Project Development and Corridor Study Report

Upper Manatee River Road

December 15, 2021

Revision 1

Manatee County
FLORIDA

Professional Engineer Certification

PROJECT DEVELOPMENT AND CORRIDOR STUDY REPORT

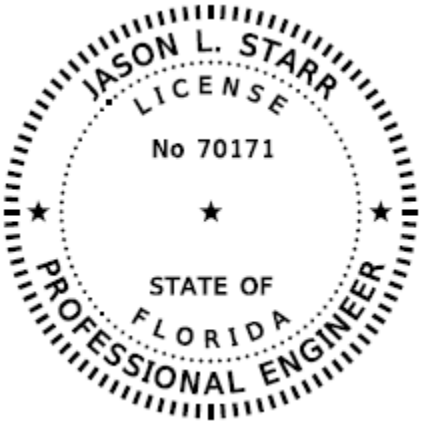
Project: Upper Manatee River Road PD&C Study

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.



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

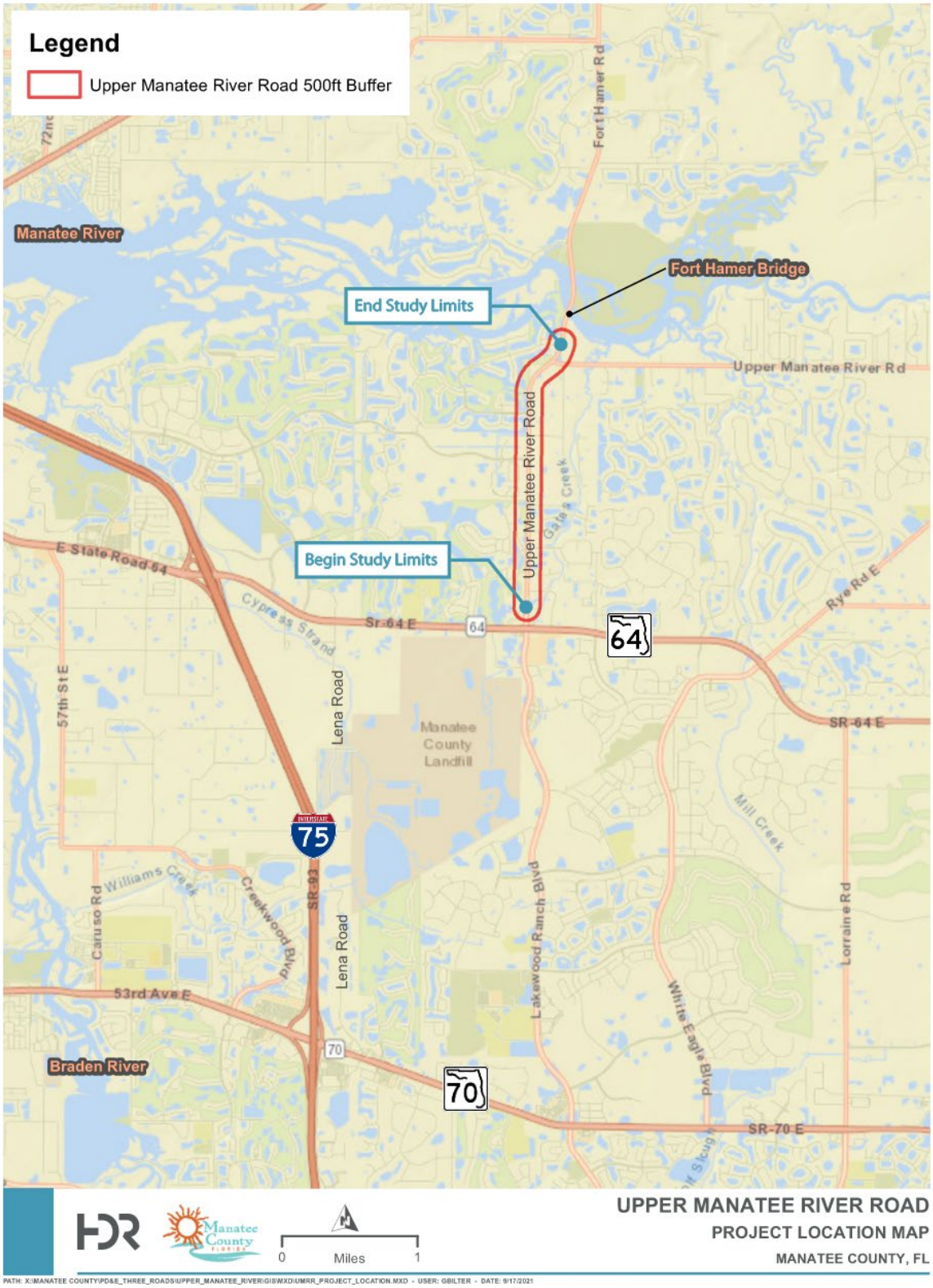
Related projects within the Upper Manatee River Road Study area include the future extension of Port Harbour Parkway and the future 4-lane Fort Hamer Bridge (see **Figure 1-2**).

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 117th 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.


Legend
Upper Manatee River Road 500ft Buffer
Manatee River
Fort Hamer Bridge
End Study Limits
Begin Study Limits
Upper Manatee River Road
Upper Manatee River Rd
Fort Hamer Rd
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Cypress Strand
SR-64 E
64
Rye Rd E
57th St E
Lena Road
Manatee County Landfill
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Mill Creek
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Caruso Rd
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SR-93
Lena Road
Lakewood Ranch Blvd
White Eagle Blvd
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Braden River
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UPPER MANATEE RIVER ROAD
PROJECT LOCATION MAP
MANATEE COUNTY, FL
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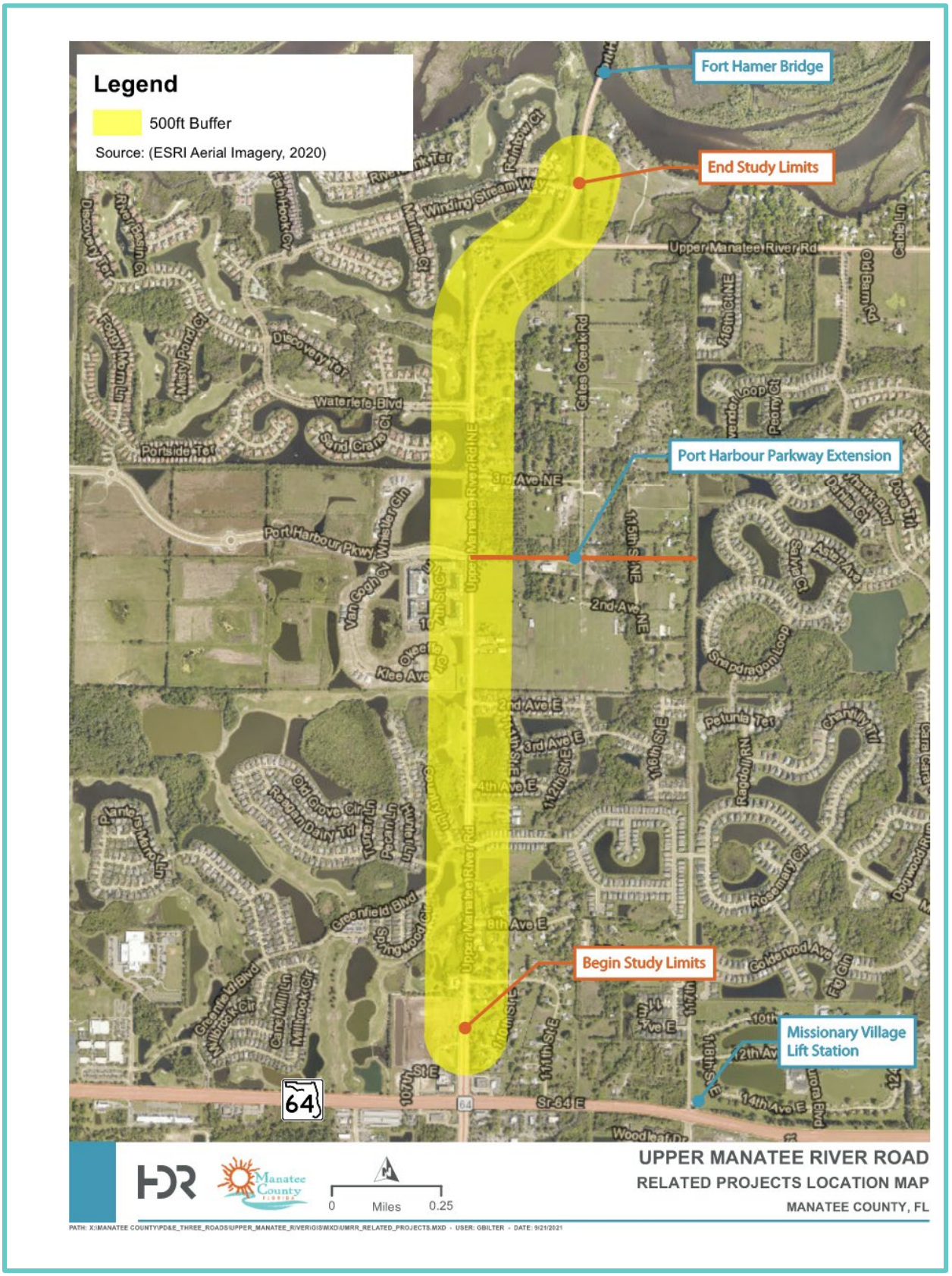


Figure 1-2 | Related Projects Location Map

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 10th 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 2nd Avenue East.

North of 2nd 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 thought 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**.

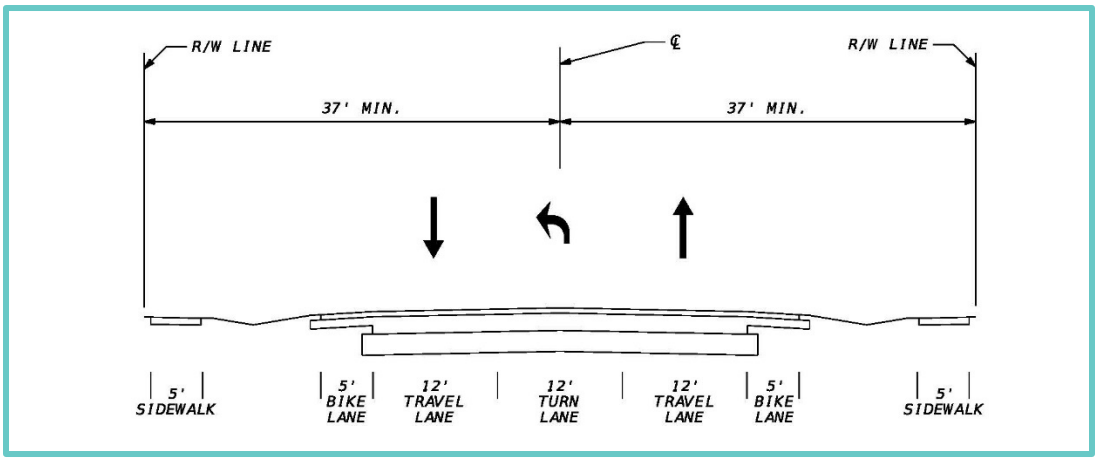


Figure 2-1 | Upper Manatee River Road Existing Three-Lane Typical Section

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
10th 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 2nd 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 2nd 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 10th Avenue East

10th 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 10th 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 10th Avenue East leg but there are no pedestrian accommodations on the roadway.

2.7.2 8th Avenue East

8th 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 8th 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 8th 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.

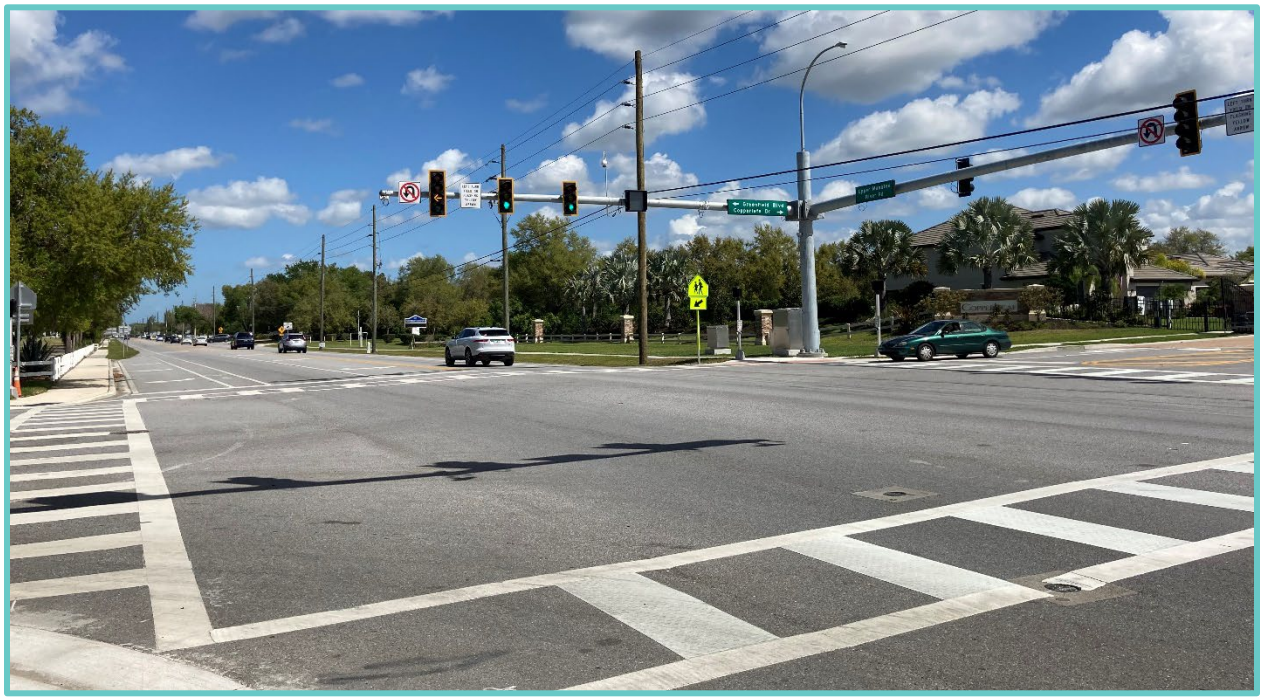


Figure 2-2 | Upper Manatee River Road at Greenfield Boulevard / Copperlefe Drive Intersection

2.7.4 4th Avenue East

4th 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 4th 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 4th Avenue East leg and a 5-foot sidewalk is on the north side of the roadway.

2.7.5 2nd Avenue East

2nd 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 2nd 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 2nd 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 3rd Avenue Northeast

3rd 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 3rd 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.

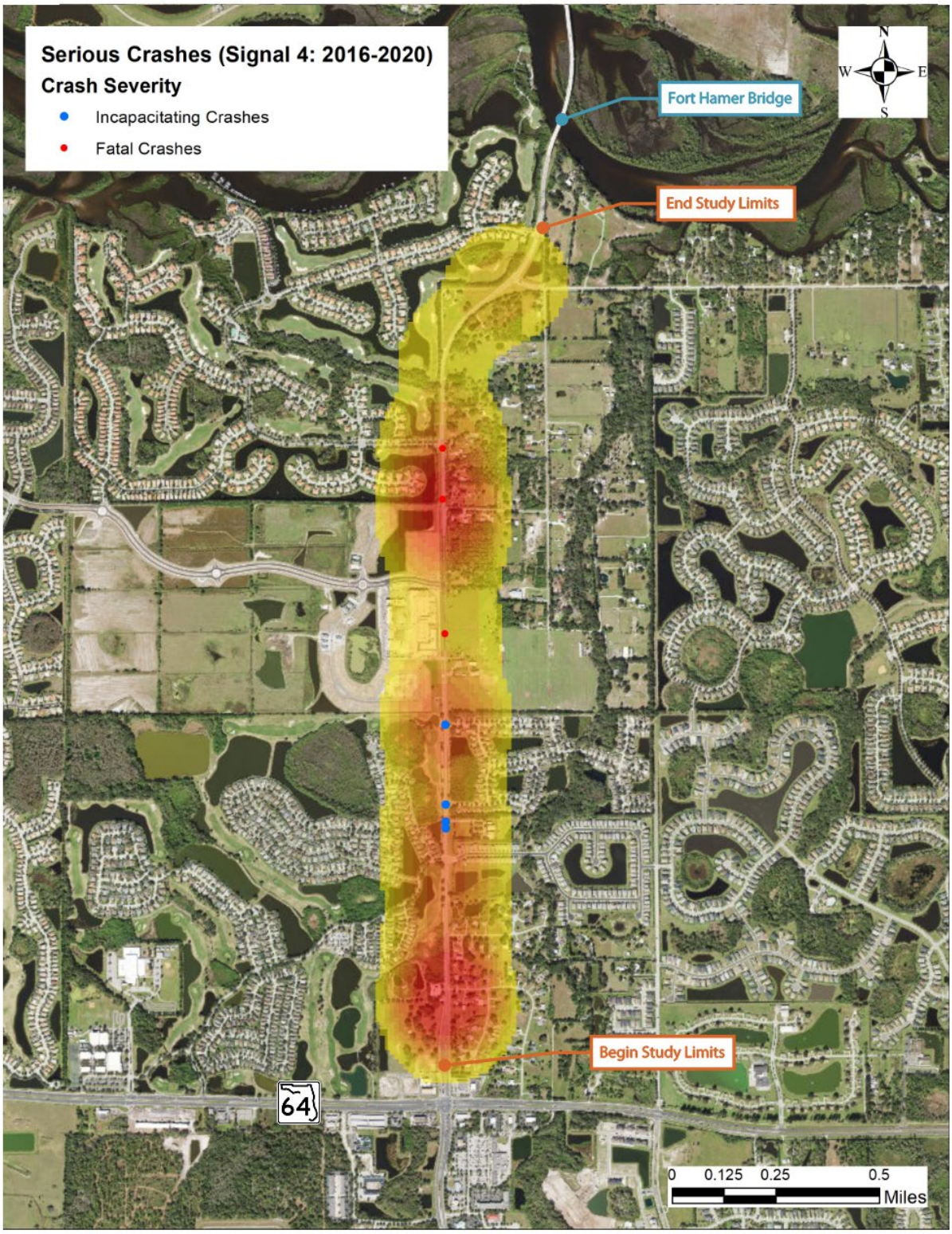


Figure 2-5 | Crash Data Heat Map

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 2nd 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**.

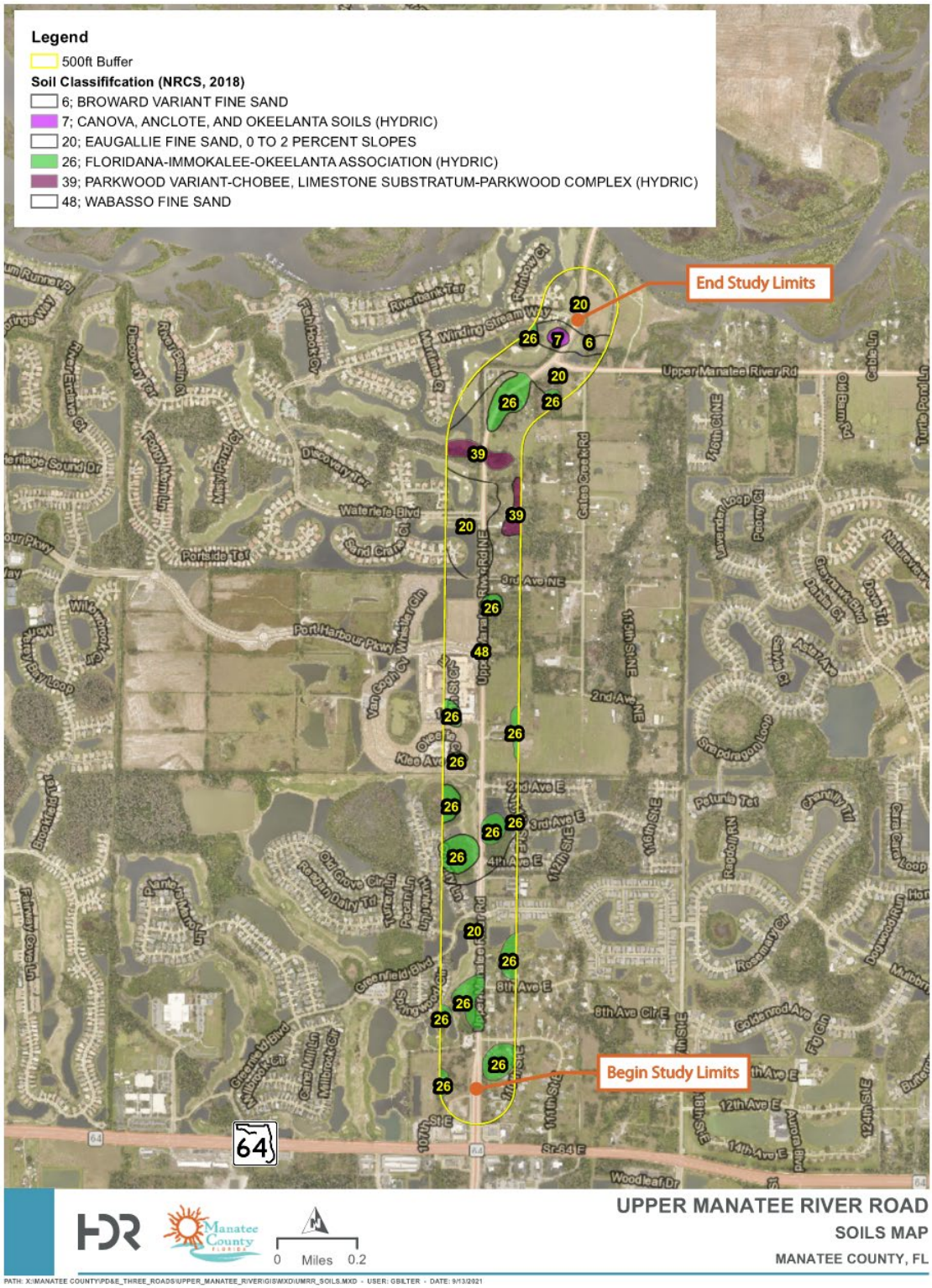


Figure 2-6 | Soils Map

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 overlayed 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	▪ Along the east side of Upper Manatee River Road (under pavement) ▪ Crosses to the west side just north of 10th Avenue East
42″ PVC Water Main	Upper Manatee River Road	▪ Along the west side of Upper Manatee River Road from north of 10th Avenue East to Fort Hamer Road ▪ Follows original curvature of Upper Manatee River Road at the Fort Hamer Road intersection and remains on the north side
6″ PVC Water Main	Upper Manatee River Road	▪ Along the east side of Upper Manatee River Road from 10th Avenue East to 8th Avenue East
8″ Water Main	Upper Manatee River Road	▪ Along the east side of Upper Manatee River Road from 2nd Avenue East 450 ft to the north ▪ Crosses to the west side and connects to 42″ water main
6″ PVC Water Main	Upper Manatee River Road	▪ Along the east side of Upper Manatee River Road after crossing south of 3rd Avenue Northeast to Fort Hamer Road ▪ Follows original curvature of Upper Manatee River Road at the Fort Hamer Road intersection and remains on the south side
24″ DIP Water Main	Fort Hamer Road	▪ Along the east side of Fort Hamer Road behind the stormwater facility heading north to Fort Hamer Bridge
10″ HDPE Water Main	Greenfield Boulevard	▪ Along the north side of Greenfield Boulevard / Copperlefe Drive ▪ Under sidewalk on both legs of the intersection ▪ Connects to 8″ water main on north side of Copperlefe Drive
10″ PVC Water Main	Waterlefe Boulevard	▪ Along the north side of Waterlefe Boulevard connected to the 42″ water main on the west side of Upper Manatee River Road

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 10th Avenue East.

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

Description	Roadway	Location
8″ PVC Force Main	Upper Manatee River Road	▪ Along the west side of Upper Manatee River Road from SR 64 to Lift Station 330 (under pavement)
8″ PVC Gravity Main	Upper Manatee River Road	▪ Along the west side of Upper Manatee River Road, outside of the right of way from SR 64 to Lift Station 330
8″ PVC Force Main	Upper Manatee River Road	▪ 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) ▪ Connects to 6″ force main on the west side (Greenfield Boulevard) ▪ Connects to 4″ force main on the east side (Copperlefe Drive)
6″ PVC Force Main	Upper Manatee River Road	▪ 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 4th Avenue East (under pavement)
8″ PVC Force Main	Upper Manatee River Road	▪ Along the west side of Upper Manatee River Road from 4th Avenue East to north of 2nd Avenue East (under pavement) ▪ North of 2nd 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)
6″ PVC Force Main	Upper Manatee River Road	▪ Along the east side of Upper Manatee River Road from the downsizing location south of Port Harbour Parkway to just south of 3rd Avenue Northeast (under pavement) ▪ South of 3rd Avenue Northeast it crosses to the west side of Upper Manatee River Road and heads north to a termination point north of Waterlefe Boulevard
6″ PVC Force Main	4th Avenue East	▪ Along the north side of 4th Avenue East connected to the 6″ force main on the west side of Upper Manatee River Road
6″ PVC Force Main	Waterlefe Boulevard	▪ Along the south side of Waterlefe Boulevard connected to the 6″ force main on the west side of Upper Manatee River Road
4″ PVC Force Main	Winding Stream Way	▪ Along the north side of Winding Stream Way and crossing Fort Hamer Road

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 3rd 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.

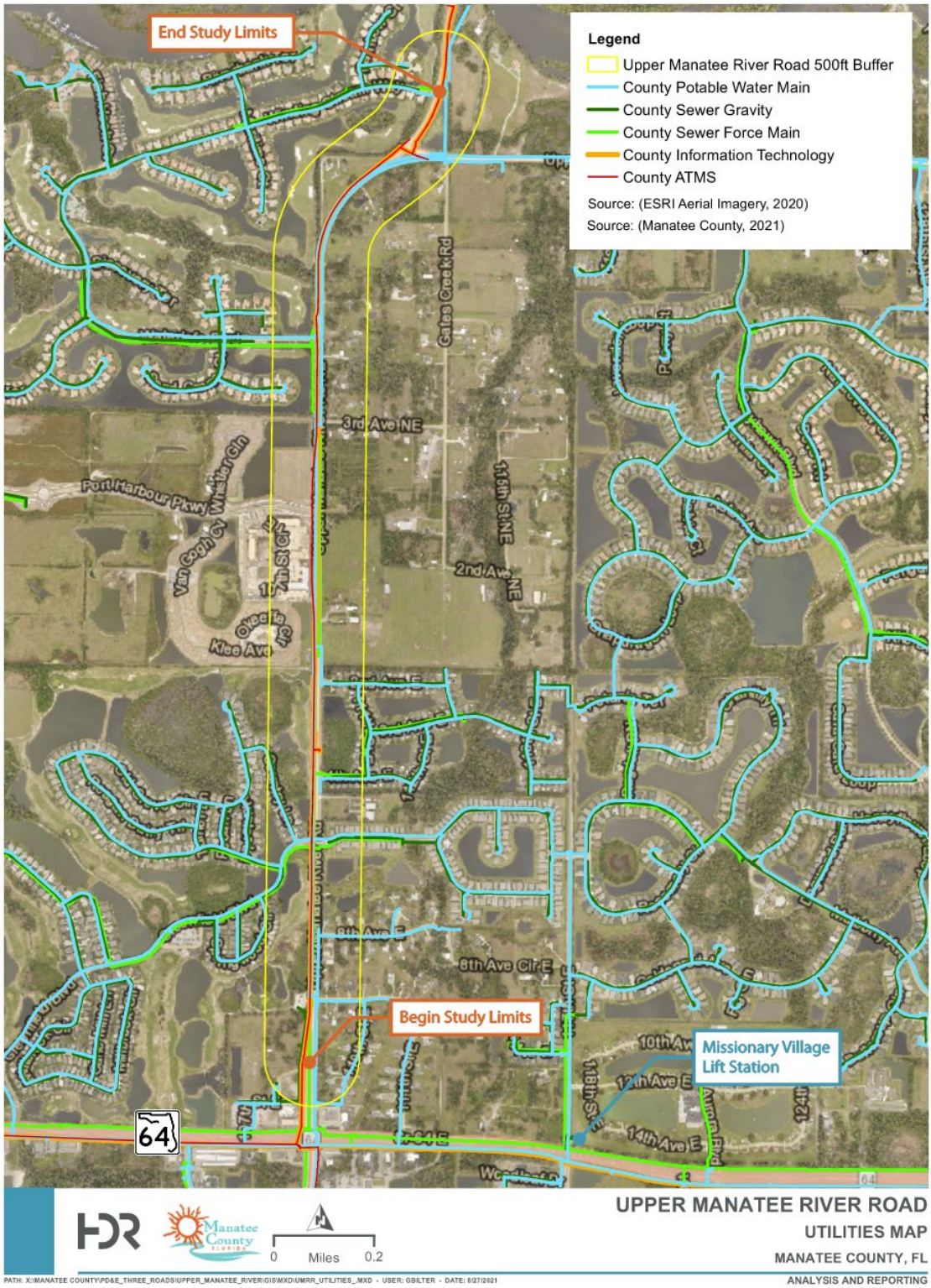


Figure 2-7 | Utilities Map

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
Florida Power and Light (FPL)	• 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 • The Distribution corridor continues north while Upper Manatee River Road curves, then turns due east at the Waterlefe Golf and River Club maintenance property • The Distribution corridor heads east along the south side of Upper Manatee River Road
Spectrum (Charter) Communications	• Spectrum maintains aerial facilities along the east and south sides of Upper Manatee River Road, on the FPL poles • Spectrum maintains underground facilities that cross Upper Manatee River Road at Greenfield Boulevard, Port Harbour Parkway, and Waterlefe Boulevard
Uniti Fiber	• 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 3rd Avenue Northeast • 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 3rd 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
MCI	• MCI maintains aerial facilities along the east side of Upper Manatee River Road on the FPL poles
Zayo	• Zayo maintains communication throughout the project limits for Upper Manatee River Road
Frontier Communications	• 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 10th Avenue East • Fronter maintains a 1-1.25" polypipe with fiber on the west side of Upper Manatee River Road from the PVC conduit to Greenfield Boulevard • 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 • 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 • Frontier maintains facilities on 10th Avenue East, 8th Avenue East, and Waterlefe Boulevard
Black and Veatch	This UAO from the Sunshine One Call for the Study area has not responded
Braden River Utilities	This UAO from the Sunshine One Call for the Study area has not responded
TECO Peoples Gas	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
Federal Listed Wildlife			
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
Federal Protected Wildlife			
Haliaeetus leucocephalus	Bald eagle	BGEPA* MBTA**	No effect
Pandion haliaetus	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
Antigone canadensis pratensis	Florida sandhill crane	Threatened	No effect anticipated
Falco sparverius paulus	Southeastern American kestrel	Threatened	No effect anticipated
Gopherus polyphemus	Gopher tortoise	Threatened	No adverse effect anticipated
Pituophis melanoleucus mugitus	Florida pine snake	Threatened	No effect anticipated
Wading Birds			
Egretta caerulea	Little blue heron	Threatened	No effect anticipated
Egretta rufescens	Reddish egret	Threatened	No effect anticipated
Egretta tricolor	Tricolored heron	Threatened	No effect anticipated
Platalea ajaja	Rosette spoonbill	Threatened	No effect anticipated
Nesting Shorebirds			
Rynchops niger	Black skimmer	Threatened	No effect anticipated
Sternula antillarum	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.

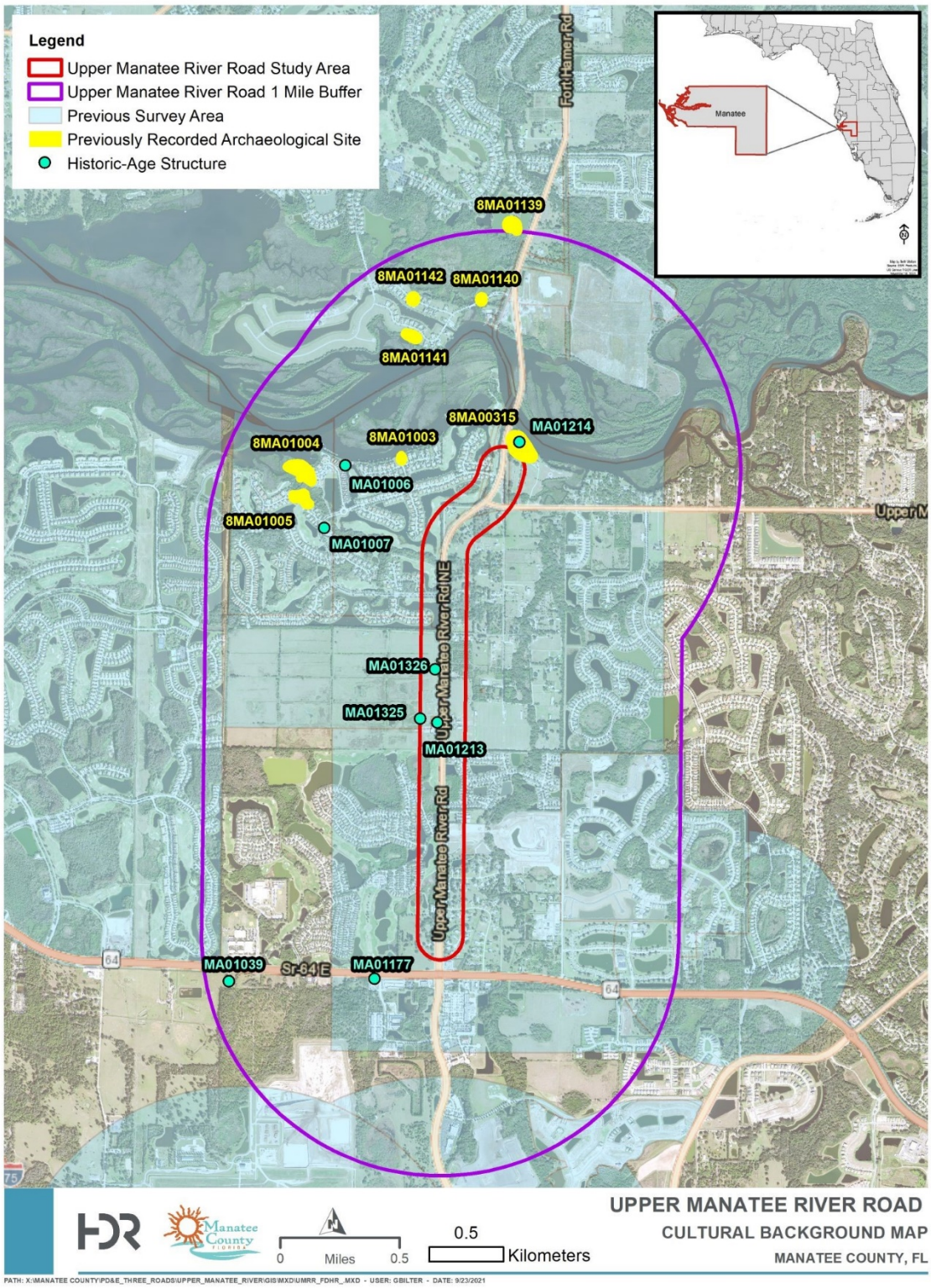


Figure 3-1 | Cultural Background Map

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

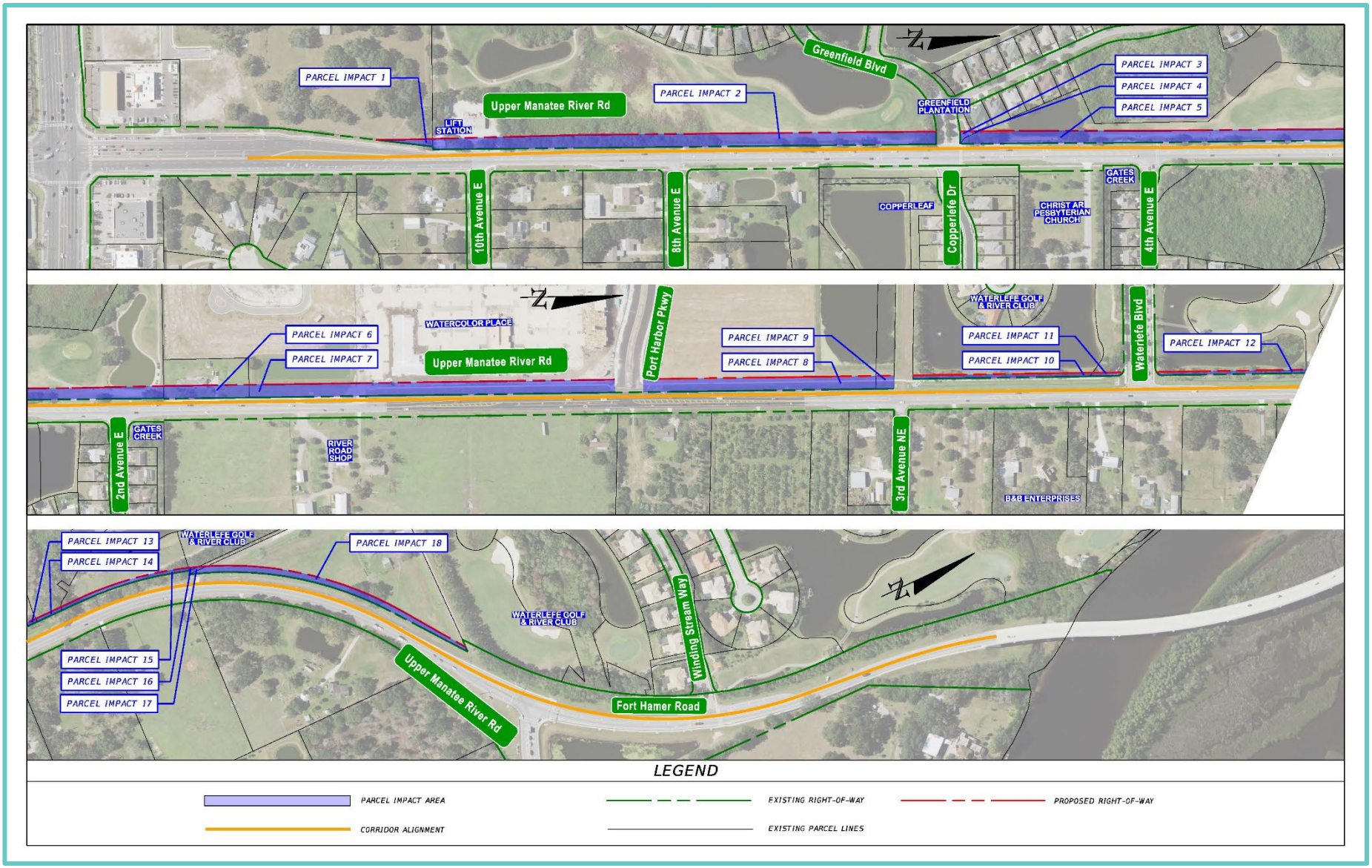


Figure 4-1 | Corridor Alternative A Parcel Impacts

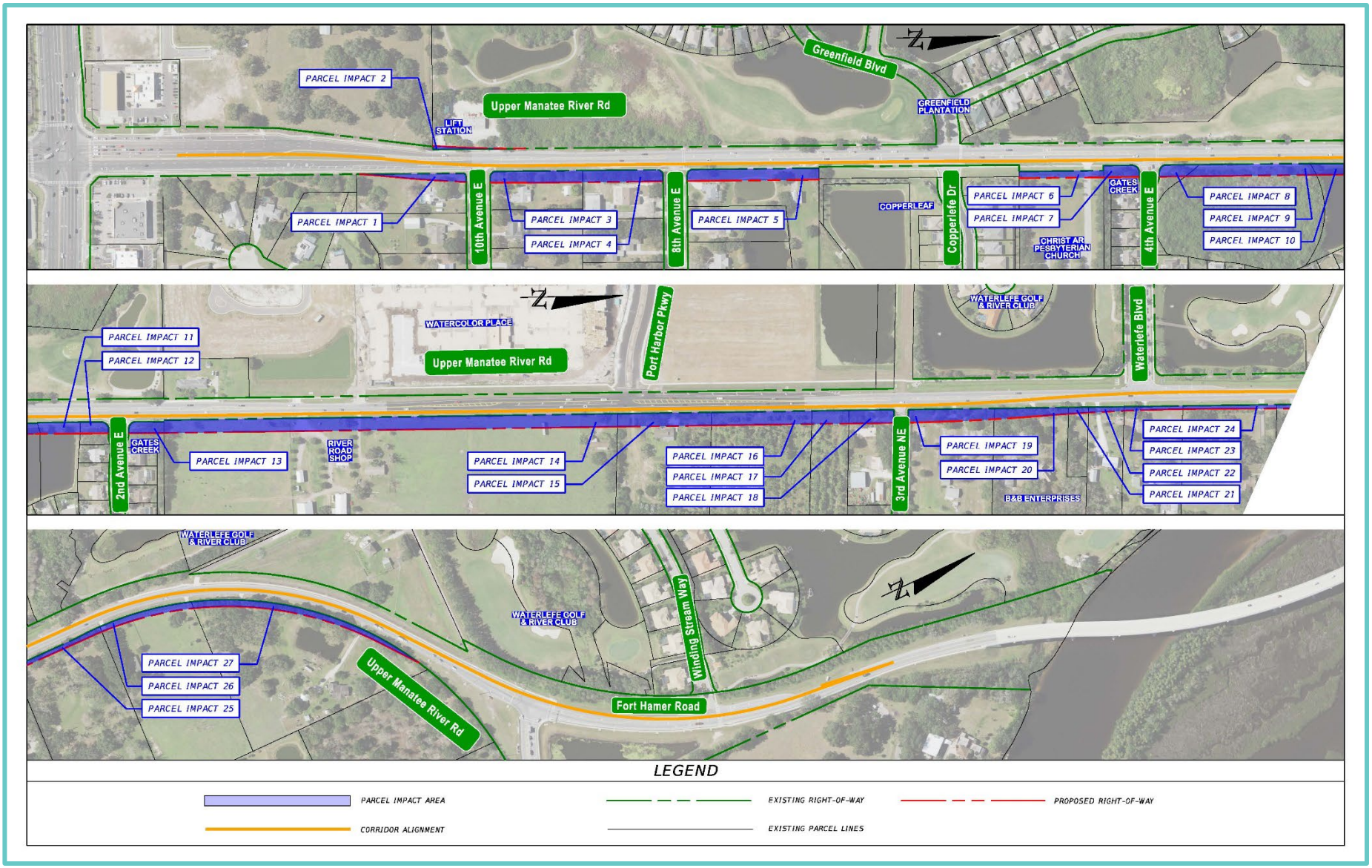


Figure 4-2 | Corridor Alternative B Parcel Impacts

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.

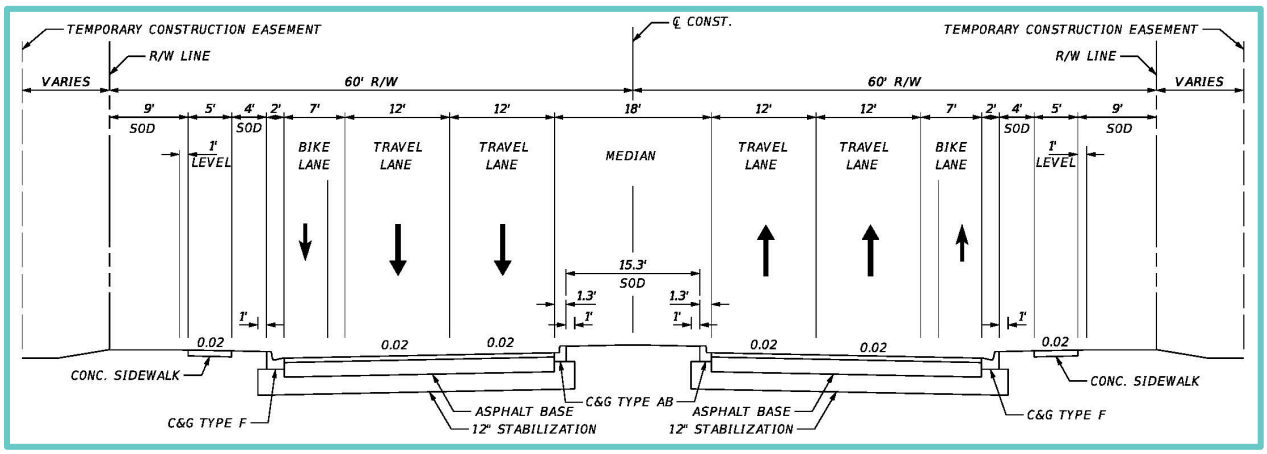


Figure 4-3 | Build Typical Section 1

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.

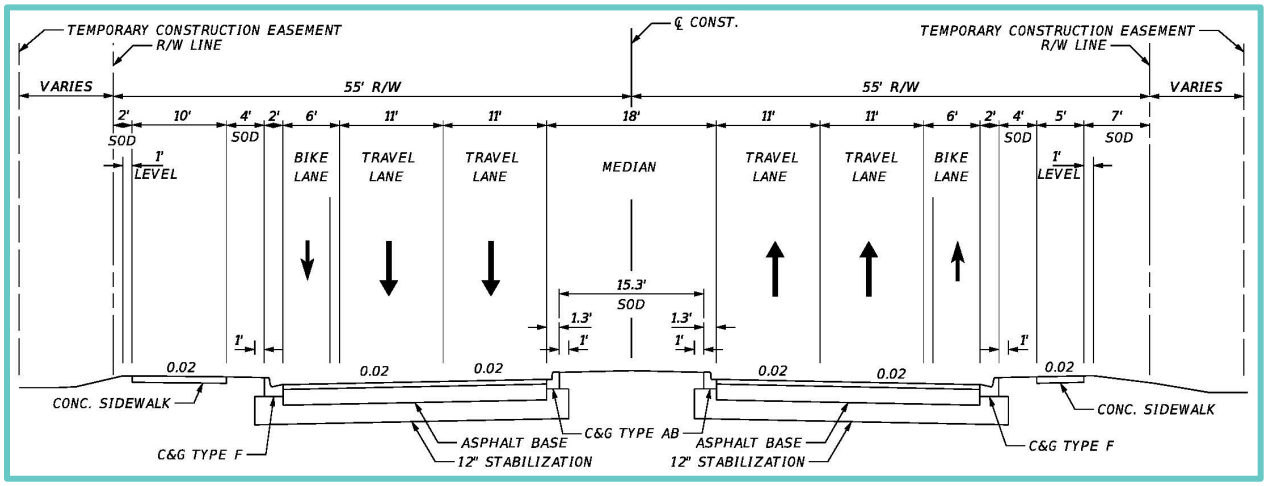


Figure 4-4 | Build Typical Section 2

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 2nd 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 10th 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 10th Avenue East.

5.4.2 8th 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 8th 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 4th Avenue East

This intersection will remain an unsignalized T-intersection. With 2nd 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 4th Avenue E.

5.4.5 2nd 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 2ndAvenue 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 4th 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 3rd 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 3rd 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.

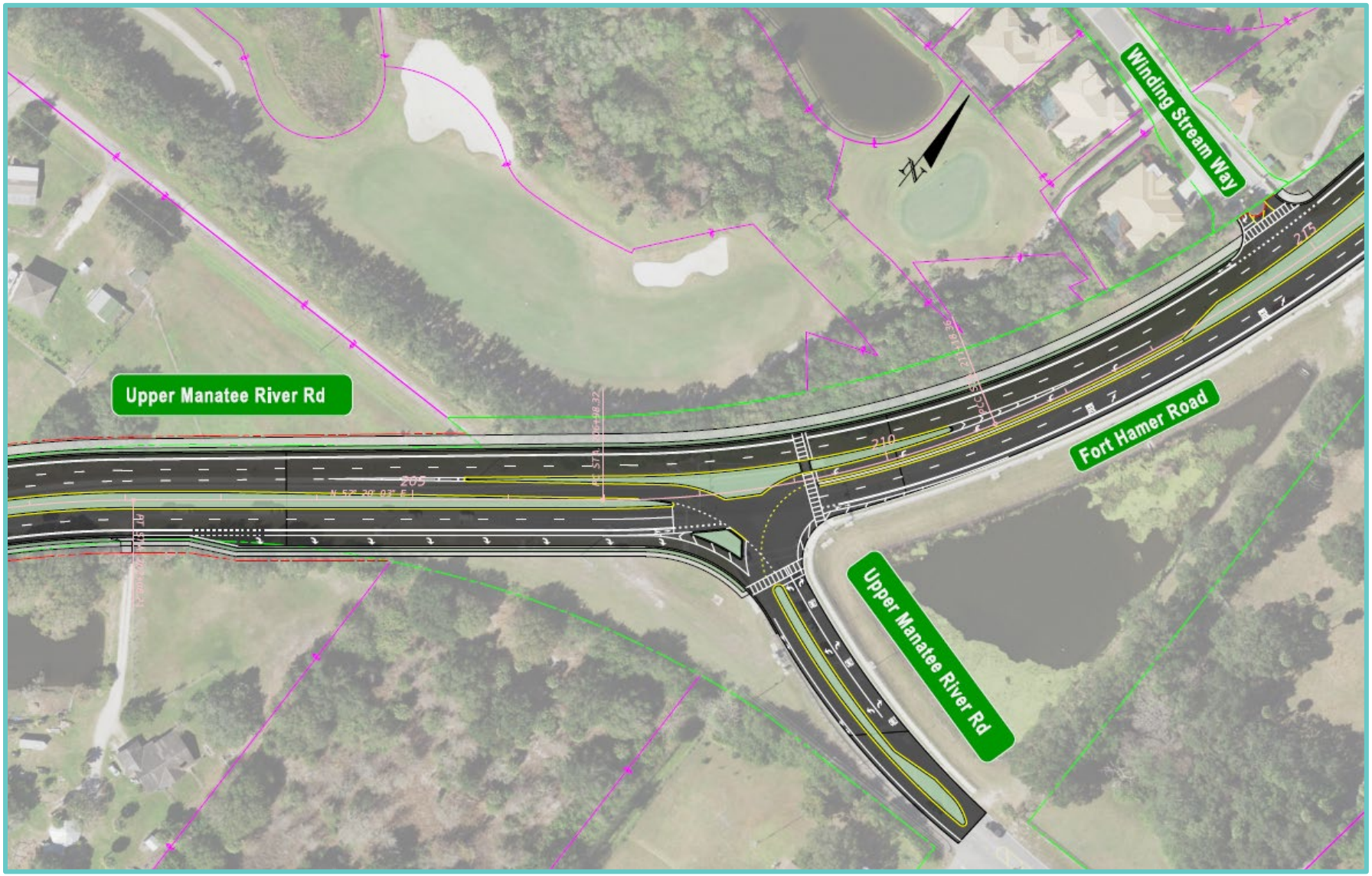


Figure 5-1 | Upper Manatee River Road at Fort Hamer Road – Florida T Intersection

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
Sta. 100+00	Full	Signalized	-	SR 64
Sta. 108+50	Full	Unsignalized	850 ft	Brixley Development
Sta. 114+60	Full	Unsignalized	610 ft	10th Ave East
Sta. 121+50	Full	Unsignalized	690 ft	8th Ave East
Sta. 131+10	Full	Signalized	960 ft	Greenfield Blvd / Copperlefe Dr
Sta. 148+20	Full	Unsignalized	1,710 ft	2nd Ave East
Sta. 166+05	Full	Signalized	1,785 ft	Port Harbour Pkwy
Sta. 175+60	Full	Unsignalized	955 ft	3rd Ave East
Sta. 184+00	Full	Signalized	840 ft	Waterlefe Blvd
Sta. 208+40	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 10th 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 a 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 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-feet 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
CONSTRUCTION COST TOTAL	**$ 22,775,000**

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
RIGHT OF WAY COST TOTAL	**$ 1,100,000**

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.

