



Professional Engineers, Planners & Land Surveyors

October 27, 2021

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Lee County Department of Community Development
1500 Monroe Street
Fort Myers, Florida 33901

**REFERENCE: OWL CREEK RESERVE MINOR RPD
DCI2021-00011
2nd Sufficiency Response**

Dear Dirk:

This letter is written in response to the review comments dated September 10, 2021 and the pre-application meeting held on September 21, 2021.

With this letter we are submitting the following additional information requested for the project:

1. Email of no objection from Bayshore Fire & Rescue
2. Sufficiency Letter for Companion CPA Cases
3. Revised Narrative of Request
4. Revised MCP (24"x36" & 11"x17")
5. Revised FLUCCS/Vegetation Map
6. Revised Wetland Map
7. Revised Rare and Unique Upland Map
8. Revised Indigenous Habitat Management Plan
9. Revised Protected Species Assessment
10. Enhancement and Preservation Map
11. Revised PD Application
12. Revised Preliminary Density Calculations
13. Revised Stormwater Planning Report
14. Revised Canoe/Kayak Launch Details
15. Revised Bathymetric Survey
16. Revised Private Multi-Slip Docking Facility and Tidal Lagoon Plans and Details
17. Revised Water Resources Report

Presented below are responses to each review comment:

ZONING

Comment 1: Subsequent to rescheduling public information meetings, please provide evidence of compliance with LDC Section 33-1663 and Lee Plan Policy 27.1.8.

Response: *The applicant is in the process of scheduling additional public information*

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Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

October 27, 2021
Page 2 of 15

meetings within the Alva and North Olga Planning Communities and will provide the required summaries once the meetings are held.

Comment 2: Regarding Deviation (2), the applicant proposed a condition to provide a letter of no objection from the Bayshore Fire Protection and Rescue Service District prior to development order approval. Failure to receive this letter of no objection from Bayshore Fire Protection would result in a necessary amendment to the Master Concept Plan. Staff requires this letter prior to recommendation of approval for this deviation.

Response: ***Enclosed is an email demonstrating no objection from Bayshore Fire.***

Comment 3: Staff Note: This review may be subject to additional comments as the review of CPA2020-00004 and CPA2020-00005 continues.

Response: ***Please see attached sufficiency letter for the companion CPA Cases dated September 28, 2021.***

Comment 4: Staff Note: This case will not be found sufficient until the companion CPA Cases are found sufficient for Hearing.

Response: ***Please see attached sufficiency letter for the companion CPA Cases dated September 28, 2021.***

PLANNING

Comment 1: Please provide a new Lee Plan analysis with updated language once the companion CPA case has been found sufficient.

Response: ***The companion CPA cases have been found sufficient and the attached Narrative of Request includes language addressing the requested amendments.***

Comment 2: In your Lee Plan narrative, please provide analysis on Policy 143.2.2, in regards to the archaeological sites on the subject property.

Response: ***The Narrative of Request has been appended to include discussion of Policy 143.2.2. All of the archaeological sites recommended for preservation are being preserved and are shown on the MCP.***

Comment 3: Courtesy Comment: The DCI will remain insufficient until the companion CPA case has been found sufficient.

Response: ***Please see attached sufficiency letter for the companion CPA Cases dated September 28, 2021.***

ENVIRONMENTAL SCIENCES

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

October 27, 2021
Page 3 of 15

Comment 1: Please, provide the corrected upland and wetland boundaries once the SFWMD has completed the wetland determination. The SFWMD correspondence provided indicates that there are inconsistencies. The information provided to the county must be consistent with the SFWMD wetland and upland habitat boundaries in order to ensure the proposed density is accurate.

Response: *DexBender ecologists met with SFWMD and FDEP staff onsite on September 16, 2021. Two areas of uplands were determined to be jurisdictional wetlands and the total area of wetlands onsite is 120.45 acres. Please find revised Vegetation, Wetland, and Rare and Unique Upland Maps along with the Indigenous Habitat Management Plan (IHMP) which accounts for this change.*

Comment 2: Indigenous Habitat Management Plan – Revise the document to separate the upland preservation, wetland preservation, upland restoration, wetland restoration, rare and unique preservation, rare and unique restoration, marsh/flushing areas. Each area must state the acreage to coincide with Figure 2 and 3, provide a narrative for each area explaining the type of management technique (i.e. mechanical, no machines, stacking/teepee, staging), supporting management maps, and restoration plant lists for each area. The acreages must add up to 169.12 acres. The current report references preserve and restoration areas differently as well as combines the acreages for uplands and wetlands.

Response: *Please find the revised IHMP. The upland restoration and rare and unique upland restoration are the same category and are called rare and unique upland restoration in the IHMP. The wetland restoration and marsh restoration are the same and called wetland restoration in the IHMP.*

Comment 3: Indigenous Habitat Management Plan - Please note that rare and unique habitat must comply with the Lee Plan glossary definition. Some of the areas designated as rare and unique restoration and preservation do not comply with this definition. Revise and ensure the acreages of these areas are changed accordingly.

Response: *The rare and unique upland preservation areas currently comply with the Lee Plan glossary definition as the preserved habitats include live oak hammocks (FLUCCS 427) and cabbage palm hammocks (FLUCCS 428). The rare and unique upland restoration areas do not meet these criteria as they are currently pasture but will be restored to live oak hammocks per the attached IHMP and shown in Figures 2 and 3. The rare and unique upland preservation and rare and unique upland restoration categories have been separated to show this more clearly.*

Comment 4: Indigenous Habitat Management Plan – One of the management tools specified that may be utilized is kill in place or stacking/teepee method. Please be specific as to where this method will be used as leaving dead material within the preserves that are associated with the flowway restoration/preservation may impede the movement of water. Please work with your hydrology team to decide if this needs mechanical or by-hand

methods for exotic removal.

Response: *The IHMP has been revised to restrict the placement of any log cabin or teepee piles from the FEMA floodway of Trout and Owl Creeks and to have minimum spacing between the piles of 100' in order to eliminate any potential for impeding the movement of water. Mechanical removal of cut vegetative material is not possible due to the muck soils. Hand removal may be possible near the edges of the preservation areas, however, a portion of the exotic vegetation is a significant distance from any edge and would be very difficult to remove by hand. Debris from the FEMA floodway will be removed from this area and piled as described in the IHMP outside of the floodway.*

Comment 5: Indigenous Habitat Management Plan – Please indicate if prescribed fire will be used as a management tool and if it is, please re-evaluate the kill in place or stacking/teepee method as it will increase fuel loads.

Response: *Prescribed fire will not be used as a management tool as it is not appropriate for this habitat type. Live oak communities are not a fire dependent community.*

Comment 6: Indigenous Habitat Management Plan – Provide information within the rare and unique restoration section as to what FLUCCS these areas will be restored to and be sure that the FLUCCS indicated complies with the rare and unique Lee Plan glossary definition. In addition, include how the soil will be amended to support the rare and unique FLUCCS.

Response: *The IHMP has been revised to describe that the rare and unique habitat restoration areas will be restored to be live oak hammocks (FLUCCS 427) and cabbage palm hammocks (FLUCCS 428). Figure 3 shows the post restoration community types. The IHMP has been revised to include the statement "If any of the planting areas have compacted soils, the soil area around each planting will be loosened. This may be accomplished by hand or mechanical means." The rare and unique upland restoration areas were historically oak hammocks, so the soil should be ideal for the restoration of this community and soil amendment is not necessary.*

Comment 7: Indigenous Habitat Management Plan – Per LDC Section 10-415(c), indigenous open space must have a minimum average dimension of 40-feet and a minimum area of 1,500 square feet for projects that are ten or more acres in size. The indigenous habitat management plan and supporting maps depict rare and unique restoration areas along North River Road that do not comply with the minimum dimensions. Revise to add more rare and unique restoration area to meet the definition.

Response: *Although the LDC does not require open space for single-family lots minimum 6,500 SF or two-family attached lots minimum 3,750 SF, so there are no code required indigenous open space areas, we have still increased the size of the rare and unique restoration along North River Road so that the restoration area averages 40' in width.*

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

October 27, 2021
Page 5 of 15

Comment 8: Indigenous Habitat Management Plan – Page 4 of the document, last paragraph states that Figure 3 shows the rare and unique restoration and Figure 3 does not depict this type of restoration. Revise for consistency.

Response: *The IHMP has been revised for consistency.*

Comment 9: Indigenous Habitat Management Plan – Revise Table 1 and 2 to add more species to ensure diversity if a certain species is unavailable at time of installation.

Response: *Additional species have been added to the restoration planting plans in the attached IHMP. No additional tree species were added to Table 1 as the canopy of live oak communities are comprised of the three species listed.*

Comment 10: Indigenous Habitat Management Plan – Page 7 describes performance standards and barricade descriptions for the mitigation areas only (163.5 acres). The overall report or supporting maps do not depict or provide details of mitigation areas. Revise to provide the Lee County requirements per LDC Section 10-474 to include the entire indigenous preserve/restoration of 169.12 acres. Indigenous Habitat Management Plan – Page 8 states that there is a proposed two year recruitment window before restoration plants will be installed. Lee County will require restoration to begin in accordance with the approved phasing plan that is associated with the approved density. The density depends on the restoration and preservation. Revise the document to comply with the comprehensive plan amendment to support the density being requested.

Response: *The IHMP has been revised to include surface water and other surface water preservation so that the overall preservation and restoration acreages are consistent. Condition 3 of the Ecological Performance Standards refers to an 80% coverage of desirable vegetation two years after the initial restoration plantings. Exotic vegetation removal and the rare and unique upland and wetland restoration must be certified complete prior to certificate of occupancy of the 323rd dwelling unit. If the restoration areas do not meet the 80% coverage by desirable vegetation two years after the initial planting, more restoration plantings may be necessary. This condition has been revised to clarify this and is included in condition 1.c of the proposed conditions of approval.*

Comment 11: Indigenous Habitat Management Plan – Revise page 9 to address the requirement of a vegetation removal permit for preserve maintenance. Initial management requires a vegetation removal permit that is associated with the development order. Ongoing management activities (in perpetuity) require a vegetation removal permit that is associated with the approved indigenous habitat management plan that is preserve area specific for the type of management that is being requested. The IHMP must reflect this in the time zero and long term monitoring sections.

Response: *The IHMP has been revised to include the recommend text.*

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

October 27, 2021
Page 6 of 15

Comment 12: Rare and Unique Preservation Map – This map depicts an area that is rare and unique uplands preservation (shown in yellow) and is also proposed to be restored (shown as basket weave hatch). Please explain why it is considered both in the rare and unique section of the Indigenous Habitat Management Plan.

Response: *The mapped rare and unique upland preservation and rare and unique upland restoration areas are two separate areas and this has been corrected in the Rare and Unique Upland map as well as Figure 2 in the IHMP.*

Comment 13: Rare and Unique Upland Preservation Map – This map depicts the rare and unique areas that will be considered preserved indigenous areas. However, some of these areas (shown in yellow) have an exotic value of 75% or greater exotic cover (along north area) and are not considered indigenous or rare and unique per the definitions in the LDC 10-1 and Lee Plan glossary. Please review the map to ensure these definitions are met.

Response: *The mapped rare and unique upland preservation and rare and unique upland restoration areas are two separate areas and this has been corrected in the Rare and Unique Upland map as well as Figure 2 in the IHMP.*

Comment 14: Protected Species – Please explain how the rare and unique restoration will create habitat for protected species. For instance, the rare and unique proposed flora species do not include FLUCCS 411 that would support Big Cypress Fox Squirrel, Gopher Tortoises, etc. Be specific in the individual fauna species section to state what area of restoration or preservation would support the specific fauna species.

Response: *The rare and unique upland restoration habitat type was chosen based on the historic habitats of the restoration areas. These areas historically were live oak hammocks (FLUCCS 427) and were converted to and maintained as pasture. The IHMP has been revised to specify which habitat will support each listed species. There were no gopher tortoises or their burrows or Big Cypress fox squirrels observed onsite.*

Comment 15: Owl Creek Wildlife Corridor Map – Revise Figure 1 to state the acreage and width for each wildlife corridor to coincide with the Indigenous Habitat Management Plan statement on the bottom of page 13.

Response: *Figure 1 has been revised to show the requested dimensions and areas.*

Comment 16: Enhancement and Preservation & Wildlife Corridor Maps – Expand these maps to depict the Owl Creek and Trout Creek Wildlife corridors restoration timeline. The top of page 14, second paragraph indicates that they will be graded, planted, and placed under a conservation easement prior to a mining operations permit (MOP). Revise this statement as this is not a mining planned development.

Response: *The maps have been revised to include the wildlife corridor restoration timeline. The IHMP has been revised to correct this statement.*

Comment 17: Indigenous Habitat Management Plan – Provide photo station pictures taken at the specific photo station points.

Response: *Please see the revised IHMP which includes baseline conditions pictures from the five photo points.*

Comment 18: Indigenous Habitat Management Plan – Review page 18, third paragraph to ensure that the acreages and the specific areas match the names of the specific areas on all corresponding maps. Currently, these do not match.

Response: *The IHMP has been revised to correct the inconsistent acreages.*

Comment 19: Indigenous Habitat Management Plan – Revise the document to add a section to address the archeological historic preservation areas noted on the master concept plan. This section must address how the indigenous preservation and restoration management will protect the historic areas.

Response: *The IHMP has been revised to include an archeological historic preservation areas section. The locations of these three areas have been added to Figure 2 in the IHMP.*

Comment 20: Indigenous Habitat Management Plan and 50-foot Natural Waterway Buffer (LDC Section 10-416(d)(9)) – Review the requirements for the required 50-foot natural waterway buffer that is measured from the mean high-water line or top of bank, whichever is further landward. The 50-foot natural waterway buffer must be located within a common area or tract outside of all private boundaries. The 50-foot natural waterway buffer must consist of specific vegetation. Please provide details in the Indigenous Habitat Management Plan and the overall project narrative how the indigenous preserve and/or restoration as well as the kayak launch facility will comply with LDC Section 10-416(d)(9). Please note that LDC Section 10-416(d)(9)(a) does not prohibit use of the buffer area for passive recreational uses. In addition, please explain how the restoration/preservation, kayak launch, and buffer plantings will be designed to allow positive hydrologic flow.

Response: *We have provided cross sections showing the proposed natural waterway buffer. The buffer will be a minimum of 50' from the top of bank of the creeks since the top of bank is landward of the MHWL in all cases. In the tidal areas, the top of bank and mean high-water line are approximately the same. The northern areas of the Owl Creek tributary are not tidal and therefor don't have a MHWL. The cross section further clarifies that the required trees and shrubs will be provided.*

Comment 21: Master Concept Plan – The plan depicts a shaded Owl Creek with a 50-foot natural waterway buffer that according to the legend is surface waters/other surface water preservation. Trout Creek is not shaded and has a 50-foot natural waterway buffer. There are shaded areas not labeled with no 50-foot natural waterway buffer depicted. Shade all surface water/other surface

water preservation areas and label the 50-foot natural waterway buffer.

Response: *We have clarified and consistently shaded the location of the natural waterways. We have added shading to Trout Creek since it is a natural waterway. We have also clarified the location of the other surface waters.*

Comment 22: Master Concept Plan – Provide cross sections of the creeks to depict how the 50-foot natural waterway is being measured, any regrading of slope (if applicable per hydrology review), kayak launch, flushing canal, and marsh. The plans are unclear.

Response: *We have provided cross sections showing the proposed natural waterway buffer. The buffer will be a minimum of 50' from the top of bank of the creeks since the top of bank is landward of the MHWL in all cases. In the tidal areas, the top of bank and mean high-water line are approximately the same. We are also requesting a deviation to the required 50' natural waterway buffer to allow the shoreline modifications needed for the kayak launch, flushing cut and road crossings.*

In the revised Multi-Slip Docking Facility & Tidal Lagoon Plans & Details set and the Overall Site Bathymetry (Sheet 3-18) shows the 50' Natural Waterway Buffer Requirement added. This requirement is a 50' offset landward from the top of bank /approximate mean high-water line of the waterbody. For the slope descriptions of the canoe/kayak launch and the tidal channel slope, please refer to Cross Section I-I (Sheet 18-18) of the revised plan set. For the slope description of the marsh, please refer to Cross Section B-B (Sheet 14-18) of the revised plan set.

Comment 23: Master Concept Plan and Indigenous Habitat Management Plan – Revise the upland preserve/restoration to note the individual acreages for each. The master concept plan notes provides specific acreages and areas that must correspond with the indigenous habitat management plan. The current documents do not match.

Response: *The attached revised Master Concept Plan and IHMP identify the same acreages.*

Comment 24: Master Concept Plan – Depict the rare and unique preservation, rare and unique restoration, upland preserve, upland restoration, and wetland preserve, wetland restoration, and created marsh with different hatching designs.

Response: *The MCP has been revised to show the rare and unique preservation, rare and unique restoration, upland preserve, upland restoration, and wetland preserve, wetland restoration, and created marsh with different hatching as requested.*

Comment 25: Master Concept Plan – The applicant states that the North River Road buffer will be planted with 14-foot-in-height trees as part of the rare and unique restoration. The Indigenous Habitat Management Plan does not include

these increase heights or information regarding the specifics of this buffer. The restoration specifications would allow six-foot-in-height trees and one-gallon shrub material. Please revise to demonstrate and provided details as to how the enhanced 50-foot buffer setback along external roads and property line will be designed to preserve the rural vista and view sheds as stated in proposed conditions document provided by the applicant.

Response: *Language has been added in the IHMP that requires that the larger buffer plants be required along North River Road where the Rare and Unique upland restoration areas overlap with the required 25' buffer and along the 50-foot natural waterway buffers. The restoration areas provide separation and vegetation which provide a rural vista and view sheds in lieu of providing single-family lots in these areas. Additionally, the dry detention areas will be planted with wetland plant species.*

Comment 26: Canoe/Kayak Launch Exhibit – Page 1 of the exhibit depicts dashed hatching along the channel. Please indicate what the hatching represents.

Response: *In the revised Canoe/Kayak Launch Exhibit, Detail F – Proposed Paddle Craft Ramp (Sheet 13-18) the hatching is the 20' wide proposed littoral shelf on each side of the proposed 30' tidal channel. The hatching in the waterway was intended for the larger scale drawings and is now turned off.*

Comment 27: Canoe/Kayak Launch, Tidal Lagoon, Indigenous Habitat Management Plan, and Natural Waterway Buffer – Please provide canoe/kayak launch and tidal lagoon sections within the indigenous habitat management plan to address the impact to the indigenous area, how the indigenous area between Trout Creek and the flushing canal will be maintained/restored, and the integration of the marsh and indigenous area will have on the protected species.

Response: *To accommodate the Indigenous Habitat Management Plan, a 20' wide littoral shelf was proposed along the edges of the newly created tidal lagoons and tidal channel. The 20' wide littoral shelves will act as a filtration system for the stormwater runoff as well as uptake of nutrients. The filtration will improve the water quality capturing a portion of the discharge from Trout Creek before it reaches the Caloosahatchee River by removing the excess nutrients and helping prevent algal blooms. The littoral shelves create an intertidal zone that will also provide habitat for wildlife such as fish, amphibians, birds, and terrestrial species. At the mouth of the tidal channel, where it meets Trout Creek, 900 square feet of rip rap is proposed as a stability measure to prevent the erosion of the littoral shelf. Refer to Private Multi-Slip Docking Facility & Tidal Lagoon Plans & Details Detail B – Tidal Lagoon/ Tidal Channel (Sheet 7-18) for a visual of the overall 20' littoral shelf and the proposed rip rap. Refer to Cross Section B-B (Sheet 14-18) for a visual of the slope and types of vegetation the littoral shelf will contain. Refer to Canoe/Kayak Launch Details Cross Section I-I (Sheet 18-18) for a visual of the tidal channel showing the littoral shelf.*

Comment 28: Human-Wildlife Coexistence Plan – Provide a human-wildlife coexistence plan that addresses the residential portion of the development separately from the

multi-slip docking facility and public canoe-kayak launch. Provide educational materials, types of trash receptacles for each use, educational signage specific for the type of use, etc.

Response: *The IHMP has been revised to include the requested information.*

DEVELOPMENT SERVICES

Comment 1: Please provide any information from the follow up community meeting and meetings with the existing single-family residences and marina. Please clarify the access arrangement for the existing residences and marina. The response indicated Owl Creek road have gates will be closed at night but access will remain. Will they be allowed through the gates? The MCP does not indicate any gates at Owl Creek Road.

Response: *DR Horton has continued to try and have discussions with Owl Creek Boatworks and the owner of the single family residence. We are working towards agreements allowing the easement to be modified. We have clarified that Owl Creek Road will be gated and access will be allowed for Owl Creek Boatworks and the single-family residence.*

NATURAL RESOURCES

Comment 1: Both water depth and the presence of sea grasses play an important role in the evaluation of a project site against the manatee protection plan. Given this, please provide an analysis detailing how the approximately 6.22 acres of proposed dredging is consistent with Lee Plan policy 128.5.8 as an analysis of Lee Plan policy 128.5.8 was not included in the resubmittal. In addition, please provide a submerged aquatic vegetation survey of the project site to support the applicant's statement that no seagrass is present near or around the subject site.

Response: *According to the Lee Plan Policy 128.5.8 "Boat access facilities should be located in areas of maximum physical advantage. Adequate existing water depths between the proposed facility and any navigational channel, inlet, or deep water, are preferred, as new dredging is discouraged." The existing channel on the west side of the subject property, that runs north and south from the Caloosahatchee, towards Trout Creek, does have enough adequate water depth that can support the boats that are present on the Caloosahatchee. Once leaving the navigational channel, the water depths are no longer adequate in the proposed work area. Dredging is proposed to avoid unnecessary and harmful prop dredging and bottom scaring. Dredging needs to be completed to support the proposed docks and vessels, and to meet the minimum requirements of -4 MLW according to the Manatee Protection Plan of Lee County. The proposed work area is in a location of maximum advantage area due to the fact there is no presence of seagrass. Due to the low light penetration (<1-2 ft), and the mucky/silty bottom soils, seagrass growth in this area would lean towards unlikely. The soils are too soft to be able to support seagrass roots, and the tannic colored water does not allow light penetration to allow seagrasses to photosynthesis.*

With all considered the proposed boat facility is located in an area of

maximum advantage. It's location along the Caloosahatchee will be of public interest, and not effect any navigational channels, nor will it impact or effect any natural resources.

Comment 2: The proposed access walkways, terminal platforms, and finger piers exceed the maximum dimensions within the Land Development Code. Based on the proposed multi-slip dock facility design a deviation from Chapter 26 may be required. Please address.

Response: According to Section 26-71 of the Lee County Land Development Code, there are no maximum dimensions stated for the design of a multi-slip and marina docking facility. The access walkway, terminal platform, and finger pier dimensions in Chapter 26 are specified for only single-family residential homes.

Comment 3: Please clarify whether impacts within the 50ft natural waterway buffer are proposed to the Owl Creek tributary at the connection to the Northwest development pod. If impacts are proposed, please expand on why this impact is necessary and request a deviation from LDC 10-416(d)(9).

Response: A deviation is being requested for the at grade roadway crossings of Owl Creek, for the bridge crossing of Trout Creek, and for the shoreline work for the kayak launch and flushing cut. We have provided a narrative discussion to support the deviation.

Comment 4: Please revise the exotic vegetation removal plan as described on page 4 of the Indigenous Habitat Management Plan to include, as part of the initial treatment and future maintenance, the complete removal of vegetation debris from the FEMA Regulatory Floodways. The practices of stacking and tee-peeing are not to occur within the FEMA Floodway boundaries.

Response: The IHMP has been revised to account for the FEMA Floodways.

Comment 5: There appears to be a discrepancy between the "Bridge Sections" and "Bridge Cross Section Views" details. The Cross Section Views show a 1' increase in clearance between the existing and proposed bridges with a MHW of 0.23', while the Sections show a centerline bridge surface elevation difference of 6.50' with the MHW unchanged. How is the clearance only 1' when the bridge surface is raised 6.50'? Will the bridge design allow Natural Resources continued access under the bridge for maintenance of Trout Creek?

Response: The Sections have been revised to show that there will be a minimum of 6' vertical clearance between Mean High Water and the lowest horizontal member of the new bridge, and 16' horizontal spacing of the support pilings. The existing bridge has 4.7' of vertical clearance at Mean High Water and 12' spacing of the support pilings. If Natural Resources is navigating under the existing bridge, they will be able to navigate under the proposed bridge.

Comment 6: Figure 7 on page 9 of the Stormwater Planning report depicts development within the floodway boundaries in the northwestern development pod, within the Owl Creek floodway, and the development pod adjacent to Owl Creek Boat Works, within the Trout Creek floodway. Please be advised that a FEMA No-Rise analysis will be required for review and approval for any portions of the FEMA Regulatory floodways that are proposed to be filled.

Response: ***Acknowledged. See proposed condition 9: If the FEMA Regulatory floodways are still in place at the time of Development Order permitting, a FEMA No Rise analysis will be provided, or the site plan revised to avoid the floodway.***

Comment 7: Please demonstrate how the proposed irrigation system is consistent with Lee Plan Policies 60.1.1 and 61.1.6.

Response: ***Reuse water is not currently available. Consistent with Policy 61.1.6, the use of reclaimed water will be pursued to meet a portion or all of the irrigation needs as soon as it is available. The proposed irrigation system will consist of stormwater harvesting from the stormwater management lakes that are hydraulically connected to the Water Table Aquifer. Consistent with Policy 60.1.1, the stormwater management system will be designed to meet or exceed water quality and water level management requirements of the South Florida Water Management District (SFWMD), The Florida Department of Environmental Protection, and Lee County. Lake system irrigation withdrawals will be re-supplied by groundwater from the fresh to mildly brackish Sandstone Aquifer. Actual percentages of lake and groundwater withdrawals will be determined during the water use permitting process with the SFWMD and will ensure that its use will not result in adverse impacts to the water resource. The combination of any use of mildly brackish groundwater and fresh stormwater will maintain a chloride level of less than 200 mg/l in compliance with SFWMD policy.***

Comment 8: Please revise the Surface water and Groundwater Monitoring Plan to include at a minimum:

- Language allowing for additional of groundwater and surface water sampling locations as the project is designed.
- Two groundwater monitoring locations, one in the northeast and one in the southwest areas of the project to monitor water quality entering and leaving the project.
- Additional surface water sampling locations at each outfall location into wetlands and/or creeks.
- Identify and depict the proposed irrigation withdrawal locations from the onsite lakes as well as the locations of Sandstone aquifer wells that will be used to replenish the lakes.
- An aquifer water-table level monitoring plan must be included to ensure that surrounding groundwater levels are not impacted as a result of irrigation withdrawals. The water level monitoring plan must at a minimum include monitoring locations centrally located at each lake to be used as an irrigation source, devices that take water level measurements every six hours four times a day must be installed, and additional monitoring locations centrally located between the Sandstone aquifer wells must be installed.

Response: ***See attached revised Water Resources Report for the narrative and depiction (Figure 8) of included minimum requirements.***

Comment 9: Please revise Table 2, Summary of Surface Water and Groundwater Sampling Parameters, of the Water Resources Report to include hardness and E. coli instead of Fecal coliform. Please include hardness and E. coli in the quarterly monitoring events.

Response: ***See attached revised Water Resources Report for the updated Table 2 "Summary of Surface Water and Groundwater Sampling Parameters" including updated monitoring/reporting requirements.***

Comment 10: Please revise the units within Table 2 of the Water Resources Report to be reported as:

- µg/L instead of mg/L for Florida PRO (TRPH), Arsenic, Copper, and Mercury;
- MNP/100mL for E. coli;
- ft NAVD instead of ft NGVD for Lake Stage, Water Table Aquifer Elevation, and Sandstone Aquifer Elevation.

Response: ***See attached revised Water Resources Report for the updated Table 2 "Summary of Surface Water and Groundwater Sampling Parameters" including updated monitoring/reporting requirements.***

Comment 11: On page 16 of the Water Resources report, please amend the statement regarding the discontinuation of monitoring as follows:

Comment 12: "Water Quality monitoring will continue for a minimum of 5 years from the date of completion of the stormwater management system. After 5 years of meeting or exceeding state water quality monitoring standards, the developer may amend or discontinue water quality monitoring and reporting after written request, review, and approval by Lee County Division of Natural Resources."

