Detention and retention basins shall have an unobstructed access route at least 20-feet wide from the nearest street and shall have unobstructed maintenance access area a minimum of 20-feet from the top of bank completely around their perimeter.

### 14.0 Permitting Requirements

Anticipated permit requirements include the following.

- An Environmental Resource Permit (ERP) from the SWFWMD per F.A.C. 62-330.
- Florida Department of Environmental Protection (FDEP) State 404 Program per F.A.C. 62-331.
- A National Pollutant Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) per the Clean Water Act.

### 15.0 Proposed Drainage

The Upper Manatee River Road corridor study limits is segmented into two (2) corridor drainage basins, resulting from hydraulic divides associated with two (2) cross drains and watershed divides

*Table 8 | Proposed Basins*

Basin / Pond	Begin Station	End Station	Prelim. Water Quality (ac-ft)	Prelim. Water Quantity (ac-ft)	Prelim. Control EL.
1	109+57	153+93	1.10	1.23	14.10
2	153+93	208+88	1.35	1.92	8.00

The southerly limits of the Upper Manatee River Road approach to the SR 64 intersection is an urban curb and gutter section, with curb inlet storm drain system (SWFWMD ERP 43016872.061, 43016872.071). From the north leg of the SR 64 intersection, approximately 1,950-ft of Upper Manatee River Road to Sta. 138+00, including the temporary lane transition two-lanes, receives treatment and attenuation within the FDOT’s Pond 5. Existing wet detention Pond 5 is located offsite within the Copperlefe subdivision and outfalls to Gates Creek. A portion of The FDOT’s basin and existing storm drain system to Pond 5 is within the Upper Manatee River Road Basin 1 limits. However, the FDOT’s storm drain and pond will be maintained as a separate system from the proposed basins with the Upper Manatee River Road corridor evaluation. The increased impervious pavement resulting from the four-lane replacement of the temporary lane transition will be compensated to maintain equivalent permitted basin conditions to the FDOT’s Pond 5.

The northerly limits of Upper Manatee River Road is anticipated to have proposed lane transitions into Fort Hamer Road. This preliminary pond sizing analysis presumes this additional pavement will receive treatment and attenuation within the existing wet detention pond built with the Fort Hamer Bridge project, requiring a SWFWMD ERP modification.

### 16.0 Preliminary Pond Site Analysis

The preliminary pond site sizing analysis are included in **Appendix B**. A formal cost estimate for pond site parcel acquisition or site construction was not available for this preliminary pond site selection process. Therefore, the preliminary pond site selection process used in this analysis is based on evaluation of the following variables for estimating site suitability:

- Proximity to existing outfall.
- Hydraulic feasibility for recipient basin
- Preference for use of publicly owned lands (none were identified)
- Joint Use Pond potential
- Opportunity for shared onsite floodplain mitigation
- Minimization of number of parcels required or parcel splitting.
- Avoidance of wetlands and floodplain limits.
- Avoidance of high-risk contamination sites.
- Review of cultural resource evaluations
- Review of threatened and endangered species evaluations.

#### 16.1 Basin 1

The Upper Manatee River Road Basin 1 extends 4,436-ft from the approximately 956-ft north of SR 64 intersection to approximately 580-ft north of 2<sup>nd</sup> Avenue East. The existing corridor is estimated to have an 0.2% average slope toward the existing lateral ditch to the Gates Creek outfall. Basin 1 is situated entirely within FEMA Zone X; therefore, floodplain mitigation sites will not be required.

Due to the extensive development along the corridor, only two preliminary pond sites are evaluated for Basin 1 (**See Figure 6**).

Pond Site 1W is estimated as a 1.00-acre total acquisition need of Parcel 546900002. This site is located along the west side of Upper Manatee River Road between approximately Sta. 149+76 to Sta. 152+26, LT. The following are the key variables considered in ranking the suitability this site:

- This parcel was evaluated an occupied residence under single ownership.
- The parcel is located immediately across from the existing lateral ditch outfall to Gates Creek. Consequently, a wet detention pond on this site is located at the low point of the basin and offers adequate feasibility for without flooding the estimated low edge of travel lanes.
- This parcel contains monitoring and public supply wells which would require the wells to be abandoned and capped.
- However, the estimated required pond size to provide SWFWMD presumptive water quality and water quantity criteria would exceed the size of this parcel. Therefore, Pond Site 1W has been dismissed as viable alternative.

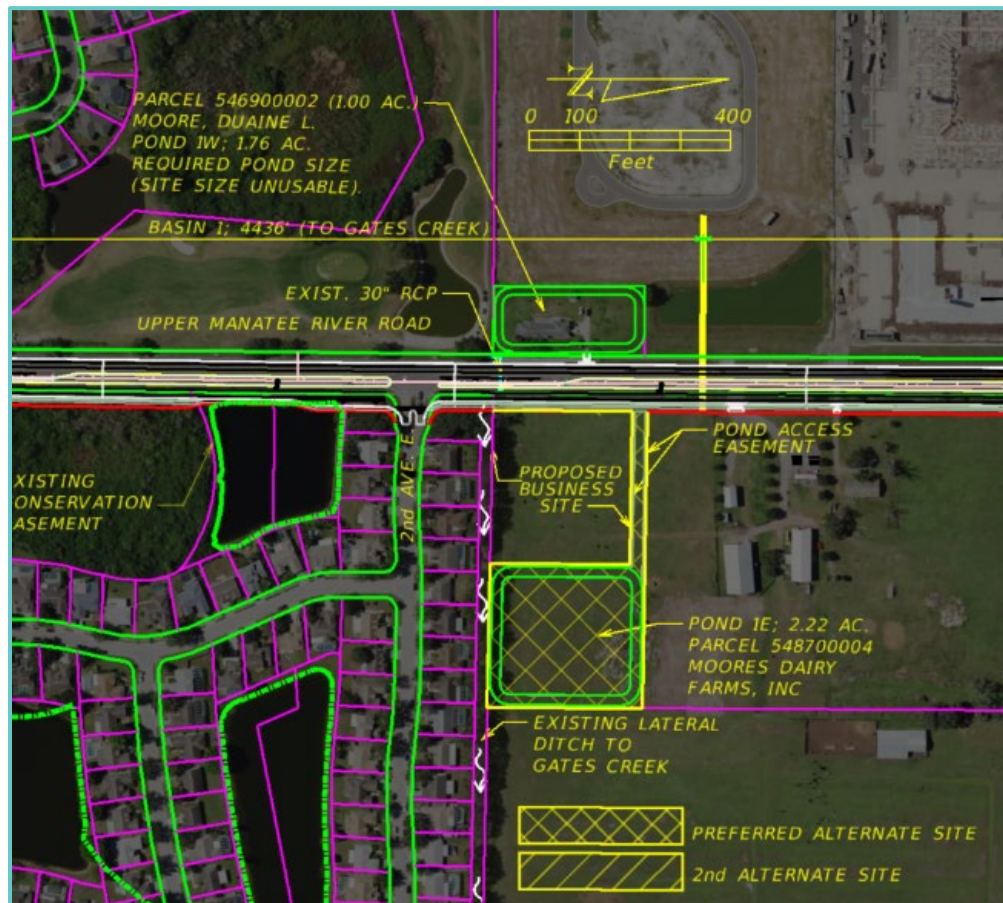


Pond Site 1E is estimated as a 2.22-acre partial acquisition within Parcel 548700004. This site is located along the east side of Upper Manatee River Road between approximately Sta. 149+76 to Sta. 152+85, RT. The following are the key variables considered in ranking the suitability of this site:

- This partial acquisition is within a 22.86-acre active agricultural site under single ownership.
- The acquisition site is located immediately adjacent to the lateral ditch outfall to Gates Creek. Consequently, a wet detention pond on this site is estimated to receive the lower basin limits without flooding the estimated low edge of travel lanes.
- The preliminary sizing of Pond 1E is based on accommodating SWFWMD presumptive water quality and water quantity criteria (with no pre/post nutrient net improvement criteria). However, this pond site being within a larger parent tract allows for flexibility in pond size, in the event a pre/post pollutant loading analysis is required.
- This site is outside of the 100-foot radius of influence for public water supply wells identified on the SWFWMD permit information website.
- The site requires acquisition of an access easement in order to locate the pond east of a proposed commercial development along the corridor frontage adjacent to the existing lateral ditch outfall. However, the pond site being located within a larger parent tract allows sufficient area for an access easement.

Based on the above comparative evaluation, **Pond Site 1E is ranked as the only feasible pond site for this basin.**

Figure 6 | Basin 1 Preliminary Pond Sites



### 16.2 Basin 2

The Upper Manatee River Road Basin 2 extends 5,379-ft from approximately 580-ft north of 2<sup>nd</sup> Avenue East to Fort Hamer Road intersection. Basin 2 outfalls approximately 1,565-ft south of Fort Hamer Road intersection (Sta. 190+50) to existing Cross Drain 2 and lateral ditch outfall to the Manatee River. The existing corridor is estimated to have an 0.2% average slope towards the outfall.

The proposed widening of Upper Manatee River Road Basin 2 is located within Zone AE “Coastal Flood Hazard Area” associated with storm surge. Therefore, “cup for cup” volume mitigation of impacts to the FEMA 100-Year floodplain above the basin overflow stage is not required, and no Floodplain Mitigation Sites (FMS) are investigated. Mitigation of floodplain impacts below the basin overflow stage will be addressed as part of the design phase.

Two preliminary pond sites are evaluated for Basin 2 (**See Figure 7**).

Pond Site 2E2 is estimated as a 2.47-acre pond site partial acquisition within 5.00-acre Parcel 554510057. This is an occupied residential site under single ownership, located along the east side of Upper Manatee River Road. The site is located approximate 450-feet north of the Basin 2 outfall, approximately from Sta. 193+60 to Sta. 195+60, RT. The following are the key variables considered in ranking the suitability this site:

- This site would be a partial acquisition parcel, evaluated to be an occupied residence under single ownership.
- The parcel is located on higher ground, approximately 1,550-ft. south of the cross drain 2 outfall. This site is the farthest distance from the outfall of the two alternates, requiring approximately 830 linear feet of additional storm drain length than the other pond site alternate.
- This parcel contains a domestic water supply well which would require the well to be abandoned and capped.
- The preliminary pond site analysis estimates this site to hydraulically feasible, being situated within 450-feet of the existing cross drain outfall, and within the lowest reaches of Basin 2.

Pond Site 2E1 is estimated as a 2.47-acre pond site partial acquisition within 5.00-acre Parcel 55451007. This is an agricultural site with no occupied residence, under single ownership. The site is located along the east side of Upper Manatee River Road, immediately adjacent to the Basin 2 outfall, approximately from Sta. 188+81 to Sta. 192+13, RT. The following are the key variables considered in ranking the suitability this site:

- This site would be a partial acquisition parcel, evaluated to be an agricultural site with no occupied residence, under single ownership.
- This site is outside of the 100-foot radius of influence for a domestic water supply well identified on the SWFWMD permit information website.
- The preliminary pond site analysis estimates this site to hydraulically feasible, being situated immediately adjacent to the existing cross drain outfall, and within the lowest reaches of Basin 2.

Based on the above comparative evaluation, Joint use **Pond Site 2E1 is ranked as the Preferred Alternate**, based on no apparent occupied dwelling on the site, and being the most hydraulic suitable being located directly at the outfall.

**Pond Site 2E2 is ranked as the 2<sup>nd</sup> Alternate** based on the site involving an occupied dwelling, and having slightly less suitable hydraulic conditions, increased costs associated with an extended storm drain system from the pond's control structure to the outfall. However, Site 2E2 is evaluated to be a viable pond site for Basin 2.

Figure 7 | Basin 2 Preliminary Pond Sites



## 17.0 Wetlands, T&E Species, Cultural Resource and Contamination Pond Site Assessments

Pond Site preliminary assessments for Wetlands, threatened and endangered (T&E) Species, Cultural Resources and Contamination Screening are included in separate technical memorandums with this corridor Study. **Table 9** below provides a summary these preliminary assessments.

Table 9 | Pond Site Wetlands, T&E Species, Cultural Resources and Contamination

Pond Site	Wetland Impact (acres)	T&E Species Involvement	Cultural Resources	Contaminating Screening
1E	0	Low	Low	Low
2E1	0	Low	Low	None
2E2	0	Low	Low	None

### 18.0 Conclusion

The Upper Manatee River Road corridor study limits is preliminarily evaluated to have sufficient pond siting opportunities for providing stormwater management for meeting design and permitting requirements set forth by Manatee County and the Regulatory Agencies. However, the preliminary pond site analysis for Basin 1 identifies only one viable pond site alternate due to the extensive development along the corridor and limited availability of parcels large enough to accommodate the required pond size. The requirement for floodplain mitigation sites is not anticipated within the corridor study limits.

**Appendix A – Drainage Maps**



MATCH LINE - STA. 155+09

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SCALE AS NOTED DESIGNED BY SE DRAWN BY SE CHECKED BY BR		HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232		DATE 09/2021 PROJECT NO. 6107760 7:55:12 PM		<b>MANATEE COUNTY PUBLIC WORKS</b>		DESIGN ENGINEER JUAN C. LOPEZ FL. LICENSE NO. 41084 PW:\		<b>DRAINAGE MAP</b> <b>UPPER MANATEE RIVER ROAD</b>		SHEET NO. 1 OF 2	
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MATCH LINE - STA. 155+09

MATCH LINE - STA. 215+63

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SCALE AS NOTED		HDR ENGINEERING, INC.		DATE 09/2021		DESIGN ENGINEER JUAN C. LOPEZ		SHEET NO. 2 OF 2
DESIGNED BY SE		2601 CATTLEMEN ROAD, SUITE 400		PROJECT NO. 6107660		FL. LICENSE NO. 41084		
DRAWN BY SE		SARASOTA, FLORIDA 34232		7:58:06 PM		10/14/2021		
CHECKED BY BR								
No.	REVISIONS	DATE	BY					



**MANATEE COUNTY PUBLIC WORKS**

**DRAINAGE MAP LORRAINE ROAD**

PREFERRED ALTERNATE SITE  
 2nd ALTERNATE SITE  
 AERIAL FLIGHT DATE: 2020  
 VERTICAL DATUM: NAVD-1988

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# Appendix B – Preliminary Pond Site Sizing Analysis

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# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet _____	Of _____

BASIN NO. 1: POND 1E Parcel 546900002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)						
EXISTING BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	109+57.00	153+93.00	4436.00	52.80	5.38	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious SW	109+57.00	153+93.00	4436.00	12.00	1.22	
Open Space (Good)	109+57.00	153+93.00	4436.00	55.20	5.62	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					2.01	

Proposed BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	109+57.00	153+93.00	4436.00	120.00	12.22	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious					0.00	
Open Space (Good)					0.00	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					0.98	
Pond Control					1.03	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: POND 1E Parcel 546900002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

Peak Sensitive? (Y or N) **N** Could require capacity improvements to 2nd Ave. E. Lateral Ditch to Gates Creek.

**BASIN NO. 1: POND 1E Parcel 546900002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

**Existing CN**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	6.60	
Open Space (Good)	B/D	80	0.20	5.62	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	2.01	
Total				14.23	ac.
			CN	88.3	
			C	0.55	

25-year, 24-hour rainfall, P =	<b>8.72</b>	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	1.32	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	7.32	in	
25-year, 24-hour runoff volume =	8.68	ac-ft	

**Proposed CN and Runoff Coefficient**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	12.22	
Pond Surface	-	100	1.00	1.03	
Open Space (Good)	B/D	80	0.20	0.98	
Total				14.23	ac.
			CN	96.9	
			C	0.90	

25-year, 24-hour rainfall, P =	8.72	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	0.32	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	8.35	in	
25-year, 24-hour runoff volume =	9.90	ac-ft	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: POND 1E Parcel 546900002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

**Required Treatment Volume (Wet Conservation Pool)**

Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*  
 $TV = \text{Basin Area} \times 1 \text{ in} \times (1 / 12)$   
 TV = 1.10 ac-ft

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff  
 Required attenuation volume = 1.23 ac-ft

**Required Pond Volume**

Required pond volume = (Above Control Elevation)  
 Required pond volume = 1.23 ac-ft  
 Addl. Volume to expand conservation Pool = 1.48 ac-ft

**Proposed Pond (Wet Detention)**

Existing Ground = 17.5 ft (NAVD-88)  
 Top of bank = 17.5 ft (NAVD-88) *AVG*  
 Groundwater elevation = 14.1 ft (NAVD-88)  
 Control elevation = 14.1 ft (NAVD-88)

Max allowable peak stage = Control elevation + treatment stack  
 Max allowable peak stage = 16.5 ft (NAVD-88)

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation  
 Drawdown + attenuation depth = 2.4 ft

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	12.22 Ac =	11.61
Rational C:	<b>Pond Surf.</b>	1.00 x	1.03 Ac =	1.03
	<b>Pervious</b>	0.35 x	.98 Ac =	0.34

$\frac{11.61 + 1.03 + 0.34}{12.98} = 0.91$   
 Drainage Project Area (A) = 14.23 Ac  
 CA = 12.98

Weighted (C) = 0.91

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr  
 Wet season duration (W) = 122 Days  
 Pool Residence Time (R) = 14 Days

14-day residence volume VR = (A) \* (C) \* (P/W) \* (R) \* (1-ft / 12-in)  
 14-day residence volume VR = 3.97 Ac-Ft

Required 21-day residence volume VR = (A) \* 1.5 \* (0.667-inch) \* (1-ft / 12-in)  
 Minimum required 21-day residence volume VR = 1.19 Ac-Ft

**REQUIRED 21-DAY RESIDENCE VOLUME = 3.97 Ac-Ft**

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: POND 1E Parcel 546900002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

WET TREATMENT WATER QUALITY VOLUME = WQ)

WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = 1.10 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 5.07 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 5.16 Ac-Ft

Cubed pond footprint at center of attenuation stack = 1.13 ac  
 Cubed side length at center of attenuation stack= 222 ft

Bank length at Control El. = 212 ft  
 Area at Control El. = 1.03 ac

Bank length at DHW. = 231.19 ft  
 Area at Control DHW = 1.23 ac

**Conservation Pool Depth = 6.0 ft**  
 Pool Length 2 ft deep at 1:4 = 195.99  
 Pool Area at 2 ft depth = 0.88 ac  
 Pool Length 6.0 ft deep at 1:2 = 179.99  
 Pool Area at 6.0 ft depth = 0.74 ac

Top of bank length = 239 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 279 ft  
 Back of maintenance berm area = 1.79 ac

Factor of safety = 5%  
 Back of maintenance berm area = 1.88 ac  
 Back of maintenance berm length = 286 ft

Pond site length = **Back of maintenance berm length + 5' on each side**  
 Square Pond site lengths = 296 ft x ft  
 Rectangular Pond Alternative Width = 308 ft (Pool width = 206.00 ft)  
 Rectangular Pond Alternative Length = 285 ft

**Pond site area = 2.01 ac**  
**Site also requires 0.21 ac access easement, or total 2.22-acres**

Basin Hydraulilic Length Gradient Check

Estimated Peak Stage = 17.0 ft (NAVD-88)  
 Assumed Hydraulic Slope= 0.002 ft / ft  
 Critical Low EOP Stage = 26.4 ft (NAVD-88)  
 Hydraulic Length (ft) = 4,700.0

Notes:

Job No. \_\_\_\_\_

No. \_\_\_\_\_

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	9/28/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	10/1/2021
Task	Pond Siting Analysis	Sheet		Of	

## BASIN NO. 1: POND 1W Parcel 548700004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)

### EXISTING BASIN

Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	109+57.00	153+93.00	4436.00	52.80	5.38	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious SW	109+57.00	153+93.00	4436.00	12.00	1.22	
Open Space (Good)	109+57.00	153+93.00	4436.00	55.20	5.62	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					1.76	

### Proposed BASIN

Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	109+57.00	153+93.00	4436.00	120.00	12.22	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious					0.00	
Open Space (Good)					0.00	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					0.75	
Pond Control					1.01	

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	9/28/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	10/1/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: POND 1W Parcel 548700004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

Peak Sensitive? (Y or N) **N** Site size unusable for pond.

### Existing CN

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	6.60	
Open Space (Good)	B/D	80	0.20	5.62	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	1.76	
Total				13.98	ac.
		CN	88.5		
		C	0.55		

25-year, 24-hour rainfall, P = **8.72** in *SWFWMD Figure D-5 / NOAA Atlas 14*  
 Soil Storage, S = 1.30 in *FDOT Drainage Design Guide Section 2.2.4.2*  
 25-year, 24-hour runoff = 7.33 in  
 25-year, 24-hour runoff volume = 8.54 ac-ft

### Proposed CN and Runoff Coefficient

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	12.22	
Pond Surface	-	100	1.00	1.01	
Open Space (Good)	B/D	80	0.20	0.75	
Total				13.98	ac.
		CN	97.2		
		C	0.91		

25-year, 24-hour rainfall, P = 8.72 in *SWFWMD Figure D-5 / NOAA Atlas 14*  
 Soil Storage, S = 0.29 in *FDOT Drainage Design Guide Section 2.2.4.2*  
 25-year, 24-hour runoff = 8.38 in  
 25-year, 24-hour runoff volume = 9.76 ac-ft

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	9/28/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	10/1/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: POND 1W Parcel 548700004; UMR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

**Required Treatment Volume (Wet Conservation Pool)**

Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*

TV = Basin Area x 1 in x (1 /12)

TV = 1.08 ac-ft

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff

Required attenuation volume = 1.22 ac-ft

**Required Pond Volume**

Required pond volume = (Above Control Elevation)

Required pond volume = 1.22 ac-ft

Addl. Volume to expand conservation Pool = 1.42 ac-ft

**Proposed Pond (Wet Detention)**

Existing Ground = 17.5 ft (NAVD-88)

Top of bank = 17.5 ft (NAVD-88) *AVG*

Groundwater elevation = 14.1 ft (NAVD-88)

Control elevation = 14.1 ft (NAVD-88)

Max allowable peak stage = Control elevation + treatment stack

Max allowable peak stage = 16.5 ft (NAVD-88)

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation

Drawdown + attenuation depth = 2.4 ft

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	12.22 Ac =	11.61
Rational C:	<b>Pond Surf.</b>	1.00 x	1.01 Ac =	1.01
	<b>Pervious</b>	0.35 x	.75 Ac =	0.26

Drainage Project Area (A) = 13.98 Ac  
CA = 12.88

Weighted (C) = 0.92

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr

Wet season duration (W) = 122 Days

Pool Residence Time (R) = 14 Days

VR residence volume VR = (A) \*(C)\* (P/W)\* (R) \*(1-ft / 12-in)

14-day residence volume VR = 3.94 Ac-Ft

Required 21-day residence volume VR = (A) \* 1.5 \* (0.667-inch) \* (1-ft / 12-in)

Minimum required 21-day residence volume VR = 1.17 Ac-Ft

**REQUIRED 21-DAY RESIDENCE VOLUME = 3.94 Ac-Ft**

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	9/28/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	10/1/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: POND 1W Parcel 548700004; UMR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

WET TREATMENT WATER QUALITY VOLUME = WQ)

WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = 1.08 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 5.02 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 5.02 Ac-Ft

Cubed pond footprint at center of attenuation stack = 1.10 ac  
 Cubed side length at center of attenuation stack= 219 ft

Bank length at Control El. = 209 ft  
 Area at Control El. = 1.01 ac

Bank length at DHW. = 228.49 ft  
 Area at Control DHW = 1.20 ac

**Conservation Pool Depth = 6.0 ft**  
 Pool Length 2 ft deep at 1:4 = 193.29  
 Pool Area at 2 ft depth = 0.86 ac  
 Pool Length 6.0 ft deep at 1:2 = 177.29  
 Pool Area at 6.0 ft depth = 0.72 ac

Top of bank length = 236 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 276 ft  
 Back of maintenance berm area = 1.75 ac

Factor of safety = 0%  
 Back of maintenance berm area = 1.75 ac  
 Back of maintenance berm length = 276 ft

Pond site length = **Back of maintenance berm length + 0.1' on each side**  
 Square Pond site lengths = 277 ft x ft  
 Rectangular Pond Alternative Width = 347 ft (Pool width = 259.00 ft)  
 Rectangular Pond Alternative Length = 221 ft

**Pond site area = 1.76 ac**

Basin Hydraulc Length Gradient Check

Estimated Peak Stage = 17.0 ft (NAVD-88)  
 Assumed Hydraulic Slope= 0.002 ft / ft  
 Critical Low EOP Stage = 26.4 ft (NAVD-88)  
 Hydraulic Length (ft) = 4,700.0

Notes:



# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

BASIN NO. 2: Parcel 554510107 POND 2E1 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.						
EXISTING BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	153+93.00	208+88.00	5495.00	43.00	5.42	From 580' N of 2nd Ave E. to Ft Hamer Rd.
Impervious SW	153+93.00	208+88.00	5495.00	5.00	0.63	
Open Space (Good)	153+93.00	208+88.00	5495.00	72.00	9.08	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					2.47	

Proposed BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	153+93.00	208+88.00	5495.00	120.00	15.14	From 580' N of 2nd Ave E. to Ft Hamer Rd.
Impervious					0.00	
Open Space (Good)					0.00	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					1.11	
Pond Control					1.36	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 2: Parcel 554510107 POND 2E1 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.**

Peak Sensitive? (Y or N) **N**

**Existing CN**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	6.06	
Open Space (Good)	B/D	80	0.20	9.08	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	2.47	
Total				17.61	ac.
			CN	86.2	
			C	0.46	

25-year, 24-hour rainfall, P =	<b>8.72</b>	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	1.60	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	7.05	in	
25-year, 24-hour runoff volume =	10.35	ac-ft	

**Proposed CN and Runoff Coefficient**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	15.14	
Pond Surface	-	100	1.00	1.36	
Open Space (Good)	B/D	80	0.20	1.11	
Total				17.61	ac.
			CN	97.0	
			C	0.91	

25-year, 24-hour rainfall, P =	8.72	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	0.31	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	8.36	in	
25-year, 24-hour runoff volume =	12.27	ac-ft	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 2: Parcel 554510107 POND 2E1 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.**

**Required Treatment Volume (Wet Conservation Pool)**

Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*  
 $TV = \text{Basin Area} \times 1 \text{ in} \times (1 / 12)$   
 $TV = 1.35 \text{ ac-ft}$

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff  
 Required attenuation volume = 1.92 ac-ft

**Required Pond Volume**

Required pond volume = (Above Control Elevation)  
 Required pond volume = 1.92 ac-ft  
 Addl. Volume to expand conservation Pool = 0.00 ac-ft

**Proposed Pond (Wet Detention)**

Existing Ground = 8.00 ft (NAVD-88)  
 Top of bank = 11.40 ft (NAVD-88) *AVG*  
 Groundwater elevation = 8.00 ft (NAVD-88)  
 Control elevation = 8.00 ft (NAVD-88)

Max allowable peak stage = Control elevation + treatment stack  
 Max allowable peak stage = 9.35 ft (NAVD-88)

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation  
 Drawdown + attenuation depth = 1.4 ft

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	15.14 Ac =	14.38
Rational C:	<b>Pond Surf.</b>	1.00 x	1.36 Ac =	1.36
	<b>Pervious</b>	0.35 x	1.11 Ac =	0.39

$\text{Drainage Project Area (A)} = \frac{17.61 \text{ Ac}}{\text{CA}} = 16.13$

Weighted (C) = 0.92

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr  
 Wet season duration (W) = 122 Days  
 Pool Residence Time (R) = 14 Days

14-day residence volume VR = (A) \* (C) \* (P/W) \* (R) \* (1-ft / 12-in)  
 14-day residence volume VR = 4.94 Ac-Ft

Required 21-day residence volume VR = (A) \* 1.5 \* (0.667-inch) \* (1-ft / 12-in)  
 Minimum required 21-day residence volume VR = 1.47 Ac-Ft

**REQUIRED 14-DAY RESIDENCE VOLUME = 4.94 Ac-Ft**

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 2: Parcel 554510107 POND 2E1 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.**

WET TREATMENT WATER QUALITY VOLUME = WQ)

WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = 1.35 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 6.29 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 6.35 Ac-Ft

Cubed pond footprint at center of attenuation stack = 1.42 ac  
 Cubed side length at center of attenuation stack= 249 ft

Bank length at Control El. = 243 ft  
 Area at Control El. = 1.36 ac

Bank length at DHW. = 254.26 ft  
 Area at Control DHW = 1.48 ac

**Conservation Pool Depth = 5.4 ft**  
 Pool Length 2 ft deep at 1:4 = 227.46  
 Pool Area at 2 ft depth = 1.19 ac  
 Pool Length 5.4 ft deep at 1:2 = 213.86  
 Pool Area at 5.4 ft depth = 1.05 ac

Top of bank length = 271 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 311 ft  
 Back of maintenance berm area = 2.22 ac

Factor of safety = 5%  
 Back of maintenance berm area = 2.33 ac  
 Back of maintenance berm length = 318 ft

Pond site length = **Back of maintenance berm length + 5' on each side**  
 Square Pond site lengths = 328 ft x ft  
 Rectangular Pond Alternative Width = 161 ft (Pool width = 66.00 ft)  
 Rectangular Pond Alternative Length = 670 ft

**Pond site area = 2.47 ac**

**Basin Hydraulics Length Gradient Check**

Estimated Peak Stage = 9.35 ft (NAVD-88) 9.35  
 Assumed Hydraulic Slope= 0.0008 ft / ft  
 Critical Low EOP Stage = 10.42 ft (NAVD-88)  
 Hydraulic Length (ft) = 1,337.5 >1280 hydraulic length

Notes:

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

BASIN NO. 2: Parcel 554510057 POND 2E2 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.						
EXISTING BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	153+93.00	208+88.00	5495.00	43.00	5.42	From 580' N of 2nd Ave E. to Ft Hamer Rd.
Impervious SW	153+93.00	208+88.00	5495.00	5.00	0.63	
Open Space (Good)	153+93.00	208+88.00	5495.00	72.00	9.08	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					2.47	

Proposed BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	153+93.00	208+88.00	5495.00	120.00	15.14	From 580' N of 2nd Ave E. to Ft Hamer Rd.
Impervious					0.00	
Open Space (Good)					0.00	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					1.11	
Pond Control					1.36	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 9/26/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 2: Parcel 554510057 POND 2E2 UMRR from N of 2nd Ave. E. to Ft Hamer Rd.**

Peak Sensitive? (Y or N) **N**

**Existing CN**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	6.06	
Open Space (Good)	B/D	80	0.20	9.08	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	2.47	
Total				17.61	ac.
			CN	86.2	
			C	0.46	

25-year, 24-hour rainfall, P =	<b>8.72</b>	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	1.60	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	7.05	in	
25-year, 24-hour runoff volume =	10.35	ac-ft	

**Proposed CN and Runoff Coefficient**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	15.14	
Pond Surface	-	100	1.00	1.36	
Open Space (Good)	B/D	80	0.20	1.11	
Total				17.61	ac.
			CN	97.0	
			C	0.91	

25-year, 24-hour rainfall, P =	8.72	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	0.31	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	8.36	in	
25-year, 24-hour runoff volume =	12.27	ac-ft	

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Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*  
 $TV = \text{Basin Area} \times 1 \text{ in} \times (1 / 12)$   
 TV = 1.35 ac-ft

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff  
 Required attenuation volume = 1.92 ac-ft

**Required Pond Volume**

Required pond volume = (Above Control Elevation)  
 Required pond volume = 1.92 ac-ft  
 Addl. Volume to expand conservation Pool = 0.00 ac-ft

**Proposed Pond (Wet Detention)**

Existing Ground = 8.00 ft (NAVD-88)  
 Top of bank = 11.40 ft (NAVD-88) *AVG*  
 Groundwater elevation = 8.00 ft (NAVD-88)  
 Control elevation = 8.00 ft (NAVD-88)

Max allowable peak stage = Control elevation + treatment stack  
 Max allowable peak stage = 9.35 ft (NAVD-88)

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation  
 Drawdown + attenuation depth = 1.4 ft

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	15.14 Ac =	14.38
Rational C:	<b>Pond Surf.</b>	1.00 x	1.36 Ac =	1.36
	<b>Pervious</b>	0.35 x	1.11 Ac =	0.39

$\overline{\overline{17.61 \text{ Ac}}}$   
 CA = 16.13

Weighted (C) = 0.92

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr  
 Wet season duration (W) = 122 Days  
 Pool Residence Time (R) = 14 Days

14-day residence volume VR = (A) \* (C) \* (P/W) \* (R) \* (1-ft / 12-in)  
 14-day residence volume VR = 4.94 Ac-Ft

Required 21-day residence volume VR = (A) \* 1.5 \* (0.667-inch) \* (1-ft / 12-in)  
 Minimum required 21-day residence volume VR = 1.47 Ac-Ft

**REQUIRED 14-DAY RESIDENCE VOLUME = 4.94 Ac-Ft**

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 9/23/2021
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WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = 1.35 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 6.29 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 6.35 Ac-Ft

Cubed pond footprint at center of attenuation stack = 1.42 ac  
 Cubed side length at center of attenuation stack= 249 ft

Bank length at Control El. = 243 ft  
 Area at Control El. = 1.36 ac

Bank length at DHW. = 254.26 ft  
 Area at Control DHW = 1.48 ac

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 Pool Length 2 ft deep at 1:4 = 227.46  
 Pool Area at 2 ft depth = 1.19 ac  
 Pool Length 5.4 ft deep at 1:2 = 213.86  
 Pool Area at 5.4 ft depth = 1.05 ac

Top of bank length = 271 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 311 ft  
 Back of maintenance berm area = 2.22 ac

Factor of safety = 5%  
 Back of maintenance berm area = 2.33 ac  
 Back of maintenance berm length = 318 ft

Pond site length = **Back of maintenance berm length + 5' on each side**  
 Square Pond site lengths = 328 ft x ft  
 Rectangular Pond Alternative Width = 161 ft (Pool width = 66.00 ft)  
 Rectangular Pond Alternative Length = 670 ft

**Pond site area = 2.47 ac**

### Basin Hydraulc Length Gradient Check

Estimated Peak Stage = 9.35 ft (NAVD-88) 9.35  
 Assumed Hydraulic Slope= 0.0008 ft / ft  
 Critical Low EOP Stage = 10.42 ft (NAVD-88)  
 Hydraulic Length (ft) = 1,337.5 >1280 hydraulic length

Notes:



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## Appendix C – FEMA FIRM and FIS Flood Profile Panels

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**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Florida State Plane west zone (FIPSZONE 0902). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSMC-3, #9222  
1315 East-West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

**Base map** orthophotography was obtained from Southwest Florida Water Management District (SWFWMD) from one-foot resolution digital orthoregistry flown in 2008 and 2009. Vector base map data was provided by Manatee County and SWFWMD. Vector information was compiled in 2003 - 2009 by Manatee County GIS department.

This map may reflect more detailed or up to date stream channel configurations than those shown on the previous FIRM. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations and improved topographic data. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-6227) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

**LEGEND**

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A**  
No Base Flood Elevations determined.