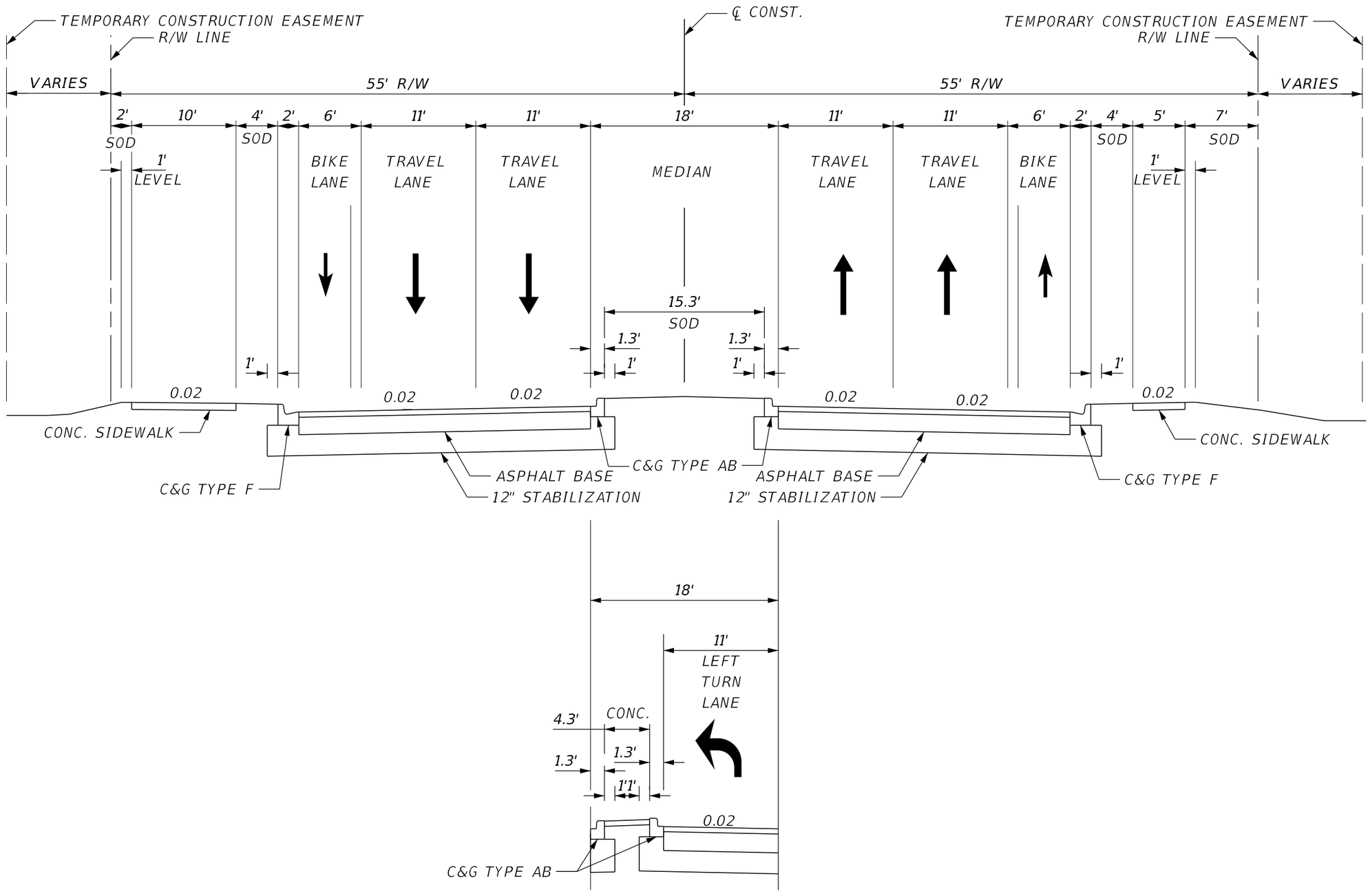
6.3 Cultural Resources

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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				DESIGNED BY JLS	2601 CATTLEMEN ROAD, SUITE 400					
				DRAWN BY RCS	SARASOTA, FLORIDA 34232	PROJECT NO. 6107760		FL. LICENSE NO. 70171		1
				CHECKED BY KMP						
No.	REVISIONS	DATE	BY							

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

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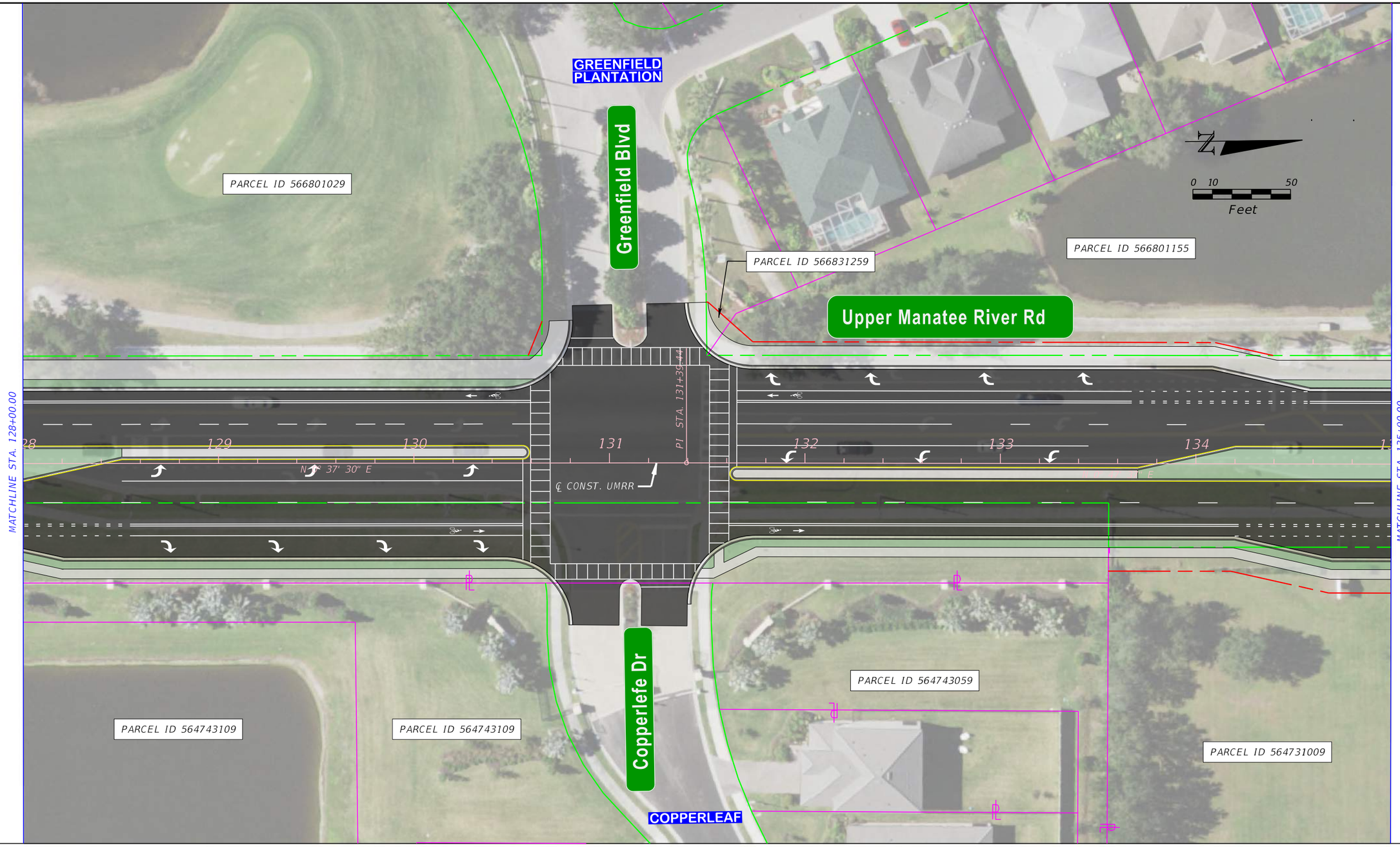

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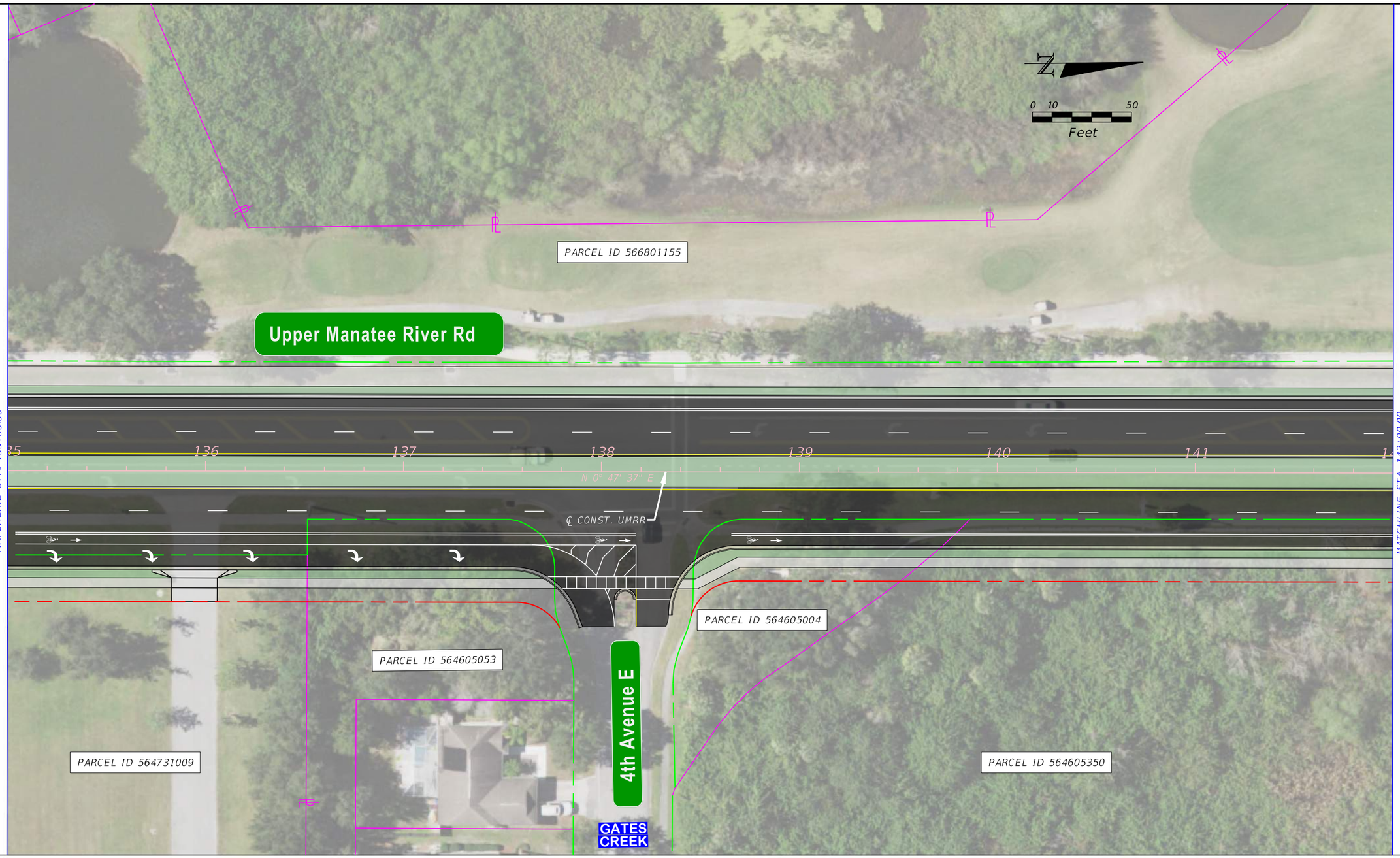

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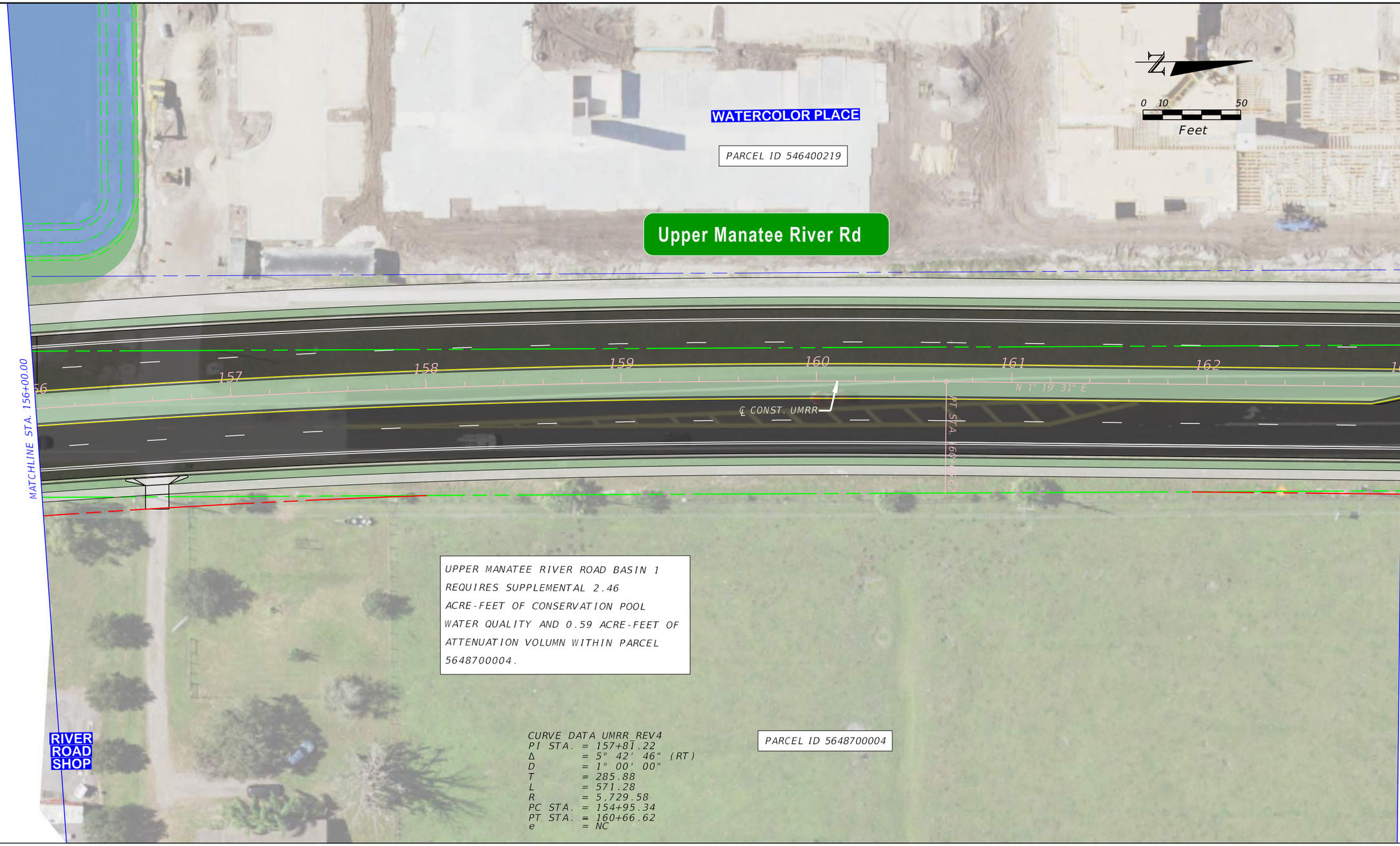

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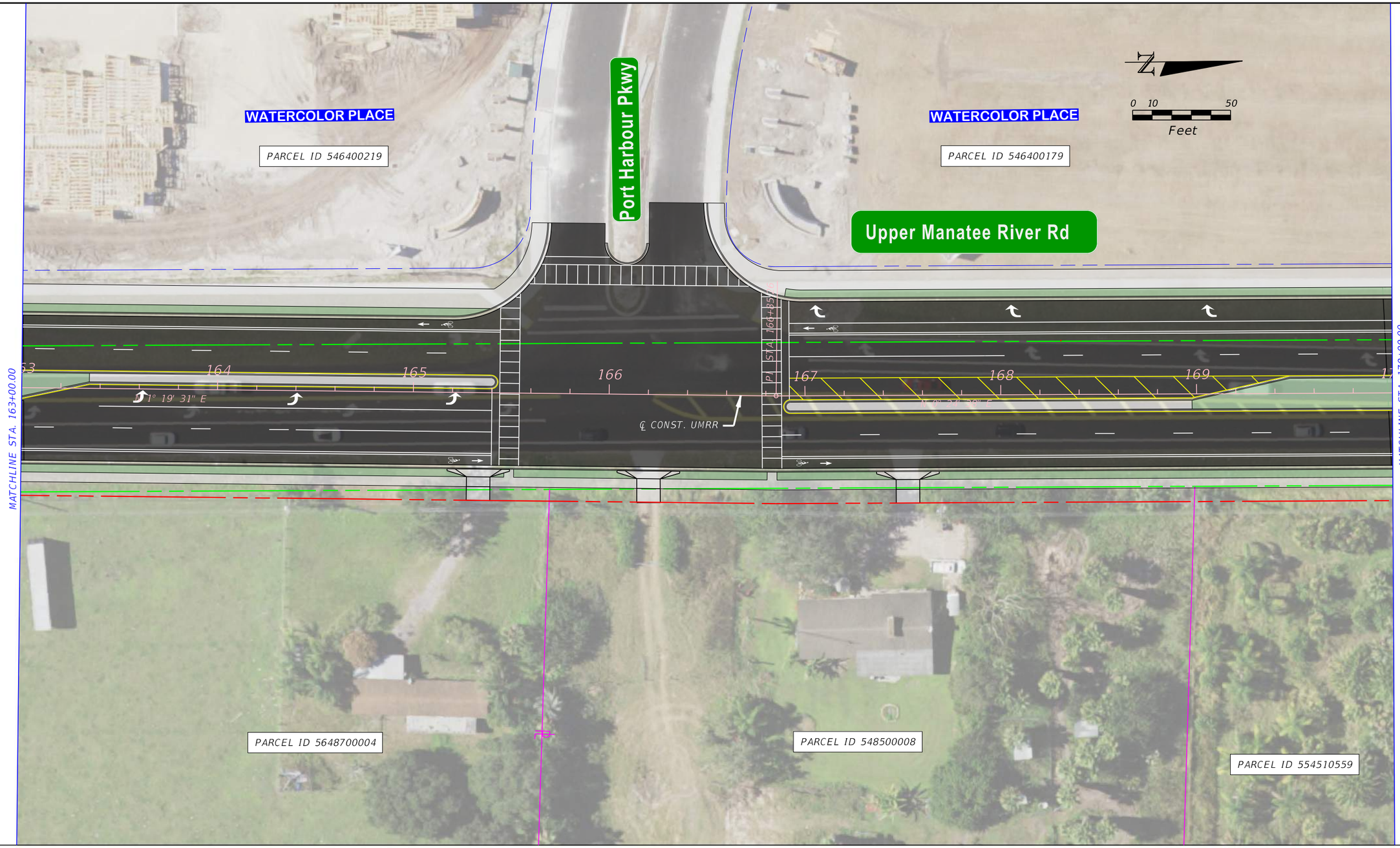

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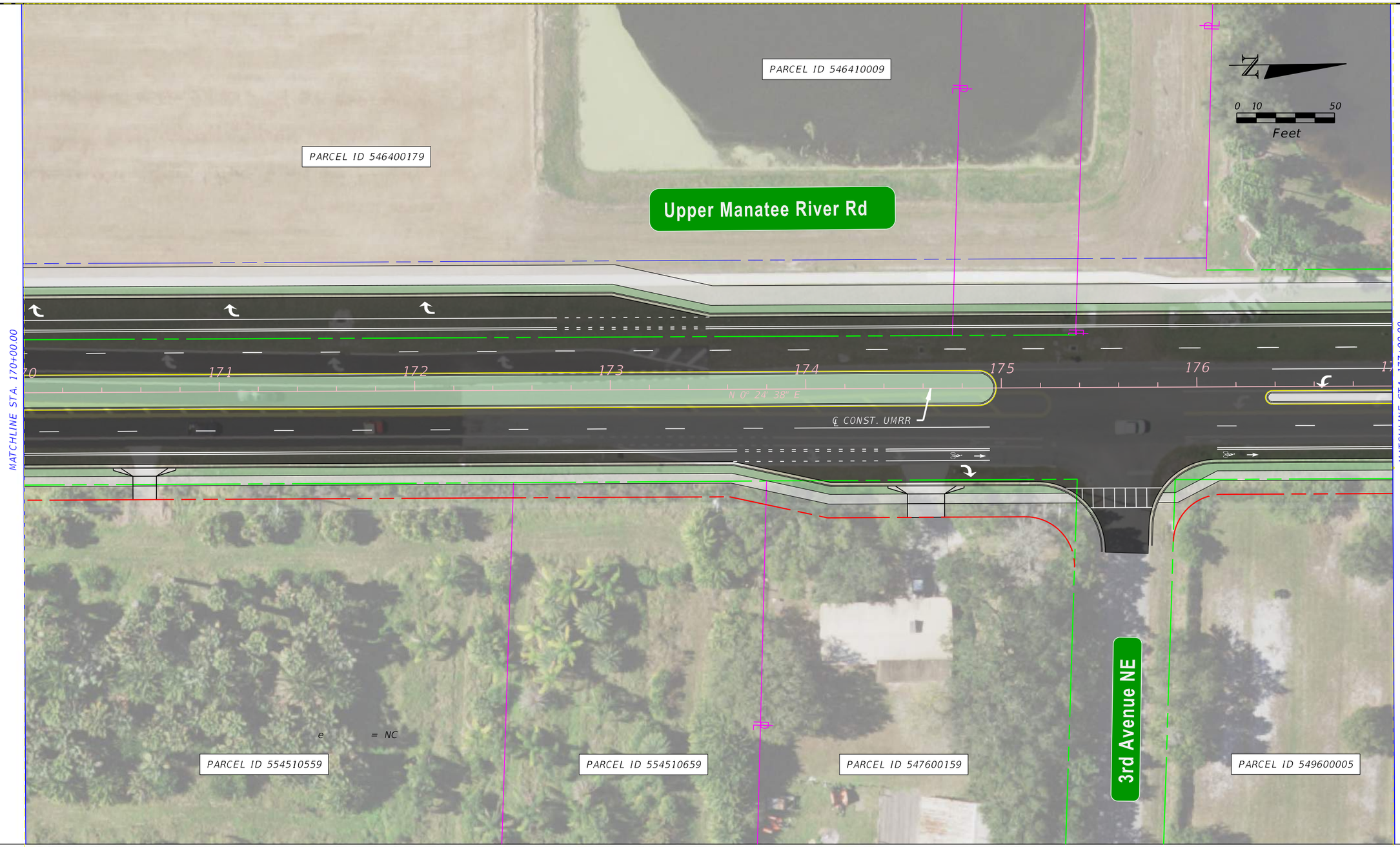

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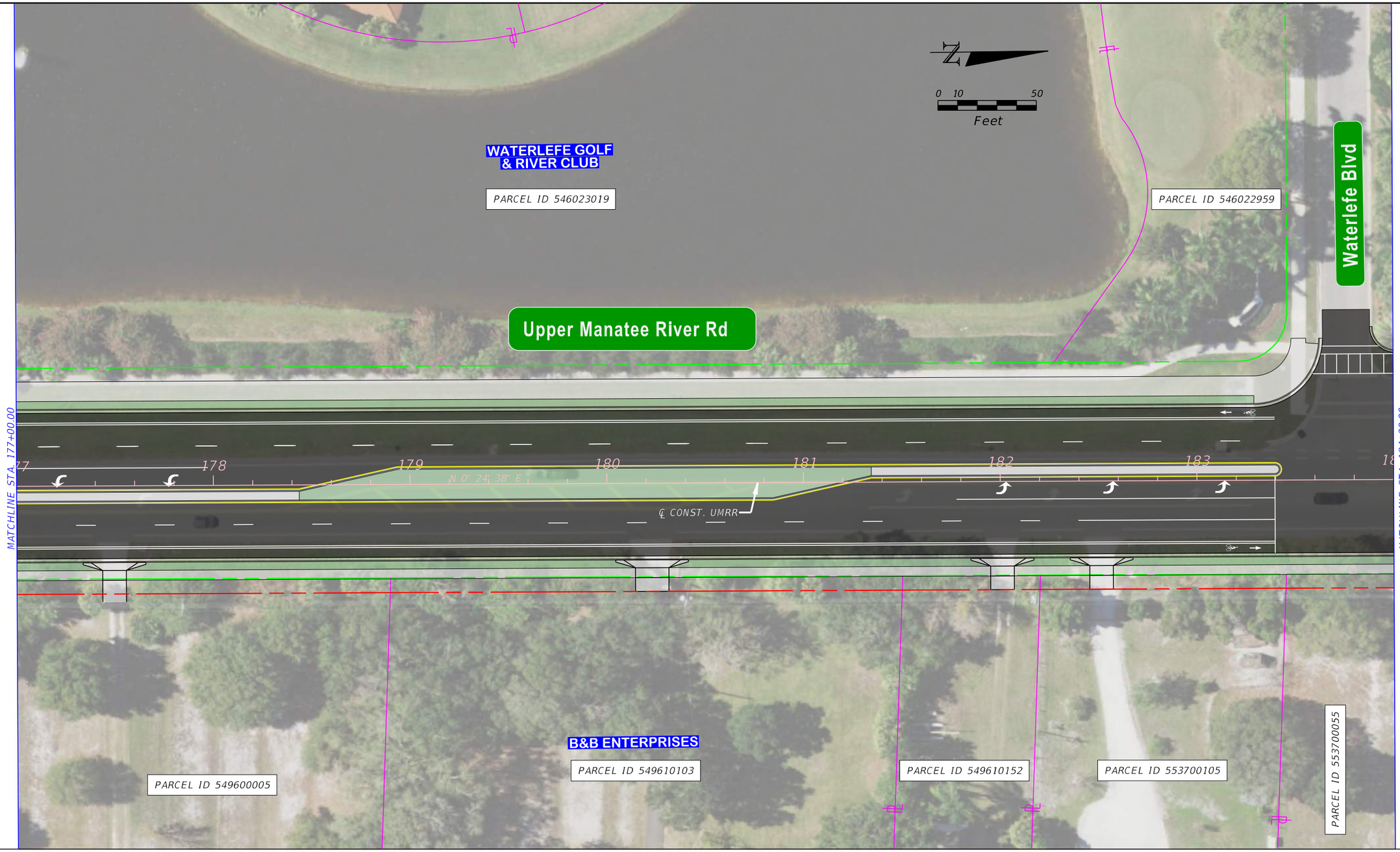

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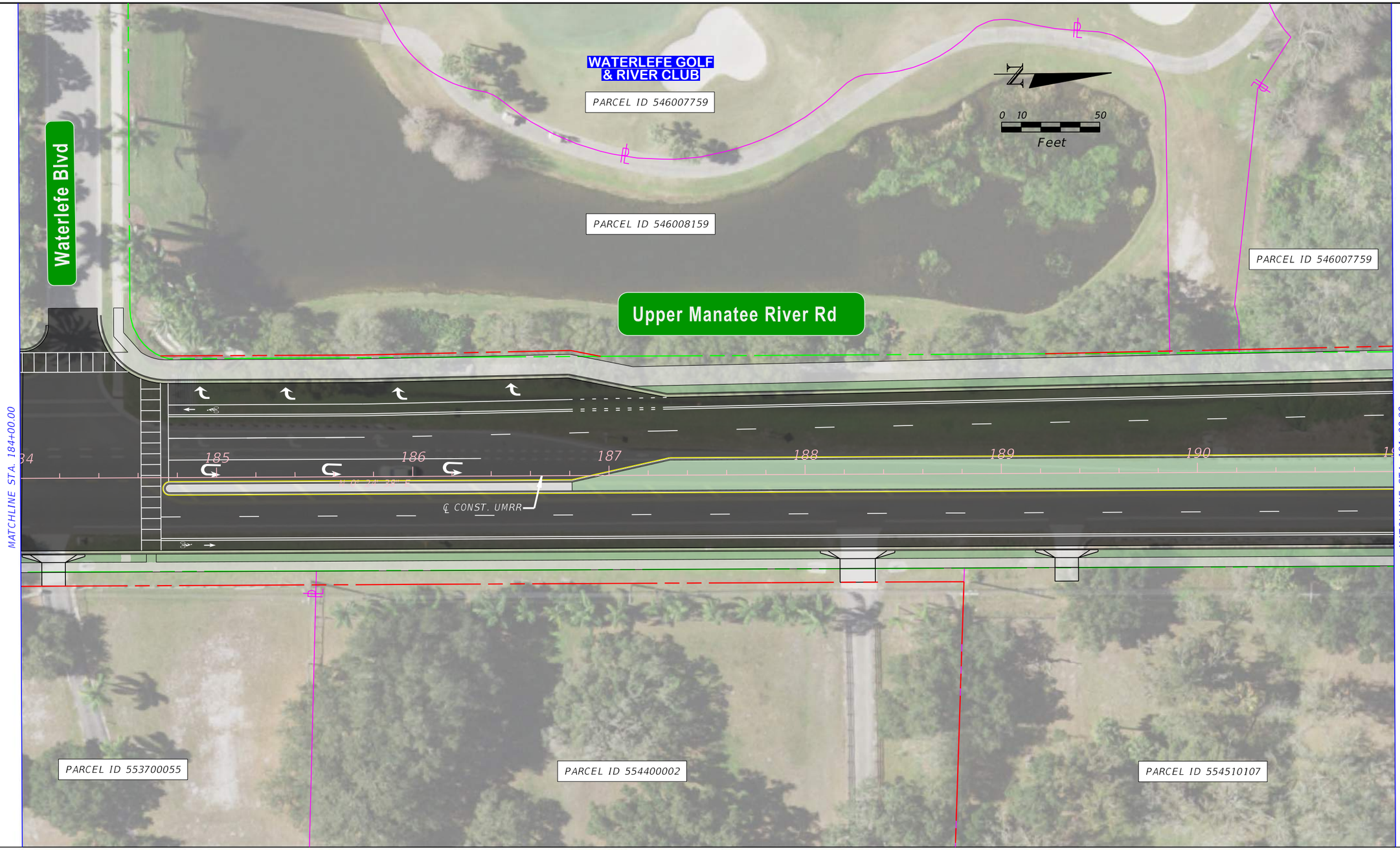

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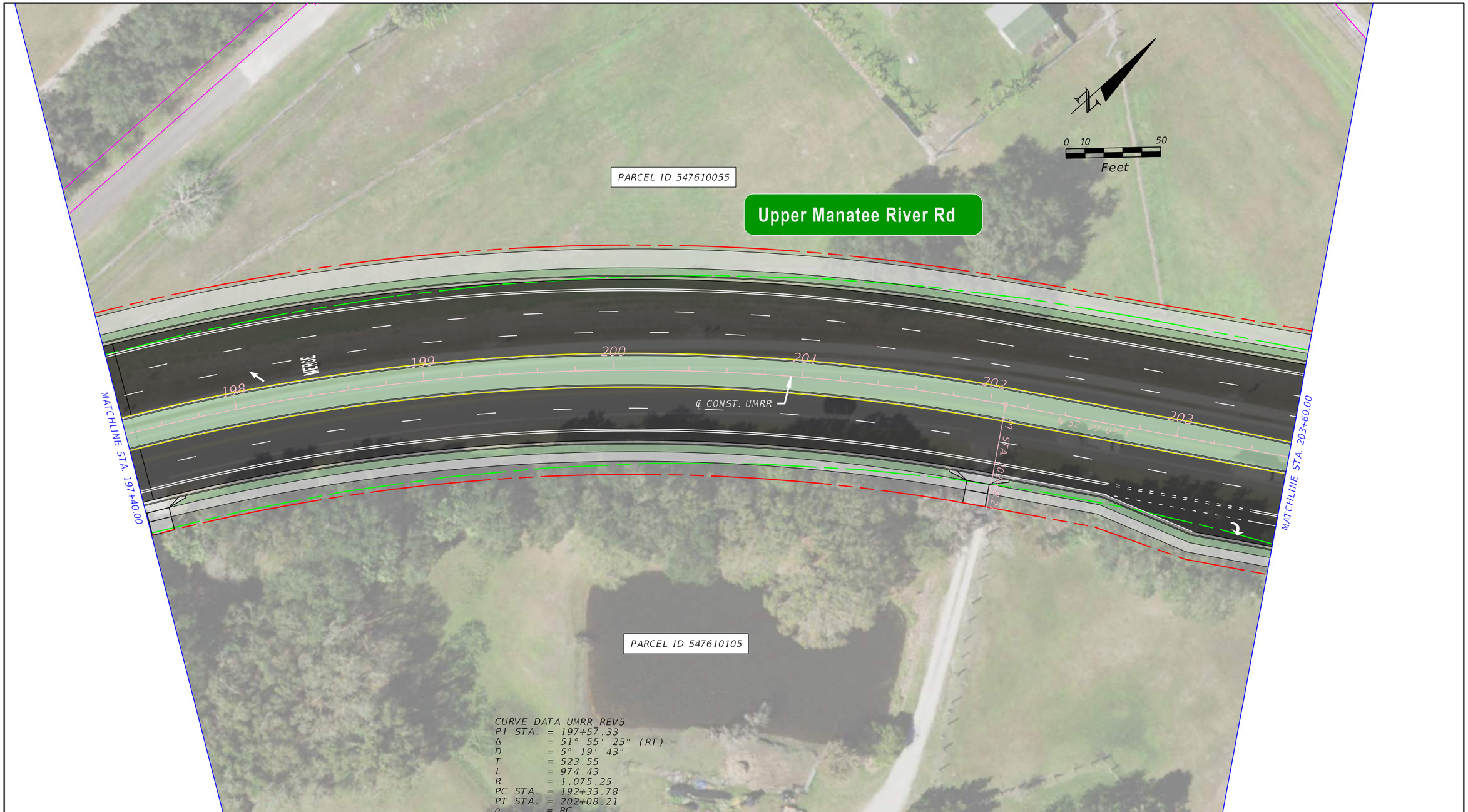

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PROPOSED ASPHALT (ROADWAY)	PROPOSED GRASS	EXISTING RIGHT-OF-WAY	PROPOSED RIGHT-OF-WAY	IMPROVEMENTS BY OTHERS
PROPOSED CONCRETE (SIDEWALK, CURB AND GUTTER)	PROPOSED POND SITE	EXISTING PARCEL LINES	PLAT DEDICATION RIGHT-OF-WAY	

No.	REVISIONS	DATE	BY

SCALE: AS NOTED
DESIGNED BY: KMP
DRAWN BY: RCS
CHECKED BY: JLS

HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD, SUITE 400
SARASOTA, FLORIDA 34232

DATE: 12/2021
PROJECT NO. 6107760

Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER: JASON L. STARR
FL. LICENSE NO. 70171

RECOMMENDED ALTERNATIVE

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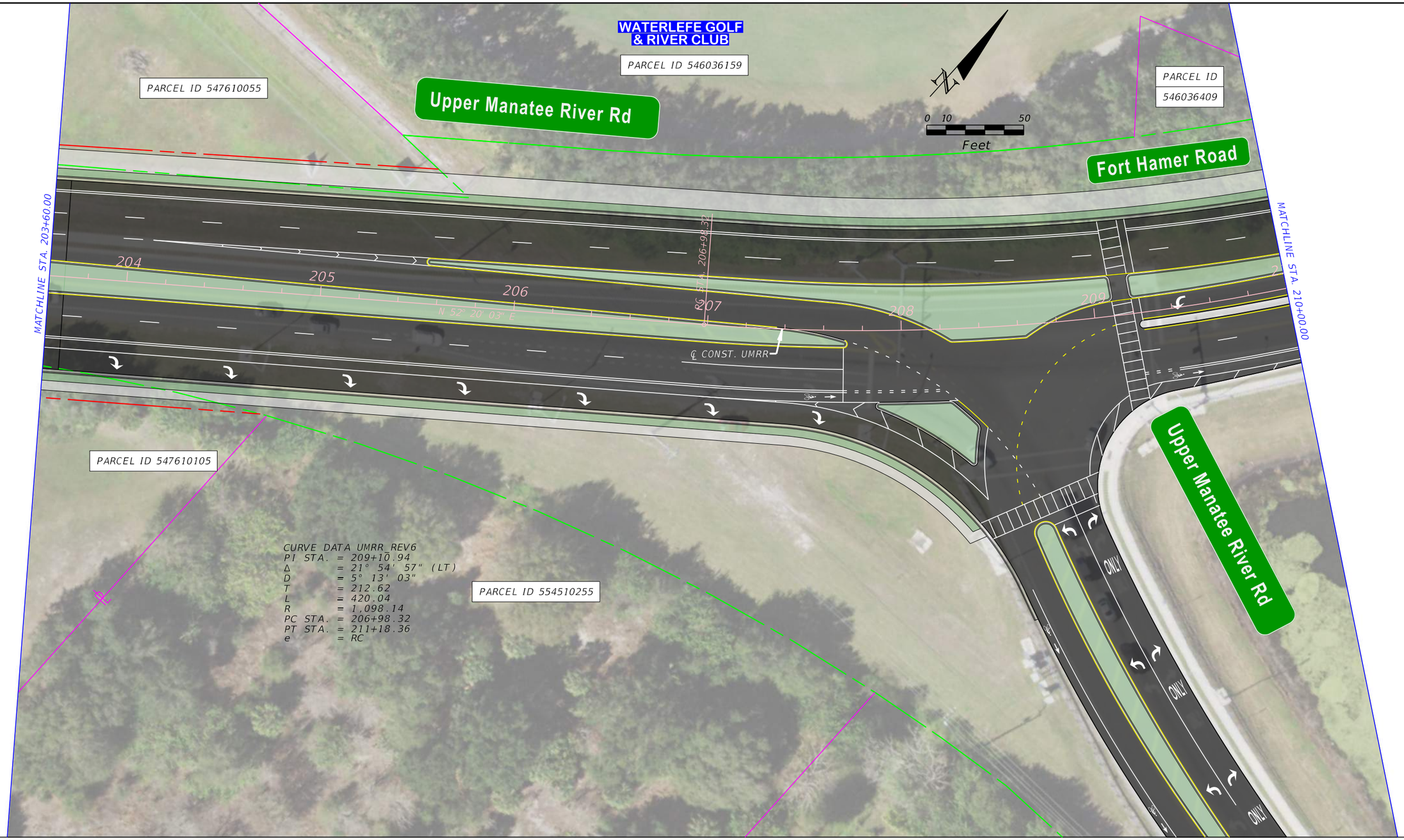

LEGEND

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

No.	REVISIONS	DATE	BY

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PROJECT NO. 6107760

Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER JASON L. STARR
FL. LICENSE NO. 70171

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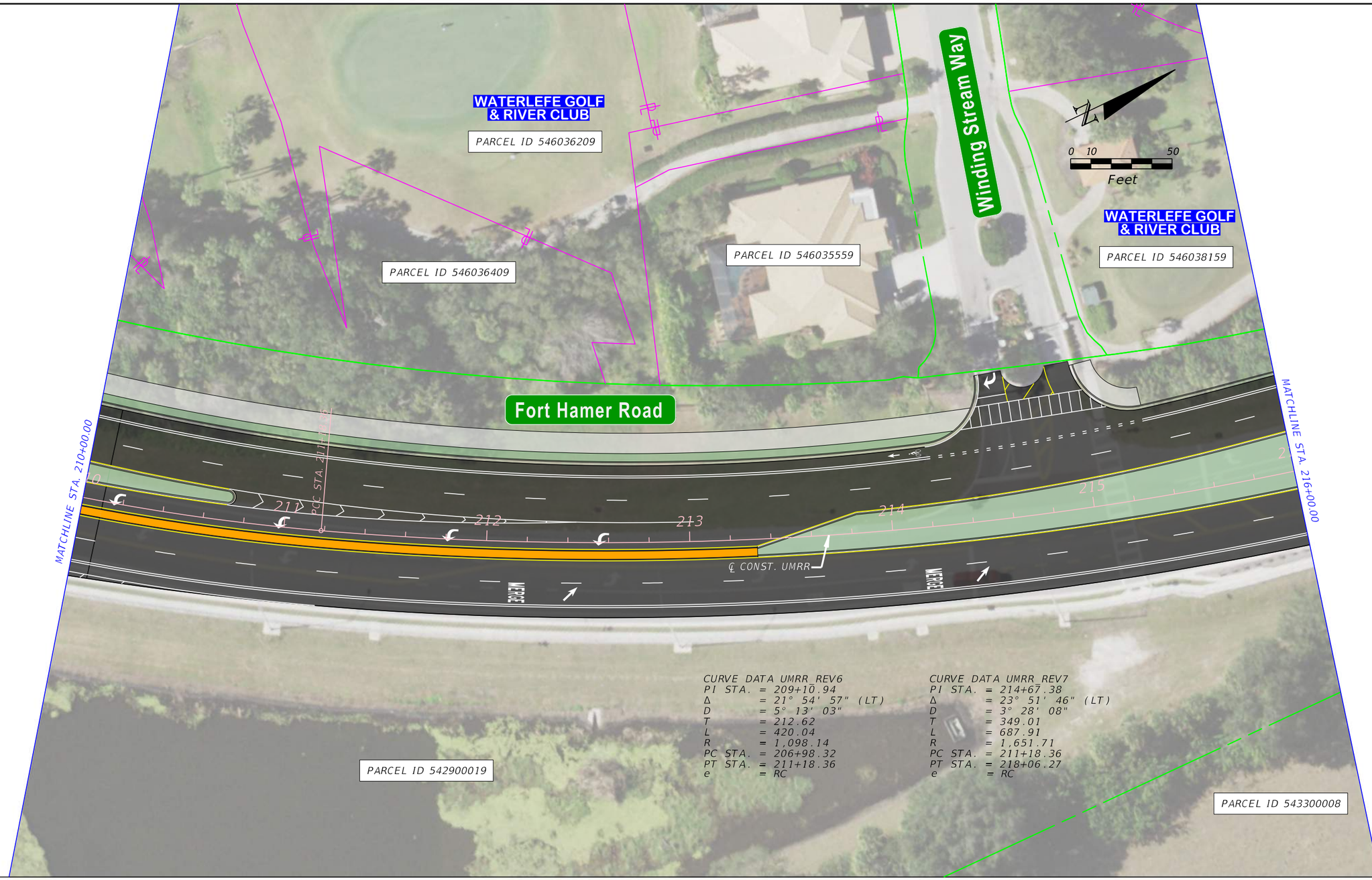

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PT STA. = 211+18.36
e = RC

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LEGEND

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

No.	REVISIONS	DATE	BY

SCALE: AS NOTED
DESIGNED BY: KMP
DRAWN BY: RCS
CHECKED BY: JLS

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DATE: 12/2021
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Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER: JASON L. STARR
FL. LICENSE NO. 70171

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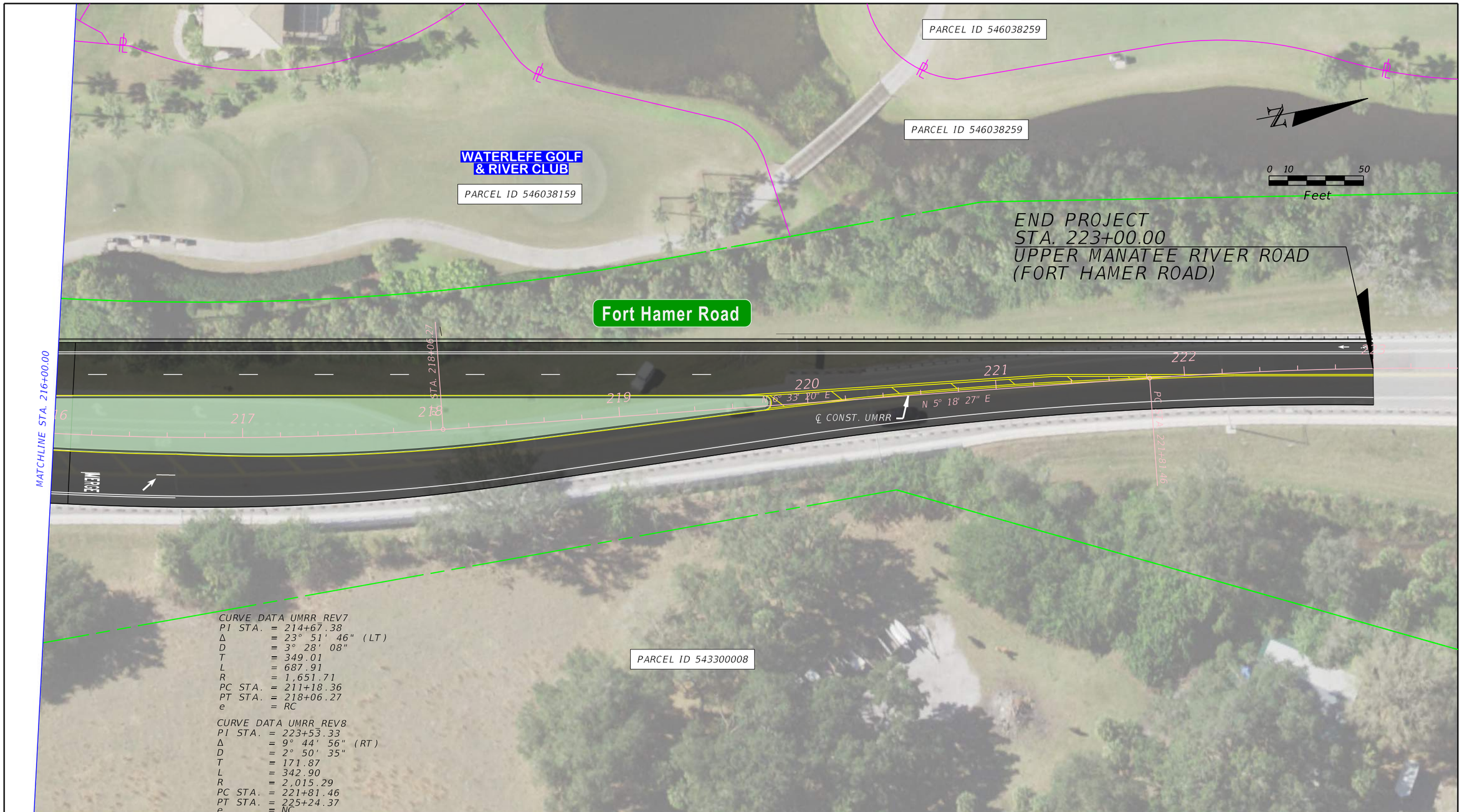

LEGEND

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

No.	REVISIONS	DATE	BY

SCALE: AS NOTED
DESIGNED BY: KMP
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CHECKED BY: JLS

HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD, SUITE 400
SARASOTA, FLORIDA 34232

DATE: 12/2021
PROJECT NO. 6107760

Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER: JASON L. STARR
FL. LICENSE NO. 70171

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Appendix B – Design Traffic Memo

Memorandum

Date:	10/13/2021
Project:	Manatee County Corridor Studies
To:	Eric Shroyer, Manatee County Public Works Project Manager Darin Rice, Manatee County Public Works Project Engineer
From:	Jason Starr, PE, HDR Project Manager Tarek Lotfy Kamal, EI, HDR Transportation EIT
Subject:	Upper Manatee River Road Corridor Study – Traffic Analysis Memorandum

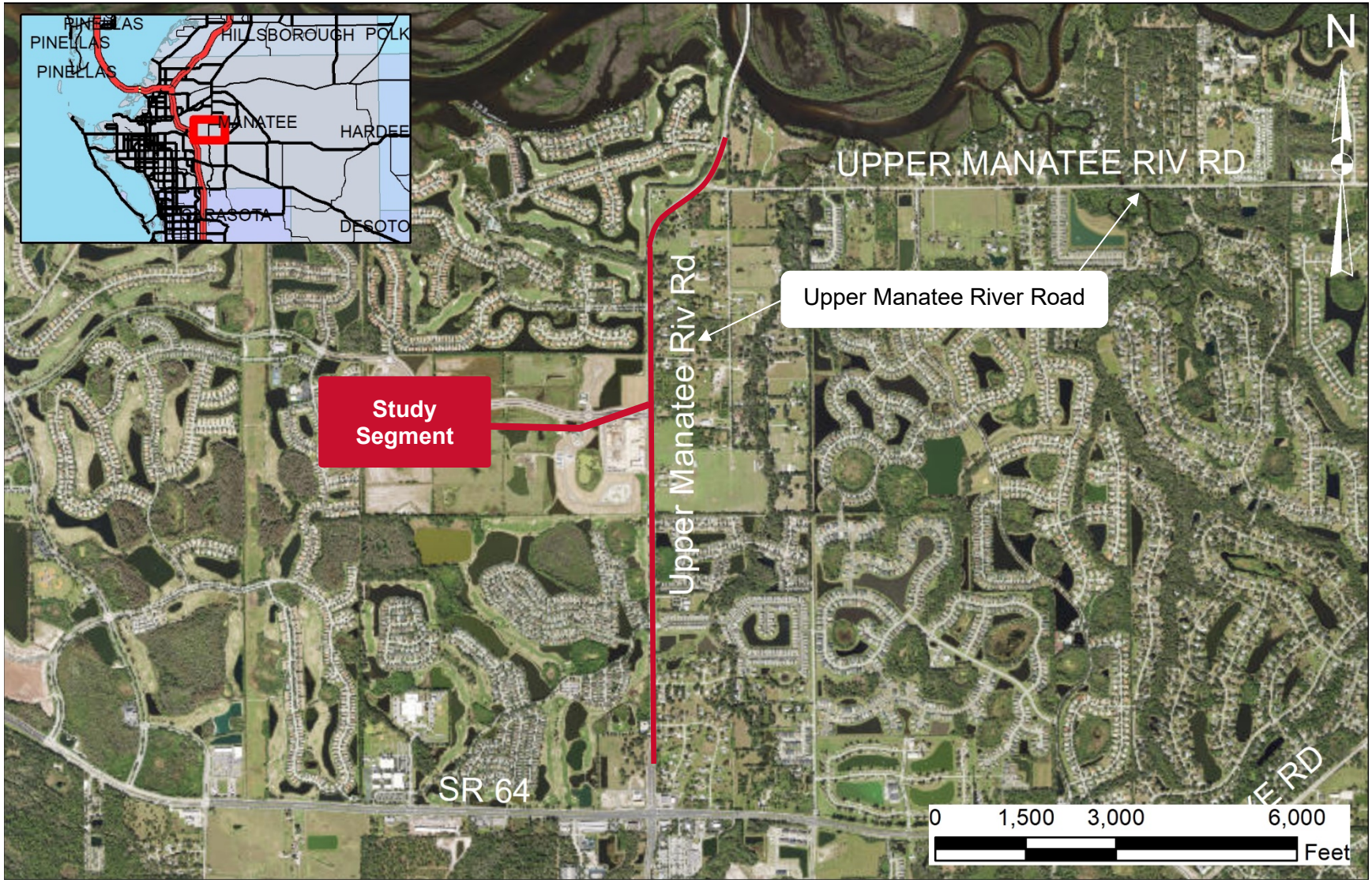
1.0 Introduction/Purpose of Memorandum

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	**16**
2017	1	1	2	0	0	0	0	0	0	1	**5**
2018	13	1	1	1	0	1	0	1	0	2	**20**
2019	17	0	0	1	1	0	0	0	0	0	**19**
2020	7	2	3	0	0	0	1	0	1	3	**17**
Total	**43**	**8**	**7**	**3**	**2**	**1**	**1**	**1**	**2**	**9**	**77**

Table 2 | Crashes by Year and Severity

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

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.*

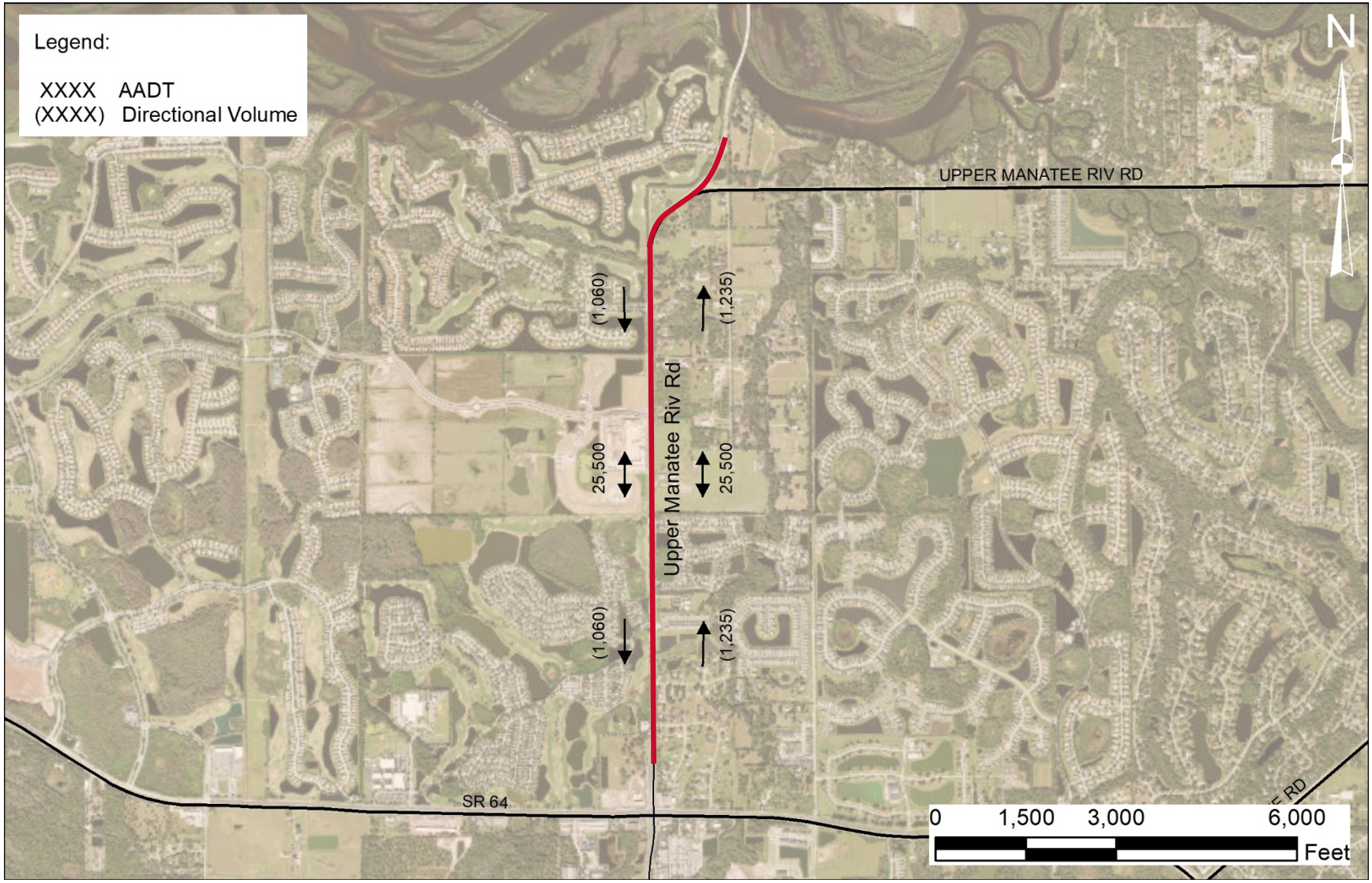
4.0 Existing Year (2021) Volume Development