Response: ***See attached revised Water Resources Report for the amended statement for the discontinuation of monitoring requirements.***

Comment 13: How will the applicant ensure that the existing single-family home, STRAP # 19-43-26-00-00002.0000, will have continued access to their property? It seems the proposed project will turn the existing single family home parcel into an island.

Response: ***The project will provide an improved access to Owl Creek Boatworks and to the existing single family roadway. The existing access road is only one lane wide and is prone to flooding. The new roadway will be 2 lanes and raised above the flood stage of the 25 year design storm. The single family residence will have access across the new bridge across Trout Creek. This new bridge will be designed to allow fire trucks to cross which is not the case with the existing bridge.***

Comment 14: Courtesy Comment

Please contact Leigh Simmons with Natural Resources at lsimmons@leegov.com or (239) 533-8135 to coordinate marking each storm drain with a "Control Your Pet Waste" marker. The HOA documents must include a requirement of pet waste pickup and education material informing residents of the impaired watershed.

Response: *We will include the marking of the storm drains as the requirement that pet waste be picked up as part of the HOA document requirements. These requirement can be addressed during the Development Order process for the project.*

PRE-APPLICATION MEETING REQUESTS

Request 1: Expand on and confirm that there are no saltwater wetlands on site.

Response: *The wetlands on the site are all freshwater wetlands. The wetland adjacent to Trout Creek (FLUCCS Code 619BP) in the southern portion of the property is dominated by Brazilian pepper and includes pond apple, wax myrtle, cabbage palm, melaleuca, marsh pennywort, elephant ears, leather fern, and climbing hempvine. These species are not considered to be part of any salt water wetland community. There is a fringe of red mangroves along the shoreline. This fringe is intermittent with a few individual trees in clumps. This fringe is one tree wide at approximately 10-20' in width. Much of this fringe is not part of the subject property as it is waterward of the mean high water line which is also the property line. The mangrove fringe is not contiguous and is not large enough to map. If the exotic vegetation were to be removed from this wetland, it would become a shrub wetland dominated by pond apple, wax myrtle, and leather fern.*

According to Ecosystems of Florida (Myers and Ewel, 1990) salt water wetlands in Florida include mangrove forests, salt water marshes, sea grass beds, and tidal flats. Mangrove forests are dominated by red, white, and/or black mangroves. Salt water wetlands include salt water marshes which are typically dominated by smooth cordgrass and/or black needle rush. Sea grass beds include submerged species like turtle grass, shoal grass, and/or widgeon grass. Tidal flats tend to not be vegetated. None of the wetlands onsite can be classified as being any of these communities.

Request 2: Verify rare and unique is not counted on back of slopes for upland buffers.

Response: *The Rare and Unique upland areas are not counted on the back of slopes.*

Request 3: Verify monitoring condition and timing of restoration.

Response: *Please see attached revised Indigenous Habitat Management Plan Schedule and Ecological Performance Standards and revised Proposed Conditions 1.c. and 2.e.*

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

October 27, 2021
Page 15 of 15

Request 4: Check LDC Chapter 10 if any deviations are necessary for setback to property line for the tidal lagoon/restored surface water area.

Response: *Please see Detail B of the Private Multi-Slip Docking Facility & Tidal Lagoon Plans & Details which shows the location of the existing manmade ditch along this property line. The tidal lagoon/restored surface water area is outside of the stormwater management system and is not for water retention or detention so LDC Section 10-329(d)(1) is not applicable.*

If you have any questions or I may be of further assistance, please do not hesitate to contact me at (239) 770-2527 or shewitt@bankseng.com.

Sincerely,
BANKS ENGINEERING



Stacy Ellis Hewitt, AICP
Director of Planning

Attachments

SEH:jms



Board of County Commissioners

Kevin Ruane
District One

September 28, 2021

Cecil L. Pendergrass
District Two

Ray Sandelli
District Three

Brian Hamman
District Four

Frank Mann
District Five

Roger Desjarlais
County Manager

Richard Wm. Wesch
County Attorney

Donna Marie Collins
County Hearing
Examiner

Banks Engineering
Attn: Stacy Ellis Hewitt, AICP
10511 Six Mile Cypress Pkwy Suite 4800
Fort Myers, FL 33966

RE: CPA2020-00004 and CPA2020-00005 Sufficiency Letter (Owl Creek)

Dear Ms. Hewitt:

Staff has reviewed the comprehensive plan amendment sufficiency responses for CPA2020-00004 and CPA2020-00005, stamped received on August 13, 2021 and finds the application to be sufficient. Staff's substantive comments, along with the staff report, are being prepared.

You will be notified once the Local Planning Agency date has been determined.

The applicant will need to submit 15 copies of the complete and sufficient application materials for use at the LPA and BoCC hearings. These must be provided at least 14 days prior to the LPA hearing.

Sincerely,
Lee County DCD Planning Section

A handwritten signature in black ink, appearing to read "Tyler Griffin".

Tyler Griffin, Planner

Cc: Brandon Dunn, Planner, Principal

From: dunderwood@bayshorefire.org
To: [Stacy Hewitt](#)
Subject: RE: Owl Creek Reserve RPD
Date: Thursday, October 14, 2021 9:53:40 AM



IRONSCALES couldn't recognize this email as this is the first time you received an email from this sender dunderwood@bayshorefire.org

Good morning Stacy,

Bayshore Fire District has no objections to the proposed t turn-around as proposed. Please let me know if you have any further questions or needs on this.

William “Doug” Underwood, BPA

Fire Chief

Fire Investigator

Commander, Lee County Arson Task Force

Bayshore Fire & Rescue

www.bayshorefire.org

dunderwood@bayshorefire.org

239-543-3443 office

239-980-8492 cell

239-543-7075 fax

From: tsharp@bayshorefire.org <tsharp@bayshorefire.org>
Sent: Tuesday, October 12, 2021 5:44 PM
To: dunderwood@bayshorefire.org
Subject: FW: Owl Creek Reserve RPD

From: Stacy Hewitt <SHewitt@BanksEng.com>
Sent: Tuesday, October 12, 2021 5:00 PM
To: chief@bayshorefire.org
Cc: tsharp@bayshorefire.org
Subject: Owl Creek Reserve RPD

Good afternoon Chief Nisbet. I hope all is well.

We are working on the planned development zoning application for the above referenced project that is located on the south side of N. River Road approximately ½ mile east of its intersection with SR 31. You provided us a letter of review and recommendation for the Comprehensive Plan amendment back in August 2020. Lee County has requested that we provide a letter of no objection from Bayshore Fire Protection and Rescue Service District regarding a proposed deviation from the Lee County Land Development Code to allow a t-turnaround as shown on the attached Master Concept Plan identified by the red circle and per below deviation language and justification and site plan excerpt image.

Deviation (2): Deviation 2 seeks relief from LDC Section 10-296(k)(1), which requires dead-end streets to provide a circular turnaround, to allow a dead-end street with a t-intersection in Tract 1 as shown on the MCP.

Justification: The requested deviation is included in LDC Section 10-104(a) (9) list of provisions where the Development Services Director is authorized to grant administrative deviations. This deviation is requested to allow a t-turnaround in Tract 1 as shown on the MCP. The t-turnaround in Tract 1 is ±135' in length in lieu of a cul-de-sac to access approximately 4 lots in the northeastern portion of the development. Access to these few lots do not require a turn-around per NFPA standards. This short street only serves 4 units. The t-turnaround provides adequate access to the units and for emergency vehicles. The requested deviation is internal to the site and enhances the achievement of the objectives of the planned development and will preserve and promote the general intent to protect the public health, safety and welfare. The alternative proposed is based on sound engineering practices and is no less consistent with the health, safety and welfare of abutting landowners and the general public than the standard from which the deviation is being requested. The granting of the deviation is not inconsistent with any specific policy directive of the Board of County Commissioners, any other ordinance or any Lee Plan provision.



Please do not hesitate to contact me via cell or email if you have any questions or require further information.

Thank you and please take care,

Stacy

Stacy Ellis Hewitt, AICP

Director of Planning



10511 Six Mile Cypress Parkway

Fort Myers, Florida 33966

Office: (239) 939-5490

Cell: (239) 770-2527

Fax: (239) 939-2523

E-Mail: shewitt@bankseng.com



APPLICATION FOR PLANNED DEVELOPMENT PUBLIC HEARING UNINCORPORATED AREAS ONLY

Project Name: Owl Creek Reserve Minor RPD

Request: Rezone from: AG-2 To: RPD

Type: ☐ Major PD ☒ Minor PD ☐ DRI w/Rezoning ☐ PRFPD
☐ Major PD Amendment ☐ Minor PD Amendment

Bonus Density included? ☒ NO ☐ YES¹ for: _____ Bonus Units

¹ If **YES**, submit additional fee required by LDC 2-147(A)(3)

Summary of Project:

Rezoning of ±342.68 acres from Agricultural (AG-2) to minor Residential Planned Development (RPD) to allow development of a clustered residential community containing up to 380 dwelling units consisting of single-family and two-family attached with associated amenities while providing for significant environmental, historical, storm water, water quality and infrastructure enhancements. Maximum building height is 35 feet.

PART 1

APPLICANT/AGENT INFORMATION

A. Name of Applicant: D.R. Horton, Inc.

Address: 10541 Six Mile Cypress Parkway, Suite 101

City, State, Zip: Fort Myers, FL 33966

Phone Number: 239-225-2600

E-mail Address: jweverett@drhorton.com

B. Relationship of Applicant to owner (check one) and provide [Affidavit of Authorization](#) form:

☐ Applicant is the sole owner of the property. [34-201(a)(1)a.1.]

☒ Applicant has been authorized by the owner(s) to represent them for this action. [34-202(a)(3)]

☐ Application is County initiated. Attach BOCC authorization.

C. Authorized Agent: (If different than applicant) Name of the person who is to receive all County-initiated correspondence regarding this application. [34-202(a)(4)]

1. Company Name: Banks Engineering

Contact Person: Stacy Ellis Hewitt, AICP

Address: 10511 Six Mile Cypress Parkway, Suite 101

City, State, Zip: Fort Myers, FL 33966

Phone Number: 239-770-2527/239-939-5490

Email: SHewitt@bankseng.com

2. **[Additional Agent\(s\)](#):** Provide the names of other agents that the County may contact concerning this application. [34-202(a)(4)]

LEE COUNTY COMMUNITY DEVELOPMENT
PO BOX 398 (1500 MONROE STREET), FORT MYERS, FL 33902
PHONE (239) 533-8585

PART 2 PROPERTY OWNERSHIP

A. Property owner(s): If multiple owners (corporation, partnership, trust, association), provide a list with owner interest. [34-202(a)(2)]

Name: Talon Ventures, LLC

Address: 10 Wimbledon Court

City, State, Zip: Frisco, Texas 75034

Phone Number: _____ Email: _____

B. Disclosure of Interest [34-202(a)(2)]:

☒ Attach [Disclosure of Interest](#) Form.

C. Multiple parcels:

☐ Property owners list. [34-202(a)(8)]

☐ Property owners map. [34-202(a)(8)]

D. Certification of Title and Encumbrances [34-202(a)(7)]

1. Title certification document, no greater than 90 days old.

2. Date property was acquired by present owner(s): 12/15/2009

PART 3 PROPERTY INFORMATION

A. STRAP Number(s): [Attach extra sheets if additional space is needed.] [34-203(a)(5)]

18-43-26-00-00002.0020; 18-43-26-00-00002.0000 & 19-43-26-00-00002.1020

B. Street Address of Property: 12850 N. River Road; 18420 Owl Creek Drive & 17900 Owl Creek Drive

C. Legal Description (must submit) [34-202(a)(5)]:

☒ Legal description (metes and bounds) (8½"x11") and sealed sketch of the legal description.

OR

☐ Legal description (NO metes and bounds) if the property is located within a subdivision platted per F.S. Chapter 177, and is recorded in the Official Records of Lee County under Instruments or Plat Books. ([Click here](#) to see an example of a legal description with no metes and bounds.)

AND

Boundary Survey [34-202(a)(6)]:

☒ A Boundary survey, tied to the state plane coordinate system.

OR

☐ Not required if the property is located within a subdivision platted per F.S. Chapter 177.

D. Surrounding property owners (within 500 feet of the perimeter of the subject parcel or portion thereof that is subject of the request):

1. ☒ List of surrounding property owners. [34-202(a)(9)]

2. ☒ Map of surrounding property owners. [34-202(a)(9)]

3. ☒ One set of mailing labels. [34-202(a)(9)]

Note: When the case is found complete/ sufficient, a new list and mailing labels must be submitted.

E. Current Zoning of Property: AG-2

☐ Provide a list of all Zoning Resolutions and Zoning Approvals applicable to the subject property.

F. Use(s) of Property:

1. Current uses of property are: Agricultural grazing lands

2. Intended uses of property are: Residential

G. Future Land Use Classification (Lee Plan):

Rural	<u>±216.49*</u>	Acres	<u>±63.2</u>	% of Total
Wetlands	<u>±126.19**</u>	Acres	<u>±36.8</u>	% of Total
		Acres		% of Total

*includes ±4.42 ac artificial ditches & lake/OSW

**±120.45 ac & ±5.74 ac SW/OSW

H. Property Dimensions:

1. Width (average if irregular parcel):	<u>±2,392</u>	Feet		
2. Depth (average if irregular parcel):	<u>±5,800</u>	Feet		
	(avg)			
3. Total area:	<u>±342.68</u>	Acres or square feet		
4. Frontage on road or street:	<u>±2,392.11</u>	Feet on	<u>North River Road (S.R. 78)</u>	Street
2 nd Frontage on road or street:	Entire	Feet on	<u>Owl Creek Drive</u>	Street
	length			

I. Planning Communities/Community Plan Area Requirements: If located in one of the following planning communities/community plan areas, provide a meeting summary document of the required public informational session.

- ☐ Not Applicable
☐ Captiva Planning Community (Captiva Island). [33-1612(a)&(b); Lee Plan Policy 13.1.7]
☐ North (Upper) Captiva Community Plan area. [33-1711]
☐ Boca Grande Planning Community. [Lee Plan Policy 22.1.5]
☐ Caloosahatchee Shores Community Plan area. [33-1482(a)&(b); Lee Plan Policy 21.6.3]
☐ Page Park Community Plan area. [33-1203(a) & (b); Lee Plan Policy 27.11.2]
☐ Palm Beach Boulevard Community Plan area. [Lee Plan Policy 23.5.2]
☐ Buckingham Planning Community. [Lee Plan Policy 17.7.2]
☐ Pine Island Planning Community. [33-1004(a) & (b); Lee Plan Policy 14.7.1]
☐ Lehigh Acres Planning Community. [33-1401(a)&(b); Lee Plan Policy 32.12.2]
☐ North Fort Myers Planning Community. [33-1532(a)&(b)]
☒ North Olga Community Plan area. [33-1663(a)&(b)]

J. Waivers from Application Submission Requirements: Attach waivers, if any, approved by the Director of Zoning. [34-201(c)]

PART 4 TYPES OF LAND AREA ON PROPERTY

A. Gross Acres (total area within described parcel)		<u>342.68</u>	Acres
1. Submerged land subject to tidal influence		<u>0</u>	Acres
2. a. Preserved freshwater wetlands	<u>±106.46</u>	Acres	±6.95 AC SW/OSW
b. Impacted wetlands	<u>±13.99</u>	Acres	
c. Preserved saltwater wetlands	<u>0</u>	Acres	
d. Total wetlands (A.2.a. plus A.2.b. plus A.2.c.)		<u>±120.45</u>	Acres
3. R-O-W providing access to non-residential uses		<u>0</u>	Acres
4. Non-residential use areas ^{(1) (2)}		<u>0</u>	Acres
B. Total area not eligible as gross residential acreage (Items A.1. + A.3. + A.4.).		<u>0</u>	Acres
C. Gross residential acres. (A minus B) ⁽³⁾		<u>342.68</u>	Acres
D. Gross residential acres (by Land Use Category)			
1. a. Intensive Development – upland			Acres
b. Intensive Development – preserved freshwater wetlands			Acres
c. Intensive Development – impacted wetlands			Acres
2. a. Central Urban – upland			Acres
b. Central Urban – preserved freshwater wetlands			Acres
c. Central Urban – impacted wetlands			Acres
3. a. Urban Community or Suburban – upland			Acres
b. Urban Community or Suburban – preserved freshwater wetlands			Acres
c. Urban Community or Suburban – impacted wetlands			Acres

4.	a.	Suburban – upland	_____	Acres
	b.	Suburban – preserved freshwater wetlands	_____	Acres
	c.	Suburban – impacted wetlands	_____	Acres
5.	a.	Outlying Suburban – upland	_____	Acres
	b.	Outlying Suburban – preserved freshwater wetlands	_____	Acres
	c.	Outlying Suburban – impacted wetlands	_____	Acres
6.	a.	Sub-Outlying Suburban – upland	_____	Acres
	b.	Sub-Outlying Suburban – preserved freshwater wetlands	_____	Acres
	c.	Sub-Outlying Suburban – impacted wetlands	_____	Acres
7.	a.	Rural, Outer Island, Rural Community Preserve – upland	<u>±216.49</u>	Acres
	b.	Rural, Outer Island, Rural Community Preserve – wetlands preserved	<u>±106.46</u>	Acres
		Rural, impacted wetlands	<u>±13.99</u>	
8.	a.	Open Lands – upland	_____	Acres
	b.	Open Lands – wetlands	_____	Acres
9.	a.	Resource – upland	_____	Acres
	b.	Resource – wetlands	_____	Acres
10.	a.	Wetlands	_____	Acres
11.	a.	New Community – upland	_____	Acres
	b.	New Community – wetlands	_____	Acres
12.	a.	University Community – upland	_____	Acres
	b.	University Community – wetlands	_____	Acres
13.	a.	Coastal Rural – upland	_____	Acres
	b.	Coastal Rural – wetlands	_____	Acres
		Natural Surface Waters	<u>±5.74</u>	
		TOTAL (should equal "C" above)	<u>342.68</u>	Acres

Notes:

- (1) Lands for commercial, office, industrial uses, natural water bodies, and other non-residential uses must not be included except within the Mixed Use Overlay {see Note (2) below}.
- (2) Within the Mixed Use Overlay, lands for commercial, office, industrial uses, natural water bodies, and other non-residential uses may be included in density calculations {see Lee Plan Objective 4.3}.
- (3) Lands to be used for residential uses including land within the development proposed to be used for streets & street rights of way, utility rights-of-way, public & private parks, recreation & open space, schools, community centers, & facilities such as police, fire & emergency services, sewage & water, drainage, and existing man-made waterbodies.

PART 5**RESIDENTIAL DEVELOPMENT - PRELIMINARY DENSITY CALCULATIONS**

- i. Complete only if living units are proposed in a Future Land Use Category.
- ii. If more than one classification, calculations for each classification must be submitted. Attach extra sheets as necessary.
- iii. If wetlands are located on the property, density calculations are considered preliminary pending a wetlands jurisdictional determination.

A. Future Land Use Category: Rural – See attached Preliminary Density Calculations per pending CPA2020-00004 & CPA2020-00005

		Lee Plan Table 1(a)		
		Max. standard density		Units
1.	Standard Units			
	a.	Total upland acres (from Part 4, D.)	_____ x _____ equals	_____
	b.	Total preserved freshwater wetlands acres (from Part 4, D.)	_____ x _____ equals	_____
	c.	Total impacted wetlands acres (from Part 4, D.)	_____ x _____ equals	_____
	d.	Total Allowed Standard Units ⁽¹⁾		<u>380</u>
2.	Bonus Units [2-143]			
	a.	Site-built Affordable Housing		_____
	b.	Transferrable Dwelling Units		_____
	c.	Sub-total		_____
3.	Total Permitted Units ⁽¹⁾			<u>380</u>

Note:

- (1) Subject to revision if wetlands jurisdictional determination indicates a different acreage of wetlands.

PART 6
COMMERCIAL, INDUSTRIAL, MINING, ASSISTED LIVING FACILITIES, HOTELS & MOTELS
PRELIMINARY INTENSITY CALCUATIONS N/A

A.	Commercial	Height	Total Floor Area (Square Feet)
	1. Medical		
	2. General Office		
	3. Retail		
	4. Other: _____		
	5. TOTAL FLOOR AREA		
B.	Industrial	Height	Total Floor Area (Square Feet)
	1. Under Roof		
	2. Not Under Roof		
	3. TOTAL FLOOR AREA		
C.	Mining	Depth	Total Acres
	1. Area to be excavated		
D.	Assisted Living Facilities	Height	Total Beds/Units
	1. Dependent Living Units		
	2. Independent Living Units		
	3. TOTAL BEDS/UNITS		
E.	Hotels/Motels (Room Size)	Height	Total Rental Units
	1. < 425 sq. ft.		
	2. 426-725 sq. ft.		
	3. 725 < sq. ft.		
	4. TOTAL UNITS		

PART 7
ACTION REQUESTED

- A. Request Statement:** Provide a single narrative explaining the nature of the request and how the property qualifies for the rezoning to a planned development. This narrative should include how the proposed development complies with the Lee Plan, the Land Development Code, and the applicable findings/review criteria set forth in LDC section 34-145(d)(4). This narrative may be utilized by the Board of County Commissioners, Hearing Examiner and staff in establishing a factual basis for the granting or denial of the rezoning. **[34-373(a)(5)]**
- B. Traffic Impact Statement.** A traffic impact statement in a format and to the degree of detail required by the County and in conformance with the adopted Lee County Administrative Code. TIS is not required for an existing development. **[34-373(a)(7)]**
- C. Master Concept Plan:**
1. **Master Concept Plan, Non-PRFPD:** A graphic illustration (Master Concept Plan) of the proposed development, showing and identifying the information required by LCLDC Section 34-373(a)(6)a. Copies of the Master Concept Plan must be provided in two sizes, 24"x36" and 11"x17", and must be clearly legible and drawn at a scale sufficient to adequately show and identify the required information. In addition to the Master Concept Plan, an open space design plan delineating the indigenous preserves and/or native tree preservation areas as required by LDC Section 10-415(b) must be submitted. **[34-373(a)(6)]**
 2. **Schedule of Uses:** A schedule of uses keyed to the Master Concept Plan as well as a summary for the entire property including the information required by LCLDC Section 34-373(a)(8)]. **[34-373(a)(8)]**

3. **Schedule of Deviations and Written Justification:** A schedule of deviations and a written justification for each deviation requested as part of the Master Concept Plan accompanied by documentation including sample detail drawings illustrating how each deviation would enhance the achievement of the objectives of the planned development and will not cause a detriment to public interests. The location of each requested deviation must be located/shown on the Master Concept Plan. **[34-373(a)(9)]**

D. Bonus Density: [34-202(a)(11)]

- ☒ Not Applicable
☐ Bonus Density will be used. Provide the number of Bonus Density units being requested and a narrative of how the request meets the requirements of LDC Section 2-146.

**PART 8
ENVIRONMENTAL REQUIREMENTS**

- A. Topography:** Describe the range of surface elevations of the property. Attach a county topographic map (if available) or a USGS quadrangle map showing the subject property. **[34-373(a)(4)b.iv.]**
 Elevation varies significantly across the property and ranges up near N. River Road approximately elevation ± 8 and drops down to elevation ± 2 by the river.
-
- B. Sensitive Lands:** Identify any environmentally sensitive lands, including, but not limited to, wetlands (as defined in the LEE Plan Section XII), flowways, creek beds, sand dunes, other unique land forms [see LEE Plan Policy 77.1.1 (2)] or listed species occupied habitat [see LCLDC Section 10-473(f)].
 See attached Indigenous Habitat Management Plan.
-
- C. Preservation/Conservation of Natural Features:** Describe how the lands listed in PART 6.B. above will be protected by the completed project:
 See attached Indigenous Habitat Management Plan.
-
- D. Shoreline Stabilization:** If the project is located adjacent to navigable natural waters, describe the method of shoreline stabilization, if any, being proposed:
 Shorelines will be left in natural state with required setback and natural waterway buffer except where docks, canoe launch, and flushing channel will be permitted which will follow permitting guidelines.
-
- E. Soils Map:** Attach maps drawn at the same scale as the Master Concept Plan marked or overprinted to show the soils classified in accordance with the USDA/SCS System. **[34-373(a)(4)b.i.]**
- F. FLUCCS Map:** A Florida Land Use, Cover and Classification System (FLUCCS) map, at the same scale as the Master Concept Plan, prepared by an environmental consultant. The FLUCCS map must clearly delineate any Federal and State jurisdictional wetlands and other surface waters, including the total acreage of Federal and State wetlands. **[34-373(a)(4)c.]**
- G. Rare & Unique Upland Habitat Map:** Maps drawn at the same scale as the Master Concept Plan marked or overprinted to show significant areas of rare and unique upland habitat as defined in the LEE Plan Section XII. **[34-373(a)(4)b.iii.]**
- H. Existing and Historic Flow-Ways Map:** Map(s) drawn at the same scale as the master concept plan marked or overprinted to show existing and historic flow-ways. **[34-373(a)(4)b.v.]**

**PART 9
SANITARY SEWER & POTABLE WATER FACILITIES**

- A. Special Effluent:** If the discharge of any special effluent is anticipated, please specify what it is and what strategies will be used to deal with its' special characteristics:
 N/A
-
- B. Private On-Site Facilities:** If a private on-site wastewater treatment and disposal facility is proposed, please provide a detailed description of the system including:
1. Method and degree of treatment:
 N/A
 2. Quality of the effluent:
 N/A

3. Expected life of the facility:
N/A
-

4. Who will operate and maintain the internal collection and treatment facilities:
N/A
-

5. Receiving bodies or other means of effluent disposal:
N/A
-

C. Spray Irrigation: If spray irrigation will be used, specify:

1. The location and approximate area of the spray fields:
N/A
-

2. Current water table conditions:
N/A
-

3. Proposed rate of application:
N/A
-

4. Back-up system capacity:
N/A
-

**PART 10
ADDITIONAL REQUIREMENTS**

A. Major Planned Developments:

1. **Surface Water Management Plan.** A written description of the surface water management plan as required by LCLDC Section 34-373(b)(1). **[34-373(b)(1)]**
2. **Phasing Program.** If the development is to be constructed in phases or if the Traffic Impact Statement utilized phasing, then a description of the phasing program must be submitted. **[34-373(b)(3)]**
3. **Protected Species Survey.** A protected species survey is required for large developments (as defined in LCLDC Section 10-1) as specified in LCLDC Section 10-473. **[34-373(b)(2)]**

B. Amendments to Built Planned Developments: The consent of the owners of the remainder of the original planned development is not required, but these owners must be given notice of the application and other proceedings as if they were owners of property abutting the subject property regardless of their actual proximity to the subject property. Attach proof of notice to other property. **[34-373(c)]**

C. Development of Regional Impact: Binding letter of interpretation from DCA or a complete and sufficient ADA. (See also Application for Public Hearing for DRI Form.) **[34-373(d)(9)]**

D. Private Recreational Facility Planned Developments (PRFPDs):

1. **Master Concept Plan, PRFPD.** Master Concept Plan showing and identifying information required by LDC Section 34-941(g)(1). Copies of the Master Concept Plan must be provided in two sizes, 24"x36" and 11"x17", and must be clearly legible and drawn at a scale sufficient to adequately show and identify the required information. **[34-941(g)(1)]**
2. **Conceptual Surface Water Management Plan.** A Conceptual Surface Water Management Plan must be submitted. The plan must be viable and take into consideration any natural flowway corridors, cypress heads, natural lakes, and the restoration of impacted natural flowway corridors. **[34-941(d)(3)b.i.1]**
3. **Well Drawdown Information.** If within an area identified as an anticipated drawdown area for existing or future well development, demonstration of compliance with LCLDC Section 34-941(d)(3)d.i & ii. must be provided. **[34-941(d)(3)d.]**
4. **Preliminary Indigenous Restoration Plan.** A Preliminary Indigenous Restoration Plan must be provided if on-site indigenous restoration is being used to meet the indigenous native plant community preservation requirement. **[34-941(e)(5)f.iii.]**