**ZONE AE**  
Base Flood Elevations determined.

**ZONE AH**  
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

**ZONE AO**  
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

**ZONE AR**  
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

**ZONE A99**  
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

**ZONE V**  
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

**ZONE VE**  
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X**  
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE X**  
Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D**  
Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary  
0.2% annual chance floodplain boundary  
Floodway boundary  
Zone D boundary  
CBRS and OPA boundary  
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.  
Base Flood Elevation line and value; elevation in feet\*  
Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

**Cross section line**  
Transsect line  
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)  
1000-meter Universal Transverse Mercator grid ticks, zone 17  
5000-foot grid ticks: Florida State Plane coordinate system, west zone (FIPSZONE 0902), Transverse Mercator  
Bench mark (see explanation in Notes to Users section of this FIRM panel)  
River Mile

**MAP REPOSITORIES**  
Refer to Map Repositories list on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
March 17, 2014  
**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.  
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



**MANATEE COUNTY UNINCORPORATED AREAS 120153**

**BEGIN STUDY LIMITS**

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 34 SOUTH, RANGE 19 EAST AND TOWNSHIP 35 SOUTH, RANGE 19 EAST

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0331E**

**FIRM FLOOD INSURANCE RATE MAP MANATEE COUNTY, FLORIDA AND INCORPORATED AREAS**

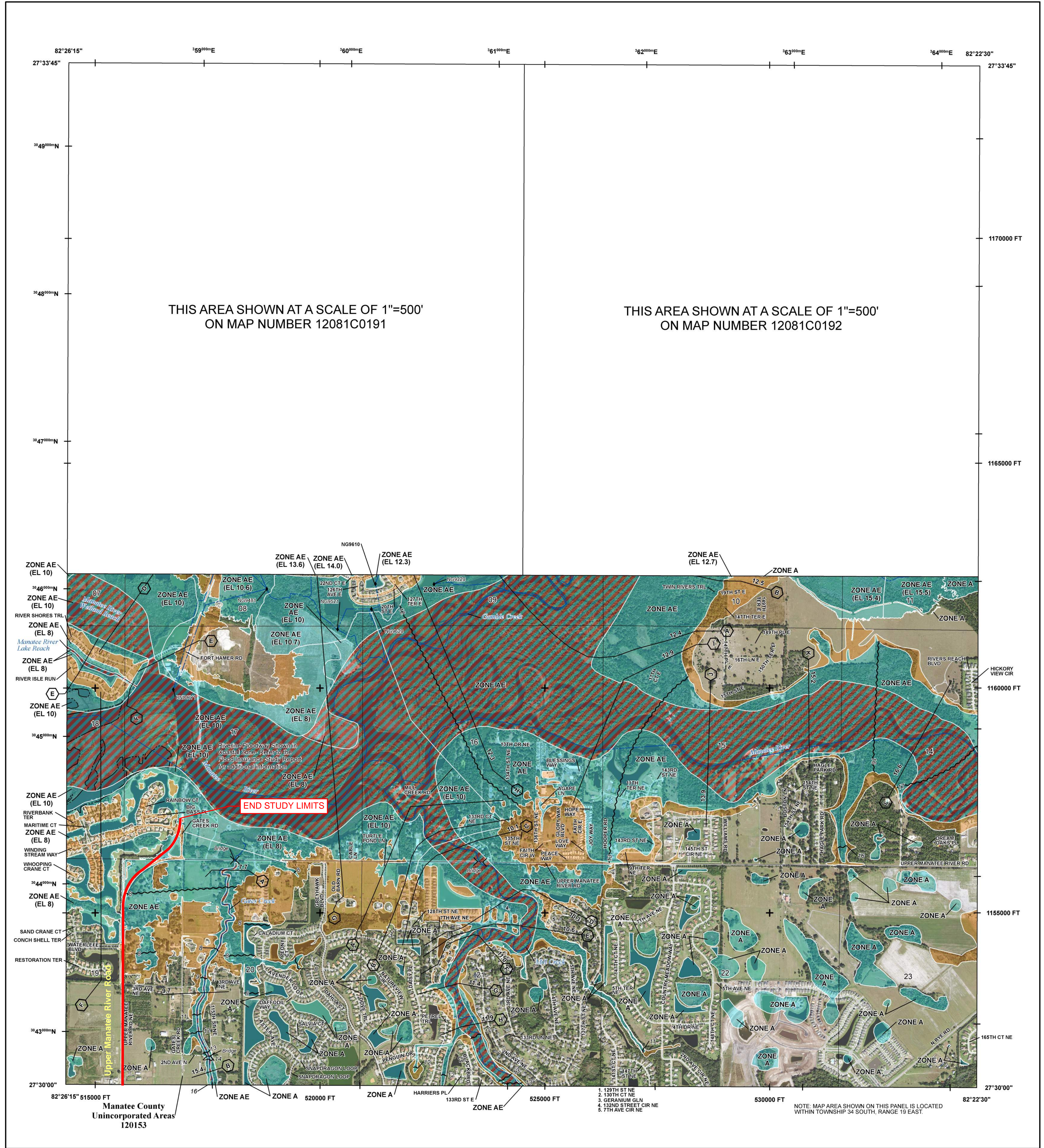
**PANEL 331 OF 575**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	NUMBER	PANEL	SUFFIX
COMMUNITY	MANATEE COUNTY	120153	0331 E

Notes to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER 12081C0331E**  
**EFFECTIVE DATE MARCH 17, 2014**

Federal Emergency Management Agency



### FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT  
**THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING  
 DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT  
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)**

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

### NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the Flood Mapping and Insurance eXchange (FMIX) at 1-877-FEMA-MAP (1-877-338-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

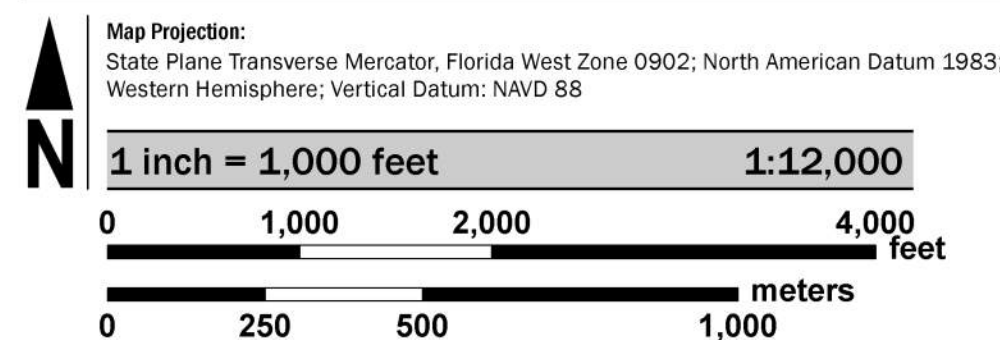
Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

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

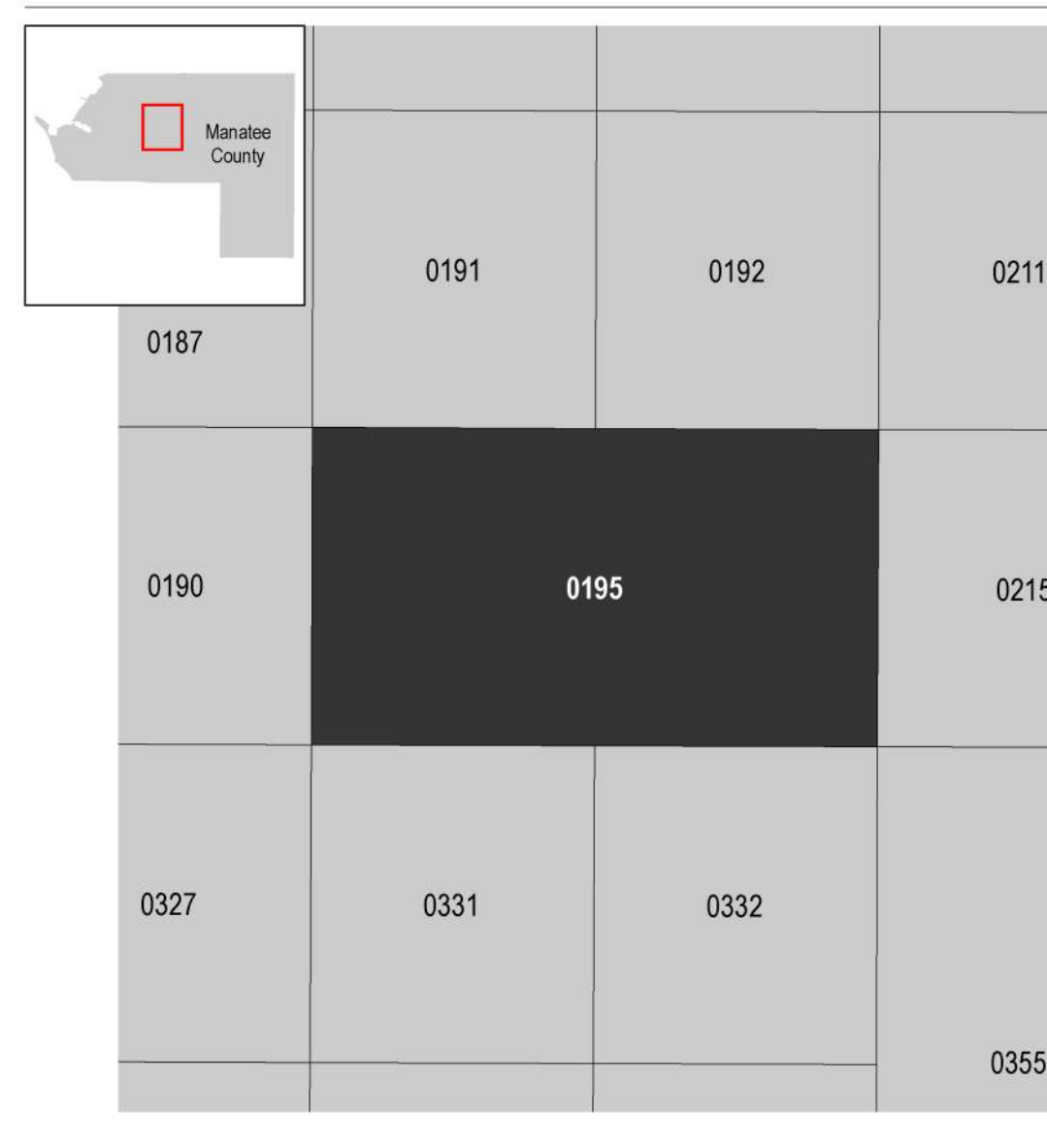
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by Manatee County, dated 2010 and 2017; the Southwest Florida Water Management District, dated 2010 and 2012; the Florida Department of Transportation, dated 2017; and the U.S. Department of Agriculture, dated 2016.

### SCALE



### PANEL LOCATOR



**National Flood Insurance Program**

**NATIONAL FLOOD INSURANCE PROGRAM**  
 FLOOD INSURANCE RATE MAP

**MANATEE COUNTY,  
 FLORIDA**  
 and Incorporated Areas

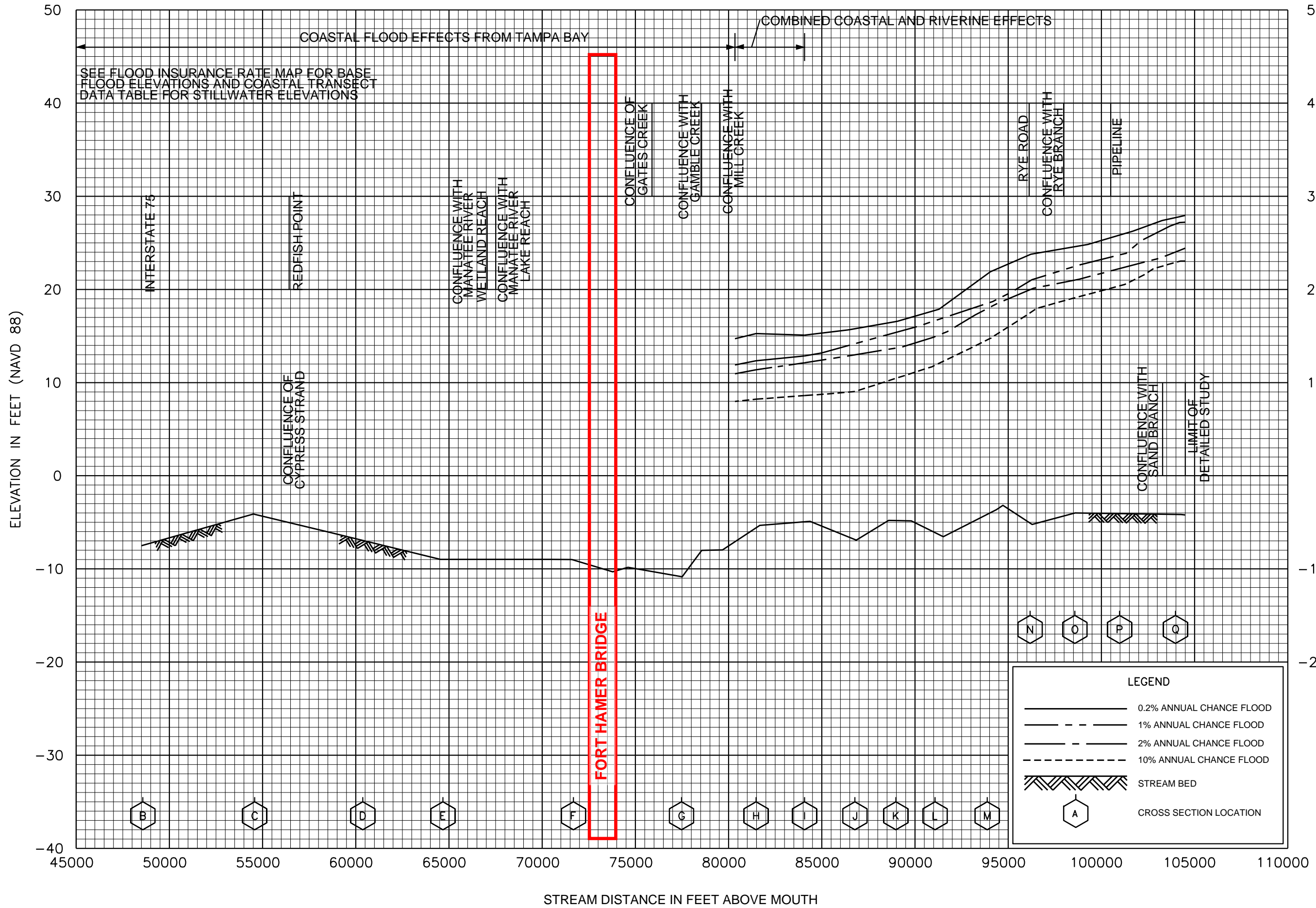
PANEL 195 of 575

Panel Contains:  
 COMMUNITY MANATEE COUNTY      NUMBER PANEL SUFFIX  
 120153 0195 F

VERSION NUMBER  
2.4.3.2

MAP NUMBER  
12081C0195F

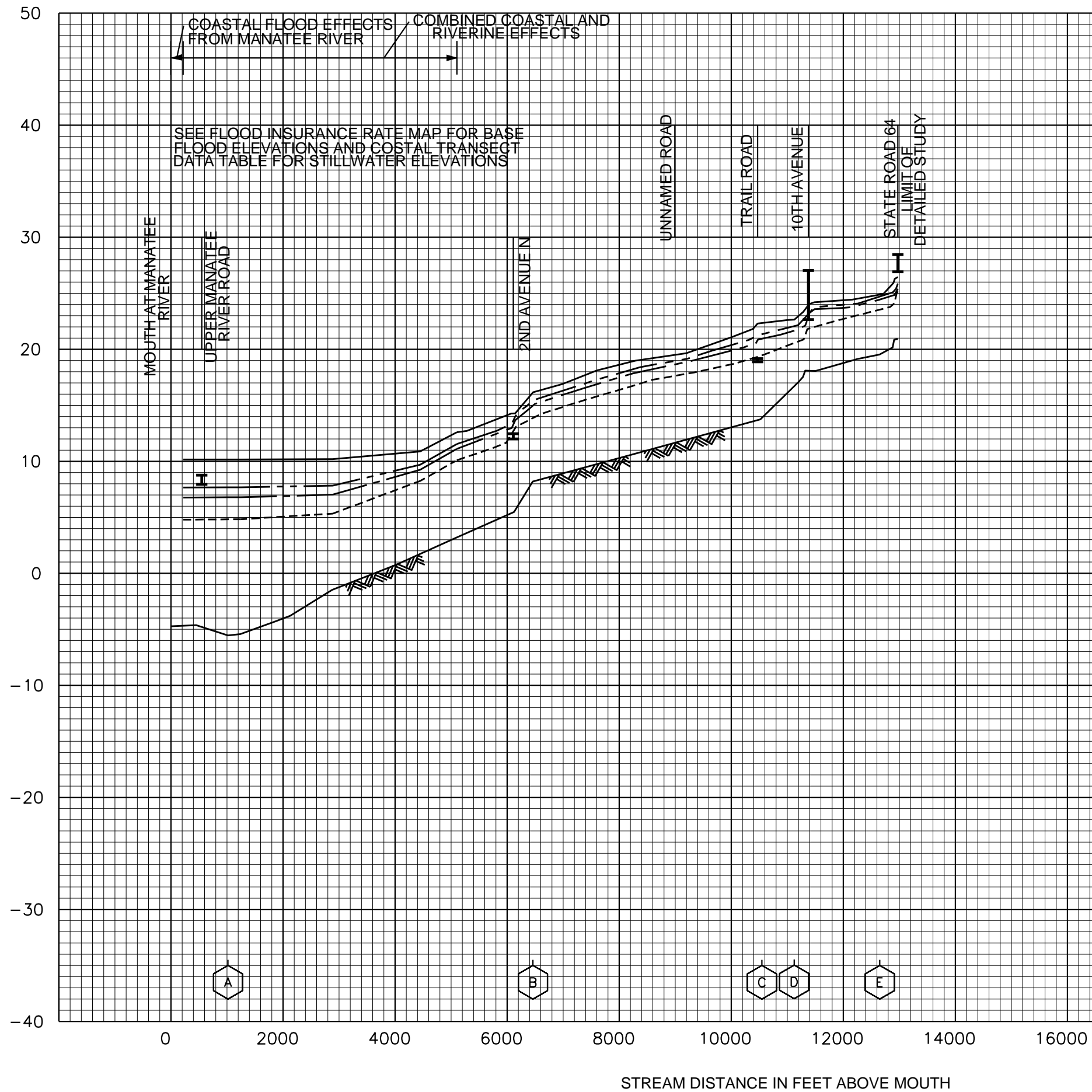
MAP REVISED  
AUGUST 10, 2021



FLOOD PROFILES  
MANATEE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MANATEE COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- CROSS SECTION LOCATION

FLOOD PROFILES  
GATES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MANATEE COUNTY, FL  
AND INCORPORATED AREAS

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# Appendix D – Corpscon6 Datum Conversion

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26 August 2021

**INPUT**

State Plane, NAD83  
0902 - Florida West, U.S. Feet  
Vertical - NGVD29 (Vertcon94), U.S. Feet

**OUTPUT**

State Plane, NAD83  
0902 - Florida West, U.S. Feet  
Vertical - NAVD88, U.S. Feet

---

**Lorraine-UMRR**

1/1

<b>Northing/Y:</b> 1129570	<b>Northing/Y:</b> 1129570.000
<b>Easting/X:</b> 527970	<b>Easting/X:</b> 527970.000
<b>Elevation/Z:</b> 10	<b>Elevation/Z:</b> 9.052
<b>Convergence:</b> -0 10 55.72545	<b>Convergence:</b> -0 10 55.72545
<b>Scale Factor:</b> 0.999960016	<b>Scale Factor:</b> 0.999960016
<b>Combined Factor:</b> 0.999963385	<b>Combined Factor:</b> 0.999963430

Grid Shift (U.S. ft.): X/Easting = 0.0, Y/Northing = 0.0

---

Remark:

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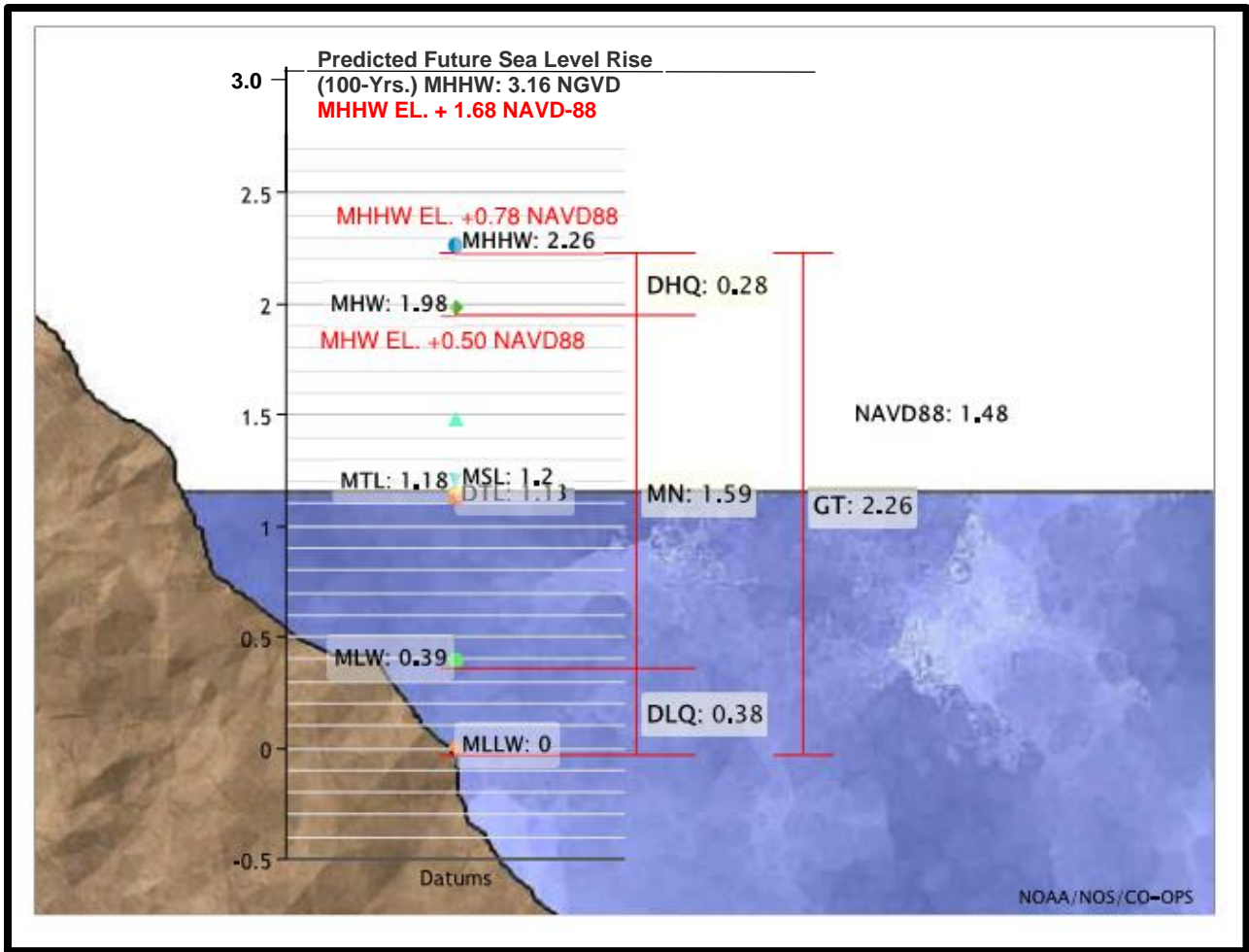
## Appendix E – Sea Level Rise Tidal Datum

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# Datums for 8726520, St. Petersburg, Tampa Bay, FL

All Figures in feet relative to MLLW



# Pond Siting

## Technical Memorandum – Addendum 1

Upper Manatee River Road

Project Development and Corridor Study Report

December 2021



## CONTENTS

1.0 Update .....3

## FIGURES

Figure 1 | Basin 1 Preliminary Pond Sites.....3

## APPENDICES

Appendix A – Drainage Maps.....

Appendix B – Preliminary Pond Site Sizing Analysis .....

### 1.0 Update

After the initial assessment of the Project Development and Corridor Study for Upper Manatee River Road, refinement to Basin 1 recommendations were addressed.

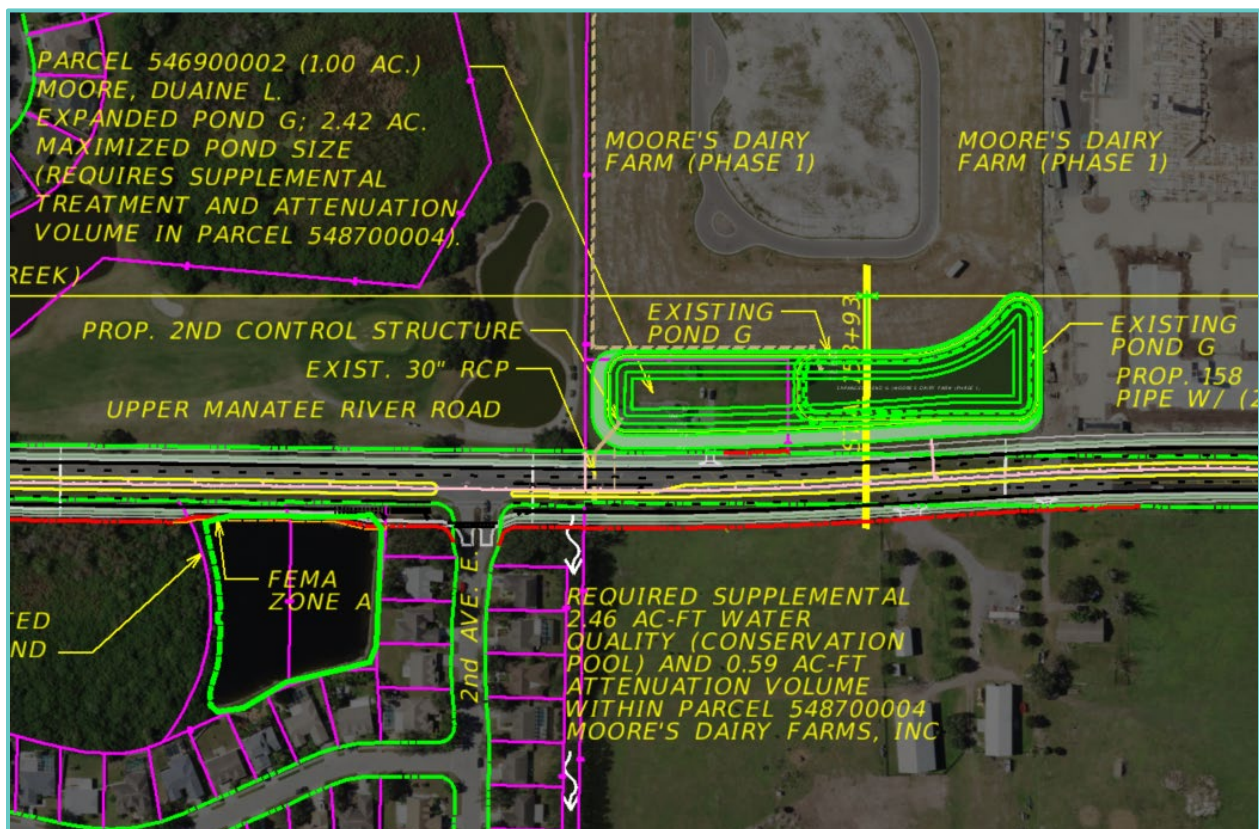
Alternative Pond Site 1W was reconsidered as a viable option with the expansion of Moore’s Dairy Farm Phase I Pond G. The intention is to expand this pond site into the adjacent Upper Manatee River Road proposed right of way and into the considerations for Pond Site 1W from the initial memo.

Moore’s Dairy Farm Phase I Pond G was analyzed for a joint use expansion into Parcel 546900002. This parcel is a 1.00-acre full acquisition and expands Pond G to a maximized size of 2.42-acres. Within the Moore’s Dairy Farm Phase I development, Pond F and Pond G are interconnected, however both pond capacities are maximized. A proposed supplemental control structure from this expanded Pond G is suggested to outfall east to Gates Creek.

Supplemental treatment volume is still required within Basin 1 and the initial recommendation of an alternative pond site on Parcel 548700004 is considered a viable location to consider in the design phase. Alternative Pond Site 1E conflicts with proposed development on this parcel, and another joint use option should be reviewed in the design phase. The Upper Manatee River Road project will require 2.46 acre-feet of water quality (conservation pool) and 0.59 acre-feet of attenuation volume.

**Appendix A** provides updated Drainage Maps and **Appendix B** provides updated calculations for Basin 1.

*Figure 1 | Basin 1 Preliminary Pond Sites*



**Appendix A – Drainage Maps**



BEGIN PROJECT  
STA. 107+05.84  
UPPER MANATEE RIVER ROAD

PARCEL 546900002 (1.00 AC.)  
MOORE, DUAIN L.  
EXPANDED POND G; 2.42 AC.  
MAXIMIZED POND SIZE  
(REQUIRES SUPPLEMENTAL  
TREATMENT AND ATTENUATION  
VOLUME IN PARCEL 548700004).

MOORE'S DAIRY  
FARM (PHASE I)

UPPER MANATEE RIVER ROAD

PROP. 2ND CONTROL STRUCTURE  
EXIST. 30" RCP  
UPPER MANATEE RIVER ROAD

EXISTING  
POND G

SR 64

TO EXISTING  
FDOT POND

FEMA  
ZONE X

FEMA  
ZONE X

FEMA  
ZONE X

FEMA  
ZONE A

REQUIRED SUPPLEMENTAL  
246 AC-FT WATER  
QUALITY (CONSERVATION  
POOL) AND 0.59 AC-FT  
ATTENUATION VOLUME  
WITHIN PARCEL 548700004  
MOORE'S DAIRY FARMS, INC

FEMA  
ZONE AE

FEMA  
ZONE AE

FEMA  
ZONE AE

EXISTING  
FDOT POND 5

FEMA  
ZONE X

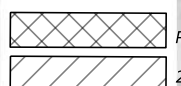
FEMA  
ZONE AE

FEMA  
ZONE X

EXISTING LATERAL  
DITCH TO  
GATES CREEK

GATES CREEK

GATES  
CREEK



PREFERRED ALTERNATE SITE

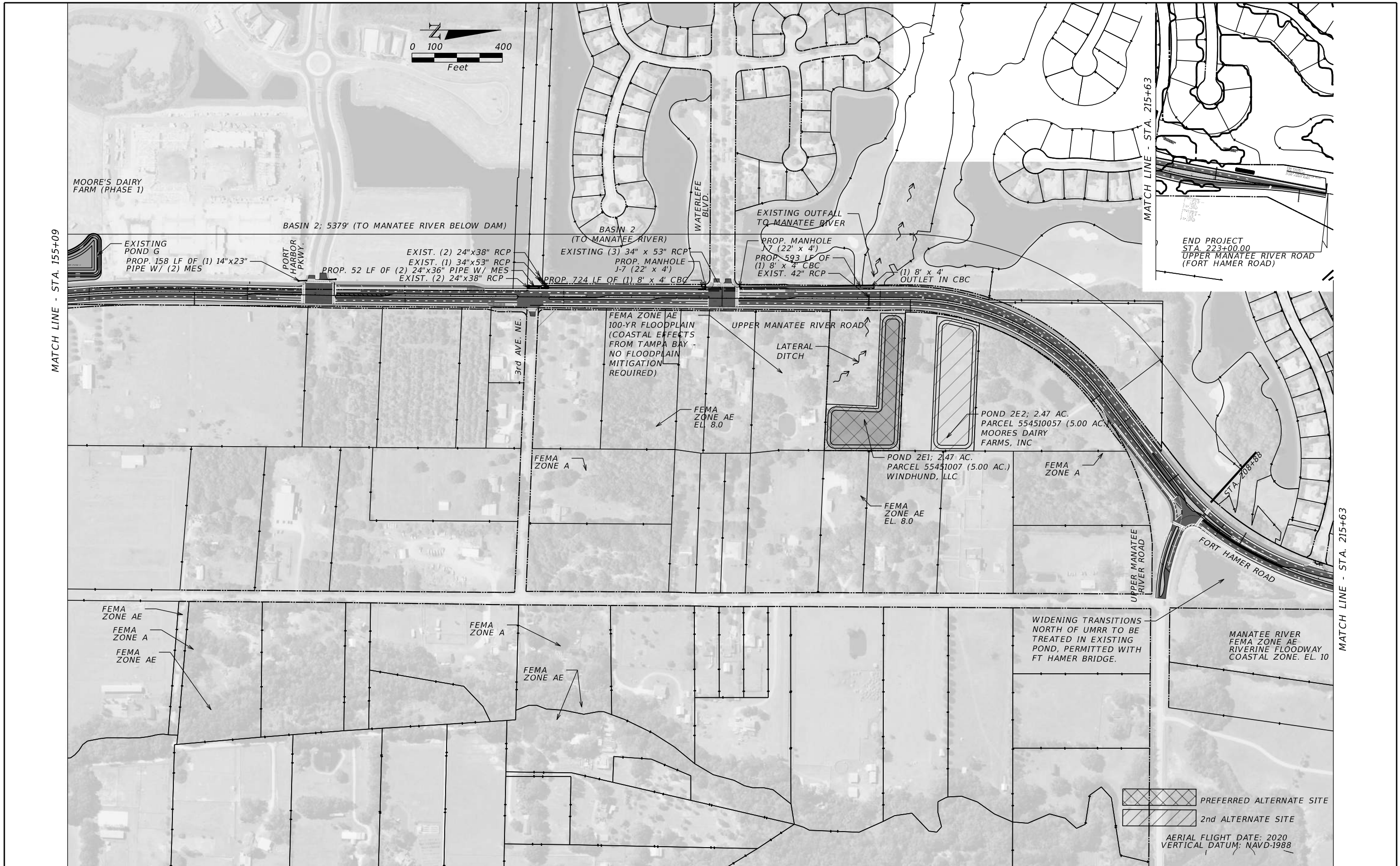
2nd ALTERNATE SITE

AERIAL FLIGHT DATE: 2020  
VERTICAL DATUM: NAVD-1988

MATCH LINE - STA. 155+09

SCALE AS NOTED DESIGNED BY SE DRAWN BY SE CHECKED BY BR				HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232		DATE 09/2021 PROJECT NO. 6107760 11:18:49 AM		MANATEE COUNTY PUBLIC WORKS		DESIGN ENGINEER JUAN C. LOPEZ FL. LICENSE NO. 41084 PW\		SHEET NO. 1 OF 2	
REVISIONS No. DATE BY										DRAINAGE MAP UPPER MANATEE RIVER ROAD			


THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



MATCH LINE - STA. 155+09

MATCH LINE - STA. 215+63

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SCALE AS NOTED DESIGNED BY SE DRAWN BY SE CHECKED BY BR		HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232		DATE 09/2021 PROJECT NO. 6107660 11:03:26 AM		 <b>MANATEE COUNTY PUBLIC WORKS</b>		DESIGN ENGINEER JUAN C. LOPEZ FL. LICENSE NO. 41084 PW\		<b>DRAINAGE MAP</b> <b>UPPER MANATEE RIVER ROAD</b>		SHEET NO. <b>2 OF 2</b>
--	--	--	--	--	--	--	--	--	--	--	--	----------------------------