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 | Exiting Year (2021) Design Traffic Volume Characteristics

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

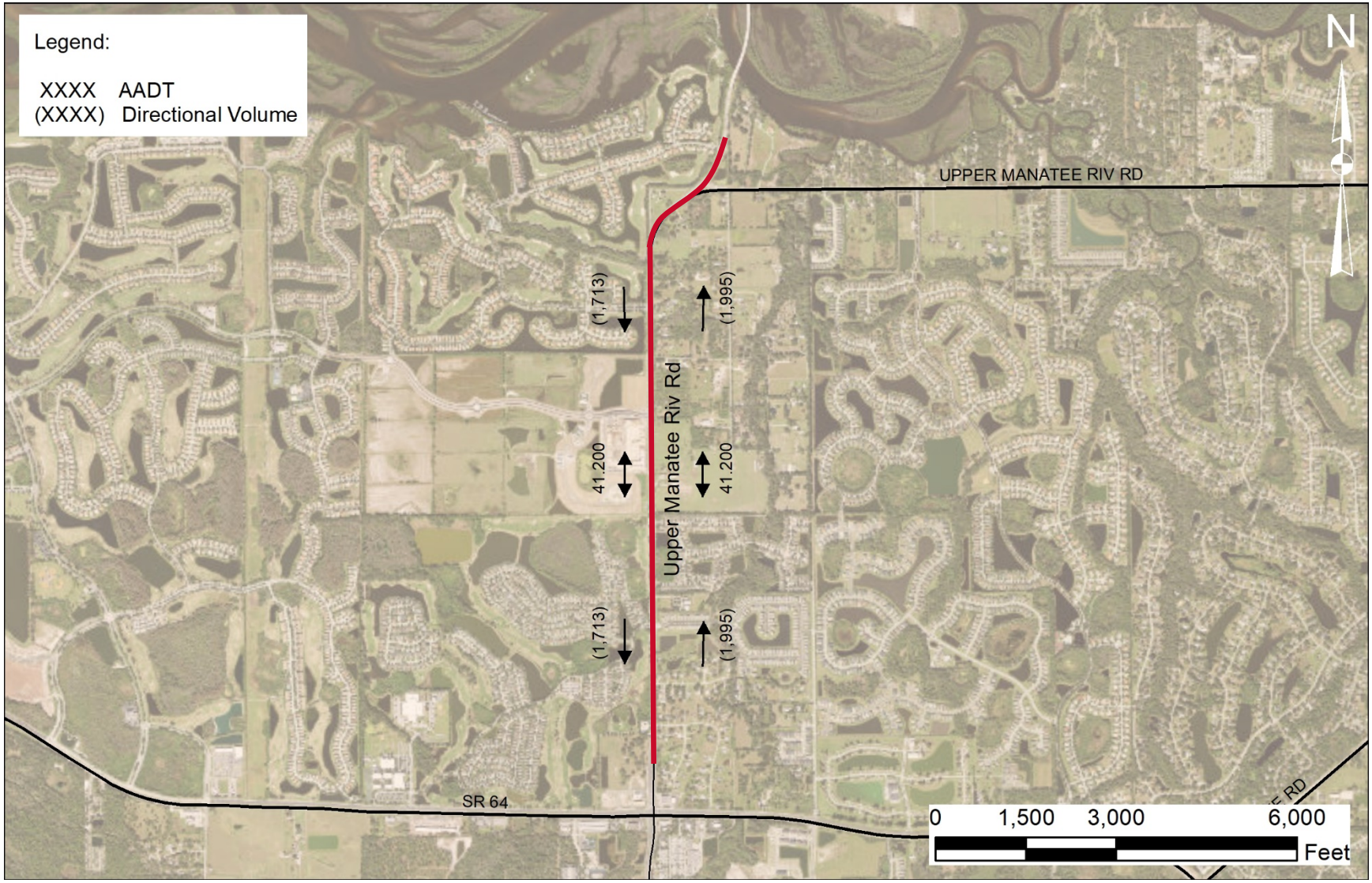
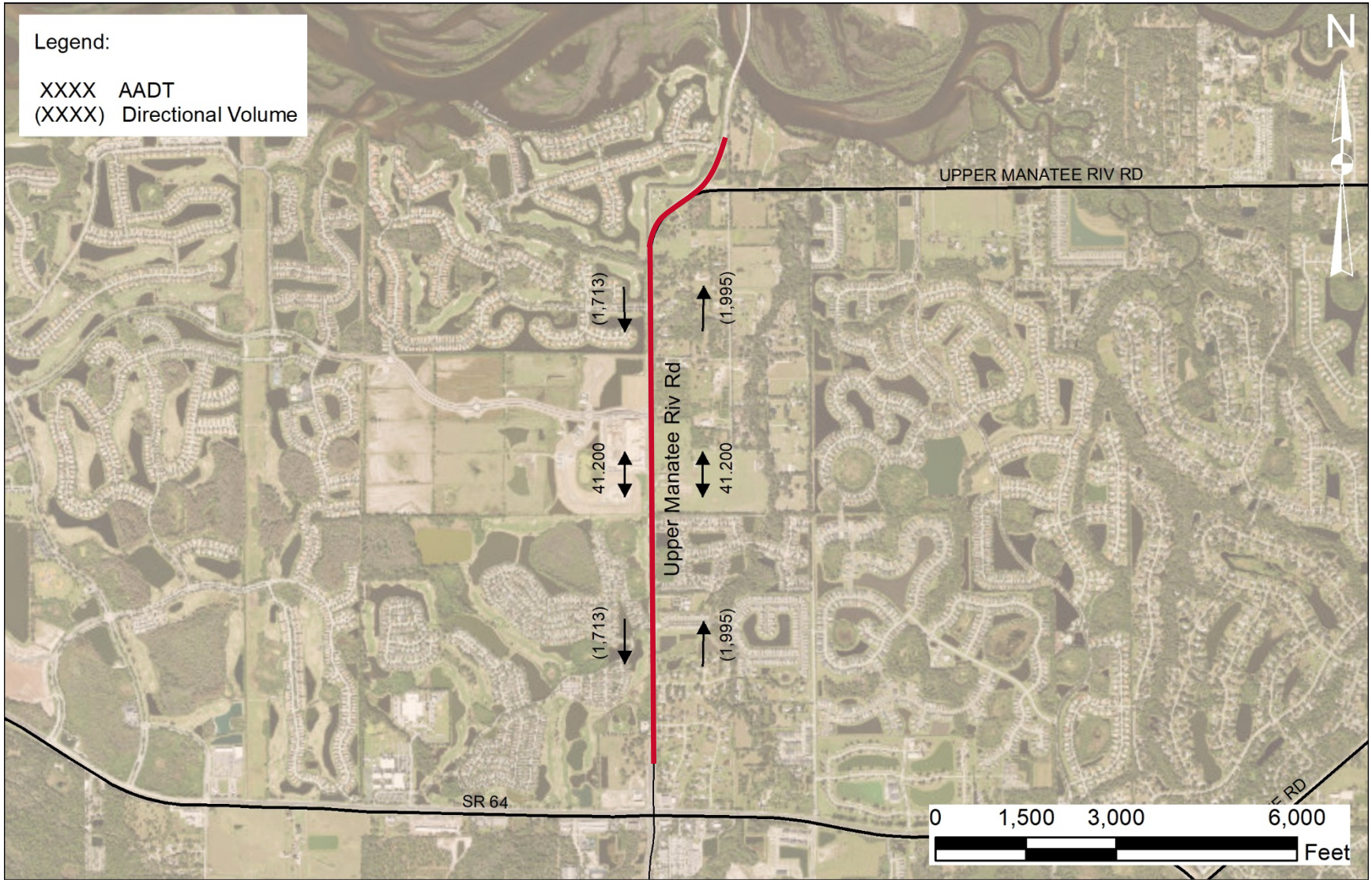


Figure 4 | Build Design AADT and Design Hour Directional Volumes



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_R	SR 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
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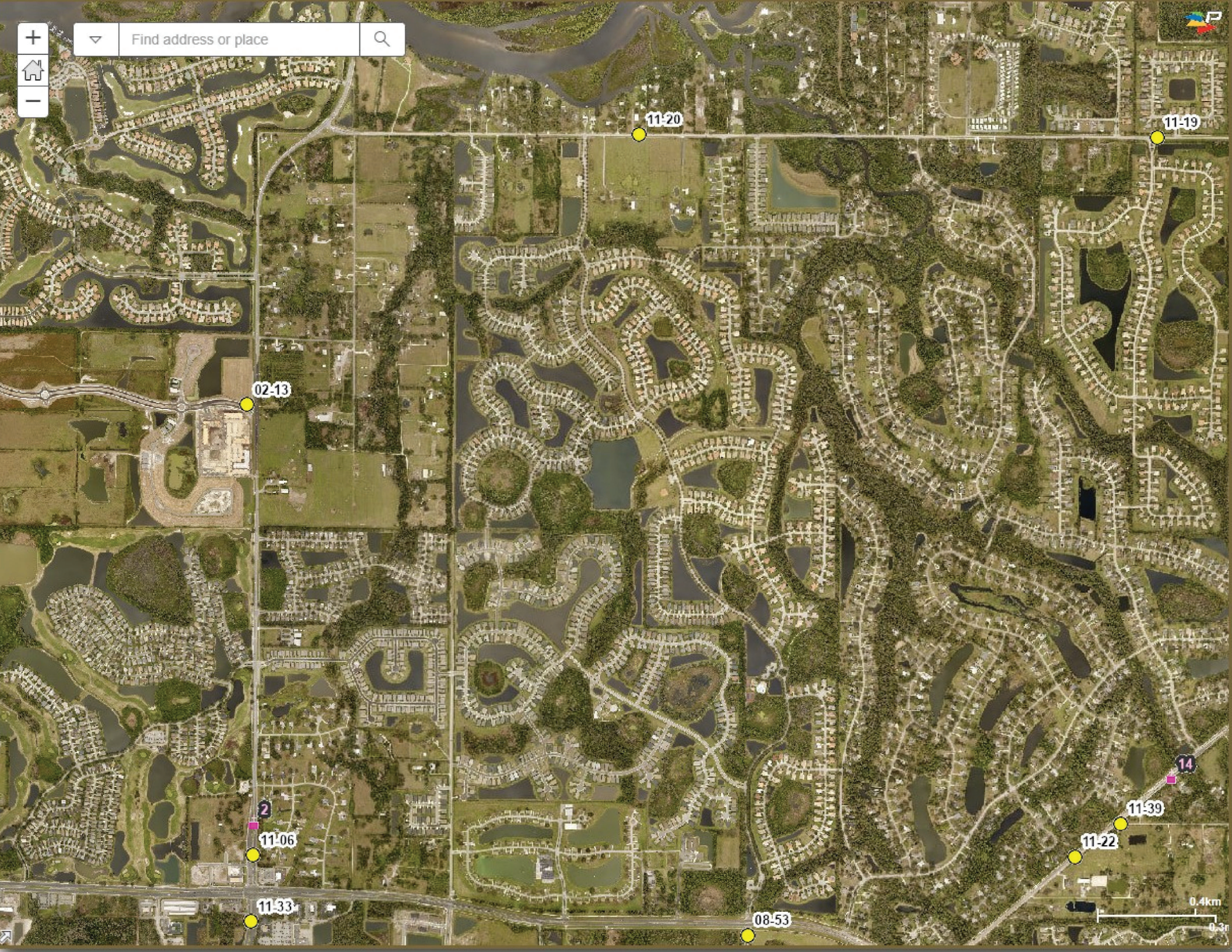
LASTUPD	3/31/2021 8:05:00 AM
CREATOF	Null
CREATIO	Null

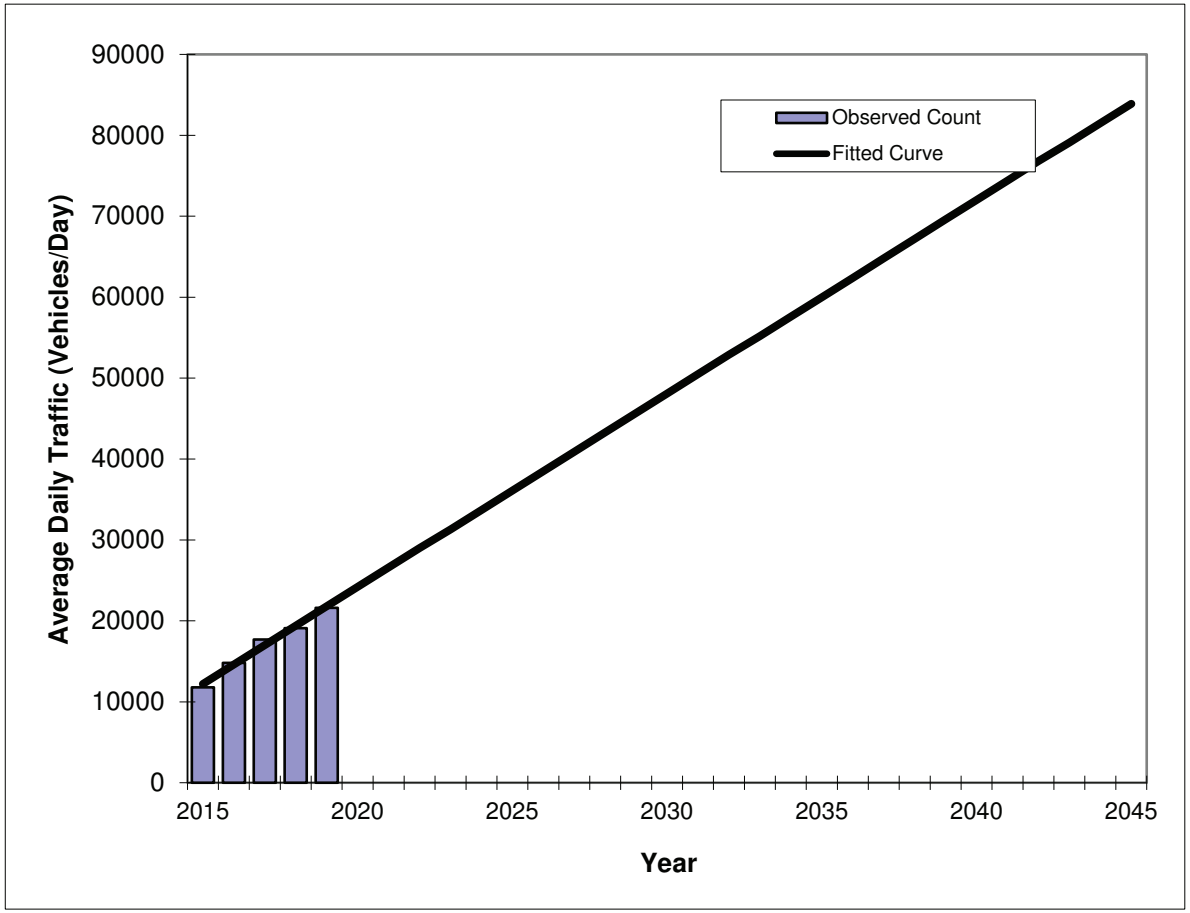

Find address or place
11-20
11-19
02-13
2
11-06
11-33
08-53
11-22
11-39
14
0.4km

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
2025 Opening Year Trend		
2025	N/A	36100
2035 Mid-Year Trend		
2035	N/A	60000
2045 Design Year Trend		
2045	N/A	83900
TRANPLAN Forecasts/Trends		

**** 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

Straight Line Growth Option

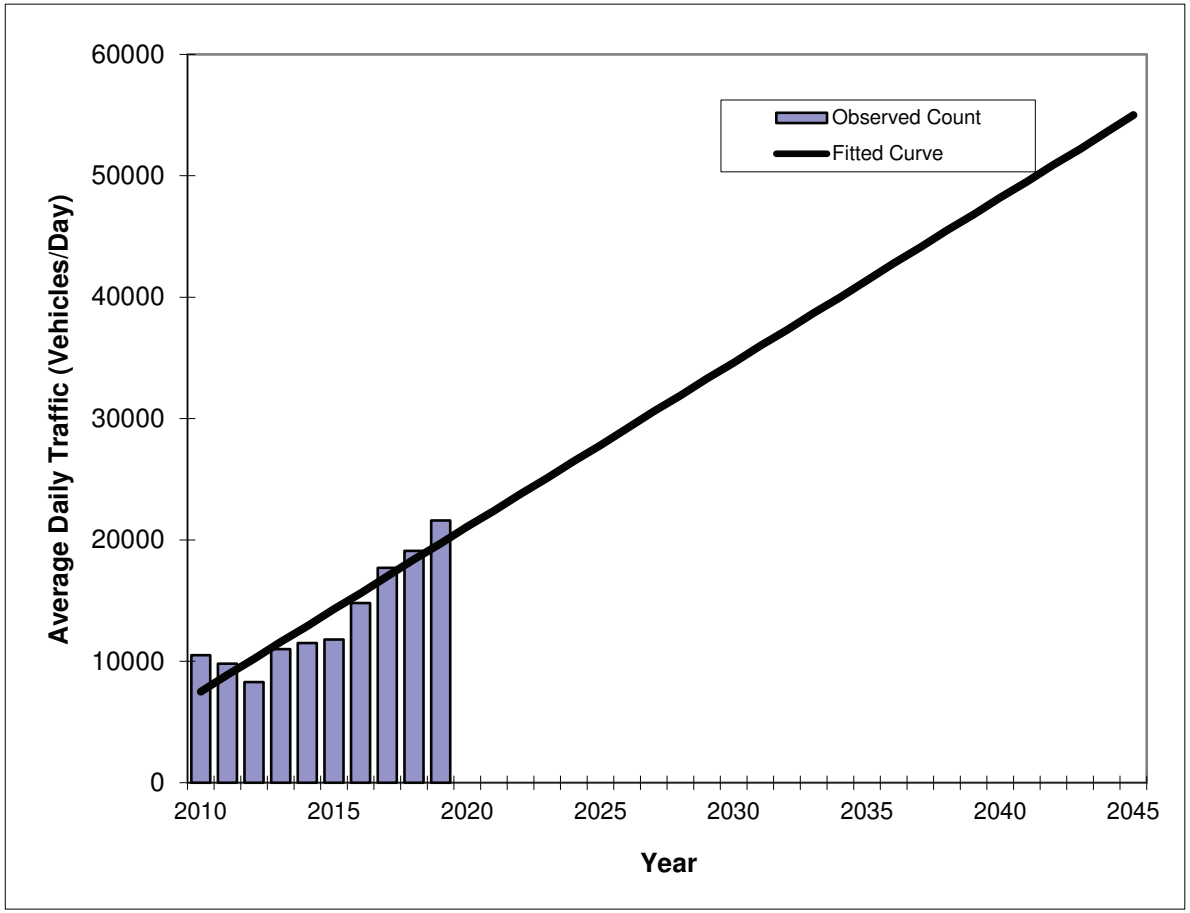
***Axle-Adjusted**

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
2025 Opening Year Trend		
2025	N/A	27800
2035 Mid-Year Trend		
2035	N/A	41400
2045 Design Year Trend		
2045	N/A	55000
TRANPLAN Forecasts/Trends		

** 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

Straight Line Growth Option

*Axle-Adjusted

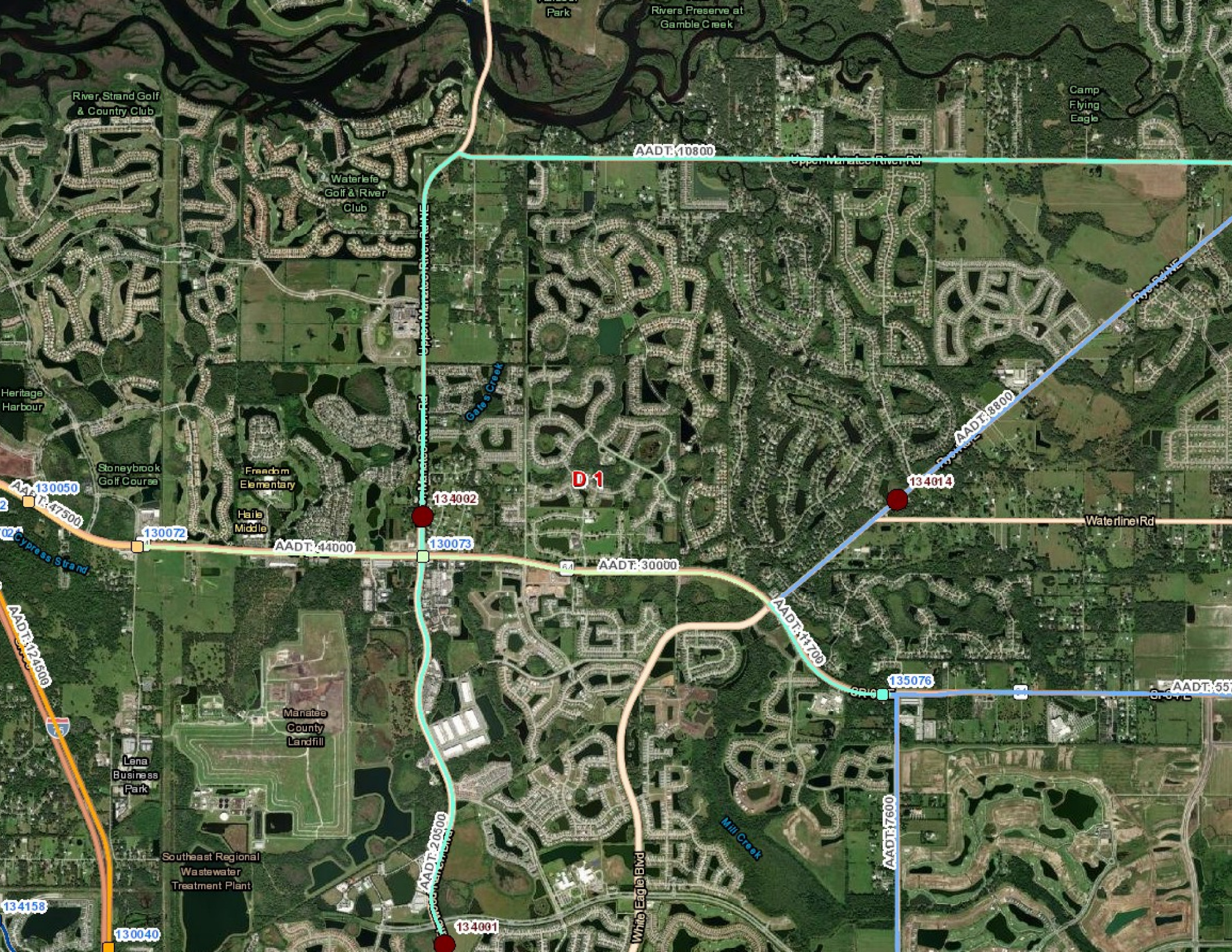
FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

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

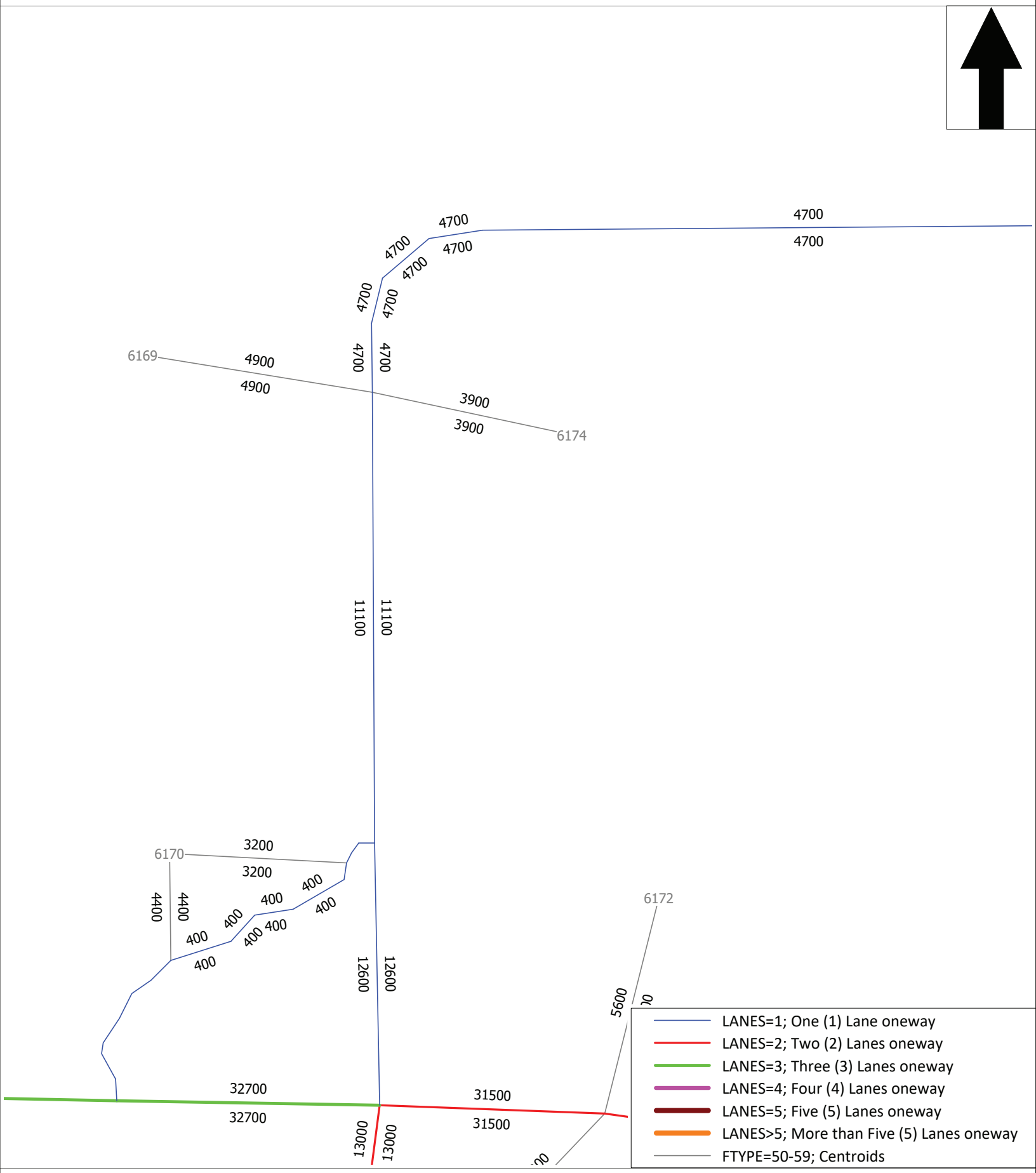
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES


Park
Rivers Preserve at Gamble Creek
River Strand Golf & Country Club
Camp Flying Eagle
AADT: 10800
Upper Manatee River Rd
Waterlefe Golf & River Club
Heritage Harbour
Gates Creek
Stoneybrook Golf Course
Freedom Elementary
Haile Middle
D 1
134002
134014
AADT: 8800
Waterline Rd
130050
AADT: 47500
130072
AADT: 44000
130073
AADT: 30000
Cypress Strand
AADT: 14700
AADT: 12500
135076
Manatee County Landfill
Lena Business Park
Southeast Regional Wastewater Treatment Plant
AADT: 20500
Mill Creek
White Eagle Blvd
AADT: 7600
134158
130040
134001

Appendix B

D1RPMv2.0

D1RPMv2.0



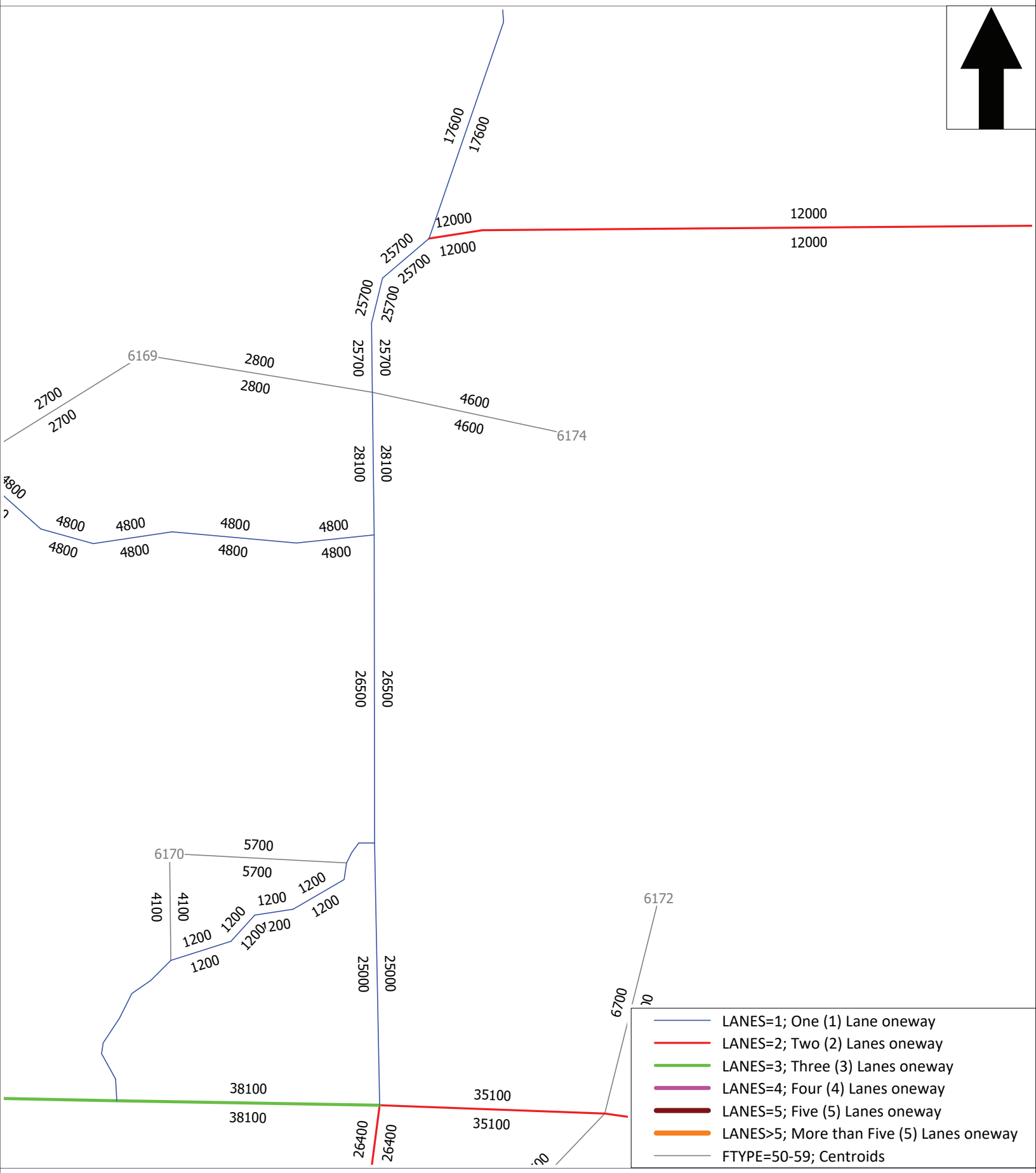
Base Year 2015 AADT (Duplicate Posts)

2015 Base Year Validation

cube

(Licensed to HDR Engineering Inc)

D1RPMv2.0



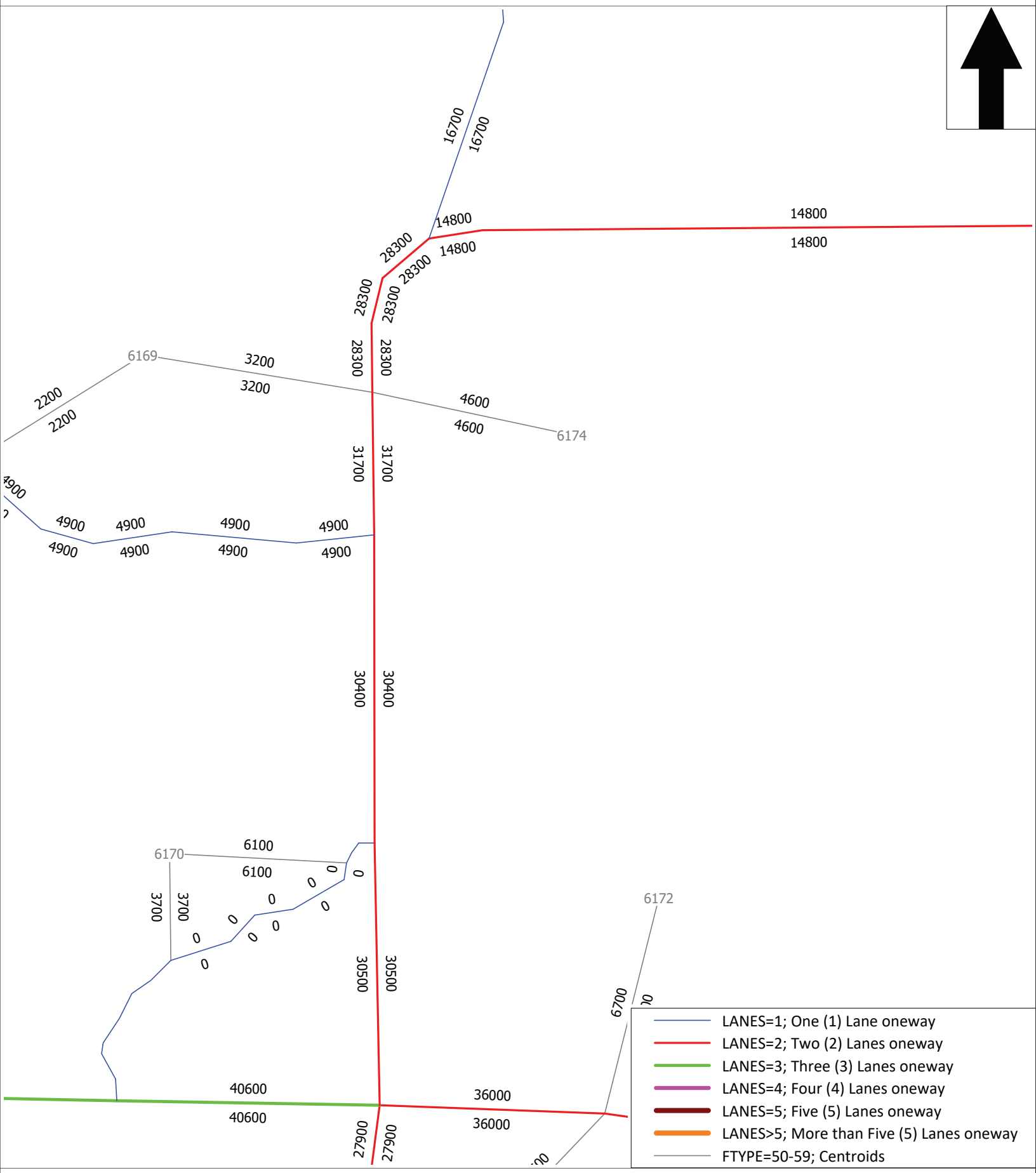
Horizon Year 2045 AADT (Dupliated Posts)

2045 No Build Upper Manatee River Road 2-Lanes

cube

(Licensed to HDR Engineering Inc)

D1RPMv2.0



Horizon Year 2045 AADT (Duplicate Posts)

2045 Updated Cost Feasible

cube

(Licensed to HDR Engineering Inc)

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%
Total Type Growth	**0.33%**	**2.52%**	**0.45%**	**0.48%**	**5.56%**	**1.34%**	**0.62%**	**1.17%**	**0.00%**	**0.87%**	**0.00%**
Overall Area Growth	**0.62%**										

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%
Total Type Growth	**0.28%**	**1.99%**	**0.38%**	**0.41%**	**7.13%**	**2.08%**	**2.22%**	**2.64%**	**0.00%**	**0.87%**	**0.00%**
Overall Area Growth	**0.61%**										

Appendix C – Natural Resources Assessment Memo

Natural Resources Assessment

Technical Memorandum

Upper Manatee River Road

Project Development and Corridor Study Report

October 2021

Manatee County
FLORIDA

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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
Federal Listed Wildlife			
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
Federal Protected Wildlife			
Haliaeetus leucocephalus	Bald eagle	BGEPA* MBTA**	No effect
Pandion haliaetus	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
Antigone canadensis pratensis	Florida sandhill crane	Threatened	No effect anticipated
Falco sparverius paulus	Southeastern American kestrel	Threatened	No effect anticipated
Gopherus polyphemus	Gopher tortoise	Threatened	No adverse effect anticipated
Pituophis melanoleucus mugitus	Florida pine snake	Threatened	No effect anticipated
Wading Birds			
Egretta caerulea	Little blue heron	Threatened	No effect anticipated
Egretta rufescens	Reddish egret	Threatened	No effect anticipated
Egretta tricolor	Tricolored heron	Threatened	No effect anticipated
Platalea ajaja	Rosette spoonbill	Threatened	No effect anticipated
Nesting Shorebirds			
Rynchops niger	Black skimmer	Threatened	No effect anticipated
Sternula antillarum	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
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

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.

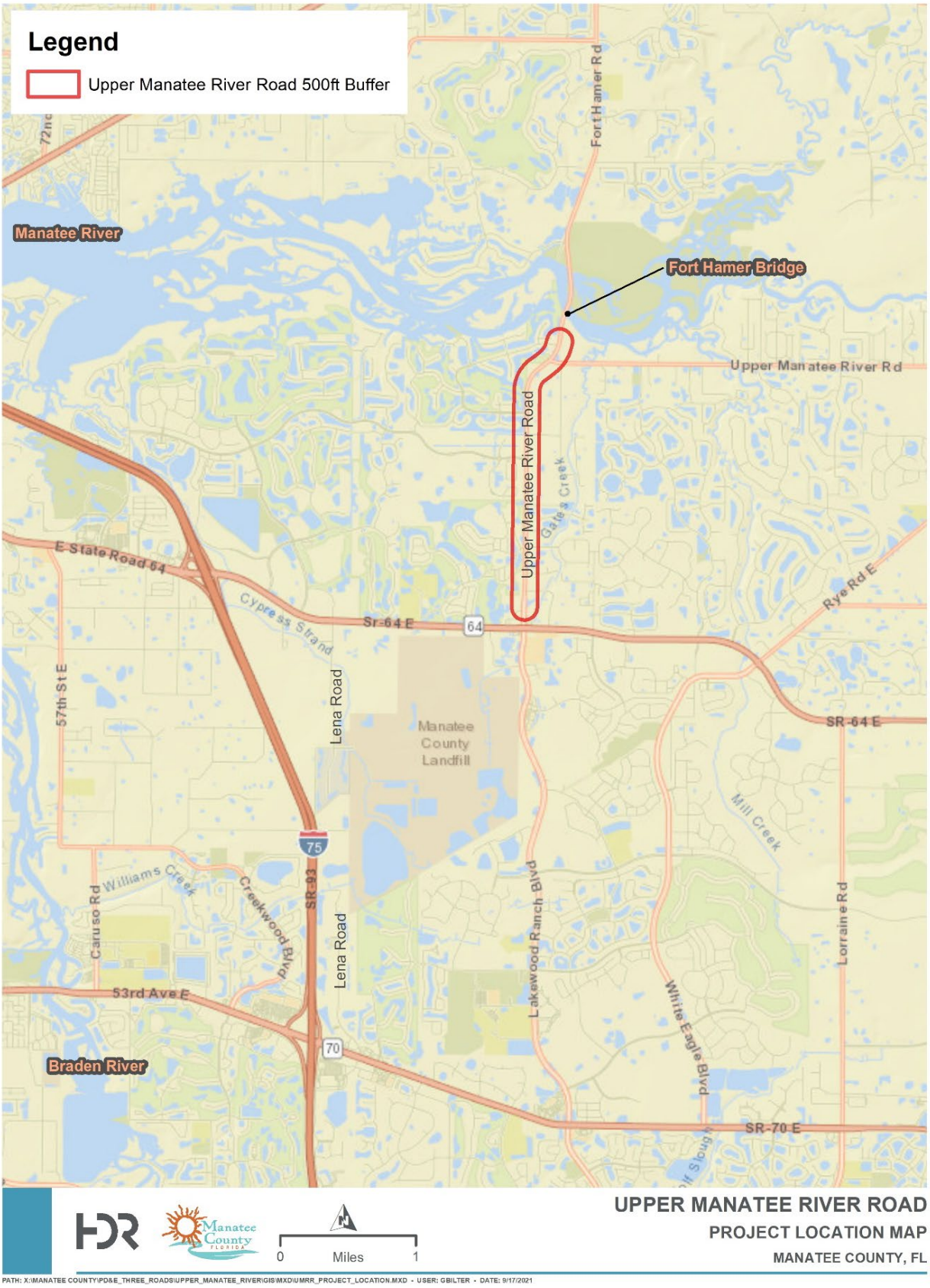

Figure 1-1: Project Location

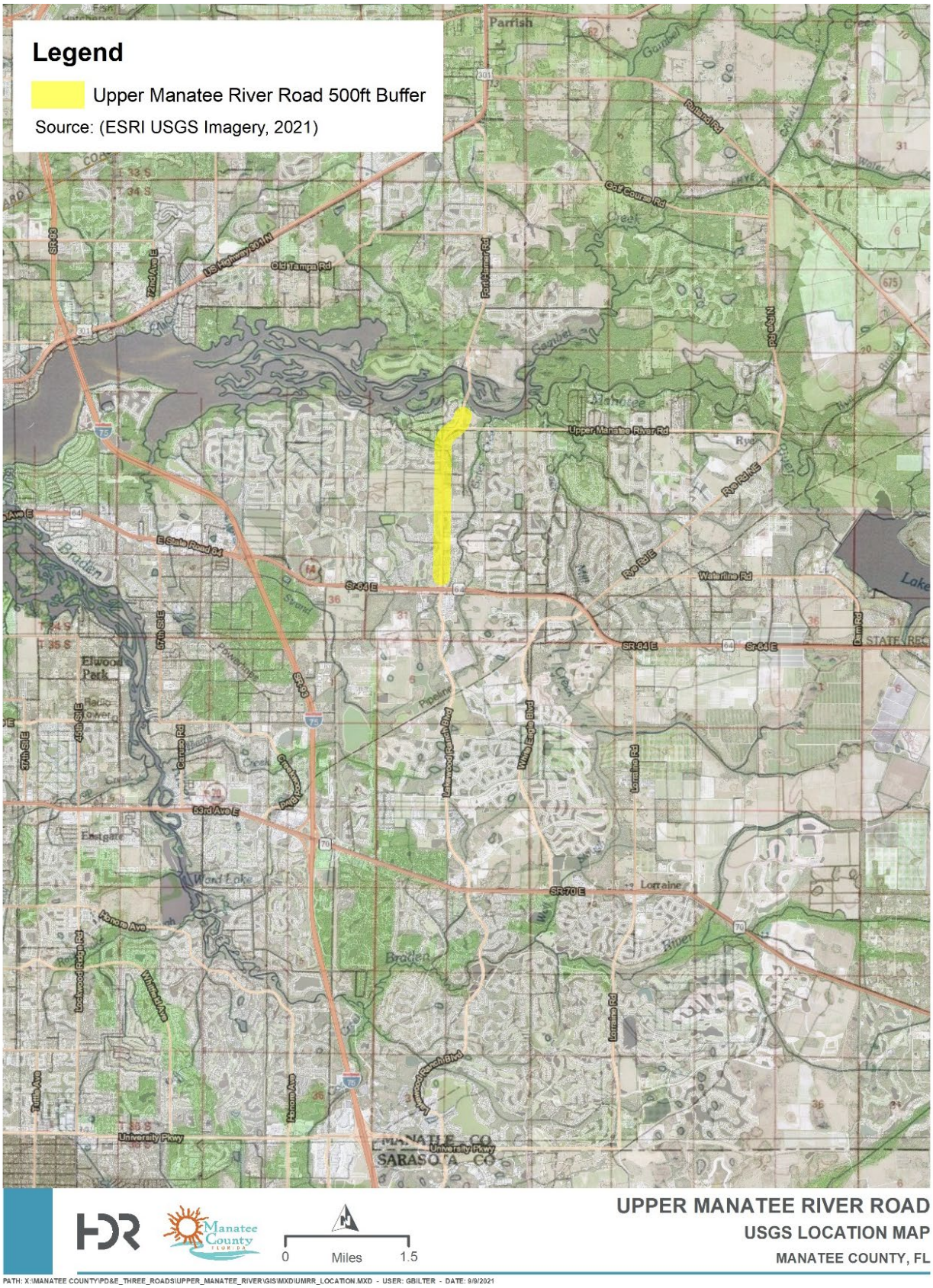

Figure 1-2: Study Area

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
Urban Land Uses			
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%
Agriculture			
210	Cropland and Pastureland	7.2	2.7%
230	Feeding Operations	10.8	4.0%
240	Nurseries and Vineyards	8.5	3.2%
Surface Waters and Natural Habitats			
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%
Total Area of Interest		**266.7**	**100%**

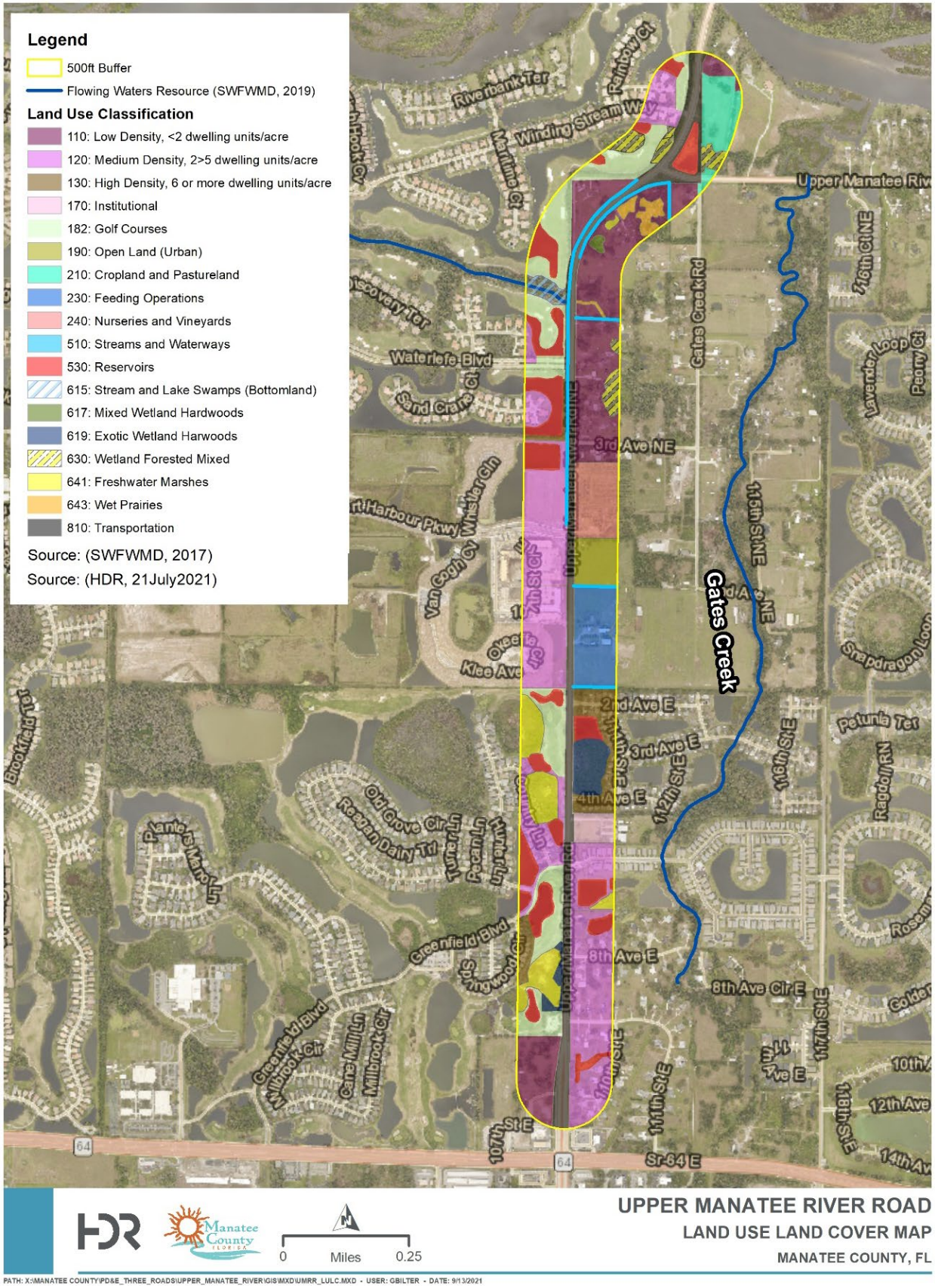

Figure 2-1: Land Use and Land Cover for Upper Manatee River Road Study Area

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
6	Broward Variant Fine Sand	No	Poorly Drained	5.4	2.0%
7	Canova, Anclote, and Okeelanta Soils	Yes	Very Poorly Drained	1.2	0.5%
20	EauGallie-EauGallie Wet, Fine Sand, 0 to 2 Percent Slopes	No	Poorly Drained	116.3	43.6%
26	Floridana-Immokalee-Okeelanta Association	Yes	Very Poorly Drained	33.8	12.7%
39	Parkwood Variant-Chobee, Limestone Substratum-Parkwood Complex	Yes	Poorly Drained	6.7	2.5%
48	Wabasso-Wabasso, Wet, Fine Sand,	No	Poorly Drained	103.3	38.7%
			Total Study Area	**266.7**	**100%**

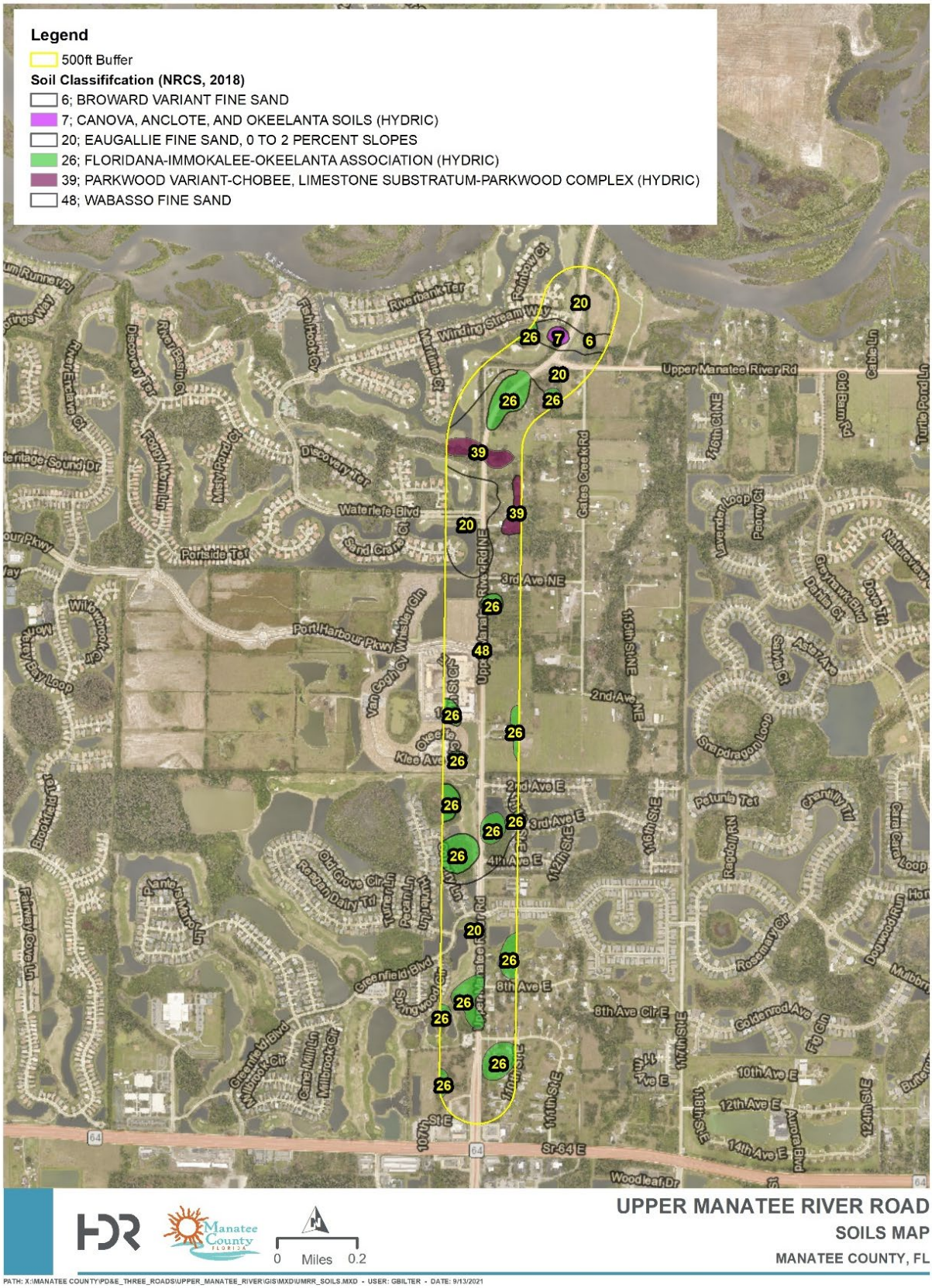

Figure 2-2: NRCS Soils Map for the Upper Manatee River Road Study Area

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)

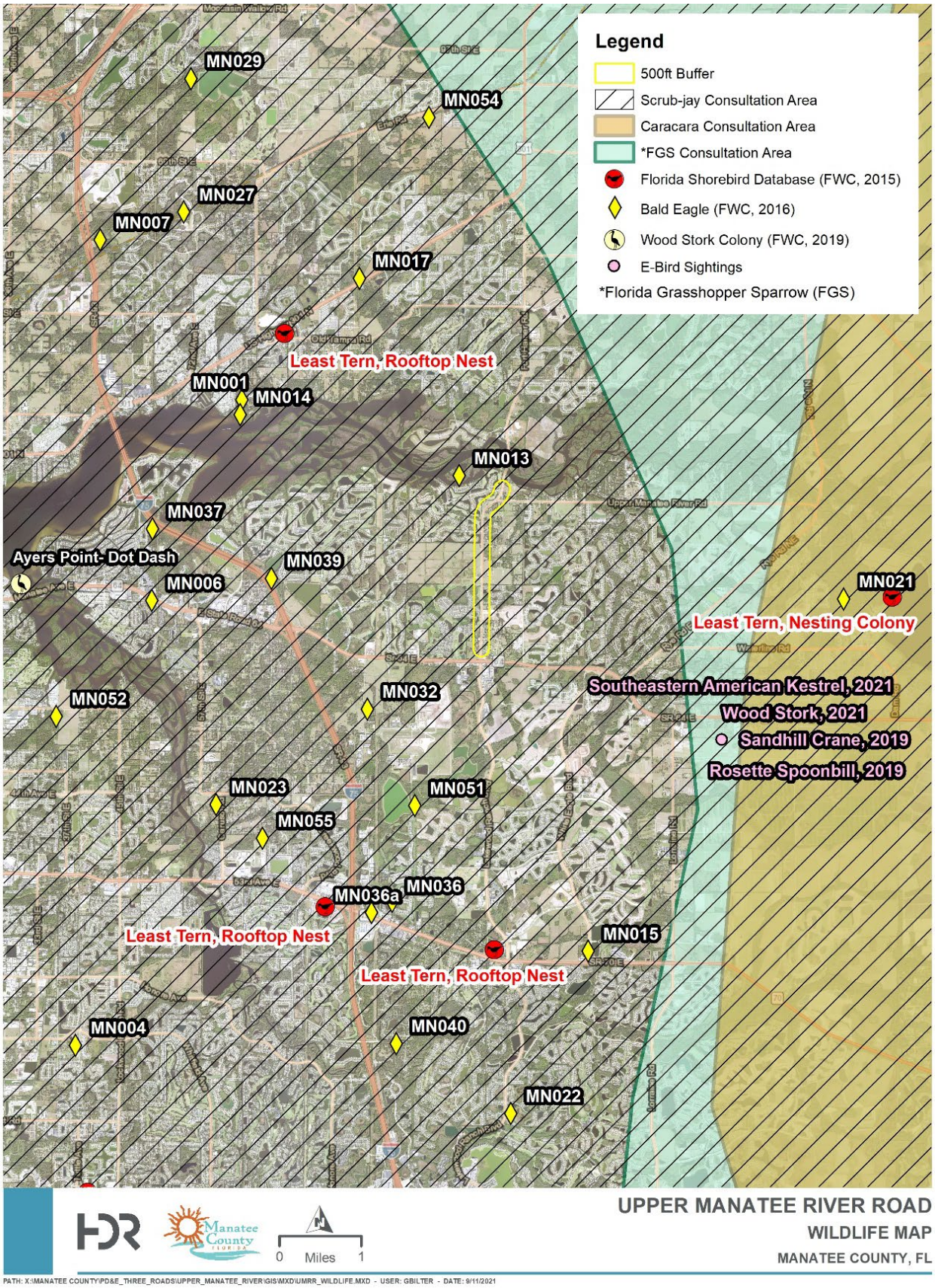

Figure 3-1: Wildlife Occurrence Map for the Upper Manatee River Road Study Area

- 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.