5. **Environmental Assessment.** An Environmental Assessment must be provided which includes, at a minimum, an analysis of the environment, historical and natural resources. **[34-941(g)(2)]**
6. **Demonstration of Compatibility.** Written statements concerning how the applicant will assure the compatibility of the proposed development with nearby land uses (by addressing such things as noise, odor, lighting and visual impacts), and the adequate provision of drainage, fire and safety, transportation, sewage disposal and solid waste disposal must be provided. **[34-941(g)(4)]**
- E. **Potable Water & Central Sewer.** Will the project be connected to potable water and central sewer as part of any development of the property?
- ☒ **YES** (Provide a letter from the appropriate Utility to which the connection(s) are proposed confirming availability of service.) **[34-202(a)(10)]**
- ☐ **NO** (Provide a narrative explaining why the connection is not planned and how the water and sewer needs of the project will be met.) **[34-202(a)(10)]**
- F. **Existing Agricultural Use:** If the property owner intends to continue an existing agricultural use on the property subsequent to the zoning approval, an Existing Agricultural Use Affidavit must be provided. Entitle as "Existing Agricultural Uses at Time of Zoning Application." **[34-202(a)(12)]**
- G. **Flood Hazard:**
- ☐ Not applicable
- ☐ The property is within an Area of Special Flood Hazard as indicated in the Flood Insurance Rate Maps (FIRM)s.
- ☒ The minimum elevation required for the first habitable floor is varies 7' & 8' NAVD (MSL)
- H. **Excavations/Blasting:**
- ☒ No blasting will be used in the excavation of lakes or other site elements.
- ☐ If blasting is proposed, provide Information Regarding Proposed Blasting (including soil borings, a map indicating the location of the proposed blasting, and other required information).
- I. **Hazardous Materials Emergency Plan for Port Facilities:** **[12-110(a)(16)]**
- ☒ Not Applicable
- ☐ Provide a Hazardous materials emergency plan.
- J. **Mobile Home Park:** **[34-174(h)]**
- ☒ Not Applicable
- ☐ Request includes rezoning of a Mobile Home Park. Provide facts related to the relocation of dislocated owners that meets the requirements of F.S. § 723.083 (1995).
- K. **Airport Zones & Lee County Port Authority (LCPA) Requirements:**
- ☒ Not Applicable
- ☐ Property is located within _____ Airport Noise Zone: **[34-1104]**
- ☐ Property is located within Airport Runway Protection Zone. Indicate which Zone below. **[34-1105]**
- ☐ Property is located within Airport Residential and Educational Protection Zone: **[34-1106]**
- ☐ Property is located in an Airport Obstruction Notification Zone and subject to LCPA regulations. **[34-1107]**
- ☐ A Tall Structures Permit is required. **[34-1108]**

PART 5 SUBMITTAL REQUIREMENT CHECKLIST		
<i>Clearly label your attachments as noted in bold below</i>		
Copies Required		SUBMITTAL ITEMS
3	☒	Completed application for Public Hearing [34-202(a)(1)]
1	☒	Filing Fee - [34-201(d)]
1	☐	Bonus Density Filing Fee - (if applicable) [34-202(a)(11)]
3	☒	Affidavit of Authorization (notarized) Form [34-202(a)(3)]
3	☒	Additional Agents [34-202(a)(4)]
3	☐	Multiple Owners List (if applicable) [34-202(a)(2)]
3	☒	Disclosure of Interest Form (multiple owners) [34-202(a)(2)]
3	☒	Legal description (must submit) [34-202(a)(5)]
	☒	Legal description (metes and bounds) and sealed sketch of legal description
		OR
	☐	Legal description (NO metes and bounds) if the property is located within a subdivision platted per F.S. Chapter 177, and is recorded in the Official Records of Lee County under Instruments or Plat Books. (Click here to see an example of a legal description with no metes and bounds.)
3	☒	Boundary Survey – not required if platted lot (2 originals required) [34-202(a)(6)]
3	☐	Property Owners list (if applicable) [34-202(a)(8)]
3	☐	Property Owners map (if applicable) [34-202(a)(8)]
3	☒	Confirmation of Ownership/Title Certification [34-202(a)(7)]
3	☐	STRAP Numbers (if additional sheet is required) [34-202(a)(5)]
1	☒	List of Surrounding Property Owners [34-202(a)(9)]
1	☒	Map of Surrounding Property Owners [34-202(a)(9)]
1	☒	Mailing labels [34-202(a)(9)]
3	☐	List of Zoning Resolutions and Approvals
3	☒	Summary of Public Informational Session (if applicable)
3	☐	Waivers from Application Submission Requirements (if applicable) [34-201(c)]
3	☒	Preliminary Density Calculations (if applicable)
3	☒	Request Statement [34-373(a)(5)]
3	☒	Traffic Impact Statement (TIS) (not required for existing development) [34-373(a)(7)]
3	☒	Master Concept Plan (MCP), Non-PRFPD [34-373(a)(6)]
3	☒	Schedule of Uses [34-373(a)(8)]
3	☒	Schedule of Deviations and Written Justification [34-373(a)(9)]
3	☒	Topography (if available) [34-373(a)(4)b.iv.]
3	☒	Soils Map [34-373(a)(4)b.9.]
3	☒	FLUCCS Map [34-373(a)(4)c.]
3	☒	Rare & Unique Upland Habitat Map [34-373(a)(4)b.iii.]
3	☒	Existing and Historic Flow-Ways Map [34-373(a)(4)b.v.]
3	☒	Surface Water Management Plan (if applicable) [34-373(b)(1)]
3	☐	Phasing Program (if applicable) [34-373(b)(3)]
3	☒	Protected Species Survey (if applicable) [34-373(b)(2)]
3	☐	Proof of Notice (if applicable) [34-373(c)]

3	☐	Binding Letter from DCA (if applicable) [34-373(d)(9)]
3	☐	Master Concept Plan (MCP), PRFPD (if applicable) [34-941(g)(1)]
3	☐	Conceptual Surface Water Management Plan (if applicable) [34-941(d)(3)b.i.1)]
3	☐	Well Drawdown Information (if applicable) [34-941(d)(3)d.]
3	☐	Preliminary Indigenous Restoration Plan (if applicable) [34-941(e)(5)f.iii.]
3	☐	Environmental Assessment (if applicable) [34-941(g)(2)]
3	☐	Demonstration of Compatibility (if applicable) [34-941(g)(4)]
3	☒	Potable Water & Sanitary Sewer. Letter from the appropriate utility entity indicating the utility entity or explanation of how water and sewer needs will be met if connection will not be made. [34-202(a)(10)]
3	☐	Existing Agricultural Use Affidavit (if applicable) [34-202(a)(12)]
3	☐	Information Regarding Proposed Blasting (if applicable).
3	☐	Hazardous Materials Emergency Plan (if applicable)
3	☐	Mobile Home Park Dislocated Owners Information (if applicable) [34-202(b)(4)]
3	☐	Tall Structures Permit (if applicable) [34-1108]



Professional Engineers, Planners & Land Surveyors

Owl Creek Reserve Minor RPD

Narrative of Request

DCI2021-00011

Revised October 2021

Introduction

The Owl Creek property is ± 342.68 acres located on the south side of N. River Road approximately $\frac{1}{2}$ mile east of its intersection with SR 31 within the North Olga area of the Northeast Lee County Planning Community. The property is zoned Agricultural (AG-2) and is used for agricultural/grazing purposes. Lee Plan Map 1, Page 1 of 7 identifies the property as Rural and Wetlands Future Land Use Categories (FLU). There are concurrent Comprehensive Plan Map and Text amendments under review (CPA2020-00004 & CPA2020-00005) associated with this application.

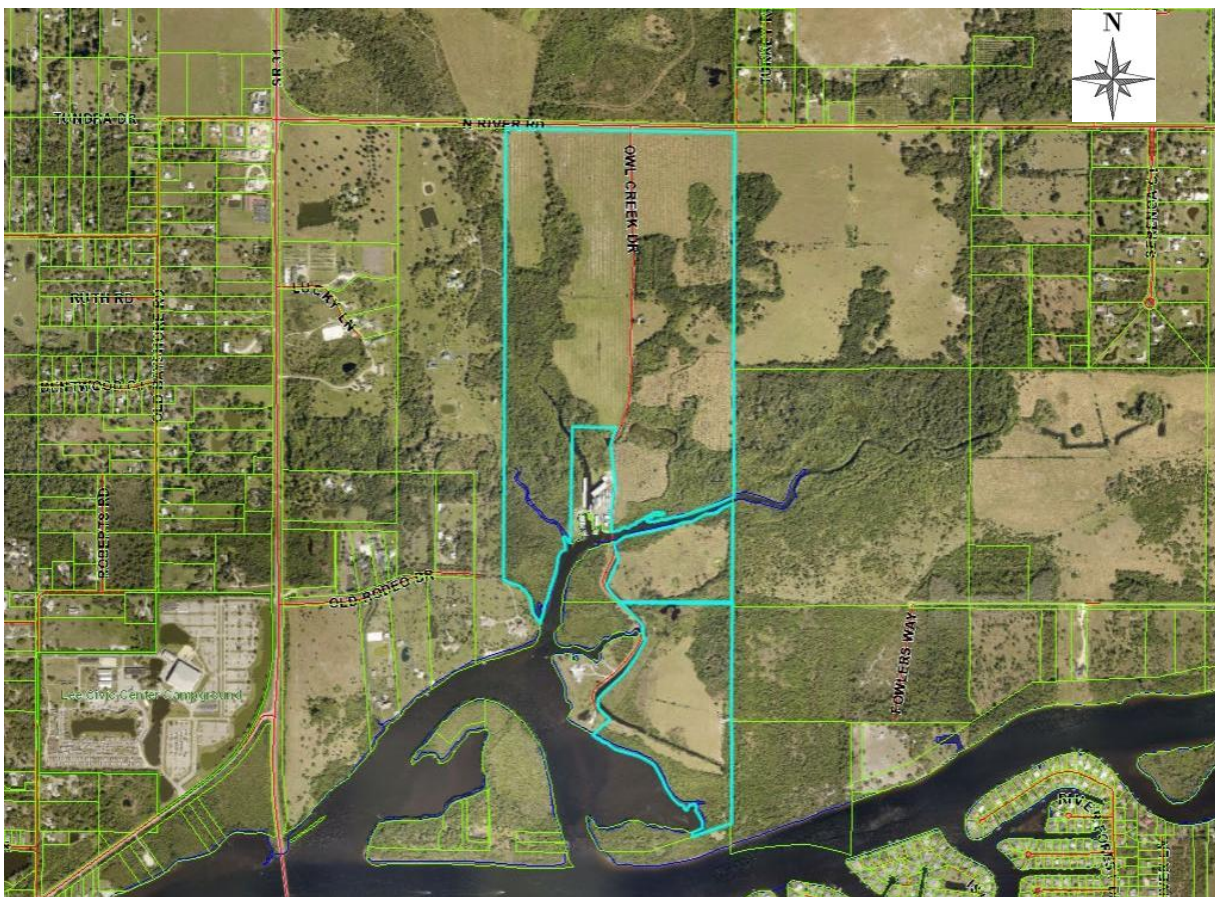


Figure 1. Location of Subject Property

• SERVING THE STATE OF FLORIDA •

Request

The applicant requests to rezone ±342.68 acres from Agricultural (AG-2) to minor Residential Planned Development (RPD) to allow development of a clustered residential community containing up to 380 dwelling units consisting of single-family and two-family attached with associated amenities while providing for significant environmental, historical, storm water, water quality and infrastructure enhancements. Maximum building height is 35 feet.

The concurrent Comprehensive Plan Amendments include the following requests:

- Amendment to Future Water Service Areas, Lee County Utilities (Lee Plan Map 6) to place the property within the Lee County Utilities Future Water Service Area to allow for privately funded expansion of water service.
 - Note: Wastewater will be provided by Florida Governmental Utility Authority (FGUA) with privately funded expansion of sewer service.
- Associated Text Amendment to following:
 - Policy 124.1.1 – Add language for wetlands adjacent to Rural areas within North Olga Planning Community to refer to proposed Policy 29.2.4.a.
 - Table 1(a) – Amend footnote 8 for wetlands adjacent to Rural areas within North Olga Planning Community to refer to proposed Policy 29.2.4.a.
 - North Olga Community Plan – Add new Policy 29.2.4 to provide the following incentives to encourage wetland preservation and rare and unique upland habitat preservation or restoration for clustered developments utilizing the planned development process within the North Olga Planning Community:
 - a. Dwelling units may be relocated from preserved freshwater wetlands encumbered by a conservation easement to developable contiguous uplands under common ownership at one (1) dwelling unit per acre. Impacted wetlands will be calculated at the standard Wetlands density of one (1) dwelling unit per 20 acres.
 - b. One (1) additional dwelling unit may be created for each one (1) acre of preserved and/or restored rare and unique upland habitat that is encumbered by a conservation easement.

The following summarizes benefits that will be accomplished by approval of this application:

1. Provide a connection between Babcock Ranch property to the north and Caloosahatchee River to the south that will continue the environmental preservation and enhanced drainage ways that will be improved by reduced runoff rate and reduced nutrient runoff
2. Amendment will result in clustered development as encouraged in this area as demonstrated by the proposed Master Concept Plan
3. Provide Wetland Protection and Enhancements including exotic removal and maintenance
4. Historical Resource preservation of the 3 recommended sites
5. Minimum ±186.94* acres (54% of property) placed into conservation easement including the convergence of two natural waterways on the Great Calusa Blueway (Owl Creek and Trout Creek) where they connect to the Caloosahatchee River
6. Wildlife/recreation connection from portion of Trout Creek located on potential Conservation 20/20 lands to Caloosahatchee River
7. Connection to adjacent SFWMD owned lands to the east and south
8. Public canoe/kayak launch area to Trout Creek
9. Wildlife management and co-existence plans
10. Enhanced lake management plan

11. Florida Friendly Landscaping with the low irrigation requirements in common areas
12. 60% open space (± 205.6 acres)
13. Preserve minimum 88% (± 106.46 acres) of wetlands
14. Water Quality enhancements and monitoring
15. Remove potential for up to 223 septic tanks and wells
16. Removal of cattle grazing will significantly reduce onsite nutrient generation
17. Additional 50% water quality treatment
18. Reduced rate of run-off and associated nutrient loads
19. Stormwater enhancements
20. Green infrastructure
21. Privately funded expansion of water and sewer to the area (as encouraged/anticipated by existing Lee Plan policies)
22. Minimum 50' perimeter setback
23. Minimum 100' setback from Owl Creek Boat Works property line to single-family lots
24. Provide area for multi-use path along North River Road
25. Protect existing groundwater levels and improve existing wetland hydroperiods in onsite preserve areas
26. Provide Rare and Unique Upland habitat preservation (± 21.49 acres) and restoration (± 34.92 acres)
27. Preservation of historic flow-ways associated with Owl and Trout Creeks and associated wetlands

Background

Subject Property

The Owl Creek property is situated in an area of rapid change with fairly intensive existing and historic uses such as the Lee Civic Center to industrial marine uses such as Owl Creek Boat Works and Storage where individuals come from all over the region for yacht refinishing and Sweetwater Landing Marina. The property is located on the edge of the urban area. The rapid changes include the continuing development of the new Babcock Ranch community to the north and commercial development and redevelopment along the SR 31 corridor including the 31 Produce Market, café and attraction; Sweetwater Landing Marina's redevelopment in 2018 resulting in a 275-slip marina, boater lounge and restaurant and bar; a gas station and market development in 2017 at the northwest corner of SR 31 and North River Road and veterinary clinic in 2018 just west of this gas station; and a convenience store and gas station development in 2020 at the southwest corner of North River Road and SR 31.

The Owl Creek property consists of existing grazing lands and natural areas, including portions of Owl Creek and Trout Creek. The site has been partially cleared for agricultural activity since prior to 1953 and has historically been used for a variety of agricultural and farming uses such as citrus groves, row cropping, and cattle grazing. The submitted environmental analysis identifies the potential jurisdictional wetlands and rare/unique uplands that exist on site. The submitted historic analysis demonstrates four historic sites identified on the subject property, three of which are considered potentially eligible for listing on the National Register of Historic Places (NRHP).

West

The property immediately adjacent to the west is within the Rural and Wetlands FLU categories and zoned Agricultural (AG-2). Owl Creek crosses this property from N. River Road and continues

onto the subject property. There is a conservation easement on the property but a partial release recorded in Instrument Number 2006000412915 (attached) has resulted in only a small portion being covered by this easement along the eastern property line. The site contains 3 single-family residences and agricultural grazing lands. Two houses are generally located in the center of the property: one setback ± 515 feet and the other ± 620 feet. The third house is located at the southern tip.

Further west there are existing agricultural and large single-family lots ± 1.39 acres and larger. There is a commercial node within $\frac{1}{4}$ mile of SR 31 between North River Road and the Caloosahatchee River described in Lee Plan Policy 6.1.2 that connects the New Community area at SR 31 and North River Road to the Lee Civic Center, Sweetwater Landing Marina and the Sub-Outlying Suburban area to the south. This area contains several non-residential uses such as the gas stations and convenience stores developed in 2017 and 2020, veterinarian office developed in 2018, feed store, church, SR 31 Produce market, u-pick and café developed around 2010 with continuing improvements. The Bayshore Community Planning area is west of SR 31 and contains large lot residential development as well as $\frac{1}{4}$ -acre lot subdivisions west of the commercial node. Sub-Outlying Suburban FLU category is a little over $\frac{1}{2}$ mile to the west of the Owl Creek property at the southwest corner of the intersection of Bayshore Road and SR 31 which allows a maximum density of 2 dwelling units per acre.

North

To the north is North River Road, a 2-lane county maintained arterial roadway then property within the New Community FLU category. This property is the southern portion of the Babcock Mixed Use Planned Development (MPD), approved by zoning resolution number Z-17-026/case number DCI2016-00022 which allows 1 dwelling unit per 2.5 gross acres up to 1,630 dwelling units, 600 hotel rooms and 1,170,000 square feet of commercial office and retail uses. There is an emergency only access planned across the street from the Owl Creek property. The entrance to the mixed-use areas of Babcock Ranch MPD is $\pm \frac{1}{2}$ mile north of SR 31 and North River Road across from Shirley Lane. To the northeast is within the Density Reduction/Groundwater Resource (DR/GR) FLU and is within the Private Recreational Facilities Overlay, zoned AG-2 and Mobile Home residential MH-1 and developed with single-family lots ± 2.12 acres and larger and agricultural uses.

East

The properties adjacent to the east are within the Rural and Wetlands FLU categories, zoned AG-2 and consist of existing agricultural grazing lands, a vacant parcel owned by South Florida Water Management District, then a vacant privately owned parcel along the Caloosahatchee River. A portion of the adjacent agricultural grazing lands that contain a portion of Trout Creek is currently under negotiation with Conservation 20/20 (nomination number 597). Further East are properties zoned AG-2 and developed with large agricultural tracts then some single-family lots ± 4.45 acres and larger and agricultural uses.

South

Properties to the south are within the Rural and Wetlands FLU. Adjacent to the south and surrounded by the property is the existing Owl Creek Boat Works and Storage industrial marina

and yacht refinishing which is within the Water Dependent Overlay and zoned Marine Industrial (IM). This industrial marine use was established in 1953 and is Southwest Florida's premiere yacht service center offering full service and specializing in yacht refinishing, repowering, customization and maintenance. They also offer in-water covered, uncovered and dry storage for yachts up to 100'. South across Trout Creek from Owl Creek Boat Works and Storage is a vacant parcel zoned AG-2 then a ± 12.19 -acre parcel developed with two single-family residences. South of the subject property is another SFWMD owned parcel that extends into the Caloosahatchee River. Fort Myers Shores within the Caloosahatchee Shores Community Plan area is located south across the Caloosahatchee River which is within the Suburban FLU category which allows a maximum density of 6 dwelling units per acre. Sweetwater Landing Marina is located at the Caloosahatchee River and SR 31 and offers boat storage, service, rental and sales and was redeveloped in 2018 resulting in a 275-slip marina, boater lounge and restaurant and bar.

Comprehensive Plan Consistency Analysis

VISION STATEMENT

The requested rezoning and Master Concept Plan will comply with the proposed conditions of approval to ensure compliance with environmental stewardship, enhancement of the area's historic heritage and rural character, and proactively and appropriately plan for future growth within the area consistent with the Vision Statements for Northeast Lee County and North Olga and the implemented Goals, Objectives and Policies for these areas. The subject property abuts the existing Owl Creek Boat Works facility and will provide for compatible adjacent development to protect this identifying feature of the community.

FUTURE LAND USE

The $342.68\pm$ acre subject property is within the Rural and Wetlands FLU categories. Policy 1.4.1 provides that maximum density in the Rural category is 1 dwelling unit per acre for the ± 212.07 acres of uplands plus ± 4.42 acres of other surface waters consisting of artificial ditches and a lake allowing 216.49 dwelling units. Policy 1.5.1 provides that the Wetlands category has a maximum density of 1 dwelling unit per 20 acres for the ± 120.45 acres of wetlands allowing an additional ± 6.02 dwelling units for a total maximum density of 223 dwelling units. The remaining ± 5.74 acres of surface waters consisting of existing natural bodies of water were not included for density calculations.

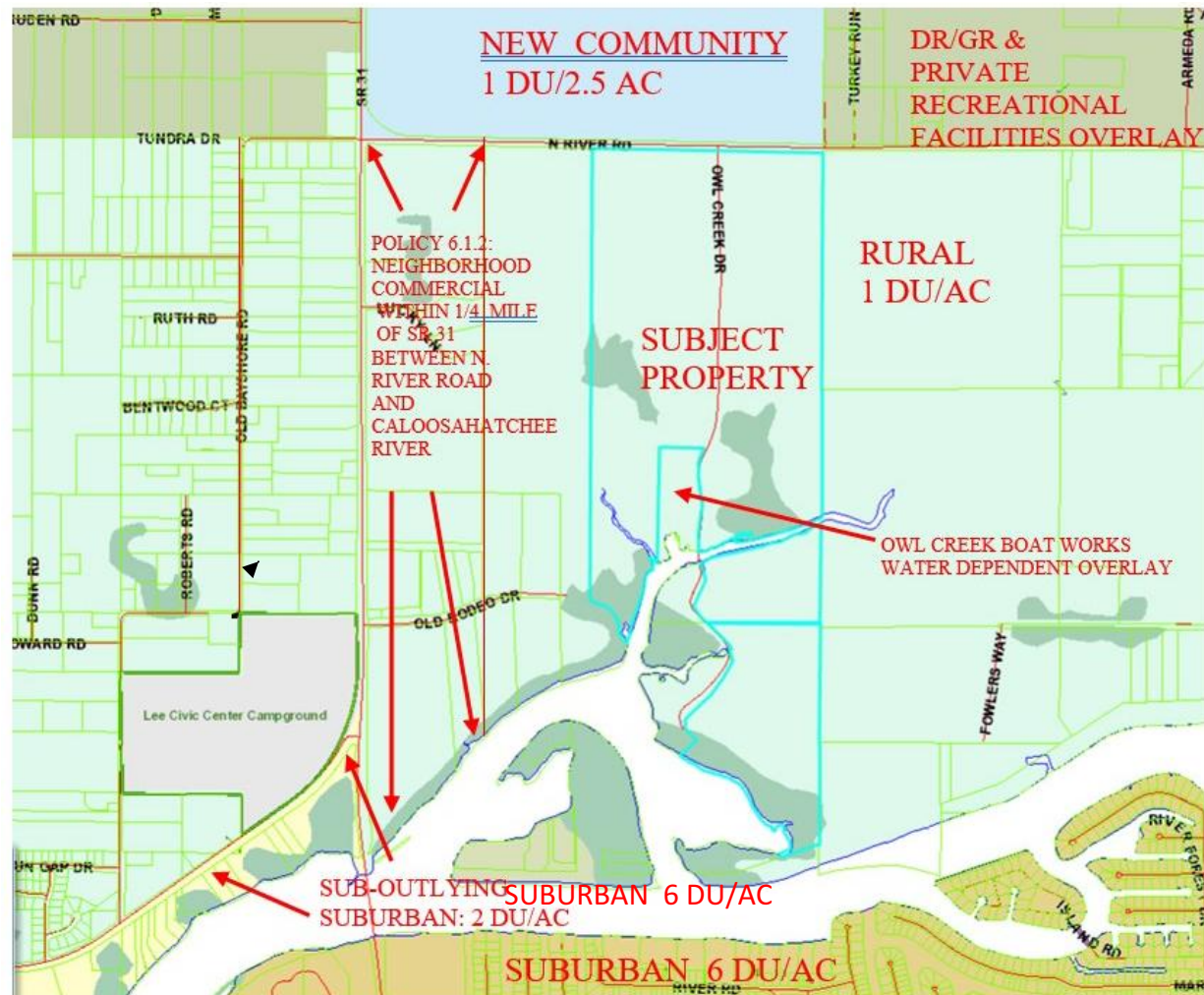


Figure 2. Future Land Use Designation

The property adjacent to the west and properties adjacent to the east are within the Rural and Wetlands FLU categories. The property to the north across North River Road is within the New Community FLU category (Babcock Mixed Use Planned Development) which allows 1 dwelling unit per 2.5 gross acres up to 1,630 dwelling units, 600 hotel rooms and 1,170,000 square feet of commercial office and retail uses. To the northeast is within the Density Reduction/Groundwater Resource (DR/GR) FLU and is within the Private Recreational Facilities Overlay. Adjacent to the south and surrounded by the property is the existing Owl Creek Boat Works and Storage marina and yacht refinishing which is within the Water Dependent Overlay. This industrial marine use was established in 1953 and is Southwest Florida's premiere yacht service center offering full service and specializing in yacht refinishing, repowering, customization and maintenance. They also offer in-water covered, uncovered and dry storage for yachts up to 100'. Individuals come from all over the region for yacht refinishing at this location. South across the Caloosahatchee River is within the Suburban FLU category which allows a maximum density of 6 dwelling units per acre. Sub-Outlying Suburban FLU category is a little over ½ mile to the west of the property at the southwest corner of the intersection of Bayshore Road and SR 31 which allows a maximum density of 2 dwelling units per acre. There is a commercial node within ¼ mile of SR 31 between North River Road and the Caloosahatchee River described in Policy 6.1.2 that connects the New

Community area at SR 31 and North River Road to the Lee Civic Center and the Sub-Outlying Suburban area. This area contains several non-residential uses such as a gas station, veterinarian office, feed store, church, SR 31 Produce market, u-pick and café.

The Owl Creek property's proximity to the New Community FLU category to the north (Babcock Mixed Use Planned Development) and the commercial node to the west and the adjacent industrial marine facility furthers the appropriateness of the request which will accommodate clustered development with ample view of wooded areas, open spaces, and river fronts and will allow for the protection of environmentally sensitive lands and historic heritage. The proposed clustered project will provide a connection between the Babcock Ranch MPD to the north and the Caloosahatchee River to the south, expanding the significant environmental, historical, storm water, water quality and infrastructure enhancements required in the North Olga Community Plan New Community area.

The proposed rezoning will remain consistent with the Rural future land use category Policy 1.4.1 and the Wetlands future land use category Policy 1.5.1 upon adoption of the amendment to Table 1(a). The request is specific to the Rural areas within the North Olga Community Plan area. The proposed conditions of approval ensure that the subject property is developed at a low residential density in the North Olga Community Plan area where there is a desire to retain a low-density community character.