No. REVISIONS DATE BY

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# Appendix B – Preliminary Pond Site Sizing Analysis

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# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 12/9/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 12/9/2021
Task Pond Siting Analysis	Sheet _____	Of _____

**BASIN NO. 1: Expand Moore's Dairy Farm Pond G into Parcel 548700002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

EXISTING BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	109+57.00	133+00.00	2343.00	52.80	2.84	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious SW	109+57.00	133+00.00	2343.00	12.00	0.65	
Open Space (Good)	109+57.00	133+00.00	2343.00	55.20	2.97	Moore's Dairy Farm Phase I
Open Space (Good)					11.51	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					2.42	

Proposed BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	109+57.00	133+00.00	2343.00	120.00	6.45	From 956' N of SR 64 E
Impervious					8.19	Moore's Dairy Farm Phase I
Open Space (Good)					3.32	Moore's Dairy Farm Phase I
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					1.16	
Pond Control					1.26	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 12/9/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 12/9/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: Expand Moore's Dairy Farm Pond G into Parcel 548700002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

Peak Sensitive? (Y or N) **N** Moore's Dairy Farm (Phase I) Pond G expanded into Parcel ID 5469000002

**Existing CN**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	3.49	
Open Space (Good)	B/D	80	0.20	14.48	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	2.42	
		Total		20.38	ac.
		CN	83.1		
		C	0.33		

25-year, 24-hour rainfall, P =	<b>8.72</b>	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	2.04	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	6.68	in	
25-year, 24-hour runoff volume =	11.34	ac-ft	

**Proposed CN and Runoff Coefficient**

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	14.64	
Pond Surface	-	100	1.00	1.26	
Open Space (Good)	B/D	80	0.20	4.48	
			Total	20.38	ac.
			CN	94.2	
			C	0.79	

25-year, 24-hour rainfall, P =	8.72	in	<i>SWFWMD Figure D-5 / NOAA Atlas 14</i>
Soil Storage, S =	0.62	in	<i>FDOT Drainage Design Guide Section 2.2.4.2</i>
25-year, 24-hour runoff =	8.02	in	
25-year, 24-hour runoff volume =	13.62	ac-ft	

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 12/9/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 12/9/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: Expand Moore's Dairy Farm Pond G into Parcel 548700002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

**Required Treatment Volume (Wet Conservation Pool)**

Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*  
 $TV = \text{Basin Area} \times 1 \text{ in} \times (1 / 12)$   
 TV = 1.59 ac-ft

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff  
 Required attenuation volume = 2.28 ac-ft

**Required Pond Volume**

Required pond volume = (Above Control Elevation)  
 Required pond volume = 2.28 ac-ft  
 Addl. Volume to expand conservation Pool = 1.60 ac-ft 1.26

**Proposed Pond (Wet Detention)**

Existing Ground = 14.2 ft (NAVD-88)  
 Top of bank = 17.0 ft (NAVD-88) *AVG*  
 Groundwater elevation = 13.2 ft (NAVD-88)  
 Control elevation = 13.2 ft (NAVD-88)

Max allowable peak stage = Control elevation + treatment stack  
 Max allowable peak stage = 16.0 ft (NAVD-88)

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation  
 Drawdown + attenuation depth = 2.8 ft

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	14.64 Ac =	13.91
Rational C:	<b>Pond Surf.</b>	1.00 x	1.26 Ac =	1.26
	<b>Pervious</b>	0.35 x	4.48 Ac =	1.57
Drainage Project Area (A) =		20.38 Ac		
		CA = 16.74		
Weighted (C) = 0.82				

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr  
 Wet season duration (W) = 122 Days  
 Pool Residence Time (R) = 14 Days

14-day residence volume VR = (A) \* (C) \* (P/W) \* (R) \* (1-ft / 12-in)  
 14-day residence volume VR = 5.12 Ac-Ft

Required 21-day residence volume VR = (A) \* 1.5 \* (0.667-inch) \* (1-ft / 12-in)  
 Minimum required 21-day residence volume VR = 1.70 Ac-Ft

**REQUIRED 21-DAY RESIDENCE VOLUME = 5.12 Ac-Ft**

# HDR Computation



Project Manatee County Corridors Analysis	Computed PEH	Date 12/9/2021
Subject Upper Manatee River Road Corridor	Checked JCL	Date 12/9/2021
Task Pond Siting Analysis	Sheet	Of

**BASIN NO. 1: Expand Moore's Dairy Farm Pond G into Parcel 548700002; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

WET TREATMENT WATER QUALITY VOLUME = WQ)

WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = 1.59 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 6.72 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 6.77 Ac-Ft

Cubed pond footprint at center of attenuation stack = 1.39 ac  
 Cubed side length at center of attenuation stack= 246 ft

Bank length at Control El. = 234 ft  
 Area at Control El. = 1.26 ac

Bank length at DHW. = 269.72 ft 1.05  
 Area at Control DHW = 1.67 ac

**Conservation Pool Depth = 8.0 ft**

Pool Length 3 ft deep at 1:4 = 210.48 0.853  
 Pool Area at 3 ft depth = 0.87 ac  
 Pool Length 8.0 ft deep at 1:2 = 156.64 0.84  
 Pool Area at 8.0 ft depth = 0.56 ac

Top of bank length = 265 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 305 ft  
 Back of maintenance berm area = 2.27 ac 1.065

Factor of safety = 0%  
 Back of maintenance berm area = 2.27 ac  
 Back of maintenance berm length = 315 ft

Pond site length = Back of maintenance berm length + 5.' on each side  
 Square Pond site lengths = 325 ft x ft  
 Rectangular Pond Alternative Width = 350 ft (Pool width = 259.00 ft)  
 Rectangular Pond Alternative Length = 301 ft

**Pond site area = 2.42 ac**

Basin Hydraulilc Length Gradient Check

Estimated Peak Stage = 17.0 ft (NAVD-88)  
 Assumed Hydraulic Slope= 0.002 ft / ft  
 Critical Low EOP Stage = 26.4 ft (NAVD-88)  
 Hydraulic Length (ft) = 4,700.0

Notes:

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	12/9/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	12/9/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: Additional Pond Volume needed in Parcel 546900004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

EXISTING BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious Lanes	133+00.00	153+93.00	2093.00	52.80	2.54	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious SW	133+00.00	153+93.00	2093.00	12.00	0.58	
Open Space (Good)	133+00.00	153+93.00	2093.00	55.20	2.65	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Site					1.26	

Proposed BASIN						
Land Use	From Sta.	To Sta.	Length (ft)	Width (ft)	Area (Acres)	Location Description
Impervious	133+00.00	153+93.00	2093.00	120.00	5.77	From 956' N of SR 64 E to 580' N of 2nd Ave E.
Impervious					0.00	
Open Space (Good)					0.00	
Open Space (Good)					0.00	
Open Space (Poor)					0.00	
Wetlands					0.00	
Pond Berm					0.73	
Pond Control					0.53	

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	12/9/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	12/9/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: Additional Pond Volume needed in Parcel 546900004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**  
**Peak Sensitive? (Y or N) N** Could require capacity improvements to 2nd Ave. E. Lateral Ditch to Gates Creek.  
**BASIN NO. 1: Additional Pond Volume needed in Parcel 546900004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

### Existing CN

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	3.11	
Open Space (Good)	B/D	80	0.20	2.65	Wabasso HSG B/D - SHWT 1' below surface
Open Space (Poor)	B/D	89	0.20	0.00	
Wetlands	D	83	0.20	0.00	
Pond Site	B/D	80	0.20	1.26	
Total				7.03	ac.
		CN	88.0		
		C	0.53		

25-year, 24-hour rainfall, P = 8.72 in *SWFWMD Figure D-5 / NOAA Atlas 14*  
 Soil Storage, S = 1.37 in *FDOT Drainage Design Guide Section 2.2.4.2*  
 25-year, 24-hour runoff = 7.27 in  
 25-year, 24-hour runoff volume = 4.26 ac-ft

### Proposed CN and Runoff Coefficient

	Soil Type	CN	C	Area	
Impervious	-	98	0.95	5.77	
Pond Surface	-	100	1.00	0.53	
Open Space (Good)	B/D	80	0.20	0.73	
Total				7.03	ac.
		CN	96.3		
		C	0.88		

25-year, 24-hour rainfall, P = 8.72 in *SWFWMD Figure D-5 / NOAA Atlas 14*  
 Soil Storage, S = 0.39 in *FDOT Drainage Design Guide Section 2.2.4.2*  
 25-year, 24-hour runoff = 8.27 in  
 25-year, 24-hour runoff volume = 4.84 ac-ft

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	12/9/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	12/9/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: Additional Pond Volume needed in Parcel 546900004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

**Required Treatment Volume (Wet Conservation Pool)**

Min Water Quality Treatment Volume 1in of Runoff *SWFWMD App. Handbook Vol. II, Section 4.1*

$$TV = \text{Basin Area} \times 1 \text{ in} \times (1 / 12)$$

$$TV = 0.54 \text{ ac-ft}$$

**Required Attenuation Volume**

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff

$$\text{Required attenuation volume} = 0.59 \text{ ac-ft}$$

**Required Pond Volume**

Required pond volume = (Above Control Elevation)

$$\text{Required pond volume} = 0.59 \text{ ac-ft}$$

$$\text{Addl. Volume to expand conservation Pool} = 0.85 \text{ ac-ft}$$

**Proposed Pond (Wet Detention)**

$$\text{Existing Ground} = 17.5 \text{ ft (NAVD-88)}$$

$$\text{Top of bank} = 17.5 \text{ ft (NAVD-88) AVG}$$

$$\text{Groundwater elevation} = 14.1 \text{ ft (NAVD-88)}$$

$$\text{Control elevation} = 14.1 \text{ ft (NAVD-88)}$$

Max allowable peak stage = Control elevation + treatment stack

$$\text{Max allowable peak stage} = 16.5 \text{ ft (NAVD-88)}$$

Drawdown + attenuation depth = Max allowable peak stage - normal water elevation

$$\text{Drawdown + attenuation depth} = 2.4 \text{ ft}$$

**CONSERVATION POOL 14-DAY RESIDENCE TIME + WATER QUALITY**

Pool Volume for 14-Day residence Time VR

	<b>Impervious</b>	0.95 x	5.77 Ac =	5.48
Rational C:	<b>Pond Surf.</b>	1.00 x	.53 Ac =	0.53
	<b>Pervious</b>	0.35 x	.73 Ac =	0.26

$$\text{Drainage Project Area (A)} = \frac{5.48 + 0.53 + 0.26}{1} = 7.03 \text{ Ac}$$

$$CA = 6.26$$

$$\text{Weighted (C)} = 0.89$$

Historic average wet season rainfall (P) for Bradenton = 32 In / Yr

Wet season duration (W) = 122 Days

Pool Residence Time (R) = 14 Days

$$\gamma \text{ residence volume VR} = (A) * (C) * (P/W) * (R) * (1\text{-ft} / 12\text{-in})$$

$$14\text{-day residence volume VR} = 1.92 \text{ Ac-Ft}$$

$$\text{Required 21-day residence volume VR} = (A) * 1.5 * (0.667\text{-inch}) * (1\text{-ft} / 12\text{-in})$$

$$\text{Minimum required 21-day residence volume VR} = .59 \text{ Ac-Ft}$$

$$\text{REQUIRED 21-DAY RESIDENCE VOLUME} = 1.92 \text{ Ac-Ft}$$

# HDR Computation



Project	Manatee County Corridors Analysis	Computed	PEH	Date	12/9/2021
Subject	Upper Manatee River Road Corridor	Checked	JCL	Date	12/9/2021
Task	Pond Siting Analysis	Sheet		Of	

**BASIN NO. 1: Additional Pond Volume needed in Parcel 546900004; UMRR from N. of SR 64 to N of 2nd Ave. E. (Gates Creek Basin)**

WET TREATMENT WATER QUALITY VOLUME = WQ)

WQ = Contributing Area (A) \* 1-in \* (1-in / 12-ft)

Required Water Quality Volume WQ = .54 Ac-Ft

CONSERVATION POOL = 14-DAY RESIDENCE TIME VR + WATER QUALITY WQ

REQUIRED CONSERVATION POOL (to 8-feet below control elev)= 2.46 Ac-Ft

PROVIDED CONSERVATION POOL (to 8-feet below control elev)= 2.46 Ac-Ft

Cubed pond footprint at center of attenuation stack = 0.60 ac  
 Cubed side length at center of attenuation stack= 161 ft

Bank length at Control El. = 152 ft  
 Area at Control El. = 0.53 ac

Bank length at DHW. = 171.09 ft  
 Area at Control DHW = 0.67 ac

**Conservation Pool Depth = 6.0 ft**  
 Pool Length 2 ft deep at 1:4 = 135.89  
 Pool Area at 2 ft depth = 0.42 ac  
 Pool Length 6.0 ft deep at 1:2 = 119.89  
 Pool Area at 6.0 ft depth = 0.33 ac

Top of bank length = 179 ft  
 Maintenance berm width = 20 ft  
 Back of maintenance berm length = 219 ft  
 Back of maintenance berm area = 1.10 ac

Factor of safety = 5%  
 Back of maintenance berm area = 1.16 ac  
 Back of maintenance berm length = 225 ft

Pond site length = **Back of maintenance berm length + 5' on each side**  
 Square Pond site lengths = 235 ft x ft  
 Rectangular Pond Alternative Width = 308 ft (Pool width = 206.00 ft)  
 Rectangular Pond Alternative Length = 179 ft

**Pond site area = 1.26 ac**  
**Site also requires 0.21 ac access easement, or total 1.80-acres**

Basin Hydraulilic Length Gradient Check

Estimated Peak Stage = 17.0 ft (NAVD-88)  
 Assumed Hydraulic Slope= 0.002 ft / ft  
 Critical Low EOP Stage = 26.4 ft (NAVD-88)  
 Hydraulic Length (ft) = 4,700.0

Notes:



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## Appendix G – Utilities Memo

# Utilities

## Technical Memorandum

Upper Manatee River Road

Project Development and Corridor Study Report

September 2021



## CONTENTS

1.0 Introduction .....3  
1.1 Project Description .....3

## FIGURES

Figure 1-1 | Project Location Map .....4  
Figure 1-2 | Utilities Map .....5

## APPENDICES

Appendix A – Utility Information Table.....6  
Appendix B – Detailed Location Map .....6

### 1.0 Introduction

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. This Utilities Technical Memorandum documents the County-owned utility information within the Study area.

### 1.1 Project Description

Manatee County conducted a Project Development and Corridor Study (Study) to develop alternatives along Upper Manatee River Road for reducing congestion, improving safety and operational performance, and addressing future transportation needs. The project limits extend from north of State Road (SR) 64 to the Fort Hamer Bridge providing additional capacity between SR 64 and the Fort Hamer Bridge in Bradenton, Manatee County, Florida, as shown in **Figure 1-1**. An overview of the County owned utilities overlaid with the proposed 500-foot roadway buffer zone is presented below in **Figure 1-2**.

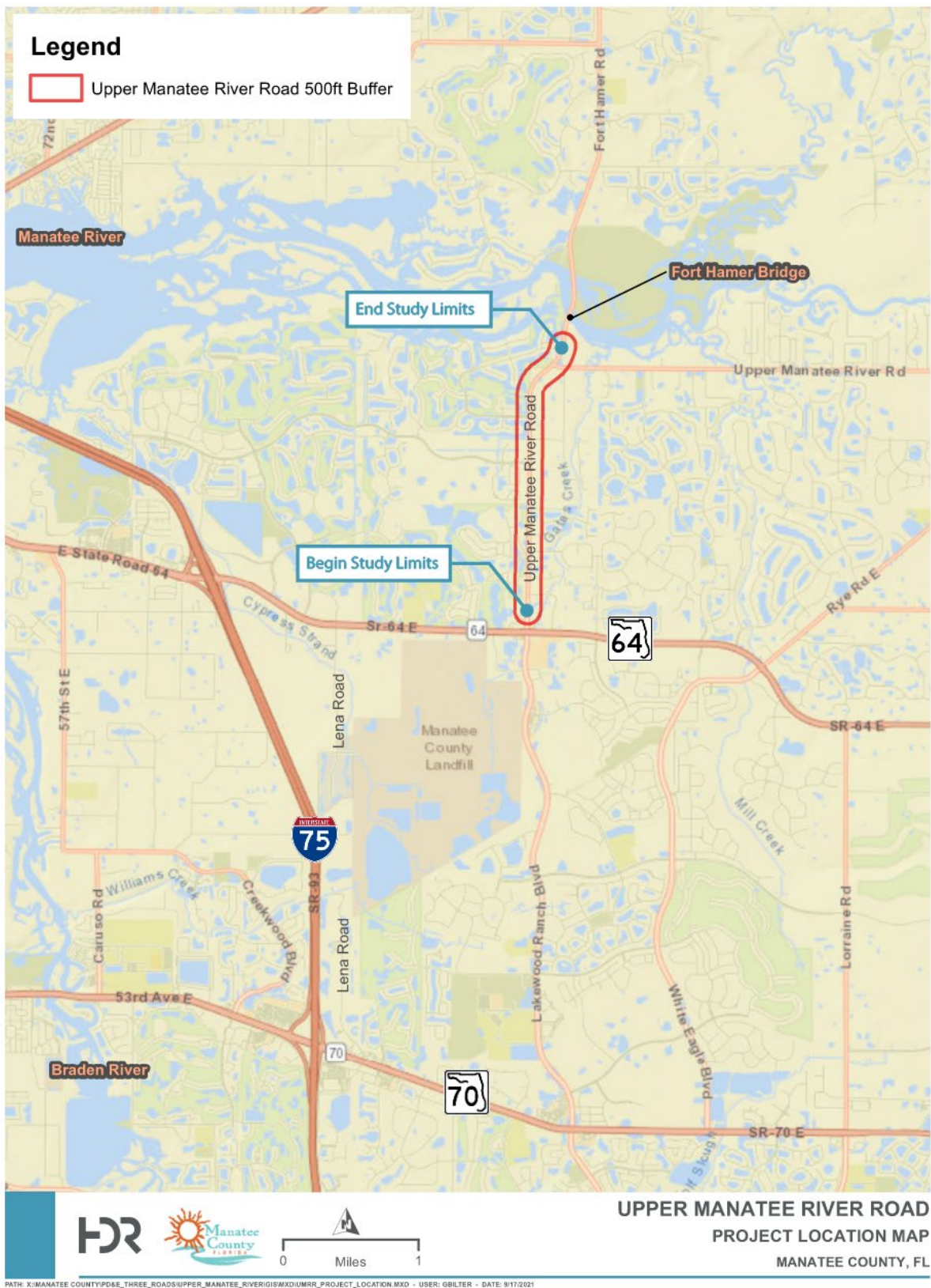


Figure 1-1 | Project Location Map

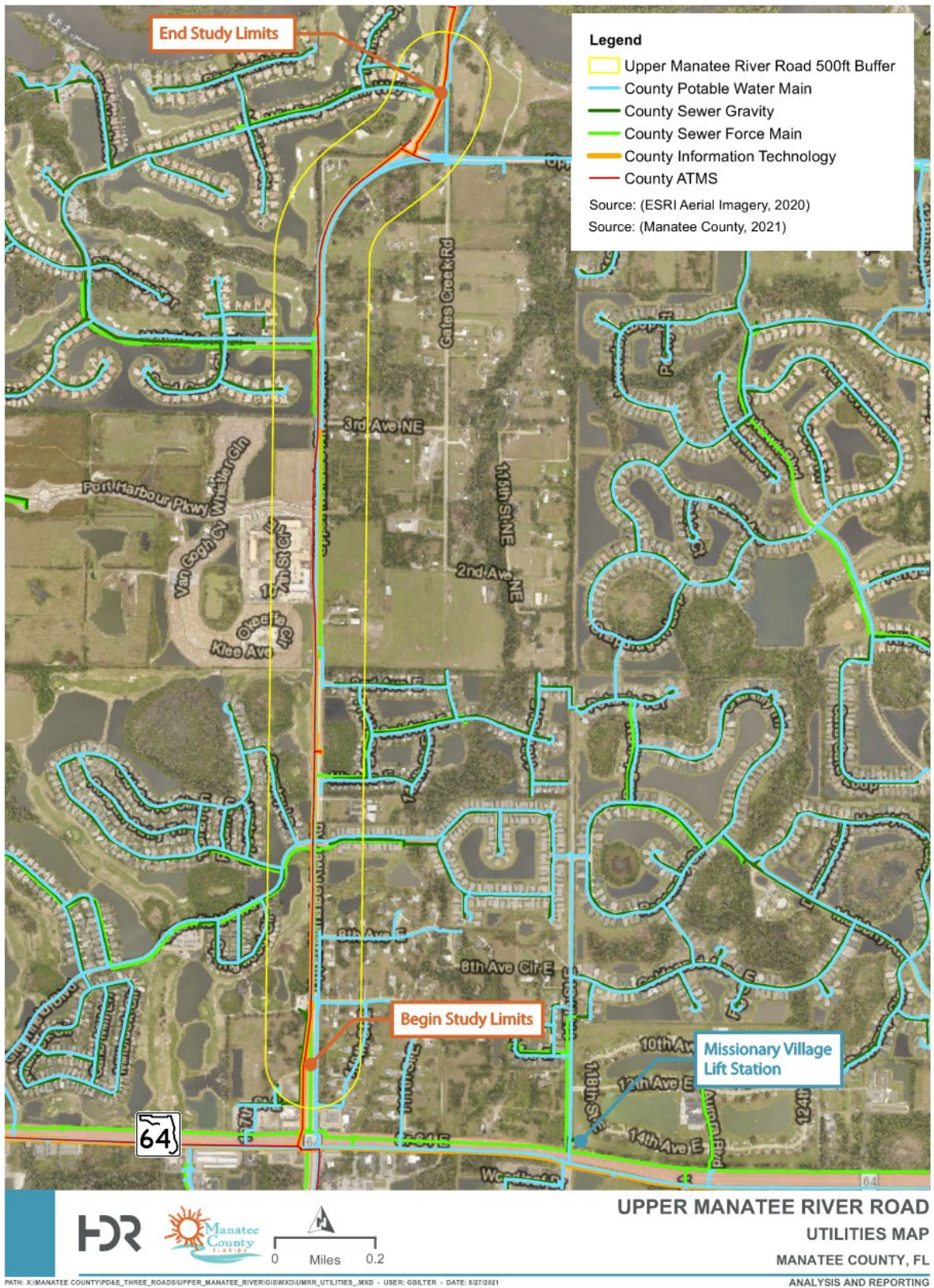


Figure 1-2 | Utilities Map

## Appendices

**Appendix A – Utility Information Table**



Sewer/Sanitary
Potable
Reclaimed

UMRR Road Utilities												
Utility ID # - Corresponds to UMRR Utility Identification Sheets	Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
	Utility ID 10	County Force Main, Sewer	Manatee County	18	SPM005316	1/1/1997	8	PVC	8-inch PVC Sewer force main running North-South parallel to and on the West side of UMRR. force main continues and transitions to be directly underneath the center of the southbound travel lane on UMRR and continues in north direction. (Gates Creek)	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	8780
	Utility ID 11	County Force Main, Sewer	Manatee County	149	SPM005316	1/1/1997	8	PVC		GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	6039
	Utility ID 12	County Force Main, Sewer	Manatee County	271	SPM004320	1/1/1997	8	PVC		GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	5262
	Utility ID 30	County Force Main, Sewer	Manatee County	195	SPM004321	12/22/2010	8	PVC	8-inch PVC Sewer force main running North-South parallel to and on the West side of UMRR force main is directly underneath the center of the southbound travel lane on UMRR and continues in North direction.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=025">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=025</a>	5263
	Utility ID 31	County Force Main, Sewer	Manatee County	1104	SPM000411	1/1/1997	8	PVC	8-inch PVC Sewer force main running North-South parallel to and on the West side of UMRR. force main is directly underneath the center of the southbound travel lane on UMRR and continues in North direction.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	438
	Utility ID 63	County Force Main, Sewer	Manatee County	1475	SPM000360	12/2/1999	8	PVC	8-inch PVC Sewer force main running parallel to UMRR and is located underneath the center of the South bound travel lane.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004</a>	312
	Utility ID 71	County Force Main, Sewer	Manatee County	596	SPM000518	12/2/1999	8	PVC	8-inch PVC Sewer force main running parallel to UMRR on the East side. Underneath North bound shoulder of pavement.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004</a>	596
	Utility ID 72	County Force Main, Sewer	Manatee County	439	SPM005657	12/2/1999	8	PVC		WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	4937
	Utility ID 1	County Force Main, Sewer	Manatee County	1209	SPM000403	3/6/1989	8	PVC	8-inch PVC Sewer force main running parallel to UMRR along the West side of the pavement.	SOUTHEAST SUBREG PUMP STATIONS AND FM PHASE 1 - SEGMENT C - PART 2 - SOUTHEAST SUBREG PUMP STATIONS AND FM PHASE 1 - SEGMENT C - PART 2 - BRADEN RIVER CAMPGROUND 10 (RTU 328), SR 64 12 (RTU 329), UPPER MANATEE RIVER 13 (RTU 330) (00991) - UTD - REC - Reco	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10651529&amp;pagel=012">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10651529&amp;pagel=012</a>	
	Utility ID 41	County Force Main, Sewer	Manatee County	8	SPM007368	1/1/1997	8	PVC	8-inch Sewer force main running North-South on the Southwest corner of the UMRR and Greenfield Blvd. intersection.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	6235
	Utility ID 42	County Force Main, Sewer	Manatee County	10	SPM000357	1/1/1997	8	PVC		GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	309
	Utility ID 84	County Force Main, Sewer	Manatee County	737	SPM000344	12/2/1999	6	PVC	6-inch PVC force main travels Northwest away from UMRR pavement and travels north on the West side of the sidewalk pavement.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	296
	Utility ID 89	County Force Main, Sewer	Manatee County	186	SPM000340	12/2/1999	6	PVC	6-inch PVC Sewer force main bored underneath the pavement of Waterlefe Blvd. Is parallel to UMRR.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	292
	Utility ID 59	County Force Main, Sewer	Manatee County	9	SPM000353	12/2/1999	6	PVC	6-inch PVC Sewer force main parallel to UMRR and under the center of the southbound travel lane. Terminates in Tee Fitting at Northwest corner of 4th Ave. and UMRR intersection.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004</a>	305
	Utility ID 62	County Force Main, Sewer	Manatee County	10	SPM000354	12/2/1999	6	PVC		WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=004</a>	306
	Utility ID 61	County Force Main, Sewer	Manatee County	8	SPM009983	1/1/1997	6	PVC	6-inch PVC Sewer force main perpendicular to UMRR and under the southbound travel lane. Terminates in Tee Fitting at northwest corner of 4th Ave. and UMRR intersection.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=009</a>	8182
	Utility ID 60	County Force Main, Sewer	Manatee County	2097	SPM009963	1/1/1997	6	PVC	6-inch PVC Sewer force main perpendicular to UMRR heading East and North of 4th Ave.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=009</a>	434
	Utility ID 88.1	County Force Main, Sewer	Manatee County	26	SPM000339	12/2/1999	6	PVC	6-inch PVC Sewer force main that runs North-South and transitions with two 45-deg bends and travels West down the South side of Waterlefe Blvd.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	291
	Utility ID 88.2	County Force Main, Sewer	Manatee County	995	SPM005638	12/2/1999	6	PVC		WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=011">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=011</a>	4870
	Utility ID 40	County Force Main, Sewer	Manatee County	440	SPM000355	7/31/1997	6	PVC	6-inch Sewer force main running East-West on the South side of Greenfield Blvd. heading West.	GREENFIELD PLANTATION - GREENFIELD PLANTATION - RIVER ROAD PLANTATION (02027) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagel=001">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagel=001</a>	307
	Utility ID 43	County Force Main, Sewer	Manatee County	746	SPM000361	1/1/1997	6	PVC	6-inch Sewer force main running North-South from the Southwest corner of the UMRR and Greenfield Blvd. intersection traveling North.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653180&amp;pagel=004</a>	313
	Utility ID 74	County Force Main, Sewer	Manatee County	467	SPM000342	12/2/1999	6	PVC	6-inch Sewer force main running parallel to UMRR on the East side. Underneath North bound shoulder of pavement.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	294
	Utility ID 76	County Force Main, Sewer	Manatee County	865	SPM000345	12/2/1999	6	PVC		WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagel=003</a>	297
	Utility ID 137	County Force Main, Sewer	Manatee County	6349	06349	9/3/2015	4	PVC	4-inch PVC Sewer force main traveling East-West at Fort Hammer	FORT HAMMER ROAD - WATER MAIN CROSSING - FORT HAMMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagel=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagel=009</a>	8035



Utility ID # - Corresponds to UMRR Utility Identification Sheets	UMRR Road Utilities											
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID	
Utility ID 138	County Force Main, Sewer	Manatee County	434	00434	3/28/2002	4	PVC	Road. Crosses 24-inch DIP Water Main traveling North-South.	WATERLEFE GOLF & RIVER CLUB PHASE 3B & 5A - WATERLEFE GOLF & RIVER CLUB PHASE 3B & 5A (00434) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650525&amp;pagel=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650525&amp;pagel=002</a>	5098	
Utility ID 44	County Force Main, Sewer	Manatee County	81	SPM007372	9/22/2017	4	PVC	4-inch Sewer force main running East-West on the South side of Copperlefe Dr. heading East.	COPPERLEFE - COPPERLEFE (06516) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagel=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagel=002</a>	6239	
Utility ID 45	County Force Main, Sewer	Manatee County	848	SPM007371	9/22/2017	4	PVC		COPPERLEFE - COPPERLEFE (06516) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagel=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagel=002</a>	6238	
Utility ID 8	County Gravity Main, Sewer	Manatee County	55	SGM007712	3/6/1989	12	PVC	12-inch PVC Sewer Gravity Main running perpendicular to UMRR. Sewer line runs along the area just North of Lift Station 330 (LS330).	SOUTHEAST SUBREG PUMP STATIONS AND FM PHASE I - SEGMENT C - PART 2 - SOUTHEAST SUBREG PUMP STATIONS AND FM PHASE I - SEGMENT C - PART 2 - BRADEN RIVER CAMPGROUND 10 (RTU 328), SR 64 12 (RTU 329), UPPER MANATEE RIVER 13 (RTU 330) (00991) - UTD - REC - Reco	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10651529&amp;pagel=021">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10651529&amp;pagel=021</a>	9187	
Utility ID 3	County Gravity Main, Sewer	Manatee County	205	SGM029354	7/16/2018	8	PVC	8-inch PVC Sewer Gravity Main running parallel to UMRR along the West side of the pavement. Sewer Gravity Main is routed North towards Lift Station 330 (LS330).	WARNER CROSSING - WARNER CROSSING (06744) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013</a>	26693	
Utility ID 4	County Gravity Main, Sewer	Manatee County	40	SGM029356	7/16/2018	8	PVC		WARNER CROSSING - WARNER CROSSING (06744) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013</a>	26695	
Utility ID 5	County Gravity Main, Sewer	Manatee County	274	SGM029355	7/16/2018	8	PVC		WARNER CROSSING - WARNER CROSSING (06744) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013</a>	26694	
Utility ID 6	County Gravity Main, Sewer	Manatee County	40	SGM029357	7/16/2018	8	PVC		WARNER CROSSING - WARNER CROSSING (06744) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013</a>	26696	
Utility ID 7	County Gravity Main, Sewer	Manatee County	35	SGM029358	7/16/2018	8	PVC		WARNER CROSSING - WARNER CROSSING (06744) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=16533041&amp;pagel=013</a>	26697	
Utility ID 21	County Main Line, Water	Manatee County	96	WPM059977	8/28/2008	42	DIP		42-inch DIP Water Main running parallel to UMRR on the East side under pavement. Terminates in Tee fitting underneath Northeast corner of intersection and changes direction heading West transitioning into Utility ID 19.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	39404
Utility ID 19	County Main Line, Water	Manatee County	44	WPM059974	8/28/2008	42	DIP		42-inch DIP Water Main running perpendicular to UMRR and underneath the pavement of UMRR. Water Main 90-deg bends and travels south underneath the sidewalk curb at the Northeast corner of the UMRR and 10th Ave. E.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	39401
Utility ID 16	County Main Line, Water	Manatee County	33	WPM059973	8/28/2008	42	DIP	42-inch DIP Water Main that follows a North-South direction parallel to UMRR and then transitions due East underneath the pavement of UMRR. This pipeline crosses underneath the North side of the intersection between 10th Ave. E. and UMRR. Pipeline runs perpendicular to UMRR.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	39359	
Utility ID 17	County Main Line, Water	Manatee County	14	WPM061413	8/28/2008	42	DIP	42-inch DIP Water Main that follows a North-South direction parallel to UMRR. Underneath Western Sidewalk pavement on UMRR. Located several feet West of UMRR pavement.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	42652	
Utility ID 18	County Main Line, Water	Manatee County	375	WPM012831	12/4/1995	42	PVC	42-inch DIP Water Main that follows a North-South direction parallel to UMRR. Underneath Western Sidewalk pavement.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=010</a>	74137	
Utility ID 73	County Main Line, Water	Manatee County	625	WPM000683	12/4/1995	42	PVC	42-inch PVC Water Main running parallel to UMRR on the West side, directly West of the edge of shoulder pavement.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=017">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=017</a>	27010	
Utility ID 75	County Main Line, Water	Manatee County	686	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=018">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=018</a>	74135	
Utility ID 77	County Main Line, Water	Manatee County	510	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=019">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=019</a>	74134	
Utility ID 78	County Main Line, Water	Manatee County	217	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020</a>	74133	
Utility ID 86	County Main Line, Water	Manatee County	481	WPM013526	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=021">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=021</a>	24697	
Utility ID 83	County Main Line, Water	Manatee County	171	WPM034022	12/4/1995	42	PVC		42-inch PVC Water Main running parallel to UMRR on the West side, directly West of the edge of shoulder pavement. Terminates in Tee Fitting to the West of UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020</a>	49860
Utility ID 85	County Main Line, Water	Manatee County	208	WPM013526	12/4/1995	42	PVC		42-inch PVC Water Main running parallel to UMRR on the West side, directly West of the edge of shoulder pavement. Terminates in Tee Fitting to the West of UMRR. Has associated 6-inch DIP main for Hydrant Assembly.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=020</a>	74196
Utility ID 57	County Main Line, Water	Manatee County	639	WPM000443	12/4/1995	42	PVC	42-inch PVC Water Main running parallel to UMRR on the West side, east of sidewalk. Pipeline is located between Sidewalk and pavement of UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=014">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=014</a>	27144	
Utility ID 70	County Main Line, Water	Manatee County	321	WPM000683	12/4/1995	42	PVC	42-inch PVC Water Main running parallel to UMRR on the West side. Pipeline is located mainly between the West side of UMRR and the Western sidewalk on UMRR. Located directly off the eastern side of the Sidewalk pavement.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=016">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagel=016</a>	74136	