No	Suitable habitat is not believed to be present within the study area.
Low	Species documented within Manatee County, but with a low likelihood to occur within the study area due to the limited presence of suitable habitat.
Moderate	Species documented within Manatee County and for which suitable habitat was present within the study area; however, no documented occurrences exist.
High	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
Federal Listed Wildlife			
Drymarchon corais couperi	Eastern indigo snake	Threatened	Moderate
Mycteria americana	Wood stork	Threatened	High
Aphelocoma coerulescens	Florida scrub jay	Threatened	Low
Federal Protected Wildlife			
Haliaeetus leucocephalus	Bald eagle	BGEPA* MBTA**	Moderate
Pandion haliaetus	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.**
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[2]…**go to C.**
C	Project impacts to SFH are less than or equal to 0.5-acre[3]…**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
Antigone canadensis pratensis	Florida sandhill crane	Threatened	Moderate
Falco sparverius paulus	Southeastern American kestrel	Threatened	Low
Gopherus polyphemus	Gopher tortoise	Threatened	Moderate
Pituophis melanoluecus mugitus	Florida pine snake	Threatened	Low
Wading Birds			
Egretta caerulea	Little blue heron	Threatened	High
Egretta rufescens	Reddish egret	Threatened	Low
Egretta tricolor	Tricolored heron	Threatened	High
Platalea ajaja	Rosette spoonbill	Threatened	Moderate
Nesting Shorebirds			
Rynchops niger	Black skimmer	Threatened	Moderate
Sternula antillarum	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 recommended 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 melanoluecus 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:

Little Blue Heron	April 15 – June 30
Reddish Egret	February 15 – June 15
Rosette Spoonbill	February 15 – April 30
Tricolored Heron	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
Andropogon arctatus	Pine-woods Bluestem	State Threatened	Low
Bonamia grandiflora	Florida Bonamia	Federal Threatened	None
Calopogon multiflorus	Many-flowered Grass-pink	State Threatened	Low
Centrosema arenicola	Sand Butterfly Pea	State Endangered	None
Chionanthus pygmaeus	Pygmy Fringe-tree	Federal Endangered	Low
Cladonia perforata	Florida Perforate Cladonia	Federal Endangered	None
Eragrostis pectinacea var. tracyi	Sanibel Lovegrass	State Endangered	None
Lechea cernua	Nodding Pinweed	State Threatened	None
Nemastylis floridana	Celestial Lily	State Endangered	Low
Pteroglossaspis ecristata	Giant Orchid	State Threatened	Low
Rhynchospora megaplumosa	Large-plumed Beaksedge	State Endangered	Low
Zephyranthes simpsonii	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
WL-1	619 - Exotic Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.17
WL-2	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.77
WL-3	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	0.57
WL-4	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.7
WL-5	619 -Exotic Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	4.48
WL-6	641- Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	3.0
WL-7	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.88
WL-8	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	0.27
WL-9	615 - Stream and Lake Swamps	PFO3 - Palustrine, Forested, Broad-leaved, Evergreen	1.98
WL-10	617- Mixed Wetland Hardwoods	PFO3 – Palustrine Forested Broad-leaved Evergreen	0.49
WL-11	641 – Freshwater Marsh	PEM1 – Palustrine, Emergent, Persistent	0.26
WL-12	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	0.6
WL-13	643 - Wet Prairies	PEM1 – Palustrine, Emergent, Persistent	1.67
WL-14	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.16
WL-15	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	0.97
WL-16	630 - Wetland Forested Mixed	PFO3 – Palustrine Forested Broad-leaved Evergreen	1.3
OSW-1	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
OSW-2	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
OSW-3	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	1.8
OSW-4	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.21
OSW-5	510 – Streams and Waterways	R2UB2 – Riverine, Lower Perennial, Unconsolidated Bottom, Sand	0.78

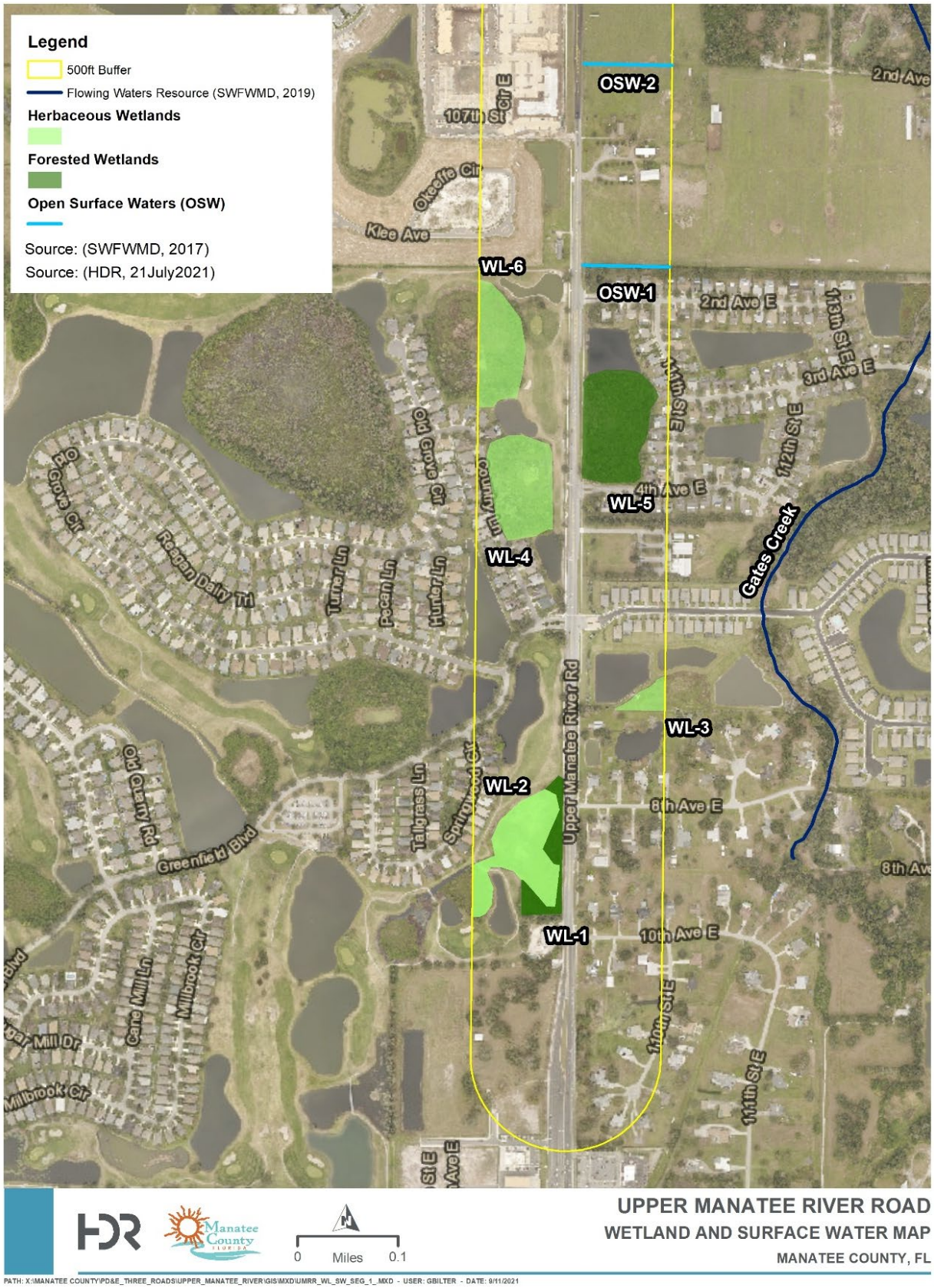

Figure 4-1: Wetlands and Surface Water Map – South

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. In 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
Federal Listed Wildlife			
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
Federal Protected Wildlife			
Haliaeetus leucocephalus	Bald eagle	BGEPA* MBTA**	No effect
Pandion haliaetus	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
Antigone canadensis pratensis	Florida sandhill crane	Threatened	No effect anticipated
Falco sparverius paulus	Southeastern American kestrel	Threatened	No effect anticipated
Gopherus polyphemus	Gopher tortoise	Threatened	No adverse effect anticipated
Pituophis melanoleucus mugitus	Florida pine snake	Threatened	No effect anticipated
Wading Birds			
Egretta caerulea	Little blue heron	Threatened	No effect anticipated
Egretta rufescens	Reddish egret	Threatened	No effect anticipated
Egretta tricolor	Tricolored heron	Threatened	No effect anticipated
Platalea ajaja	Rosette spoonbill	Threatened	No effect anticipated
Nesting Shorebirds			
Rynchops niger	Black skimmer	Threatened	No effect anticipated
Sternula antillarum	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
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

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

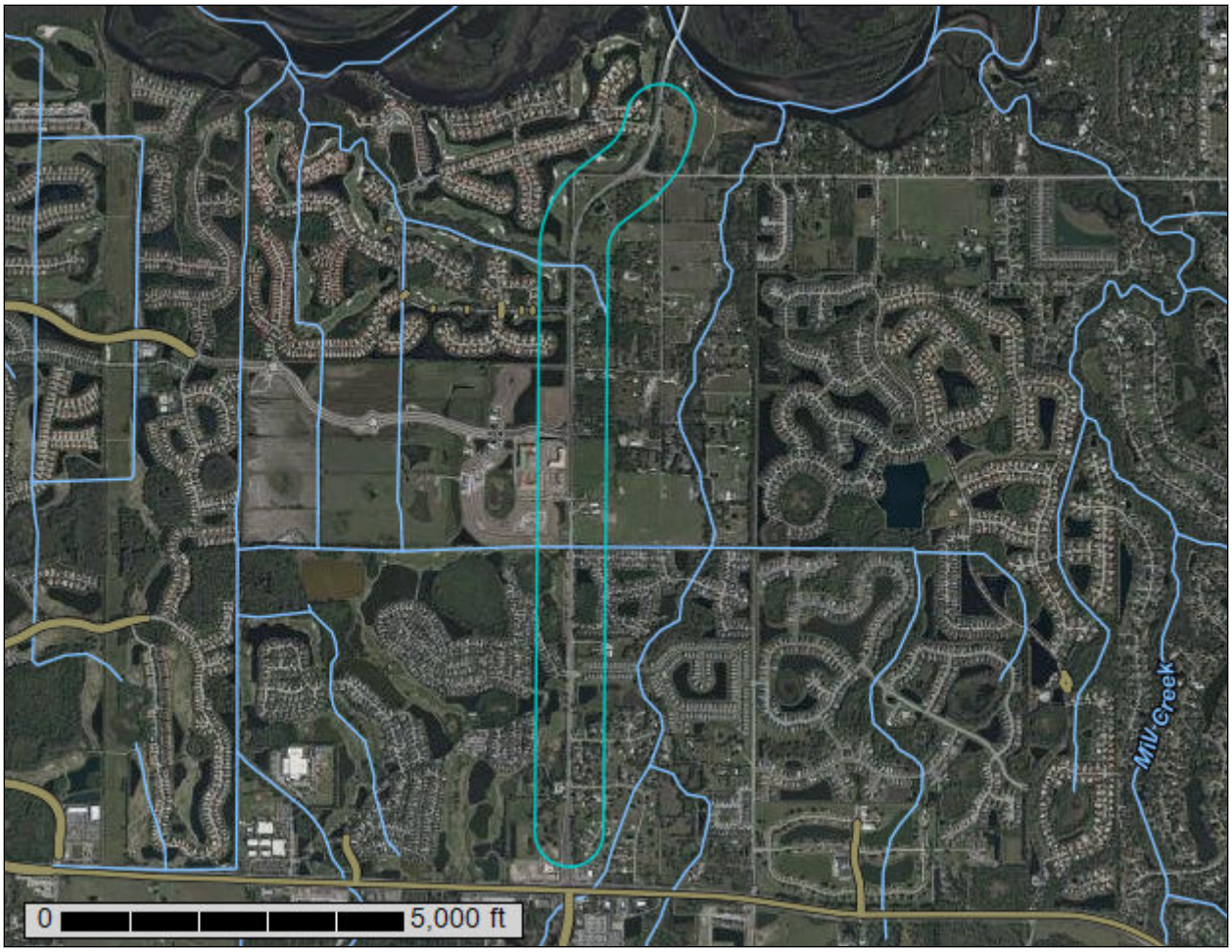
United States Department of Agriculture

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



July 19, 2021

Preface

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).

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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How Soil Surveys Are Made

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

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.

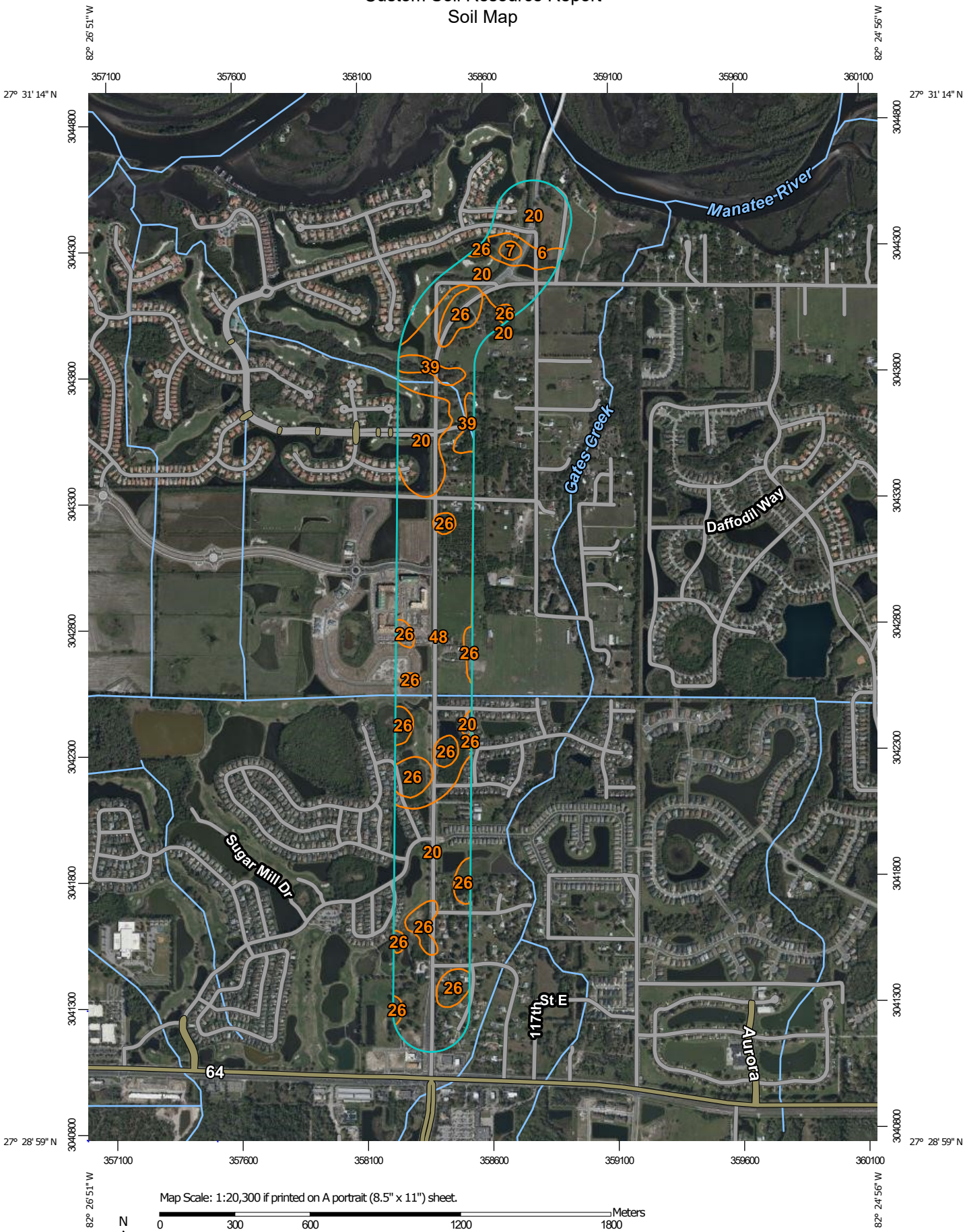
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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

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.

N

Meters: 0 300 600 1200 1800

Feet: 0 500 1000 2000 3000

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%
Totals for Area of Interest		**266.7**	**100.0%**

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

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

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

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

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

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

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)

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

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

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

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)

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

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

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

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

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

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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Appendix B – IPaC Resource List

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: July 06, 2021
Consultation Code: 04EF1000-2021-SLI-1218
Event Code: 04EF1000-2021-E-01888
Project Name: Upper Manatee River Road

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). 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

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://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[1], 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.

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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 *Polyborus plancus audubonii* Population: FL pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

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

Flowering Plants

NAME	STATUS
Pygmy Fringe-tree *Chionanthus pygmaeus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1084	Endangered

Lichens

NAME	STATUS
Florida Perforate Cladonia *Cladonia perforata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7516	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[1] and the Bald and Golden Eagle Protection Act[2].

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.

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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 *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle *Haliaeetus leucocephalus* 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. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
Black Skimmer *Rynchops niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Clapper Rail *Rallus crepitans* 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
Common Ground-dove *Columbina passerina exigua* 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
Least Tern *Sterna antillarum* 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
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Limpkin *Aramus guarauna* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 15 to Aug 31
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Reddish Egret *Egretta rufescens* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7617	Breeds Mar 1 to Sep 15
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Yellow Warbler *Dendroica petechia gundlachi* 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.

■ probability of presence ■ breeding season | survey effort – no data

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 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

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

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.

Appendix C – Affect Determination Keys

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th 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

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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[1]. 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)[2] of an active colony site[3] ..... "*may affect*[4]"

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[5]..... "*no effect*[1]".

---

[1] 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.

[2] 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).

[3] 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.

[4] Consultation may be concluded informally or formally depending on project impacts.

[5] 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)[6].....*NLAA*[1]"

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[7] 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[8]..... *NLAA*[1]"

Project not as above..... "*may affect*[4]"

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.

[6] 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.

[7] 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.

[8] 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[6] 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[8]..... *"NLAA[1]"*

Project does not satisfy these elements .....*"may affect[4]"*

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)

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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[2]…… *"may affect"*

On Page 5

The following replaces footnote #3:

"[3]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, 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 20th 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 guanhumi*) 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[1]. 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[2] .....*"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[2]..... *"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[3]. 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[2] ..... *"may affect"*

---

[1]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.

[2]Consultation may be concluded informally or formally depending on project impacts.

[3] 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**. 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; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: 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 <u>LIVE</u> 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 <u>DEAD</u> 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

Manatee County
FLORIDA

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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.

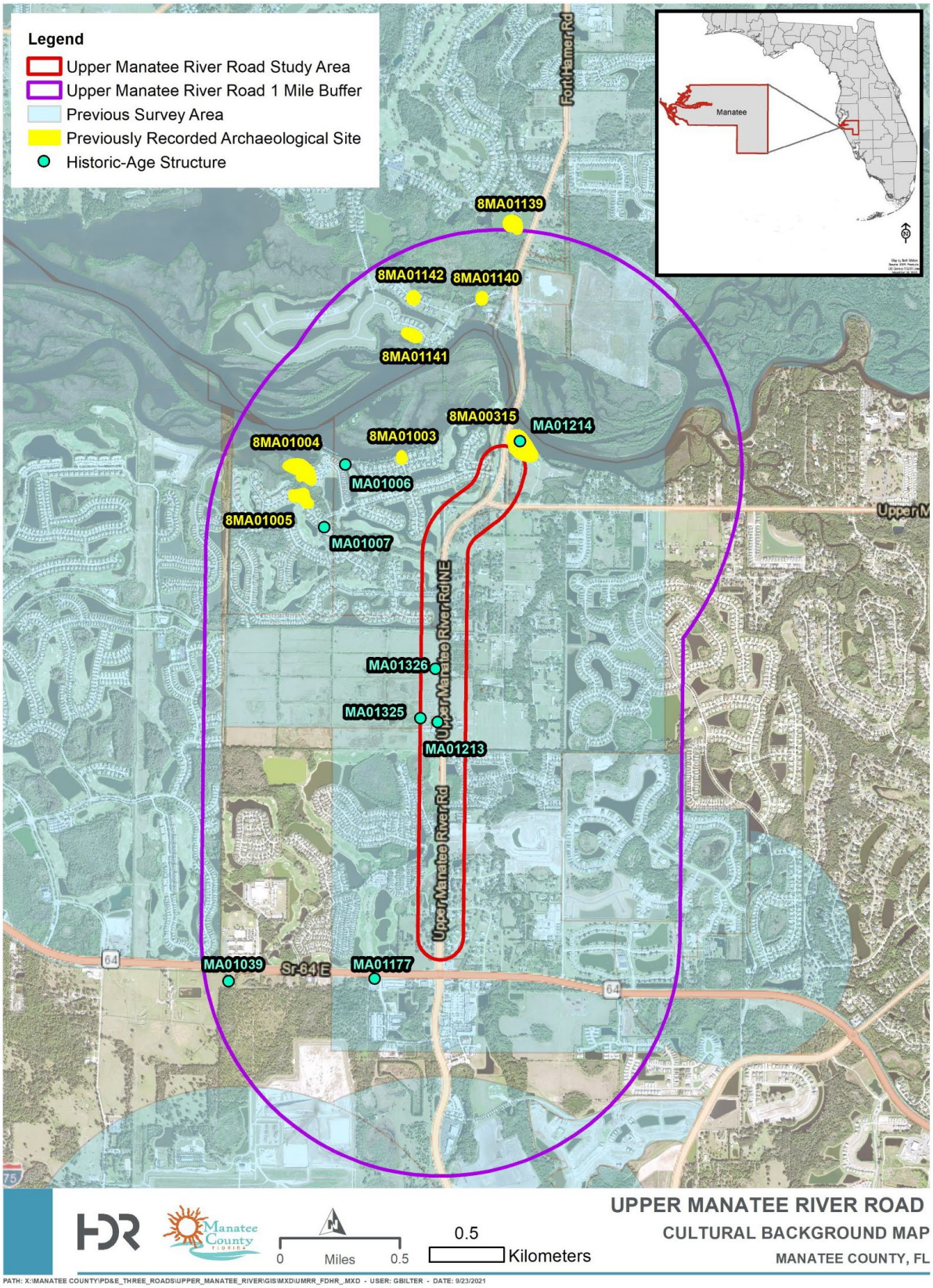

Figure 2 | Cultural Resources and Previous Surveys within 1 Mile of the Study Area

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			
9144	-	Cultural Resource Reconnaissance Survey/Section 106 Proposed Lena Road Communication Tower Site 3331 Lena Road, Bradenton, Manatee County, Florida	Archaeological Consultants, Inc.	2003	-
9413	-	Cultural Resource Assessment Survey of the Manatee River Plantation Project Site Manatee County, Florida	Janus Research	2003	-
10632	-	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
6743	-	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
7393	-	Cultural Resource Assessment/ Section 106 Review Proposed Cellular Tower: Foxleigh 12705 State Road 64 East, Bradenton, Manatee County, Florida	Archaeological Consultants, Inc.	2001	-
7917	-	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	-
6079	-	A Cultural Resource Assessment Survey S.R. 64 from East of I-75 to Lorraine Road, Manatee County Florida	Archaeological Consultants, Inc.	2000	-

6330	-	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	-
6448	-	A Cultural Resource Assessment Survey of The River Wilderness Golf and Country Club Mainland Project Area in Manatee County, Florida	Janus Research	1999	-
5208	-	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
5540	-	Cultural Resource Assessment for the Heritage Sound DRI/ADA Project Site, Manatee County, Florida	Janus Research	1998	-
3084	-	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

Identifier	Affiliation	Features/ Function	NRHP Eligibility	Comments/ Recommendations
8MA00315	Historic	Historic fort	Eligible	Overlaps the Study Area
8MA01003	Prehistoric	Low density artifact scatter	Ineligible	Site name "Broken pot"; Approx. 0.25 mi (0.40 km) from the Study Area
8MA01004	Prehistoric	Low density artifact scatter	Ineligible	Site name "Ancient Oaks Hammock"; Approx. 0.52 mi (0.84 km) from the Study Area
8MA01005	Prehistoric	Low density artifact scatter	Ineligible	Site name "Round the Bend"; Approx. 0.51 mi (0.82 km) from the Study Area
8MA01139	Prehistoric	-	Unknown	Site name "Swamside"; Approx. 0.90 mi (1.4 km) from the Study Area
8MA01140	Prehistoric	-	Ineligible	Site name "Boat Ramp"; Approx. 0.61 mi (0.98 km) from the Study Area
8MA01141	Prehistoric	-	Ineligible	Site name "Cumba"; Approx. 0.56 mi (0.90 km) from the project area
8MA01142	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
MA01006	Ancient Oaks House	Bradenton	Unknown	Approx. 0.43 mi (0.69 km) from the Study Area
MA01007	Ancient Oaks Barn	Bradenton	Unknown	Approx. 0.42 mi (0.68 km) from the Study Area
MA01039	9408 SR 64	9408 SR 64, Parrish	Ineligible	Approx. 0.81 mi (1.31 km) from the Study Area
MA01177	10508 SR 64	10508 SR 64, Bradenton	Ineligible	Approx. 0.23 mi (0.37 km) from the Study Area
MA01213	Moore's Dairy	108 Upper Manatee River Road, Bradenton	Ineligible	Within the Study Area
MA01214	11311 Upper Manatee River Road	11311 Upper Manatee River Road, Bradenton	Ineligible	Approx. 230 ft (70 m) from the Study Area
MA01325	Moore Dairy-South Shed	110 Upper Manatee River Road, Bradenton	Ineligible	Within the Study Area
MA01326	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

Address	Year Built	Classification
108 Upper Manatee River Road NE, Bradenton	1950	Residential
108 Upper Manatee River Road NE, Bradenton	1975	Manufactured Home
257 Upper Manatee River Road NE, Bradenton	1963	Residential
303 Upper Manatee River Road NE, Bradenton	1974	Residential
303 Upper Manatee River Road NE, Bradenton	1974	Residential
407 Upper Manatee River Road NE, Bradenton	1976	Residential
507 Upper Manatee River Road NE, Bradenton	1974	Residential
607 Upper Manatee River Road NE, Bradenton	1972	Residential
807 Upper Manatee River Road NE, Bradenton	1974	Residential
11108 Upper Manatee River Road NE, Bradenton	1976	Residential
11109 Upper Manatee River Road NE, Bradenton	1972	Residential
11208 Upper Manatee River Road NE, Bradenton	1966	Residential
11311 Upper Manatee River Road NE, Bradenton	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.

6.0 References

United States Geological Survey (USGS).

2021 Florida Geologic Map Data. Available online at https://mrdata.usgs.gov/geology/state/state.php?state=FL. Accessed July 2021.

University of California and United States Department of Agriculture Natural Resources Conservation Service (University of California, Davis, California Soil Resource Lab; University of California, Division of Agriculture and Natural Resources)

2019 SoilWeb. University of California; USDA-NRCS. Available online at https://data.nal.usda.gov/dataset/soilweb, accessed July 2021.

Appendix E – Contamination Screening Memo

Contamination Screening Technical Memorandum

Upper Manatee River Road

Project Development and Corridor Study Report

September 2021

Manatee County
FLORIDA

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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.

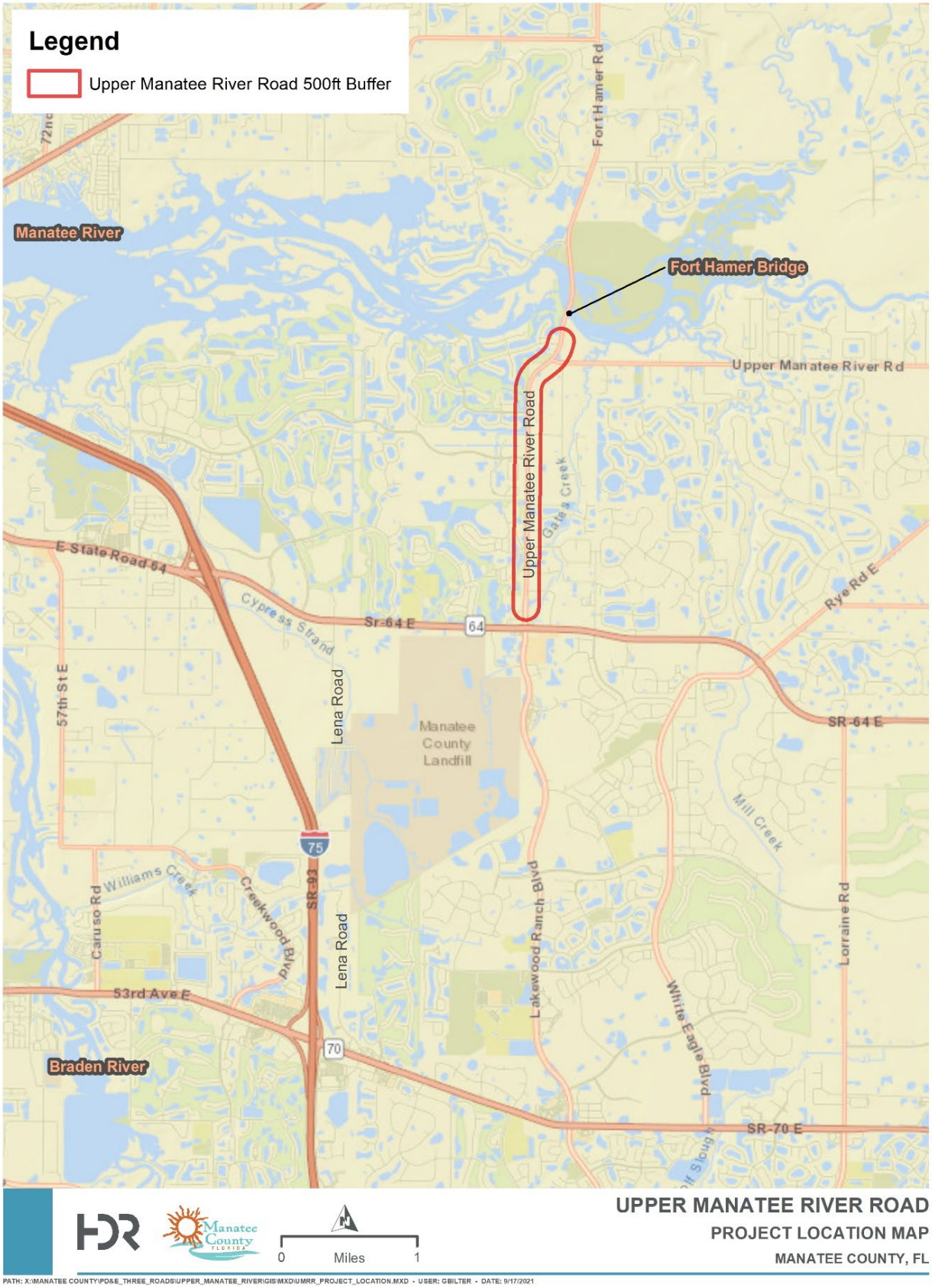

Figure 1 | Project Location

Table 1 | Federal Databases

Database Name	Database Description
National Priorities List (NPL)	This list contains facilities and/or locations where environmental contamination has been confirmed and prioritized for cleanup activities.
Comprehensive Environmental Response, Compensation and Liability Information System List (CERCLIS)	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.
Records of Decisions (ROD) System	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.
Archived CERCLIS Sites (No Further Remedial Action Planned List (NFRAP))	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.
Emergency Response Notification System (ERNS) List	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.
Resource Conservation and Recovery Information System (RCRIS) Handlers with Corrective Action Activity (CORRACTS)	This database lists hazardous waste handlers that have undergone Resource Conservation and Recovery Act (RCRA) corrective action activity.
Hazardous Waste Data Management System (HWDMS)	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.
RCRA-Large Quantity Generator (LQG), Small Quantity Generator (SQG), Conditionally Exempt SQG and Transporters (NONTSD)	This list is a subset of the USEPA RCRIS list and identifies facilities that generate and transport hazardous wastes.
RCRA Treatment, Storage and/or Disposal Sites (TSD)	This list is a subset of the RCRIS and identifies facilities that treat, store, and/or dispose of hazardous waste.
RCRA Administrative Action Tracking System (RAATS)	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.
Tribal Lust List (TRIBLLUST)	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.
Tribal Tanks List (TRIBLTANKS)	This database lists active and closed storage tanks on Native American lands.

Facility Registry System (FRS)	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).
Toxic Release Inventory System (TRIS) List	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.
Biennial Reporting System	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.
PCB Activity Data System (PADS)	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.
Permit Compliance System (PCS)	This is a data system for the National Pollutant Discharge Elimination System (NPDES) permit holding facilities.
Brownfields Management System (USBRWNFLDS)	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
Underground/Aboveground Storage Tanks (TANKS)	This database contains sites with registered aboveground (AST) or underground storage tanks (UST) containing regulated petroleum products.
Leaking Underground Storage Tanks List (LUST)	This list identifies facilities and/or locations that have notified the FDEP of a possible release of contaminants from petroleum storage systems.
Solid Waste Facilities List (SLDWST)	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.
State Sites List (STCERC)	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.
State Funded Action Sites (STNPL)	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.
State Hazardous Waste Notifiers (STRCRA)	This list identifies facilities that generate, transport, treat, store, and dispose of hazardous waste.
State Institutional and/or Engineering Controls (INSTENG)	This list contains sites that have had institutional and/or engineering controls implemented to regulate exposure to environmental hazards.

State Designated Brownfields (BRWNFLDS)	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.
State Voluntary Cleanup (VOLCLNUP)	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.
Florida Dry Cleaners List (DRY)	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[1]	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-VSQG	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.

[1] 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

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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 Identifcations 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.

Site	Address	Map ID / Focus Map(s)	Page
WAWA FOOD MARKET# 52	***1405 UPPER MANATEE R***	***4 / 5***	***20***
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.

Site	Address	Map ID / Focus Map(s)	Page
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.

Site	Address	Map ID / Focus Map(s)	Page
COPPERLEFE Registry ID:: 110070064287	***600 UPPER MANATEE RI***	***A1 / 3***	***18***

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.

Site	Address	Map ID / Focus Map(s)	Page
COPPERLEFE Registry ID: 110070064287	***600 UPPER MANATEE RI***	***A1 / 3***	***18***

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.

Site	Address	Map ID / Focus Map(s)	Page
WAWA FOOD MARKET# 52 Database: Financial Assurance 3, Date of Government Version: 01/26/2021 Facility Status: OPEN Facility ID: 9816327	***1405 UPPER MANATEE R***	***4 / 5***	***20***

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.

Site	Address	Map ID / Focus Map(s)	Page
COPPERLEAF Status: A Facility ID: FLR20BE48	600 UPPER MANATEE RI	A2 / 3	18

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Page Numbers and Map Identifcations 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.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
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.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
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.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MOORE PROPERTY	***108 UPPER MANATEE RI***	***W 0 - 1/8 (0.019 mi.)***	***5 / 3***	***24***

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.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MOORE PROPERTY	***108 UPPER MANATEE RI***	***W 0 - 1/8 (0.019 mi.)***	***5 / 3***	***24***

Database: UST, Date of Government Version: 01/26/2021
Tank Status: B
Facility-Site Id: 9700838
Facility Status: CLOSED

SPEEDWAY #6595	***11002 E HWY 64***	***SSE 1/8 - 1/4 (0.181 mi.)***	***7 / 5***	***32***

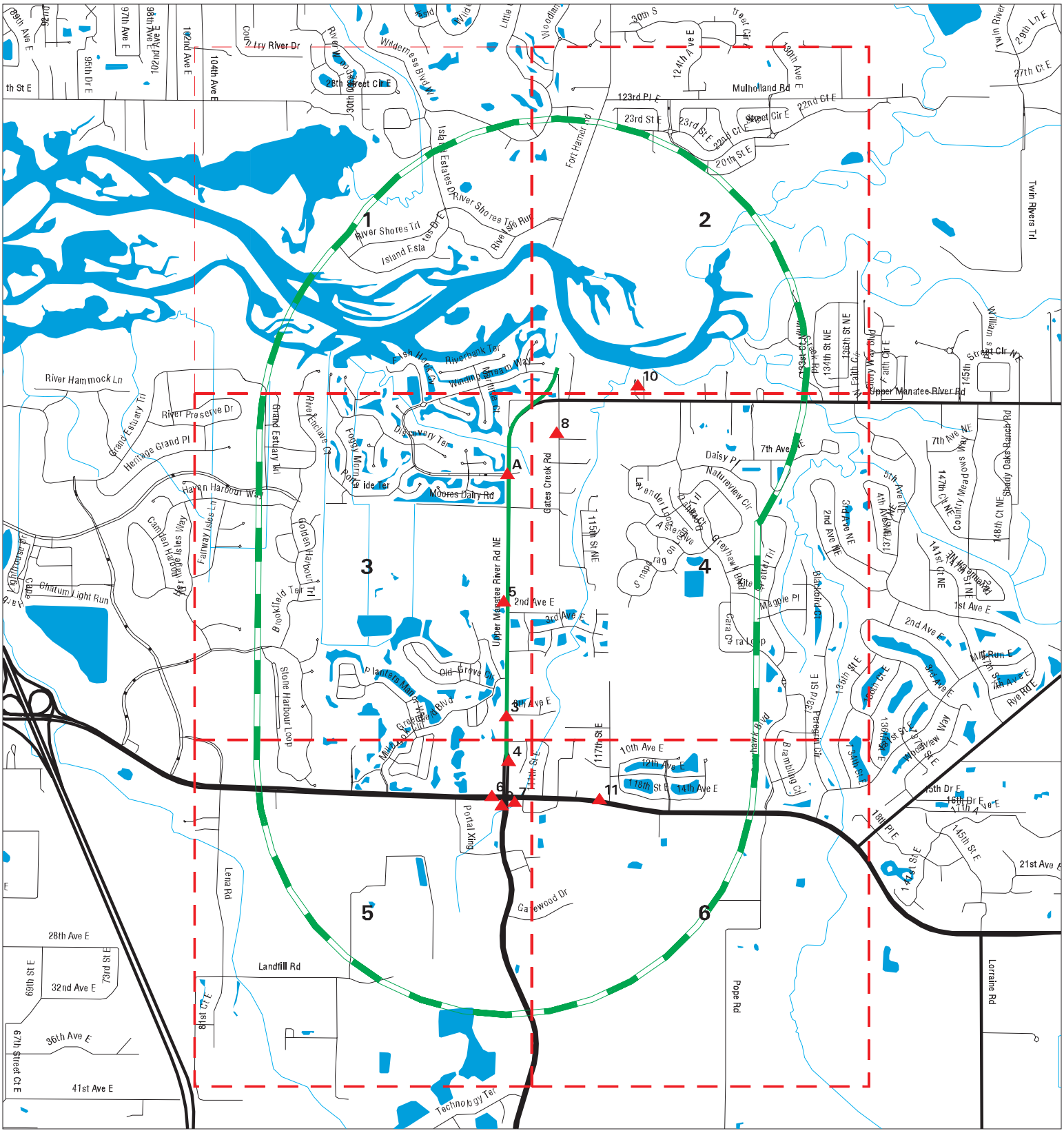
Database: UST, Date of Government Version: 01/26/2021
Tank Status: U
Facility-Site Id: 9803398
Facility Status: OPEN

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-VSQG	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-VSQG	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	Focus Map - Sites	FL Brownfield
Target Property	National Priority List Sites	
Search Buffer	Dept. Defense Sites	
Focus Map - No Sites	Indian Reservations BIA	

0 1/2 1 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21 10:33 PM

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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
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
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
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
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
Federal institutional controls / engineering controls registries								
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
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	1	1	NR	NR	2
State and tribal leaking storage tank lists								
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
State and tribal registered storage tank lists								
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	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
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
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
PRIORITYCLEANERS	0.500		0	0	0	NR	NR	0
Fl 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
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
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
Other Ascertainable Records								
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
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
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
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
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

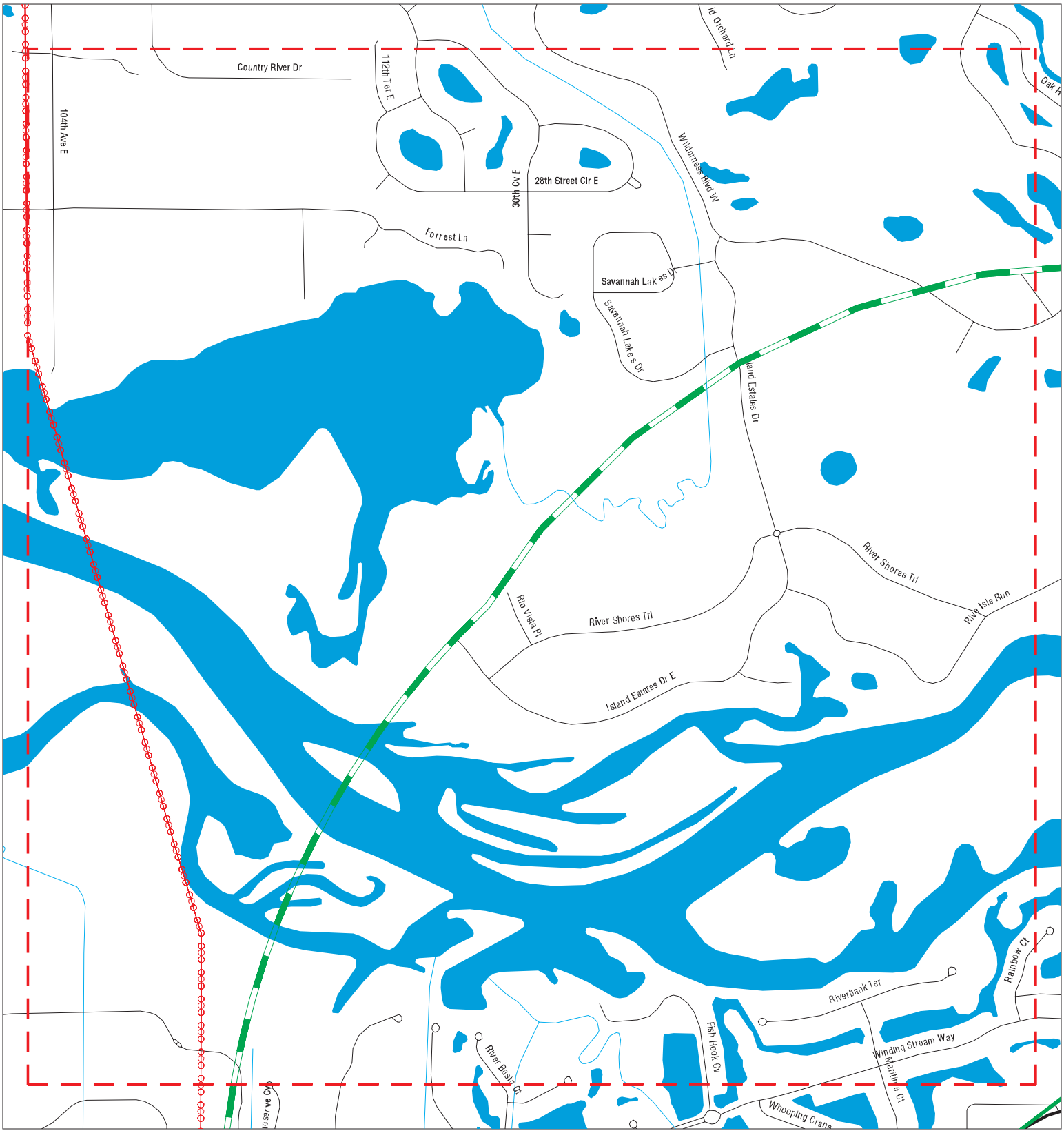
NOTES:

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	

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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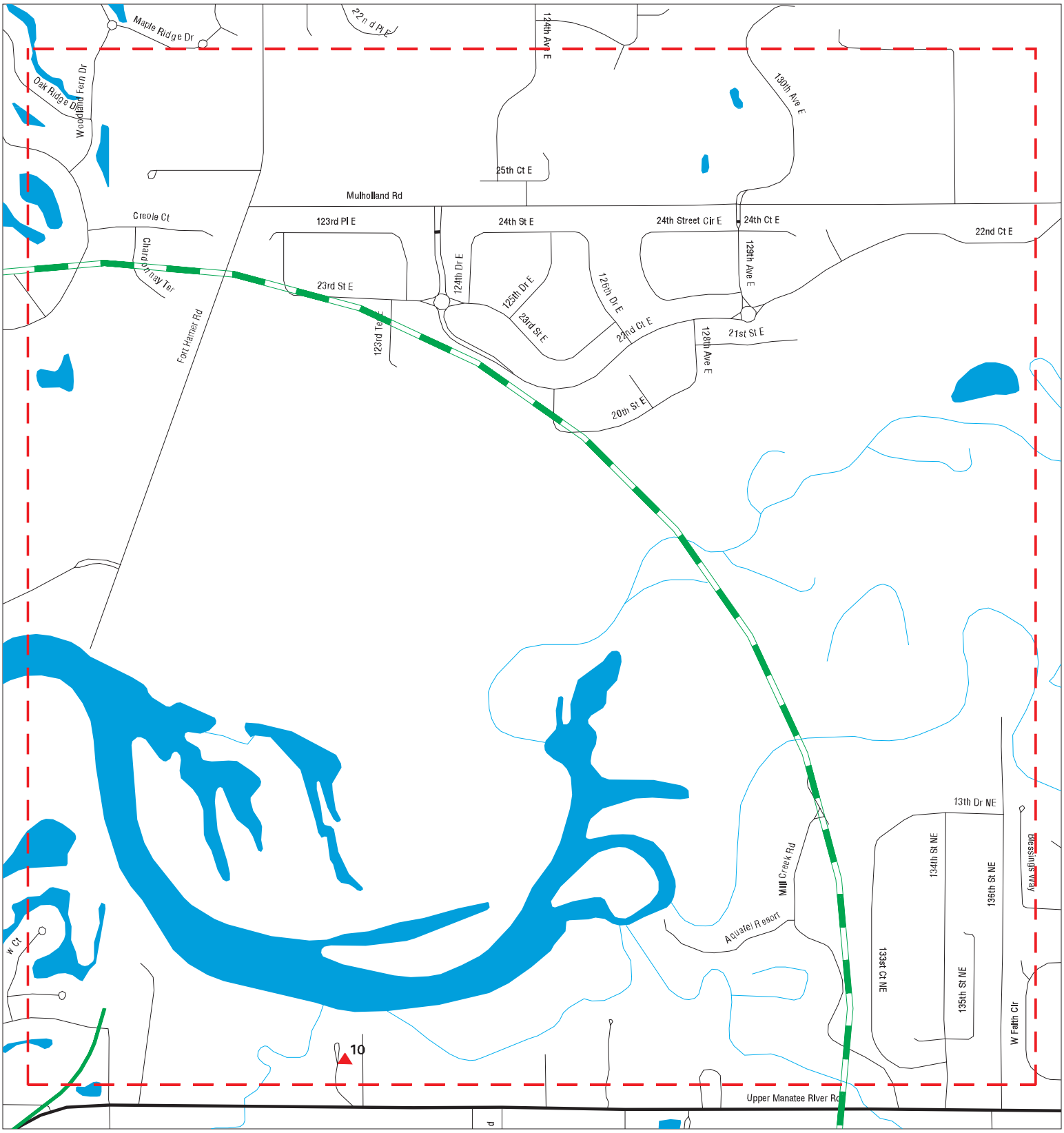
MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
UPPER MANATEE RIVER ROAD UMRR
BRADENTON, FL 34212