The preliminary density calculations associated with the request are provided below and included on the proposed Master Concept Plan:

Uplands (±212.07 AC) & Manmade ditches/lake (±4.42 AC)=216.49 AT 1 DU/AC:	216.49 DU
Preserved Wetlands ±106.45 AC transferred to adjacent uplands at 1 DU/AC:	106.45 DU
Impacted Wetlands ±13.99 AC at 1 DU/20 AC:	0.70 DU
±5.74 AC Natural Open Water not eligible for density	
Additional 1 DU/AC Preserved Rare and Unique Upland Habitat ±21.49 AC:	21.49 DU
Additional 1 DU/AC for Restored Rare and Unique Upland Habitat ±34.92 AC:	<u>34.92 DU</u>
Total Maximum Density:	380 DU

Lee Plan Policy 1.7.6 establishes the Planning Communities Map and Acreage Allocation Table 1(b). The Rural FLU has 1,948 acres allocated for residential development within the Northeast Lee County Planning Community with 1,312 acres existing. There are 636 acres remaining to be developed as residential which accommodates the subject request. The requested rezoning is consistent with Policy 1.7.6.

GROWTH MANAGEMENT

The request is consistent with Development Location Objective 2.1, Policies 2.1.1 and 2.1.2. The Owl Creek property is located in a transitioning area as evidenced by recent changes to the Lee Plan for New Community FLU in the North Olga Community Plan area and the commercial node along S.R. 31 encouraging privately funded utility expansion to the area. Approval of the request will result in the privately funded expansion of water and sewer to the property, minimizing the public cost of services. The proposed project promotes contiguous and compact growth pattern by providing a connection between the approved Babcock Ranch MPD to the north and the Caloosahatchee River to the south, extending the conservation of land and natural resources required in the North Olga Community Plan. The proposed project does not constitute urban

sprawl which is defined in the Lee Plan Glossary as “*The uncontrolled, premature, or untimely expansion and spreading out of urban levels of density or intensity into outlying non-urban areas.*” The proposed conditions of approval will ensure compliance with the North Olga Community Plan and compliance with the goals, objectives policies, and standards of the Lee Plan.

The request is consistent with Development Timing Objective 2.2, Policy 2.2.1. The Owl Creek development will have or assure access to all required public facilities. Letters of Determination of the Adequacy/Provision of Existing/Proposed Support Facilities from Fire Protection, Emergency Medical Service, Law Enforcement, Solid Waste, Mass Transit and Schools are attached. These exhibits demonstrate that there is adequate capacity to accommodate the proposed 380 dwelling units. The proposed privately funded expansion of utilities to the area is already encouraged and anticipated by existing Lee Plan policies.

The project will comply with Historic Resources Objective 2.7. Please see attached separate Historic Resources Impact Analysis. There are three archaeological sites in good to excellent condition (8LL2397, 8LL2398 and 8LL2399) that are eligible for listing in the National Register of Historic Places (NRHP) and should and will be avoided by future development by preserving within a minimum 25 foot buffer. These sites are demonstrated on the submitted Master Concept Plan. A fourth site (8LL2825) that, based on the level of intense disturbance and lack of significant cultural materials or context, is not regarded as eligible for listing on the NRHP and will not be preserved.

GENERAL DEVELOPMENT STANDARDS

The request is consistent with Standard 4.1.1: Water as well as Policies 53.1.2 and 95.1.3. The Owl Creek property's existing and proposed density does not meet those required for connection and is not located within a franchised service area. The property could be developed today with up to 223 private well systems. A concurrent amendment to Lee Plan Map 6 is proposed to place the property within the Lee County Utilities Future Water Service Area to allow for privately funded expansion of water service. A letter of availability from Lee County Utilities is attached demonstrating sufficient capacity exists and that the site will be serviced by North Lee County Water Treatment Plant.

The request is consistent with Standard 4.1.2: Sewer. The Owl Creek property's existing and proposed density does not meet those required for connection and the site is not located within a franchised service area. The property could be developed today with up to 223 private septic systems. The project proposes wastewater to be provided by Florida Governmental Utility Authority (FGUA) with privately funded expansion of sewer service. A letter of availability is attached with the application. Lee County Utilities has issued a letter of no objection to FGUA providing sanitary sewer service to the site.

The request is consistent with Standard 4.1.4: Environmental Factors. The Master Concept Plan demonstrates that only a maximum of ±13.99 acres of exotic infested wetlands of the existing ±120.45 acres of pending jurisdictional wetlands will be impacted for public facilities such as transportation or storm water management areas. To mitigate these impacts, ±186.94 acres of wetlands, uplands and surface waters will be enhanced by removal of exotic vegetation or restored and preserved by the placement of a conservation easement. The submitted Indigenous Habitat Management Plan demonstrates the preservation of the highest quality indigenous habitat onsite, the enhancement and restoration of indigenous habitats onsite, the restoration and

connection of Owl Creek and Trout Creek Wildlife Corridors and flow-ways and the reconnection of public conservation lands through the subject property. Although the property development regulations require lot sizes that do not require open space pursuant to the Land Development Code, 60% open space is proposed and a minimum of 54% of the site will be placed into conservation easement. Conditions of approval will ensure that the clustered development is well integrated, properly oriented and functionally related to the natural features of the site.

RESIDENTIAL LAND USES

The northern ±51 acres of the Owl Creek property are outside of the Coastal High Hazard Area and the southern ±292 acres are within. The site design provides for clustered density with environmental, historical, water quality and infrastructure enhancements. Letters of Determination have been submitted demonstrating provision of support facilities and a hurricane evacuation analysis is attached. The project's residential uses will be clustered inside the property with enhanced setbacks to adjacent uses and properties. The project's open spaces and preservation areas complement and enhance adjacent existing and pending public and private preserve areas. The site proposes to place a minimum of 54% of the site into conservation easements and provide a minimum perimeter setback of 50 feet consisting of either conservation areas or planted detention areas and perimeter berm to ensure compatibility with adjacent agricultural, single-family, preservation and marina uses. The request is consistent with Policies 5.1.2 and 5.1.5.

The request is consistent with Policies 5.1.6 and 5.1.7 even though it is a single-family and two-family attached development. The proposed Master Concept Plan and property development regulations for the clustered development provide open space, preservation areas and recreation areas. These areas are appropriate for the density and design and are functionally related to all dwelling units. No multi-family residential is proposed for the site.

GOAL 27: NORTHEAST LEE COUNTY COMMUNITY PLAN

The Owl Creek property is located in Northeast Lee County. Goal 27 of the Lee Plan is specific to this area of Lee County and represents Lee County's goal to maintain, enhance, and support the heritage and rural character and natural resources. Alva and North Olga work cooperatively toward this goal through the objectives and policies of Goal 27 and through their individual community plans.

The Owl Creek property proposes to preserve large open space areas and will retain the rural character by proposing clustered development with ample views of wooded areas, open spaces and river fronts, while balancing the removal of agricultural grazing lands and the enhancement and protection of environmentally sensitive lands, historic resources water quality and connectivity. The provided Water Resources Report demonstrates the subject property's strategic location proximate to the Caloosahatchee Estuary watershed and its ability to implement and further the County's long-term goals of protecting groundwater and improving surface water management in northern Lee County. These enhancements are included in the proposed conditions of approval for this rezoning request, consistent with Objective 27.1 and Policies 27.1.1, 27.1.5 and 27.1.6.

The Owl Creek property is located within the Northeast Lee County community plan area and has held public information meetings within both the Alva and North Olga community plan area boundaries. A meeting summary document has been submitted containing the date, time and location of each meeting, a list of attendees, a summary of any concerns raised and the applicant's response. The applicant has complied with Policies 17.3.3, 17.3.4 and Policy 27.1.8.

Objective 27.2 and its attendant policies direct Lee County to work with Alva and North Olga to develop and use a rural planning toolbox of incentives, programs and regulations that enhance and maintain the sense of place and provide for long-term preservation of contiguous natural resource and open space areas. The Owl Creek property proposes to provide long-term preservation areas by placing a minimum of 54% of the site into a conservation easement. Approval of the proposed rezoning will result in the preservation of natural assets such as facilitating the restoration and connection of Owl Creek and Trout Creek Wildlife Corridors and flow-ways.

The Owl Creek property is situated at the convergence of two waterways: Owl Creek and Trout Creek where they join the Caloosahatchee River. Although there are existing agricultural uses of cattle grazing on site, the rezoning proposes to preserve large open space areas by proposing clustered development with ample views of wooded areas, open spaces and river fronts, while balancing the removal of agricultural grazing lands and the enhancement and protection of environmentally sensitive lands, flow-ways, historic resources, water quality and connectivity. The request is consistent with Objective 27.3 and Policies 27.3.2 by balancing efforts to protect and enhance the community's water quality and will not preclude potential uses listed in Policy 27.3.3 from the preservation areas on site. A public kayak/canoe launch area is proposed as part of development of the subject property. The proposed conditions provide preservation and restoration of existing habitats along with creation of additional native vegetation in the form of rare and unique upland habitat creation and long-term conservation. The project also includes restoring ± 12.55 acres of surface waters and ± 2.94 acres of littoral marsh wetlands/littoral shelf to create a flushing channel that will increase the conveyance and water quality of Trout Creek.

The rezoning proposes conditions of approval that include stringent development criteria that accommodate the location of a multipurpose path along North River Road, consistent with Objective 27.4, Policies 27.4.1 and 27.4.4. The two creeks on the subject property are included on the Blueways map and proposed conditions require a public kayak/canoe launch and will not preclude potential access as part of the preservation, consistent with Policy 27.4.2.

GOAL 29: NORTH OLGA COMMUNITY PLAN

The requested rezoning proposes protection and enhancement of natural resources including wetlands, flow-ways and rare and unique upland habitat. The request protects and enhances the rural character and aesthetic qualities of the area, preserves natural and historic resources and promotes clustered development areas that preserves large, contiguous tracts of open space and preservation areas, consistent with Objective 29.1 and Policy 29.1.1. The Owl Creek property is situated at the convergence of two natural waterways and flow-ways: Owl Creek and Trout Creek where they join the Caloosahatchee River. Although there are existing agricultural uses of cattle grazing on site, the Owl Creek property proposes to preserve large open space areas by proposing clustered development, balancing efforts to protect and enhance the community's water quality.

The Owl Creek rezoning will accommodate clustered development with ample views of wooded areas, open spaces and river fronts, offsite agricultural uses and will allow for the protection of environmentally sensitive lands including flow-ways, wetlands, rare and unique upland habitat and historic heritage. The proposed clustered project will provide a connection between the Babcock Ranch Mixed Use Planned Development to the north and the Caloosahatchee River to the south, expanding the significant environmental, historical, water quality and infrastructure enhancements required for this area. The proposed conditions of approval ensure compliance with stringent development criteria to ensure compliance with the North Olga Community Plan. There will be a minimum 50-foot perimeter setback providing separation to adjacent uses. Community gardens are included in the schedule of uses. The request is consistent with Objective 29.2 and Policies 29.2.1, 29.2.2 and 29.2.3 as well as Policies 29.5.1 and 29.5.2.

The Greenways Master Plan depicts a multipurpose path along North River Road and depicts Owl Creek and Trout Creek on the Great Calusa Blueway. The request proposes conditions of approval that accommodate the location of a multipurpose path along North River Road and a public kayak/canoe launch area, consistent with Objective 29.6, Policies 29.6.1, 29.6.2, 29.6.3, 29.6.4 and 29.6.6.

Through the stringent requirements associated with the proposed conditions of approval, the Owl Creek project will preserve a minimum of 88% of the onsite wetlands providing protection and enhancements through exotic removal and maintenance and upland buffers. A minimum of 54 percent of the property (± 186.94 acres) will be placed into a conservation easement including the convergence of two natural waterways on the Great Calusa Blueway (Owl Creek and Trout Creek) where they connect to the Caloosahatchee River. The request results in preservation and restoration of wetlands, flow-ways and wildlife corridors, and rare and unique upland habitat and provide long-term conservation. The conservation area will include preservation of 3 recommended historical sites and the project will provide a public canoe/kayak launch area to Trout Creek. The request is consistent with Objective 29.7 and Policies 29.7.1 and 29.7.2.

The request is consistent with Objective 29.8 and the Water Dependent Overlay as the project proposes a minimum 100-foot setback from Owl Creek Boat Works property line to single-family lots within the development.

The concurrent Text Amendment associated with this request provides a new Policy 29.2.4 which provides the following incentives within the North Olga Planning Community for clustered developments within the Rural future land use category to encourage protection of environmentally sensitive lands if consistency with Goal 29 is demonstrated through the planned development rezoning process:

- a. Dwelling units may be relocated from preserved freshwater wetlands encumbered by a conservation easement to developable contiguous uplands under common ownership at one (1) dwelling unit per acre. Impacted wetlands will be calculated at the standard Wetlands density of one (1) dwelling unit per 20 acres.
- b. One (1) additional dwelling unit may be created for each one (1) acre of preserved and/or restored rare and unique upland habitat that is encumbered by a conservation easement.

The request is consistent with this proposed language as demonstrated in the submitted Indigenous Habitat Management Plan, Master Concept Plan and proposed conditions of approval.

The request is consistent with Objective 29.8 and the Water Dependent Overlay as the project proposes a condition with the concurrent planned development requiring a minimum 100-foot setback from Owl Creek Boat Works property line to single-family lots within the development.

TRANSPORTATION AND WATERWAYS

A Traffic Impact Statement prepared by TR Transportation Consultants, Inc. is attached to the request. This analysis demonstrates that the roadway links analyzed will not be adversely impacted as a result of the rezoning request. All roadway segments analyzed will maintain the minimum recommended Level of Service. Therefore, roadway capacity improvements will not be warranted as a result of the additional traffic generated by the request.

Map 3D-Lee County Walkways & Bikeways shows an on-road bikeway and a multi-use path along North River Road. The request includes providing an area for a multi-use path along North River Road as shown on Maps 3D and 22 which will accommodate pedestrian and bicycle usage consistent with Objective 39.2 and Policy 39.2.3 as well as Objective 39.6 and Policies 39.6.1, 39.6.2 and 39.6.3.

Map 22-Lee County Greenways Master Plan shows a shared use path along North River Road and Owl Creek and Trout Creek are shown on the Great Calusa Blueway. proposed conditions of approval accommodate a public canoe/kayak launch area to Trout Creek which connects to the Caloosahatchee River, furthering Goal 80, Objective 80.1, Policies 80.1.1 and 80.1.2.

SURFACE WATER MANAGEMENT

The Owl Creek project furthers Lee County's efforts in coordinating land use on a watershed basis contained in Goal 60, Objective 60.1 and implementing Policies. The proposed clustered development provides for preservation of natural waterways and associated wetland habitats, existing and historic flow-ways and associated wetland habitats. Owl Creek and Trout Creek and their adjacent wetland systems will be maintained as regional flow-ways and enhanced by exotic removal in furtherance of Policy 60.1.2, 60.1.3 and 60.4.3. The natural wetlands and the offsite flows are being preserved with only minimal impacts where unavoidable. The requirements contained in the proposed conditions will protect existing groundwater levels and improve existing wetland hydroperiods in onsite preserve areas, provide an additional 50% water quality treatment, water quality monitoring, reduced rate of runoff, remove nutrient producing grazing lands adjacent to waterways, preserve a minimum of 88% of on-site wetlands, and replacing the potential 223 private well and septic systems with privately funded extensions and connection to public water and sewer. Consistent with Policy 60.1.1, the stormwater management system will be designed to meet or exceed water quality and water level management requirements of the South Florida Water Management District (SFWMD), The Florida Department of Environmental Protection, and Lee County. Please see submitted Water Resources Report and Stormwater Planning Report.

GREEN INFRASTRUCTURE

The Lee Plan includes an objective and policies that encourage development to incorporate green infrastructure in the surface water management systems. The Owl Creek project will incorporate green infrastructure by utilizing vegetated swales and treatment areas, Florida Friendly Landscaping with the low irrigation requirements in common areas, retention/detention lakes, and

preserved and enhanced natural waterways and associated wetlands as flow-ways. The natural wetlands and the offsite flows are being preserved with only minimal impacts where unavoidable. The wetland preserves will not be part of the controlled surface water management system. This will allow the offsite flows to pass through the site without being affected by the project. The storm water management system has been designed to mimic the natural sheet flow pattern. The discharge from the storm water management system basins from the developed site will be controlled and will be limited to predevelopment discharge rates and directed to mimic natural flows. The discharge from the storm water system will help to hydrate the wetland systems and improve water levels. These wetland systems can provide additional polishing of runoff prior to entering the natural waterways functioning as a filter marsh. The preservation areas will have exotics removed and maintained keeping the flow-ways as unobstructed as possible. These enhancements will be required as conditions of approval. The request is consistent with Objective 60.4, Policies 60.4.1 and 60.4.2, as well as Policies 61.3.1, 61.3.3 and 61.3.6. Reuse water is not currently available. Consistent with Policy 61.1.6, the use of reclaimed water will be pursued to meet a portion or all of the irrigation needs as soon as it is available. The proposed irrigation system will consist of stormwater harvesting from the stormwater management lakes that are hydraulically connected to the Water Table Aquifer. Consistent with Policy 60.1.1, the stormwater management system will be designed to meet or exceed water quality and water level management requirements of the South Florida Water Management District (SFWMD), The Florida Department of Environmental Protection, and Lee County. Lake system irrigation withdrawals will be re-supplied by groundwater from the fresh to mildly brackish Sandstone Aquifer. Actual percentages of lake and groundwater withdrawals will be determined during the water use permitting process with the SFWMD and will ensure that its use will not result in adverse impacts to the water resource. The combination of any use of mildly brackish groundwater and fresh stormwater will maintain a chloride level of less than 200 mg/l in compliance with SFWMD policy. Policy 60.4.5 states, in part, that the county will assist in the development of incentives for implementation of surface water management systems that address water quality/environmental enhancement such as those proposed with the proposed conditions of approval.

CONSERVATION AND COASTAL MANAGEMENT ELEMENT

The northern ±51 acres of the Owl Creek property are outside of the Coastal High Hazard Area and the southern ±292 acres are within. The proposed conditions of approval ensure the adjusted site design and clustered density development with environmental, historical, water quality and infrastructure enhancements. The request is consistent with Policy 101.3.2. The proposed development plan restricts development in the Coastal High Hazard Area to uplands except as needed for the provision of public facilities such as stormwater management or transportation. Minor wetland impacts for the provision of these public facilities is limited to a maximum of 12%.

Please refer to attached Hurricane Evacuation Analysis and Marina Emergency Preparedness Plan for further compliance with the following Goals, Objectives and Policies: Goals 73, 95, 101, Objectives 73.1, 101.1 and 101.3 and Policies 5.1.2, 72.2.2, 73.2.2, 101.1.1, 101.3.2, 101.3.4, 101.3.5 and 128.6.6.

RESOURCE PROTECTION, WETLANDS AND WATER QUALITY

The Owl Creek project will further Goal 123, which seeks to manage Lee County's wetland and upland ecosystems to protect habitats, floral and faunal species, water quality and natural surface water characteristics. As previously stated, through the stringent proposed conditions of approval with this request, the Owl Creek project will preserve a minimum of 88% of the onsite wetlands providing protection and enhancements and will result in the protection and integration of ±56.41 acres of preserved/restored rare and unique upland habitat, consistent with Policy 123.1.1. A minimum of 54 percent of the property (±186.94 acres) will be placed into a conservation easement including the convergence of two natural waterways/existing flow-ways on the Great Calusa Blueway (Owl Creek and Trout Creek) where they connect to the Caloosahatchee River. The request will provide a connection between the Babcock Ranch Mixed Use Planned Development to the north and the Caloosahatchee River to the south, consistent with Policies 123.1.5 and 123.1.7. It will also provide a connection from the adjacent SFWMD owned lands to the east and south as well as the potential Conservation 20/20 lands to the east that contain a portion of Trout Creek which will provide a connection through the subject property to the Caloosahatchee River.

The Lee Plan also seeks to preserve native plant communities in the County. The request will be consistent with Lee Plan Objective 123.2 and Policy 123.2.2. The submitted Indigenous Habitat Management Plan and proposed conditions of approval with this request will protect, enhance and preserve environmentally sensitive lands and plant communities and will result in a compatible clustered development.

The Owl Creek project will preserve high-quality natural plant communities in the conservation and open space area outside of the development footprint. Please see attached Indigenous Habitat Management Plan. The project will provide enhancement of natural systems of the property and a conservation easement will be placed over a minimum of 54% of the property. The pasture areas and most heavily altered nonnative plant communities are targeted for the clustered development. The project is consistent with Policies 123.2.4, 123.2.5, 123.2.7 and 123.2.8. Long-term management (e.g., exotic vegetation removal, trash/refuse removal, signage, etc.) of the preservation areas will be in accordance with Lee County-approved plans and the conservation easement. Long-term management of the conservation areas will occur in perpetuity. Invasive exotic plants will be removed from the property, prohibited from being planted and controlled in perpetuity, consistent with Policies 123.2.9 and 123.2.11. . The proposed rezoning results in preserving and restoring rare and unique upland habitats limiting impacts to the maximum extent possible, consistent with Policies 123.2.15.

The proposed rezoning provides the potential to have a vital significance to wildlife, as it is located at the southern extent of the Owl and Trout Creek Wildlife Corridors. The preservation areas will become part of a contiguous wetland and upland corridor and flow-way along Trout and Owl Creeks. The Trout Creek Wildlife Corridor connects the subject parcel to Babcock and Lee County (Telegraph Creek Preserve) Conservation Lands. Unfortunately, the current land use practices within the property and exotic vegetation infestation significantly diminish wildlife utilization. Approval of this request will result in the enhancement and preservation of this important piece of land. The resultant development will provide habitat diversity and promote wildlife conservation consistent with Objective 123.3 and Policy 123.3.1. The resultant development will protect wildlife through the creation and implementation of a human-wildlife coexistence plan consistent with Policy 123.3.3.

The Owl Creek project will minimize impacts to on-site wetlands by clustering development and limiting impacts to 12% or less and will protect, enhance and preserve the remaining 88% by exotic vegetation removal and placement within a conservation easement. The project will be permitted through the South Florida Water Management District and is consistent with Goal 124, Objective 124.1 and Policies 124.1.1 and 124.1.2.

The proposed project is consistent with Goal 125, Objective 125.1, and Policies 125.1.1 and 125.1.2. The stringent requirements in the proposed conditions of approval provide an additional 50% water quality treatment, water quality monitoring, reduced rate of runoff, remove nutrient producing grazing lands adjacent to waterways, preserve a minimum of 88% of on-site wetlands, and replacing the potential 223 private well and septic systems with privately funded extensions and connection to public water and sewer. A Surface Water and Groundwater Monitoring Plan will be initiated consistent with Lee Plan Policy 125.1.4 to establish baseline conditions for the site and to quantify any potential adverse impacts of the proposed residential development. Please see attached Water Resources Report.

MARINE FACILITIES SITING CRITERIA

In accordance with the Marine Facilities Sighting Requirements contained in Lee Plan Objective 128.5, HWA is applying for all permits in relation to Federal, State, and Local regulations. The site is less than 3 miles away from the Florida Power and Light powerplant. The warm water discharge is located along the Orange River, nearly 6 miles away. In the area of the subject site abundance and mortality of manatees are low, and would not be of concern. There is no seagrass or submerged aquatic vegetation near or around the subject site and should not be considered a limiting aspect of the project. A bathymetric survey has been submitted and dredging is proposed to -5 MLW once the necessary permits are approved. Going through the Marina Facilities Sighting Criteria, it is anticipated that the subject area will fall into the Conditional category. The subject property is located east of State Road 31 Bridge and not located within the Caloosahatchee River Area of Special Concern.

According to the Lee Plan policy 128.5.8 "Boat access facilities should be located in areas of maximum physical advantage. Adequate existing water depths between the proposed facility and any navigational channel, inlet, or deep water, are preferred, as new dredging is discouraged." The existing channel on the west side of the subject property, that runs north and south from the Caloosahatchee, towards Trout Creek, does have enough adequate water depth that can support the boats that are present on the Caloosahatchee. Once leaving the navigational channel, the water depths are no longer adequate in the proposed work area. Dredging is proposed to avoid unnecessary and harmful prop dredging and bottom scaring. Dredging needs to be completed to support the proposed docks and vessels, and to meet the minimum requirements of -4 MLW according to the Manatee Protection Plan of Lee County. The proposed work area is in a location of maximum advantage area due to the fact there is no presence of seagrass. Due to the low light penetration (<1-2 ft), and the mucky/silty bottom soils, seagrass growth in this area would lean towards unlikely. The soils are too soft to be able to support seagrass roots, and the tannic colored water does not allow light penetration to allow seagrasses to photosynthesis.

With all considered the proposed boat facility is located in an area of maximum advantage. It's location along the Caloosahatchee will be of public interest, and not effect any navigational channels, nor will it impact or effect any natural resources.

HOUSING

Goal 135 addresses meeting housing needs of the present and future residents of the county. Objective 135.1 provides that Lee County will work with private and public housing providers to ensure that there is an adequate supply of housing in the future in a variety of types, costs, and locations to meet the needs of the Lee County population. The Objective provides that Lee County will need 114,927 additional dwelling units, 39,637 of these units will be needed in unincorporated Lee County. The proposed rezoning helps, in part, to fulfill this identified housing need. The proposed clustered development is utilizing the planned development process. The proposed rezoning is consistent with and furthers Goal 135, Objective 135.1 and Policy 135.1.9.

HISTORIC PRESERVATION

Goal 143 provides local preservation techniques for historic resources in Lee County. Policy 143.2.2 encourages the preservation of archaeological sites. Please see attached separate Historic Resources Impact Analysis. There are three archaeological sites in good to excellent condition (8LL2397, 8LL2398 and 8LL2399) that are eligible for listing in the National Register of Historic Places (NRHP) and should and will be avoided by future development by preserving within a minimum 25 foot buffer. These sites are demonstrated on the submitted Master Concept Plan. A fourth site (8LL2825) that, based on the level of intense disturbance and lack of significant cultural materials or context, is not regarded as eligible for listing on the NRHP and will not be preserved. The Indigenous Habitat Management Plan includes language to protect these areas.

CONCLUSIONS

The rezoning request is consistent with and in furtherance of the intent of the Lee Plan as discussed in this analysis. The Owl Creek project represents an opportunity to incentivize the preservation of significant on-site natural resources such as natural waterways and adjacent wetlands, flow-ways, rare and unique upland habitat and historical resources on the property by providing a clustered development that incorporates public access to the Caloosahatchee River via access to Trout Creek.

Land Development Code Analysis

The proposed amendment complies with the findings provided in the Land Development Code Section 34-145(d)(4)a.1 as follows:

a. Complies with the Lee Plan;

The request complies with the Lee Plan as demonstrated in the above analysis.

b. Meets this Code and other applicable County regulations or qualifies for deviations;

The proposed minor RPD is in compliance with the Lee Plan, the Land Development Code and any other applicable County regulations or qualifies for deviations.

c. Is compatible with existing and planned uses in the surrounding area;

The proposed rezoning is compatible with existing and planned uses in the surrounding area. The project's residential uses will be clustered inside the property with enhanced setbacks to adjacent uses and properties. The project's open spaces and preservation areas complement and enhance adjacent existing and pending public and private preserve areas. The site proposes to place a minimum of 54% of the site into conservation easements and provide a minimum perimeter setback of 50 feet consisting of either conservation areas or planted detention areas and perimeter berm to ensure compatibility with adjacent agricultural, single-family, preservation and marina uses.

d. Will provide access sufficient to support the proposed development intensity;

Please see Traffic Impact Statement submitted with the application. This analysis demonstrates that the roadway links analyzed will not be adversely impacted as a result of the rezoning request. All roadway segments analyzed will maintain the minimum recommended Level of Service. Therefore, roadway capacity improvements will not be warranted as a result of the additional traffic generated by the request.

e. The expected impacts on transportation facilities will be addressed by existing County regulations and conditions of approval;

Please see Traffic Impact Statement provided with the application. The expected impacts will be addressed by existing County regulations by payment of impact fees.

f. Will not adversely affect environmentally critical or sensitive areas and natural resources; and

The proposed rezoning will not adversely affect environmentally critical or sensitive areas and will provide further enhancements. The Master Concept Plan demonstrates that only a maximum of ± 13.99 acres of exotic infested wetlands of the existing ± 120.45 acres of pending jurisdictional wetlands will be impacted for public facilities such as transportation or storm water management areas. To mitigate these impacts, ± 186.94 acres of wetlands, uplands and surface waters will be enhanced by removal of exotic vegetation or restored and preserved by the placement of a conservation easement. The submitted Indigenous Habitat Management Plan demonstrates the preservation of the highest quality indigenous habitat onsite, the enhancement and restoration of indigenous habitats onsite, the restoration and connection of Owl Creek and Trout Creek Wildlife Corridors and flow-ways and the reconnection of public conservation lands through the subject property. Although the property development regulations require lot sizes that do not require open space pursuant to the Land Development Code, 60% open space is proposed and a minimum of 54% of the site will be placed into conservation easement. Conditions of approval will ensure that the clustered development is well integrated, properly oriented and functionally related to the natural features of the site.

g. Will be served by urban services, defined in the Lee Plan, if located in a Future Urban area category.