UMRR Road Utilities											
Utility ID # - Corresponds to UMRR Utility Identification Sheets											
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
Utility ID 64	County Main Line, Water	Manatee County	627	WPM000443	12/4/1995	42	PVC	42-inch PVC Water Main running parallel to UMRR on the West side. Pipeline is located mainly between the West side of UMRR and the Western sidewalk on UMRR. Transitions to being on the West side of the sidewalk before termination.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=015">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=015</a>	74195
Utility ID 65	County Main Line, Water	Manatee County	272	WPM000443	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=016">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=016</a>	74194
Utility ID 32	County Main Line, Water	Manatee County	569	WPM012831	12/4/1995	42	PVC	42-inch PVC Water Main that follows a North-South direction parallel to UMRR. Located on West side of UMRR approximately several feet off of pavement. Pipeline is located between Sidewalk and pavement of UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=011">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=011</a>	74138
Utility ID 38	County Main Line, Water	Manatee County	612	WPM012831	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=012">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=012</a>	25391
Utility ID 51	County Main Line, Water	Manatee County	500	WPM000443	12/4/1995	42	PVC	42-inch PVC Water Main that follows a North-South direction parallel to UMRR. Located on West side of UMRR. Pipeline then extends North from the Northeast Corner of the intersection between Greenfield Blvd and UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=013">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=013</a>	74193
Utility ID 39	County Main Line, Water	Manatee County	77	WPM012831	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=011">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=011</a>	74139
Utility ID 110	County Main Line, Water	Manatee County	464	WPM027203	12/4/1995	42	UNK	42-inch UNK Water Main crosses underneath UMRR traveling Northeast through empty easement, moving further from UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025</a>	66829
Utility ID 79	County Main Line, Water	Manatee County	5	WPM013522	12/4/1995	42	UNK	42-inch UNK Water Main parallel to UMRR along the West side of pavement. Located several feet off of pavement and terminates in Tee Fitting to the West of UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=020">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=020</a>	24693
Utility ID 93	County Main Line, Water	Manatee County	92	WPM053342	12/4/1995	42	UNK	42-inch UNK Water Main running North-South, parallel to UMRR and crossing underneath the pavement just East of the Waterlefe Road crosswalk.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=021">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=021</a>	37720
Utility ID 94	County Main Line, Water	Manatee County	555	WPM000756	12/4/1995	42	UNK		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=022">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=022</a>	27249
Utility ID 106	County Main Line, Water	Manatee County	554	WPM000219	12/4/1995	42	PVC	42-inch UNK Water Main running parallel to UMRR on the West side, directly underneath the South bound lane of travel for UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=024</a>	26204
Utility ID 108	County Main Line, Water	Manatee County	171	WPM000219	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025</a>	74197
Utility ID 97	County Main Line, Water	Manatee County	680	WPM013525	12/4/1995	42	UNK	42-inch UNK Water Main running parallel to UMRR on the West side. Has associated 6-inch DIP main for Hydrant Assembly.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=023">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=023</a>	24696
Utility ID 2	County Main Line, Water	Manatee County	659		12/4/1995	42	UNK	42-inch UNK Water Main running parallel to UMRR. Water Main is located underneath the East side of the Southbound travel lane running North-South.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=009</a>	40226
Utility ID 115	County Main Line, Water	Manatee County	12	WPM012171	12/4/1995	42	UNK	42-inch UNK Water Main underneath UMRR pavement traveling due East. Terminates in Tee Fitting underneath the Center lane on UMRR.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025</a>	21492
Utility ID 116	County Main Line, Water	Manatee County	444	WPM012497	12/4/1995	42	PVC		42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=026">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=026</a>	74198
Utility ID 112	County Main Line, Water	Manatee County	148	WPM027201	12/4/1995	42	UNK	42-inch UNK Water Main travels due East underneath the East bound UMRR pavement.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=025</a>	66827
Utility ID 125	County Main Line, Water	Manatee County	45	WPM027207	9/3/2015	24	DIP	24-inch DIP traveling East along the North side UMRR crossing underneath the sidewalk pavement.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008</a>	66877
Utility ID 126	County Main Line, Water	Manatee County	161	WPM027208	9/3/2015	24	DIP	24-inch DIP traveling East changing direction and traveling North with a 90-deg bend.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008</a>	66878
Utility ID 127	County Main Line, Water	Manatee County	540	WPM027206	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009</a>	66876

Utility ID # - Corresponds to UMRR Utility Identification Sheets	UMRR Road Utilities										
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
Utility ID 133	County Main Line, Water	Manatee County	67	WPM027217	9/3/2015	24	DIP	24-inch PVC Water Main traveling North-South parallel to Fort Hamer Road.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010</a>	66887
Utility ID 128	County Main Line, Water	Manatee County	60	WPM027215	9/3/2015	24	DIP	24-inch PVC Water Main traveling North-South parallel to Fort Hamer Road. Crosses a 4-inch PVC Sewer force main traveling East-West.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009</a>	66885
Utility ID 129	County Main Line, Water	Manatee County	17	WPM027216	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009</a>	66886
Utility ID 130	County Main Line, Water	Manatee County	6	WPM027220	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010</a>	66890
Utility ID 131	County Main Line, Water	Manatee County	2	WPM027230	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010</a>	66945
	County Main Line, Water	Manatee County	1	WPM027229	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=010</a>	66944
Utility ID 121	County Main Line, Water	Manatee County	3	WPM027205	9/3/2015	24	DIP		24-inch UNK Water Main traveling North underneath UMRR pavement, transitions East with 90-deg bend.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008</a>
Utility ID 122	County Main Line, Water	Manatee County	28	WPM000274	9/3/2015	24	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008</a>	26423
Utility ID 49	County Main Line, Water	Manatee County	144	WPM017461	9/22/2017	10	HDPE	10-inch HDPE Water Main running underneath the North side crosswalk from the UMRR and Greenfield Blvd./Copperlefe Road intersection.	COPPERLEFE - COPPERLEFE (06516) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagelid=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagelid=002</a>	68473
Utility ID 92	County Main Line, Water	Manatee County	6	WPM053341	12/2/1999	10	PVC	10-inch PVC Water Main connection into 42-inch UNK Water Main Tee Fitting. Located at the Northwest corner of the Waterlefe Road and UMRR intersection.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagelid=011">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagelid=011</a>	37719
Utility ID 91	County Main Line, Water	Manatee County	211	WPM067120	12/2/1999	10	PVC	10-inch PVC Water Main running underneath the sidewalk on the North side of Waterlefe Blvd.	WATERLEFE GOLF & RIVER CLUB PHASE 2-A - WATERLEFE GOLF & RIVER CLUB PHASE 2-A (02492) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagelid=011">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650026&amp;pagelid=011</a>	51163
Utility ID 46	County Main Line, Water	Manatee County	20	WPM000535	7/31/1997	10	UNK	10-inch UNK Water Main running parallel to and north of Greenfield Blvd. heading West from the Northwest corner of the UMRR and Greenfield Blvd. intersection.	GREENFIELD PLANTATION - GREENFIELD PLANTATION - RIVER ROAD PLANTATION (02027) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001</a>	26436
Utility ID 47	County Main Line, Water	Manatee County	17	WPM017458	7/31/1997	10	UNK		GREENFIELD PLANTATION - GREENFIELD PLANTATION - RIVER ROAD PLANTATION (02027) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001</a>	68426
Utility ID 48	County Main Line, Water	Manatee County	83	WPM012123	7/31/1997	10	UNK		GREENFIELD PLANTATION - GREENFIELD PLANTATION - RIVER ROAD PLANTATION (02027) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653428&amp;pagelid=001</a>	22551
Utility ID 134	County Main Line, Water	Manatee County	3	WPM027211	9/3/2015	8	DIP	6-inch DIP Water Main traveling West, transitions to 8-inch DIP heading Northwest, transitions to 8-inch PVC Water Main heading due West.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009</a>	66881
Utility ID 135	County Main Line, Water	Manatee County	18	WPM027210	9/3/2015	8	DIP		FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=009</a>	66880
Utility ID 136	County Main Line, Water	Manatee County	519	WPM052459	3/28/2002	8	PVC		WATERLEFE GOLF & RIVER CLUB PHASE 3B & 5A - WATERLEFE GOLF & RIVER CLUB PHASE 3B & 5A (00434) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650525&amp;pagelid=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650525&amp;pagelid=002</a>	37975
Utility ID 123	County Main Line, Water	Manatee County	19	WPM027204	9/3/2015	8	DIP	8-inch DIP Water Main traveling perpendicular to UMRR underneath the roadway pavement on the North side of UMRR.	FORT HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagelid=008</a>	66874
Utility ID 124	County Main Line, Water	Manatee County	37	WPM013097	11/18/1997	8	HDPE	8-inch HDPE Water Main traveling perpendicular to UMRR underneath the roadway pavement on the South side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010</a>	25268
Utility ID 80	County Main Line, Water	Manatee County	48	WPM000399	12/4/1995	8	UNK	8-inch PVC running East-West underneath UMRR. The line is routed East underneath UMRR as 8-inch PVC. Transitions Northward with 90-deg bend and continues North along the East side of UMRR as 6-inch PVC. 6-inch PVC Water Main is located directly underneath the edge of pavement of UMRR and the East side.	42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=020">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653090&amp;pagelid=020</a>	26935
Utility ID 114	County Main Line, Water	Manatee County	5	WPM052978	11/18/1997	8	PVC	8-inch PVC transitions to 6-inch PVC along the South side of UMRR. Terminates in Tee Fitting along the South side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010</a>	38265
Utility ID 50	County Main Line, Water	Manatee County	124	WPM017462	9/22/2017	8	PVC	8-inch PVC Water Main parallel to Copperlefe Road on the North side heading West away from the UMRR and Copperlefe Road intersection.	COPPERLEFE - COPPERLEFE (06516) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagelid=002">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=15485944&amp;pagelid=002</a>	68474
Utility ID 117	County Main Line, Water	Manatee County	136	WPM000086	11/18/1997	8	PVC	8-inch PVC Water Main traveling East, parallel to UMRR along the South side of UMRR. Transitions to 2-inch PVC Water Main .	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010</a>	26842
Utility ID 118	County Main Line, Water	Manatee County	5	WPM066037	11/18/1997	8	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010</a>	35845
Utility ID 119	County Main Line, Water	Manatee County	36	WPM000341	11/18/1997	8	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagelid=010</a>	26707



Utility ID # - Corresponds to UMRR Utility Identification Sheets	UMRR Road Utilities										
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
Utility ID 69	County Main Line, Water	Manatee County	17	WPM053242	1/1/1997	8	UNK	8-inch UNK Water Main extending East underneath the pavement of UMRR's South bound travel lane.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653180&pagelid=004	38395
Utility ID 58	County Main Line, Water	Manatee County	464	WPM000332	1/1/1997	8	UNK	8-inch UNK Water Main heading East from the 4th Ave. and UMRR intersection south of 4th Ave.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653180&pagelid=009	26641
Utility ID 67	County Main Line, Water	Manatee County	262	WPM000063	1/1/1997	8	UNK	8-inch UNK Water Main heading West from UMRR along the South side of 2nd Ave. Perpendicular to UMRR.	GATES CREEK PHASE 2 - GATES CREEK PHASE 2 (02018) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653419&pagelid=006	26764
Utility ID 66	County Main Line, Water	Manatee County	20	WPM000060	1/1/1997	8	UNK	8-inch UNK Water Main running North-South parallel to UMRR on the East side. Extends approximately 20-feet south then terminates.	GATES CREEK PHASE 2 - GATES CREEK PHASE 2 (02018) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653419&pagelid=006	26761
Utility ID 68	County Main Line, Water	Manatee County	449	WPM000405	1/1/1997	8	UNK	8-inch UNK Water Main running North-South parallel to UMRR on the East side. Located directly East of sidewalk.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653180&pagelid=004	26995
Utility ID 56	County Main Line, Water	Manatee County	148	WPM000344	1/1/1997	8	UNK	8-inch UNK Water Main running parallel to UMRR on the East side. Located several feet East of Eastern UMRR Sidewalk. Water Main then 90-deg bends heading East from 4th Ave. and UMRR intersection.	GATES CREEK PHASE 1 - GATES CREEK PHASE 1 (01877) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653180&pagelid=004	26710
Utility ID 28	County Main Line, Water	Manatee County	78	WPM053335	9/4/1979	6	PVC	6-inch PVC Water Main bored underneath crosswalk crossing 10th Ave. perpendicularly located to the East of UMRR.	WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650644&pagelid=001	37713
Utility ID 111	County Main Line, Water	Manatee County	97	WPM067036	11/18/1997	6	PVC	6-inch PVC Water Main heading East along the South side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=010	50731
Utility ID 103	County Main Line, Water	Manatee County	312	WPM067034	11/18/1997	6	PVC	6-inch PVC Water Main parallel to UMRR traveling along the East side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=007	50729
Utility ID 104	County Main Line, Water	Manatee County	312	WPM067034	11/18/1997	6	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=007	50729
Utility ID 105	County Main Line, Water	Manatee County	606	WPM067035	11/18/1997	6	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=008	50730
Utility ID 102	County Main Line, Water	Manatee County	8	WPM000478	11/18/1997	6	PVC	6-inch PVC Water Main parallel to UMRR traveling North-South on East side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=007	26215
Utility ID 35	County Main Line, Water	Manatee County	25	WPM015579	12/14/1979	6	PVC	6-inch PVC Water Main running parallel to 8th Ave. on the South side of the roadway.	WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	28027
Utility ID 36	County Main Line, Water	Manatee County	592	WPM015579	12/14/1979	6	PVC		WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	26561
Utility ID 33	County Main Line, Water	Manatee County	610	WPM015580	12/14/1979	6	PVC	6-inch PVC Water Main running parallel to UMRR and is directly adjacent to the sidewalk on the East side.	WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	28028
Utility ID 37	County Main Line, Water	Manatee County	32	WPM034966	12/14/1979	6	PVC		WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	49160
Utility ID 34	County Main Line, Water	Manatee County	36	WPM012402	12/14/1979	6	PVC	6-inch PVC Water Main running parallel to UMRR and is directly adjacent to the sidewalk on the East side. Bored underneath 8th Ave. Crosswalk.	WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	25712
Utility ID 23	County Main Line, Water	Manatee County	7	WPM059980	9/4/1979	6	PVC	6-inch PVC Water Main running parallel to UMRR and is directly adjacent to the sidewalk on the East side. Terminates in a Tee fitting at the Southeast corner of the UMRR and 10th Ave. intersection.	WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650644&pagelid=001	39407
Utility ID 29	County Main Line, Water	Manatee County	610	WPM015580	12/14/1979	6	PVC	6-inch PVC Water Main running parallel to UMRR and is directly underneath the sidewalk located on the East side of UMRR North of 10th Ave.	WINDANCE ESTATES SUBDIVISION - WINDANCE ESTATES SUBDIVISION (00476) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650667&pagelid=001	28028
Utility ID 87	County Main Line, Water	Manatee County	343	WPM067030	11/18/1997	6	PVC	6-inch PVC Water Main running parallel to UMRR on the East side, directly East of the edge of shoulder pavement.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=005	50726
Utility ID 88	County Main Line, Water	Manatee County	256	WPM067031	11/18/1997	6	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=005	50727
Utility ID 90	County Main Line, Water	Manatee County	599	WPM013524	11/18/1997	6	PVC		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=006	24695
Utility ID 99	County Main Line, Water	Manatee County	282	WPM067032	11/18/1997	6	PVC	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=007	50728	
Utility ID 24	County Main Line, Water	Manatee County	5	WPM059981	9/4/1979	6	PVC	6-inch PVC Water Main running perpendicular to UMRR and extends from a Tee fitting at the Southeast corner of the UMRR and 10th Ave. intersection and travels East.	WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650644&pagelid=001	39408
Utility ID 25	County Main Line, Water	Manatee County	25	WPM059982	9/4/1979	6	PVC	6-inch PVC Water Main running perpendicular to UMRR and extends from the Southeast corner of the UMRR and 10th Ave. intersection and travels East.	WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650644&pagelid=001	39409
Utility ID 27	County Main Line, Water	Manatee County	464	WPM000284	9/4/1979	6	PVC		WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10650644&pagelid=001	26487
Utility ID 109	County Main Line, Water	Manatee County	608	WPM012540	11/18/1997	6	PVC	6-inch PVC Water Main travels Northeast through empty easement moving further from UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&dodid=10653420&pagelid=009	25300
Utility ID 22	County Main Line, Water	Manatee County	49	WPM059975	1/1/1900	6	UNK	6-inch UNK Water Main running parallel to UMRR and is directly adjacent to the sidewalk on the East side.	Null	No documents available	39402

Utility ID # - Corresponds to UMRR Utility Identification Sheets	UMRR Road Utilities										
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
Utility ID 81	County Main Line, Water	Manatee County	5	WPM013111	11/18/1997	6	PVC	8-inch PVC running East-West underneath UMRR. The line is routed East underneath UMRR as 8-inch PVC. Transitions Northward with 90-deg bend and continues North along the East side of UMRR as 6-inch PVC. 6-inch PVC Water Main is located directly underneath the edge of pavement of UMRR and the East side.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=004</a>	25341
Utility ID 82	County Main Line, Water	Manatee County	355	WPM013523	11/18/1997	6	PVC	8-inch PVC running East-West underneath UMRR. The line is routed East underneath UMRR as 8-inch PVC. Transitions Northward with 90-deg bend and continues North along the East side of UMRR as 6-inch PVC. 6-inch PVC Water Main is located directly underneath the edge of pavement of UMRR and the East side.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=004">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=004</a>	24694
Utility ID 113	County Main Line, Water	Manatee County	4	WPM067084	11/18/1997	6	PVC	8-inch PVC transitions to 6-inch PVC along the South side of UMRR. Terminates in Tee Fitting along the South side of UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=010</a>	50953
Utility ID 100	County Lateral Line, Water	Manatee County	10	WLL009882	11/18/1997	6	DIP	6-inch DIP Water mains connecting to Hydrant Assembly on East side of UMRR. Perpendicular to UMRR.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007</a>	93542
Utility ID 101	County Lateral Line, Water	Manatee County	10	WLL009883	11/18/1997	6	DIP		UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007</a>	93543
Utility ID 26	County Lateral Line, Water	Manatee County	21	WLL033936	9/4/1979	6	DIP		WINDSONG ACRES SUBDIVISION - WINDSONG ACRES SUBDIVISION (00453) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650644&amp;pagel=001">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650644&amp;pagel=001</a>	92273
Utility ID 132	County Lateral Line, Water	Manatee County	3	WLL068621	9/3/2015	6	DIP	6-inch DIP Water Main and attached Hydrant Assembly.	FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagel=010">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=14656163&amp;pagel=010</a>	197983
Utility ID 20	County Lateral Line, Water	Manatee County	13	WLL075858	12/22/2010	6	DIP	6-inch DIP Water Main with attached Hydrant Assembly. Located at the Northeast corner of the intersection with 10th Ave. E. and UMRR underneath the sidewalk pavement.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	49652
Utility ID 13	County Lateral Line, Water	Manatee County	10	WLL036462	1/1/1900	2	UNK	2-inch UNK Water Main running North-South parallel to and on the West side of UMRR.	Null	No documents available	129591
Utility ID 9	County Lateral Line, Water	Manatee County	208	WLL009432	1/1/1900	2	UNK	2-inch UNK Water Main supplying water to Lift Station 330 (LS330) running North-South parallel to UMRR along the East side of roadway.	Null	No documents available	95583
Utility ID 95	County Lateral Line, Water	Manatee County	24	WLL009879	11/18/1997	1	HDPE	1-inch HDPE main heading East underneath stormwater culvert.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=006">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=006</a>	93539
Utility ID 96	County Lateral Line, Water	Manatee County	28	WLL009880	11/18/1997	1	HDPE	1-inch HDPE main heading East.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=006">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=006</a>	93540
Utility ID 98	County Lateral Line, Water	Manatee County	25	WLL009881	11/18/1997	1	HDPE	1-inch HDPE main heading East.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=007</a>	93541
Utility ID 107	County Lateral Line, Water	Manatee County	34	WLL009884	11/18/1997	1	HDPE	1-inch HDPE main heading Southeast underneath stormwater culvert.	UPPER MANATEE RIVER ROAD 6 IN WL EXT - UPPER MANATEE RIVER ROAD 6 IN WL EXT (02019) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10653420&amp;pagel=</a>	93544
Utility ID 14	County Main Line, Water	Manatee County	6	WPM034020	8/28/2008	2	UNK	2-inch UNK Water Main running East-West perpendicular to and on the West side of UMRR.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	49858
Utility ID 15	County Main Line, Water	Manatee County	5	WPM034021	8/28/2008	2	UNK	2-inch UNK Water Main running East-West perpendicular to and on the West side of UMRR. Pipeline terminates in Tee fitting underneath the Western sidewalk on UMRR.	SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) - SR 64 - WATER & FORCE MAIN (LENA RD TO EAST OF 111TH ST E) (05205) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10652938&amp;pagel=024</a>	49859
Utility ID 120	County Main Line, Water	Manatee County	84	WPM066036	8/9/1999	2	PVC	8-inch PVC Water Main traveling East, parallel to UMRR along the South side of UMRR. Transitions to 2-inch PVC Water Main.	Null	No documents available	35844
Utility ID 54	Private Main Line, Water	Braden River Utilities	244	WPM015136	2/5/2004	8	PVC	8-inch PVC Water Main perpendicular to UMRR on the East side.	CHRIST AR PRESBYTERIAN CHURCH (WATER) - CHRIST AR PRESBYTERIAN CHURCH (WATER) (03410) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003</a>	27391
Utility ID 52	Private Main Line, Water	Braden River Utilities	26	WPM015142	2/5/2004	8	PVC	8-inch PVC Water Main running parallel to UMRR on the East side. Located several feet East of Eastern UMRR Sidewalk.	CHRIST AR PRESBYTERIAN CHURCH (WATER) - CHRIST AR PRESBYTERIAN CHURCH (WATER) (03410) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003</a>	27397
Utility ID 55	Private Main Line, Water	Braden River Utilities	256	WPM000817	2/5/2004	8	PVC	8-inch PVC Water Main running parallel to UMRR on the East side. Located several feet East of Eastern UMRR Sidewalk.	CHRIST AR PRESBYTERIAN CHURCH (WATER) - CHRIST AR PRESBYTERIAN CHURCH (WATER) (03410) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003</a>	26381
Utility ID 53	Private Lateral Line, Water	Braden River Utilities	527	WLL070377	3/26/2004	2	HDPE	2-inch PVC/HDPE Water main perpendicular to UMRR on the East side.	CHRIST AR PRESBYTERIAN CHURCH (WATER) - CHRIST AR PRESBYTERIAN CHURCH (WATER) (03410) - UTD - REC - Record Drawing	<a href="https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003">https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&amp;docid=10650806&amp;pagel=003</a>	
	ATMS	Manatee County	--	--	--	2	PVC	County ATMS lines run the length of UMRR corridor on the west side.			
	IT-BFO	Manatee County	--	--	--	2	PVC	County IT communication BFO run the length of UMRR corridor on the west side.			
	BFO	Charter-Spectrum	UNK	NA	UNK	UNK	UNK	Spectrum has Aerial fiber optic cable running the length of Upper Manatee River Road on Florida Power & Light's (FPL) poles situated along the East side of Upper Manatee River Road traveling in the North-South Direction.	NA	NA	NA
	BFO	Frontier	UNK	NA	UNK	UNK	UNK	UNK	NA	NA	NA
	BFO	MCI	UNK	NA	UNK	UNK	UNK	MCI has aerial fiber optic cable running the length of Upper Manatee River Road on Florida Power & Light's (FPL) poles situated along the East side of Upper Manatee River Road traveling in the North-South Direction.	NA	NA	NA

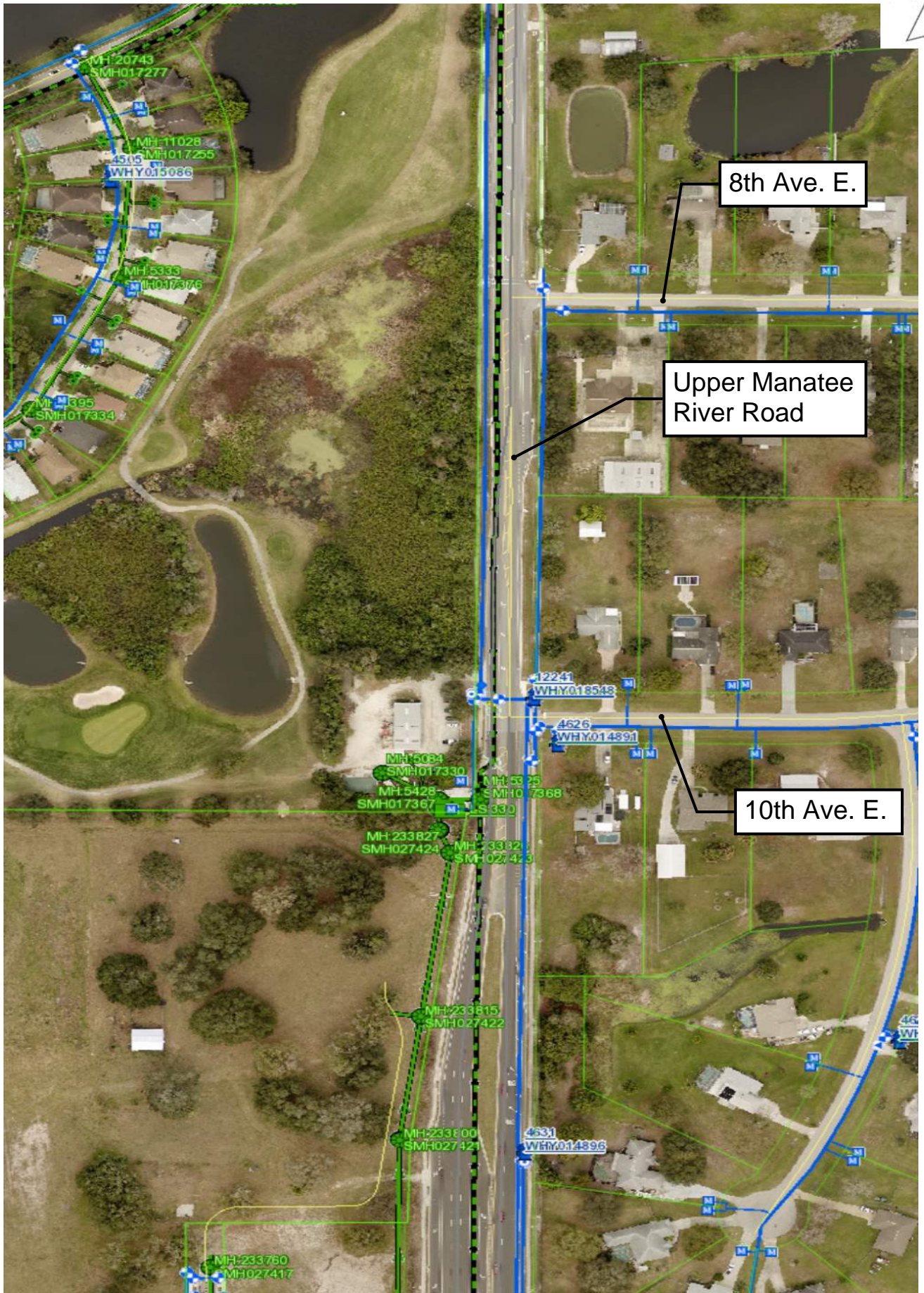
UMRR Road Utilities											
Utility ID # - Corresponds to UMRR Utility Identification Sheets											
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
	High-Voltage Transmission and Distribution Wires (Overhead)	FPL	--	NA	NA	NA	NA	FPL has Distribution Wires running on the East side of the UMRR Road Corridor varying positions throughout the corridor. All FPL utilities are aerial overhead facilities.	NA	NA	NA
	Power	Black and Veatch	UNK	NA	UNK	UNK	UNK	UNK	NA	NA	NA
	Natural Gas	TECO	UNK	NA	UNK	UNK	UNK	UNK	NA	NA	NA
	BFO	ZAYO	UNK	NA	UNK	UNK	UNK	Zayo has BFO cable that appears in the roadway corridor of 3rd Ave. E. and is routed. onto Florida Power & Light's (FPL) Poles	NA	NA	NA

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## Appendix B – Detailed Location Map

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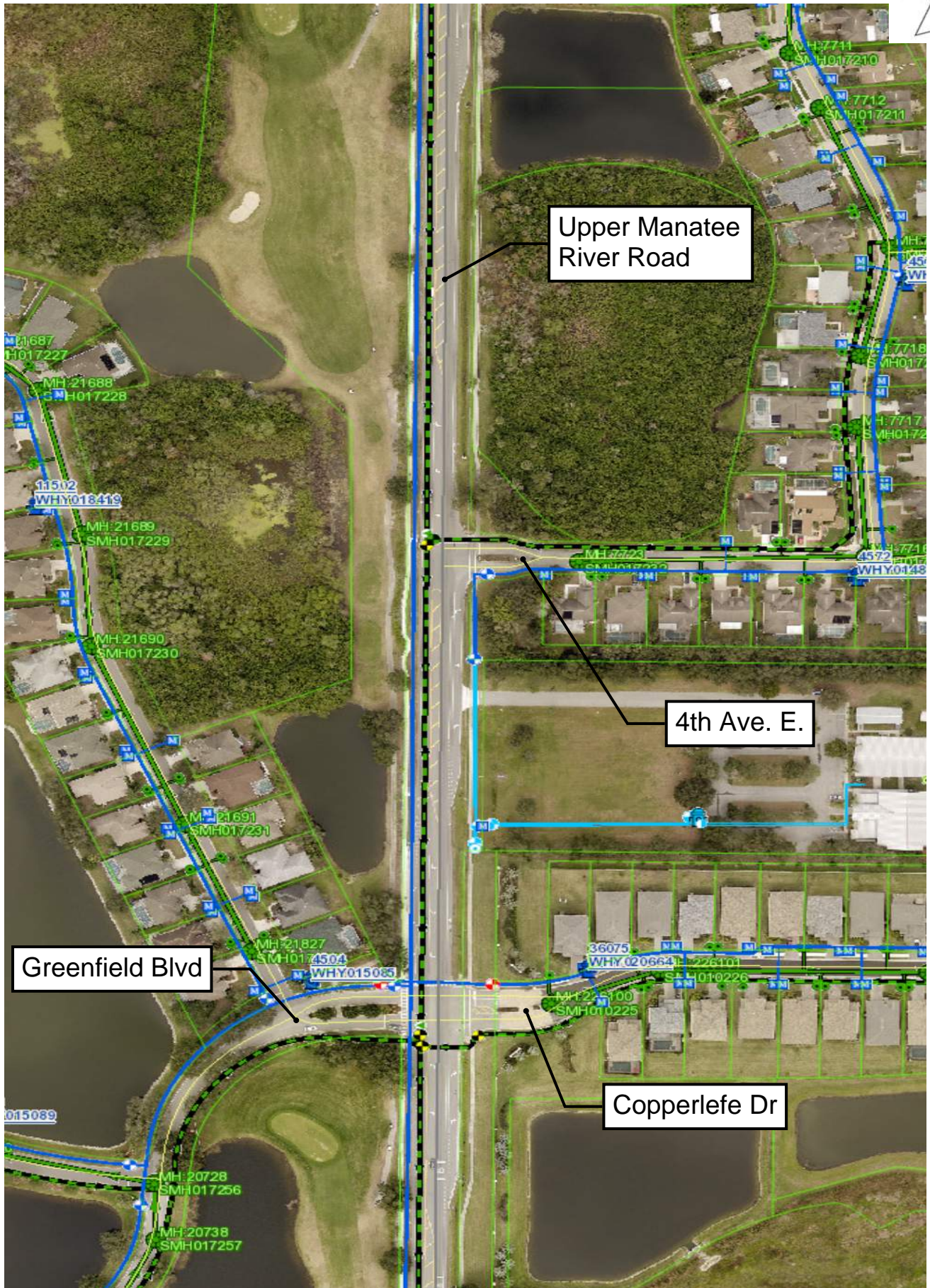




8th Ave. E.

Upper Manatee  
River Road

10th Ave. E.



Upper Manatee River Road

4th Ave. E.

Greenfield Blvd

Copperlefe Dr



Port Harbour Parkway

Upper Manatee River Road

2nd Ave. E.