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

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	

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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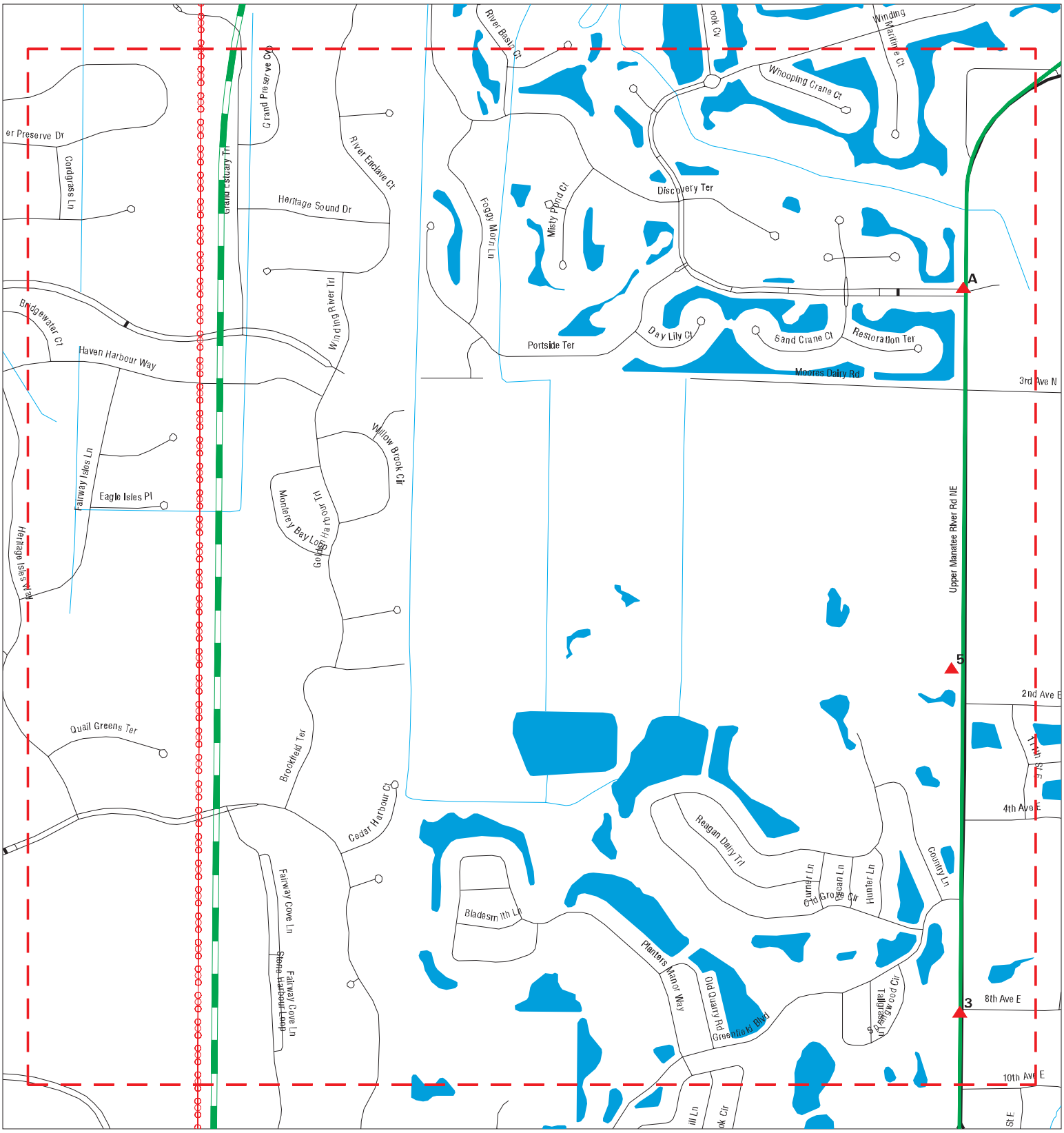
MAPPED SITES SUMMARY - FOCUS MAP 2

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	

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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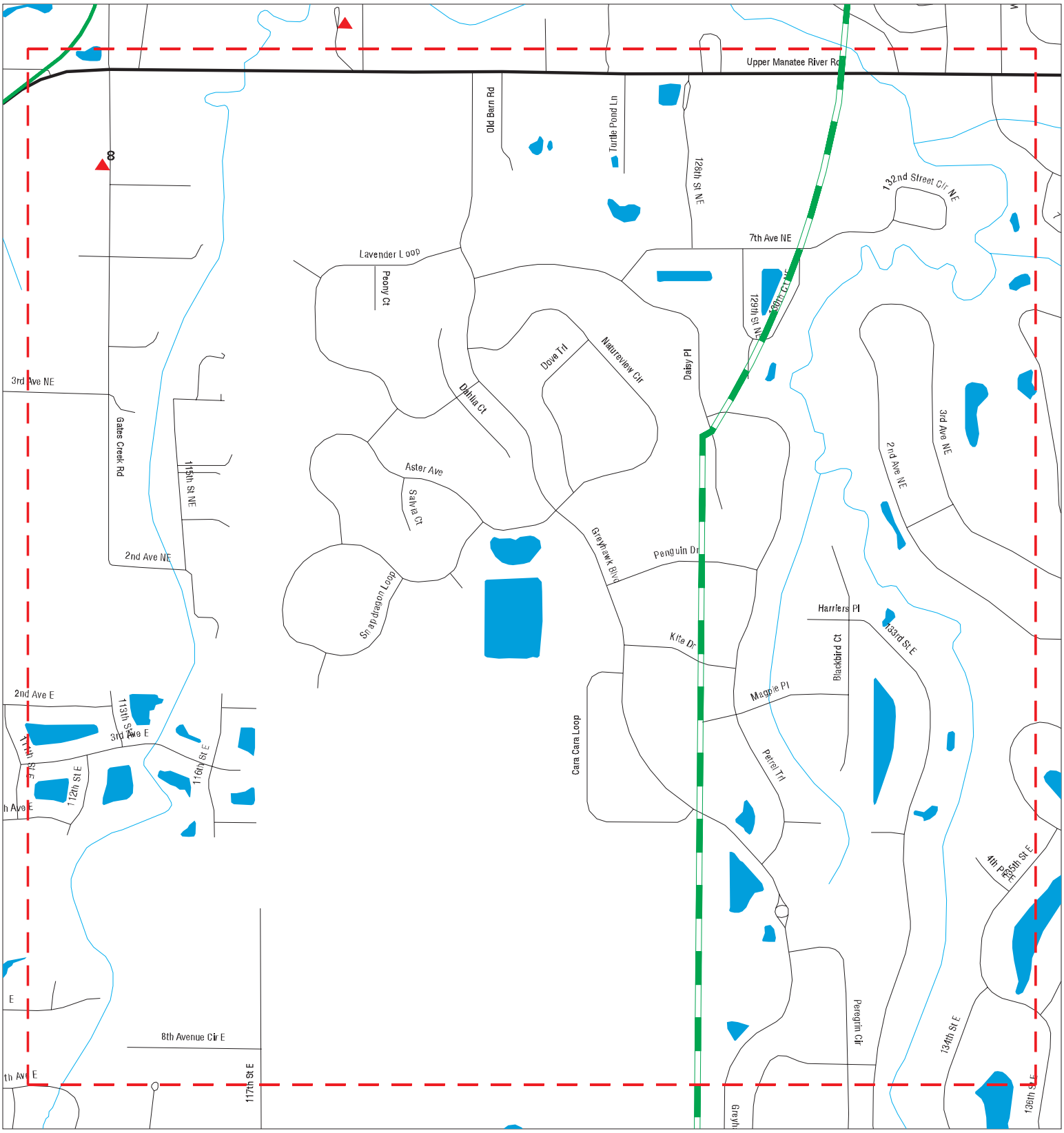
MAPPED SITES SUMMARY - FOCUS MAP 3

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	

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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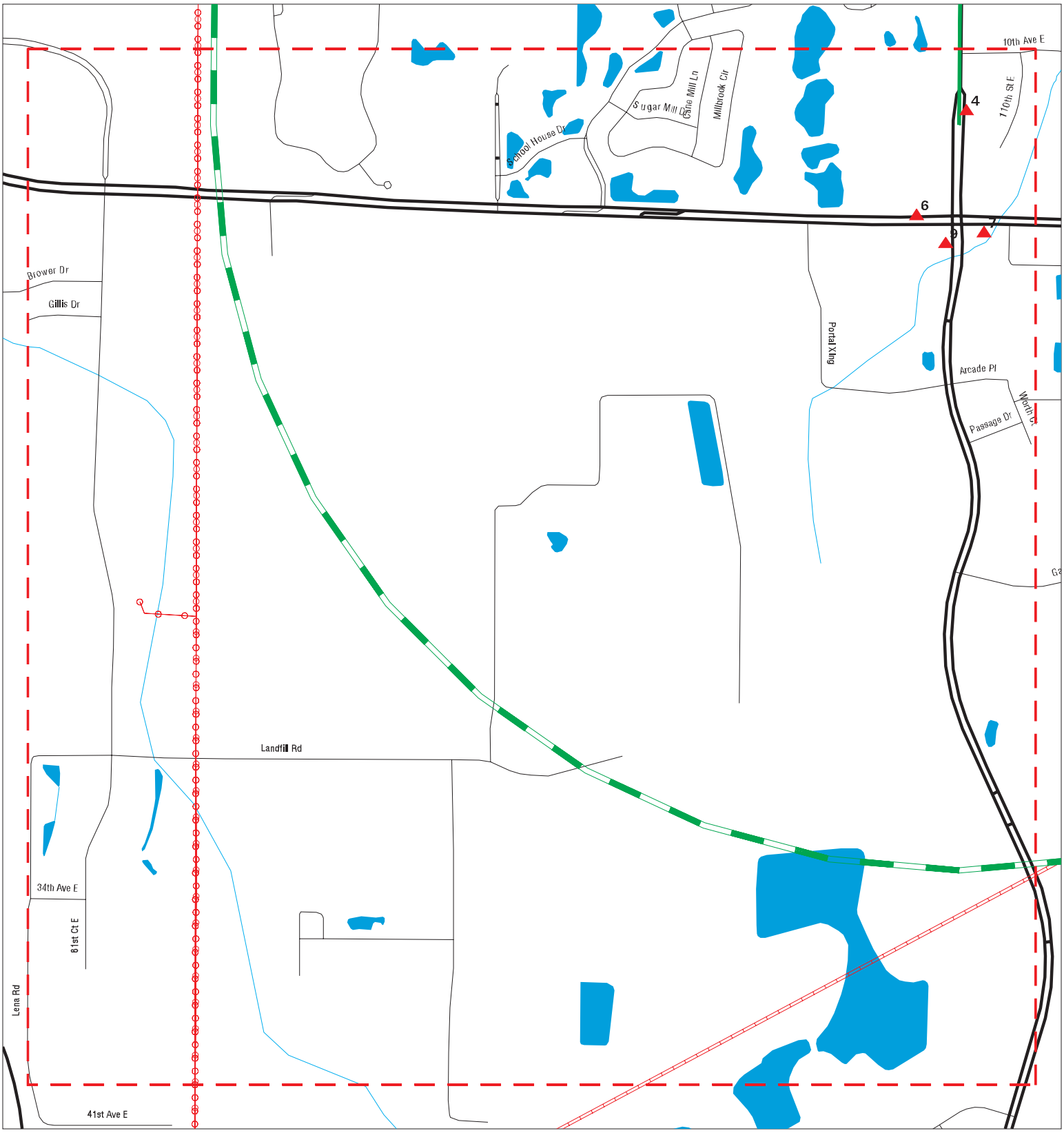
MAPPED SITES SUMMARY - FOCUS MAP 4

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
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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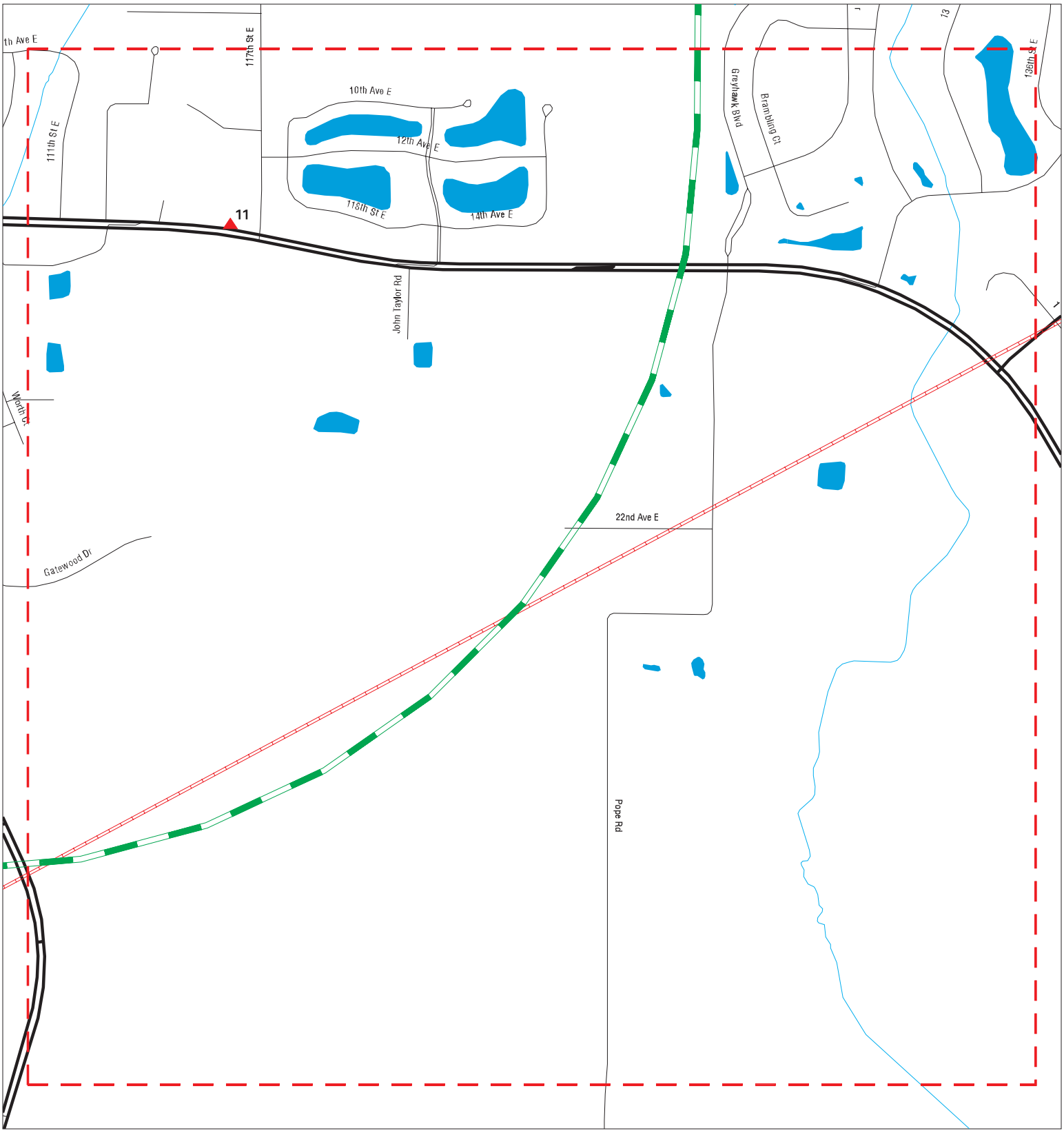
MAPPED SITES SUMMARY - FOCUS MAP 5

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-VSQG	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-VSQG	1031	0.195	South

Focus Map - 6 - 6558351.11s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME: Upper Manatee River Road UMRR	CLIENT: HDR Engineering Inc.
ADDRESS: Upper Manatee River Road UMRR	CONTACT: Chelsea Williams
CITY/STATE: Bradenton FL	INQUIRY #: 6558351.11s
ZIP: 34212	DATE: 06/30/21

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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

A1 Target Property | **COPPERLEFE**
600 UPPER MANATEE RIVER RD
BRADENTON, FL 34212 | **FINDS** | **1023653479**
ECHO | **N/A**

Site 1 of 2 in cluster A

Actual: 9 ft.
Focus Map: 3

FINDS:
Registry ID: 110070064287

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 Target Property | **COPPERLEAF**
600 UPPER MANATEE RIVER RD
BRADENTON, FL | **NPDES** | **S121058048**
N/A

Site 2 of 2 in cluster A

Actual: 9 ft.
Focus Map: 3

WASTEWATER:

Name:	COPPERLEAF
Address:	600 UPPER MANATEE RIVER RD
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

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 **MANATEE CNTY UTILITIES LIFT STATION** **AST** **A100325597**
Target **1000 UPPER MANATEE RIVER RD** **N/A**
Property **BRADENTON, FL 34202**

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:

4 Target Property | **WAWA FOOD MARKET# 5258**
1405 UPPER MANATEE RIVER RD
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

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

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

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

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
Finaincial Responsibility:	INSURANCE
Insurance Company:	GREAT AMERICAN
Effective Date:	07/30/2014
Expire Date:	07/30/2019
Owner ID:	68130
Onwer 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 **MOORE PROPERTY** **LUST** **U003180884**
West **108 UPPER MANATEE RIVER RD NE** **UST** **N/A**
< 1/8 **BRADENTON, FL 34202**
0.019 mi.
98 ft.

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

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

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

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

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

Click here for Florida Oculus:

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6 SSW 1/8-1/4 0.164 mi. 864 ft. **WAWA FLORIDA LLC #5258** **RCRA-VSQG** **1024878692**
10807 SR 64 **FLR000227595**
BRADENTON, FL 34212

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

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 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA 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 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs 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

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

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

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

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7 **SPEEDWAY #6595** **UST** **U003798846**
SSE **11002 E HWY 64** **Financial Assurance** **N/A**
1/8-1/4 **BRADENTON, FL 34202**
0.181 mi.
956 ft.

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

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

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

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

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

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

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

Click here for Florida Oculus:

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
Finaincial 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
Onwer 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

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
Finaincial 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
Onwer 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
Finaincial 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
Onwer 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
Finaincial Responsibility:	SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC
Insurance Company:	Not reported
Effective Date:	04/30/2012
Expire Date:	04/30/2013

SPEEDWAY #6595 (Continued) **U003798846**

Owner ID:	71776
Onwer 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
Finaincial 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
Onwer 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
Finaincial Responsibility:	SURETY BOND
Insurance Company:	LIBERTY MUTUAL
Effective Date:	01/01/2017
Expire Date:	12/31/2019
Owner ID:	71776
Onwer 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

SPEEDWAY #6595 (Continued) **U003798846**

Facility Phone:	9417475976
Facility Status:	OPEN
Facility Type:	A
Type Description:	Retail Station
DEP CO:	P
Finaincial Responsibility:	SURETY BOND
Insurance Company:	LIBERTY MUTUAL
Effective Date:	11/01/2015
Expire Date:	12/31/2016
Owner ID:	71776
Onwer 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
Finaincial Responsibility:	SURETY BOND
Insurance Company:	TRAVELERS
Effective Date:	12/31/2014
Expire Date:	12/31/2015
Owner ID:	71776
Onwer 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

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8 **CAVALLI CREEK FARMS** **SWF/LF** **S121405588**
SE **758 GATES CREEK RD** **N/A**
1/8-1/4 **BRADENTON, FL 34212**
0.182 mi.
959 ft.

Actual:
6 ft.

Focus Map:
4

SWF/LF:

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

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

Click here for Florida Oculus:

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9 **CVS PHARMACY #7892** **RCRA-VSQG** **1014951862**
South **1520 LAKEWOOD RANCH BLVD** **FLR000191932**
1/8-1/4 **BRADENTON, FL 34208**
0.195 mi.
1031 ft.

Actual:
28 ft.

Focus Map:
5

RCRA-VSQG:

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

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 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA 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 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs 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:	2020-08-26 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

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

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-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-METHOXY-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

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

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

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

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

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.** **SWF/LF** **S113899903**
11903 UPPER MANATEE RIVER RD **N/A**
BRADENTON, FL 34212

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

PLAIN JANE, INC. (Continued) **S113899903**

Land Owner Telephone: Not reported

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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

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

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

DESOTO SPEEDWAY (Continued) **S104148960**

RA Actual Cost: Not reported

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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

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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
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

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
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

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.

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 know 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

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
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 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
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
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
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

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
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

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
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

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
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

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
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
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
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
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
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

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

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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/17/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/29/2021
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
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: 850-245-8250
Last EDR Contact: 06/15/2021
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
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 02/02/2021
Number of Days to Update: 5

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 04/21/2021
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
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 02/02/2021
Number of Days to Update: 5

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 04/21/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
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
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 02/02/2021
Number of Days to Update: 5

Source: Department of Environmental Protection
Telephone: 850-245-8841
Last EDR Contact: 04/21/2021
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
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

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
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

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
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

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

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
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/10/2021
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
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 58

Source: Department of Environmental Protection
Telephone: 850-245-8718
Last EDR Contact: 04/16/2021
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
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/22/2021
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
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2021
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
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
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.

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 Serivces, 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 Moffit 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

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
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: 202-564-6023
Last EDR Contact: 06/29/2021
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
Date Data Arrived at EDR: 03/24/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/17/2021
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
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environmental Protection
Telephone: 850-245-2010
Last EDR Contact: 06/29/2021
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
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/04/2013
Number of Days to Update: 60

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
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
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/06/2013
Number of Days to Update: 62

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
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.

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

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
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/30/2021
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
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
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
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2021
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
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/17/2021
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
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Annually

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
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: 703-416-0223
Last EDR Contact: 06/29/2021
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
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
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
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
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
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/29/2021
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
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

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
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/29/2021
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
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
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/27/2021
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
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/07/2021
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
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2021
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
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
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
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/27/2021
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.

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 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

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

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
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
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
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2021
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
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 05/18/2021
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
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
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
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/25/2021
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

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.

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.

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

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

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
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

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 Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
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 Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
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 Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
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
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/09/2021
Number of Days to Update: 78

Source: Alachua County Environmental Protection Department
Telephone: 352-264-6800
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Annually

BROWARD COUNTY:

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

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.

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

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

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

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

Manatee County
FLORIDA

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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 "2nd 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	2nd 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	2nd 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.

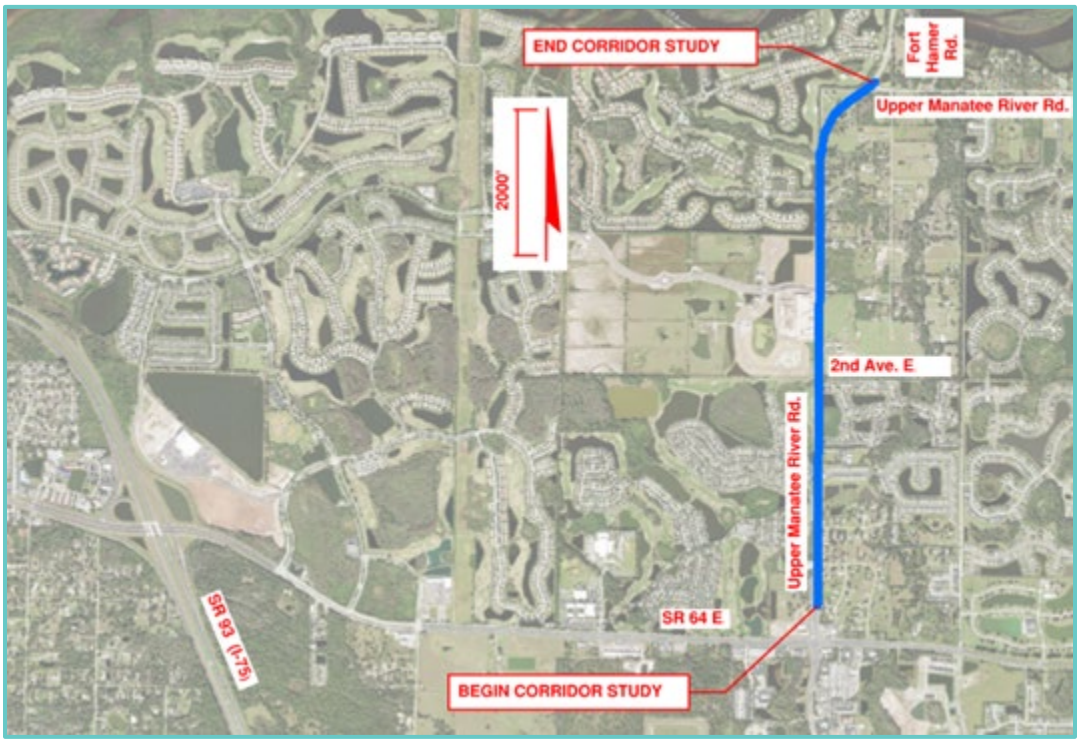
Drainage Maps are found in **Appendix A**. The study corridor is situated within two (2) watersheds and stormwater runoff basins. Basin 1 outfall to Gates Creek (WBID 1874) tributary to the Lower Manatee River Watershed. Basin 2 is direct outfall to the Lower Manatee River (above the Braden River) Watershed (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

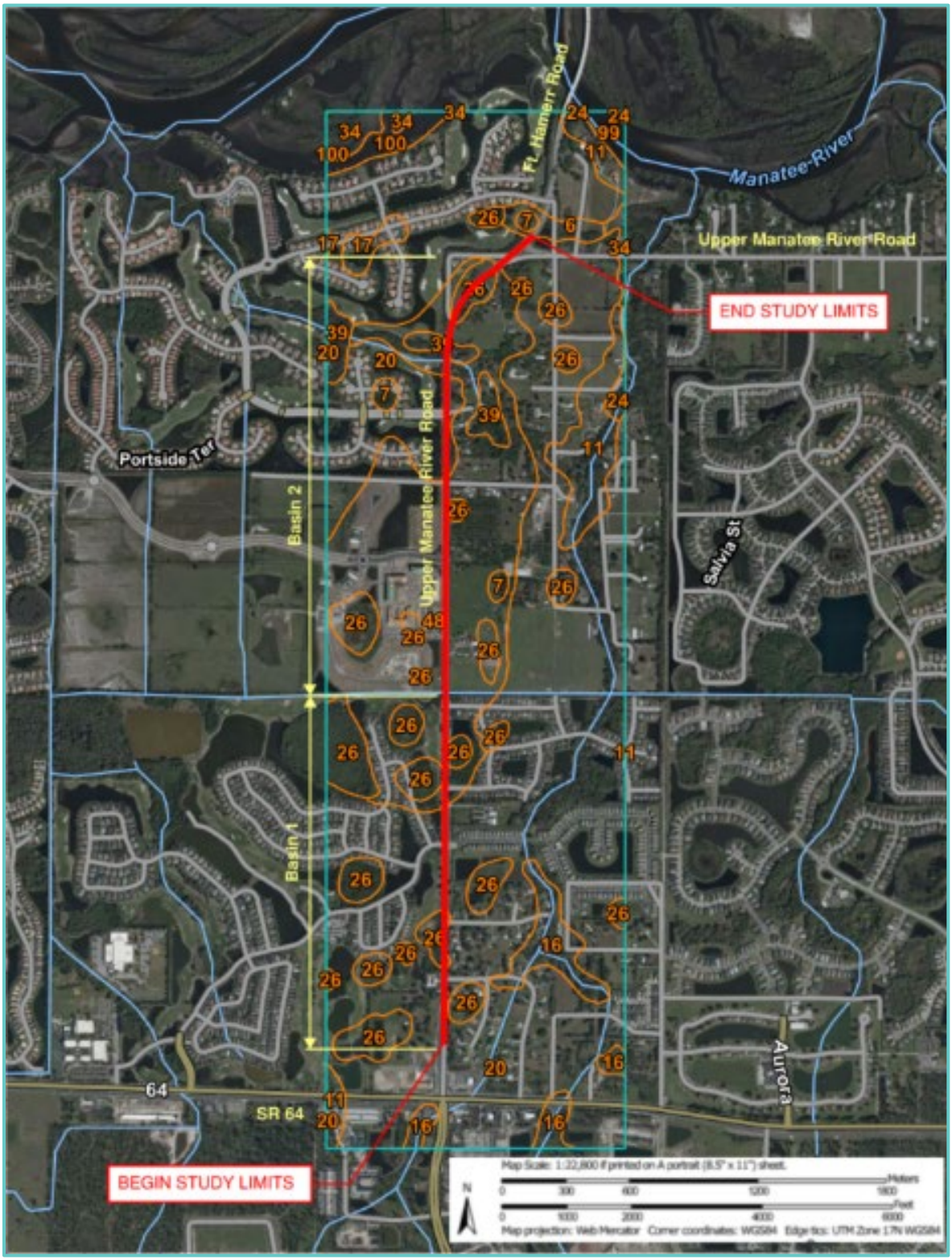


Table 3 | NRCS Hydrologic Soil Groups and SHGWT

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.

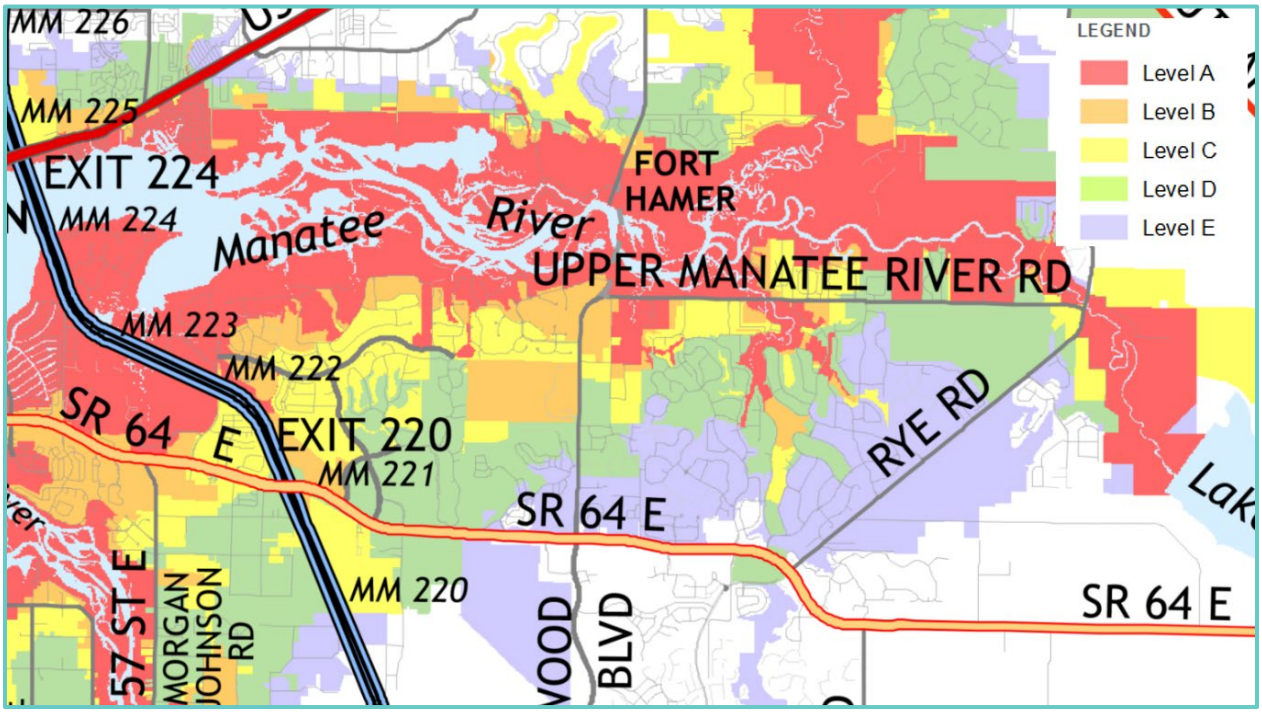
Category 2 (Evacuation Zone B): Potential surge inundation 14-feet could encroach Upper Manatee River Road from Fort Hamer Road south to Waterlefe Boulevard. The NHC Category 2 storm surge approximates FEMA FIRM Zone AE coverage.

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**
12081C0331E	4.5-miles south of SR 64	4.0-miles north of SR 64
12081C0195F	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 10th Avenue E. to 3rd Avenue NE. From north of 3rd 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 with120-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 2nd 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.

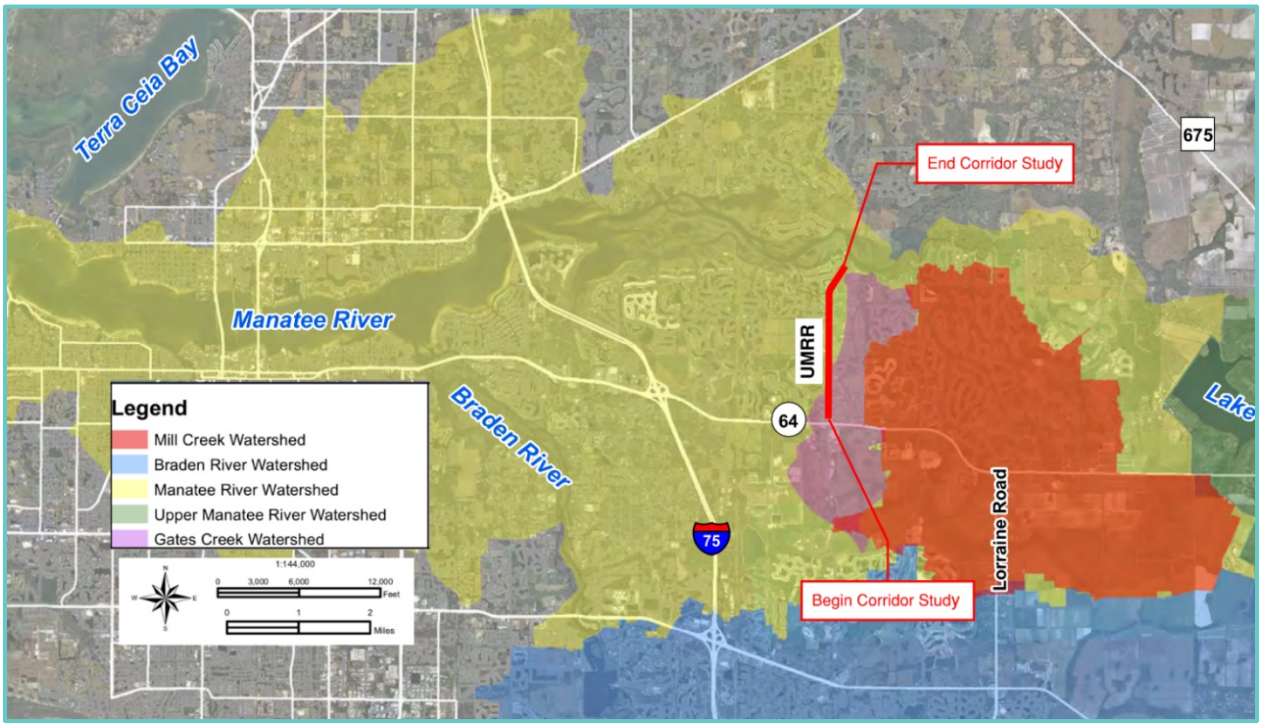
Manatee County Public Works noted the following drainage related maintenance issues along the Upper Manatee River Road corridor study limits, which should be investigated as part of the formal design phase:

- The east side of the corridor between SR 64 and 10th 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 3rd 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 2nd Avenue E. The Manatee River Watershed extends north from 2nd 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 2nd 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

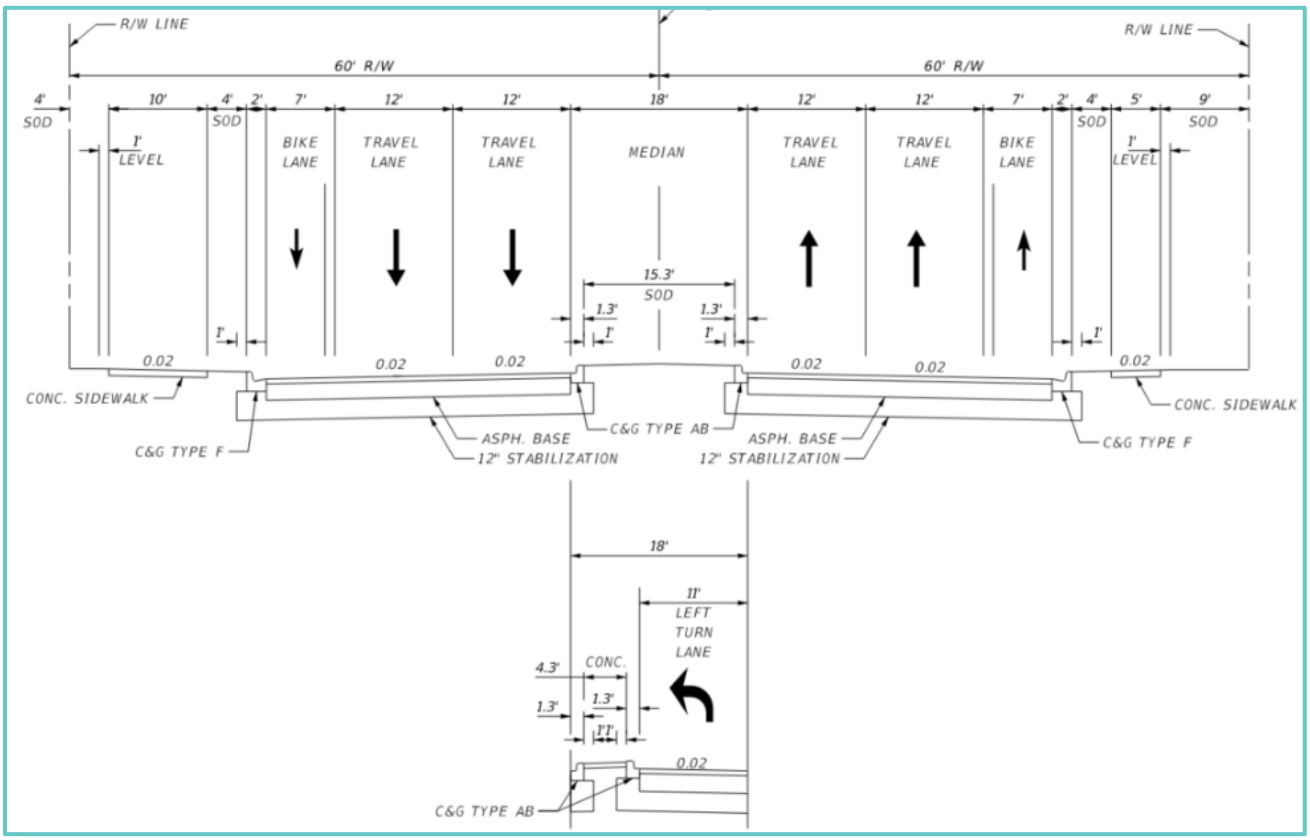
Permit Number	Project
43016872.061	SR 64 FDOT Pond Revision (Copperlefe)
43016872.071	FDOT SR 64 (E. of Lena Road to E. of Lakewood Ranch Blvd.
43071721.000 /003	Copperlefe
43041721.000	MI Homes
430220025.020	Brixley – Manatee Warner Crossing, LLC
43041367.000	Fort Hamer Bridge
4413882.000	Gates Creek Subdivision

434265.02 / 03 / 04	Green Field Plantation
43027367.020	Moors Dairy Subdivision, Phase 1 and Boulevard
Exemption 673045	Upper Manatee River Road Improvements
Exemption 691024	Upper Manatee River Road Improvements
43011197.002	Upper Manatee River Road (Permit Withdrawn)
43011706.000	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 2nd 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 2nd 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-feet 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
Water Quality, Wet Detention	SWFWMD Applicant's Handbook Vol. II, Part IV, Section 4.1a.	SWFWMD wet detention water quality one inch of runoff from the contributing area.
Water Quality Conservation Pool	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.
Water Quantity, Rate Control	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).
Pond Geometry	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
Water Quality, Wet Detention	SWFWMD Applicant's Handbook Vol. II, Part IV, Section 4.1a.	SWFWMD wet detention water quality one inch of runoff from the contributing area.
Water Quality Conservation Pool	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.
Water Quantity, Rate Control	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).
Pond Geometry	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 2nd 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:

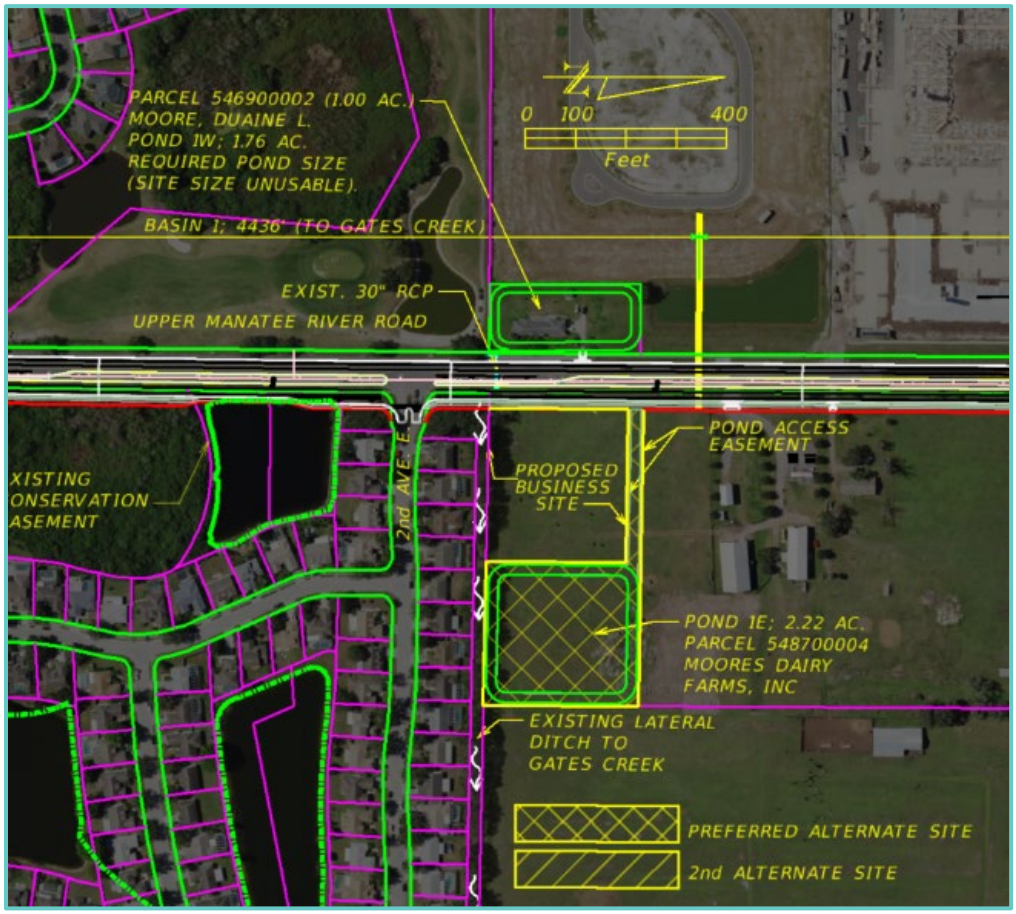
- This parcel was evaluated an occupied residence under single ownership.
- The parcel is located immediately across from the existing lateral ditch outfall to Gates Creek. Consequently, a wet detention pond on this site is located at the low point of the basin and offers adequate feasibility for without 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 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-feet 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, <u>Pond Site 1E is ranked as the only feasible pond site for this basin.</u>

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 2nd 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 hydraulicly 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-feet 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 hydraulicly 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.

<u>Pond Site 2E2 is ranked as the 2nd Alternate</u> 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

No.	REVISIONS	DATE	BY

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

Manatee County FLORIDA
MANATEE COUNTY
PUBLIC WORKS

DESIGN ENGINEER: JUAN C. LOPEZ
FL. LICENSE NO. 41084

DRAINAGE MAP
UPPER MANATEE RIVER ROAD

SHEET NO. 1 OF 2

7:55:12 PM 10/14/2021 PW:\

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

No.	REVISIONS	DATE	BY

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

Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER: JUAN C. LOPEZ
FL. LICENSE NO. 41084

DRAINAGE MAP LORRAINE ROAD

SHEET NO. 2 OF 2

7:58:06 PM 10/14/2021 PW:\

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Appendix B – Preliminary Pond Site Sizing Analysis

Job No.	No.

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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
Impervious SW	109+57.00	153+93.00	4436.00	12.00	1.22	to 580' N of 2nd Ave E.
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
Impervious					0.00	to 580' N of 2nd Ave E.
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	

Job No.	No.

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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)

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 =	8.72	in	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	1.32	in	*FDOT Drainage Design Guide Section 2.2.4.2*
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	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	0.32	in	*FDOT Drainage Design Guide Section 2.2.4.2*
25-year, 24-hour runoff =	8.35	in	
25-year, 24-hour runoff volume=	9.90	ac-ft	

Job No.	No.

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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)

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 = 1.10 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

	Impervious	0.95 x	12.22 Ac =	11.61
Rational C:	Pond Surf.	1.00 x	1.03 Ac =	1.03
	Pervious	0.35 x	.98 Ac =	0.34
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

y 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

Job No.	No.

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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)

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 Hydrailic 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
Impervious SW	109+57.00	153+93.00	4436.00	12.00	1.22	to 580' N of 2nd Ave E.
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
Impervious					0.00	to 580' N of 2nd Ave E.
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	

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)

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	

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)

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

	Impervious	0.95 x	12.22 Ac =	11.61
Rational C:	Pond Surf.	1.00 x	1.01 Ac =	1.01
	Pervious	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

y 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

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)

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 Hydrailic 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.

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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. 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.
Impervious SW	153+93.00	208+88.00	5495.00	5.00	0.63	to Ft Hamer Rd.
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.
Impervious					0.00	to Ft Hamer Rd.
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	

Job No.	No.

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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. 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 =	8.72	in	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	1.60	in	*FDOT Drainage Design Guide Section 2.2.4.2*
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	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	0.31	in	*FDOT Drainage Design Guide Section 2.2.4.2*
25-year, 24-hour runoff =	8.36	in	
25-year, 24-hour runoff volume=	12.27	ac-ft	

Job No.	No.

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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. 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 = Basin Area x 1 in x (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

	Impervious	0.95 x	15.14 Ac =	14.38
Rational C:	Pond Surf.	1.00 x	1.36 Ac =	1.36
	Pervious	0.35 x	1.11 Ac =	0.39
Drainage Project Area (A) =			17.61 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

y 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

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Pond 2E1 ConservPool

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 Hydrailic 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:

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Pond 2E2 ConservPool

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.
Impervious SW	153+93.00	208+88.00	5495.00	5.00	0.63	to Ft Hamer Rd.
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.
Impervious					0.00	to Ft Hamer Rd.
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	

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Pond 2E2 ConservPool

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 =	8.72	in	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	1.60	in	*FDOT Drainage Design Guide Section 2.2.4.2*
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	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	0.31	in	*FDOT Drainage Design Guide Section 2.2.4.2*
25-year, 24-hour runoff =	8.36	in	
25-year, 24-hour runoff volume=	12.27	ac-ft	

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Pond 2E2 ConservPool

HDR Computation

Project	Manatee County Corridors Analysis	Computed	PEH	Date	9/23/2021
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Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Pond 2E2 ConservPool

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Critical Low EOP Stage =	10.42	ft (NAVD-88))	
Hydraulic Length (ft) =	1,337.5	>1280 hydraulic length	

Notes:

Appendix C – FEMA FIRM and FIS Flood Profile Panels

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, N/NGS12
National Geodetic Survey
SSMC-3, #9202
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/.

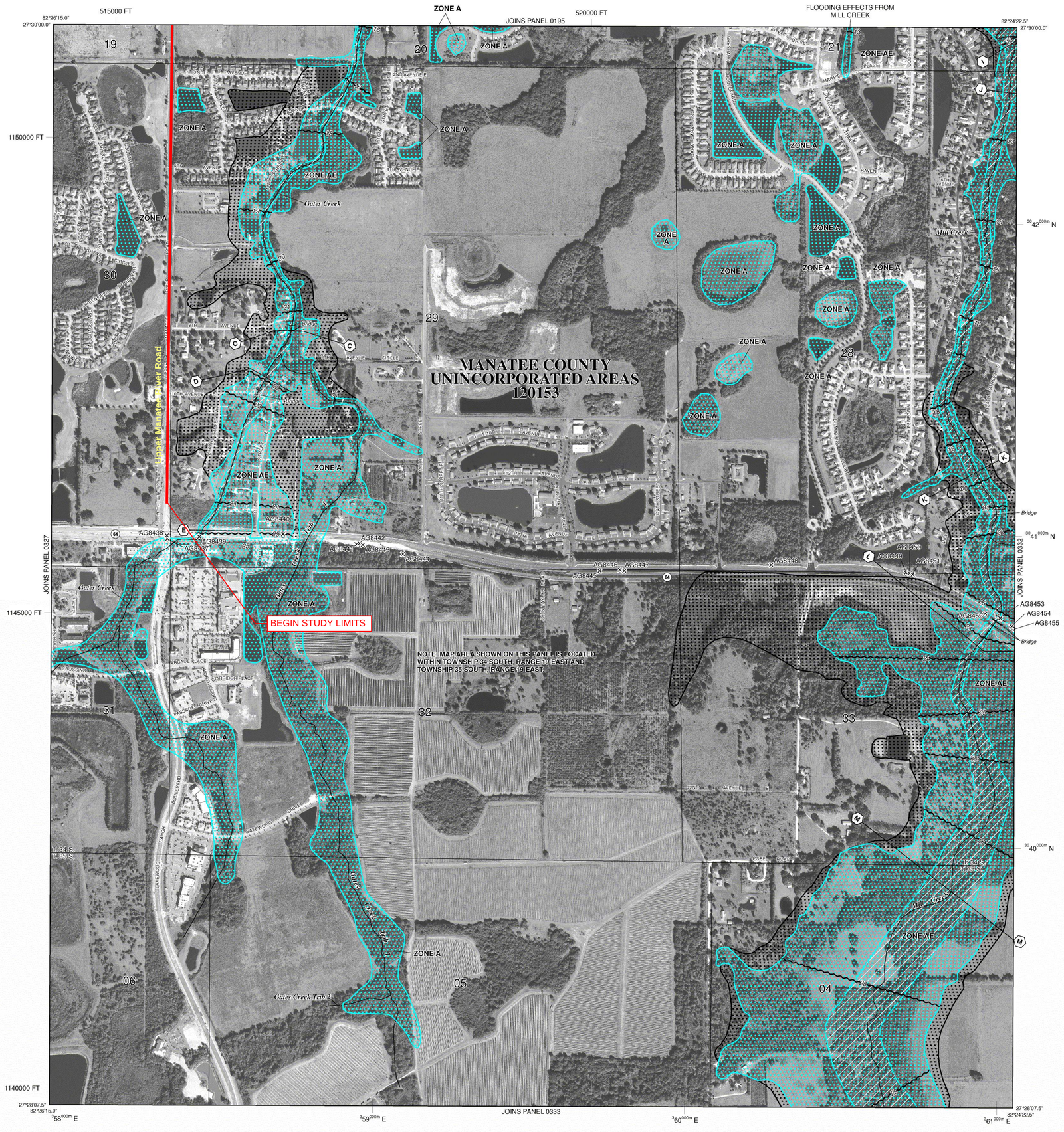
Base map orthophotography was obtained from Southwest Florida Water Management District (SWFWMD) from one-foot resolution digital orthoimagery flown in 2008 and 2009. Vector base map data was provided by Manatee County and SWFWMD. Vector information was compiled in 2003 – 2009 by Manatee County GIS department.