Although the subject property is not located within a Future Urban area, it will be served by adequate urban services. Review letters submitted with the application were based upon a maximum density of 440 dwelling units which has since been reduced to a maximum of 380 dwelling units. Bayshore Fire Rescue is located ± 4.8 miles from the site and has reviewed the request and provided a letter dated August 11, 2020. This letter provides that Bayshore Fire Rescue will be able to adequately serve the development as proposed and that the District will require residential sprinklers within homes if the area is not serviced by an adequate pressurized fire hydrant system. Privately funded potable water will be extended to the site to provide adequate pressurized fire hydrant system. The Lee County Division of Emergency Medical Services reviewed the request and provided a review letter dated August 19, 2020 indicating that the service availability for the proposed development of this property is adequate at this time. Lee County Emergency Medical Services is the primary EMS transport agency responsible for coverage and has a sufficient response data sample. The primary ambulance for this location is Medic 11, located 5.1 miles southwest; there is a second EMS station within six miles of the proposed location. These locations are projected to be able to meet existing service standards, as required in County Ordinance 08-16, and no additional impacts are anticipated at this time. The Lee County Sheriff's Office has reviewed the request and has provided a review letter dated August 4, 2020 that provides that the proposed development does not affect their ability to provide core services and that they have no objection to the requested increase in density. The Sheriff's Office letter states that law enforcement services will be provided from their North District substation in North Fort Myers. This letter also provides that the applicant provide a Crime Prevention Through Environmental Design (CPTED) report at the time of application for a development order. River Hall Elementary is ± 7.5 miles from the property and Riverdale High School is ± 6.2 miles from the property.

2. Planned Development Rezonings. The Hearing Examiner must also find:

a) The proposed use or mix of uses is appropriate at the proposed location;

b) The recommended conditions provide sufficient safeguards to the public interest and are reasonably related to the impacts on the public's interest expected from the proposed development.

c) If the application includes deviations pursuant to section 34-373(a)(9), that each requested deviation:

1) Enhances the achievement of the objectives of the planned development; and

2) Preserves and promotes the general intent of this Code to protect the public health, safety and welfare.

The proposed mix of uses is appropriate at the subject location. The proposed single-family and two-family attached uses are appropriate for the area located between the Babcock Ranch MPD and the Owl Creek Boat Works and the Caloosahatchee River. The proposed conditions of

approval include several stringent requirements that provide sufficient safeguards to the public interest and are reasonable related to any potential impacts on the public's interest expected from the proposed development and result in a high-quality development providing for significant environmental, historical, storm water, water quality and infrastructure enhancements as part of development of the clustered residential development. The two requested deviations enhance the achievement of the objectives of the planned development and preserve and promote the general intent of the LDC to protect the public health, safety and welfare.

In conclusion, the requested rezoning from Agricultural (AG-2) to the Owl Creek Minor RPD is in compliance with the Lee Plan, the Land Development Code with approval of the requested deviations, and other applicable codes and regulations; is compatible with existing and planned uses in the surrounding area; will provide access sufficient to support the proposed development intensity; the expected impacts on transportation facilities will be addressed by existing County regulations and conditions of approval; will not adversely affect environmentally critical or sensitive areas and natural resources; efficiently uses and will be served by existing urban services, defined in the Lee Plan. The proposed use or mix of uses is appropriate at the proposed location; proposed conditions provide sufficient safeguards to the public interest and are reasonably related to the impacts on the public's interest expected from the proposed development. For these reasons, the applicant respectfully submits that the requested rezoning to RPD should be approved.



Professional Engineers, Planners & Land Surveyors

OWL CREEK RESERVE MINOR RPD

DCI2020-00011

Revised October 2021

Proposed Conditions of Approval

The Owl Creek application proposes the following conditions of approval:

1. Development Order plans must demonstrate the following environmental enhancements:
 - a. A minimum of 60% open space, inclusive of onsite preserve and restoration, to accommodate the following:
 - i. Water quality enhancement areas, including but not limited to natural systems-based stormwater management facilities, filter marshes or planted detention areas, and wetland buffers to reduce the rate of run-off and associated nutrient loads;
 - ii. Preservation of existing regional flow-ways to the maximum extent possible;
 - iii. Preservation of a minimum of 88% of the onsite wetlands with exotic vegetation removal and maintenance;
 - iv. Critical wildlife connection(s) through on-site preserve areas where adjacent to conservation areas
 - v. Minimum 50-foot perimeter setbacks which may consist of preserves; and
 - vi. Passive recreational areas that comply with the definition of open space, as set forth in the Land Development Code.
 - b. Open space areas must be platted in separate tracts, outside of privately owned lots, and dedicated to an appropriate maintenance entity. A Community Development District (CDD), Independent Special District (ISD), or a master property owners association must be created to accept responsibility for perpetually maintaining the open space areas identified in the planned development.
 - c. A conservation easement for a minimum (*54% of property*) ± 186.94 acres of the development area to be recorded benefiting a public agency acceptable to Lee County, or Lee County itself, and dedicated to an appropriate maintenance entity. Land subject to conservation easement(s) can be used for on-site mitigation and will be recorded as development orders are issued. The timing of conservation easement(s) and restoration may be phased so long as the area dedicated to conservation easement is equal to or greater than the area of land approved for development on a cumulative basis and must be in compliance with the Schedule provided in the Indigenous Habitat Management Plan.
 - d. Provide a protected species management plan to address human wildlife coexistence, including educational programs and development standards.
 - e. Not preclude recreational connections to adjacent public and private conservation and preserve land, subject to approval by the appropriate agencies,
 - f. Incorporate Florida Friendly Landscaping with the low irrigation requirements in common areas.
 - g. Incorporate energy efficiency or other low impact development (LID) performance standards within the development.
 - h. Minimize impacts to natural areas and native habitat by clustering development

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Proposed Conditions of Approval – 2 of 3

- primarily in areas previously impacted by agricultural uses and other development activities.
2. Development Order plans must demonstrate the following water quality & hydrological enhancements:
 - a. The stormwater management system must demonstrate through design or other means that water leaving the development meets current state and federal water quality standards. Outfall monitoring will be required on a quarterly basis for a minimum of 5 years from the date of acceptance of construction of the water management system by the South Florida Water Management District. Monitoring may be eliminated after 5 years if the water quality standards are met.
 - b. Demonstrate an additional 50% water quality treatment beyond the treatment required by the SFWMD for the on-site stormwater management basins.
 - c. Protect existing groundwater levels and improve existing wetland hydroperiods in onsite preserve areas, as applicable by SFWMD permits.
 - d. Provide a lake management plan that requires best management practices for the following:
 - i. fertilizers and pesticides;
 - ii. erosion control and bank stabilization; and
 - iii. lake maintenance requirements and deep lake management for lakes exceeding 12 feet below lake surface (BLS).
 - iv. Native plantings and aeration
 - e. Provide a site-specific ecological and hydrological plan, which includes at a minimum the following: preliminary excavation and grading plans, exotic removal and maintenance plan, supplemental planting plan, and success criteria for meeting established goals and must be in compliance with the Ecological Performance Standards provided in the Indigenous Habitat Management Plan.
 - f. Provide site-specific mitigation and enhancements to reduce discharge rates.
 - g. Utilize reuse and surface water generated by the development to meet the irrigation demands of the recreation and development areas, to the extent such reuse is available.
 - h. Demonstrate that the proposed development will not result in significant detrimental impacts on present or future water resources.
 3. Development Order plans must demonstrate the following infrastructure enhancements:
 - a. Development must connect to centralized water and sewer services, with the exception of interim facilities used on a temporary basis during construction, and for unmanned essential services on a temporary basis until water and sewer service is extended to the development.
 - b. Written verification as to adequate public services for the development from the sheriff, EMS, fire district, and Lee County School District, or via interlocal agreements with adjacent jurisdictions and/or special districts.
 - c. Civic space or recreational area such as a canoe/kayak launch, boardwalk, jogging path, fishing platform, or waterside park for use by the general public, to be maintained by the property owners' association or similar entity.
 - d. Provide a minimum 8-foot wide easement to accommodate an 8-foot wide multi-purpose pathway along North River Road/CR 78.
 4. Development Order plans must demonstrate the following community character enhancements:
 - a. Provide minimum 50 foot perimeter setback area to internal residential lot lines
 - b. Enhanced buffers and setbacks along external roadways to preserve rural vistas and viewsheds that are at least 50% wider than the Land Development Code requirements.
 - c. Locate access points onto adjacent arterial roadways to minimize impact to the surrounding rural community.
 - d. Preservation of archaeological sites in good to excellent condition that are regarded as eligible for listing on the National Register of Historic Places within a minimum 25-

Proposed Conditions of Approval – 3 of 3

- foot buffer. An archaeological monitor should confirm the location of the buffer/temporary silt fencing placed around each site and confirm that the sites are avoided during construction activities.
- e. Provide a minimum 100' setback from Water Dependent Overlay to proposed internal residential lot lines.
5. As part of the local development order approval, the developer shall provide signage stating that the eastern secondary access on North River Road is limited for use by residents only and direct all other traffic to please use the main entrance located to the west.
 6. As part of the local development order approval, the developer shall demonstrate no objection to Deviations 1 and 2 from the Bayshore Fire Protection and Rescue Service District.
 7. A drainage easement must be granted at the time of the first plat for the project to allow the County to access the flow-way for the right but not the obligation to maintain the flow-way.
 8. Western project entrance gate on North River Road will allow public access during the day. After dark the gate will close for security. Access will remain available for Owl Creek Boatworks and the existing single-family residence.
 9. If the FEMA Regulatory floodways are still in place at the time of Development Order permitting, a FEMA No Rise analysis will be provided, or the site plan revised to avoid the floodway.



Professional Engineers, Planners & Land Surveyors

Owl Creek Reserve Minor RPD

Schedule of Deviations and Justifications

DCI2021-00011 – Revised October 2021

Deviation (1): Deviation 1 seeks relief from Lee County Land Development Code (LDC) Section 34-1748(5) requirement that a paved turn-around, having a turning radius sufficient to accommodate a U-turn for a single unit truck (SU) vehicle as specified in the AASHTO Green Book current addition, must be provided on the ingress side of the gate or gatehouse; to allow no turnaround at the eastern resident only entrance gate on North River Road.

Justification: This deviation is requested to accommodate the secondary nature and minimum traffic associated with the resident only eastern access point on North River Road. The primary access point for the project is located at the western access point with the gatehouse where guests, trucks, and most residents will enter the project. The western main entrance is designed to comply with the required truck turn-around. The secondary eastern access will be restricted to residents only with minimal use and will have 20-foot wide entrance and exit lanes. The applicant proposes a condition that, as part of the local development order approval, the developer shall provide signage stating that this secondary access is limited for use by residents only and direct all other traffic to please use the main entrance located to the west and must demonstrate no objection from the Bayshore Fire Protection and Rescue Service District. All other requirements under LDC Section 34-1748 will be met. The gate will be located on an internal private street and will be setback a minimum of 100 feet from North River Road right-of-way. Access for emergency vehicles will be accommodated. The requested deviation enhances the achievement of the objectives of the planned development and will preserve and promote the general intent to protect the public health, safety and welfare.

Deviation (2): Deviation 2 seeks relief from LDC Section 10-296(k)(1), which requires dead-end streets to provide a circular turnaround, to allow a dead-end street with a t-intersection in Tract 1 as shown on the MCP.

Justification: The requested deviation is included in LDC Section 10-104(a)(9) list of provisions where the Development Services Director is authorized to grant administrative deviations. This deviation is requested to allow a t-turnaround in Tract 1 as shown on the MCP. The t-turnaround in Tract 1 is $\pm 135'$ in length in lieu of a cul-de-sac to access approximately 4 lots in the northeastern portion of the development. Access to these few lots do not require a turn-around per NFPA standards. This short street only serves 4 units. The t-turnaround provides adequate access to the units and for emergency vehicles. Attached please find an email providing no objection from the Bayshore Fire Protection and Rescue Service District. The requested deviation is internal to the site and enhances the achievement of the objectives of the planned development and will preserve and

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promote the general intent to protect the public health, safety and welfare. The alternative proposed is based on sound engineering practices and is no less consistent with the health, safety and welfare of abutting landowners and the general public than the standard from which the deviation is being requested. The granting of the deviation is not inconsistent with any specific policy directive of the Board of County Commissioners, any other ordinance or any Lee Plan provision.

Deviation (3): Deviation 3 seeks relief from LDC Section 10-416(d)(9), which requires a 50-foot wide vegetative buffer landward of nonseawalled natural waterways; to allow the following encroachments as shown on the Master Concept Plan:

- Tributary to Owl Creek: road crossing for Tract 3
- Trout Creek: Bridge crossing and surface water/littoral marsh wetland restoration area
- Natural basin connected to Caloosahatchee River: surface water restoration area

Justification: The requested deviation enhances the achievement of the objectives of the planned development and will preserve and promote the general intent to protect the public health, safety and welfare. There will be no reduction in the required landscaping for the minimal encroachment areas as the required plantings will be calculated along the entire length of the required natural waterway buffer areas and located in the areas adjacent to the encroachments. The site design minimally impacts ± 0.13 acre of a tributary to Owl Creek for filling for a road crossing required to provide access to Tract 3. The crossing is necessary due to the location of the existing natural surface waters on the site and the impact has been minimized to the maximum extent possible. The crossing will maintain the existing flow by providing twin 48" culverts which matches the upstream culvert sizing provided for the North River Road crossing of this same tributary. The natural waterway buffer will be provided for the remaining areas of this tributary. The site design minimally impacts the natural waterway buffer area on a portion of Trout Creek to provide for a new bridge crossing and to provide surface water/littoral marsh wetland restoration area that creates a flushing cut from Trout Creek. The new bridge is proposed to provide larger spans and more vertical clearance compared to the existing bridge. The area proposed for the surface water/littoral marsh wetland restoration is currently pasture land or hydric Brazilian Pepper and will be enhanced by creating the flushing opportunity and tidal pump which will increase conveyance and water quality from Trout Creek and provide shallow areas for smaller fish habitat and provide an area for the proposed canoe launch with sandy beach area to allow access to the Caloosahatchee River. The minimal impact to the natural waterway buffer along the natural basin connected to the Caloosahatchee River is also a portion of the proposed surface water restoration area that is part of the proposed tidal pump which will enhance the conveyance and water quality from Trout Creek. This area is also existing hydric Brazilian Pepper or hydric pasture and the proposed improvements will be an enhancement. The natural waterway buffers will be provided for the remaining areas along natural surface waters within and abutting the site. The enhancements to the site by exotic removal and restoration areas associated with the proposed development plan will result in a public benefit by improving the quality of existing natural flowways and wildlife corridors and providing public access to Trout Creek and the River.



Professional Engineers, Planners & Land Surveyors

Owl Creek Reserve Minor RPD Preliminary Density Calculations

DCI2021-00011- Revised October 2021

The site is within the Rural Future Land Use Category and there are concurrent Lee Plan Map and Text Amendments pending under case numbers CPA2020-00004 & CPA2020-00005 to propose an amendment to Map 6 to include ± 342.68 acres within the Lee County Utilities Future Water Service Area to allow for privately funded expansion of water service and associated Text Amendments to provide incentives to encourage wetland preservation and rare and unique upland habitat preservation or restoration in the Rural future land use category for clustered developments utilizing the planned development process within the North Olga Planning Community. The proposed Text Amendment language is attached and below are the preliminary density calculations upon approval of the proposed language:

Please refer to the Master Concept Plan Notes and Density Exhibit:

Uplands (± 212.07 AC) & Manmade ditches/lake (± 4.42 AC)=216.49 AT 1 DU/AC:	216.49 DU
Preserved Wetlands ± 106.46 AC transferred to adjacent uplands at 1 DU/AC:	106.46 DU
Impacted Wetlands ± 13.99 AC at 1 DU/20 AC:	0.70 DU
± 5.74 AC Natural Open Water not eligible for density	
Additional 1 DU/AC Preserved Rare and Unique Upland Habitat ± 21.49 AC:	21.49 DU
Additional 1 DU/AC for Restored Rare and Unique Upland Habitat ± 34.92 AC:	<u>34.92 DU</u>
Total Maximum Density:	380 DU

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STORMWATER PLANNING REPORT

PREPARED FOR:

Owl Creek Reserve Minor RPD

DCI2021-00011

Revised October 2021

DR Horton

10541 Six Mile Cypress Pkwy

Fort Myers, FL 33966

PREPARED BY:



Professional Engineers, Planners & Land Surveyors

10511 Six Mile Cypress Parkway, Suite 101

Fort Myers, Florida 33966

Existing Conditions

The **Owl Creek** development is located in Lee County, Florida, between North River Road and the Caloosahatchee River, approximately one mile east of SR 31. The project is located in Sections 18 and 19, Township 43 South, Range 26 East. The project area is located within the Owl Creek and Trout Creek Drainage Basins. These natural creeks traverse the project and connect to the Caloosahatchee River and are tidally influenced within the project. The site has historically been used for agriculture (cattle grazing) and has been partially cleared. The property slopes from North to South and the existing grade varies from elevation 8 in the north, to elevation 2 in the south. Owl Creek and Trout Creek flow across North River Road and through the project.

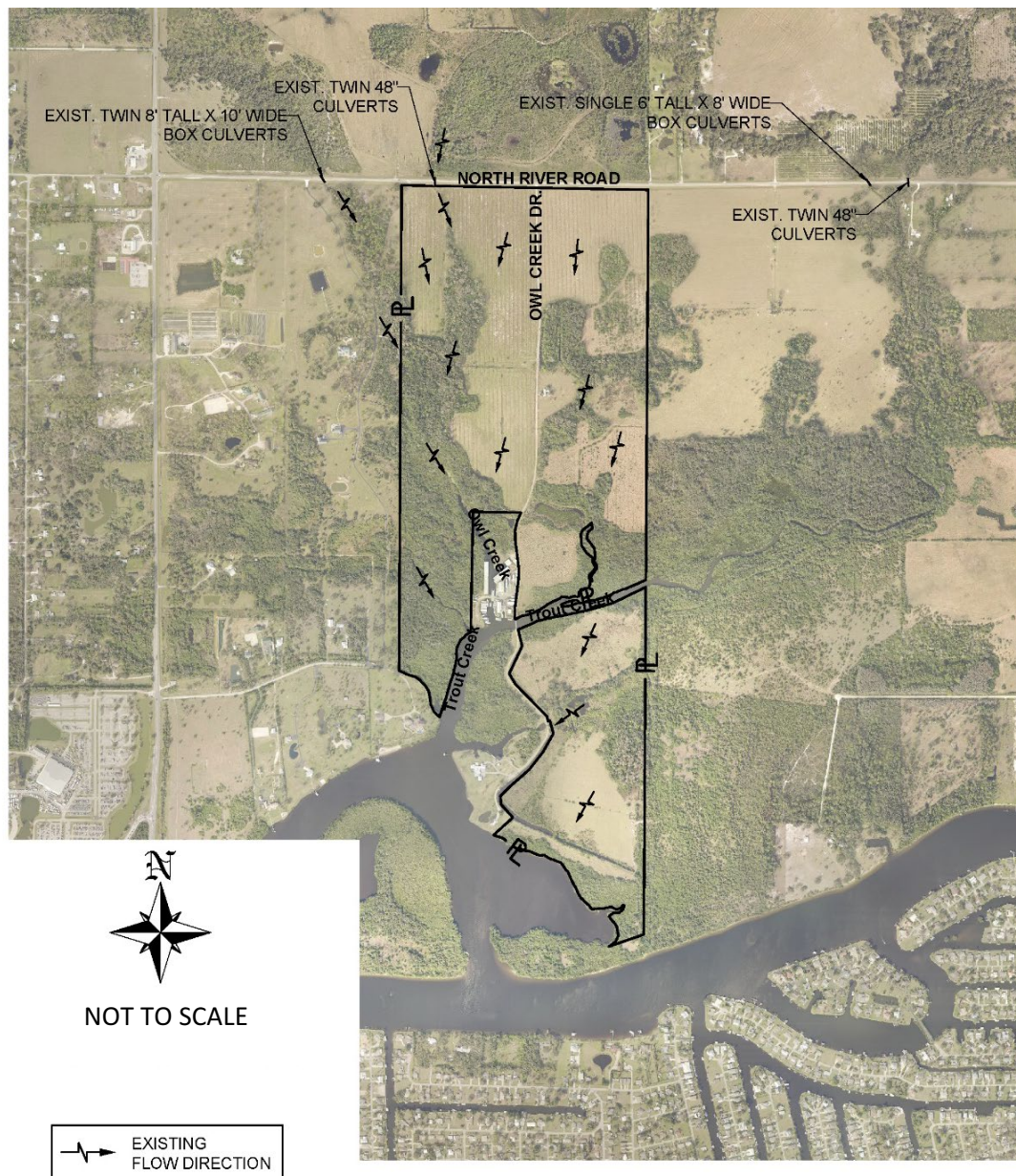


Figure 1: Existing Drainage Map

These creeks and the other onsite wetlands are shown as flow-ways in the County system (see Figure 2) and are prioritized for preservation and restoration. The elevation of the uplands south of Trout Creek range from 2'-3'. The onsite wetlands are primarily along the Trout Creek and Owl Creek. The hydroperiod of the wetlands is controlled by the water table in these creeks that drain upstream areas north of North River Road.



Figure 2: Existing and Historic Flow-ways Map

Proposed Water Management System

The proposed **Owl Creek** project will provide significant wetland and upland preservation and restoration areas with clustered residential development. The development areas will include lakes with residential tracts surrounding these lakes. An amenity area is also planned within the development. The development will primarily occur in the previously cleared areas with a majority of the existing vegetation being preserved. Owl Creek and Trout Creek and their adjacent wetland systems will be maintained as regional flow-ways (See Figure 3).

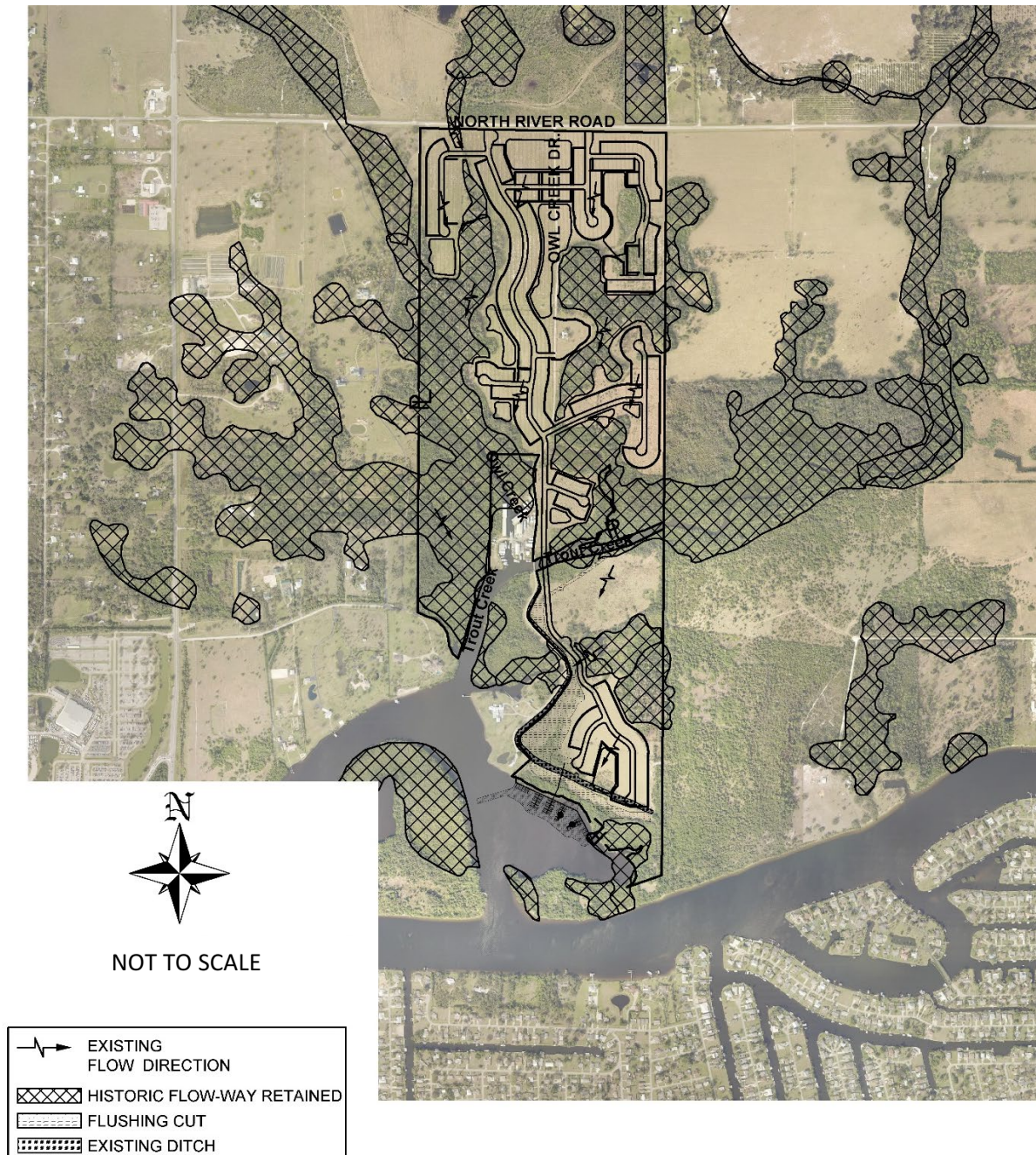


Figure 3: Post Development Historic Flow-ways Map

The natural wetlands and the offsite flows are being preserved with only minimal impacts where unavoidable. The wetland preserves will not be part of the controlled surface water management system. This will allow the offsite flows to pass through the site without being affected by the project. The storm water management system has been designed to mimic the natural sheet flow pattern. The discharge from the storm water management system basins from the developed site will be controlled and will be limited to predevelopment discharge rates and directed to mimic natural flows. The discharge from the storm water system will help to hydrate the wetland systems and improve water levels. These wetland systems can provide additional polishing of runoff prior to entering the natural waterways functioning as a filter marsh. No negative impacts to water levels or wetland hydroperiods are expected.

The water management system will include both wet and dry detention areas planted with wetland plant species. Runoff from the developed site will be routed to these detention areas for treatment and storage (See Figure 4). Since the site elevation and therefore the wet season water table varies across the site from north to south, the water management system will be divided into several separated basins. These separate basins will be used to help maintain onsite water elevations within the wetland systems.

Runoff will first be routed to planted dry detention areas for initial treatment. These dry detention areas will overflow to the wet detention areas (lakes). This will maximize water treatment and nutrient removal, which will exceed SFWMD, FDEP and Lee County requirements. The Owl Creek Project will include a lake management plan following BMP's for erosion control and bank stabilization, deep lake management the includes native plantings and aeration of the lakes, and limitations on fertilizer and pesticide application. These features help to improve water quality in the lakes, and therefore improving the discharges to the wetlands.

After treatment, runoff will be discharged at pre development rates to the onsite wetlands in order to help maintain wetland hydration and provided additional polishing and nutrient uptake. These wetland systems connect to Trout Creek and Owl Creek which discharge to the Caloosahatchee River and are tidally influenced in the project area.