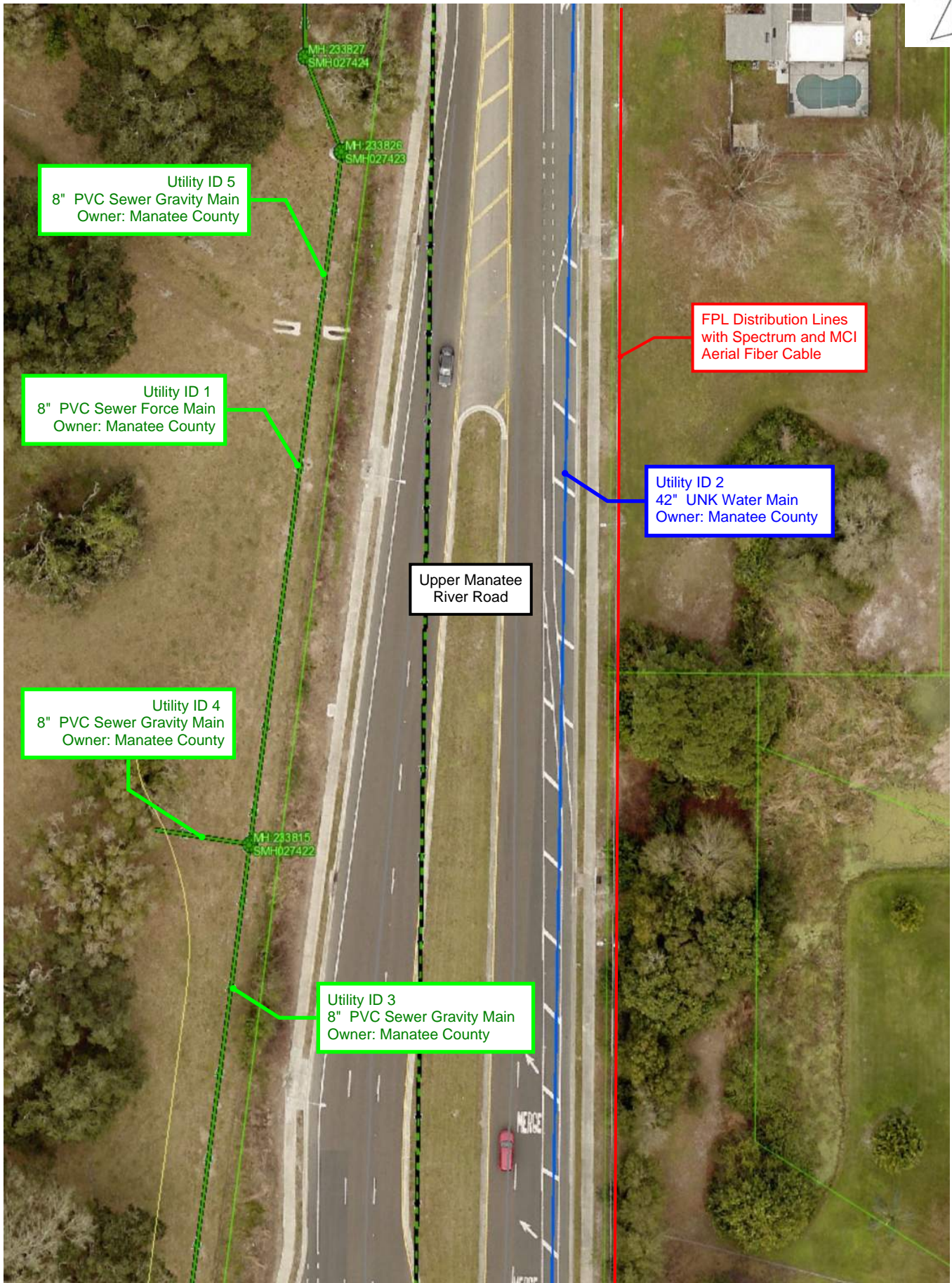


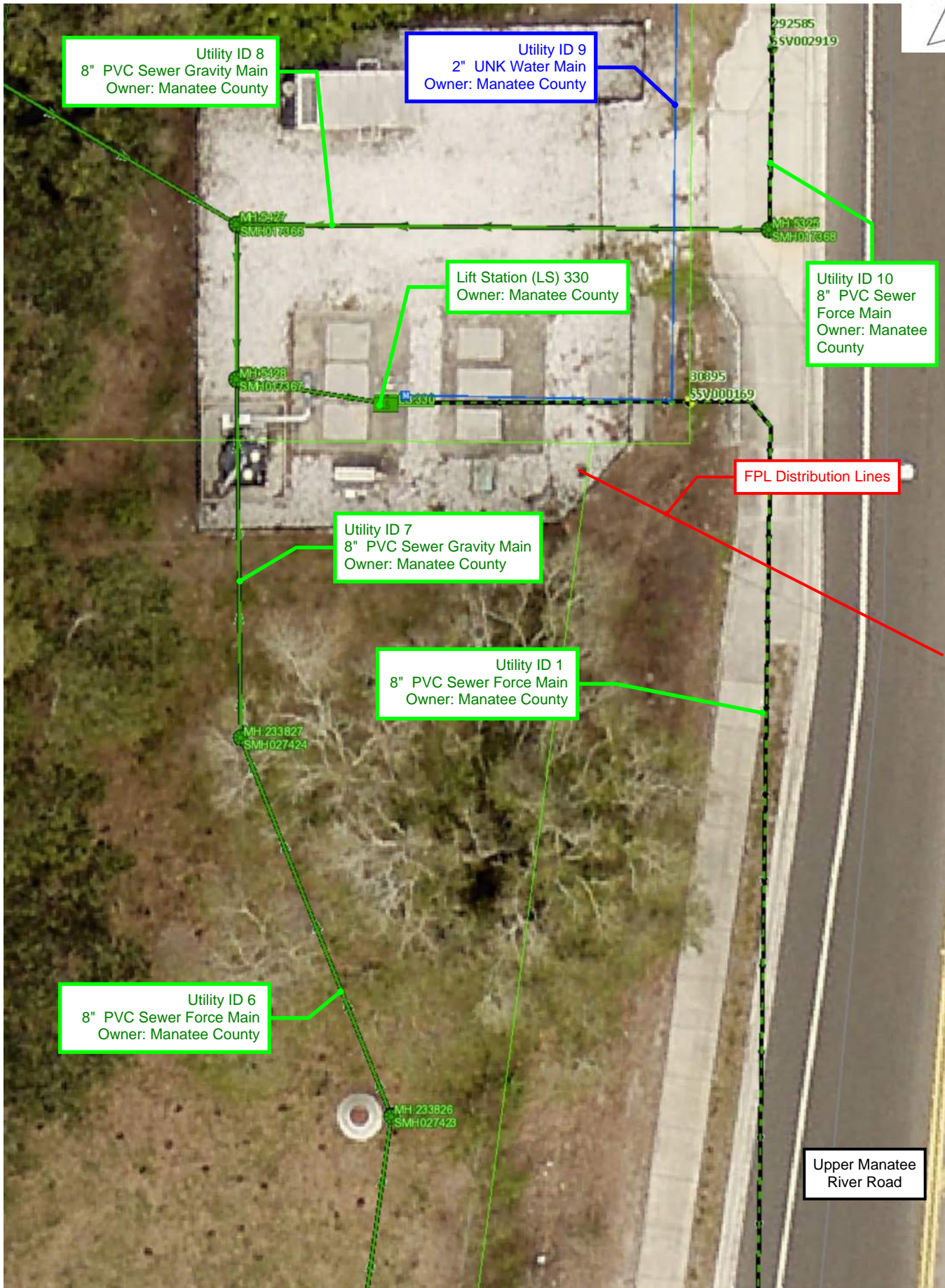
Waterlefe Blvd

Upper Manatee River Road

# Upper Manatee River Road Utility Location Map







Utility ID 8  
8" PVC Sewer Gravity Main  
Owner: Manatee County

Utility ID 9  
2" UNK Water Main  
Owner: Manatee County

Lift Station (LS) 330  
Owner: Manatee County

Utility ID 10  
8" PVC Sewer  
Force Main  
Owner: Manatee  
County

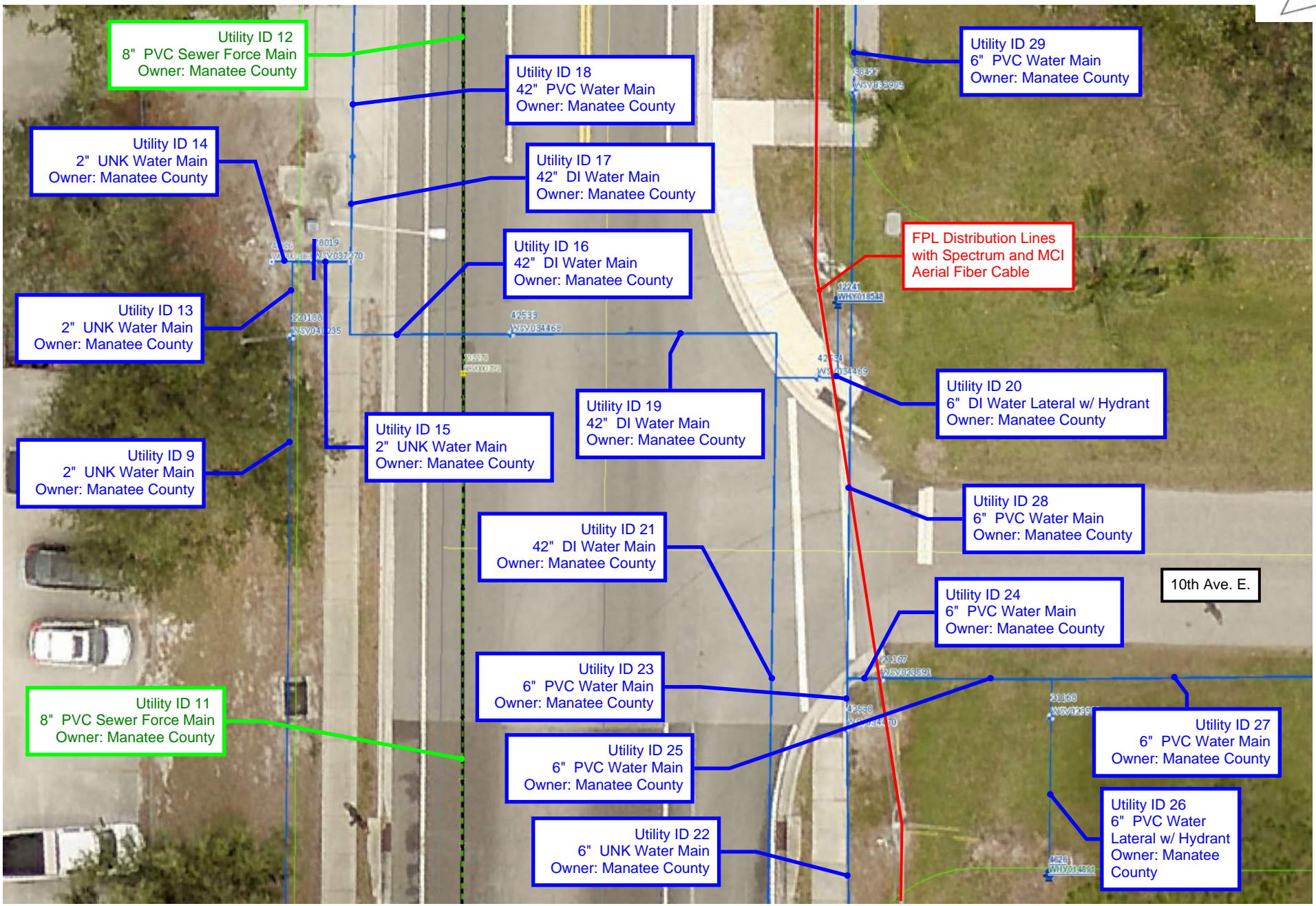
Utility ID 7  
8" PVC Sewer Gravity Main  
Owner: Manatee County

Utility ID 1  
8" PVC Sewer Force Main  
Owner: Manatee County

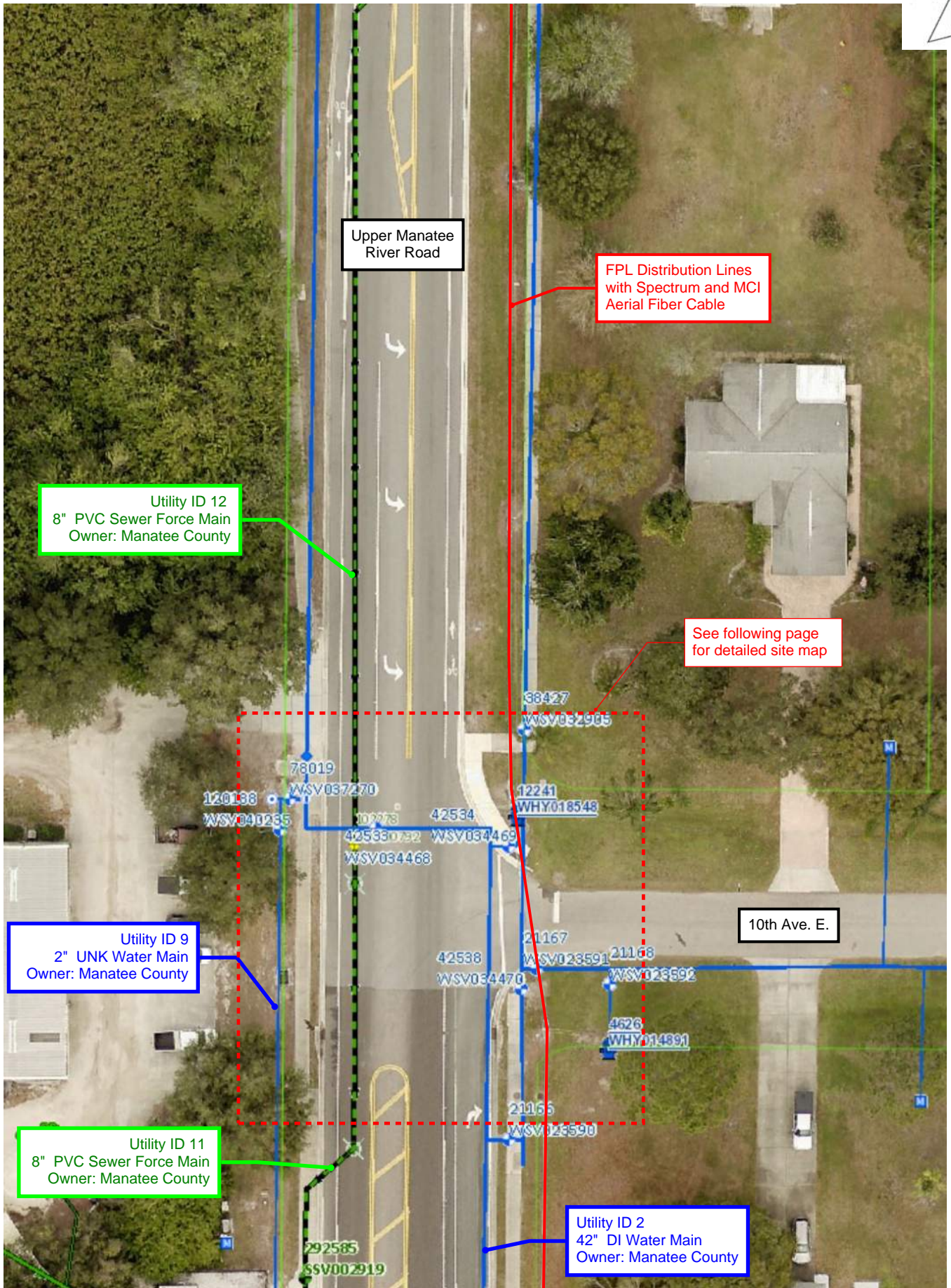
FPL Distribution Lines

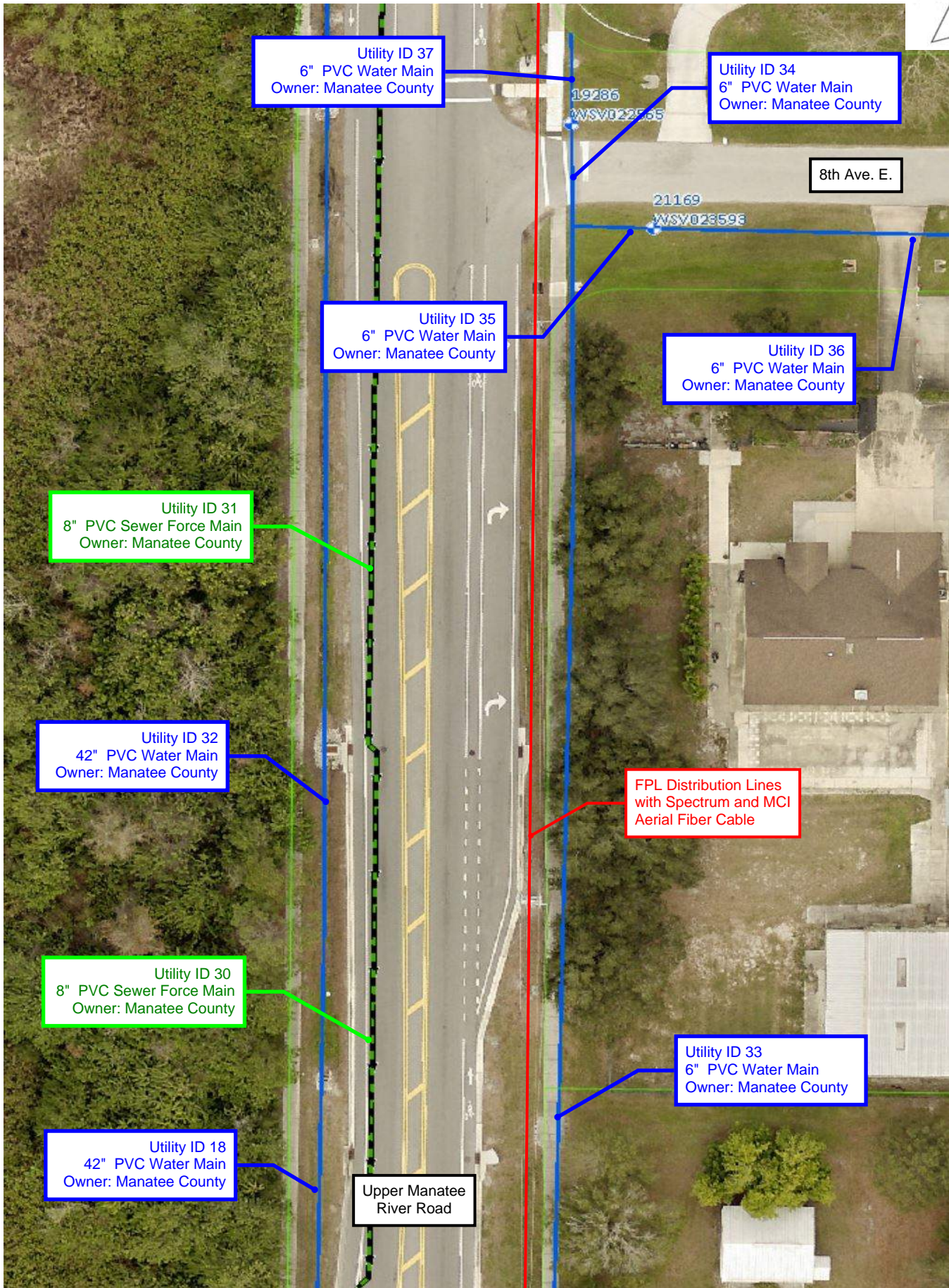
Utility ID 6  
8" PVC Sewer Force Main  
Owner: Manatee County

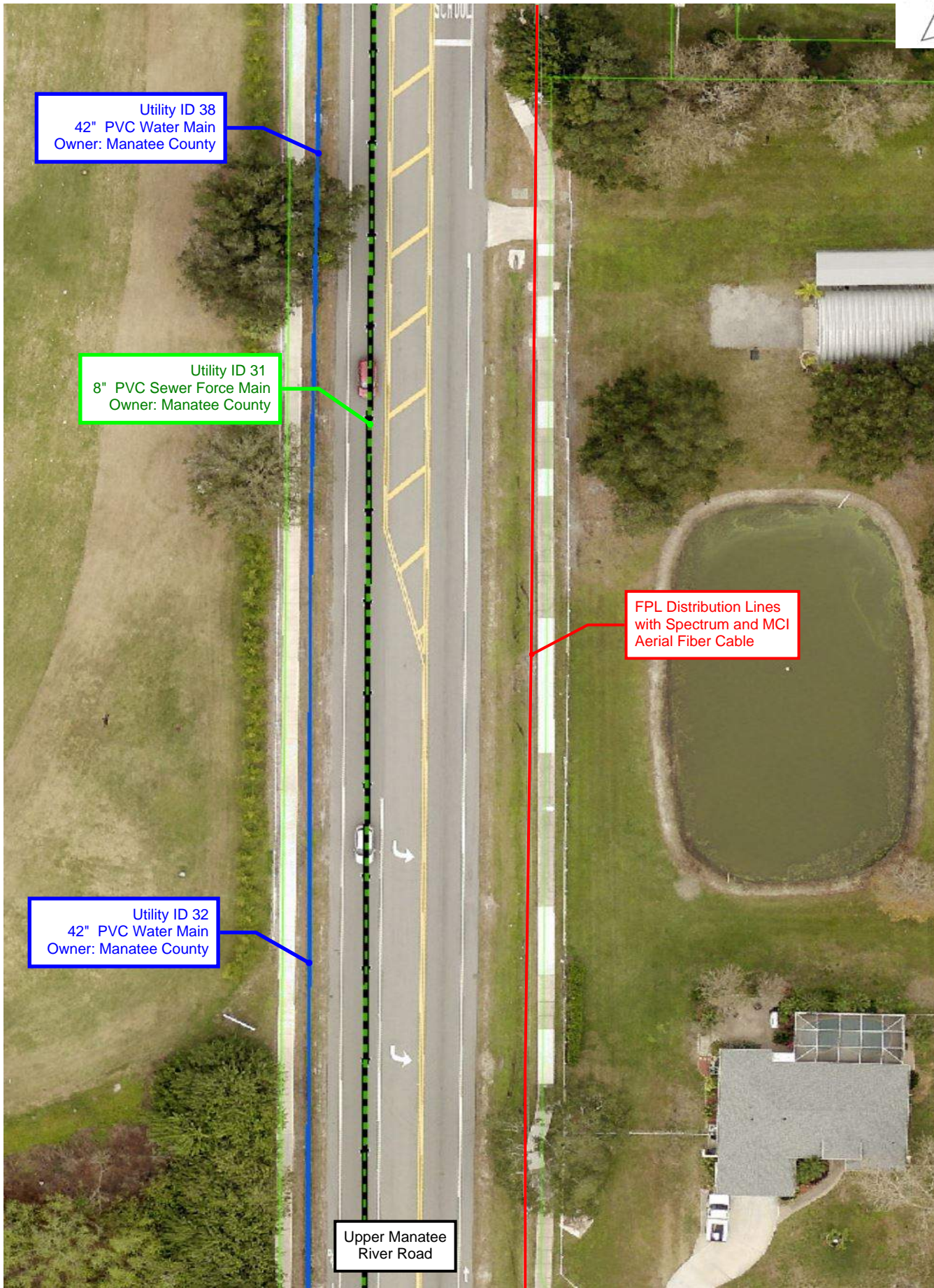
Upper Manatee  
River Road











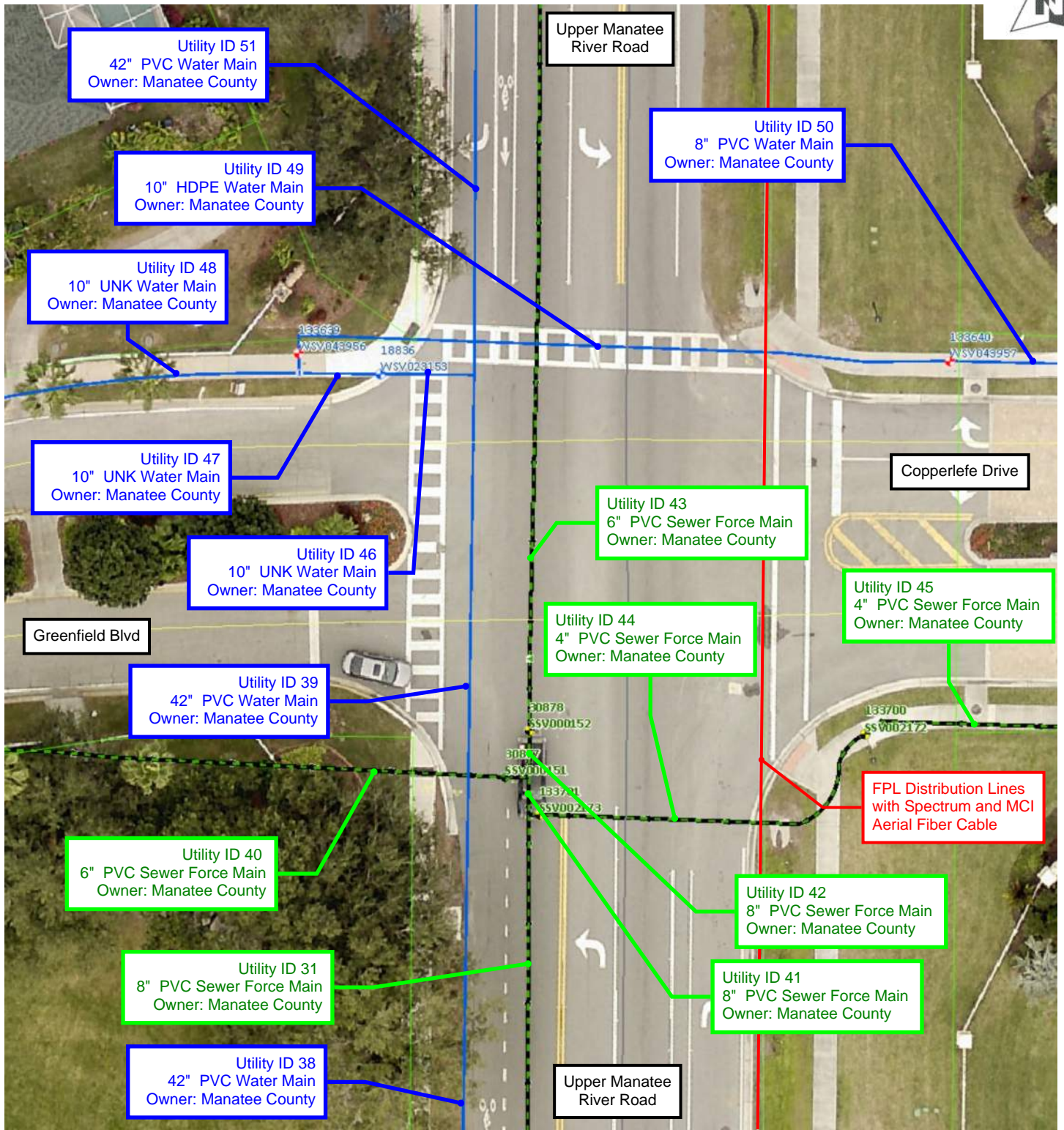
Utility ID 38  
42" PVC Water Main  
Owner: Manatee County

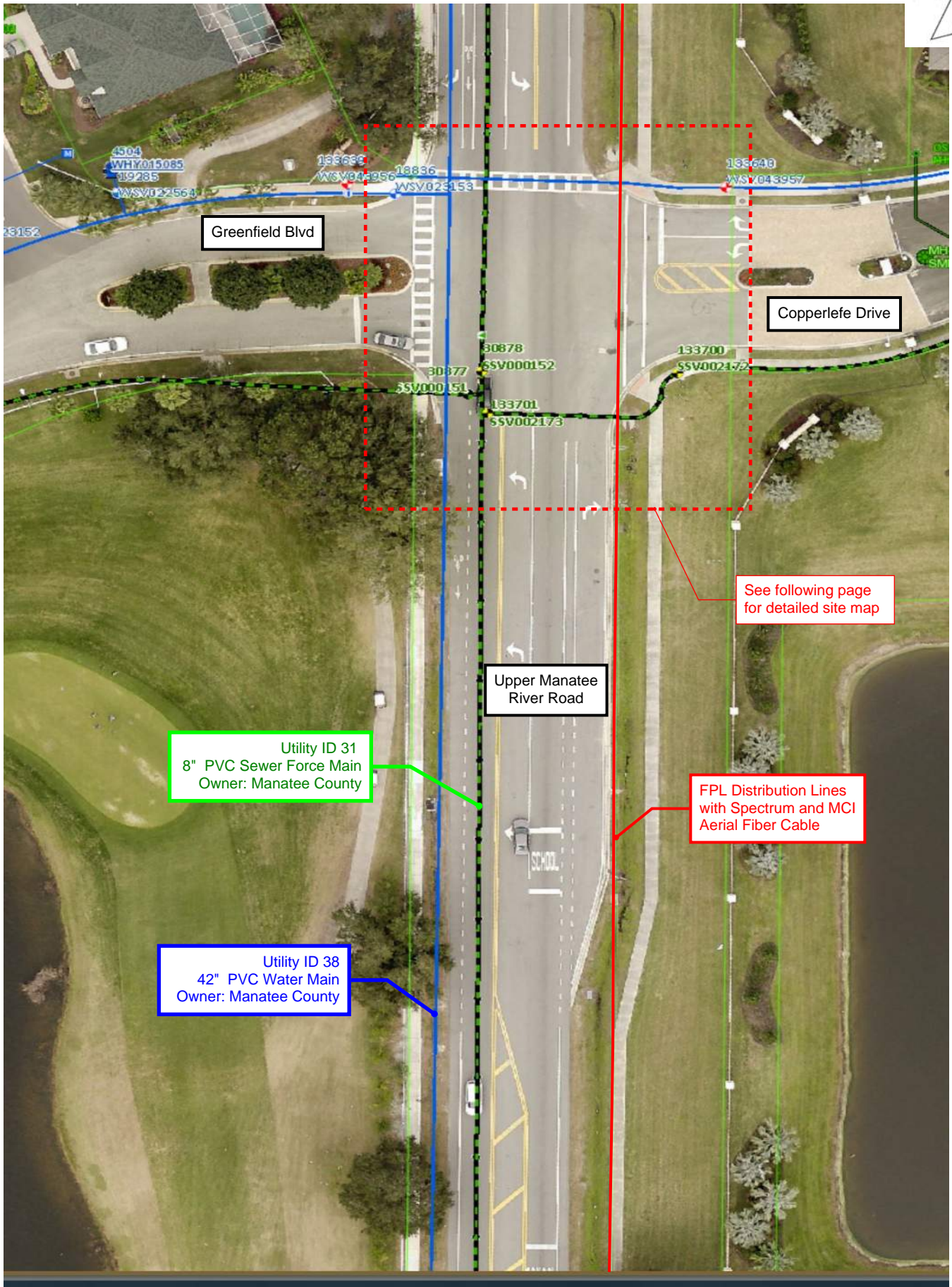
Utility ID 31  
8" PVC Sewer Force Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Utility ID 32  
42" PVC Water Main  
Owner: Manatee County

Upper Manatee  
River Road





Greenfield Blvd

Copperlefe Drive

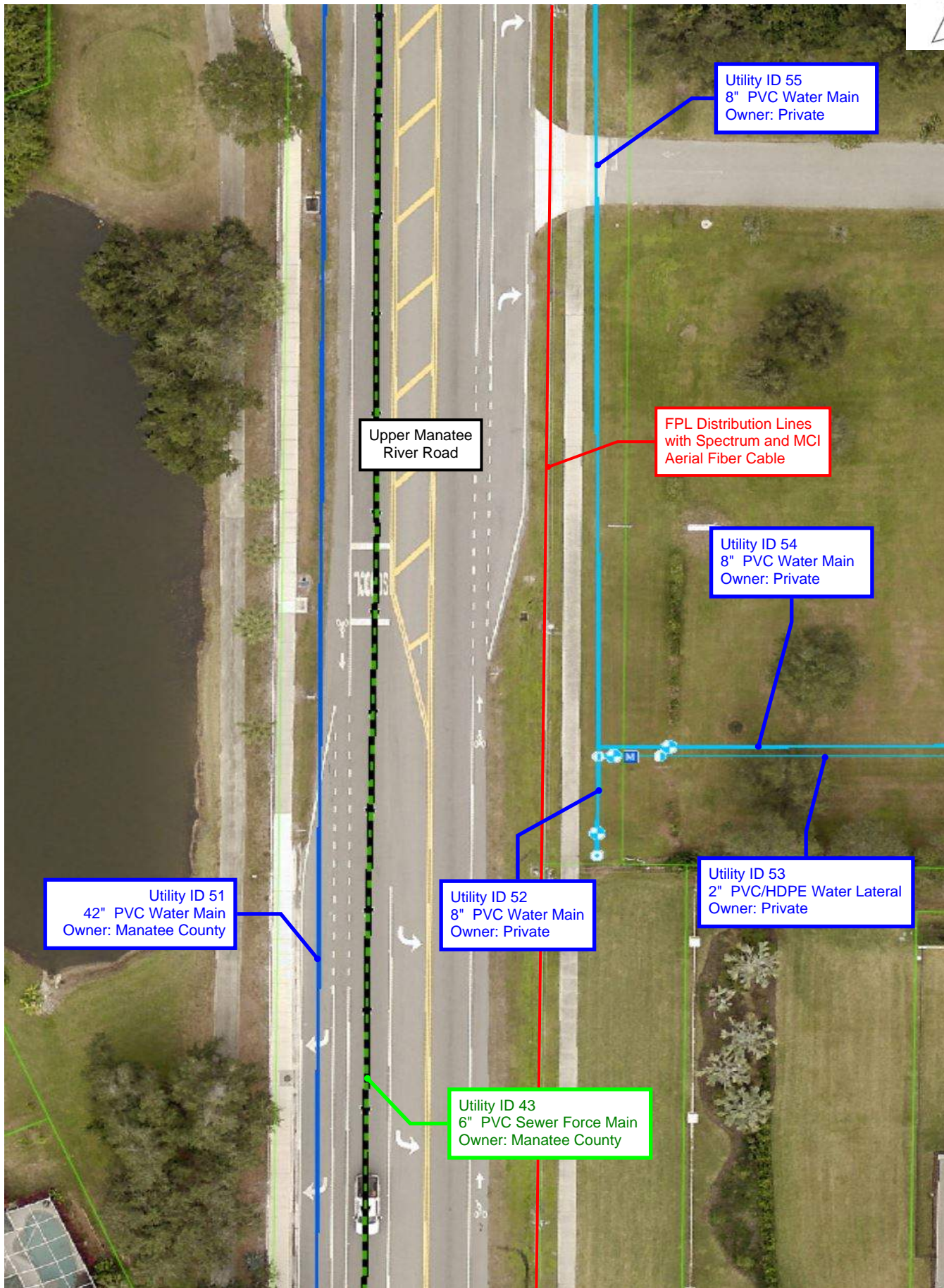
Upper Manatee River Road

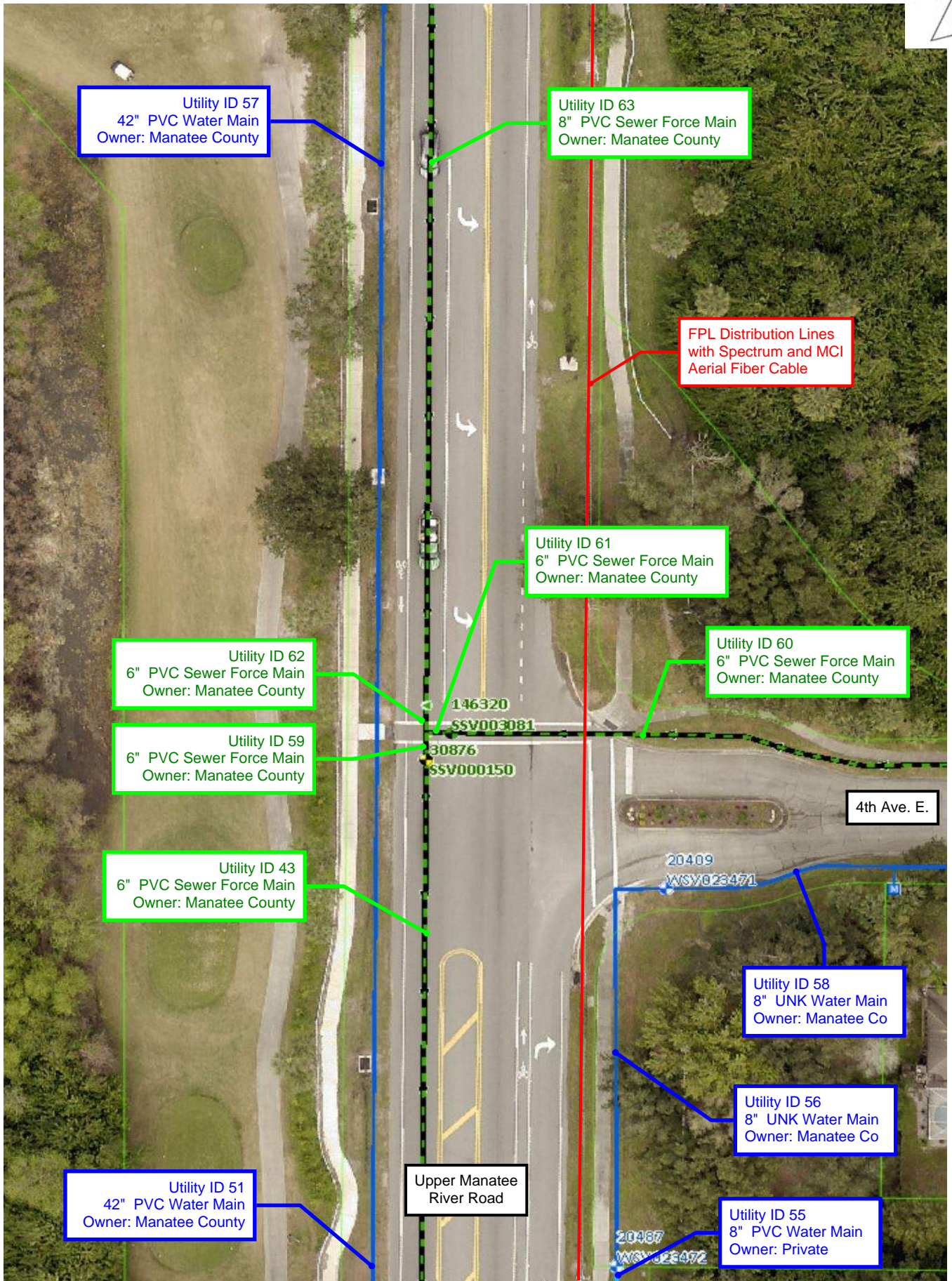
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Owner: Manatee County