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 (1-877-336-2627) 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.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid ticks, zone 17
6000000 FT	5000-foot grid ticks: Florida State Plane coordinate system, west zone (FIPSZONE 0902), Transverse Mercator
DX5510	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	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.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

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:

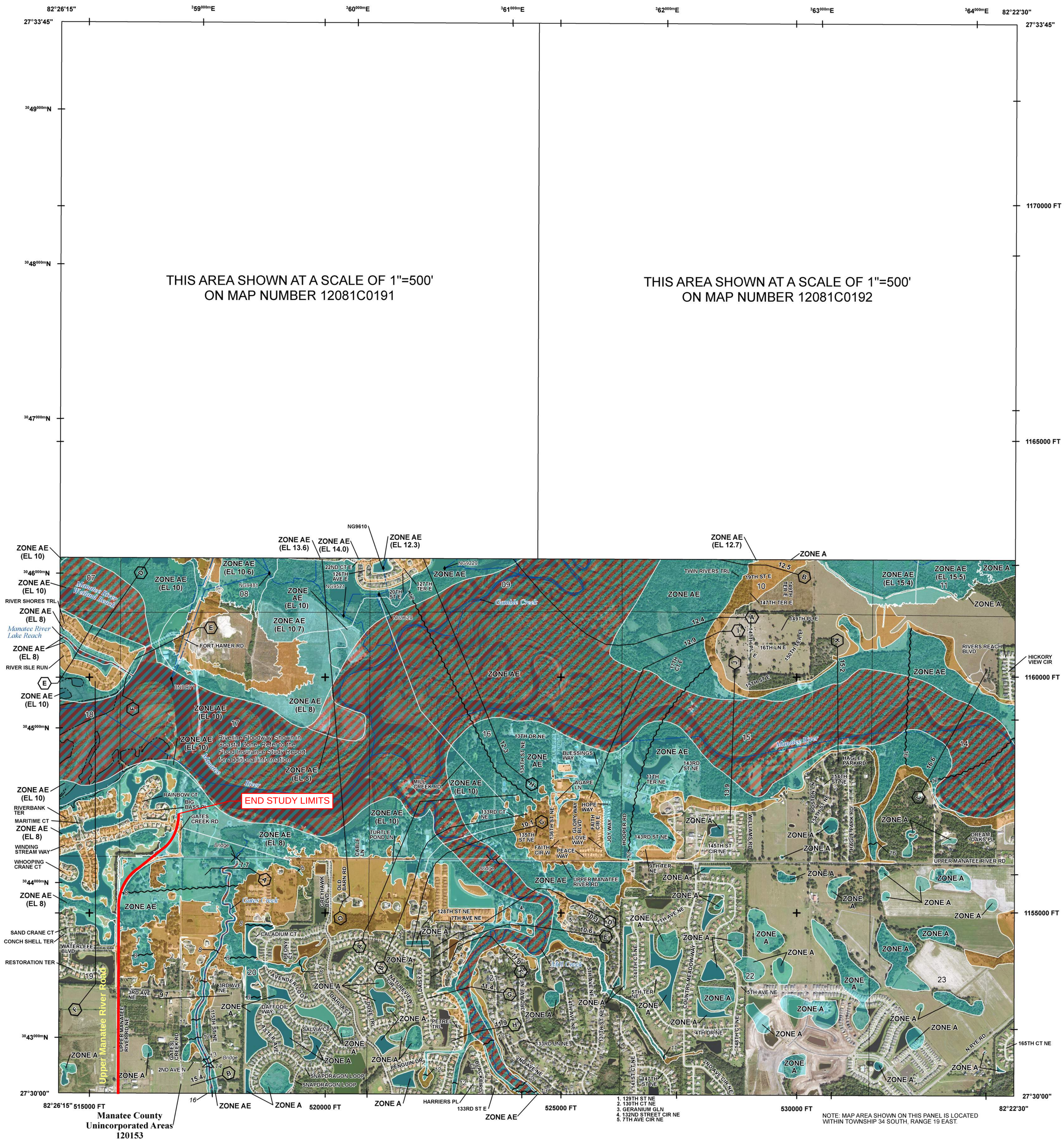
COMMUNITY	NUMBER	PANEL	SUFFIX
MANATEE COUNTY	120153	0331	E

Notice 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

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	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*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
	E 18.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
OTHER FEATURES	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 (1-877-336-2627) 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

N

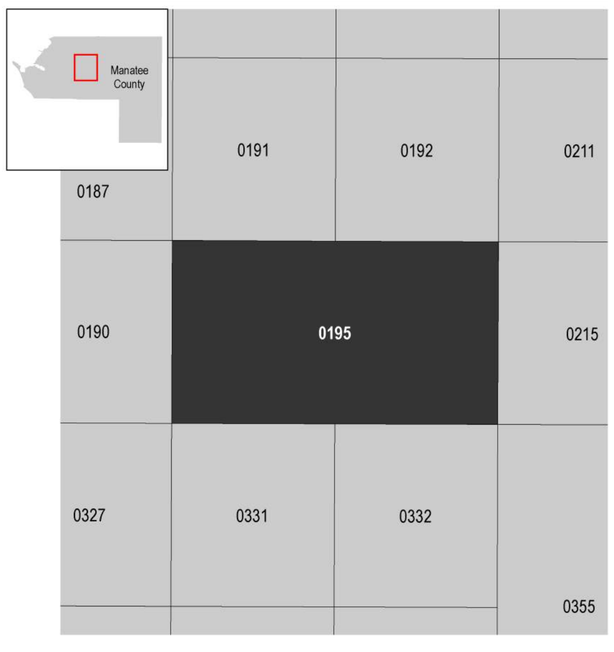
Map Projection:
State Plane Transverse Mercator, Florida West Zone 0902; North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 feet

0 250 500 1,000 meters

PANEL LOCATOR



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

MANATEE COUNTY, FLORIDA
and Incorporated Areas

PANEL **195** OF **575**

FEMA

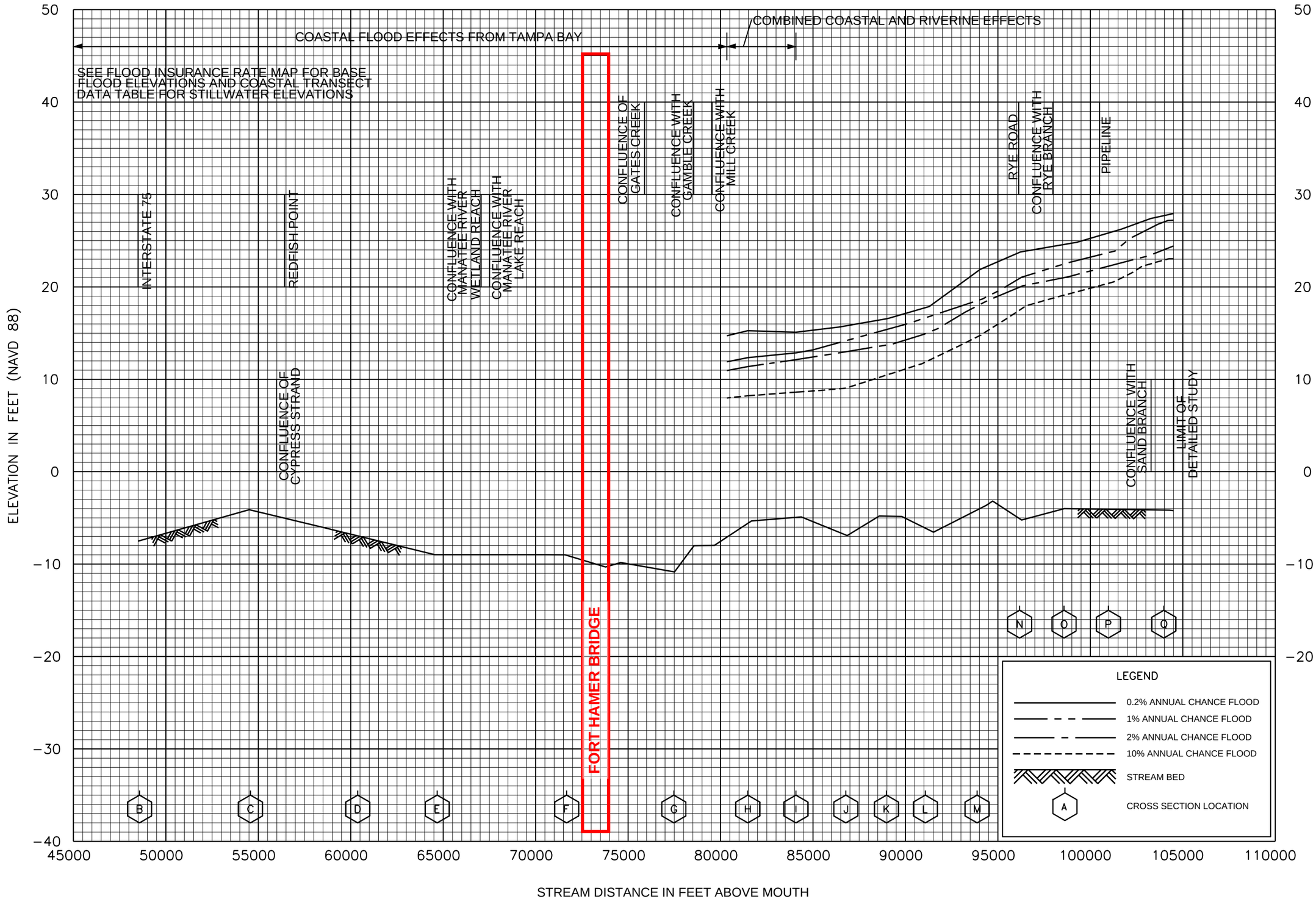
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MANATEE COUNTY	120153	0195	F

VERSION NUMBER
2.4.3.2

MAP NUMBER
12081C0195F

MAP REVISED
AUGUST 10, 2021



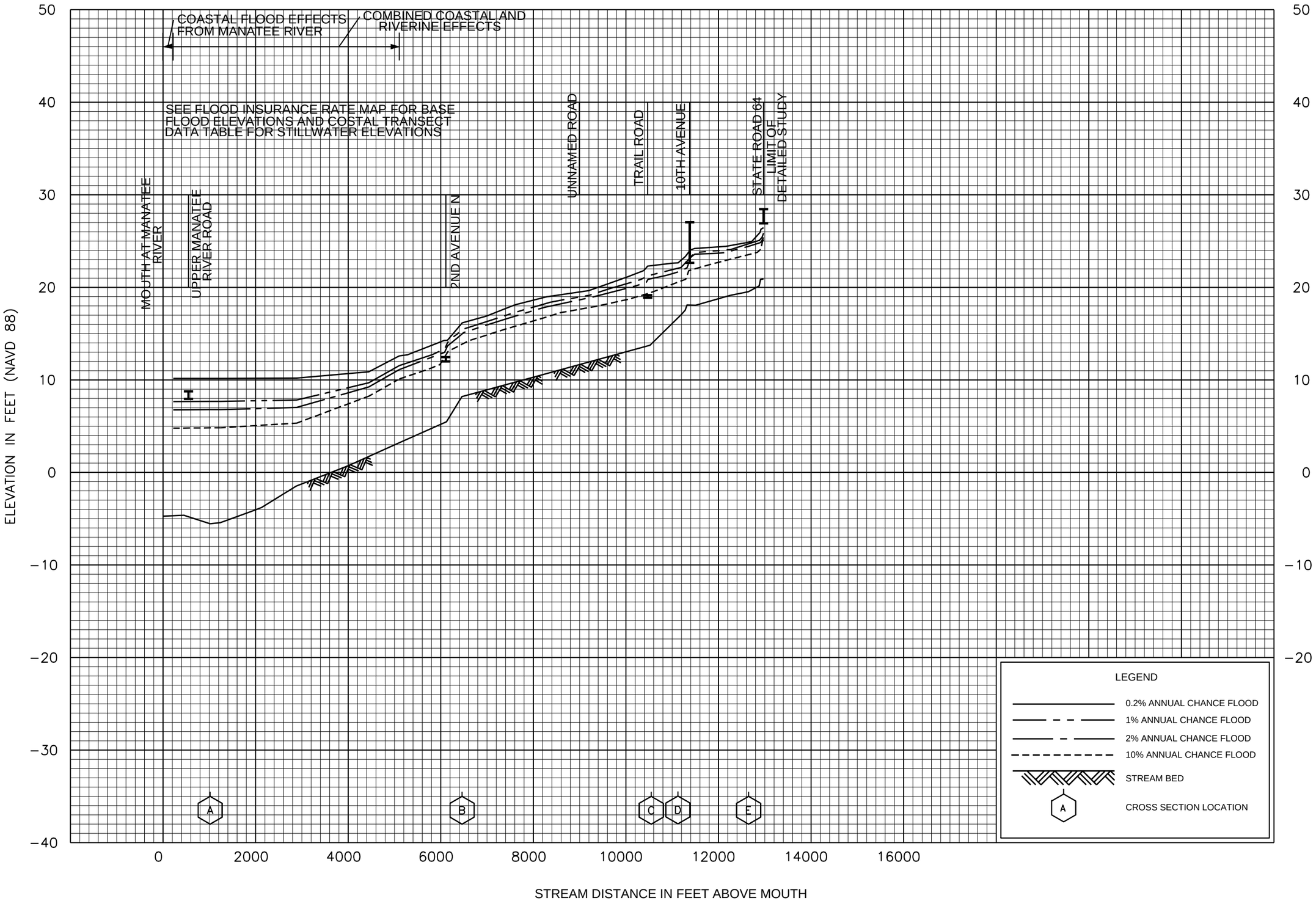
FLOOD PROFILES

MANATEE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

MANATEE COUNTY, FL

AND INCORPORATED AREAS



FLOOD PROFILES

GATES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MANATEE COUNTY, FL

AND INCORPORATED AREAS

Appendix D – Corpscon6 Datum Conversion

26 August 2021

INPUT	OUTPUT
State Plane, NAD83	State Plane, NAD83
0902 - Florida West, U.S. Feet	0902 - Florida West, U.S. Feet
Vertical - NGVD29 (Vertcon94), U.S. Feet	Vertical - NAVD88, U.S. Feet

Lorraine-UMRR

1/1

Northing/Y:	1129570	**Northing/Y:**	1129570.000
Easting/X:	527970	**Easting/X:**	527970.000
Elevation/Z:	10	**Elevation/Z:**	9.052
Convergence:	-0 10 55.72545	**Convergence:**	-0 10 55.72545
Scale Factor:	0.999960016	**Scale Factor:**	0.999960016
Combined Factor:	0.999963385	**Combined Factor:**	0.999963430

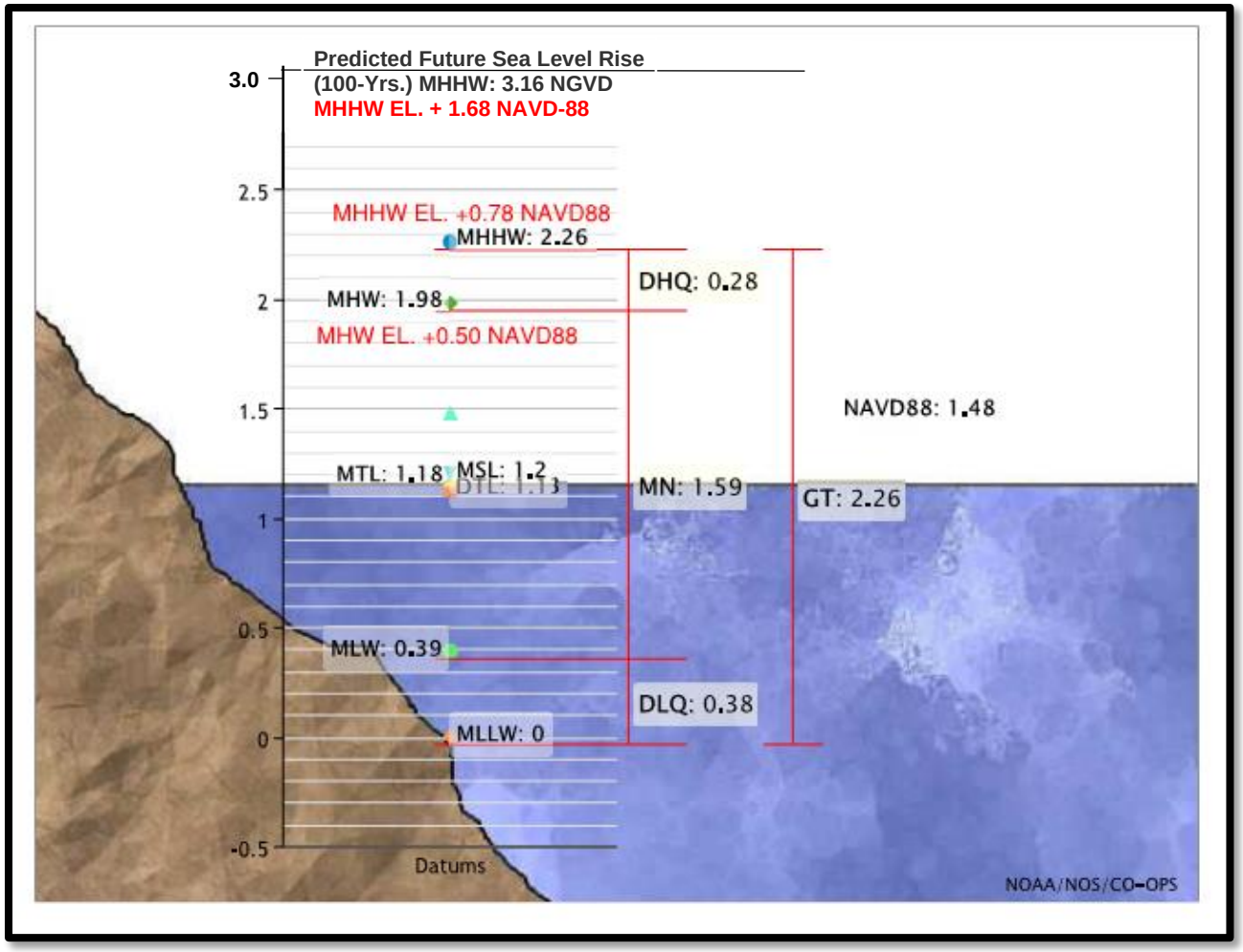
Grid Shift (U.S. ft.): X/Easting = 0.0, Y/Northing = 0.0

Remark:

Appendix E – Sea Level Rise Tidal Datum

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

Manatee County
FLORIDA

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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.

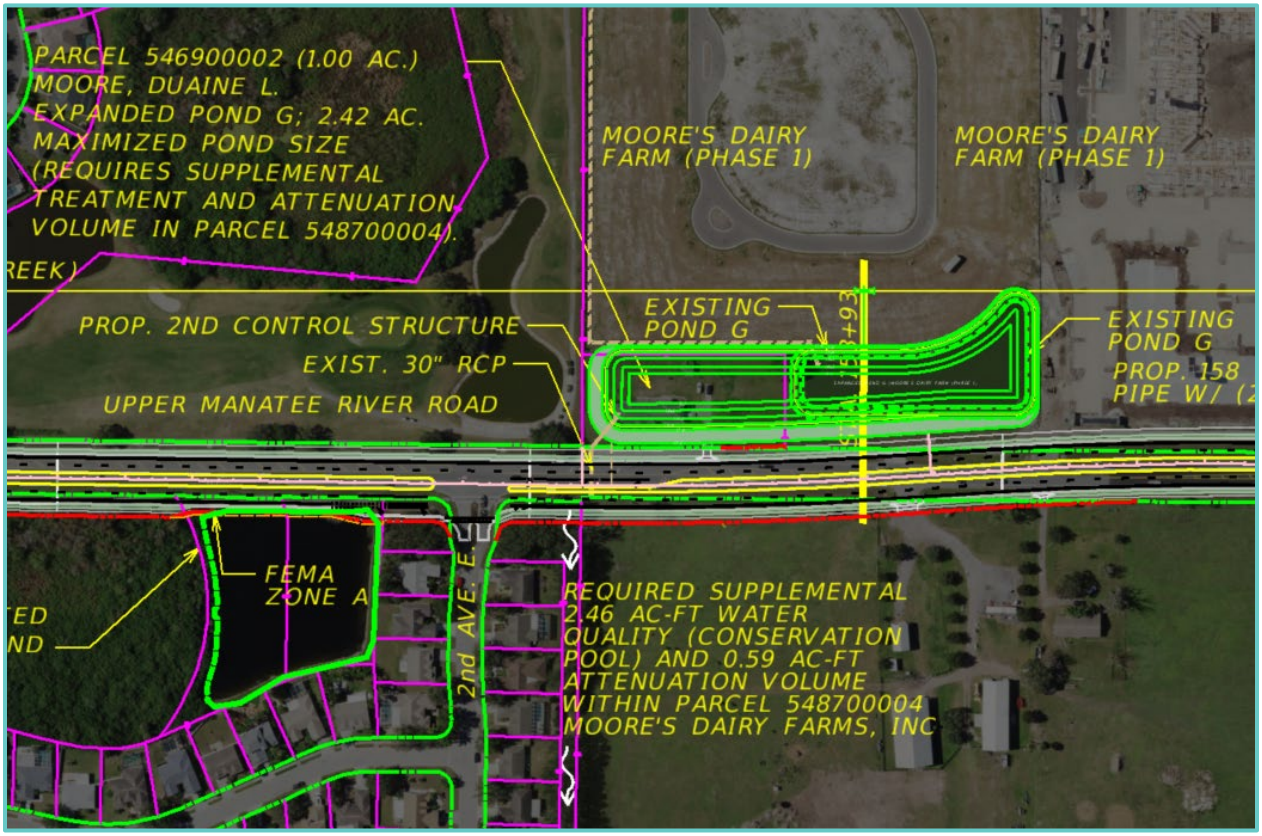
Alternative Pond Site 1W was reconsidered as a viable option with the expansion of Moore's Dairy Farm Phase I Pond G. The intention is to expand this pond site into the adjacent Upper Manatee River Road proposed right of way and into the considerations for Pond Site 1W from the initial memo.

Moore's Dairy Farm Phase I Pond G was analyzed for a joint use expansion into Parcel 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. 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

No.	REVISIONS	DATE	BY

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

Manatee County FLORIDA
MANATEE COUNTY
PUBLIC WORKS

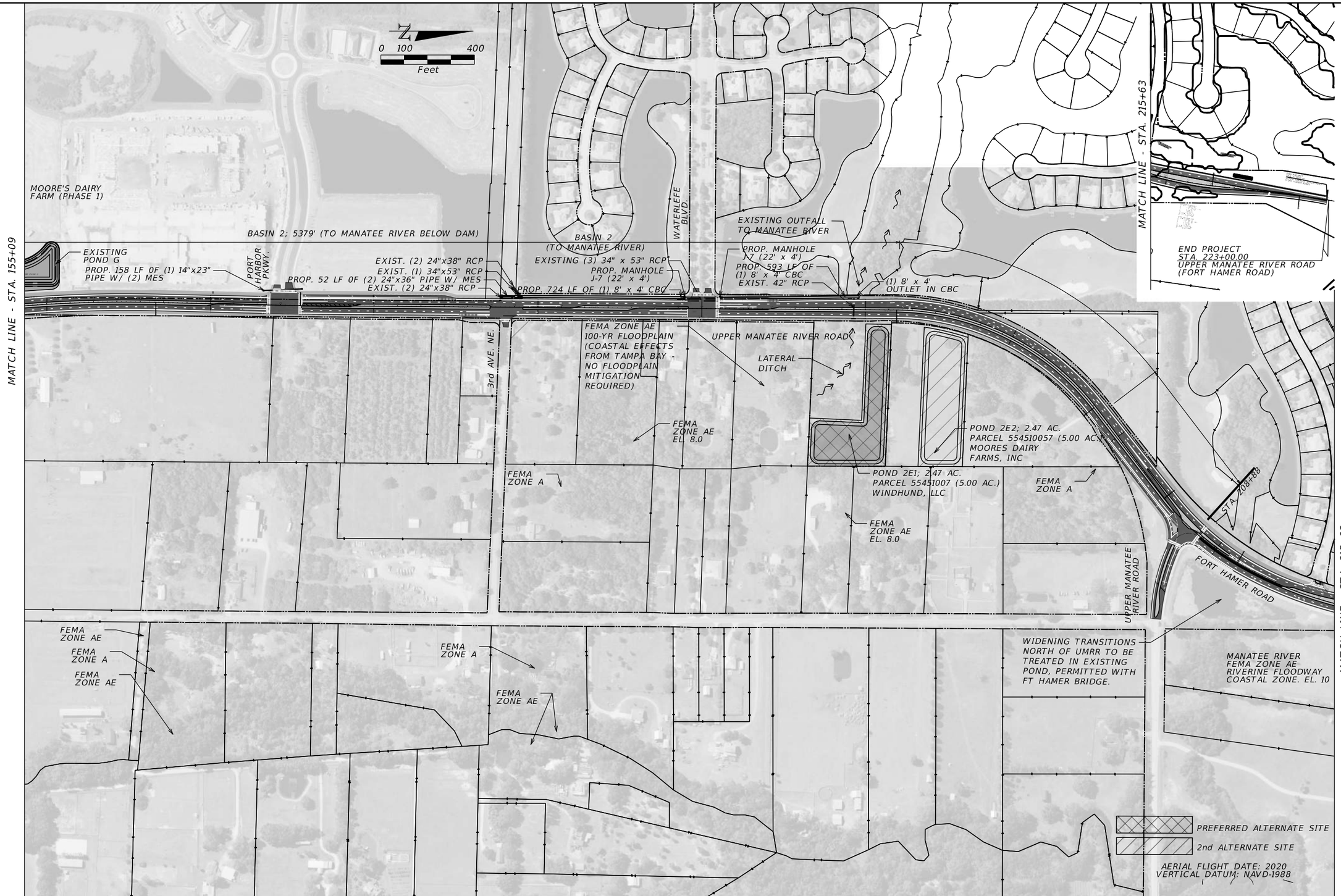
DESIGN ENGINEER: JUAN C. LOPEZ
FL. LICENSE NO. 41084

DRAINAGE MAP
UPPER MANATEE RIVER ROAD

SHEET NO. 1 OF 2

11:18:49 AM 12/9/2021 PW:\

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



No.	REVISIONS	DATE	BY

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

Manatee County FLORIDA
MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER JUAN C. LOPEZ
FL. LICENSE NO. 41084

DRAINAGE MAP UPPER MANATEE RIVER ROAD

SHEET NO. 2 OF 2

11:03:26 AM 12/9/2021 PW:\

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Appendix B – Preliminary Pond Site Sizing Analysis

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Ponds G Joint Use

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
Impervious SW	109+57.00	133+00.00	2343.00	12.00	0.65	to 580' N of 2nd Ave E.
Open Space (Good)	109+57.00	133+00.00	2343.00	55.20	2.97	
Open Space (Good)					11.51	Moore's Dairy Farm Phase I
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	

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Ponds G Joint Use

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 =	8.72	in	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	2.04	in	*FDOT Drainage Design Guide Section 2.2.4.2*
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	*SWFWMD Figure D-5 / NOAA Atlas 14*
Soil Storage, S =	0.62	in	*FDOT Drainage Design Guide Section 2.2.4.2*
25-year, 24-hour runoff =	8.02	in	
25-year, 24-hour runoff volume=	13.62	ac-ft	

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Ponds G Joint Use

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 = Basin Area x 1 in x (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

	Impervious	0.95 x	14.64 Ac =	13.91
Rational C:	Pond Surf.	1.00 x	1.26 Ac =	1.26
	Pervious	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

y 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

Job No.	No.

c:\pwworking\east01\d2261992\[UMRR Preliminary Pond Sizing.xlsx]Ponds G Joint Use

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**	1

Basin Hydrailic 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	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
Impervious SW	133+00.00	153+93.00	2093.00	12.00	0.58	to 580' N of 2nd Ave E.
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
Impervious					0.00	to 580' N of 2nd Ave E.
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	

Job No.		No.	

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	

Job No.	No.

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 = Basin Area x 1 in x (1 /12)

TV = 0.54 ac-ft

Required Attenuation Volume

Required attenuation volume = proposed 25-year, 24-hour runoff - existing 25-year, 24-hour runoff

Required attenuation volume = 0.59 ac-ft

Required Pond Volume

Required pond volume = (Above Control Elevation)

Required pond volume = 0.59 ac-ft

Addl. Volume to expand conservation Pool = 0.85 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

	Impervious	0.95 x	5.77 Ac =	5.48
Rational C:	Pond Surf.	1.00 x	.53 Ac =	0.53
	Pervious	0.35 x	.73 Ac =	0.26
Drainage Project Area (A) =			7.03 Ac	
			CA =	6.26
			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

y residence volume VR = (A) *(C)* (P/W)* (R) *(1-ft / 12-in)

14-day residence volume VR = 1.92 Ac-Ft

equired 21-day residence volume VR = (A) * 1.5 * (0.667-inch) * (1-ft / 12-in)

Minimum required 21-day residence volume VR = .59 Ac-Ft

REQUIRED 21-DAY RESIDENCE VOLUME = 1.92 Ac-Ft

Job No.		No.	

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 Hydrailic 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:

Appendix G – Utilities Memo

Utilities

Technical Memorandum

Upper Manatee River Road

Project Development and Corridor Study Report

September 2021

Manatee County
FLORIDA

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1.1 Project Description 3

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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 overlayed with the proposed 500-foot roadway buffer zone is presented below in **Figure 1-2**.

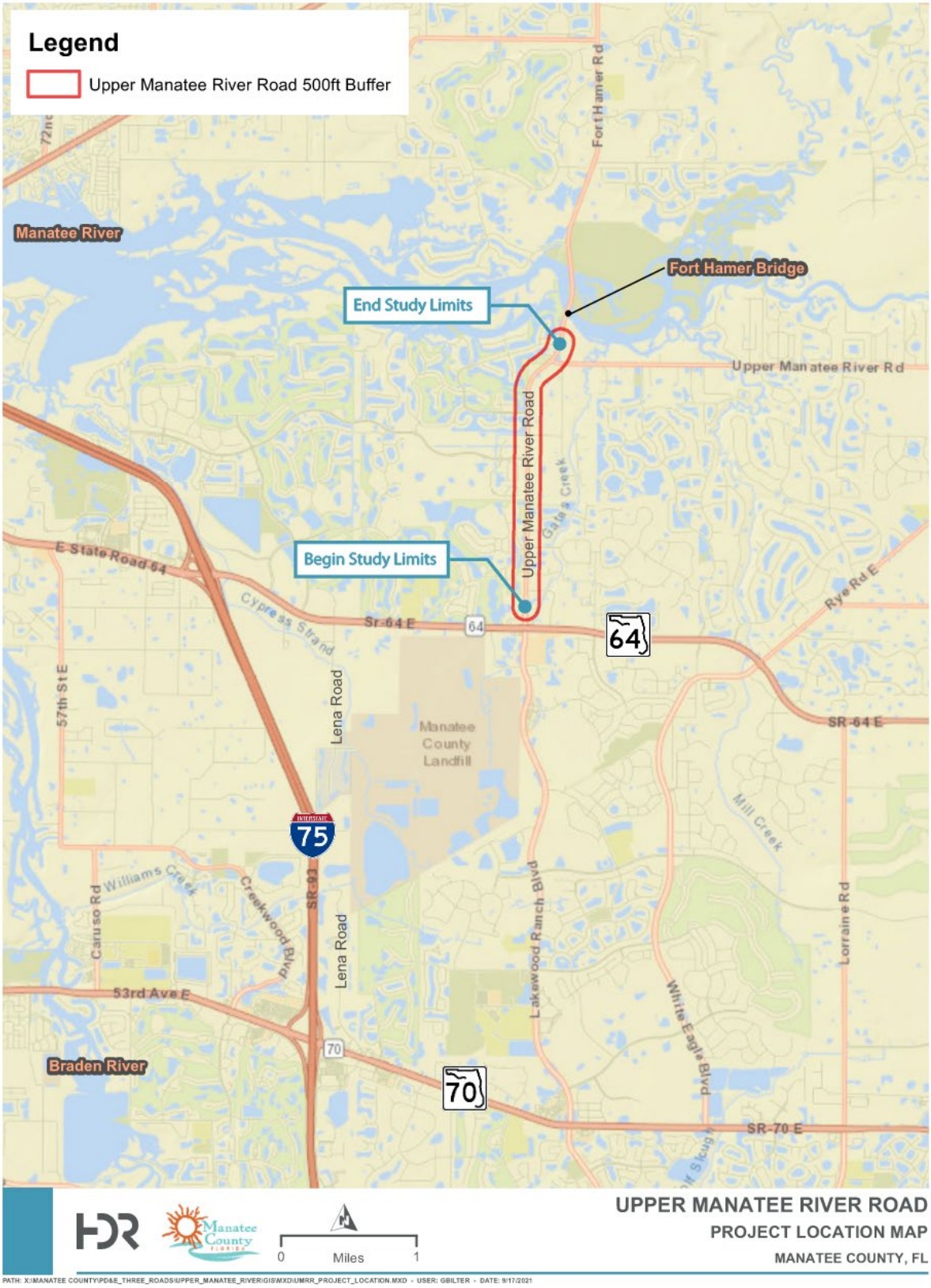


Figure 1-1 | Project Location Map

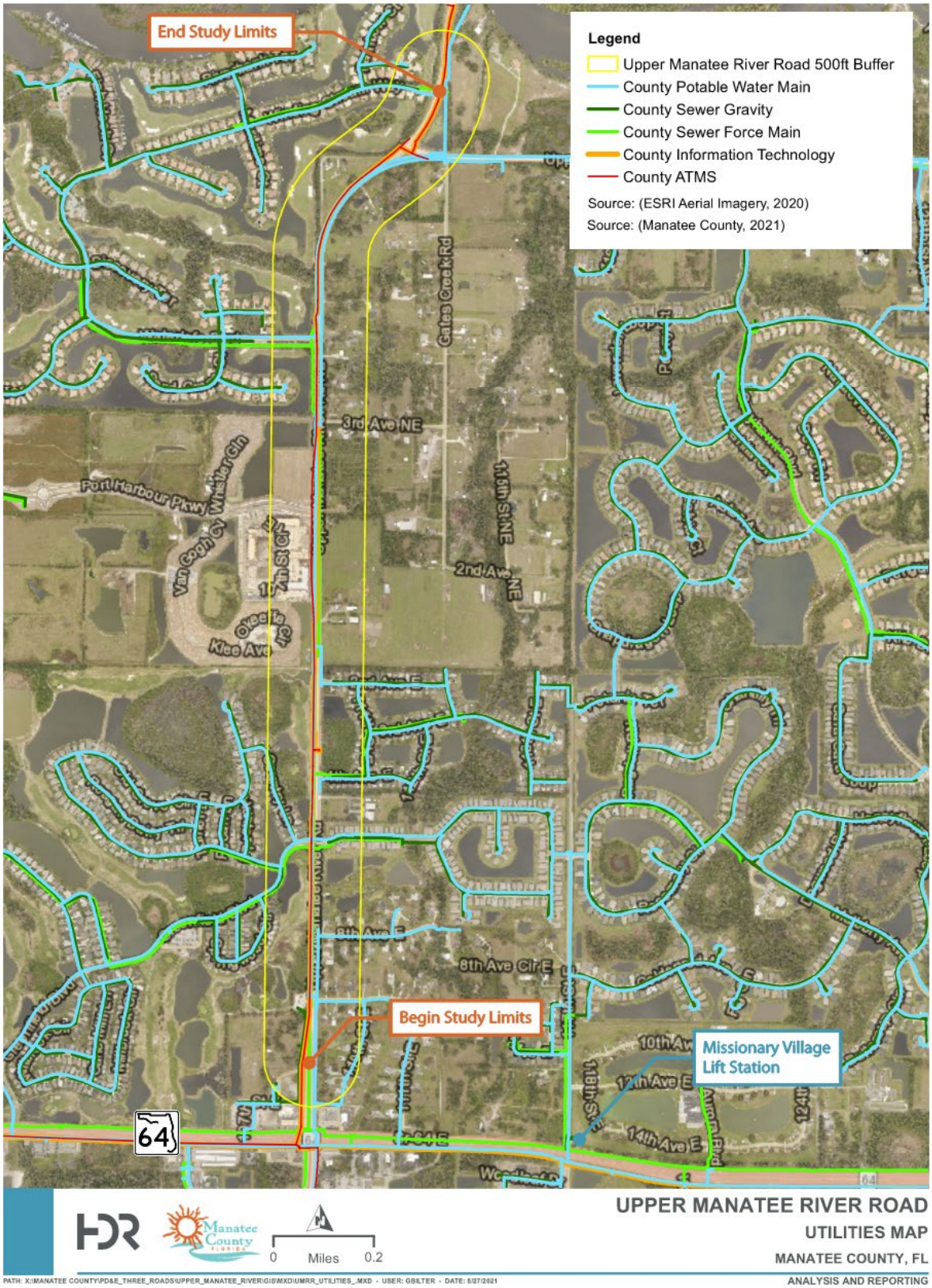


Figure 1-2 | Utilities Map

Appendices

Appendix A – Utility Information Table

	Sewer/Sanitary
	Potable
	Reclaimed

Utility ID # - Correponds 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 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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=025	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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 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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10651529&pageId=012	
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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=011	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653428&pageId=001	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653180&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=003	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 HAMER ROAD - WATER MAIN CROSSING - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	8035

Utility ID # - Correponds 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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650525&pageId=002	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=15485944&pageId=002	6239
Utility ID 45	County Force Main, Sewer	Manatee County	848	SPM007371	9/22/2017	4	PVC		COPPERLEFE - COPPERLEFE (06516) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=15485944&pageId=002	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10651529&pageId=021	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=16533041&pageId=013	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=16533041&pageId=013	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=16533041&pageId=013	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=16533041&pageId=013	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=16533041&pageId=013	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=010	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=017	27010
Utility ID 75	County Main Line, Water	Manatee County	686	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=018	74135
Utility ID 77	County Main Line, Water	Manatee County	510	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=019	74134
Utility ID 78	County Main Line, Water	Manatee County	217	WPM000683	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=020	74133
Utility ID 86	County Main Line, Water	Manatee County	481	WPM013526	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=021	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=020	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=020	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=014	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=016	74136

Utility ID # - Correponds 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 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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=015	74195
Utility ID 65	County Main Line, Water	Manatee County	272	WPM000443	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=016	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=011	74138
Utility ID 38	County Main Line, Water	Manatee County	612	WPM012831	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=012	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=013	74193
Utility ID 39	County Main Line, Water	Manatee County	77	WPM012831	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=011	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=025	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=020	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=021	37720
Utility ID 94	County Main Line, Water	Manatee County	555	WPM000756	12/4/1995	42	UNK	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=022	27249
Utility ID 106	County Main Line, Water	Manatee County	554	WPM000219	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=024	26204
Utility ID 108	County Main Line, Water	Manatee County	171	WPM000219	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=025	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=023	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=009	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=025	21492
Utility ID 116	County Main Line, Water	Manatee County	444	WPM012497	12/4/1995	42	PVC		42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=026	74198
Utility ID 112	County Main Line, Water	Manatee County	148	WPM027201	12/4/1995	42	UNK	42-inchUNK Water Main travels due East underneath the East bound UMRR pavement.	42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=025	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=008	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=008	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	66876

Utility ID # - Correponds 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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=008	66875
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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=008	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=15485944&pageId=002	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=011	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650026&pageId=011	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653428&pageId=001	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653428&pageId=001	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653428&pageId=001	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=009	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650525&pageId=002	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=008	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	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 TRANSMISSTION MAIN PHASE I - WTP TO SR64 - 42 WATER TRANSMISSTION MAIN PHASE I - WTP TO SR64 - UPPER MANATEE RIVER ROAD - PHASE I (01783) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653090&pageId=020	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=15485944&pageId=002	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	26707

Utility ID # - Correponds to UMRR Utility Identification Sheets

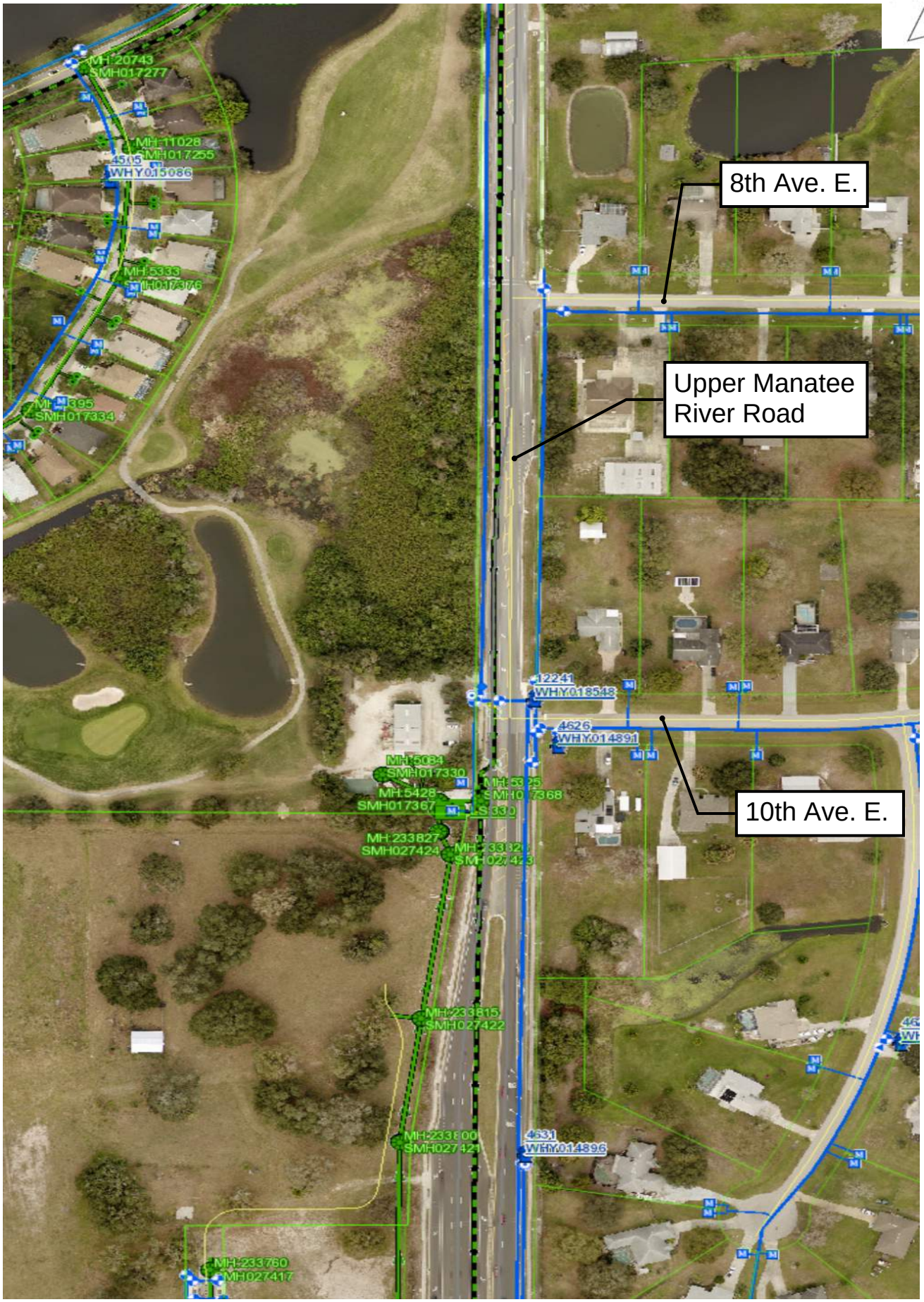
UMRR Road Utilities

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&docid=10653180&pageId=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&docid=10653180&pageId=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&docid=10653419&pageId=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&docid=10653419&pageId=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&docid=10653180&pageId=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&docid=10653180&pageId=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&docid=10650644&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10650667&pageId=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&docid=10650667&pageId=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&docid=10650667&pageId=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&docid=10650667&pageId=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&docid=10650667&pageId=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&docid=10650644&pageId=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&docid=10650667&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10653420&pageId=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&docid=10650644&pageId=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&docid=10650644&pageId=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&docid=10650644&pageId=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&docid=10653420&pageId=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

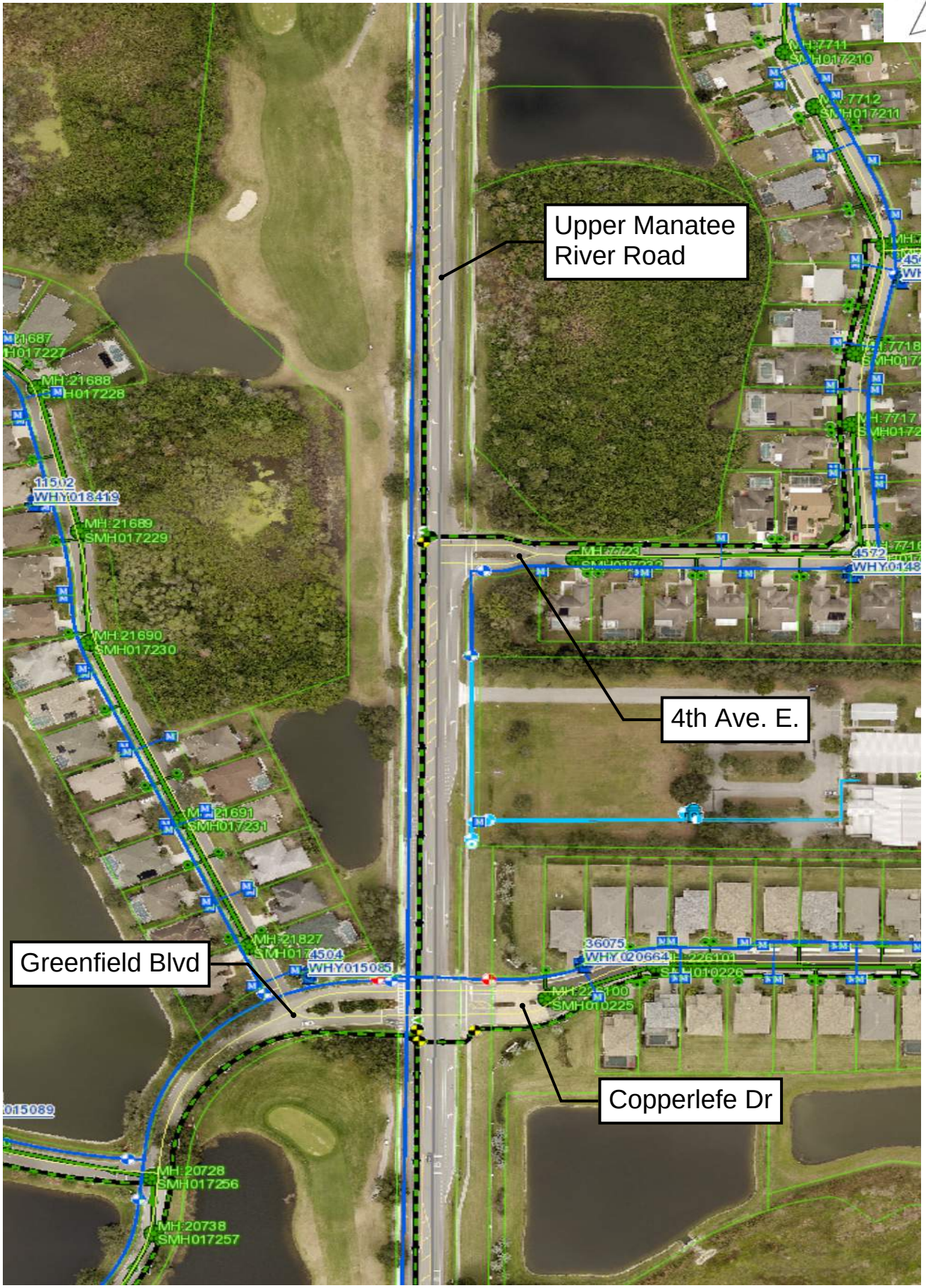
Utility ID # - Correponds to UMRR Utility Identification Sheets	UMRR Road Utilities										
Utility ID (Detail Map)	Description	Owner	GIS Length (ft)	Asset_ID	Install Date	Diameter (inches)	Material	Location: Parallel / Crossing	Record Drawing Name	Record Drawing Location (OnBase)	OBJECT ID
Utility 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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=004	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=007	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=007	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650644&pageId=001	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 - FORT HAMER ROAD - WATER MAIN CROSSING (06349) - UTD - REC - Record Drawing	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=14656163&pageId=010	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=006	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=006	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=007	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10653420&pageId=	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10652938&pageId=024	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650806&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650806&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650806&pageId=003	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	https://www.mymanatee.org/onbasegisutil/docpop/docpop.aspx?clienttype=html&docid=10650806&pageId=003	
	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

Utility ID # - Correponds 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
	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