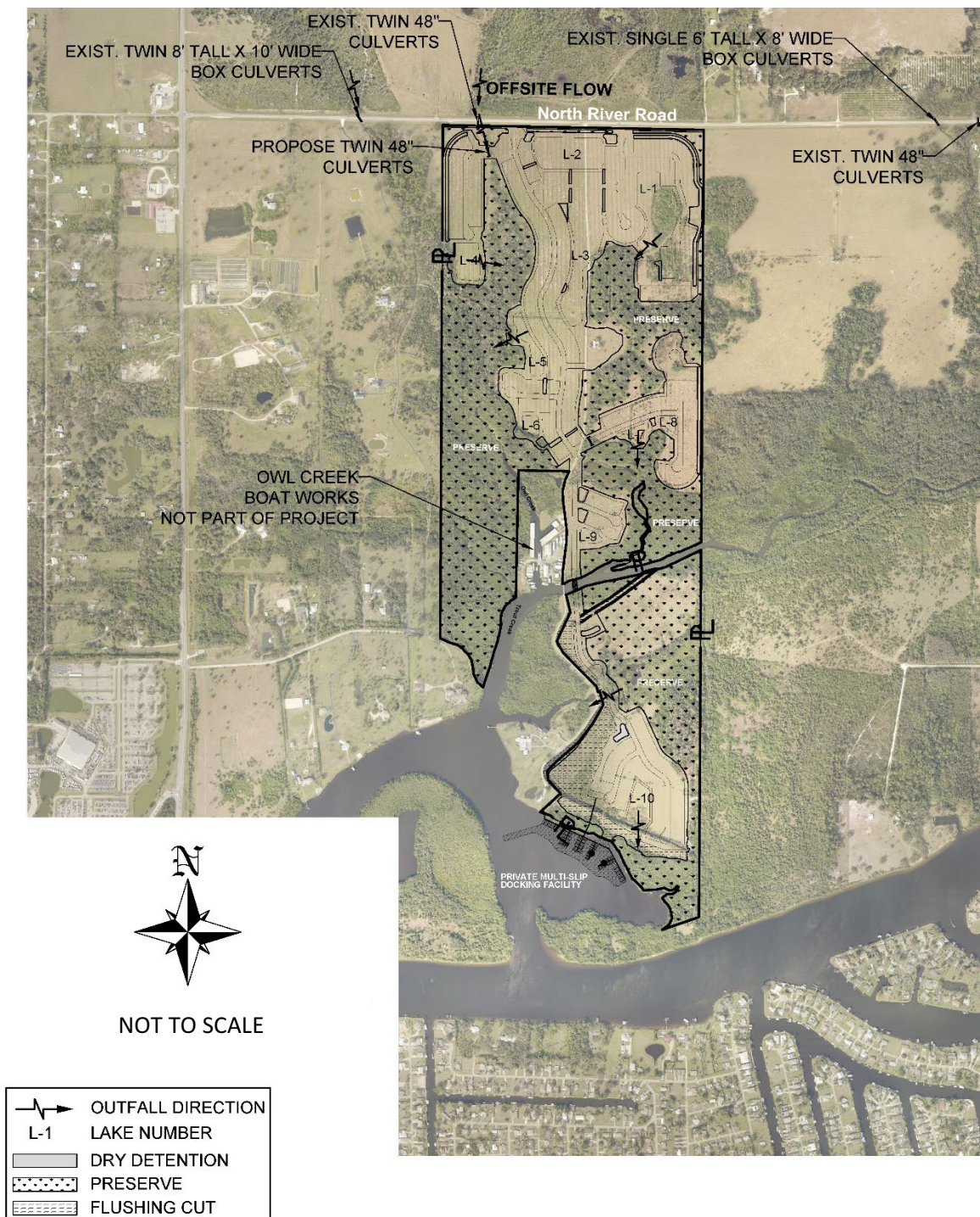


Figure 4: Post Development Drainage Map

FEMA Floodplain - Pre-Development

The project is located within the FEMA (Federal Emergency Management Agency) 100-year floodplain. The project includes the Owl Creek on the west side and the Trout Creek on the southeastern side of the proposed site. These natural creeks flow through the project. The creeks are tidally influenced by the Caloosahatchee in the project area and the FEMA elevations with

the Floodway range from 0.90' to 9.00'. These flood elevations for the rainfall driven flood event were obtained from the 2018 FEMA FIS (Flood Insurance Study) for Lee County. These creeks and the adjacent lands are also part of the regulatory FEMA flow-way adopted by FEMA and Lee County in 2008 (See Figure 5). These flow-way areas represent the historic floodplain and can not be filled unless the floodplain impacts are reviewed and approved by FEMA or the floodplain manager. Fema assumes that the flow-way area is the conveyance for the creek, and that all the property surrounding the flow-way has been filled and is not available for drainage.



Figure 5: Existing FEMA Flow-way Map

The elevations from the FEMA models do not top North River Road in the project area. Therefore, the offsite flows must pass through the culverts under the road. There are twin 8'x10' box culverts across North River Road at Owl Creek and a 6'x8' box culvert across North River Road at Trout Creek. The flow-way is hundreds of feet wide and has significantly more flow capacity than the culverts.

Recently FEMA has completed (not implemented) the Unincorporated Lee County Coastal Risk MAP, which according to the Lee County website “builds on the previous Map Modernization program with a closer consideration of coastal wave action.” FEMA and the local jurisdictions have coordinated proactively on flood map updates in 2008, 2012 and 2018. The new Risk Map also “used storm surge and wave analysis models to update flood zones and base flood elevations for coastal areas and the banks of the Caloosahatchee River.” The new Risk Map categorizes the proposed project area as Coastal A, rather than AE (See Figure 6) and eliminates the FEMA floodway within the Coastal A zone. These Coastal A areas are within the Limit of Moderate Wave Action (LiMWA) inside of which the wave action can be as high as 1.5 ft. The proposed project falls inside this limit and this wave action during flooding is indicative of a tidally influenced flood area. Filling in these tidal areas does not affect upstream flood elevations.

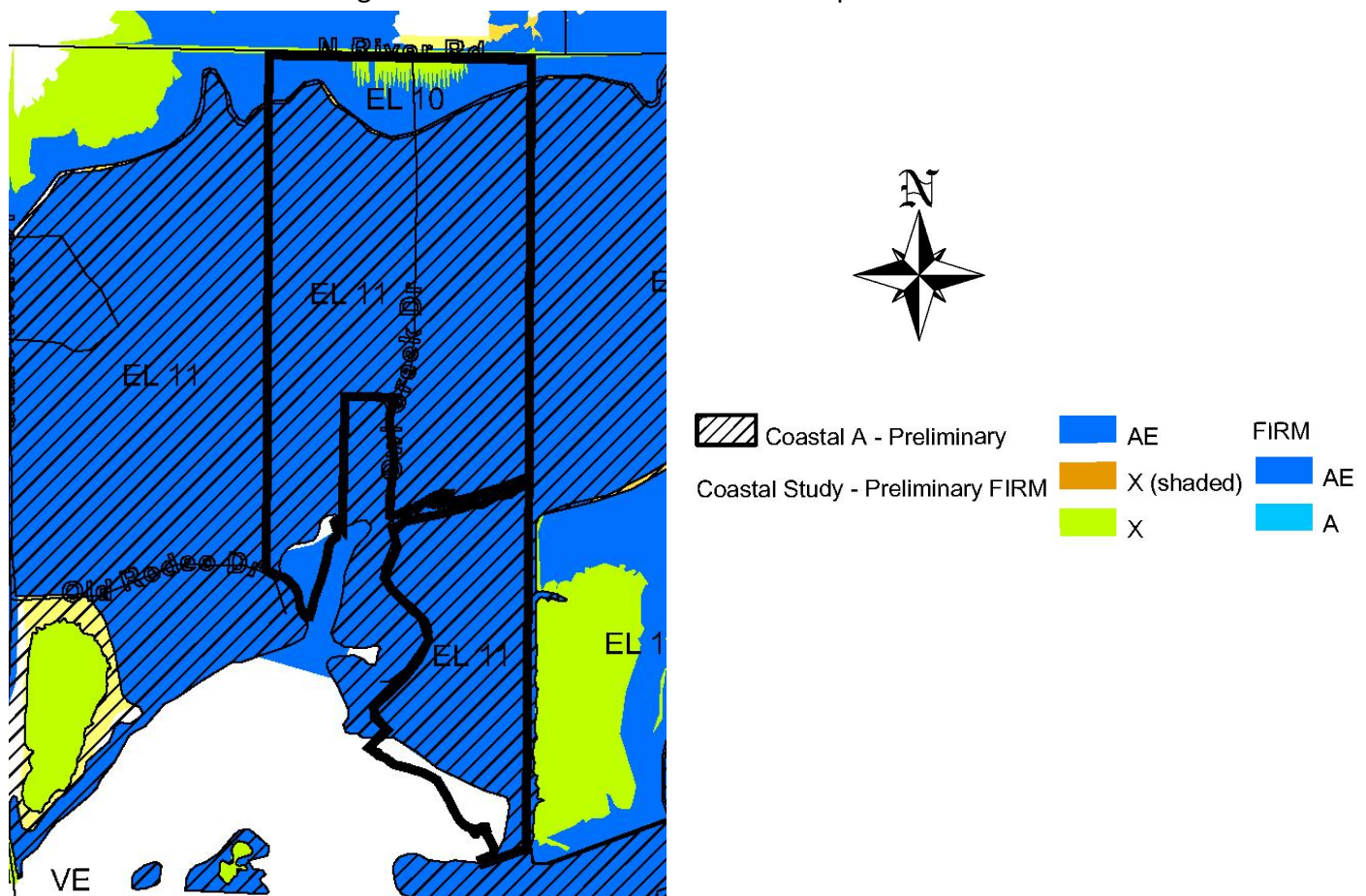


Figure 6: Preliminary Proposed FEMA Map (not implemented)

FEMA Flood Plain – Post Development

In the proposed project of 342.68-acres a total of almost 200 acres of wetlands, easements, and open space will not be developed. The areas currently serve as a collection and distribution system for runoff, and these drainage corridors (Trout Creek and Owl Creek) will be preserved. We believe that by the time the project is fully permitted and developed, the new FEMA study will be in affect. If not, the site plan can be adjusted to eliminate any encroachments into the regulatory flow-way on the current FEMA maps (See Figure 7). The Owl Creek project will comply with the requirements of the FEMA map in affect at the time of Development Order permitting.

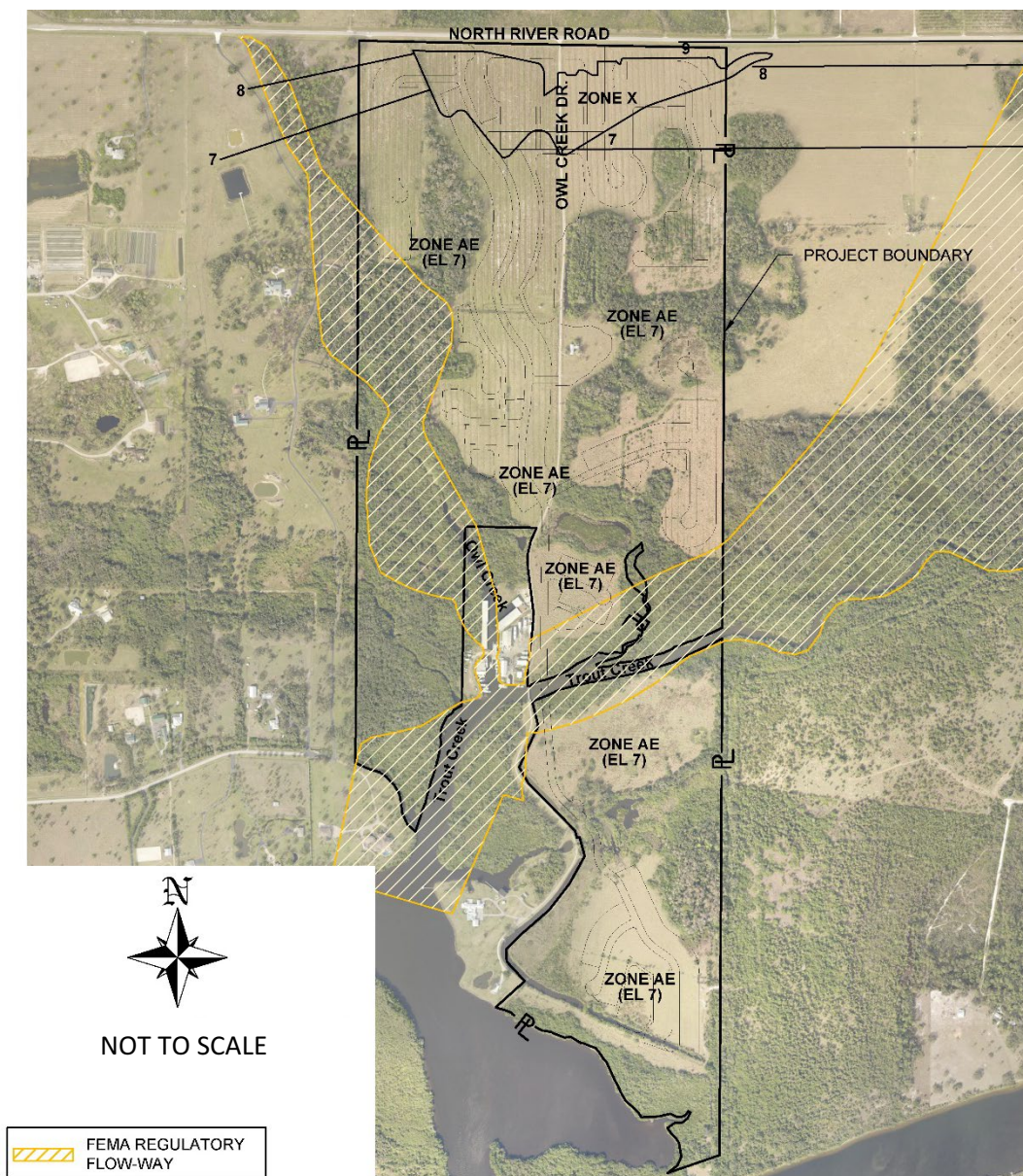
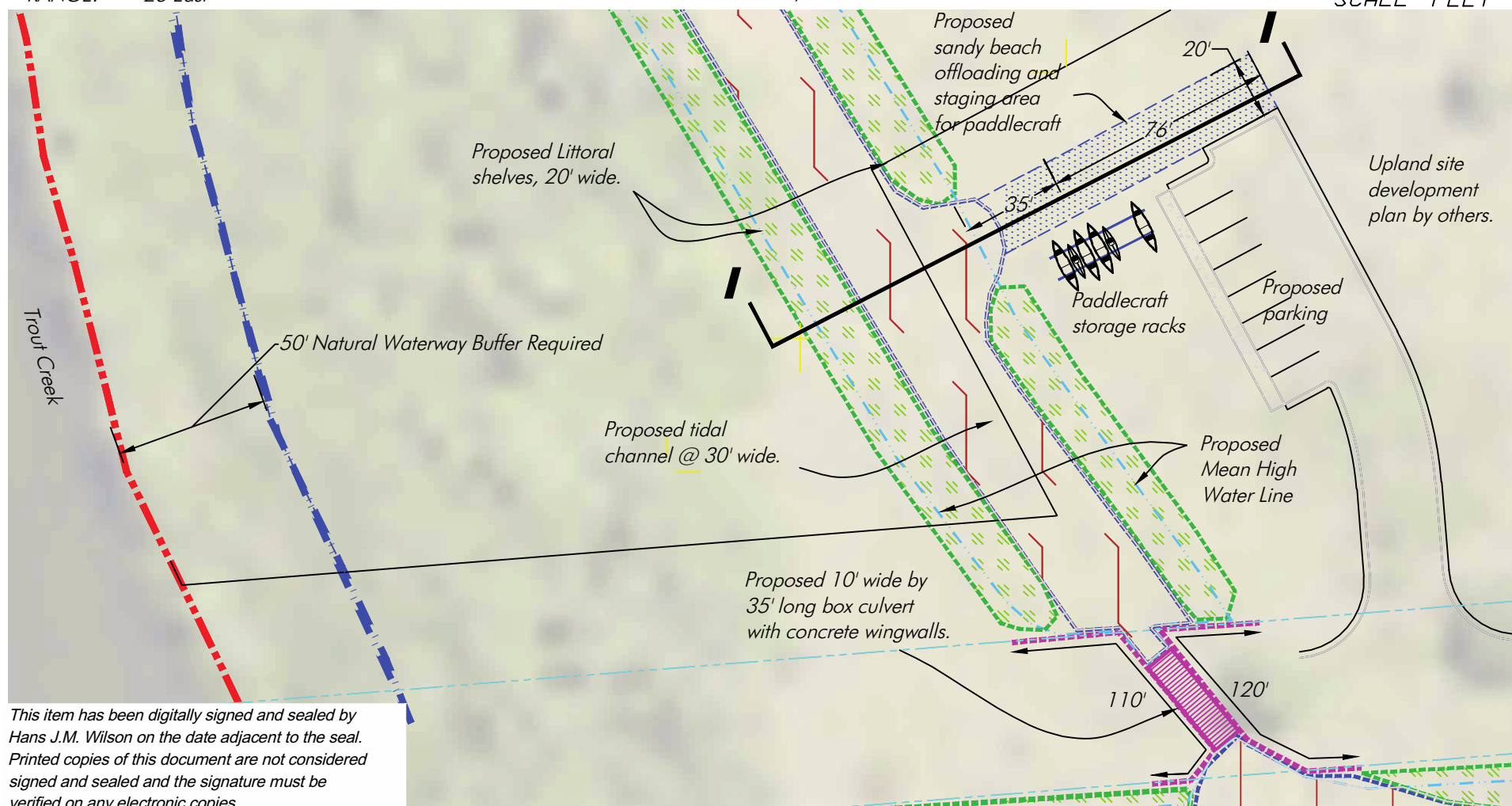


Figure 7: Post Development FEMA Flow-way

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2019 Lee County Aerial

0' 25' 50'
SCALE FEET



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Detail F - Proposed Paddlecraft Ramp

SCALE: 1" = 50'

Note: Property lines per Lee County Property Appraiser

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HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: October 25, 2021 11:58:35 a.m.
Drawing: HORTON3MASTER.DWG



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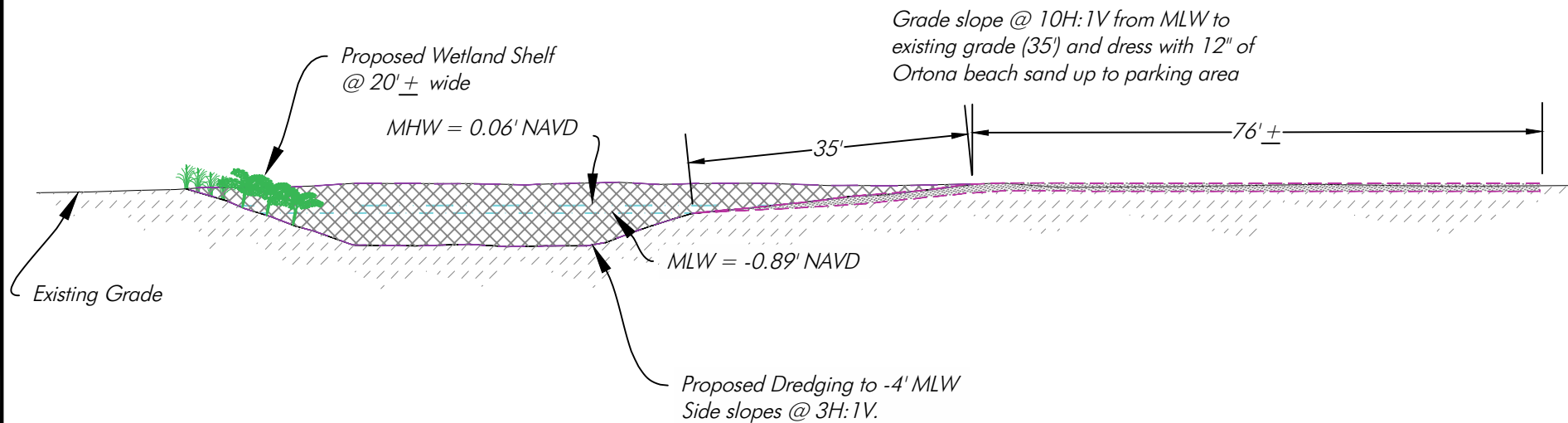
JWA

D R Horton

SHEET
13-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 10 20
SCALE FEET



Cross Section I-I

SCALE: 1" = 20'

Notes: Depths based on DEP Tide
Station 872-5520 and reference MLW.

Note: Property lines per Lee County Property Appraiser

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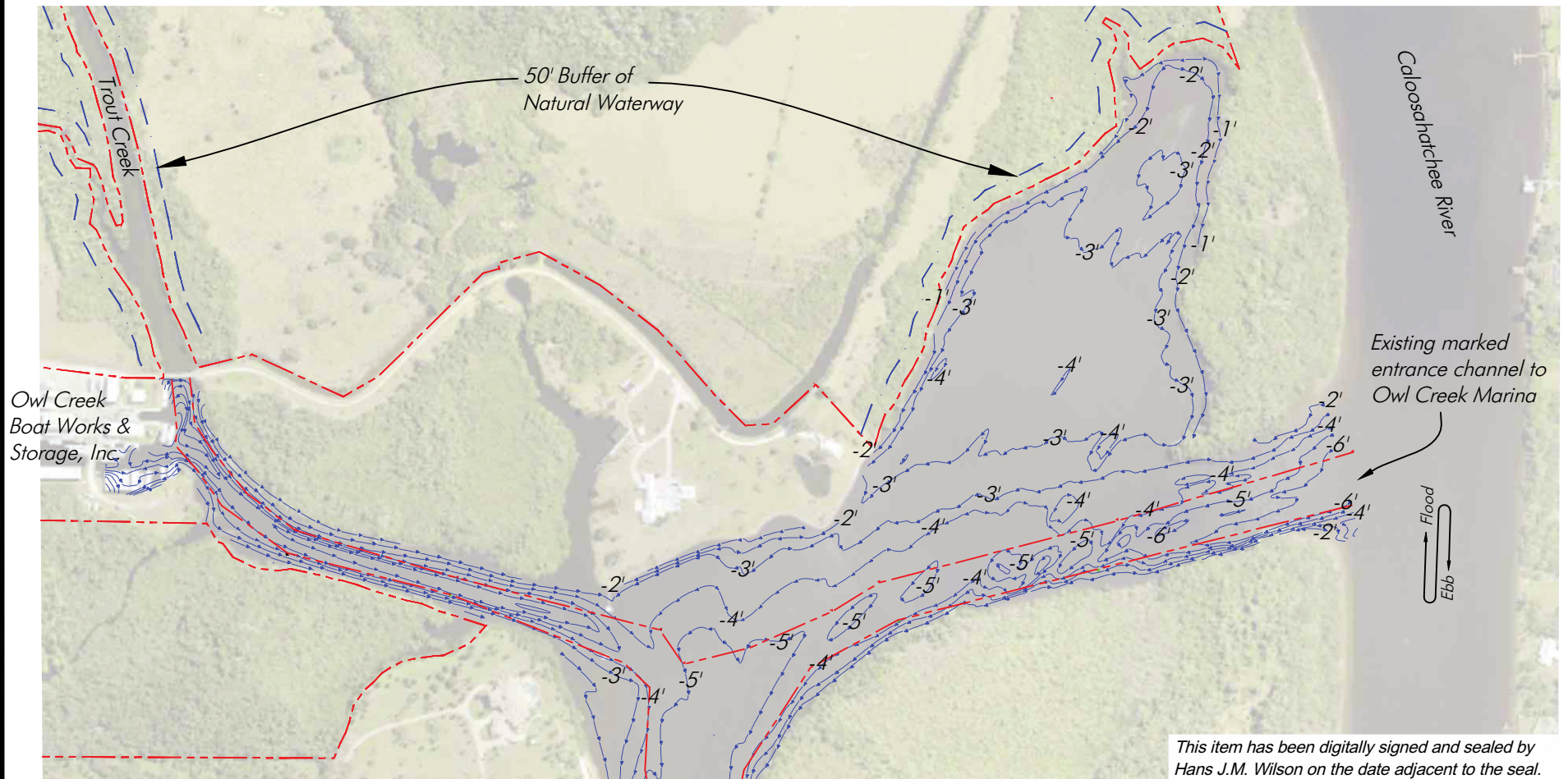
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SHEET
18-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial



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Site Bathymetry references Mean Low Water datum.

Note: Property lines per Banks Engineering.

Overall Site Bathymetry

SCALE: 1" = 500'

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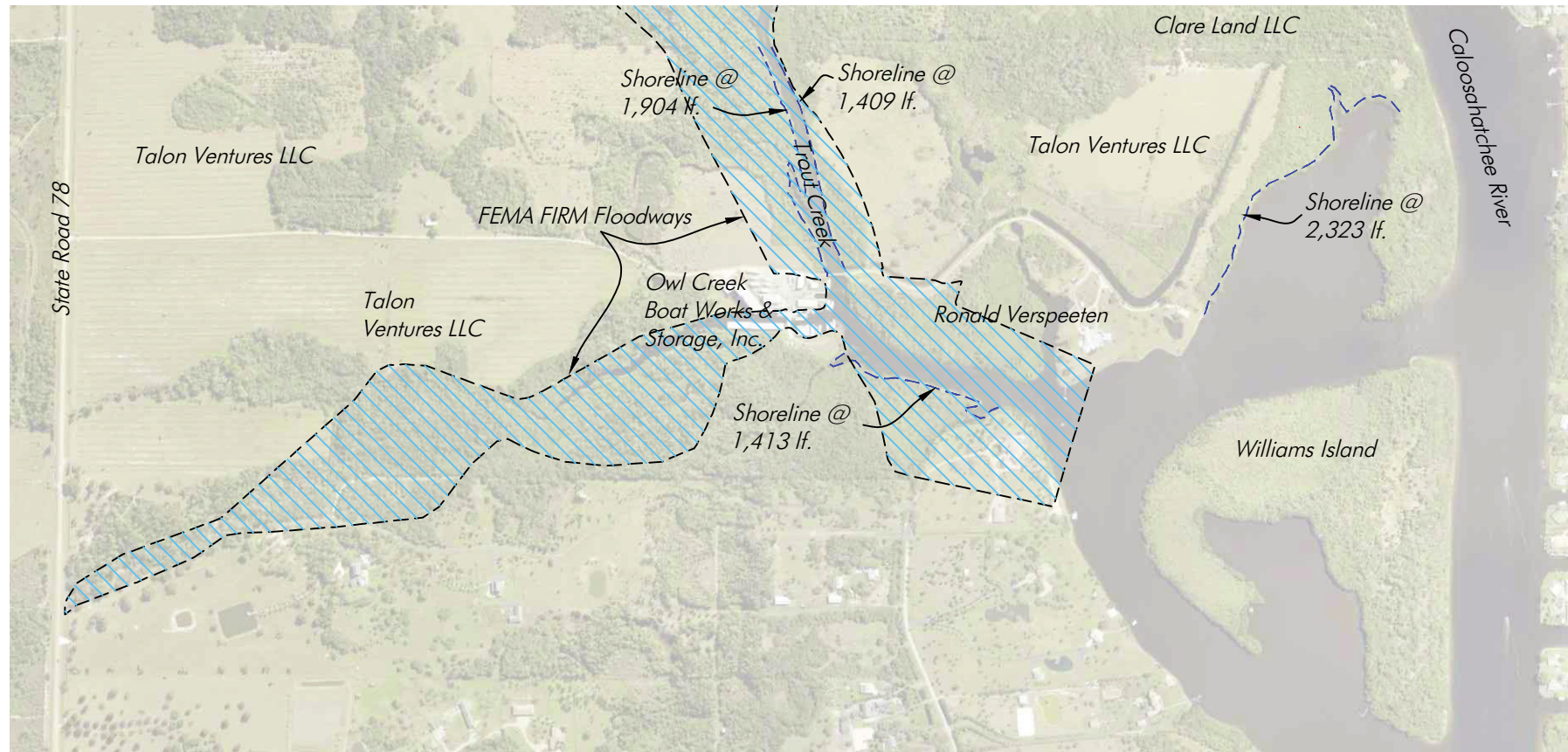
D R Horton

SHEET
3-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



2021 Lee County Aerial



Overall Site Plan

SCALE: 1" = 1,000'

Total project shoreline @ 7,049 lf.