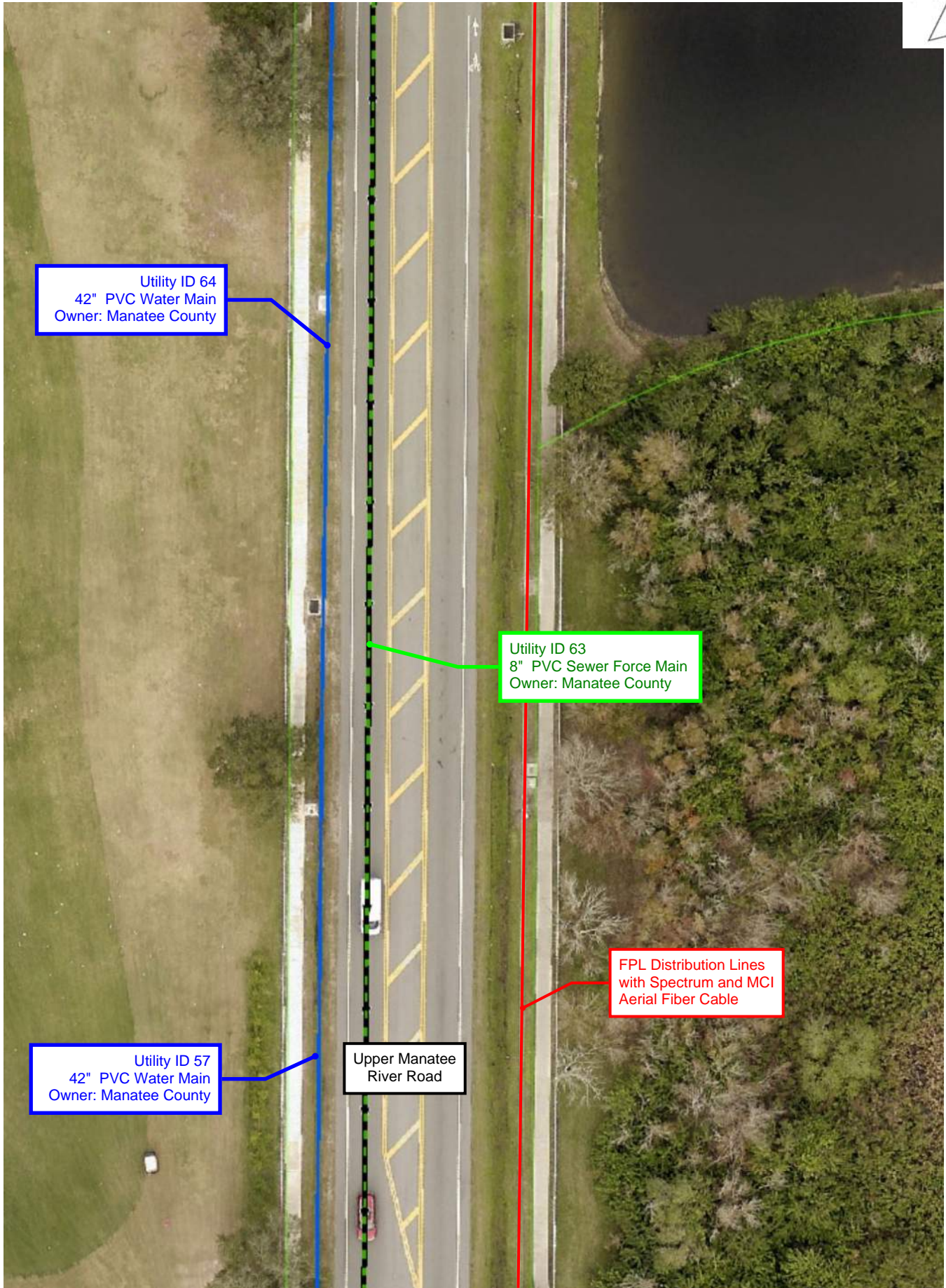
Utility ID 38  
42" PVC Water Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

See following page  
for detailed site map







Utility ID 64  
42" PVC Water Main  
Owner: Manatee County

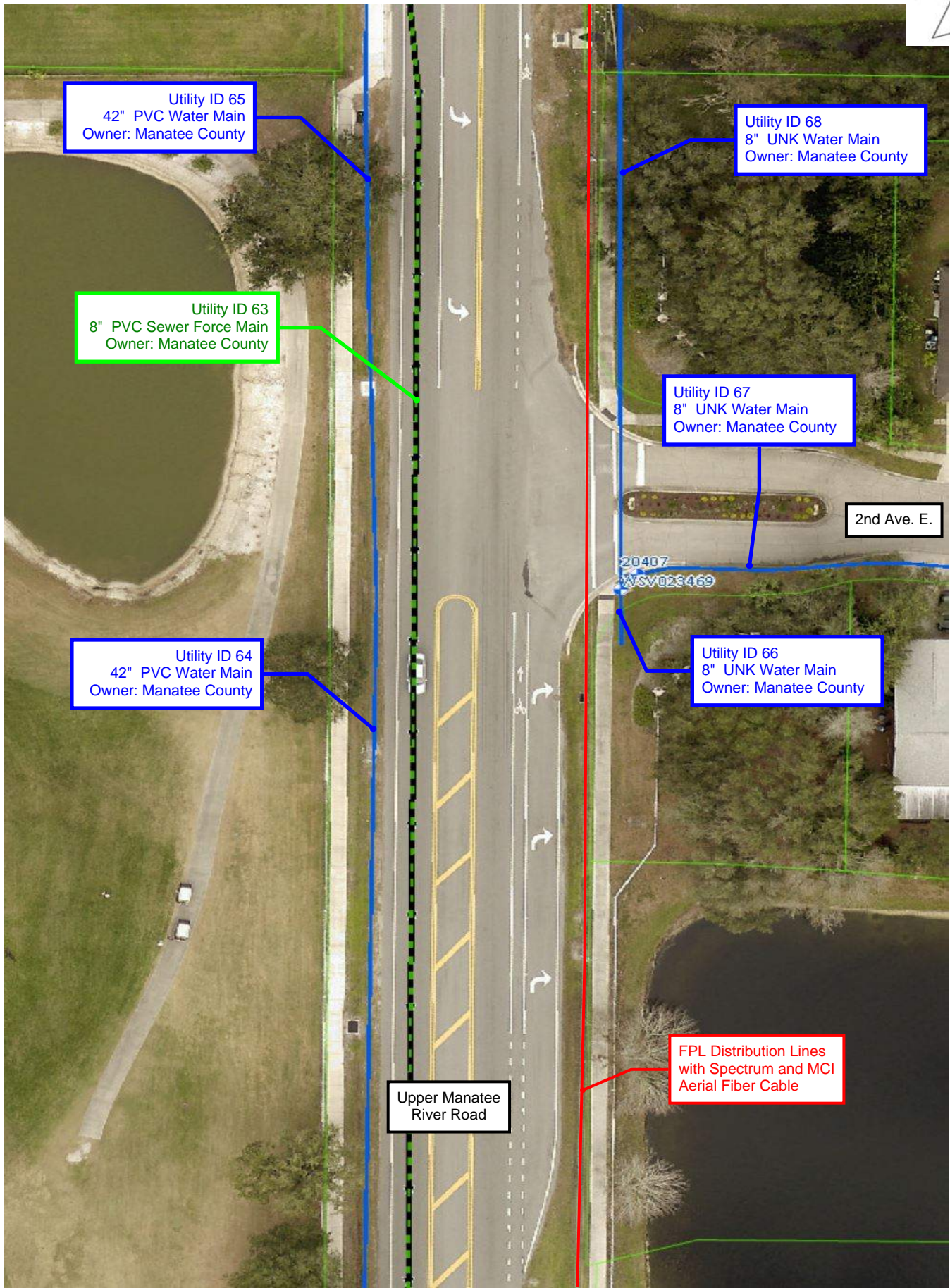
Utility ID 63  
8" PVC Sewer Force Main  
Owner: Manatee County

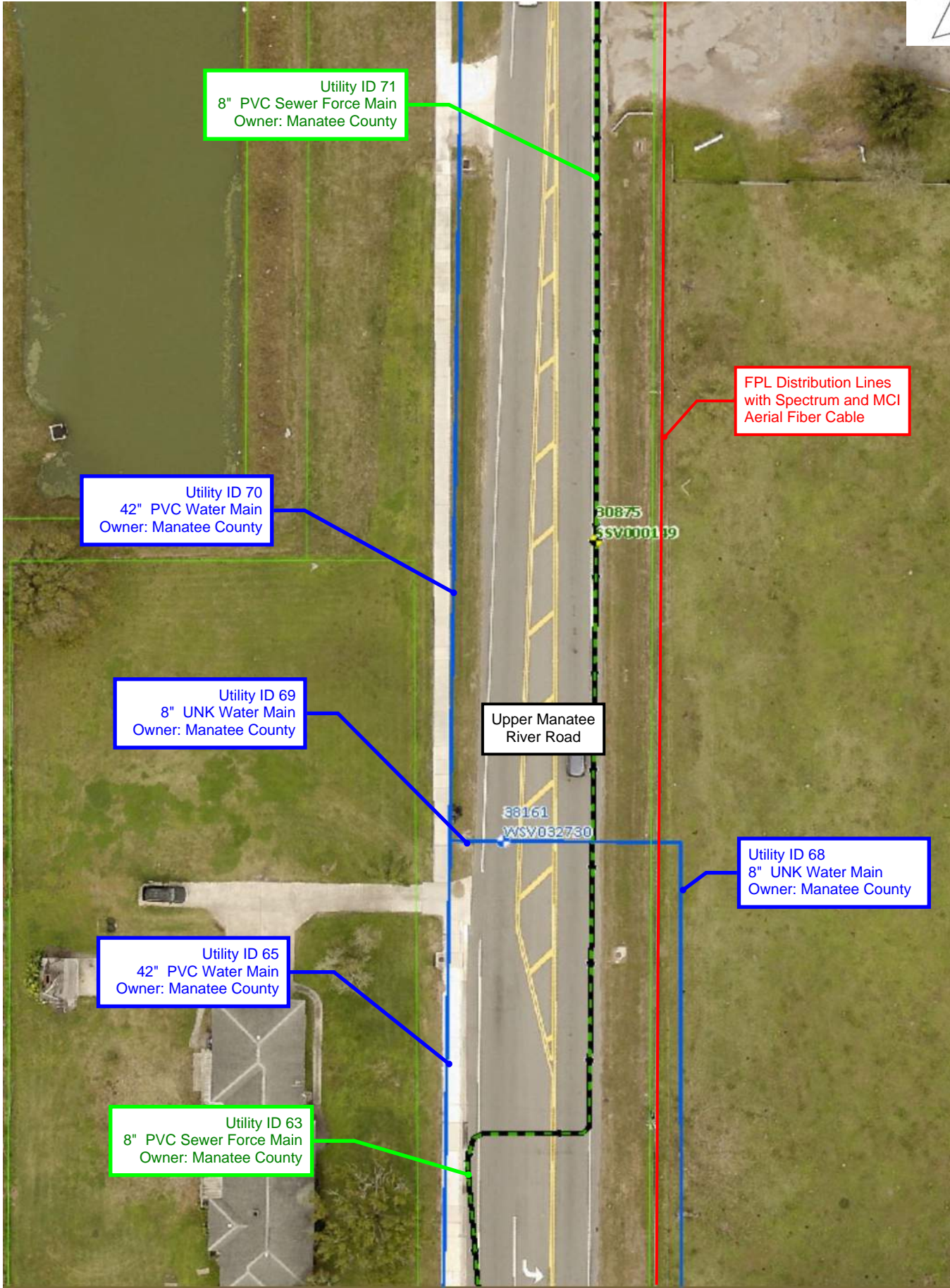
FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Utility ID 57  
42" PVC Water Main  
Owner: Manatee County

Upper Manatee  
River Road







Utility ID 71  
8" PVC Sewer Force Main  
Owner: Manatee County

Utility ID 70  
42" PVC Water Main  
Owner: Manatee County

Utility ID 69  
8" UNK Water Main  
Owner: Manatee County

Utility ID 65  
42" PVC Water Main  
Owner: Manatee County

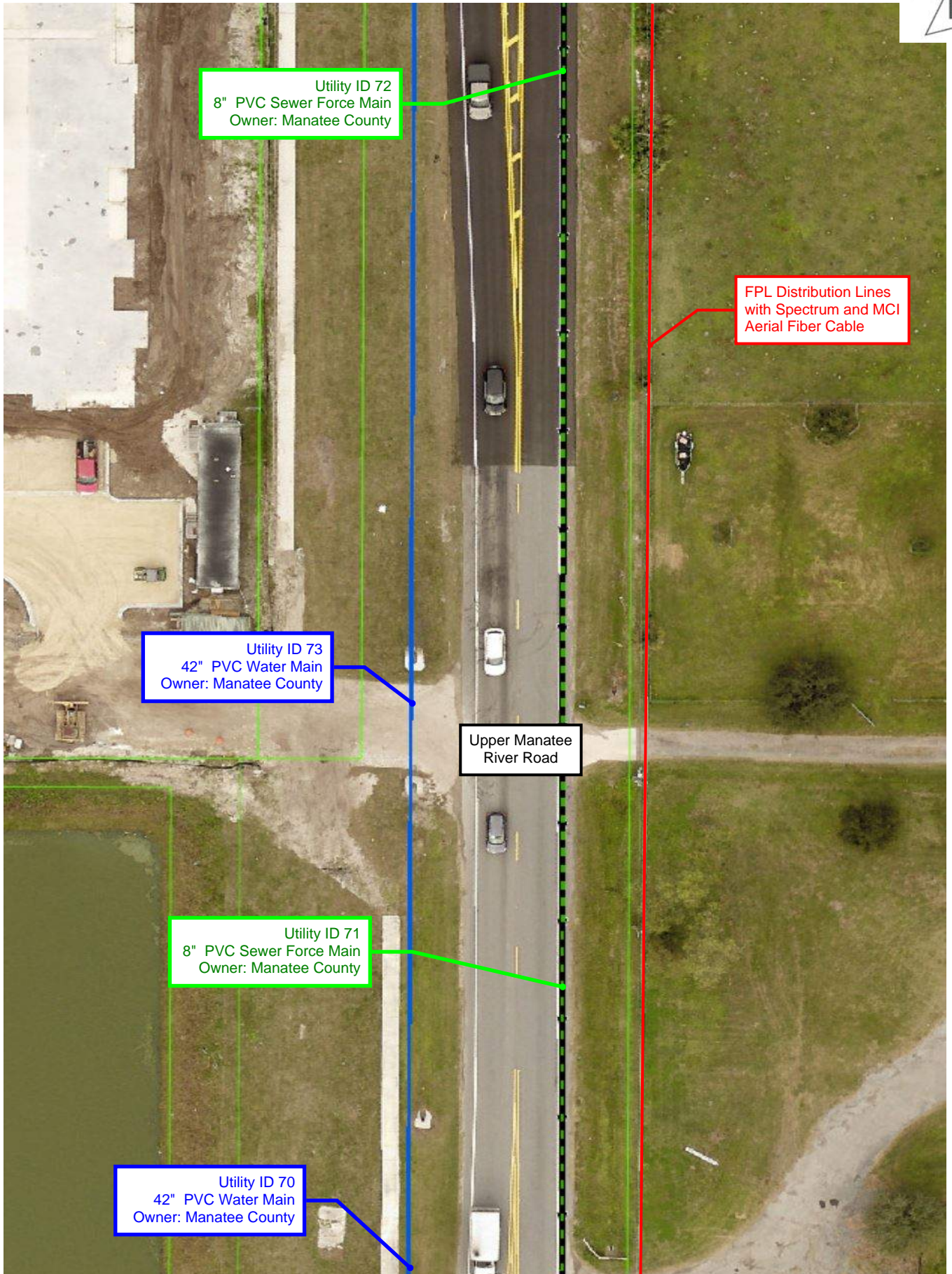
Utility ID 63  
8" PVC Sewer Force Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Upper Manatee  
River Road

38161  
WSV032730

Utility ID 68  
8" UNK Water Main  
Owner: Manatee County



Utility ID 72  
8" PVC Sewer Force Main  
Owner: Manatee County

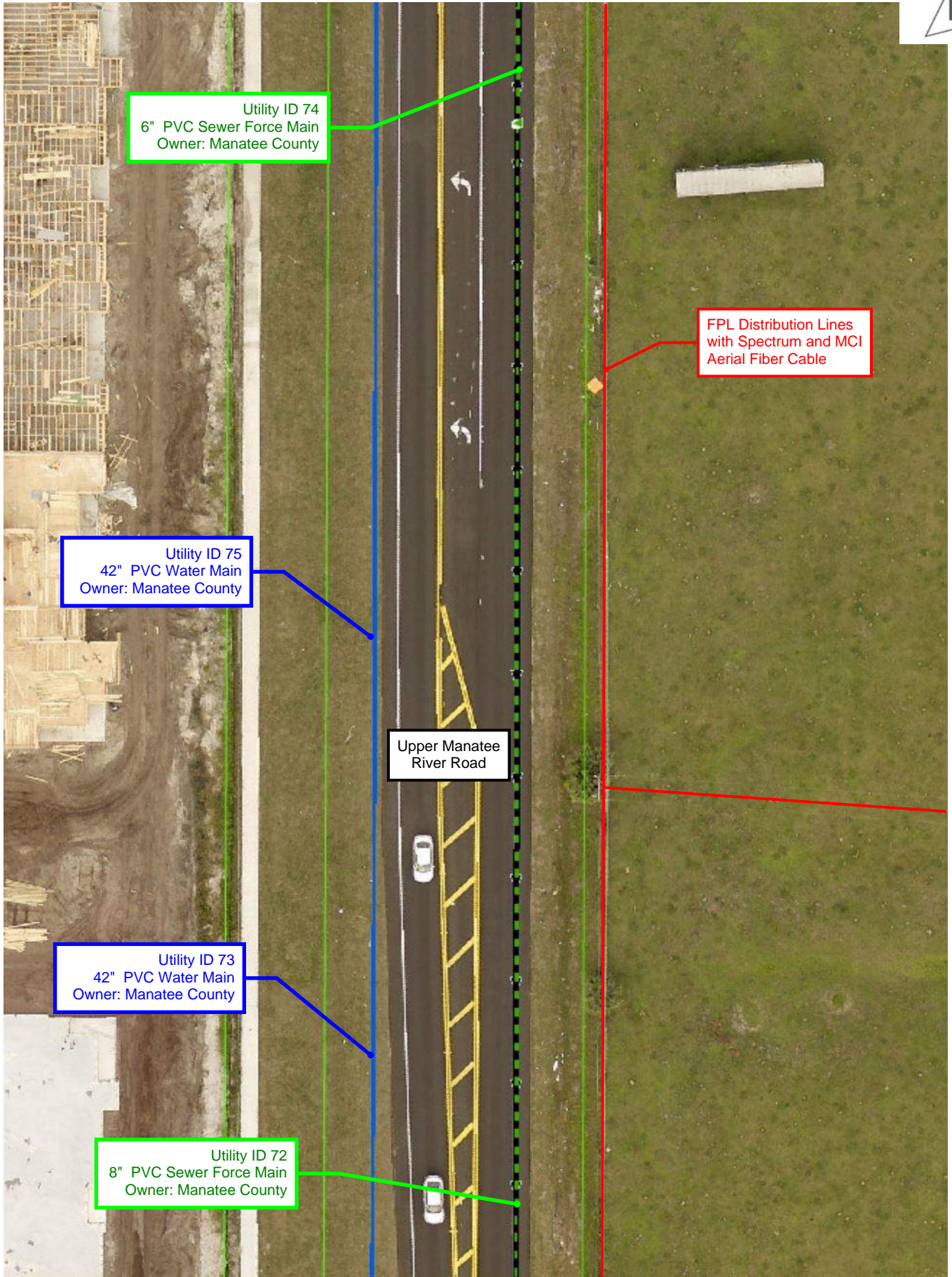
Utility ID 73  
42" PVC Water Main  
Owner: Manatee County

Upper Manatee  
River Road

Utility ID 71  
8" PVC Sewer Force Main  
Owner: Manatee County

Utility ID 70  
42" PVC Water Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable



Utility ID 74  
6" PVC Sewer Force Main  
Owner: Manatee County

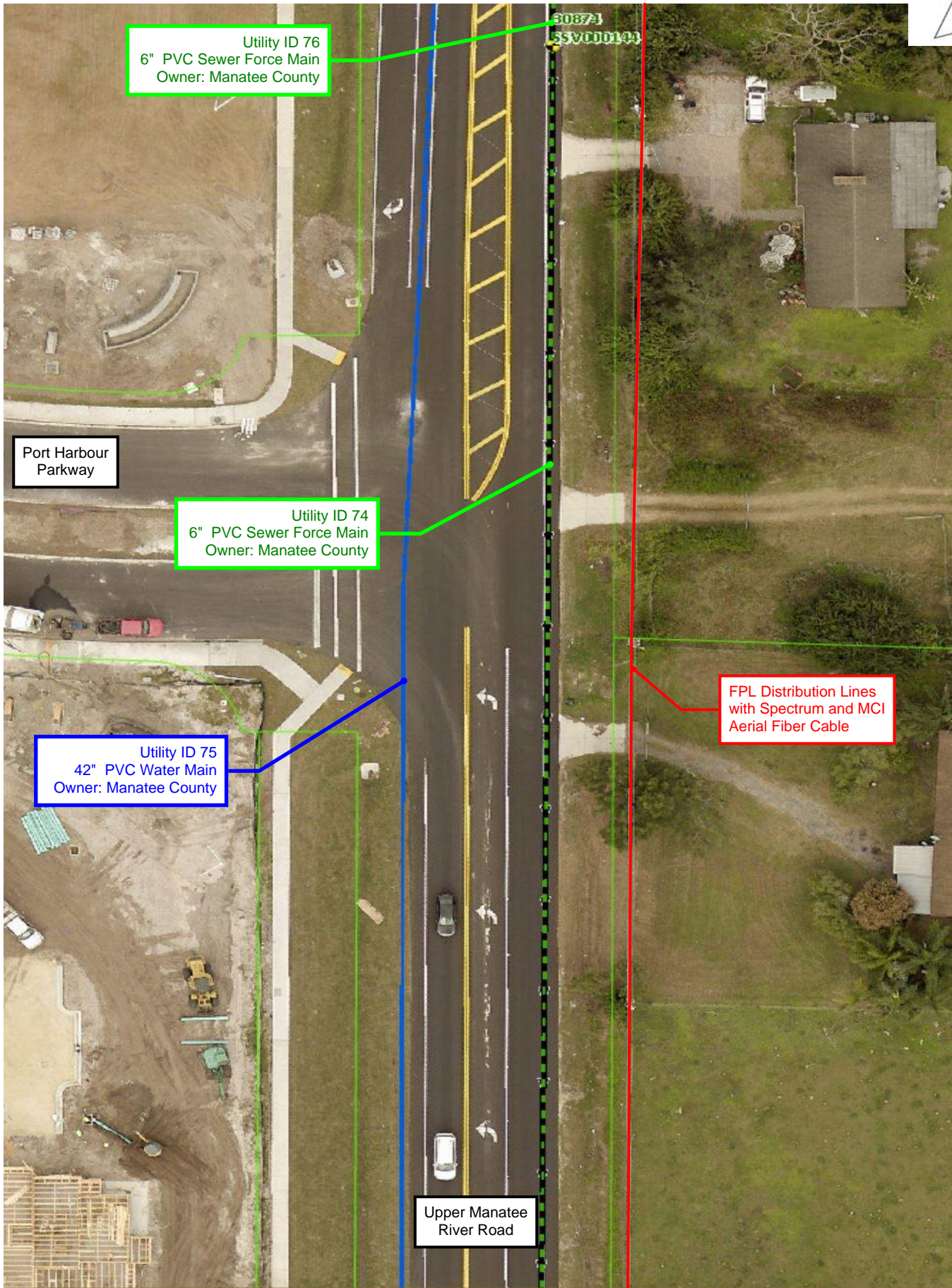
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42" PVC Water Main  
Owner: Manatee County

Utility ID 73  
42" PVC Water Main  
Owner: Manatee County

Utility ID 72  
8" PVC Sewer Force Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Upper Manatee  
River Road



Utility ID 76  
6" PVC Sewer Force Main  
Owner: Manatee County

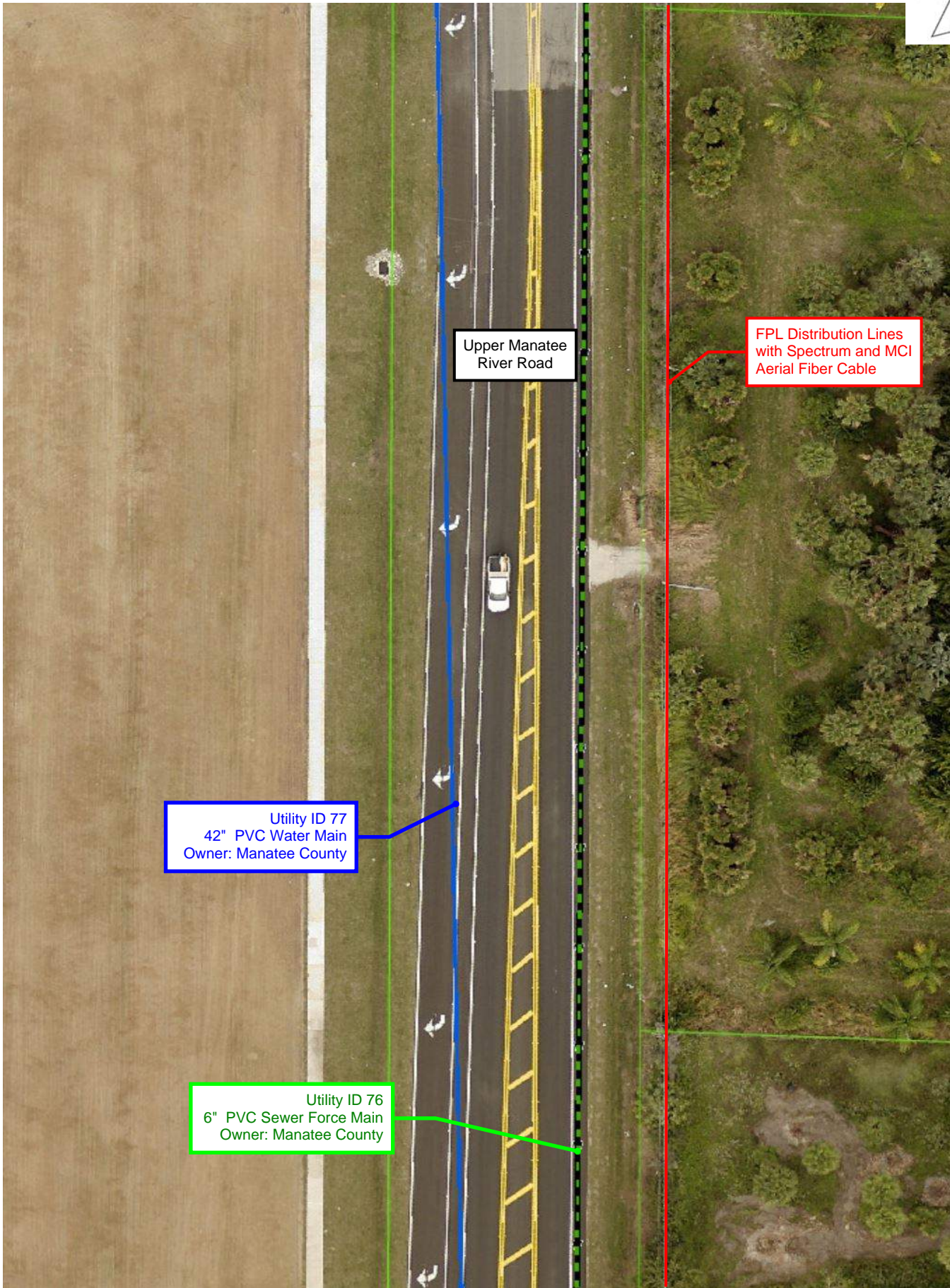
Port Harbour  
Parkway

Utility ID 74  
6" PVC Sewer Force Main  
Owner: Manatee County

Utility ID 75  
42" PVC Water Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Upper Manatee  
River Road

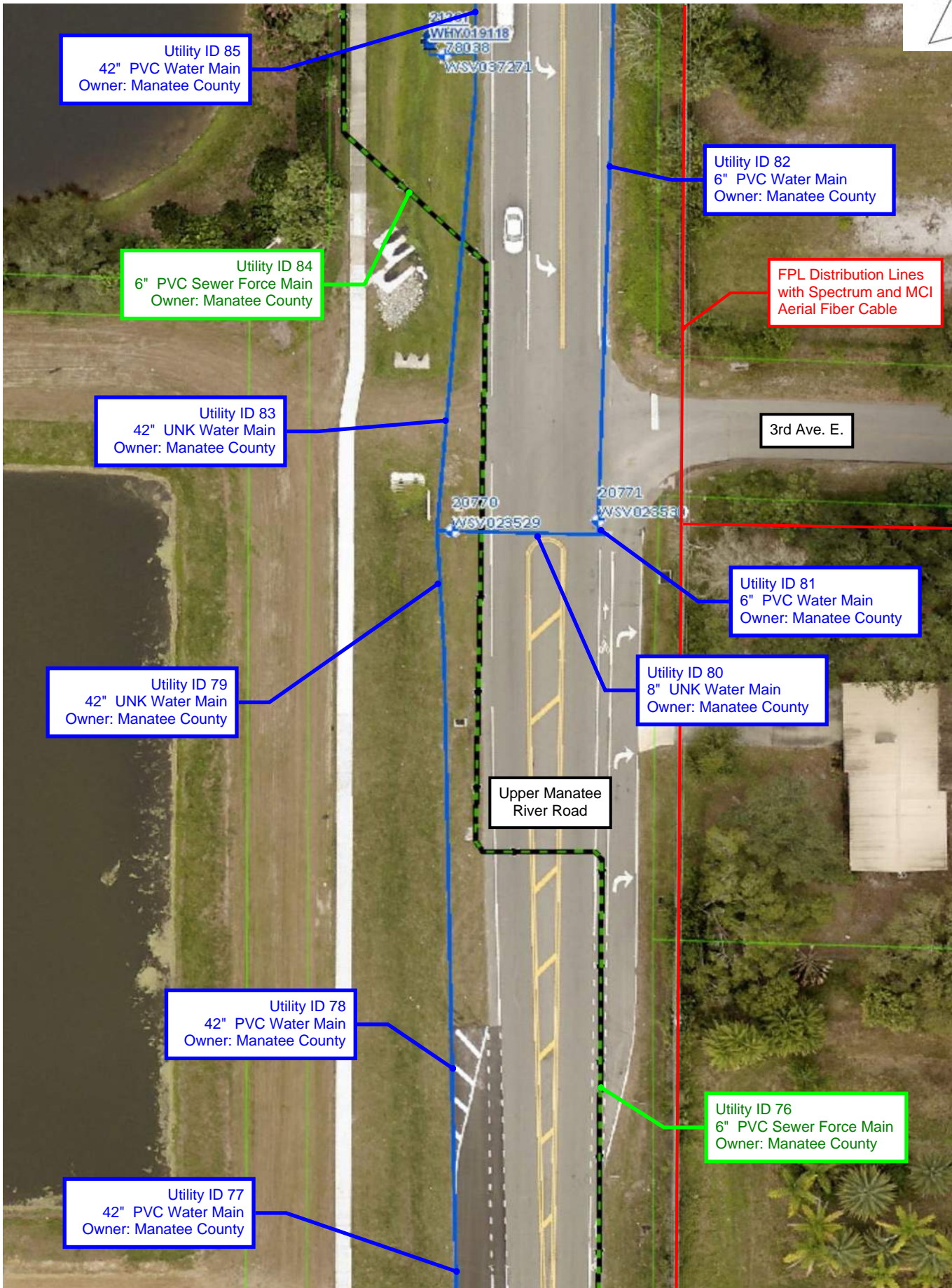


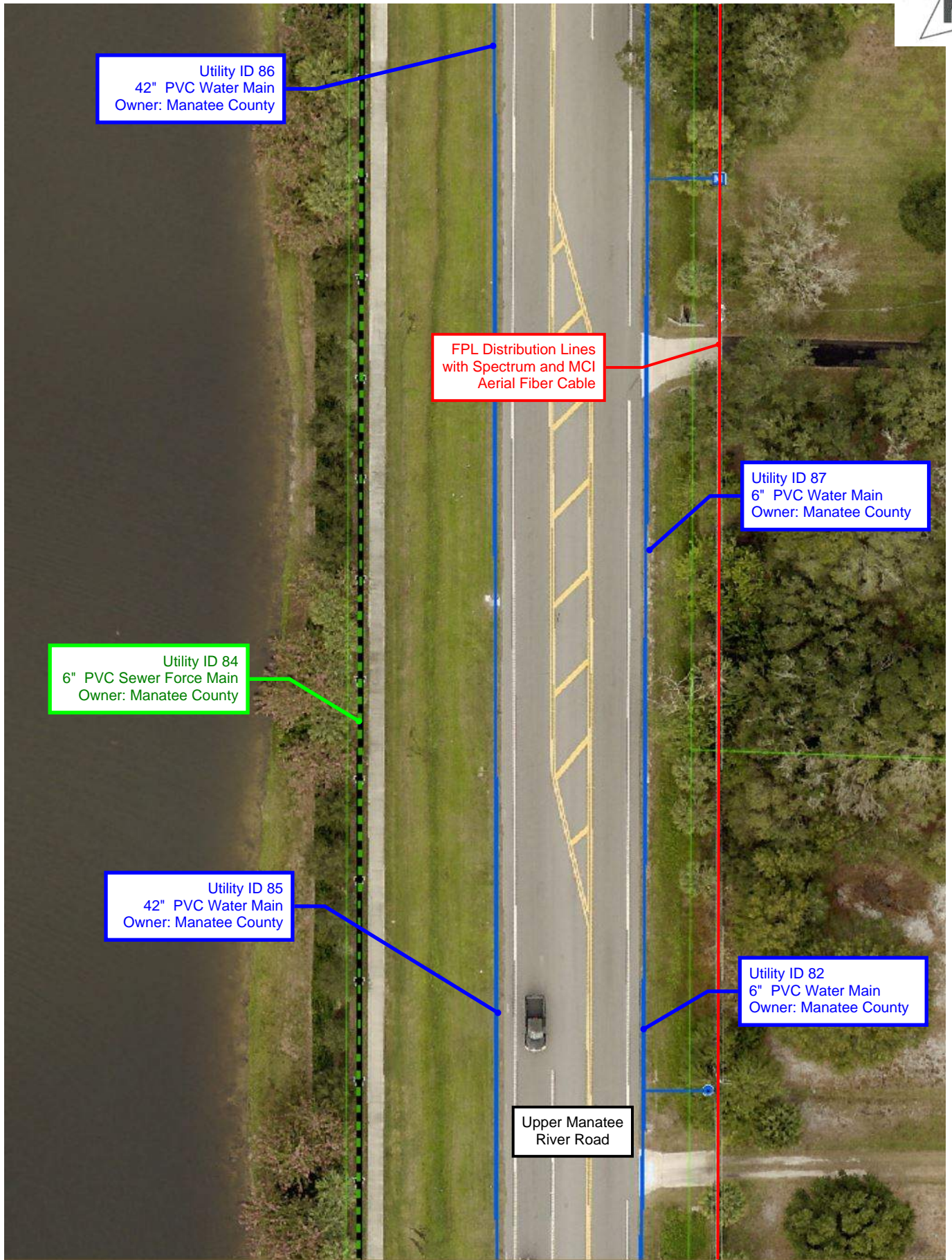
Upper Manatee  
River Road

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Utility ID 77  
42" PVC Water Main  
Owner: Manatee County