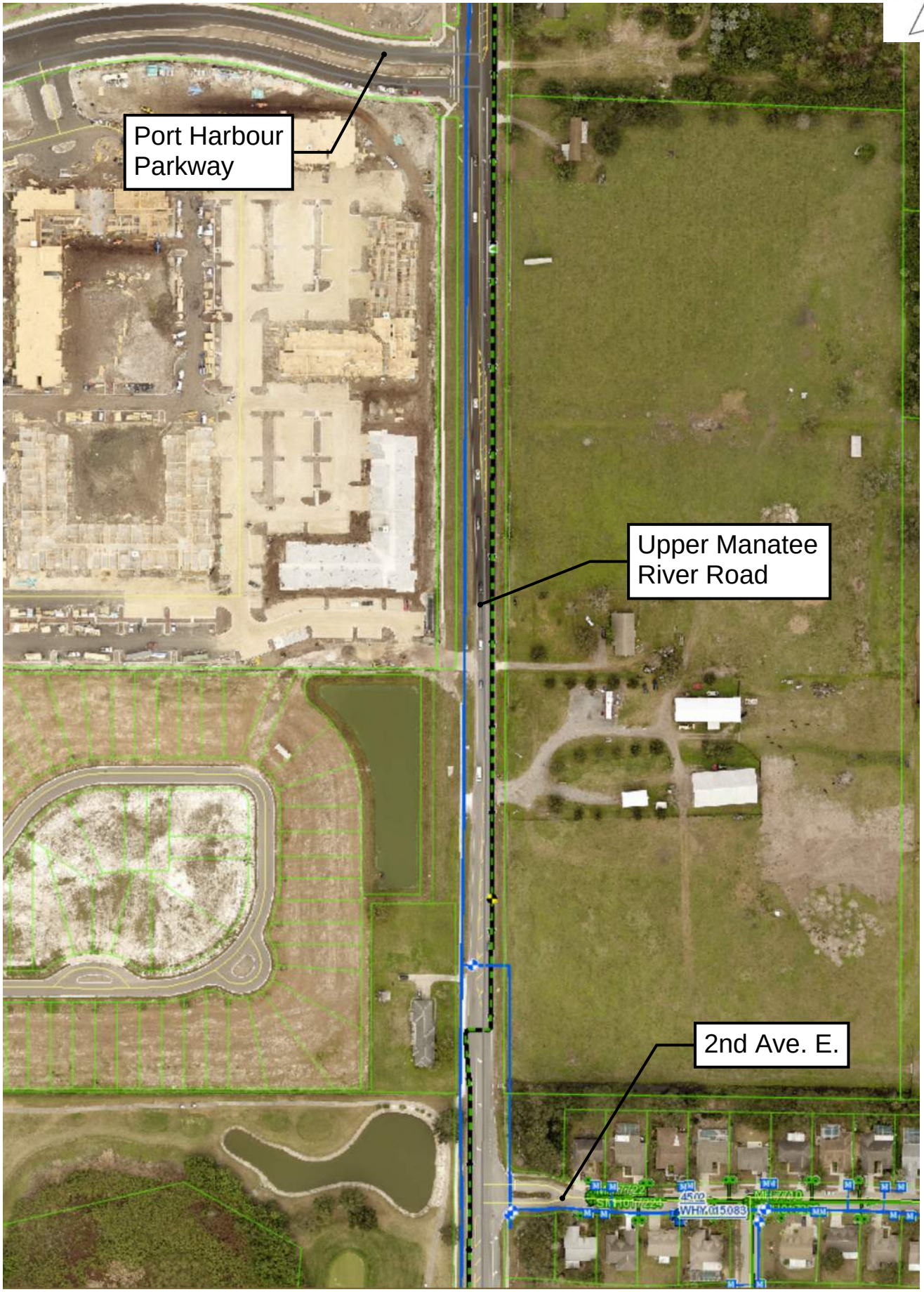
Appendix B – Detailed Location Map



Overview Sheet



Overview Sheet

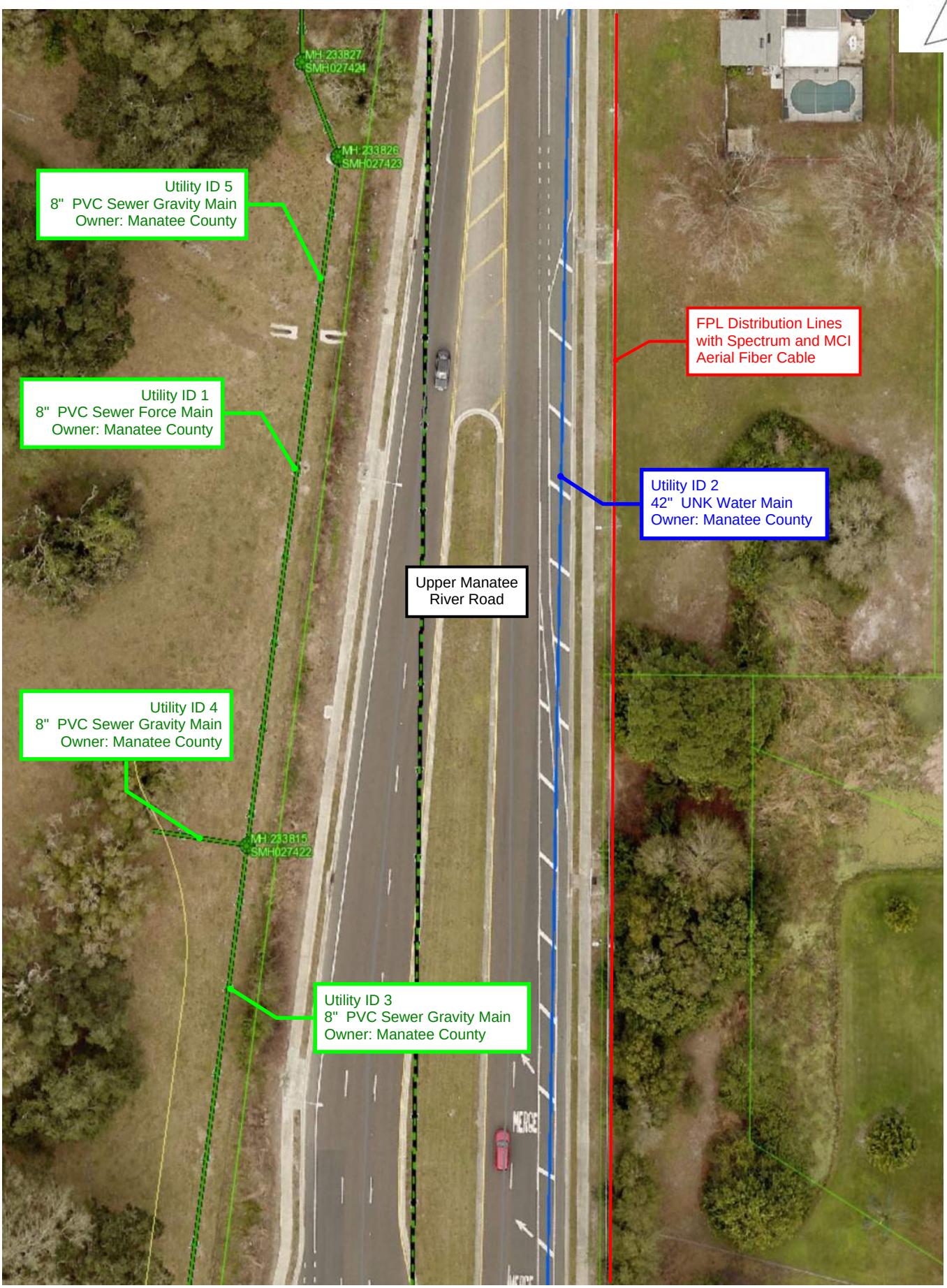


Overview Sheet

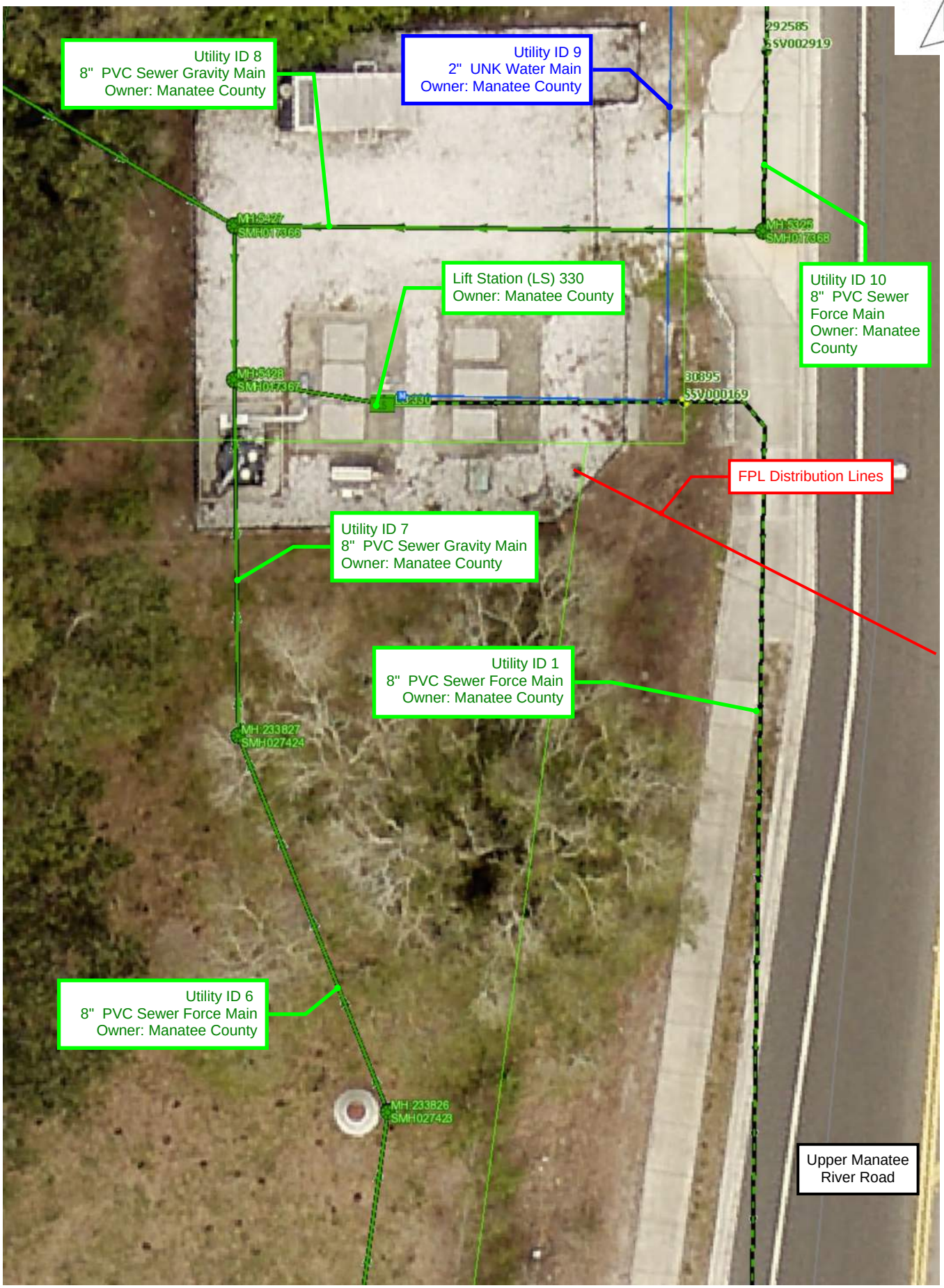
Overview Sheet

Upper Manatee River Road
Utility Location Map

Overview Sheet



Detail Sheet



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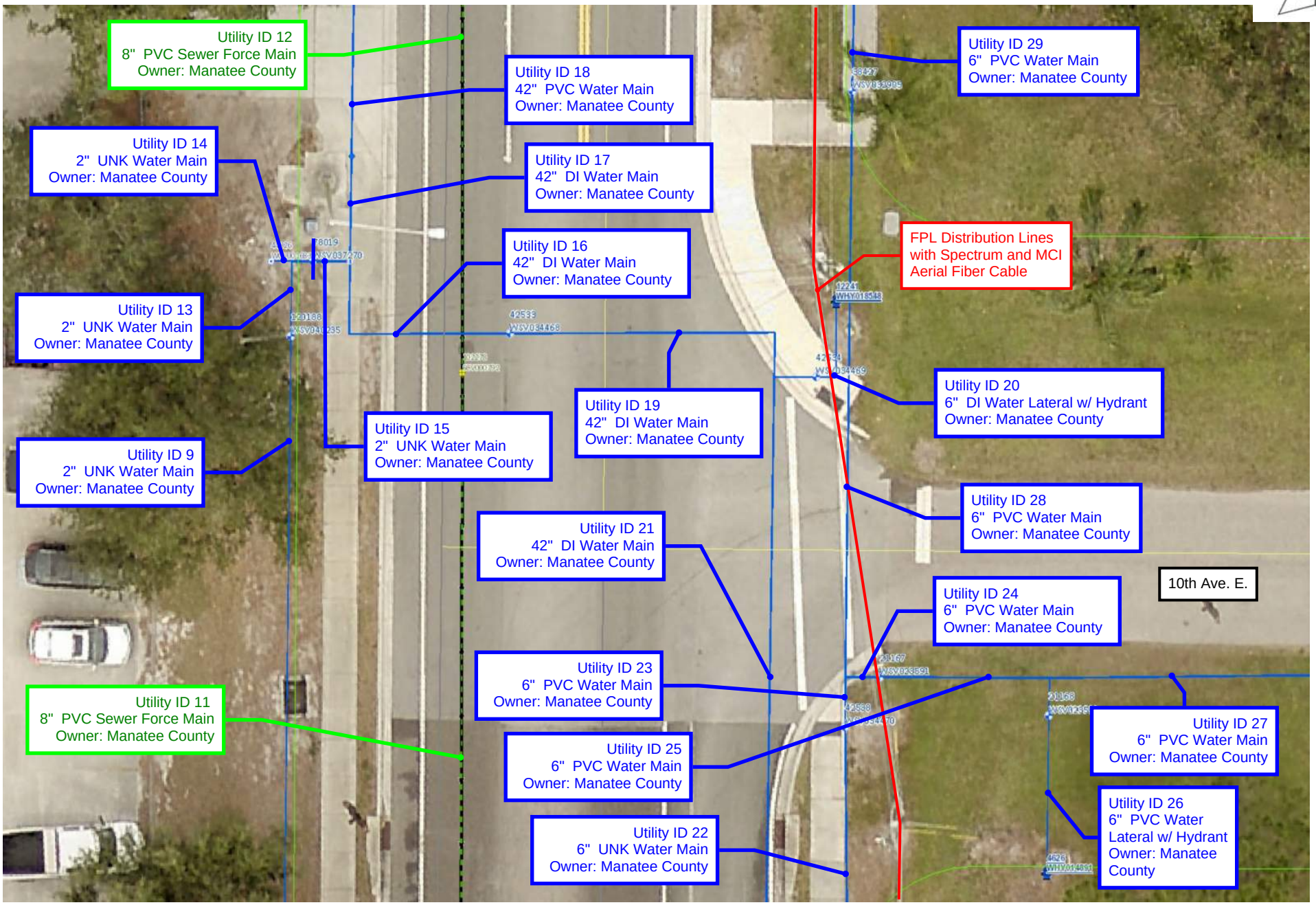

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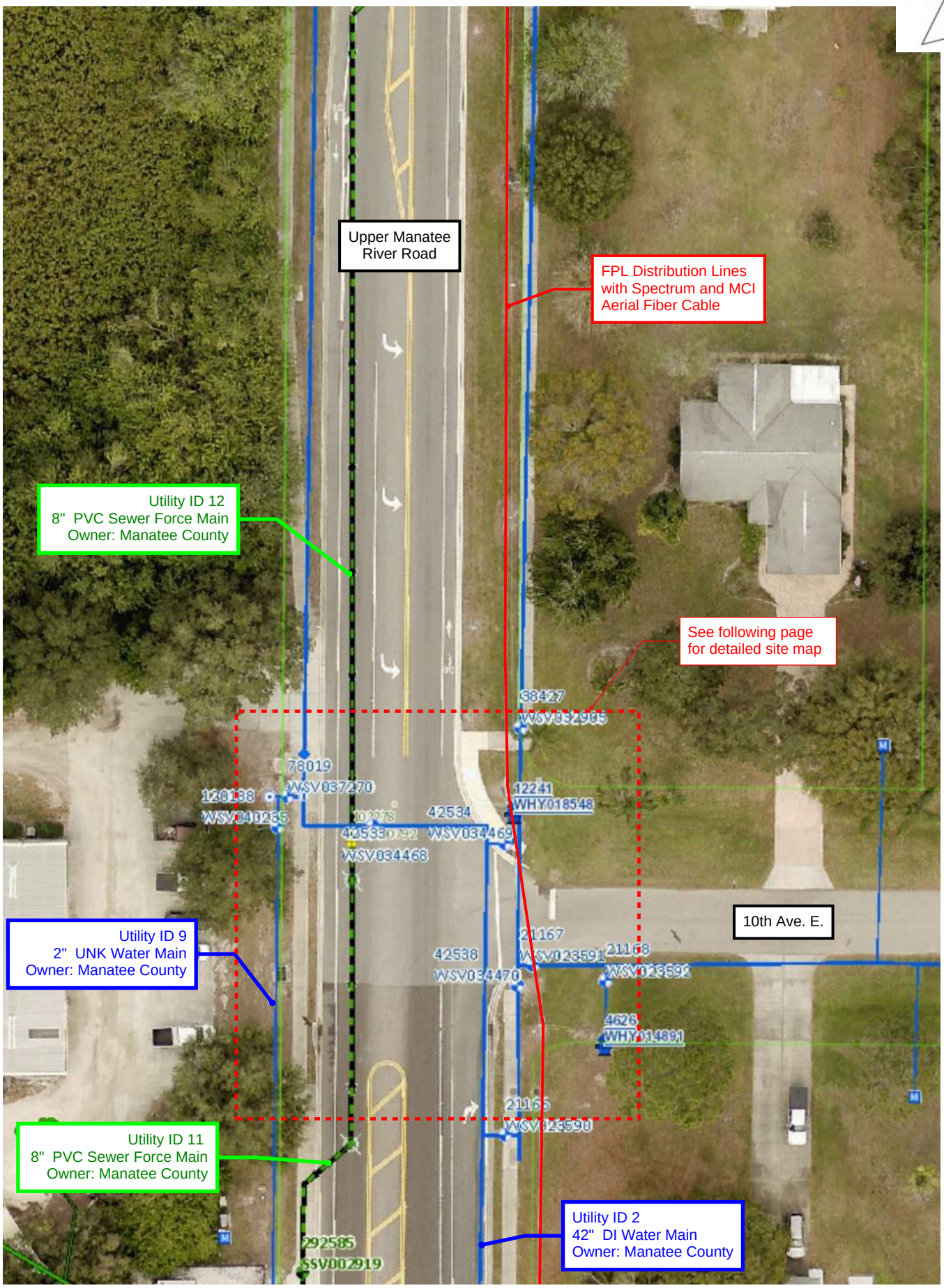

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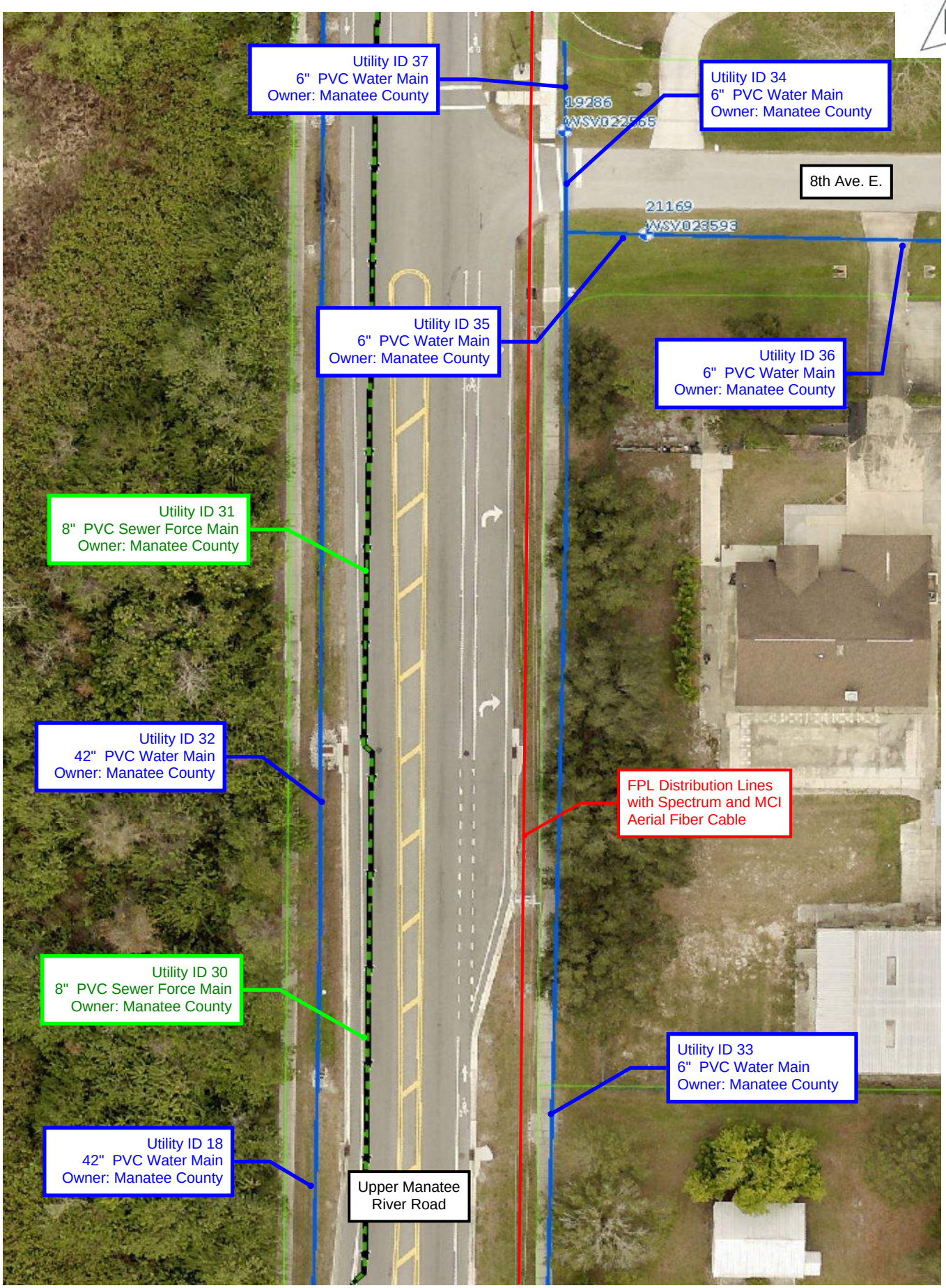

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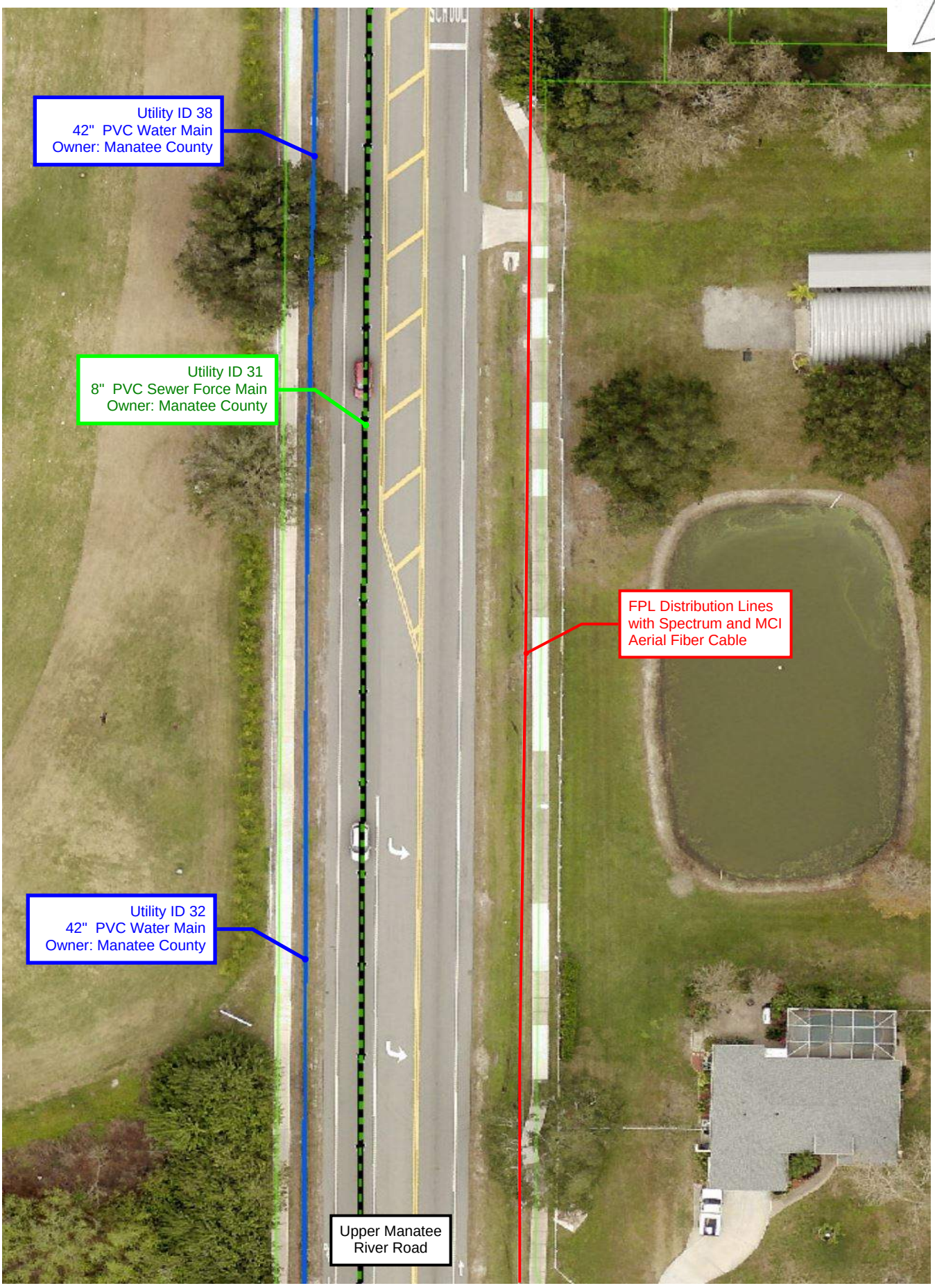
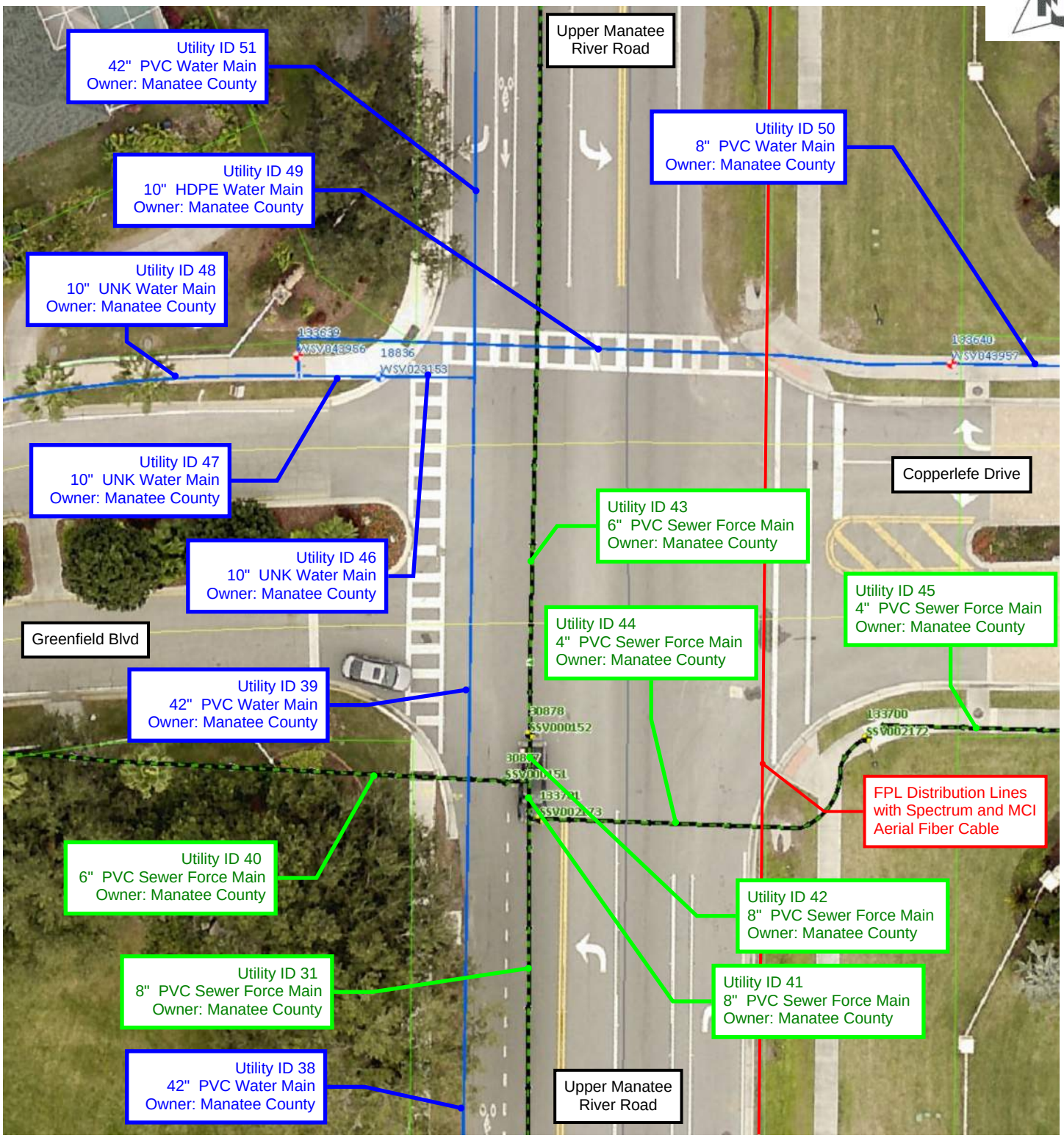


Detail Sheet



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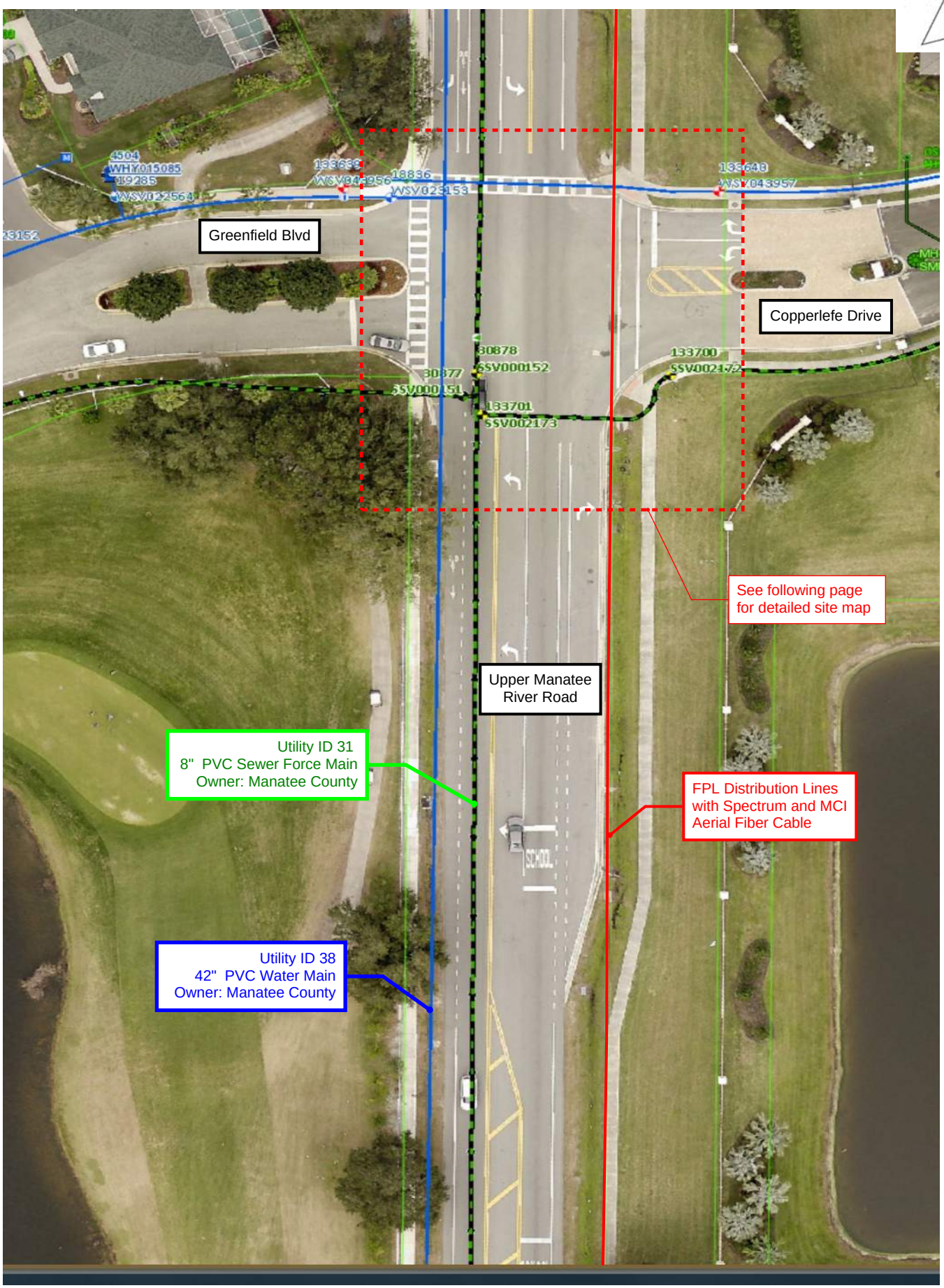

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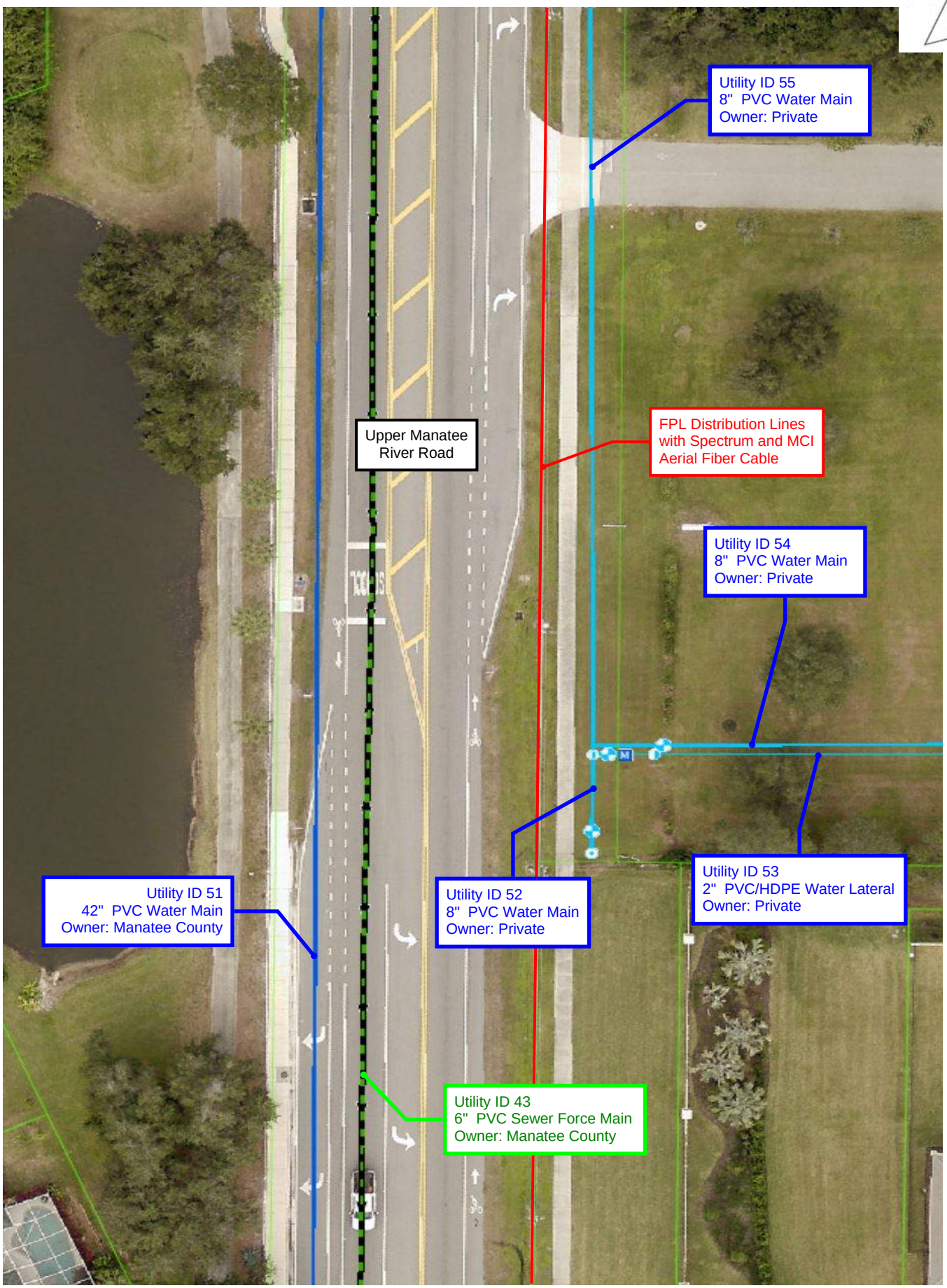

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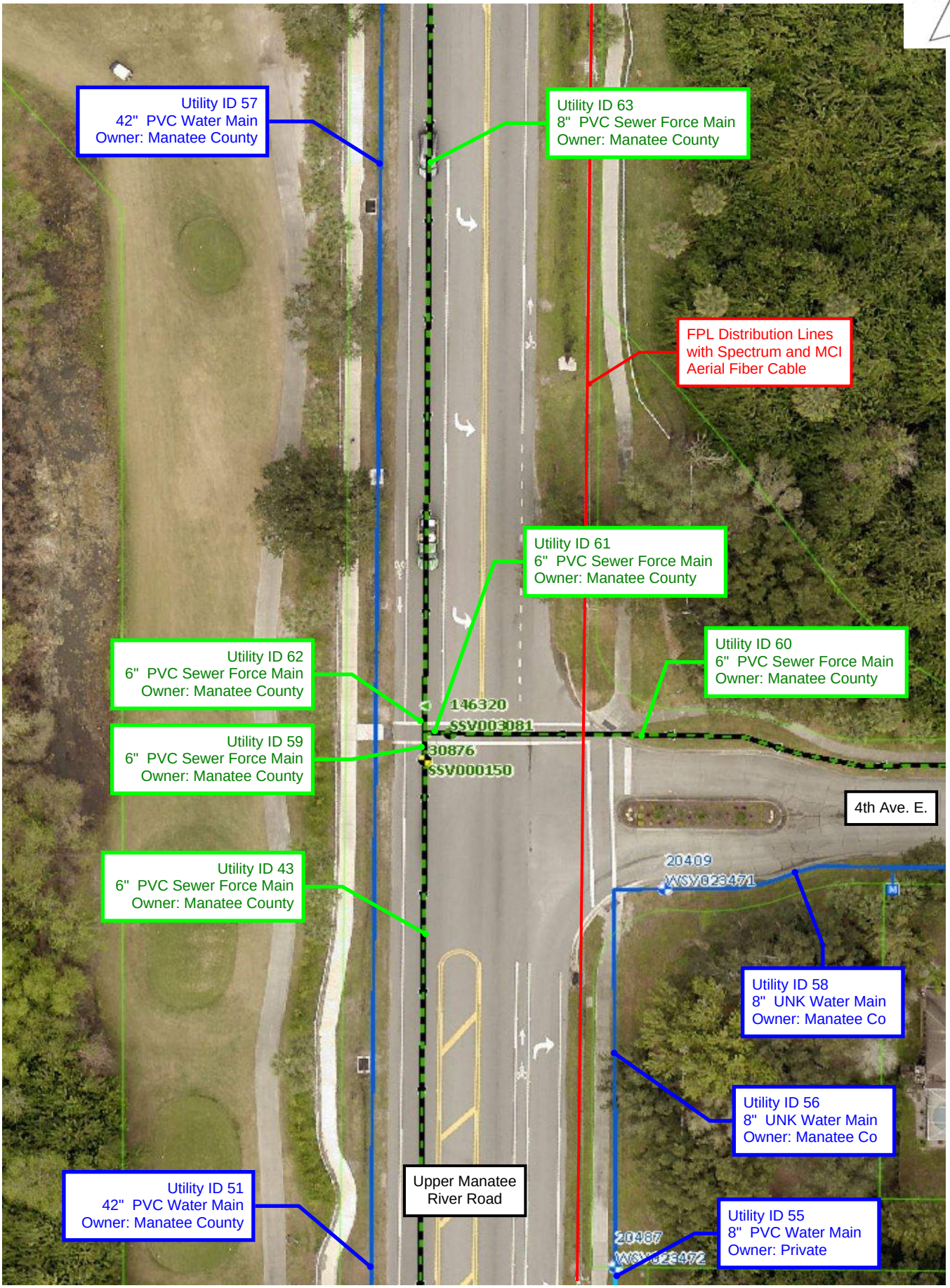

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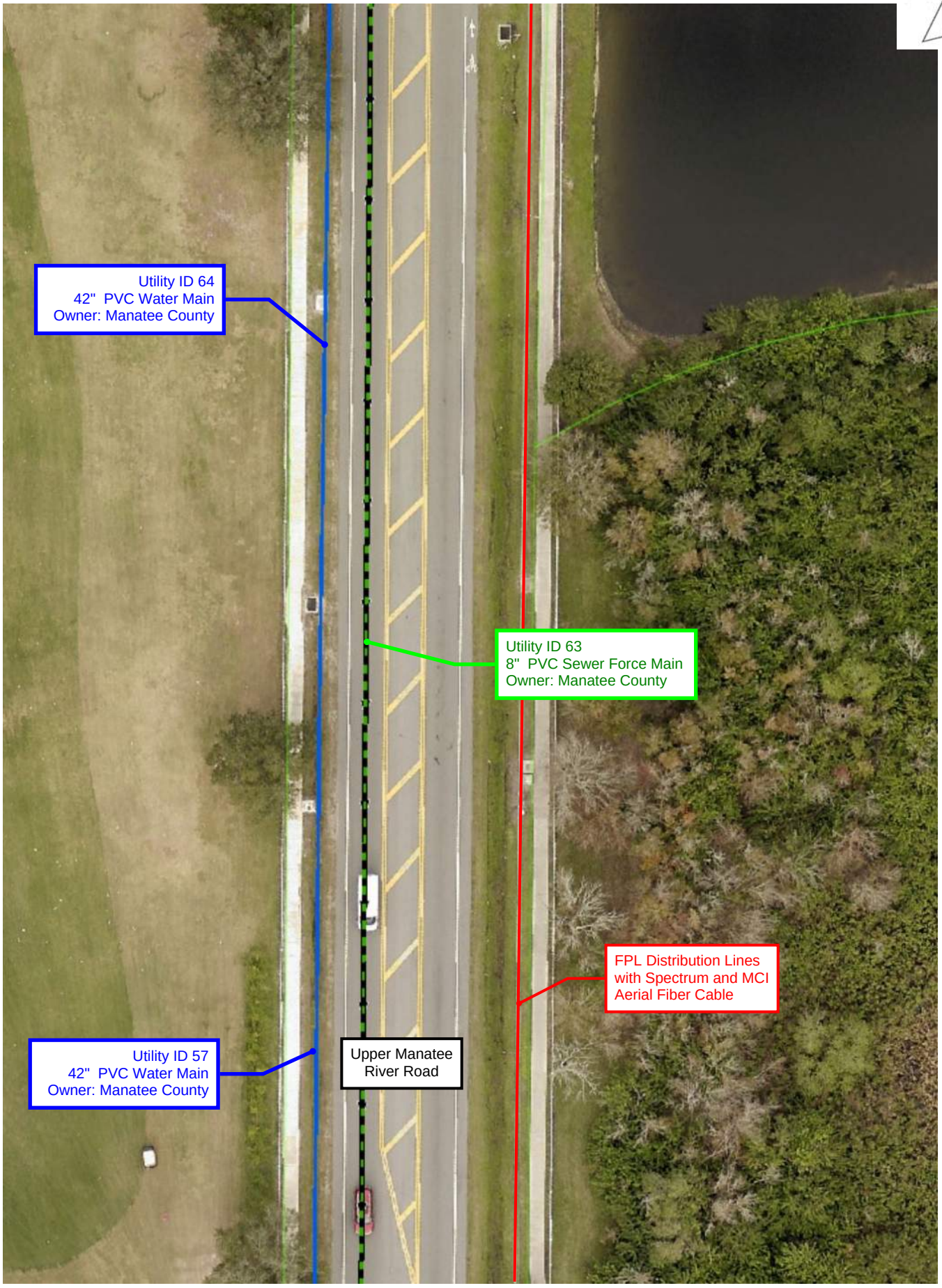

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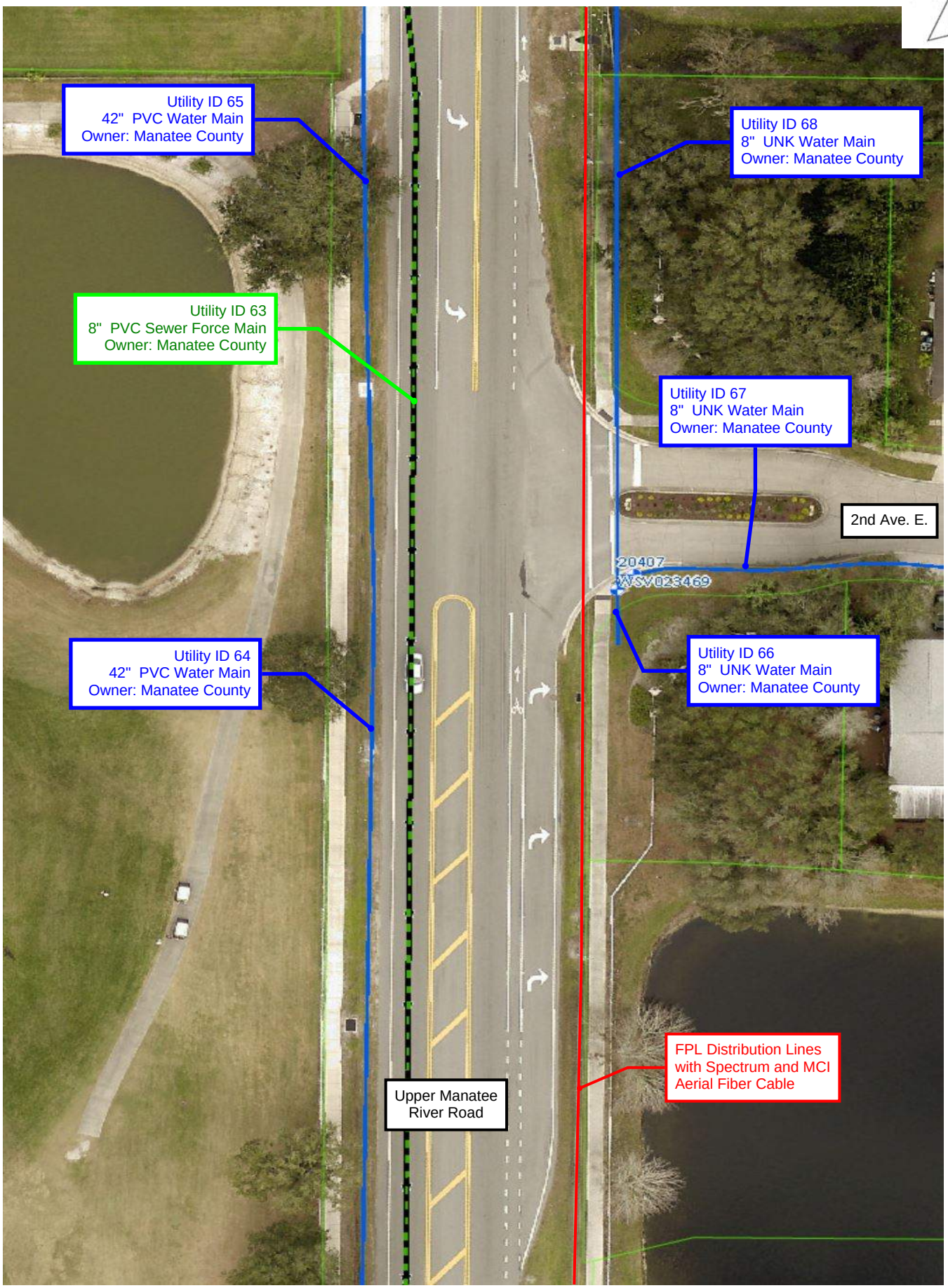

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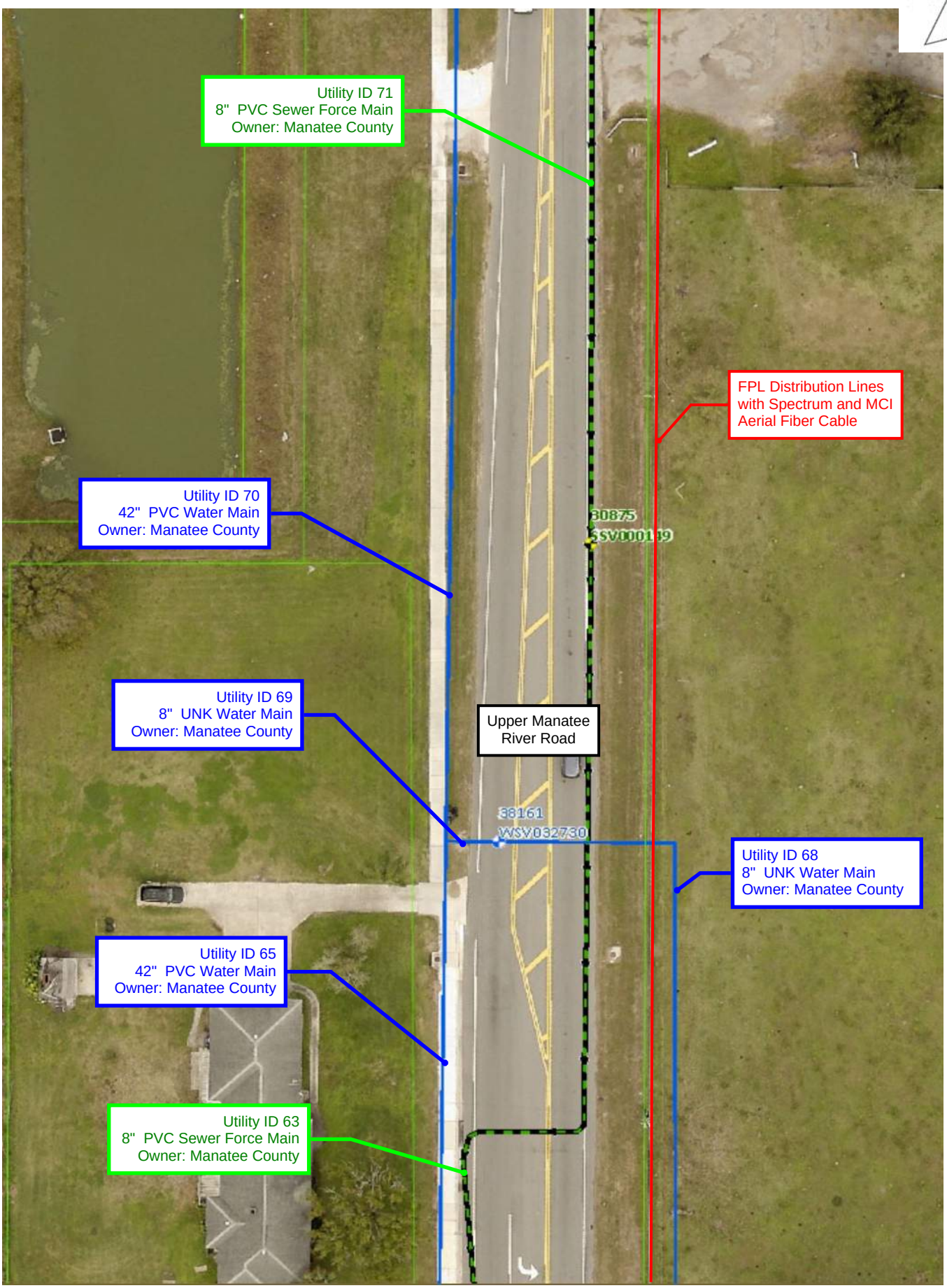

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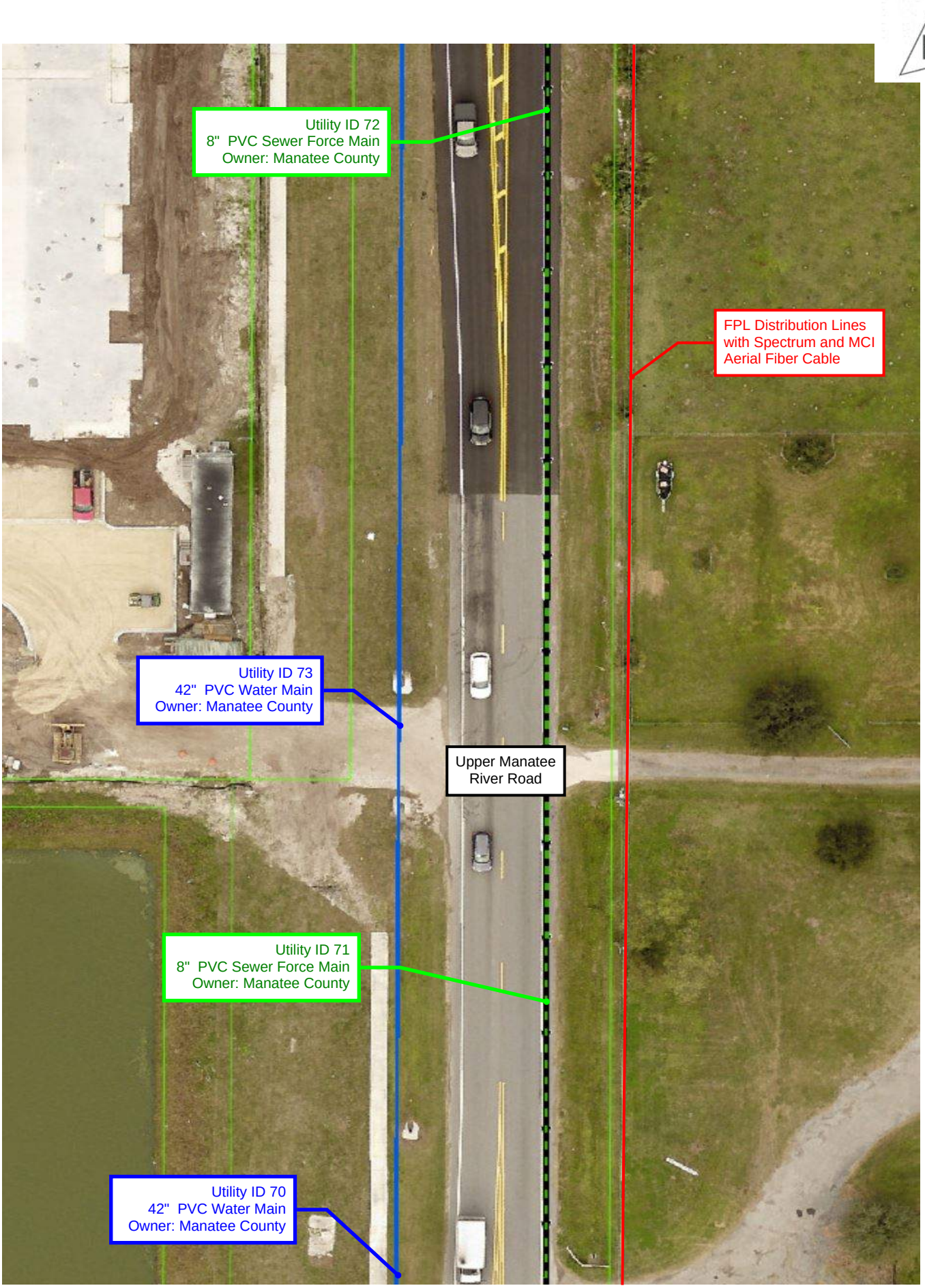