Note: Property lines per Lee County Property Appraiser

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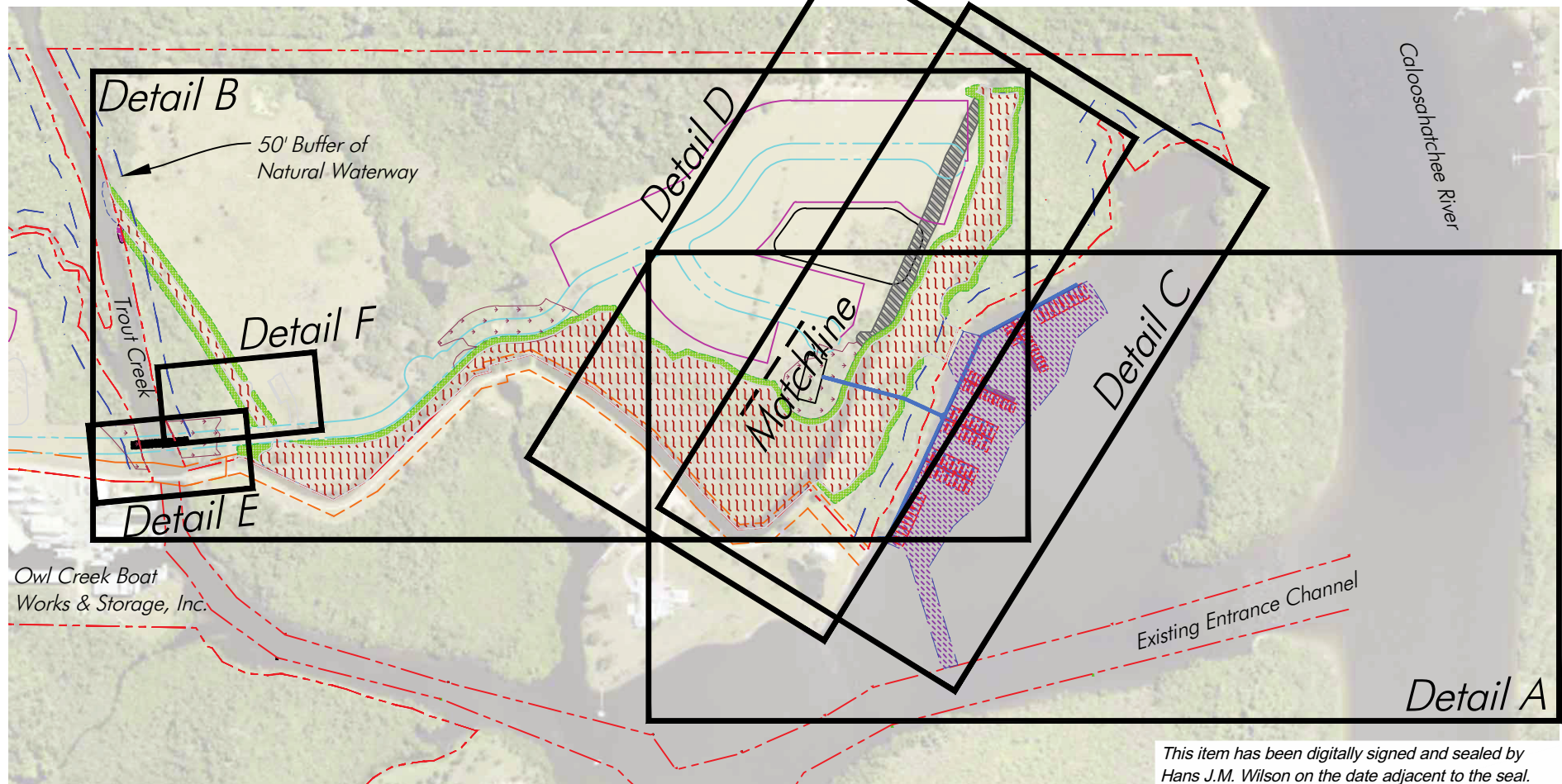
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SHEET
2-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 250' 500'
SCALE FEET



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Proposed Site Plan

SCALE: 1" = 500'

Total project shoreline @ 7,049 lf.

Note: Property lines per Lee County Property Appraiser

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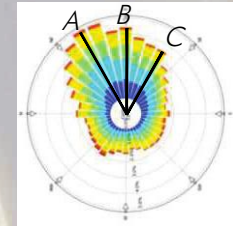
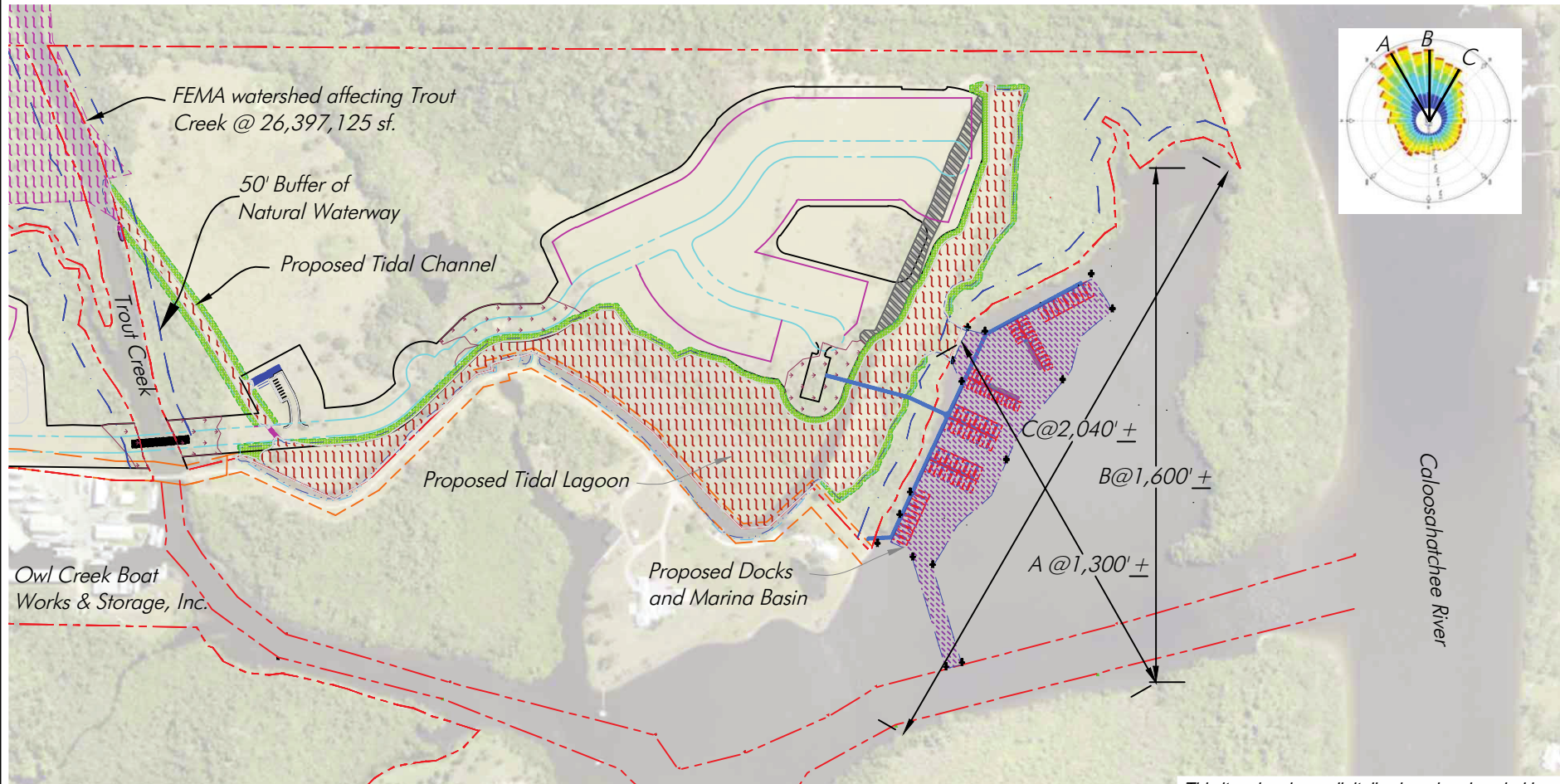
D R Horton

SHEET
4-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 250' 500'
SCALE FEET



Flushing Analysis

SCALE: 1" = 500'

Note: Property lines per Lee County Property Appraiser

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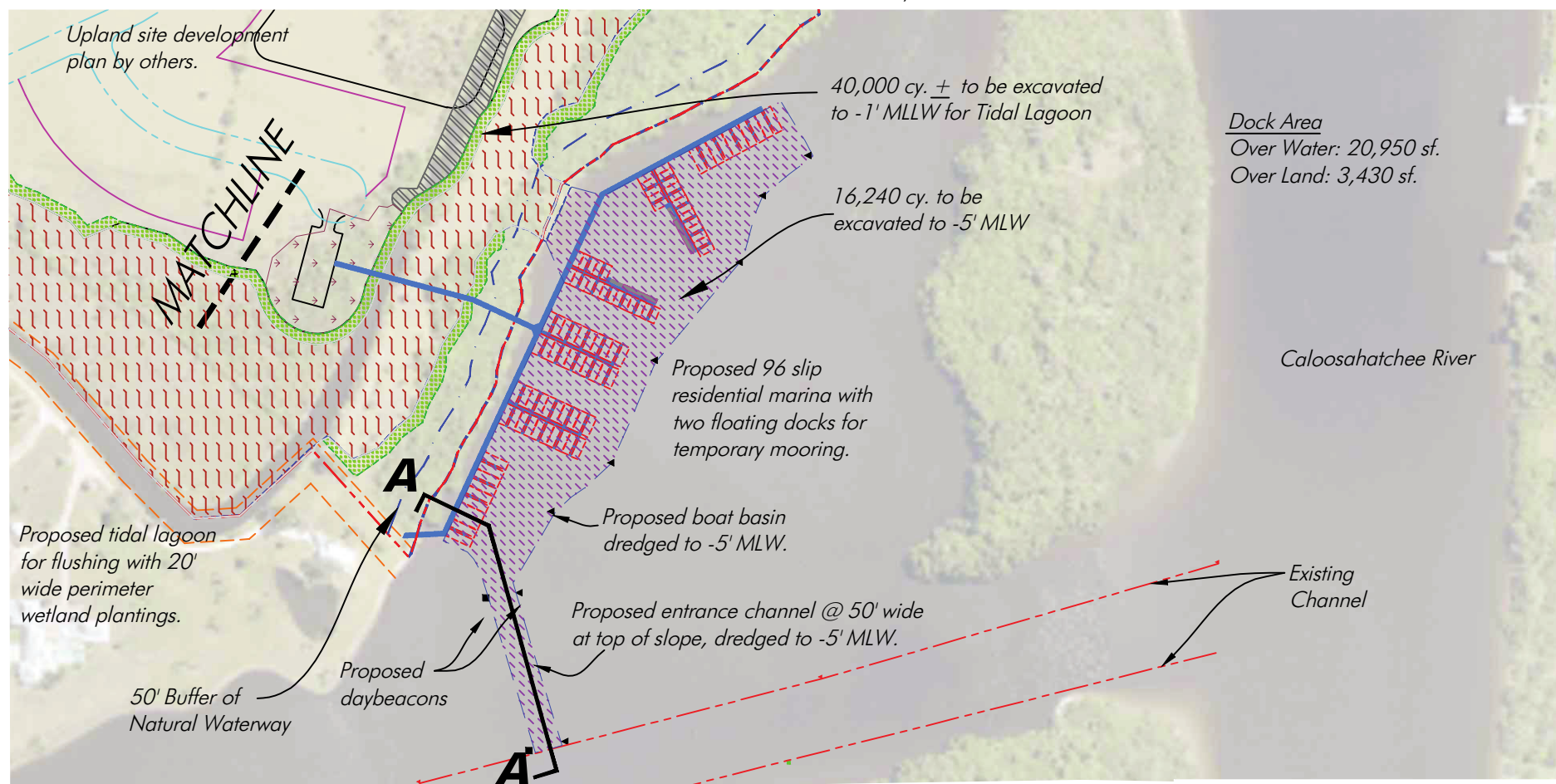
JWA

D R Horton

SHEET
5-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial



Detail A - Proposed Dock Plan

SCALE: 1" = 300'

Note: Property lines per Lee County Property Appraiser

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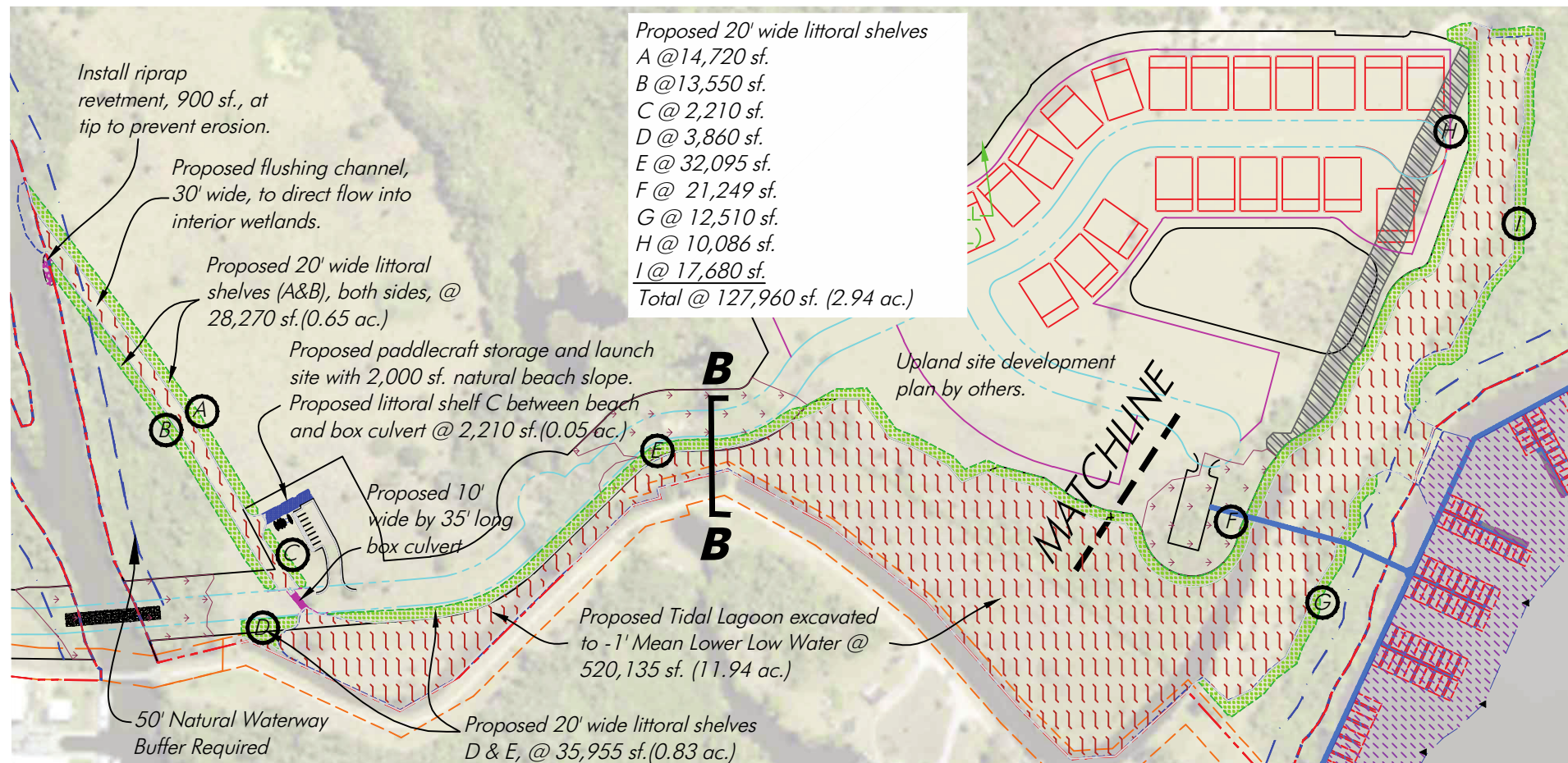
D R Horton

SHEET
6-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 150' 300'
SCALE FEET



Detail B - Tidal Lagoon/Tidal Channel

SCALE: 1" = 300'

Note: Property lines per Lee County Property Appraiser

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7-18

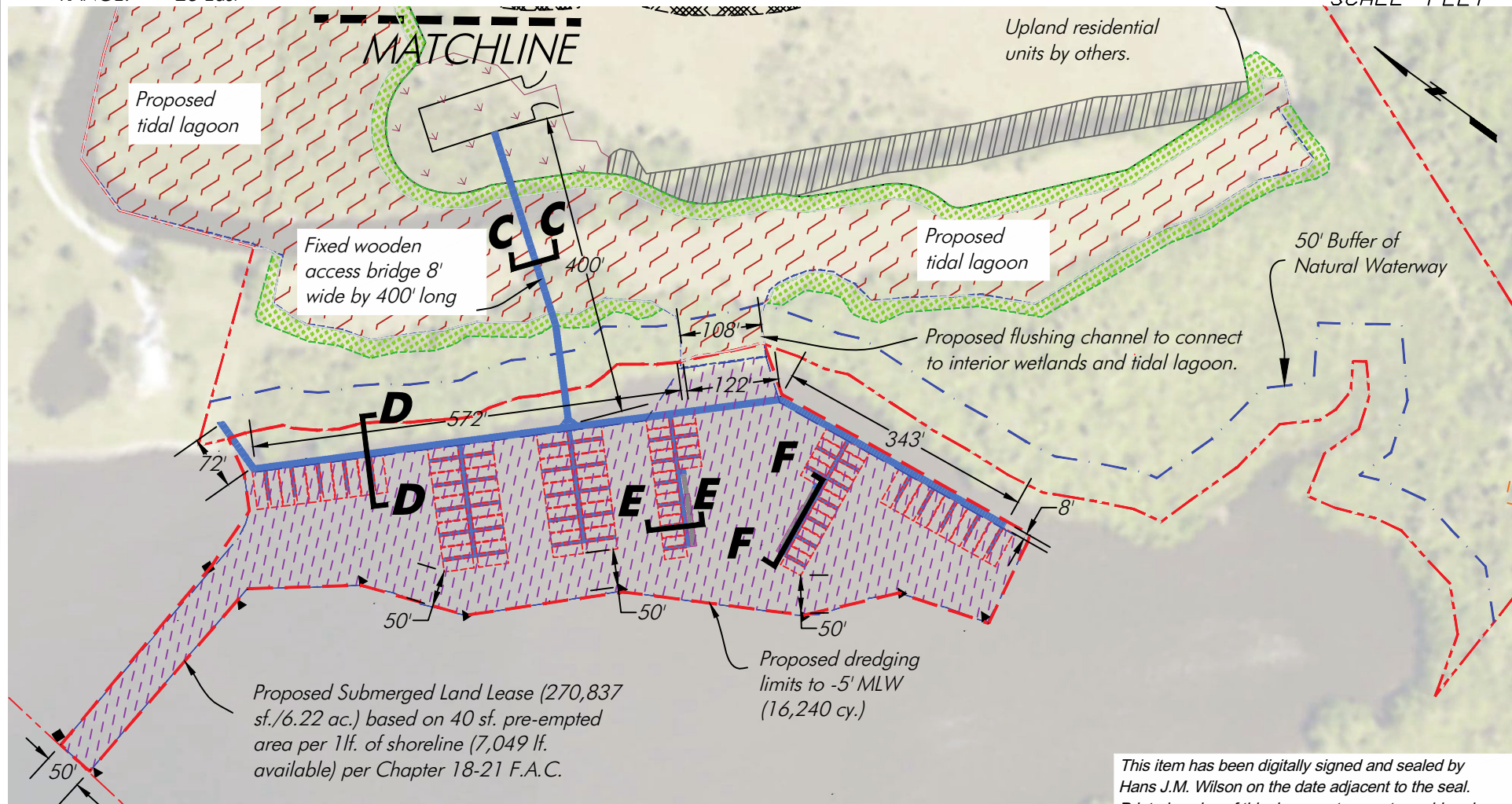
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DATE: August 18, 2021 7:46:37 a.m.
Drawing: HORTON3MASTER.DWG

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0 100 200
SCALE FEET



Detail C - Proposed Dredging Plan

SCALE: 1" = 200'

Note: Property lines per Lee County Property Appraiser
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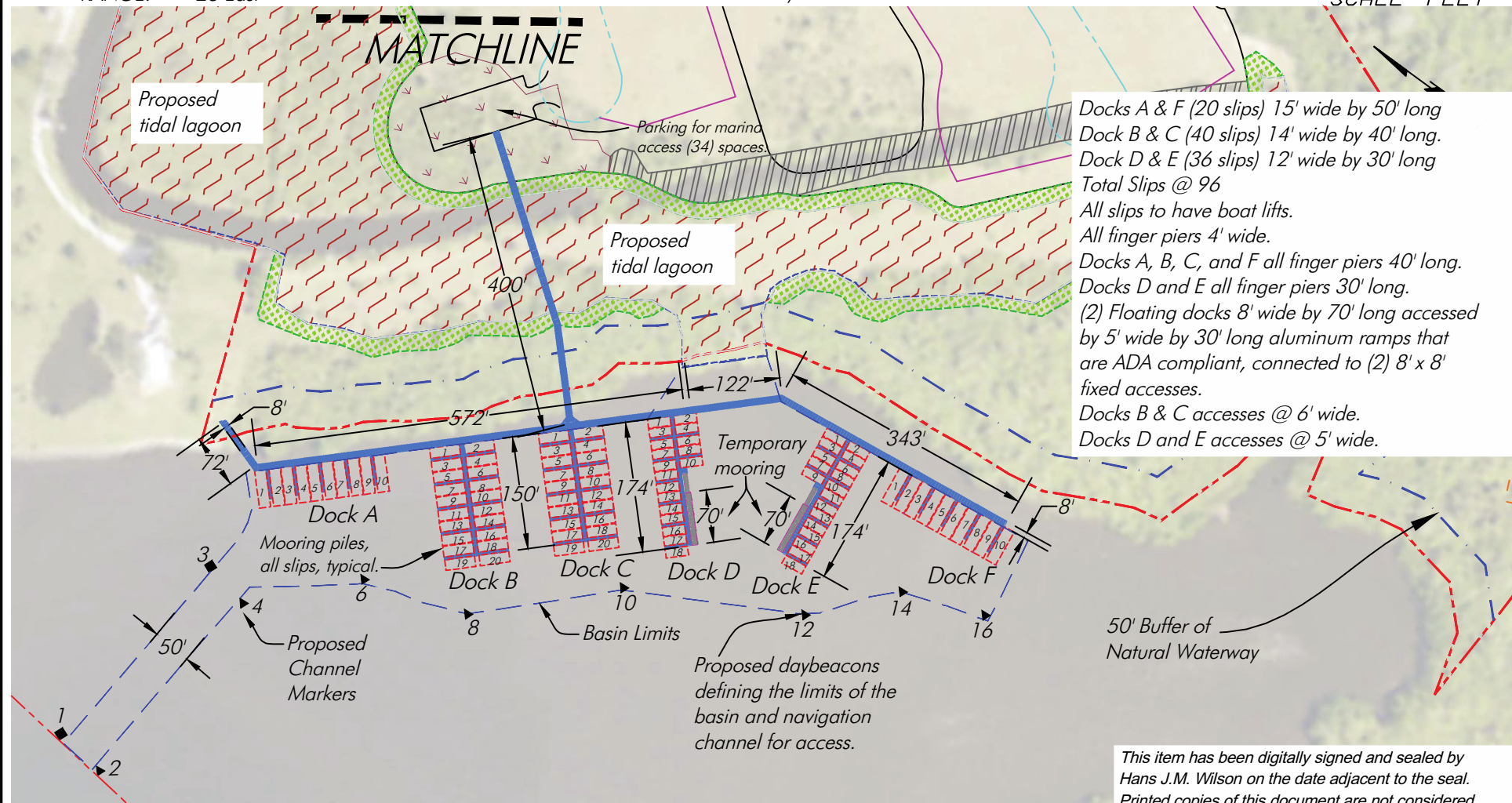
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9-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0 100 200
SCALE FEET



Docks A & F (20 slips) 15' wide by 50' long
Dock B & C (40 slips) 14' wide by 40' long.
Dock D & E (36 slips) 12' wide by 30' long
Total Slips @ 96
All slips to have boat lifts.
All finger piers 4' wide.
Docks A, B, C, and F all finger piers 40' long.
Docks D and E all finger piers 30' long.
(2) Floating docks 8' wide by 70' long accessed by 5' wide by 30' long aluminum ramps that are ADA compliant, connected to (2) 8' x 8' fixed accesses.
Docks B & C accesses @ 6' wide.
Docks D and E accesses @ 5' wide.

Detail C - Proposed Marina Plan

SCALE: 1" = 200'

Note: Property lines per Lee County Property Appraiser
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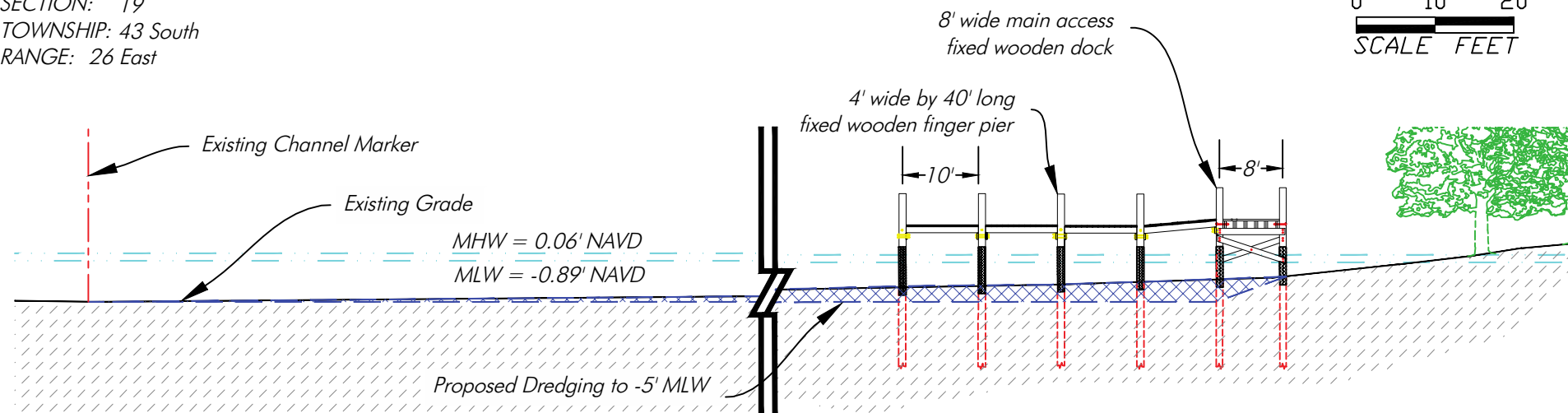
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D R Horton

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10-18

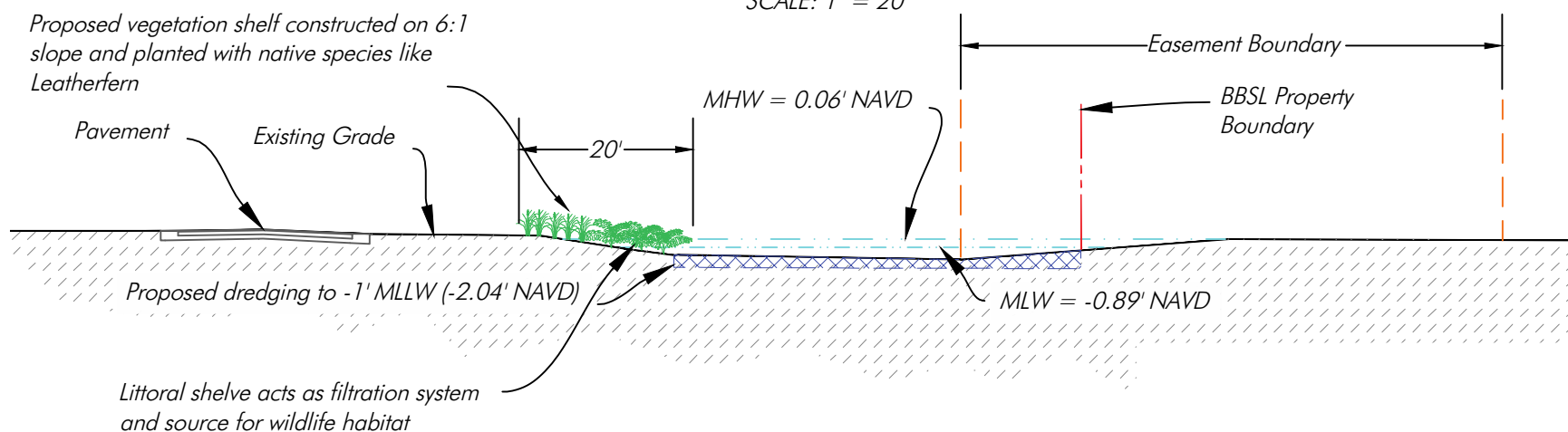
SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 10 20
SCALE FEET



Cross Section A-A

SCALE: 1" = 20'



Cross Section B-B

SCALE: 1" = 20'

Notes: Depths based on DEP Tide
Station 872-5520 and reference MLW.