Utility ID 76  
6" PVC Sewer Force Main  
Owner: Manatee County





Utility ID 86  
42" PVC Water Main  
Owner: Manatee County

FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Utility ID 87  
6" PVC Water Main  
Owner: Manatee County

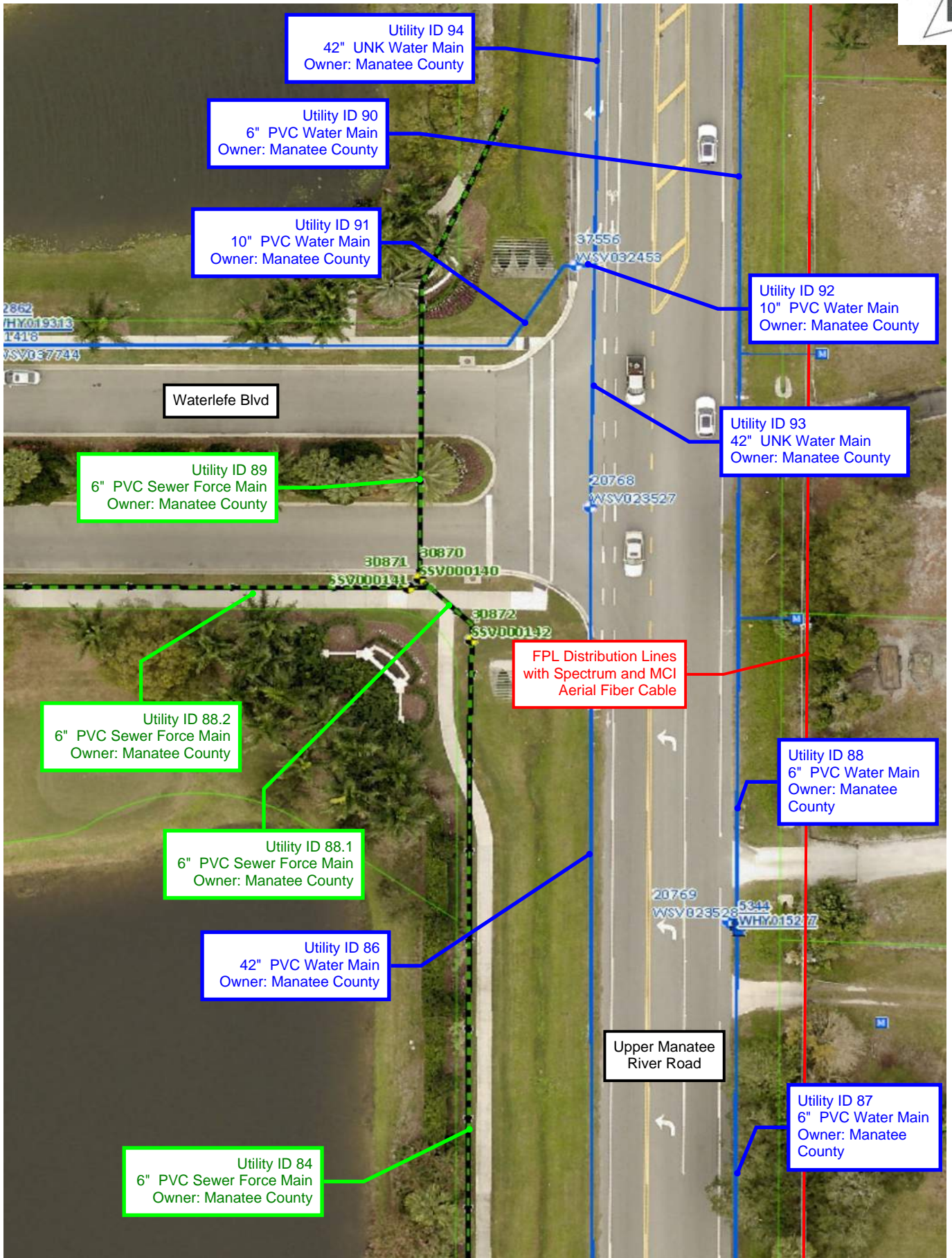
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6" PVC Sewer Force Main  
Owner: Manatee County

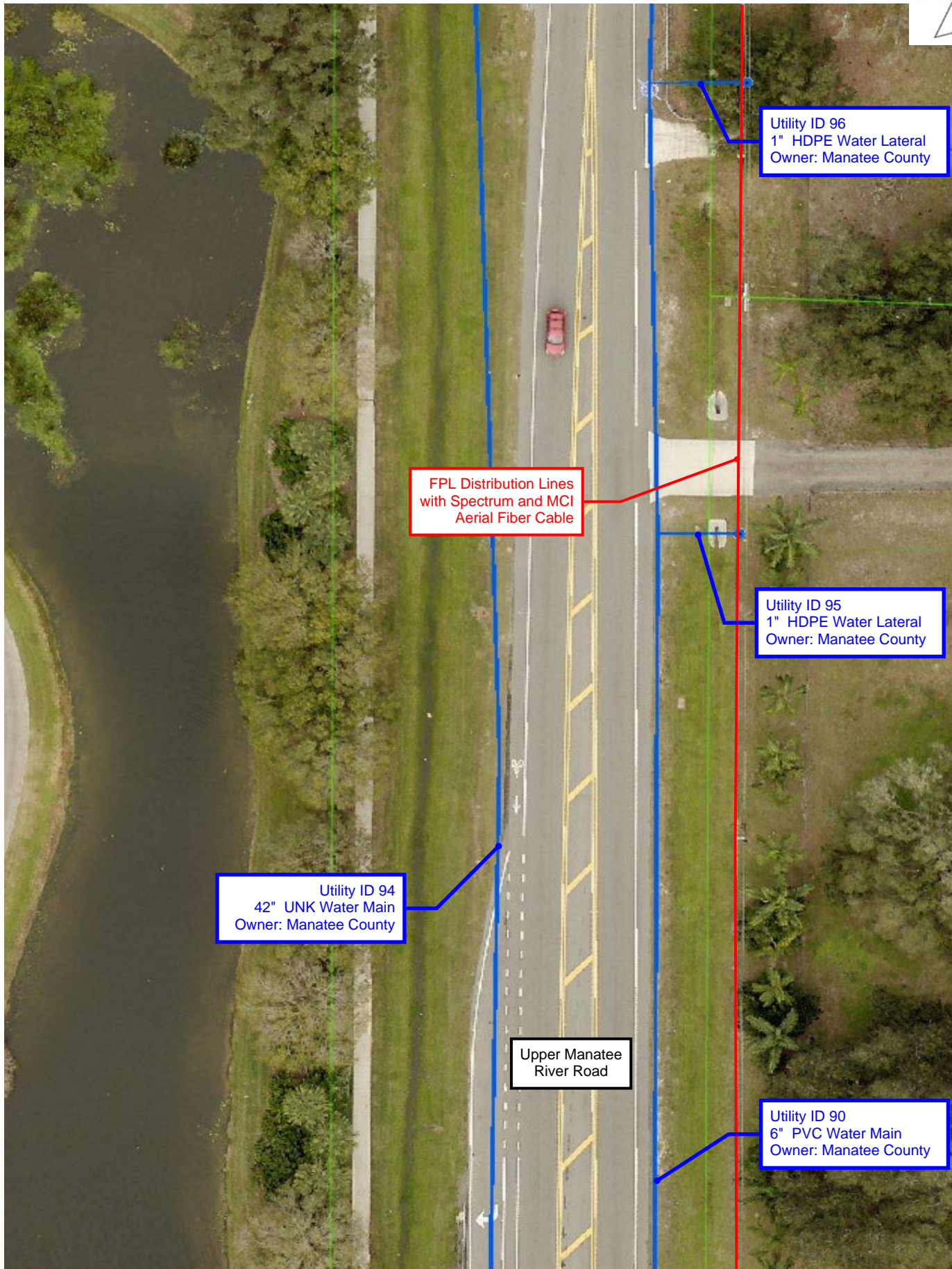
Utility ID 85  
42" PVC Water Main  
Owner: Manatee County

Utility ID 82  
6" PVC Water Main  
Owner: Manatee County

Upper Manatee  
River Road







Utility ID 96  
1" HDPE Water Lateral  
Owner: Manatee County

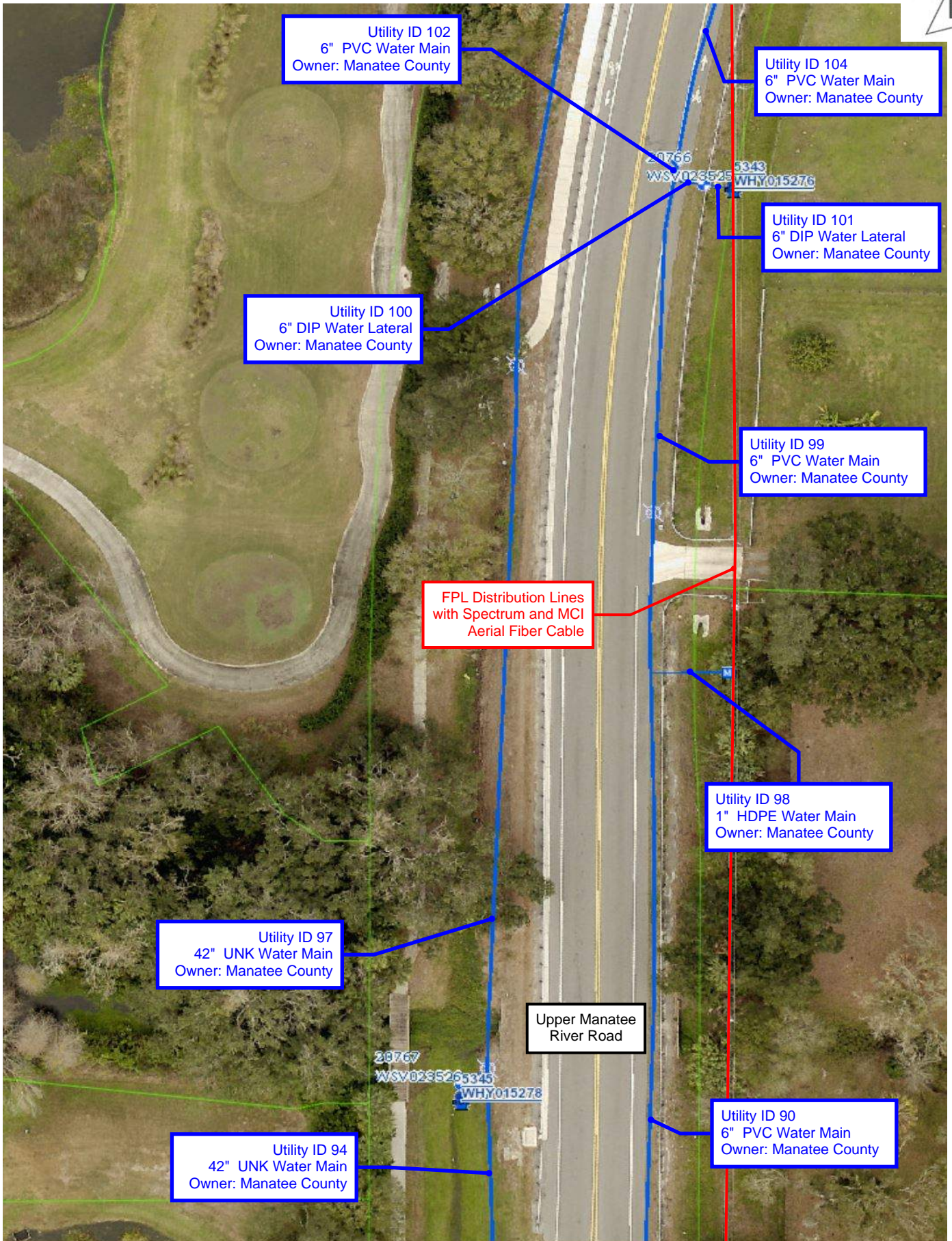
FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

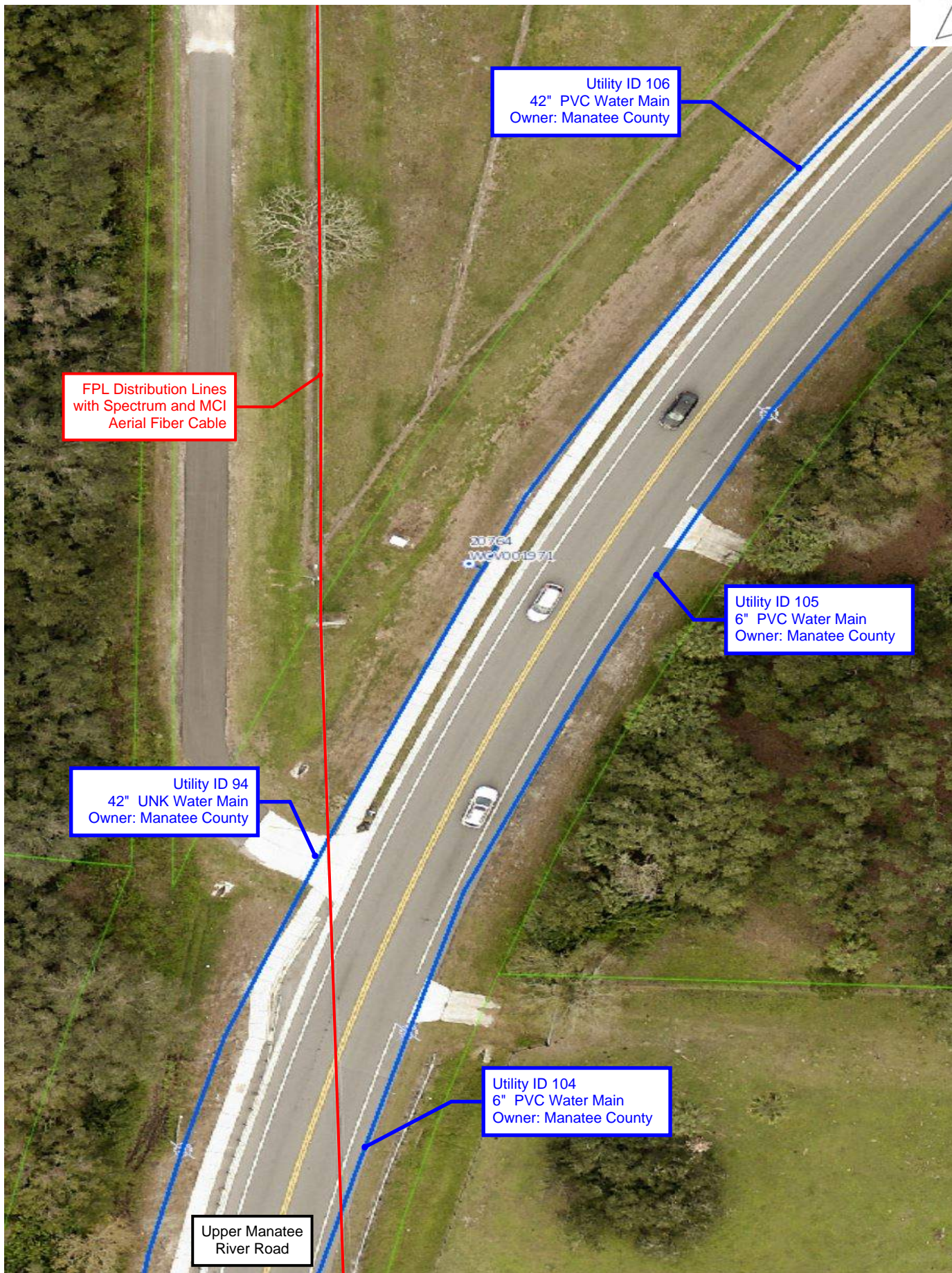
Utility ID 95  
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Owner: Manatee County

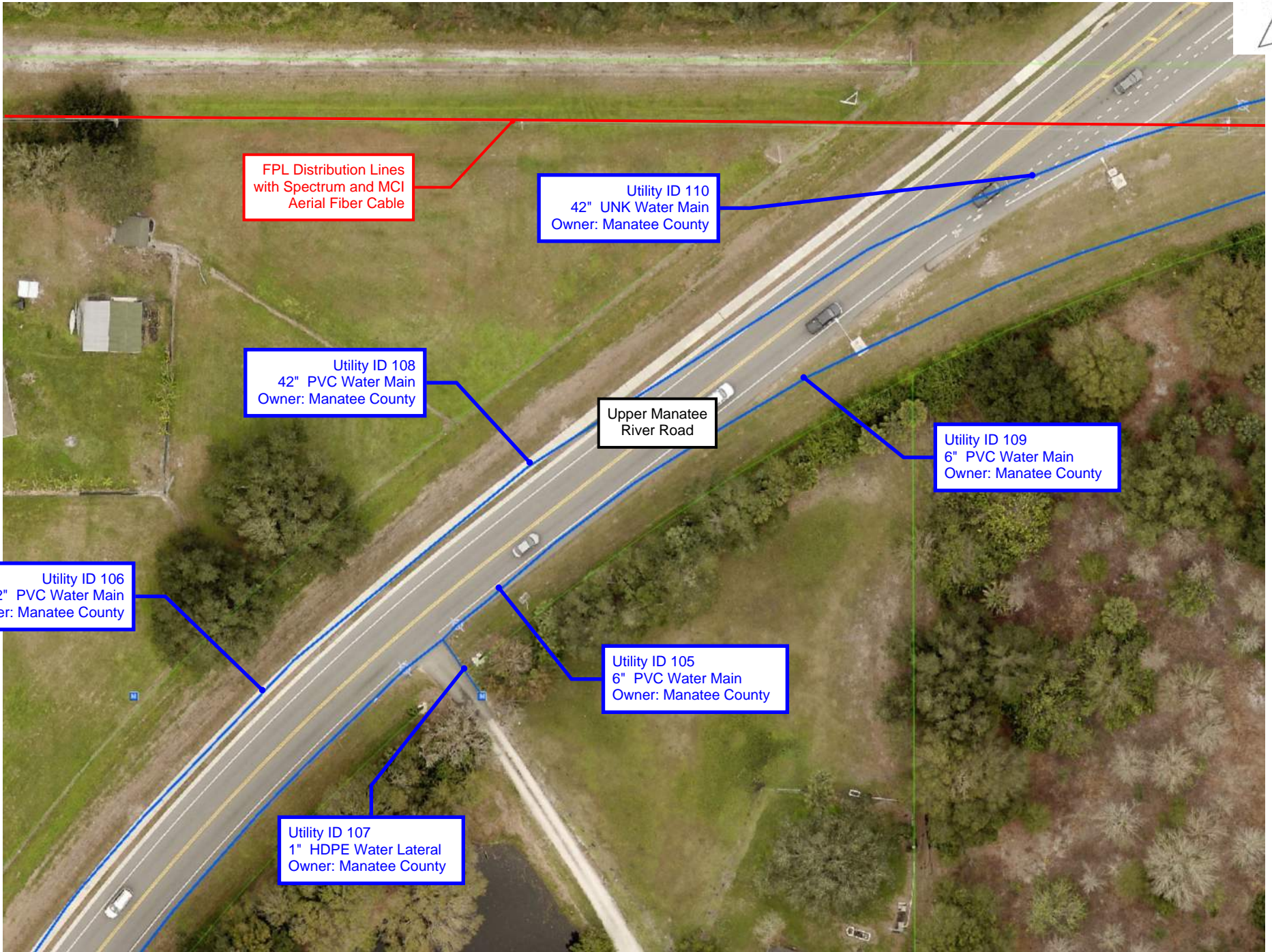
Utility ID 94  
42" UNK Water Main  
Owner: Manatee County

Upper Manatee  
River Road

Utility ID 90  
6" PVC Water Main  
Owner: Manatee County







FPL Distribution Lines  
with Spectrum and MCI  
Aerial Fiber Cable

Utility ID 110  
42" UNK Water Main  
Owner: Manatee County

Utility ID 108  
42" PVC Water Main  
Owner: Manatee County

Upper Manatee  
River Road

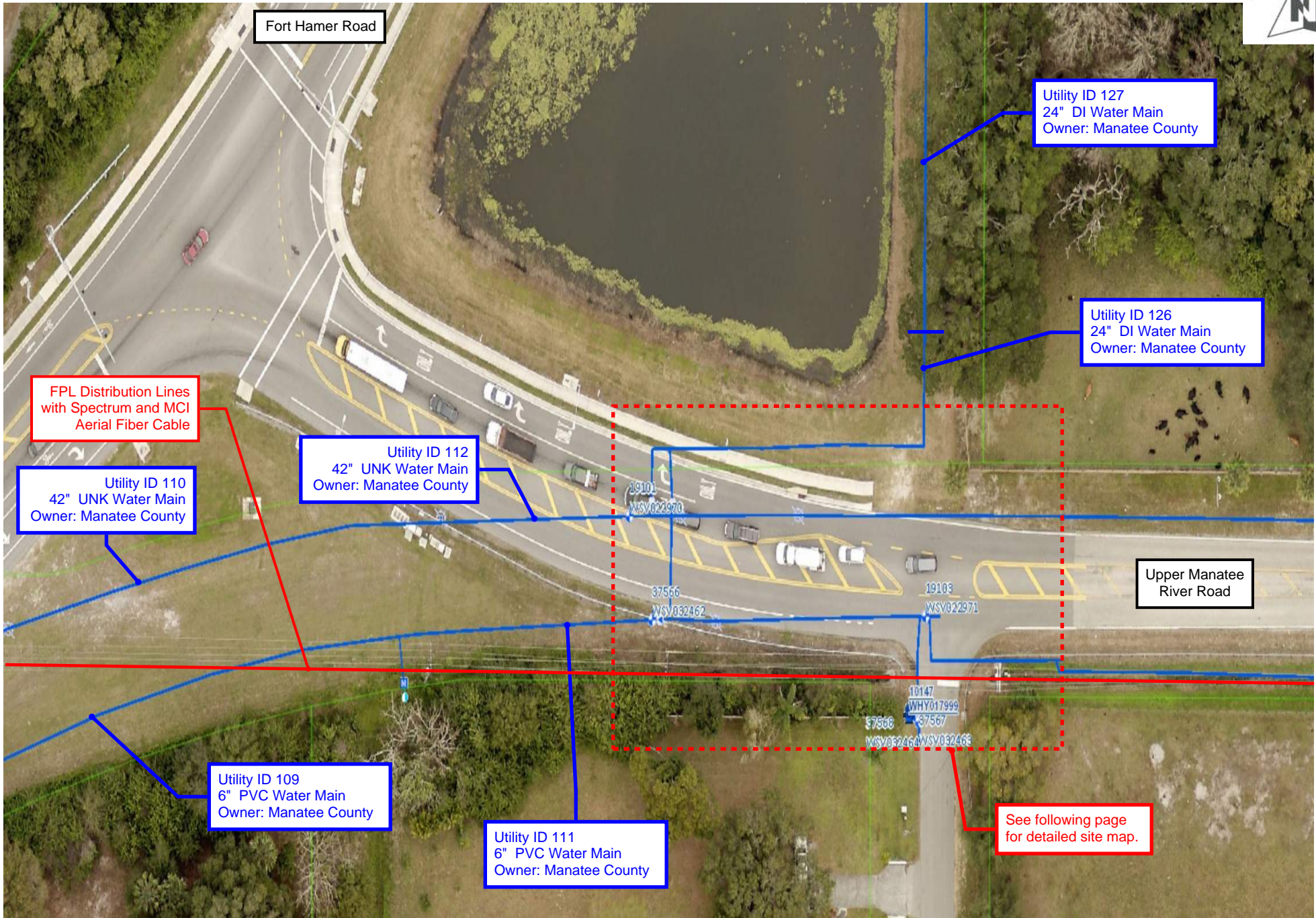
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Owner: Manatee County

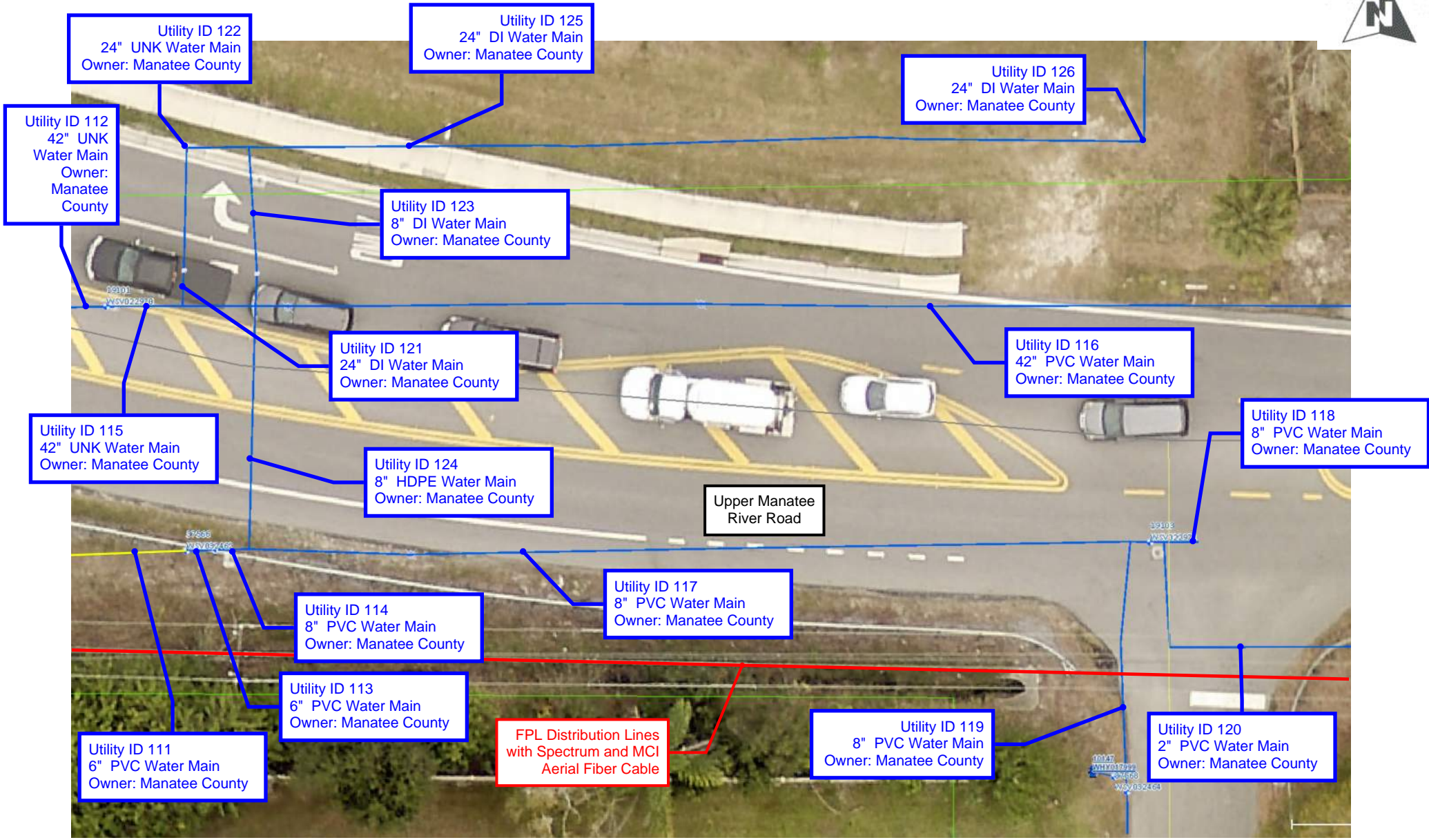
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42" PVC Water Main  
Owner: Manatee County

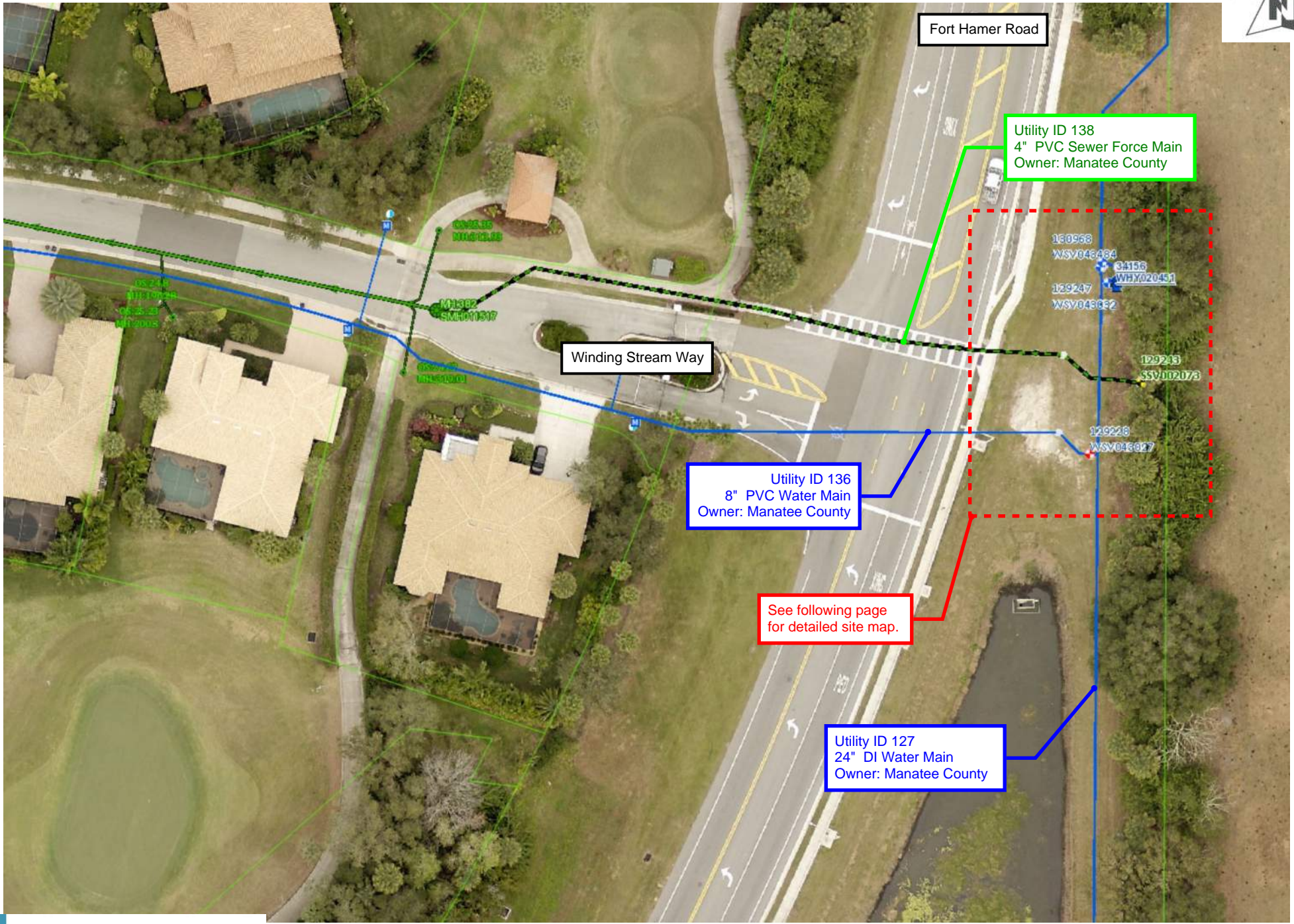
Utility ID 105  
6" PVC Water Main  
Owner: Manatee County