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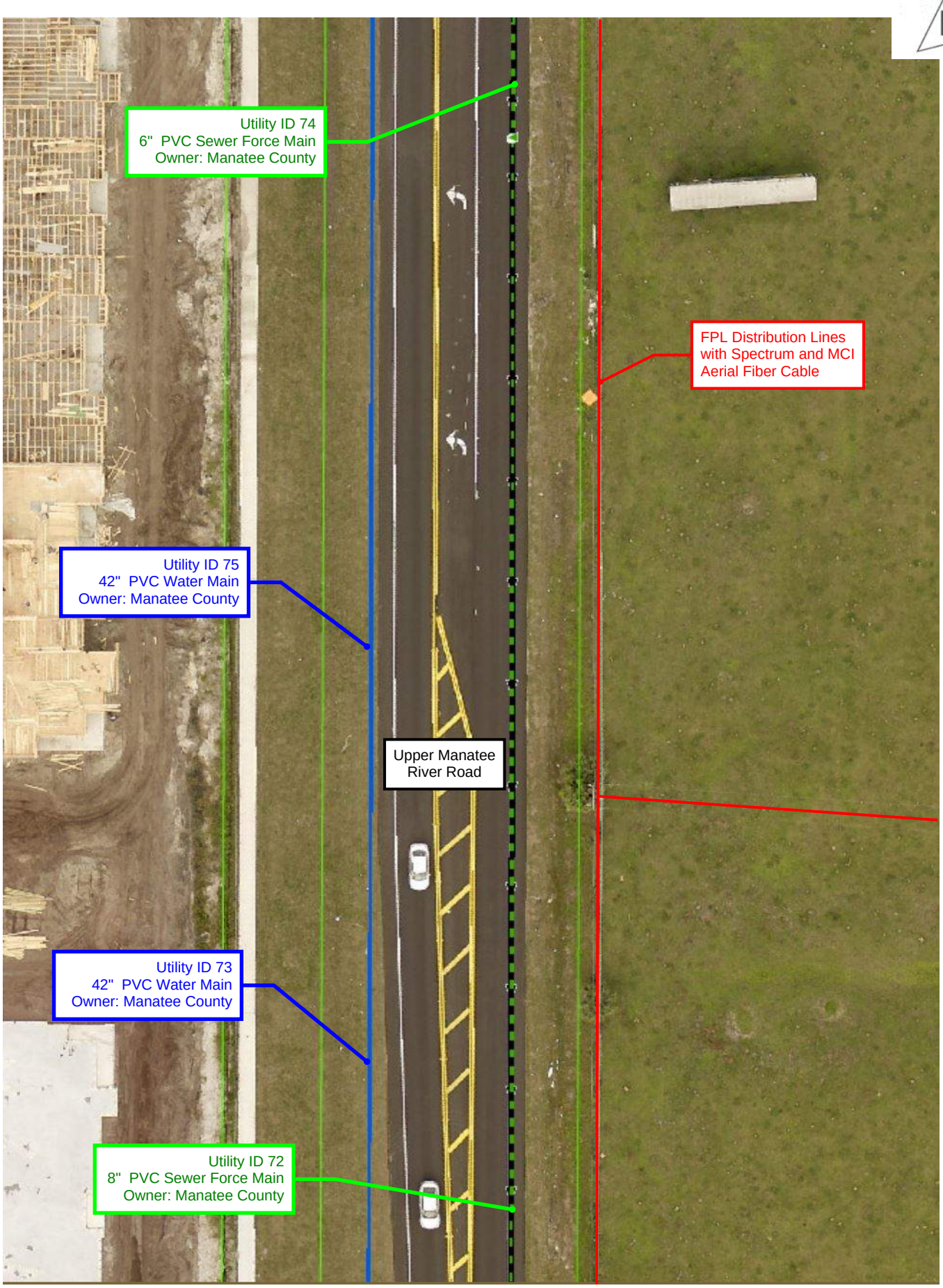

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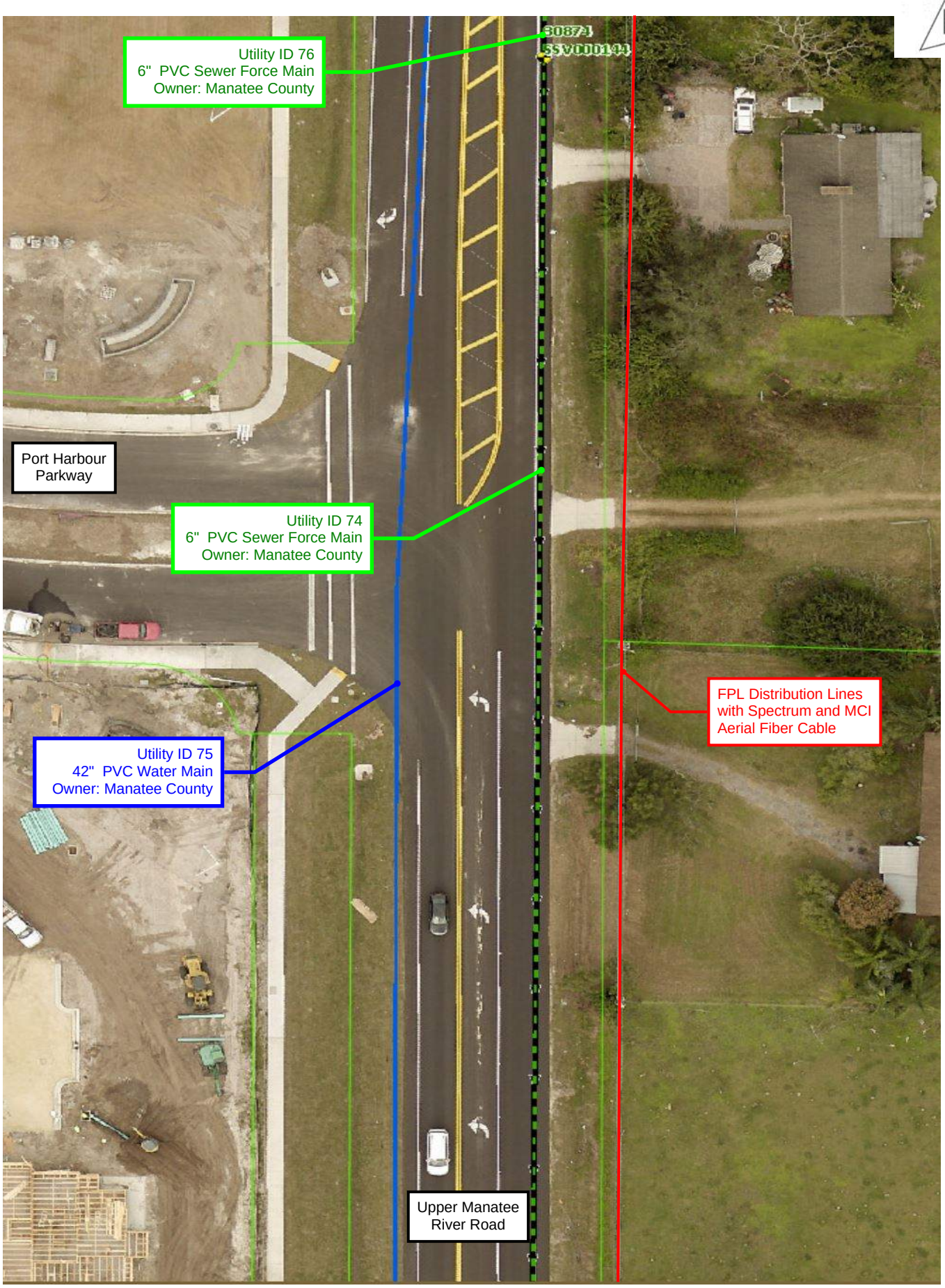

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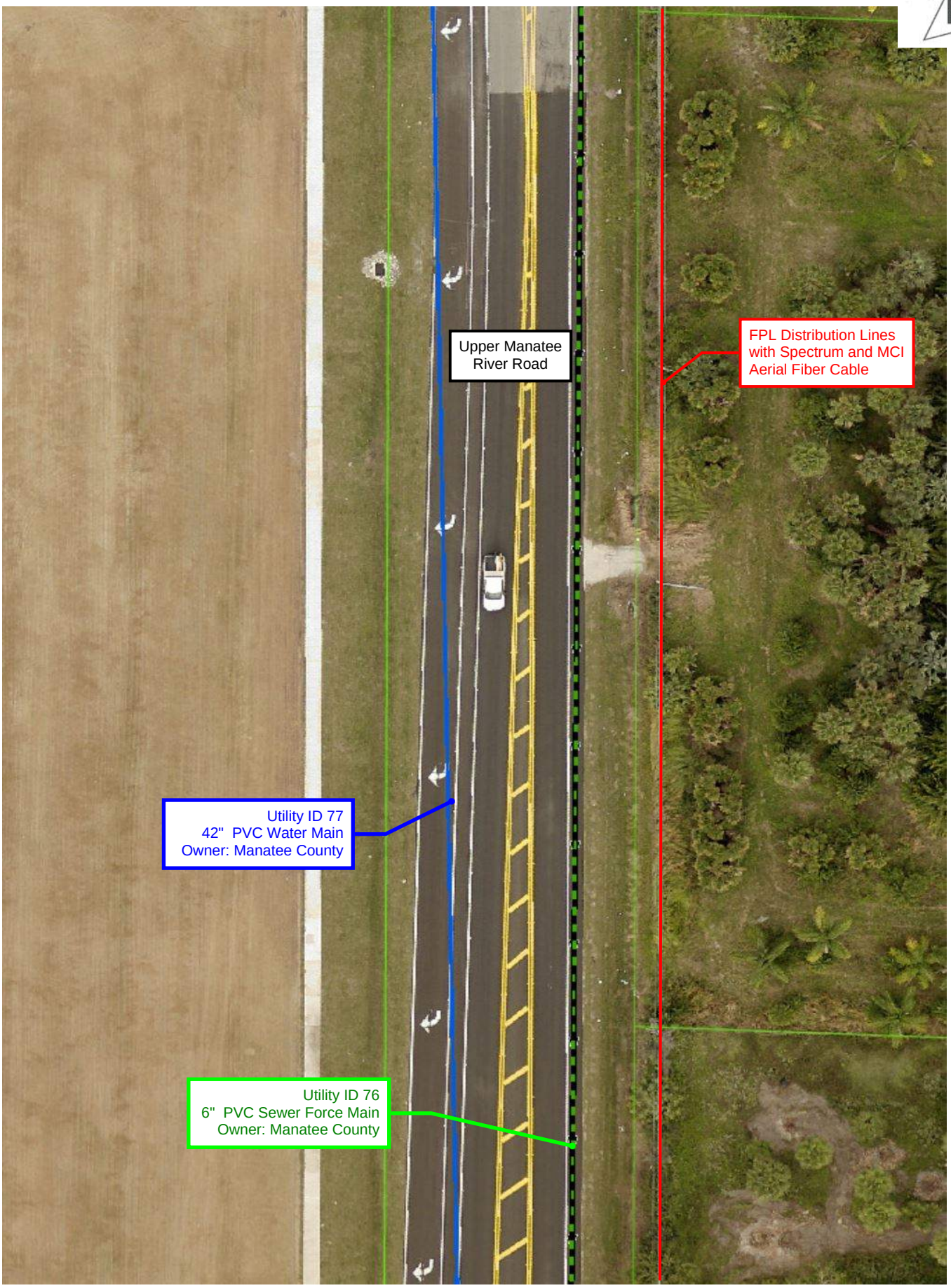

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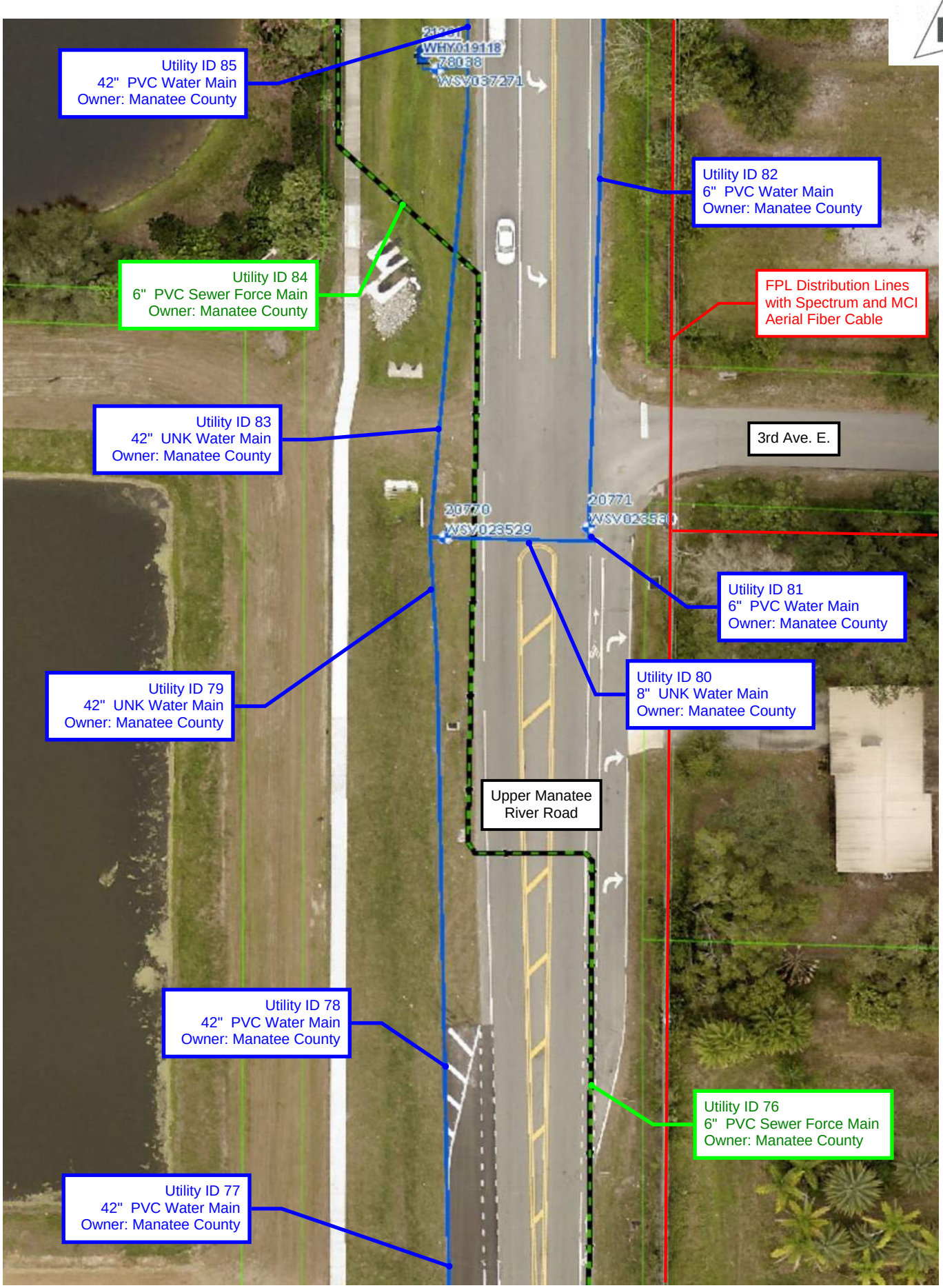

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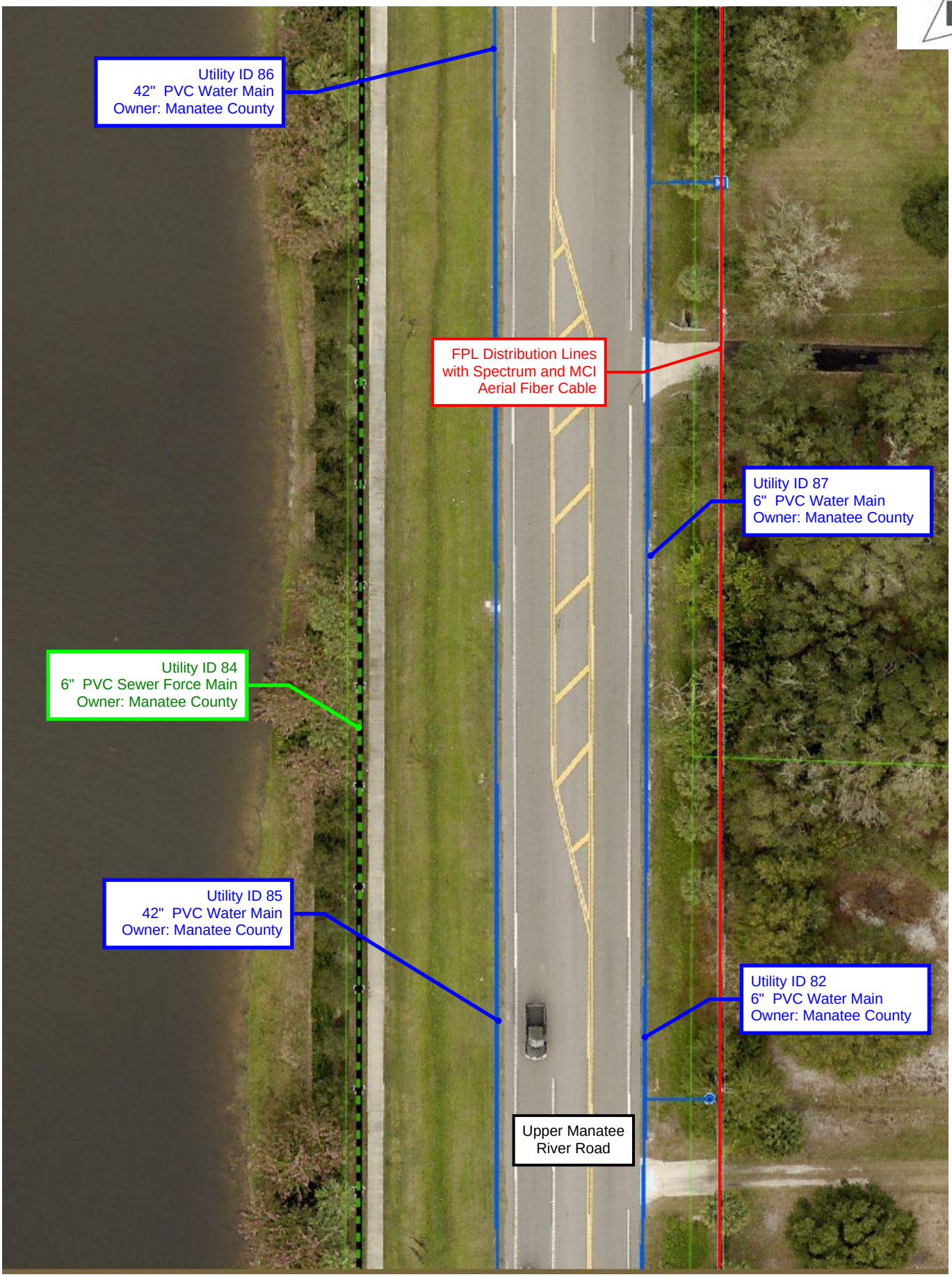

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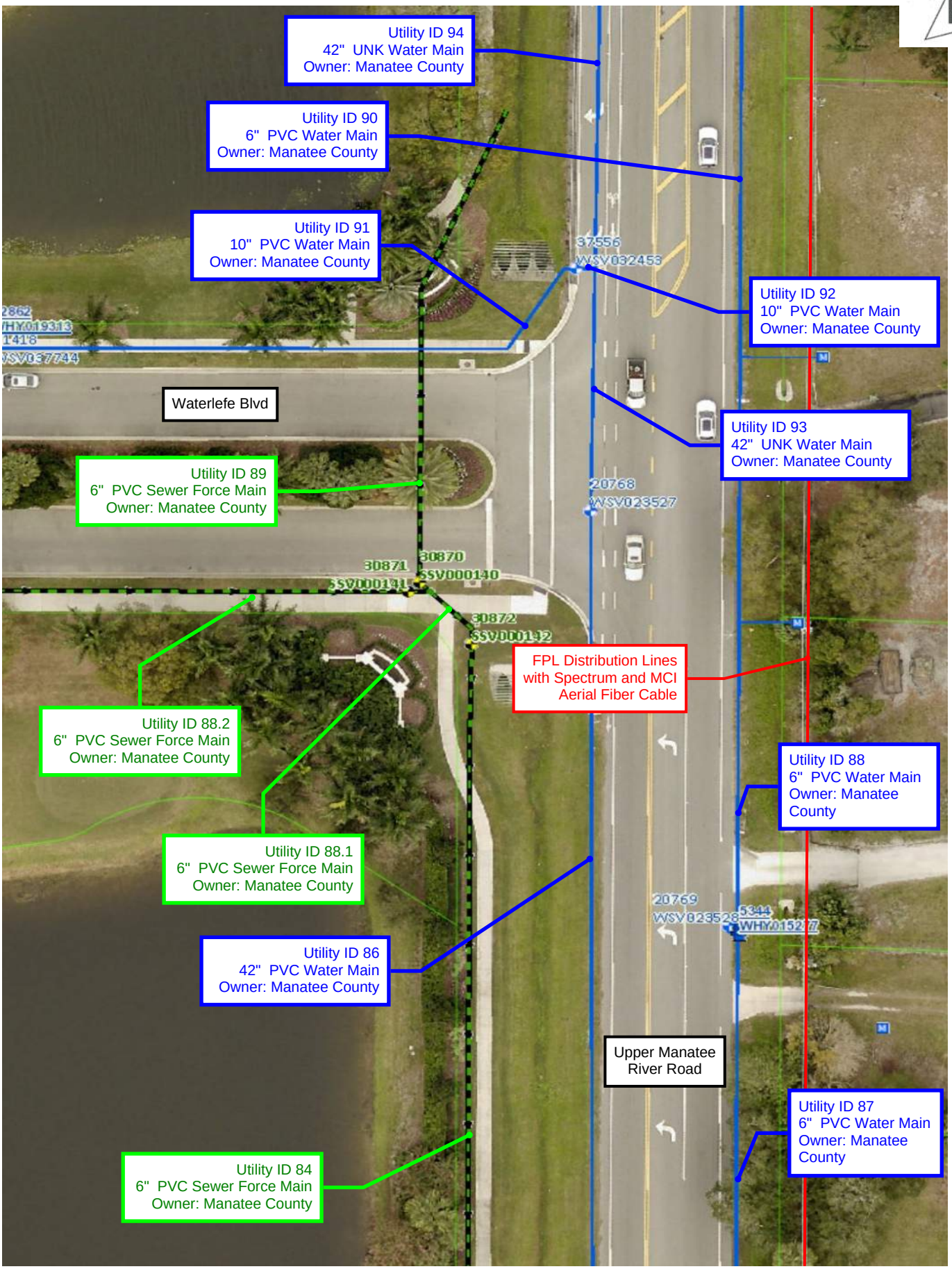

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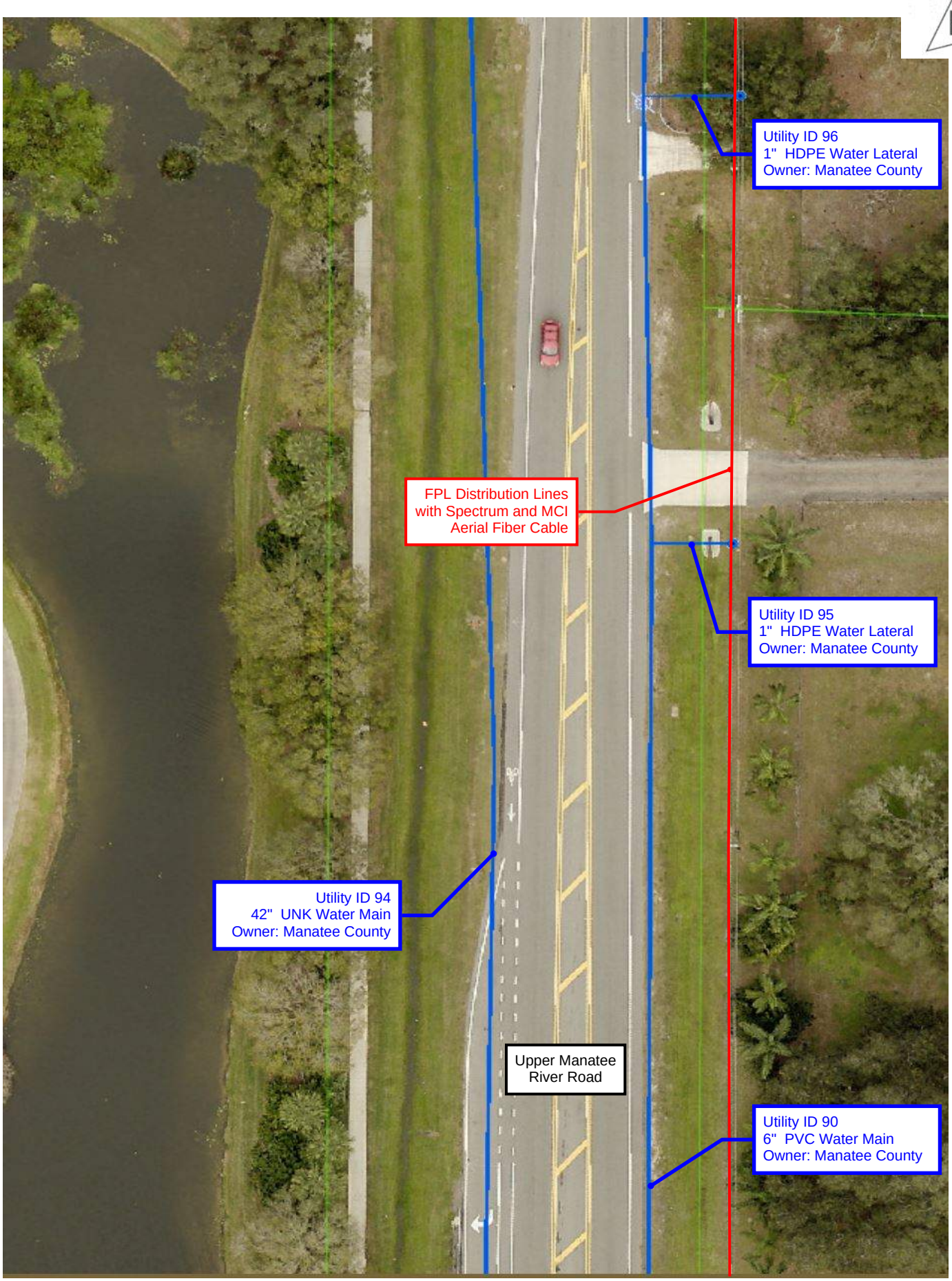

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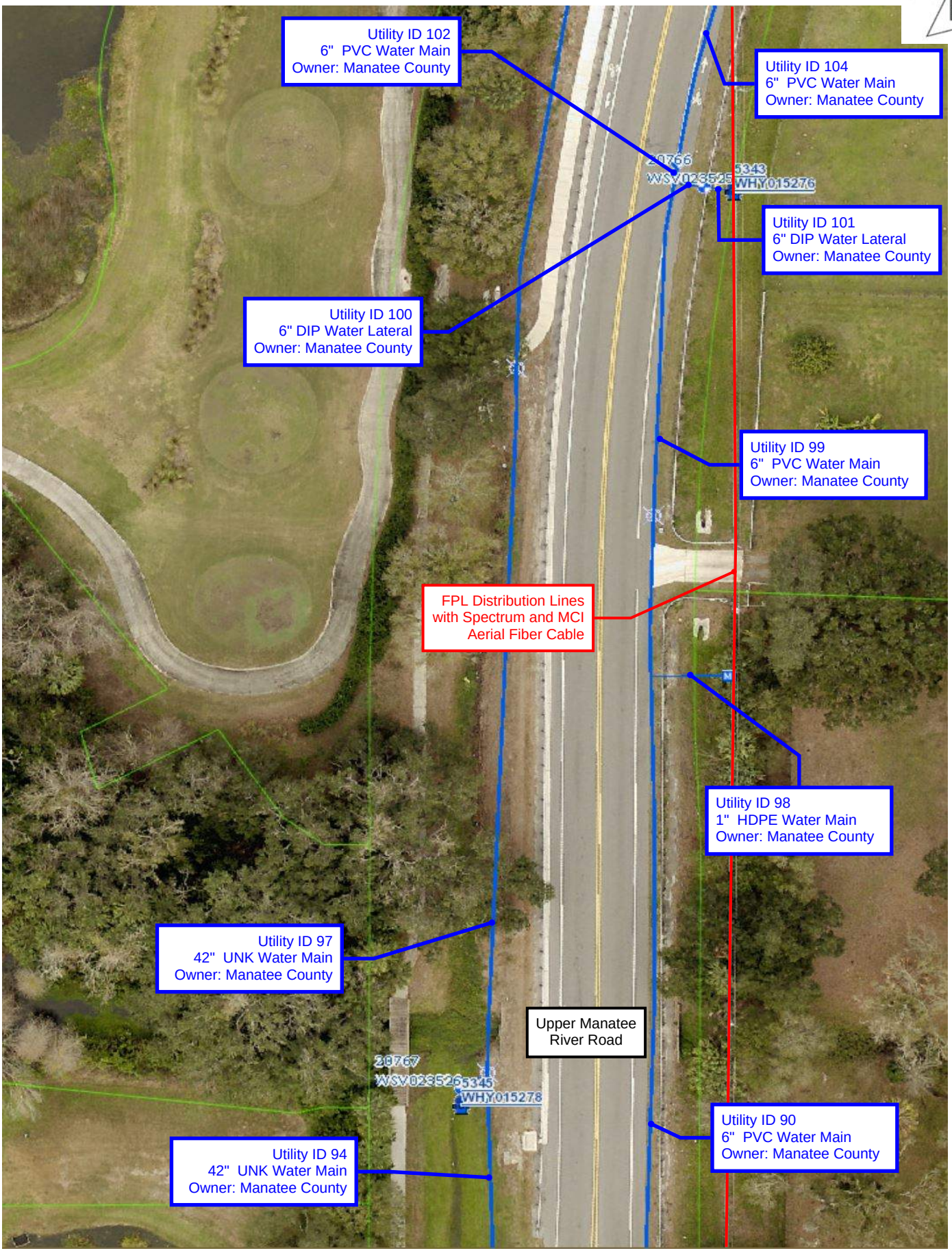

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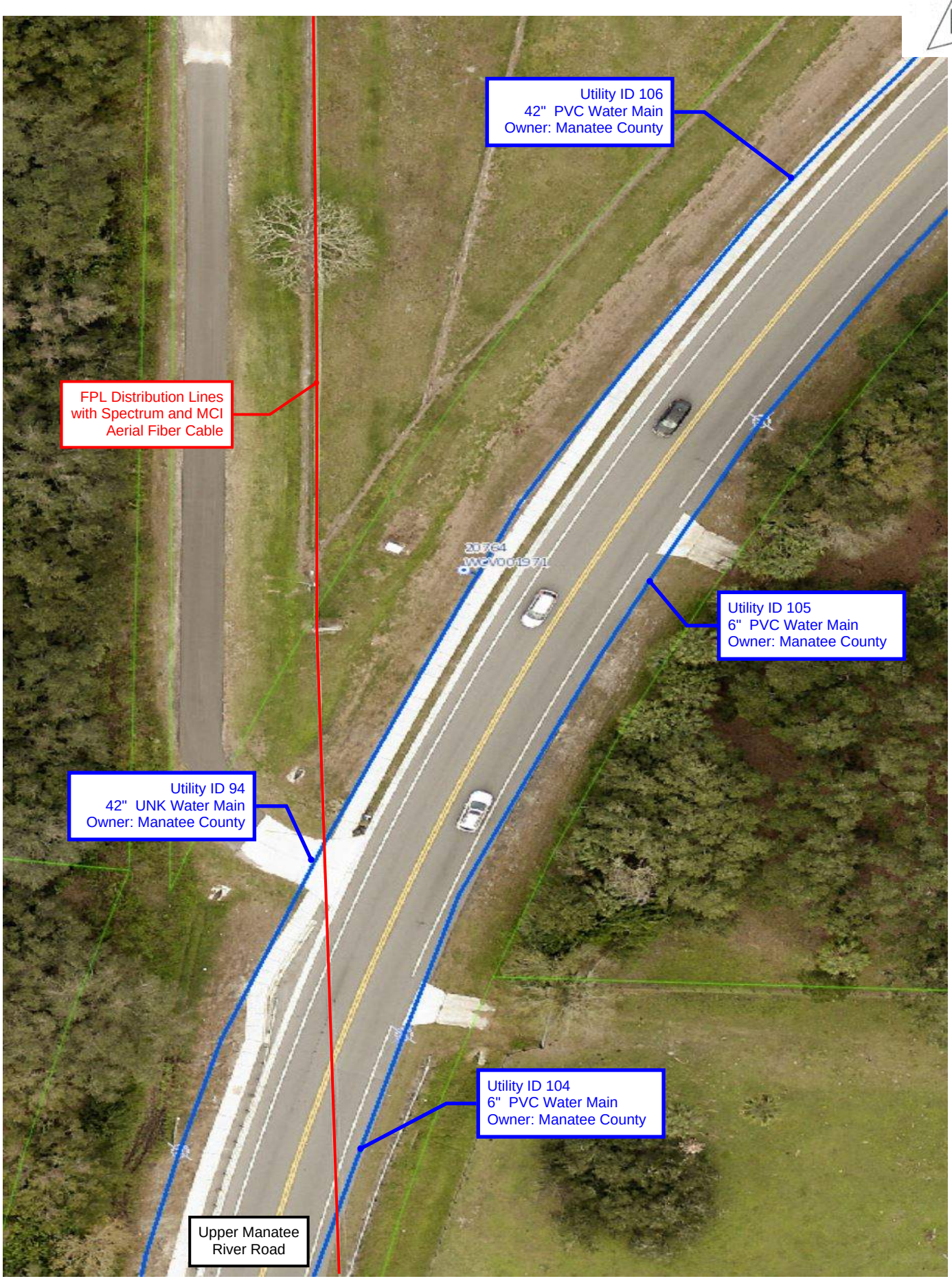

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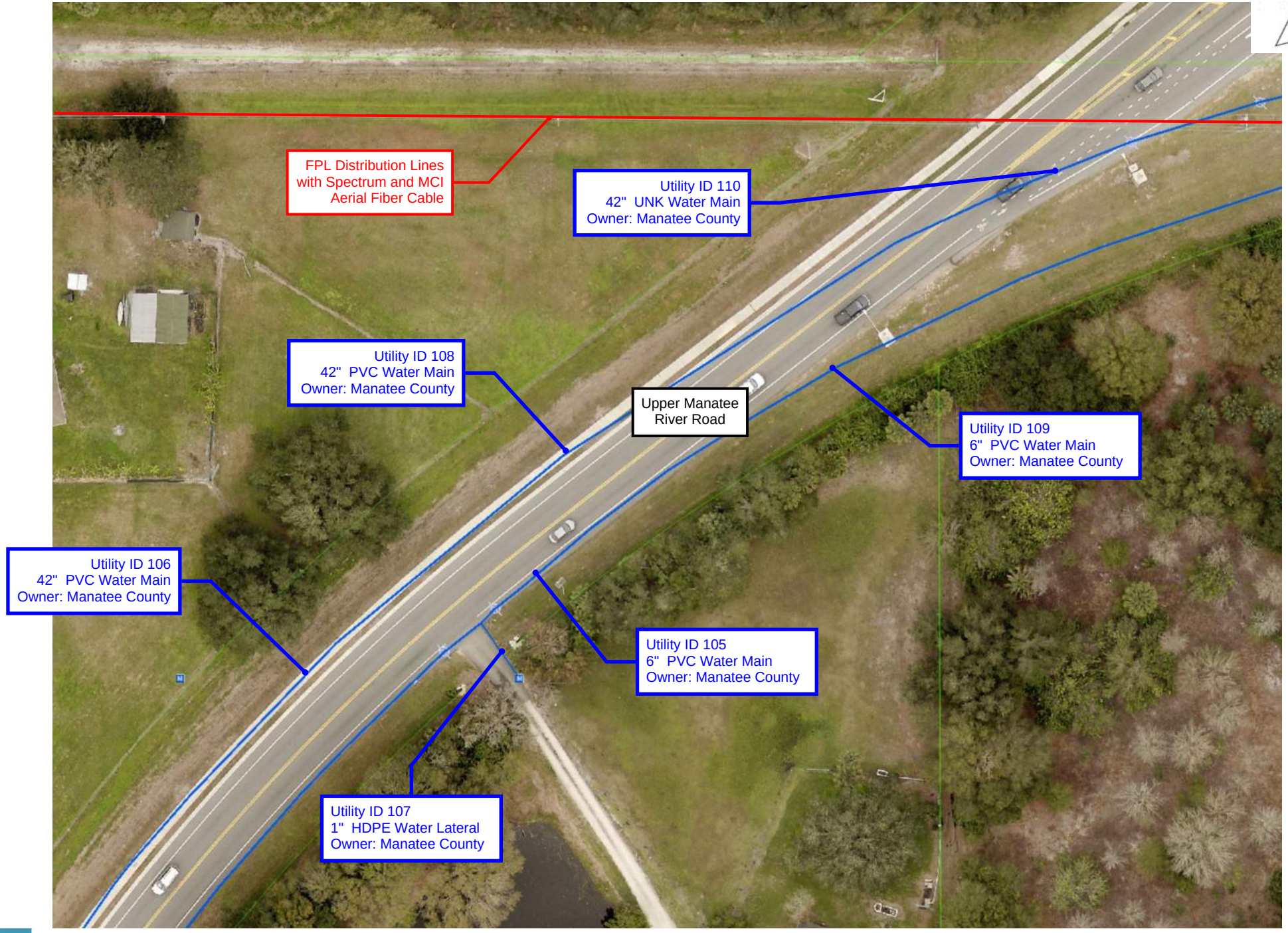

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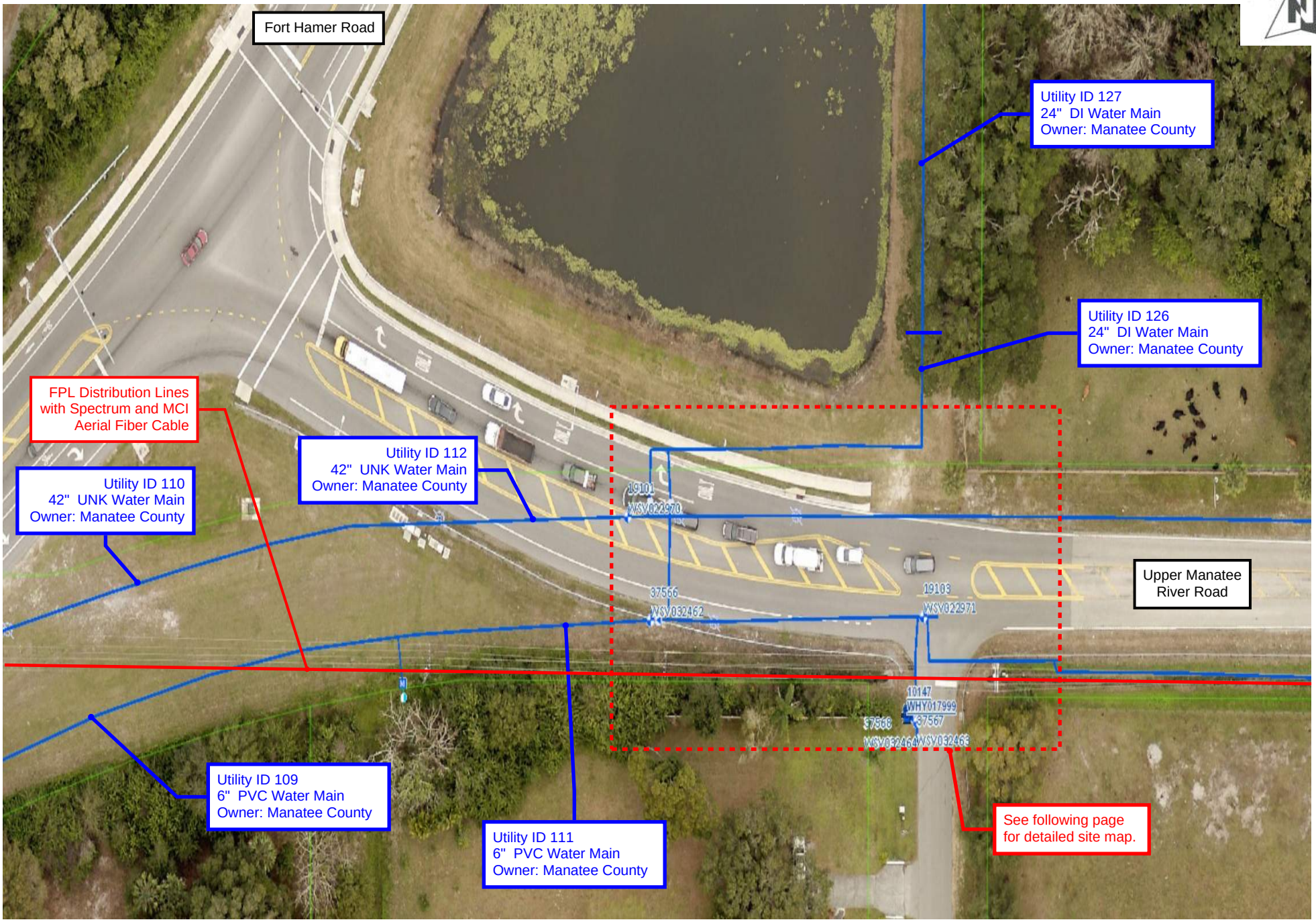

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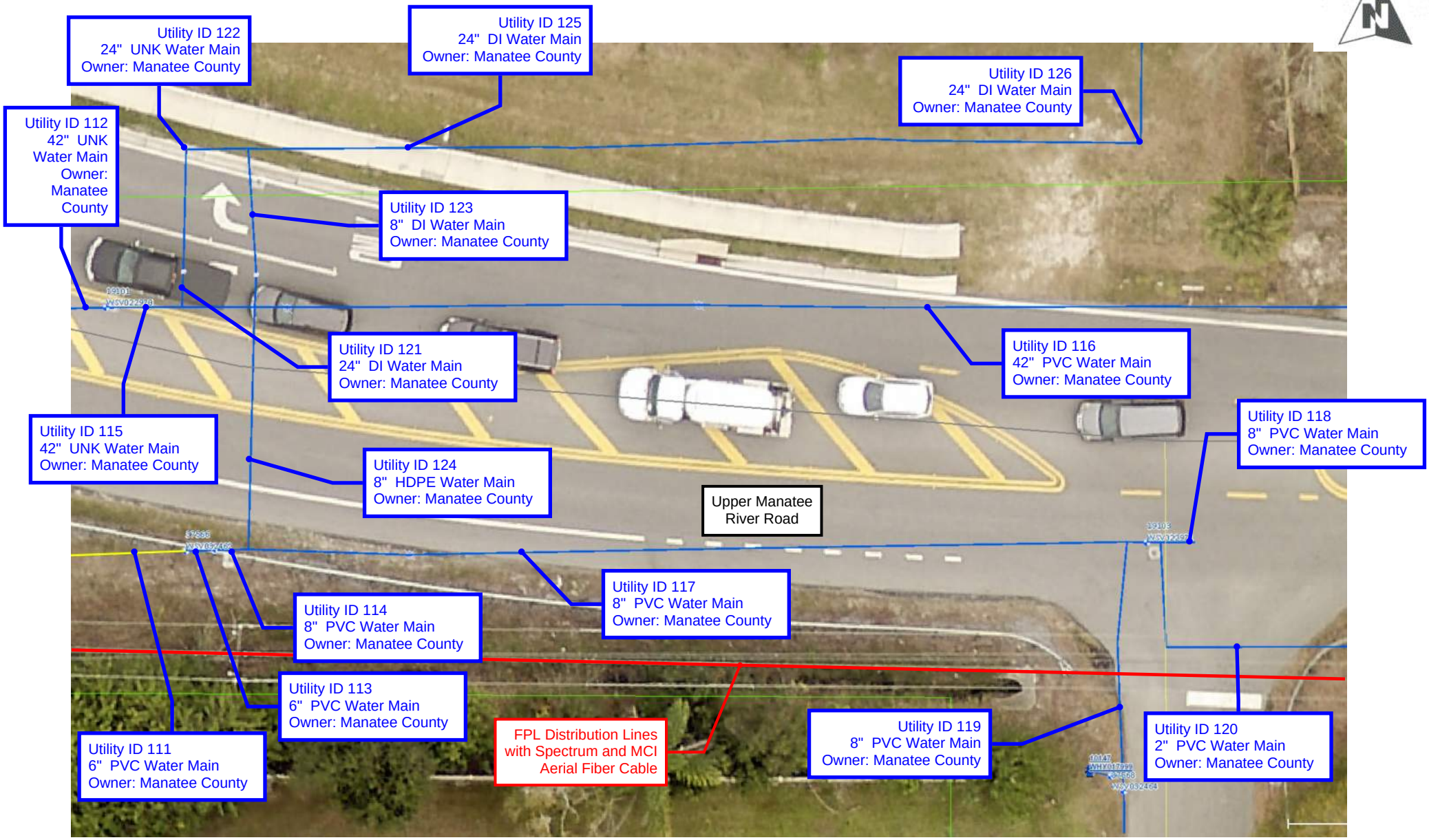

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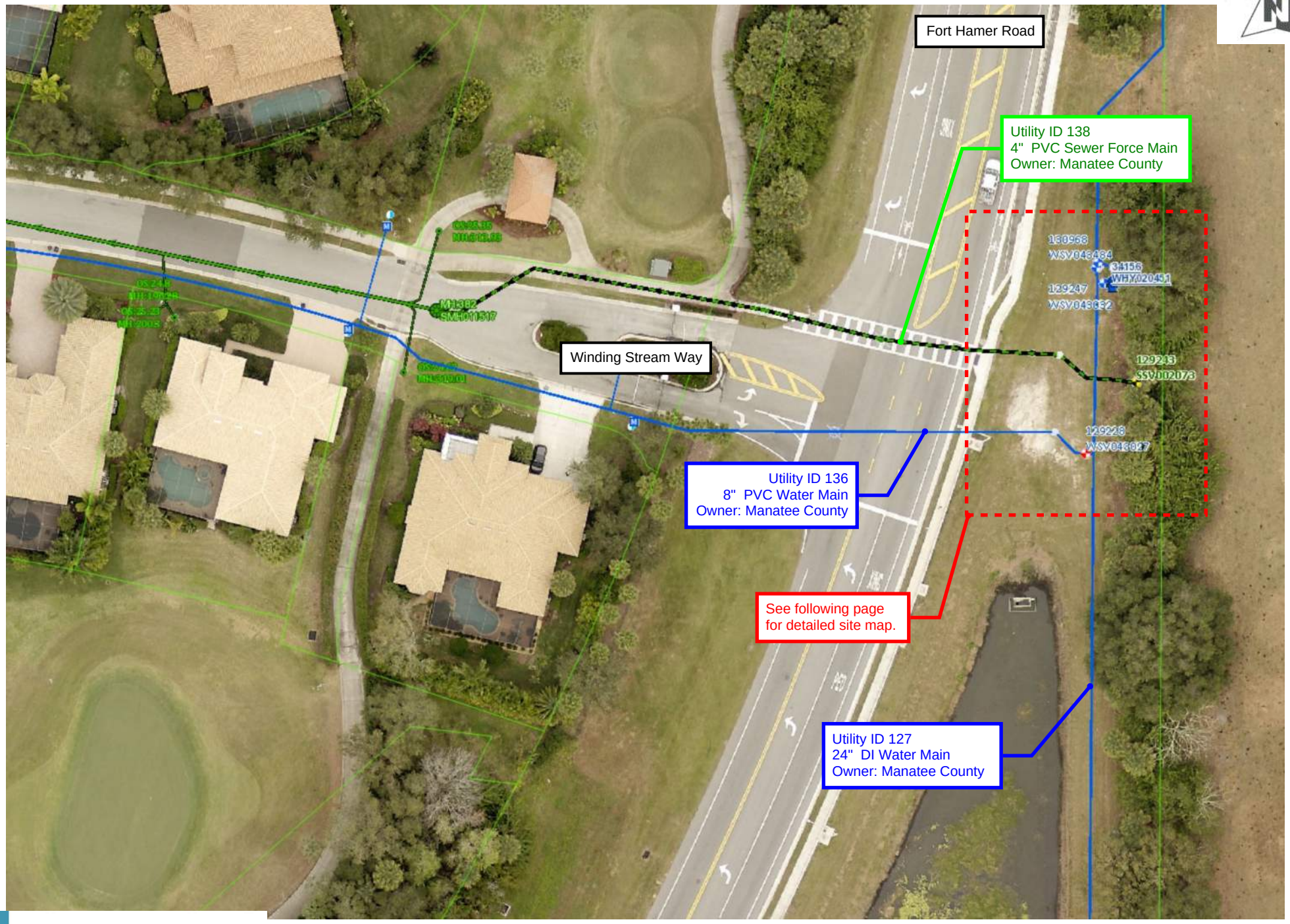

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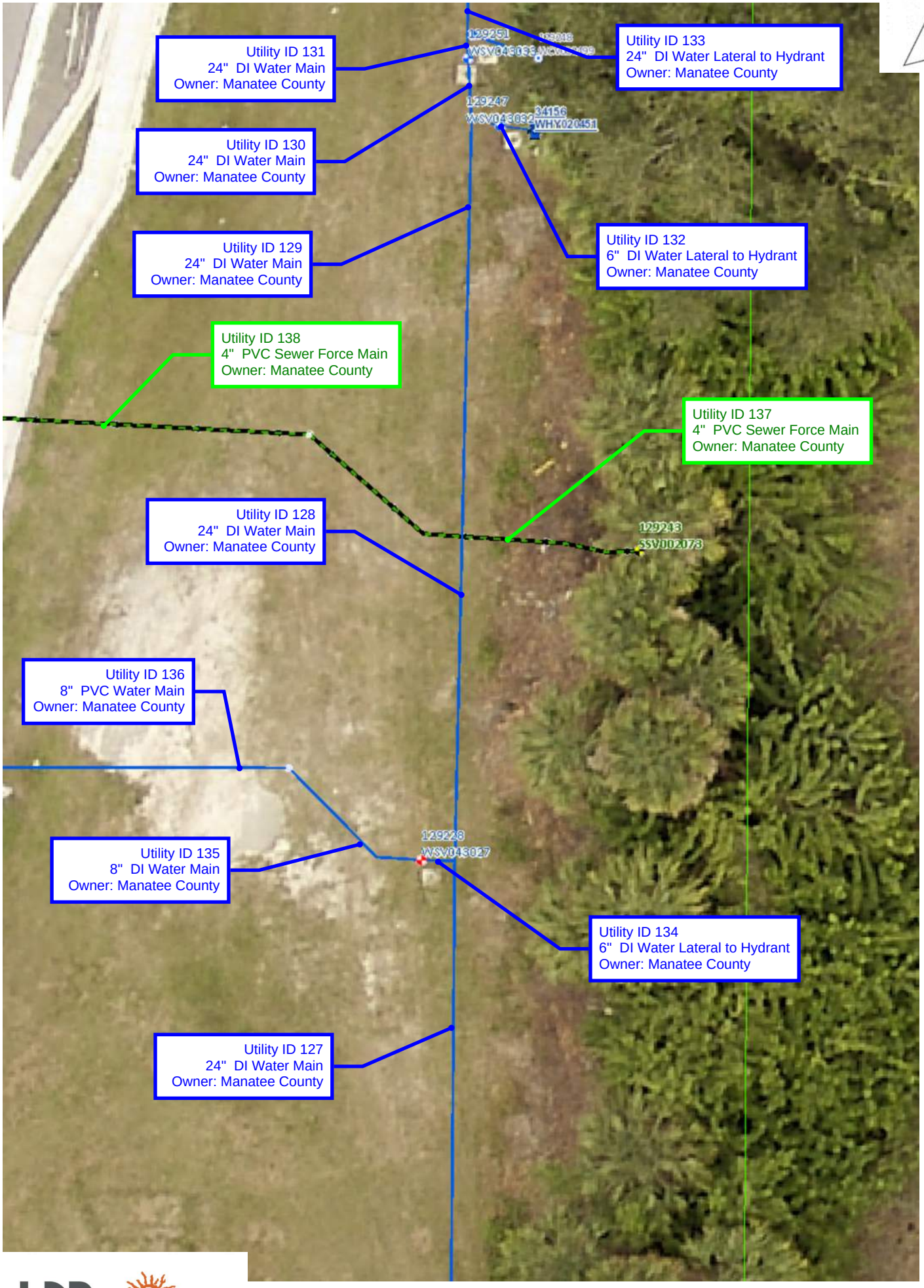

Detail Sheet

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

Date: **Time:** **Project Name:**	10/7/2021 1:30 Upper Manatee River Road		
District Engineer:	Monte Ritter		
District ES:	Jeff Glas		
Attendees:	Jason Starr Jason.Starr@hdrinc.com , Paul Herman, Scott Ennis, Barry Lenz, Eric Shroyer, Darin Rice		
County: **Total Land Acreage:**	Manatee	**Sec/Twp/Rge:** **Project Acreage:**	17,19,20,29,30/34/19 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
- 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.

- 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.

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 44th Avenue, and Mill Creek from 44th 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.

3 Upper Manatee River Road (UMRR) Drainage / Stormwater Management

- Gates Creek (outfall for UMRR from SR 64 through north of 2nd 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.

- 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

Description	*Unit*	*Quantity*	*Unit Price*	*Item Price*
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
ROADWAY SUBTOTAL				**$11,760,199.58**
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
SIGNING AND PAVEMENT MARKING SUBTOTAL				**$203,472.70**

UPPER MANATEE RIVER ROAD

RECOMMENDED ALTERNATIVE CONSTRUCTION COST ESTIMATE
October 14, 2021

Description	*Unit*	*Quantity*	*Unit Price*	*Item Price*
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
SIGNALIZATION SUBTOTAL				**$1,500,000.00**
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
LIGHTING SUBTOTAL				**$1,109,329.48**
PROJECT SUBTOTAL				**$14,573,001.76**
MOBILIZATION	10%			$1,457,300.18
TRAFFIC CONTROL	15%			$2,185,950.26
SUBTOTAL				**$18,216,252.20**
CONTINGENCY (PROJECT UNKNOWNS, ITEMS NOT ESTIMATED)	25%			$4,554,063.05
PROJECT TOTAL				**$22,770,315.26**

Upper Manatee River Road - Right of Way Parcel Identification

PARTIAL

Roadway

	Parcel ID	Owner Name	Primary Address	Take Size (SF)	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

Pond

	Parcel ID	Owner Name	Primary Address	Take Size (SF)	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

FULL

Total Takes (Roadway and Pond)

	Parcel ID	Owner Name	Primary Address	Take Size (SF)	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

Manatee County
FLORIDA