Utility ID 107  
1" HDPE Water Lateral  
Owner: Manatee County

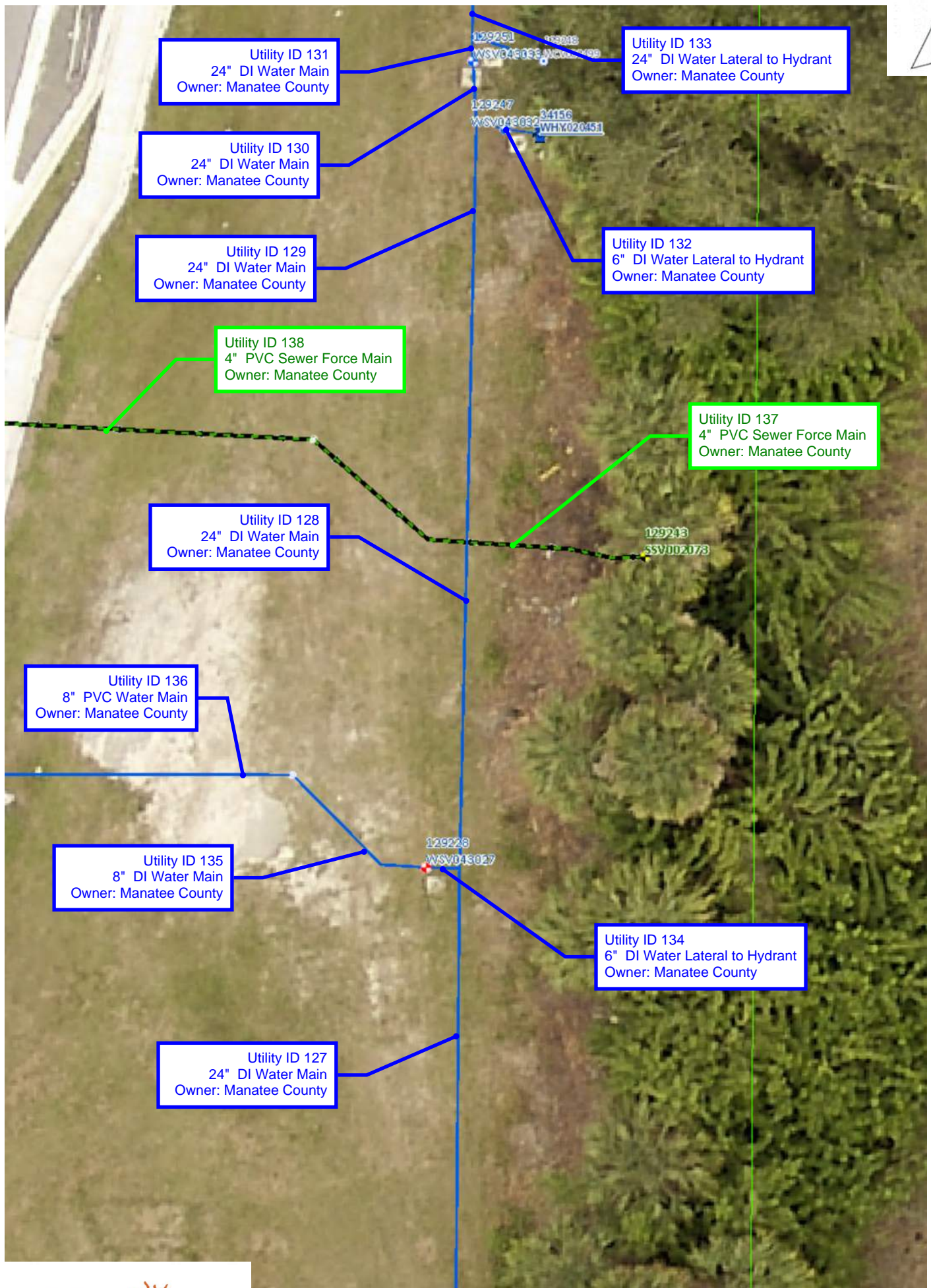












Utility ID 131  
24" DI Water Main  
Owner: Manatee County

Utility ID 133  
24" DI Water Lateral to Hydrant  
Owner: Manatee County

Utility ID 130  
24" DI Water Main  
Owner: Manatee County

Utility ID 129  
24" DI Water Main  
Owner: Manatee County

Utility ID 132  
6" DI Water Lateral to Hydrant  
Owner: Manatee County

Utility ID 138  
4" PVC Sewer Force Main  
Owner: Manatee County

Utility ID 137  
4" PVC Sewer Force Main  
Owner: Manatee County

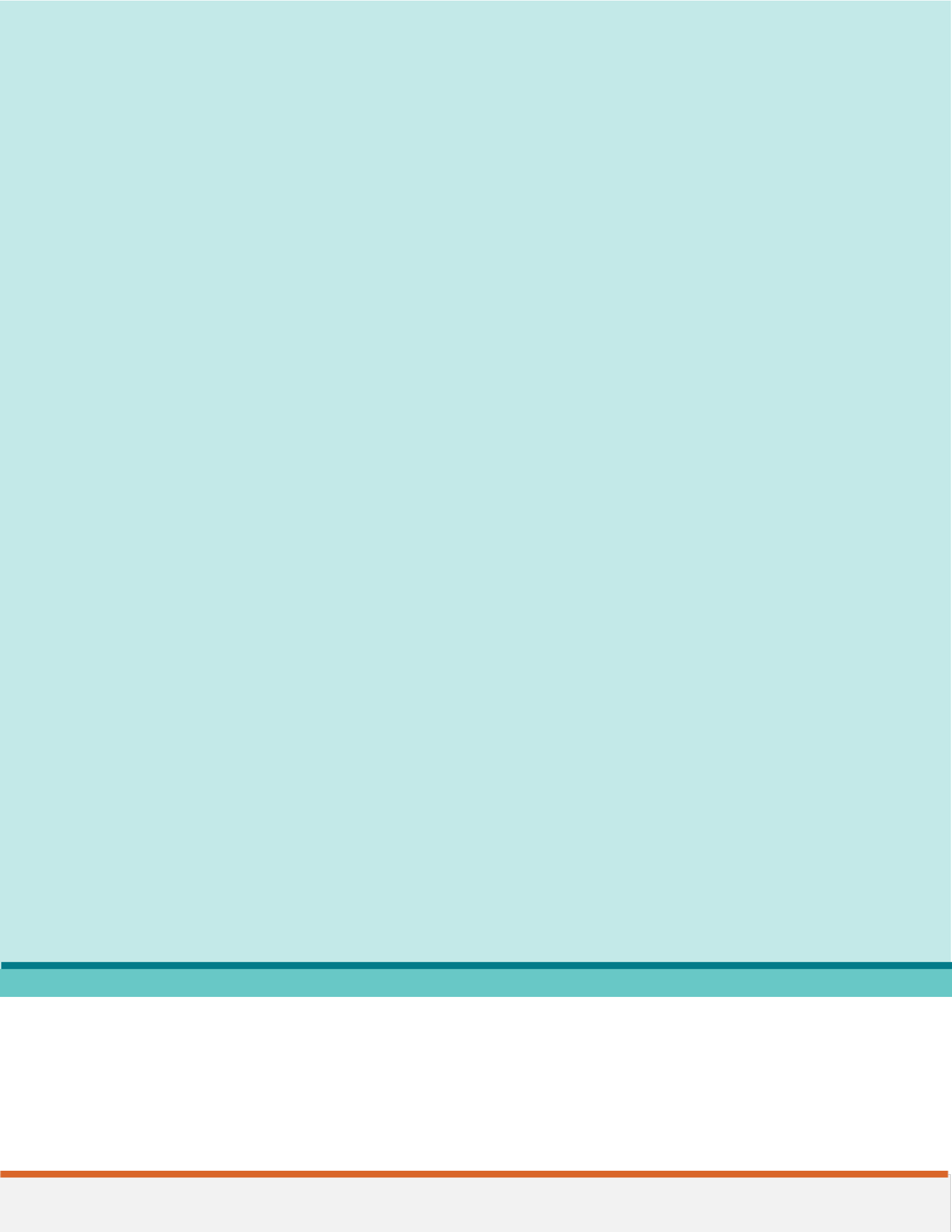
Utility ID 128  
24" DI Water Main  
Owner: Manatee County

Utility ID 136  
8" PVC Water Main  
Owner: Manatee County

Utility ID 135  
8" DI Water Main  
Owner: Manatee County

Utility ID 134  
6" DI Water Lateral to Hydrant  
Owner: Manatee County

Utility ID 127  
24" DI Water Main  
Owner: Manatee County



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## Appendix H – Agency Coordination Minutes

Upper Manatee River Road  
SWFWMD Pre-Application Minutes

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



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

**FILE  
NUMBER:  
PA 408904**

<b>Date:</b>	10/7/2021		
<b>Time:</b>	1:30		
<b>Project Name:</b>	Upper Manatee River Road		
<b>District Engineer:</b>	Monte Ritter		
<b>District ES:</b>	Jeff Glas		
<b>Attendees:</b>	Jason Starr <a href="mailto:Jason.Starr@hdrinc.com">Jason.Starr@hdrinc.com</a> , Paul Herman, Scott Ennis, Barry Lenz, Eric Shroyer, Darin Rice		
<b>County:</b>	Manatee	<b>Sec/Twp/Rge:</b>	17,19,20,29,30/34/19
<b>Total Land Acreage:</b>		<b>Project Acreage:</b>	acres

**Prior On-Site/Off-Site Permit Activity:**

- ERP 11197.001 (MANATEE CO.-MANATEE RIVER RD. TRANS MAIN) and ERP 41367.000 (Bridge over the Manatee River at Fort Hamer Road)

**Project Overview:**

- Proposed road widening from two to four lanes from north of SR 64 to North of Winding Stream Way. Two new basins/stormwater ponds are proposed. Proposed activity will qualify for a new Individual SWERP.

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

- Wetlands and surface waters present, impacts proposed.
- Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
- Provide appropriate mitigation using UMAM for impacts, if applicable.
- The site is located in the Manatee River ERP Basin. Mitigation Banks that serve this area include the Manatee Mitigation, Braden River, Tampa Bay, and Mangrove Point. For an interactive map of permitted mitigation banks and their service areas, use this [LINK](#).
- If the wetland mitigation is appropriate and the applicant is proposing to utilize mitigation bank credit as wetland mitigation, the following applies: Provide letter or credit availability or, if applicable, a letter of reservation from the wetland mitigation bank. The wetland mitigation bank current credit ledgers can be found out the following link: <https://www.swfwmd.state.fl.us/business/epermitting/environmental-resource-permit>, Go to "ERP Mitigation Bank Wetland Credit Ledgers"
- Demonstrate elimination and reduction of wetland impacts.
- Maintain minimum 15 foot, average 25 foot wetland conservation area setback or address secondary impacts.
- Please demonstrate that adverse impacts to the wetland hydro-periods will not occur by providing hydrographs of the 2.33 year mean annual storm. The graph should start and end at the pop-off elevation with Existing Condition and Proposed Condition hydrographs superimposed for comparison. Please provide a supporting narrative for the hydrographs explaining any variations that are shown. The invert of the agricultural ditches may be the existing 'pop-off' elevation, or SHWL of the wetland and may need to be considered when designing the storm water management system.
- Determine SHWL's at pond locations, wetlands, and OSWs.
- Determine normal pool elevations of wetlands.
- Determine 'pop-off' locations and elevations of wetlands.
- note, the Florida Department of Environmental Protection (FDEP) has assumed the Federal dredge and fill permitting program under section 404 of the Federal Clean Water Act within certain waters. State 404 Program streamlining intentions direct Agency staff to coordinate joint site visits for overall consistency between the two State programs. As such, District staff and the FDEP will need to conduct a joint site visit

for evaluation of the wetland/surface water systems proposed for impact. District staff will coordinate with FDEP staff on determining dates/times of joint Agency availability. Upon determination of joint availability, staff will provide the applicant's representative with site visit scheduling options.

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

- Watersheds – No District watershed study available. 100-year floodplain associated with wetlands and surface waters within and adjacent to project must be established.
- WBIDs – Gates Creek (WBID 1874) and Manatee River above Braden River (WBID 1848B). WBID 1848B is currently listed for nutrient related impairments. Net improvement will be required for discharges to this WBID. WBIDs need to be independently verified by the consultant
- Document/justify SHWE's at pond locations, wetlands, and OSWs.
- Provide documentation to support tailwater conditions for quality and quantity design
- Contamination issues need to be resolved with the FDEP. Check FDEP MapDirect layer for possible contamination points within/adjacent to the project area. [FDEP Map Direct](#)

- Petroleum Contamination Monitoring Sites (PCTS) Facility ID No. **9700838** located within or adjacent to site.

- Solid Waste Facility ID No. **105022** located within or adjacent to site.

Please verify with FDEP if any have current contamination issues after the application is submitted.

For known contamination within the site or within 500' beyond the proposed stormwater management system:

- After the application is submitted, please contact FDEP staff listed below and provide them with the ERP Application ID # along with a mounding analysis (groundwater elevation versus distance) of the proposed stormwater management system that shows the proposed groundwater mound will not adversely impact the contaminated area. FDEP will review the plans submitted to the District and mounding analysis to determine any adverse impacts. Provide documentation from FDEP that the proposed construction will not result in adverse impacts. This is required prior to the ERP Application being deemed complete.

For known offsite contamination between 1500' and 500' beyond the site: - FDEP may also require a mounding analysis (groundwater elevation versus distance) for the proposed stormwater systems. SWFWMD will issue the permit when contamination sites are located outside the 500 ft radius prior to concurrence from DEP, however, it is the Permittee's responsibility to resolve contaminated site assessment concerns with the FDEP prior to beginning any construction activities. A permit condition will be used to reiterate this. You are advised to contact DEP as soon as possible, preferably during permit application period.

- FDEP Contacts:

- For projects located within Citrus, Hernando, Pasco, Hillsborough, Pinellas, Manatee, Polk and Hardee Counties: Yanisa Angulo [Yanisa.angulo@floridadep.gov](mailto:Yanisa.angulo@floridadep.gov)

- Any wells on site should be identified and their future use/abandonment must be designated.
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well. Subsection 4.2, A.H.V.II.

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

- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Provide equivalent compensating storage for all 100-year, 24-hour floodplain impacts if applicable. Compensation for tidal floodplain impacts is not required above the overtopping elevation between the impacted floodplain and receiving tidal water body. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation, if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.

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

- **Presumptive Water Quality Treatment for Alterations to Existing Public Roadway Projects:**
  - Refer to Section 4.5 A.H.V.II for Alterations to Existing Public Roadway Projects.
  - Refer to Sections 4.8, 4.8.1 and 4.8.2 A.H.V.II for Compensating Stormwater Treatment, Overtreatment, and Offsite Compensation.
  - All co-mingled existing & new impervious that is proposed to be connected to a treatment pond will require treatment for an area equal to the co-mingled existing & new impervious (times ½” for dry treatment or 1” for wet treatment). This applies whether or not equivalent treatment concepts are used.
  - However, if equivalent treatment concepts are used it is possible to strategically locate the pond(s) so that the minimum treatment requirement may be for an area equivalent to the new impervious area only. That is, co-mingled existing & new impervious that is not connected to a treatment pond may bypass treatment (as per Section 4.5(2), A.H.V.II); if the ‘total impervious area’ that is connected to the treatment pond(s) is at least equivalent to the area of new impervious only. The ‘total impervious area’ that is connected to the pond(s) may be composed of co-mingled existing & new impervious.
  - Offsite impervious not required to be treated; but may be useful to be treated when using equivalent treatment concepts.
  - Existing treatment capacity displaced by any road project will require additional compensating volume. Refer to Subsection 4.5(c), A.H.V.II.
- **Net improvement**
  - Refer to rule 62-330.301(2), F.A.C.
  - Please verify accuracy of WBID boundaries and status of impairment.
  - The application must demonstrate a net improvement for nutrients. Applicant may demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(g).
  - Effluent filtration is known to be ineffective for treating nutrient related impairments, unless special nutrient adsorption media provided. However, please note special nutrient adsorption media has extremely low conductivity values compared to typical sand type effluent filtration filter media. Note: if treatment volume required for net improvement is less than the treatment volume required for 'presumptive' treatment, then use of effluent filtration is ok.

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

- The project may be located within state owned sovereign submerged lands (SSSL). Be advised that a title determination will be required from FDEP to verify the presence and/or location of SSSL.
- If use of SSSL is proposed, authorization will be required. Refer to Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. for guidance on projects that impact SSSL and Aquatic Preserves.
- Include discussion on the potential type of SSSL authorization that may be required. Refer to Chapter 18-21.005, F.A.C.

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

- The permit must be issued to entity that owns or controls the property. Manatee County will be permittee.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc.

**Application Type and Fee Required:**

- SWERP Individual – Sections A, C, and E of the ERP Application. Fee will be based on project area and amount of wl/sw impacts.
- Consult the [fee schedule](#) for different thresholds.

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

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.
- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

**ELECTRONIC (Manifest):** *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]*  
*This item has been electronically signed and sealed by [NAME] on the date indicated here using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies*

**DIGITAL:** *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here; Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*

- Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2.1.1, A.H.V.II) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall not be excavated to within two (2) feet of the underlying limestone which is part of a drinking water aquifer. [Refer to Subsection 5.4.1(b), A.H.V.II]
- If lowering of SHWE is proposed, then burden is on Applicant to demonstrate no adverse onsite or offsite impacts as per Subsection 3.6, A.H.V.II. Groundwater drawdown 'radius of influence' computations may be required to demonstrate no adverse onsite or offsite impacts. Please note that new roadside swales or deepening of existing roadside swales may result in lowering of SHWE. Proposed ponds with control elevation less than SHWE may result in adverse lowering of onsite or offsite groundwater.
- On December 17, 2020, the Environmental Protection Agency (EPA) formally transferred permitting authority under CWA Section 404 from the U.S. Army Corps of Engineers (Corps) to the State of Florida for a broad range of water resources within the State. The primary State 404 Program rules are adopted by the Florida Department of Environmental Protection (FDEP) as Chapter 62-331 of the Florida Administrative Code (F.A.C.). While the State 404 Program is a separate permitting program from the Environmental Resource Permitting program (ERP) under Chapter 62-330, F.A.C., and agency action for State 404 Program verifications, notices, or permits shall be taken independently from ERP agency action, the FDEP and the Southwest Florida Water Management District (SWFWMD) will be participating in a Joint application Process. Upon submittal of an ERP application that proposes dredge/fill activities in wetlands or surface waters within state assumed waters, the SWFWMD will forward a copy of your application to the FDEP for activities under State 404 jurisdiction. The applicant may choose to have the State 404 Program and ERP agency actions issued concurrently to help ensure consistency and reduce the need for project modifications that may occur when the agency actions are issued at different times. Additional information on the FDEP's 404 delegation can be found at: <https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program>
- Additionally, for those projects located in areas where the Corps retains jurisdiction, the applicant is advised that the District will not send a copy of an application that does not qualify for a State Programmatic General Permit (SPGP) to the U.S. Army Corps of Engineers. If a project does not qualify for a SPGP, you will need to apply separately to the Corps using the appropriate federal application form for activities under federal jurisdiction. Please see the Corps' Jacksonville District Regulatory Division Sourcebook for more information about federal permitting. Please call your local Corps office if you have questions about federal permitting. Link: <http://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/>

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



Upper Manatee River Road  
Manatee County Coordination Minutes

# Meeting Minutes

Project: Manatee County Corridors Evaluation

Subject: Lorraine Road, Upper Manatee River Road Drainage Discussion

Date: Wednesday, September 01, 2021

Location: WebEx Meeting 1793 96 5250

Attendees: Ken Kohn, Manatee County  
Eric Shroyer, Manatee County  
Tom Gerstenberger, Manatee County  
Darin Rice, Manatee County  
Jason Starr, HDR PM  
Paul Herman, HDR

Topic	Facilitator	Start	End
1. Drainage / Stormwater Management Resources and Recommendations	Jason Starr	2:00 PM	3:00 PM

- County staff offered the following resources and **recommendations** for design phase stormwater management facility analysis. *It is noted the scope of the Lorraine Road and Upper Manatee River Road Project Development and Corridor Study Reports is to perform preliminary analysis to determine drainage system needs, potential outfall locations, and preliminary pond sizes (volume and area) for storm water treatment and attenuation:*
  - County offered ICPR4 2014 Mill Creek Watershed Model which has been accepted by SWFWMD.
  - County has ICPR3 Braden River Watershed Model, currently being converted to ICPR4.
  - Use watershed models to analyze existing crossings and areas of inundation.
  - Models should be used to set pond control elevations to match initial stage of receiving nodes, considered lowest SHW for pond design.
  - Post stormwater management would be integrated into a post-condition model to demonstrate no stage increase over pre-condition throughout model.
  - Upper Manatee River Road (UMRR) has no modeling. Assume lowest feasible control elevations for ponds.
  - The Copperlefe development has a model of Gates Creek from SR 64 to Gates Creek Subdivision is available.
  - ZNS Engineers for Warner Crossing development (NW corner of SR 64 and UMRR) has modeled Gates Creek.

Project: Manatee County Corridors Evaluation

Subject: Lorraine Road, Upper Manatee River Road Drainage Discussion

Date: Wednesday, September 01, 2021

- The Mill Creek watershed model has a boundary condition east of Ft. Hamer. The tailwater used for UMRR would have to be adjusted based on location.
- The formal design of UMRR stormwater management would require creating a model of the UMRR corridor for setting tailwaters, by integrating the noted vicinity models. The model would be used to set tailwater conditions through the 100-year event, from SR64, northward.

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## 2 Lorraine Road Drainage / Stormwater Management

- Lorraine Road study limits involves two primary drainage basins with differing stormwater management water quality and water quantity criteria. Wolf Slough (Evers Reservoir) SR 64 to 44<sup>th</sup> Avenue, and Mill Creek from 44<sup>th</sup> Avenue to SR 70.
- Wolf Slough: SWFWMD Wet detention water quality 1.5" of contributing basin. Water Quantity Attenuation: SWFWMD 25-Yr, 24 Hr. Post Volume <= 75% Pre. Rate Attenuation.
- Mill Creek: SWFWMD Wet detention water quality 1" of contributing basin. Water Quantity Attenuation: SWFWMD 25-Yr, 24 Hr. Post Volume <= 50% Pre. Rate Attenuation.
- County described problem area of flooding along Lorraine occurs at the Wolf Slough overtopping its banks at the Lorraine Road double box culvert crossing south Rangeland Parkway.
- The SW Duck Dog LLC parcels being evaluated for potential pond sites (SW corner of Lorraine Road and SR 70) is pursuing future development plans for an apartment complex. County suggested the report write-up should indicate these parcels are pursuing future development plans, and joint use pond sites could be coordinated with future development.

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## 3 Upper Manatee River Road (UMRR) Drainage / Stormwater Management

- Gates Creek (outfall for UMRR from SR 64 through north of 2<sup>nd</sup> Avenue W.) has no Watershed Management Plan. Therefore, stormwater management ponds for UMRR use SWFWMD presumptive criteria; wet detention water quality of 1" for contributing basin, and SWFWMD 25-Yr, 24-Hr Post <= Pre. Rate Attenuation.
- Gates Creek subdivision floods. Check for water ponding on the low edges of travel lanes or shoulders. UMRR has never been closed due to flooding. A major flooding event occurred on 12/18/2020; approximately 6" inches rainfall in 4-hours.

Project: Manatee County Corridors Evaluation

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Subject: Lorraine Road, Upper Manatee River Road Drainage Discussion

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Date: Wednesday, September 01, 2021

- Use FEMA FIRM August 1, 2021 for 100-Year flood stage. Manatee River at UMRR has both riverine and storm surge velocity flood stages.
- There is a substantial double culvert along Waterlefe frontage to consider in alignments and stormwater management.
- UMRR design is based on Thorough Criteria; stormdrain system 25-Yr., and road crown must be six-inches above 100-year stage.
- The County will soon have 2019 LiDar available of the UMRR corridor vicinity, including Mill Creek.

## Appendix I – Cost Estimate

**UPPER MANATEE RIVER ROAD**

**RECOMMENDED ALTERNATIVE CONSTRUCTION COST ESTIMATE  
October 14, 2021**

<i>Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Item Price</i>
CLEARING & GRUBBING	LS/AC	35.586	\$15,000.00	\$533,790.00
EARTHWORK (ROADWAY EXCAVATION/EMBANKMENT)	CY	114,824	\$8.37	\$961,076.88
EARTHWORK (POND EXCAVATION/EMBANKMENT)	CY	23,651	\$8.37	\$197,958.87
TYPE B STABILIZATION	SY	103,653.8	\$5.40	\$559,730.52
OPTIONAL BASE, BASE GROUP 09	SY	88,728.7	\$18.34	\$1,627,284.36
MILLING EXISTING ASPHALT PAVEMENT, 1.5" AVG DEPTH	SY	924	\$1.98	\$1,829.72
SUPERPAVE ASPHALTIC CONC, TRAFFIC C, PG 76-22	TN	14,640.2	\$107.28	\$1,570,600.66
ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	TN	7,396.4	\$117.23	\$867,079.97
MISCELLANEOUS ASPHALT PAVEMENT	TN	10.8	\$197.94	\$2,137.75
CONCRETE CLASS NS, GRAVITY WALL	CY	430	\$764.52	\$328,743.60
INLETS, CURB,TYPE P-4, <10'	EA	39	\$8,444.17	\$329,322.63
INLETS, CURB,TYPE J-4, <10'	EA	39	\$9,195.40	\$358,620.60
INLETS, DITCH BOTTOM, TYPE C MODIFIED - BACK OF SIDEWALK, < 10'	EA	39	\$3,226.54	\$125,835.06
INLETS, DITCH BOTTOM, TYPE H,<10'	EA	2	\$8,213.10	\$16,426.20
PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18" SD	LF	3,588	\$92.47	\$331,782.36
PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24" SD	LF	160	\$109.90	\$17,584.00
PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 36" SD	LF	11,595	\$139.00	\$1,611,705.00
PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 36" S/CD	LF	120	\$170.30	\$20,436.00
STRAIGHT CONCRETE ENDWALLS, 36", SINGLE, ROUND	EA	2	\$5,909.08	\$11,818.16
MITERED END SECTION, OPTIONAL ROUND, 24" CD	EA	2	\$2,013.47	\$4,026.94
PIPE HANDRAIL - GUIDERAIL, ALUMINUM	LF	1,000	\$49.47	\$49,470.00
CONCRETE CURB & GUTTER, TYPE AB	LF	22,110	\$25.33	\$560,046.30
CONCRETE CURB & GUTTER, TYPE F	LF	20,519	\$25.33	\$519,746.27
TRAFFIC SEPARATOR CONCRETE, TYPE IV, 4' WIDE	LF	407	\$49.83	\$20,280.81
CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	16,382	\$43.44	\$711,634.08
CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1,996	\$58.18	\$116,127.28
GUARDRAIL - ROADWAY, GENERAL TL-3	LF	318	\$18.37	\$5,841.66
GUARDRAIL REMOVAL	LF	1,481	\$1.94	\$2,873.14
GUARDRAIL END TREATMENT - TRAILING ANCHORAGE	EA	1	\$1,416.12	\$1,416.12
PERFORMANCE TURF, SOD	SY	109,656	\$2.69	\$294,974.64
<b>ROADWAY SUBTOTAL</b>				<b>\$11,760,199.58</b>
RAISE PAVEMENT MARKER, TYPE B	EA	1,100	\$3.33	\$3,663.00
PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1	\$36,164.98	\$36,164.98
THERMOPLASTIC STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	2,530	\$2.50	\$6,325.00
THERMOPLASTIC STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	195	\$3.51	\$684.45
THERMOPLASTIC STANDARD, WHITE, SOLID, 24" FOR STOP LINES AND CROSSWALK	LF	576	\$4.83	\$2,782.08
THERMOPLASTIC STANDARD, WHITE,2-4 DOTTED GUIDELINE/6-10 GAP EXTENSION, 6"	GM	1.021	\$2,125.86	\$2,170.50
THERMOPLASTIC STANDARD, WHITE, MESSAGE OR SYMBOL	EA	39.000	\$122.03	\$4,759.17
THERMOPLASTIC STANDARD, WHITE, ARROW	EA	125	\$63.19	\$7,898.75
THERMOPLASTIC STANDARD, YELLOW, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	1,919	\$3.56	\$6,831.64
THERMOPLASTIC STANDARD, YELLOW,2-4 DOTTED GUIDELINE/6-10 DOTTED EXTENSION LINE, 6"	GM	0.073	\$2,239.59	\$163.49
THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	4,831.000	\$14.58	\$70,435.98
THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	8.777	\$4,099.38	\$35,980.26
THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 8"	GM	0.314	\$5,160.56	\$1,620.42
THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, 6", 10-30 SKIP OR 3-9 LANE DROP	GM	3.542	\$1,564.27	\$5,540.49
THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, YELLOW, 6"	GM	4.459	\$4,138.26	\$18,452.50
<b>SIGNING AND PAVEMENT MARKING SUBTOTAL</b>				<b>\$203,472.70</b>

**UPPER MANATEE RIVER ROAD**

**RECOMMENDED ALTERNATIVE CONSTRUCTION COST ESTIMATE  
October 14, 2021**

<i>Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Item Price</i>
TRAFFIC SIGNAL REMOVAL/RECONSTRUCTION, GREENFIELD BLVD/COPPERLEFE DRIVE	LS	1	\$500,000.00	\$500,000.00
TRAFFIC SIGNAL REMOVAL/RECONSTRUCTION, PORT HARBOUR PARKWAY	LS	1	\$500,000.00	\$500,000.00
TRAFFIC SIGNAL REMOVAL/RECONSTRUCTION, FORT HAMER ROAD	LS	1	\$500,000.00	\$500,000.00
<b>SIGNALIZATION SUBTOTAL</b>				<b>\$1,500,000.00</b>
CONDUIT, OPEN TRENCH	LF	8,696	\$10.50	\$91,308.00
CONDUIT, DIRECTIONAL BORE	LF	2,899	\$21.96	\$63,662.04
PULL & SPLICE BOX, 13" X 24" COVER SIZE	EA	116	\$765.09	\$88,750.44
LIGHTING CONDUCTOR, F&I, INSULATED, No. 8-6	LF	11,595	\$1.93	\$22,378.35
LIGHT POLE COMPLETE, F&I, STANDARD POLE/FOUNDATION, 40' MOUNTING HEIGHT	EA	87	\$5,642.38	\$490,887.06
LIGHT POLE COMPLETE, F&I, STD POLE, SPECIAL FOUNDATION, 40' MOUNTING HEIGHT	EA	29	\$10,592.09	\$307,170.61
LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	3	\$15,057.66	\$45,172.98
<b>LIGHTING SUBTOTAL</b>				<b>\$1,109,329.48</b>
<b>PROJECT SUBTOTAL</b>				<b>\$14,573,001.76</b>
MOBILIZATION	10%			\$1,457,300.18
TRAFFIC CONTROL	15%			\$2,185,950.26
<b>SUBTOTAL</b>				<b>\$18,216,252.20</b>
CONTINGENCY (PROJECT UNKNOWNNS, ITEMS NOT ESTIMATED)	25%			\$4,554,063.05
<b>PROJECT TOTAL</b>				<b>\$22,770,315.26</b>

**Upper Manatee River Road - Right of Way Parcel Identification**

<b>PARTIAL</b>								
<b>Roadway</b>								
	Parcel ID	Owner Name	Primary Address	Take Size (\$F)	Full Take, Partial Take, or Easement?	Residential Rear Yard Take?	Residential Side Yard Take?	
Parcel Impact 1	564712156	CUMMINGS, ARLAN B; CUMMINGS, PATRICIA A	10904 10TH AVE E, BRADENTON FL 34212-9755	6,500	Partial	No	Yes	
Parcel Impact 2	566801029	GREENFIELD GOLF LLC	10325 GREENFIELD BLVD, BRADENTON FL 34212-2660	1,000	Partial	No	No	
Parcel Impact 3	564711059	ROTTGEN, EVELYN G	10905 10TH AVE E, BRADENTON FL 34212-9714	10,100	Partial	No	Yes	
Parcel Impact 4	564713550	ARTHUR, WILLIAM MICHAEL; RAUCH, RUTH ANN	10904 8TH AVE E, BRADENTON FL 34212-9776	9,100	Partial	No	Yes	
Parcel Impact 5	564713055	MORSCHES, REBECCA ANN; MORSCHES, ROBERT T	10903 8TH AVE E, BRADENTON FL 34212-9777	14,100	Partial	No	Yes	
Parcel Impact 6	566831259	GREENFIELD PLANTATION MASTER HOMEOWNERS ASSOCIATION	GREENFIELD BLVD, BRADENTON FL 34212	170	Partial	No	No	
Parcel Impact 7	566801155	GREENFIELD GOLF LLC	GREENFIELD BLVD, BRADENTON FL 34212	1,950	Partial	No	No	
Parcel Impact 8	564731009	CHRIST AR PRESBYTERIAN CHURCH INC	515 UPPER MANATEE RIVER RD, BRADENTON FL 34212	6,000	Partial	No	No	
Parcel Impact 9	564605053	GATES CREEK ASSOCIATION INC	4TH AVE E, BRADENTON FL 34212	5,200	Partial	No	No	
Parcel Impact 10	564605004	GATES CREEK ASSOCIATION INC	4TH AVE E, BRADENTON FL 34212	3,800	Partial	No	No	
Parcel Impact 11	564605350	GATES CREEK ASSOCIATION INC	4TH AVE E, BRADENTON FL 34212	13,200	Partial + Easement	No	No	
Parcel Impact 12	564604858	GATES CREEK ASSOCIATION INC	UPPER MANATEE RIVER RD, BRADENTON FL 34212	4,100	Partial + Easement	No	No	
Parcel Impact 13	564608008	GATES CREEK ASSOCIATION INC	UPPER MANATEE RIVER RD, BRADENTON FL 34212	4,800	Partial + Easement	No	No	
Parcel Impact 14	564608156	GATES CREEK ASSOCIATION INC	2ND AVE E, BRADENTON FL 34212	3,400	Partial	No	No	
Parcel Impact 15	564608206	GATES CREEK ASSOCIATION INC	2ND AVE E, BRADENTON FL 34212	4,100	Partial	No	No	
Parcel Impact 16	548700004	MOORES DAIRY FARMS INC	131 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8901	19,700	Partial	No	No	
Parcel Impact 18	548500008	MAZZARA, BELISA	157 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8901	2,500	Partial	No	No	
Parcel Impact 19	554510559	SPECIMEN PALMS LLC	UPPER MANATEE RIVER RD NE, BRADENTON FL 34212	2,800	Partial	No	No	
Parcel Impact 20	554510659	SPECIMEN PALMS LLC	UPPER MANATEE RIVER RD NE, BRADENTON FL 34212	1,100	Partial	No	No	
Parcel Impact 21	547600159	BALLARD, DAVE F	257 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8903	3,100	Partial	No	No	
Parcel Impact 22	549600005	BRONKEMA, WAYNE R; BRONKEMA, RONDA Y	303 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8905	2,500	Partial	No	No	
Parcel Impact 23	549610103	BRONKEMA, WILLIAM R; BRONKEMA, LINDA L	407 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8907	2,000	Partial	No	No	
Parcel Impact 24	549610152	HAHN, DANIEL R	501 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8909	600	Partial	No	No	
Parcel Impact 25	553700105	FERENCE, EDWARD JOSEPH	503 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8909	1,000	Partial	No	No	
Parcel Impact 26	553700055	MILLER, DAVID C; MILLER, NANCY J	507 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8909	1,500	Partial	No	No	
Parcel Impact 27	546008159	WATERLEFE COMMUNITY DEVELOPMENT DISTRICT	708 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212	500	Partial	No	No	
Parcel Impact 28	554400002	WALKER, ADRON H	607 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8911	2,400	Partial	No	No	
Parcel Impact 30	546007759	WATERLEFE COMMUNITY DEVELOPMENT DISTRICT	WINDING STREAM WAY, BRADENTON FL 34212	3,800	Partial	No	No	
Parcel Impact 31	546008659	WATERLEFE COMMUNITY DEVELOPMENT DISTRICT	WATERLEFE BLVD, BRADENTON FL 34212	300	Partial	No	No	
Parcel Impact 32	546036159	WATERLEFE COMMUNITY DEVELOPMENT DISTRICT	UPPER MANATEE RIVER RD, BRADENTON FL 34212	200	Partial	No	No	
Parcel Impact 33	554510057	MOORES DAIRY FARMS INC	807 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8915	1,500	Partial	No	No	
Parcel Impact 34	547610105	DELK, CARSON E; DELK, PAMELA L	11108 UPPER MANATEE RIVER RD, BRADENTON FL 34212-9792	5,900	Partial	No	No	
Parcel Impact 35	547610055	KELLEY, AUDREY S; KELLEY, AUDREY S TRUST DTD 11/22/16	11109 UPPER MANATEE RIVER RD, BRADENTON FL 34212-9708	15,900	Partial	No	No	
<b>Pond</b>								
	Parcel ID	Owner Name	Primary Address	Take Size (\$F)	Full Take, Partial Take, or Easement?	Residential Rear Yard Take?	Residential Side Yard Take?	
Parcel Impact 16	548700004	MOORES DAIRY FARMS INC	131 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8901	97,000	Partial	No	No	
<b>FULL</b>								
<b>Total Takes (Roadway and Pond)</b>								
	Parcel ID	Owner Name	Primary Address	Take Size (\$F)	Full Take, Partial Take, or Easement?	Residential Rear Yard Take?	Residential Side Yard Take?	
Parcel Impact 17	546900002	MOORE, DUANE L	108 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8900	43,560	Full	-	-	
Parcel Impact 29	554510107	WINDHUND LLC	707 UPPER MANATEE RIVER RD NE, BRADENTON FL 34212-8913	217,800	Full	-	-	





**Eric S. Shroyer, PE**

Project Manager  
Manatee County Public Works