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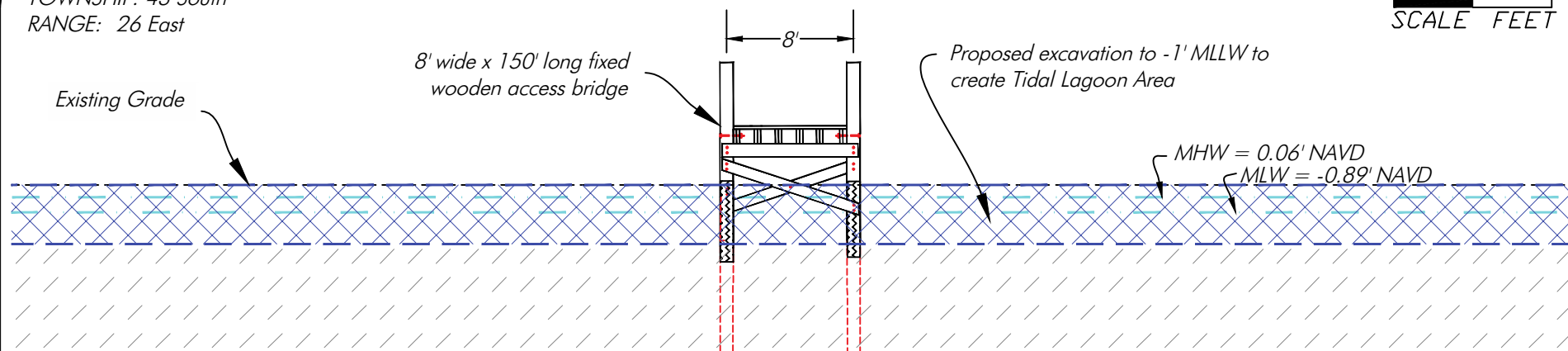
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D R Horton

SHEET
14-18

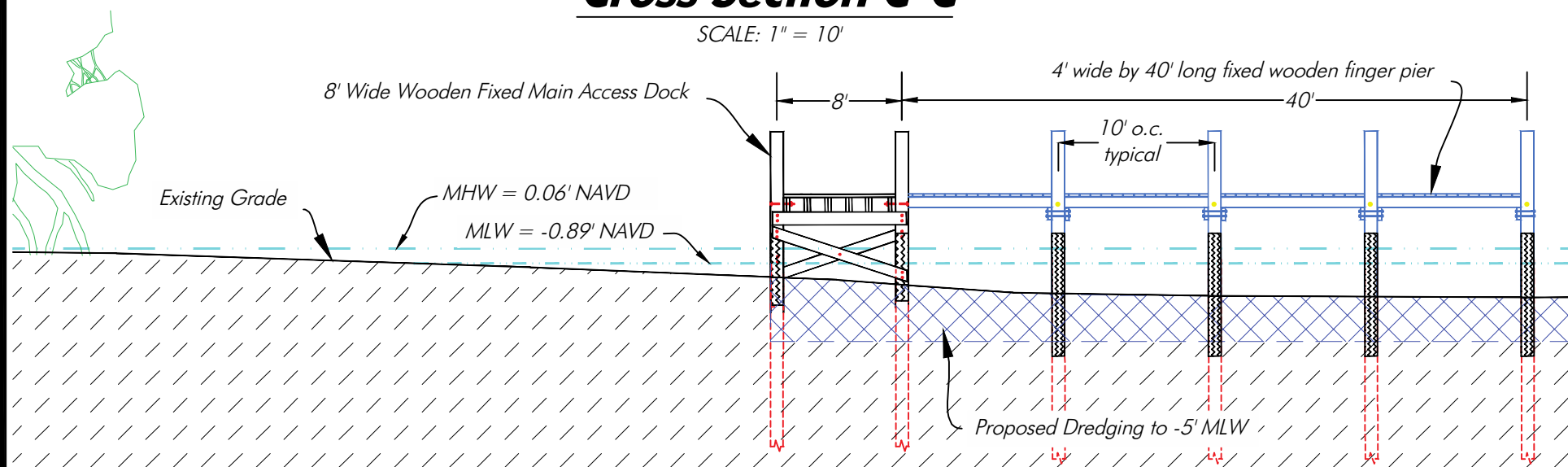
SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 5 10
SCALE FEET



Cross Section C-C

SCALE: 1" = 10'



Cross Section D-D

SCALE: 1" = 10'

This item has been digitally signed and sealed by
Hans J.M. Wilson on the date adjacent to the seal.
Printed copies of this document are not considered
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verified on any electronic copies.

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: October 25, 2021 11:58:35 a.m.
Drawing: HORTON3MASTER.DWG

Notes: Depths based on DEP Tide
Station 872-5520 and reference MLW.

Note: Property lines per Lee County Property Appraiser

PERMIT PLANS, NOT FOR CONSTRUCTION



1938 Hill Avenue, Fort Myers, Florida 33901
Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

10.25.2021

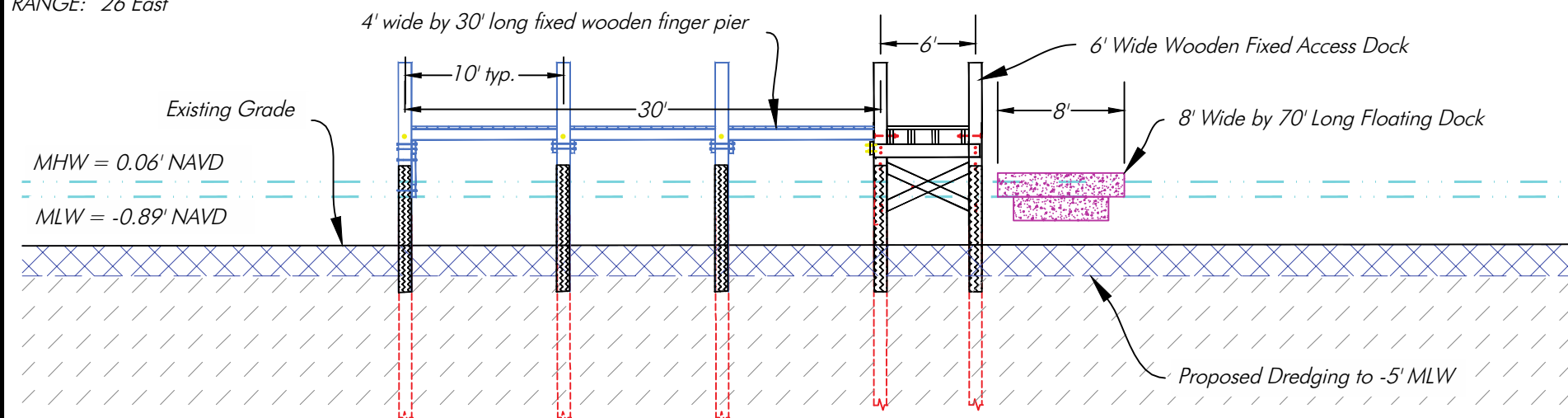
JWA

D R Horton

SHEET
15-18

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

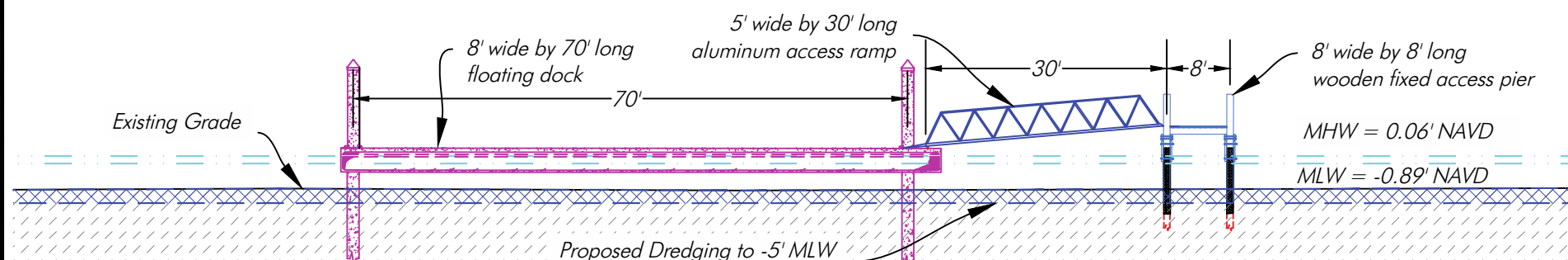
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SCALE FEET



Cross Section E-E

SCALE: 1" = 10'

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SCALE FEET



Cross Section F-F

SCALE: 1" = 20'

This item has been digitally signed and sealed by Hans J.M. Wilson on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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10.25.2021

JWA

D R Horton

SHEET
16-18

Owl Creek Reserve

Sections 18 & 19, Township 43 South, Range 26 East
Lee County, Florida

Indigenous Habitat Management Plan

August 2021
revised October 2021

Prepared for:

D.R. Horton Homes
10541 Six Mile Cypress Pkwy., Suite 100
Fort Myers, FL 33966

Prepared by:

DexBender
4470 Camino Real Way, Suite 101
Fort Myers, FL 33966
(239) 334-3680

Introduction

The applicant proposes to construct a residential community at this location. This will include home sites, an amenity center, roads, a surface water management system, and a 186.94± acre wetland/upland preservation and upland/wetland restoration, and surface water areas. The preserved and enhanced indigenous and non-indigenous habitat areas are located throughout the site.

The goal of the wetland mitigation plan is to enhance or restore and preserve 186.94± acres of wetlands, uplands, and surface waters to meet Lee County Land Development Code Chapter 10-415 and to mitigate for impacts to wetlands and wildlife habitat. Exotics (as defined by the Florida Exotic Pest Plant Council's List of Invasive Species, Categories 1 and 2), which are present within the proposed preserves, will be removed to re-establish functional wetland and upland ecosystems.

The Owl Creek property has the potential to have a vital significance to wildlife, as it is located at the southern extent of the Owl and Trout Creek Wildlife Corridors. The preservation areas will become part of a contiguous wetland and upland corridor and flowway along Trout and Owl Creeks (Figure 1). The Trout Creek Wildlife Corridor connects the subject parcel to Babcock and Lee County (Telegraph Creek Preserve) Conservation Lands. Unfortunately, the current land use practices within the property and exotic vegetation infestation significantly diminish wildlife utilization. The indigenous habitat management plan (IHMP) provides an avenue for the enhancement and preservation of this important piece of land.

The wetland preservation areas consist of willow and forested habitats that contain moderate to high densities of exotics, primarily Brazilian pepper. The site development plan was designed to preserve the wetlands throughout the site which are adjacent to Owl and Trout Creeks. The majority of these areas consist of wetland forest and live oak habitats invaded by exotics. The proposed activities in the wetland mitigation area and the elimination of the exotic species seed source will result in a net improvement for the plant communities onsite. Each aspect of the plan is described below.

Wetland Preservation

Approximately 106.46 acres of wetlands will be preserved as shown on the Enhancement and Preservation Map (Figures 2 and 3). Exotic vegetation will be treated and/or removed per the Initial Exotic Vegetation Treatment section below.

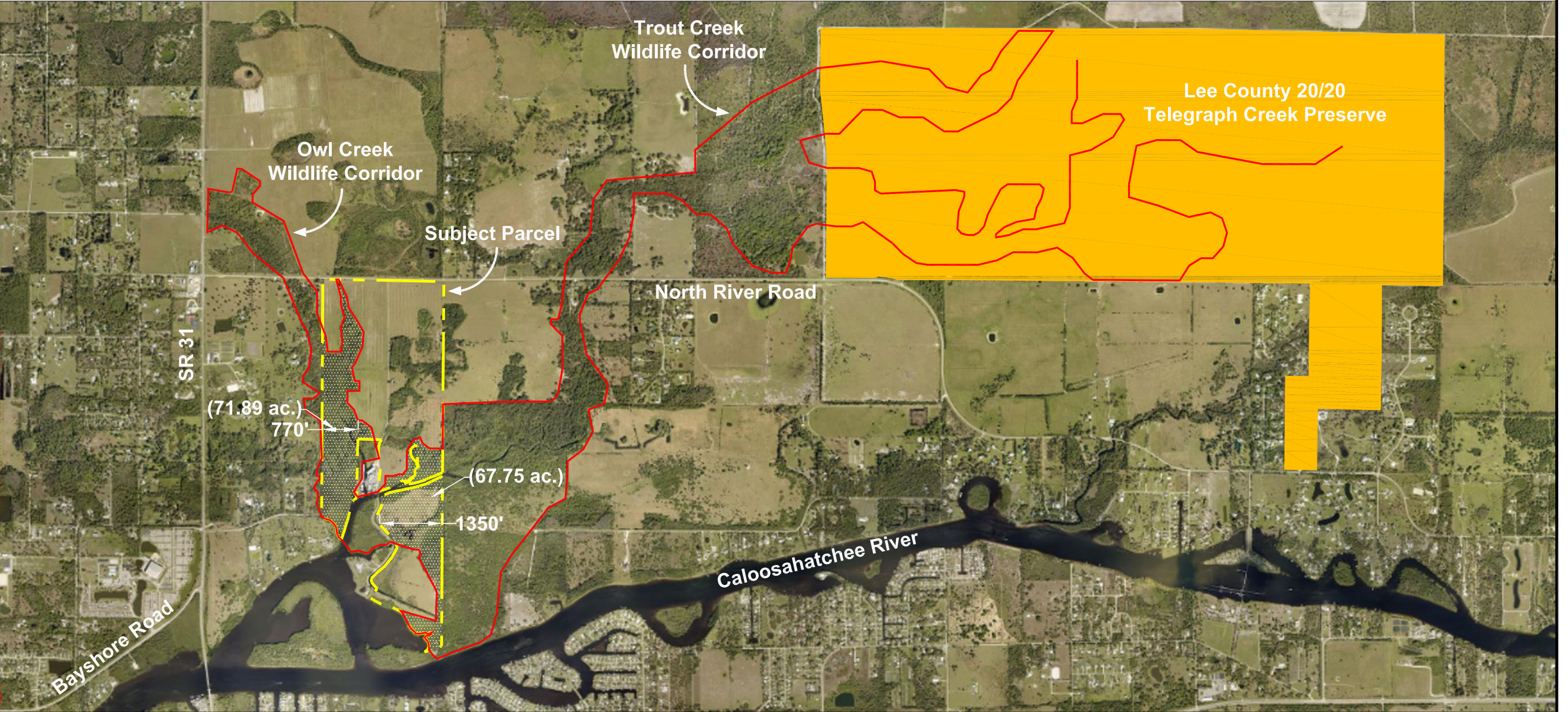
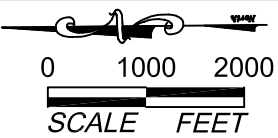
Upland Preservation

Approximately 1.63 acres of uplands will be preserved as shown on the Enhancement and Preservation Map (Figure 2). Exotic vegetation will be treated and/or removed per the Initial Exotic Vegetation Treatment section below.

Rare and Unique Upland Preservation

Approximately 21.49 acres of rare and unique uplands will be preserved as shown on the Enhancement and Preservation Map and Indigenous Habitat Management Plan Map

SECTIONS: 18 & 19
TOWNSHIP: 43 S
RANGE: 26 E



- Notes:
1. Owl Creek development property boundary was obtained from Banks Engineering.
 2. Telegraph Creek Preserve property boundary is approximate and was obtained from the Lee County Property Appraisers website.
 3. Mapping based on photointerpretation of 2019 aerial photography and ground truthing in February 2020.
 4. The onsite wildlife corridors will be preserved and restored prior recording the plat containing the 325th dwelling unit.

 Proposed Onsite Wildlife Corridor (139.64 ac.)

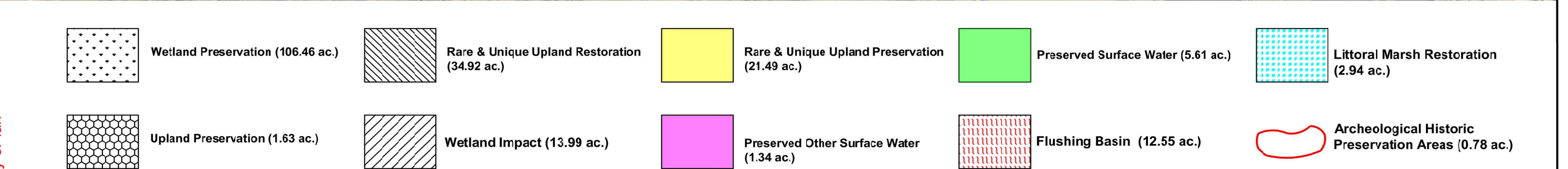
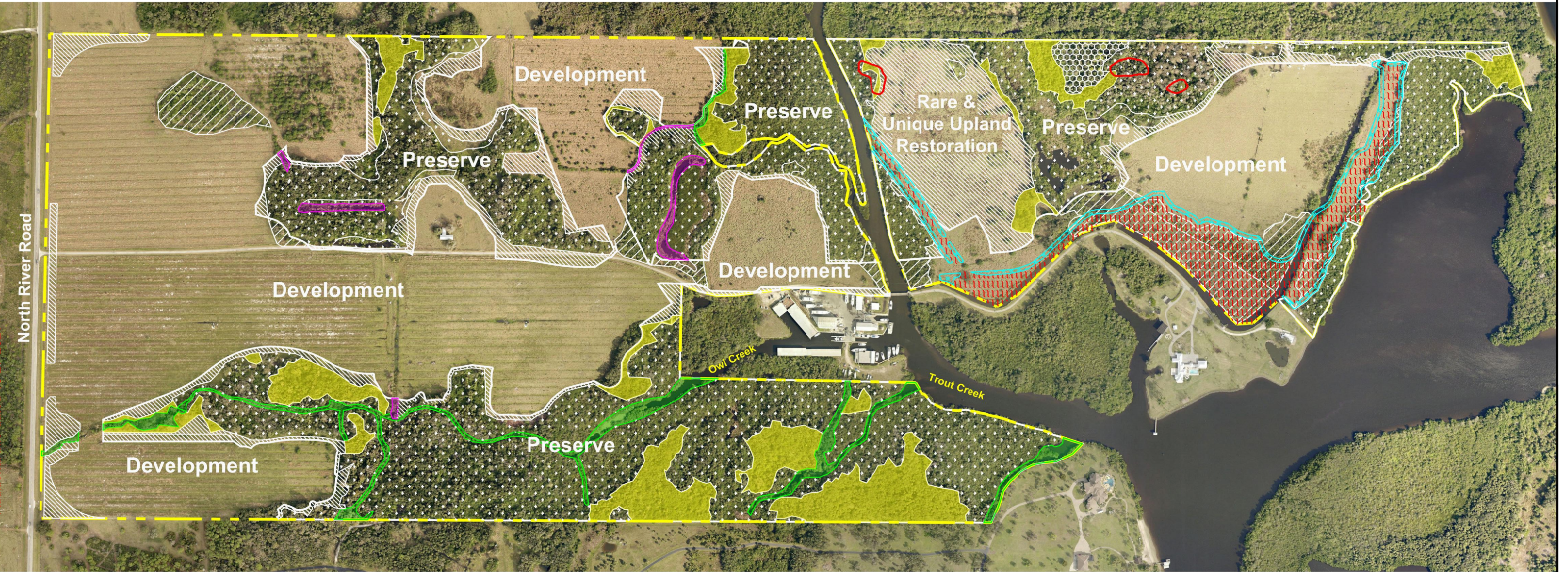
PERMIT USE ONLY, NOT FOR CONSTRUCTION

October 11, 2021 12:44:10 p.m.
Drawing: DRHOR-455 WILDLIFE CORRIDOR.DWG

Figure 1. Owl Creek Wildlife Corridor Map

Owl Creek Parcel

 **DEXBENDER**
ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

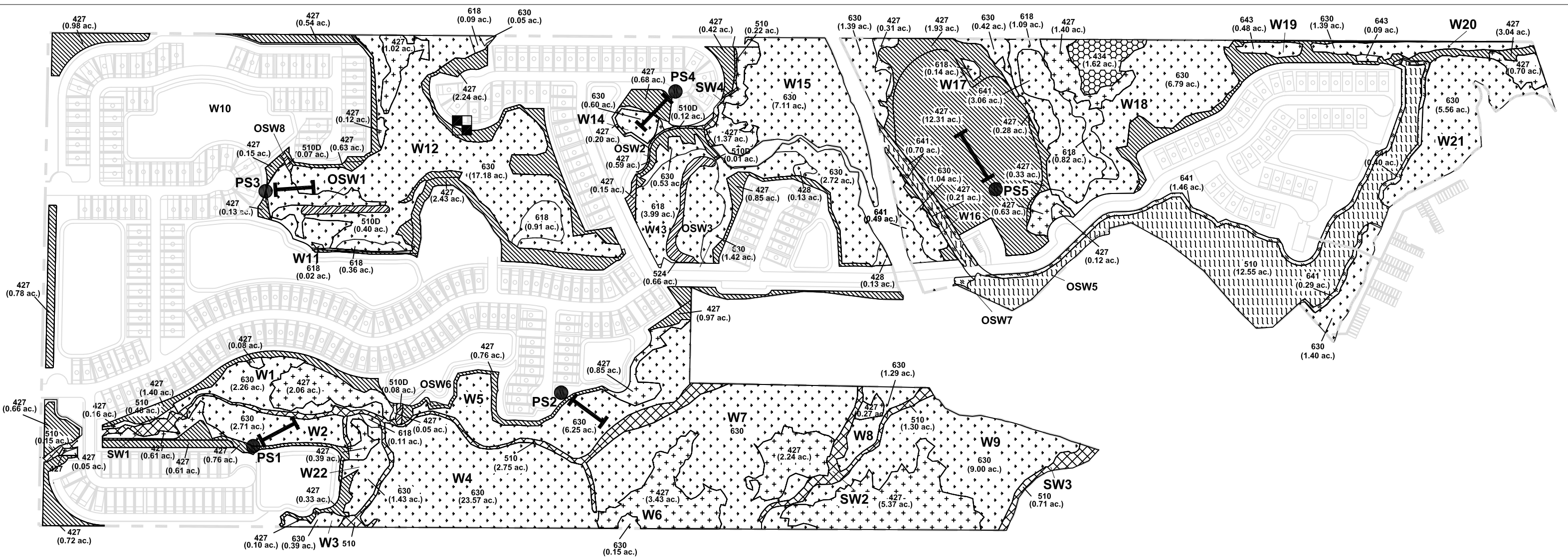
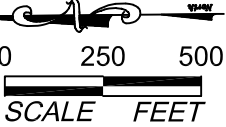


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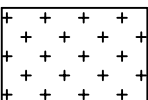
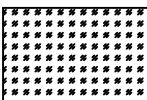
1. Property boundary is approximate and was obtained from the Lee County Property Appraiser's Website.
2. Development footprint provided by Banks Engineering.
3. The rare & unique upland and wetland restoration must be complete before recording the plat containing the 325th dwelling unit.

FOR CONCEPTUAL PLANNING PURPOSES ONLY Drawing: DRHOR-455 ENHANCEMENT-PRESERVATION.DWG October 19, 2021 1:39:07 p.m.

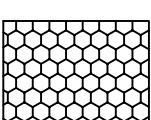
SECTIONS: 18 & 19
TOWNSHIP: 43 S
RANGE: 26 E



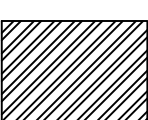
Additional info dated 10-27-2024

	Wetland Preservation (106.46 ac.)		Rare & Unique Upland Preservation (21.49 ac.)		Littoral Marsh Restoration (2.94 ac.)	<u>FLUCCS</u>	<u>Description</u>	<u>Acreage</u>
						427	Live Oak	56.41 ac.
						428	Cabbage Palm	0.26 ac.
						434	Hardwood- Coniferous Mixed	1.63 ac.
						510	Streams and Waterways	18.16 ac.
						510D	Ditches	0.68 ac.
						524	Lakes less than 10 acres which are dominant features	0.66 ac.
						618	Willow	7.53 ac.
						630	Wetland Forested Mixed	94.55 ac.
						641	Freshwater Marsh	6.49 ac.
						643	Wet Prairies	0.57 ac.
							Total	186.94 ac.

Notes:



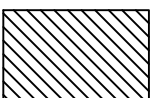
Upland Preservation (1.63 ac.)



Preserved Other Surface Water (1.34 ac.)



Flushing Basin (12.55 ac.)



Rare & Unique Upland Restoration (34.92 ac.)



Preserved Surface Water (5.61 ac.)

- Notes:
- Property boundary was obtained from Banks Engineering.
 - Mapping based on photointerpretation of 2019 aerial photography and ground truthing in February 2020.
 - Delineation of jurisdictional wetlands is preliminary and subject to field review/approval by applicable regulatory agencies.
 - FLUCCS table includes preserved wetlands, surface waters, other surface waters, and uplands.
 - Upland & Littoral Shelf Restoration Areas will be planted per the Landscape Architect Plans.
 - The rare & unique upland and wetland restoration must be complete before recording the plat containing the 325th dwelling unit.

● — Photo Station (PS)(5) ■ Peizometer (2)

PERMIT USE ONLY, NOT FOR CONSTRUCTION October 26, 2021 11:42:43 a.m. Drawing: DRHOR-455 PROPOSED CONDITIONS.DWG

Figure 3. Indigenous Habitat Management Monitoring
Plan Map

Owl Creek Reserve

(Figures 2 and 3). Exotic vegetation will be treated and/or removed per the Initial Exotic Vegetation Treatment section below.

Surface Water and Other Surface Water Preservation

Approximately 5.61 acres of surface waters and 1.34 acres of other surface waters will be preserved as shown on the Enhancement and Preservation Map and Indigenous Habitat Management Plan Map (Figures 2 and 3).

Rare and Unique Upland Restoration

Approximately 34.92 acres of existing upland pastures and disturbed uplands will be restored to Rare and Unique Uplands as shown on the Indigenous Habitat Management Plan Map (Figure 3). The only fill that will be placed in these areas will be at North River Road buffer and some minor grading may be necessary in the other areas onsite. If any of the planting areas have compacted soils, the soil area around each planting will be loosened. This may be accomplished by hand or mechanical means. Exotic vegetation will be treated and/or removed per the Initial Exotic Vegetation Treatment section below. The restoration area will then be planted with native ground cover and trees, as listed in the Rare and Unique Upland Restoration Planting Table (Table 1). The final species list will be based upon site specific conditions and on plant material availability at the time of planting. A total of 4,695 trees, 4,695 shrubs, and 23,767 herbaceous plants will be planted in the restoration area shown on the attached Indigenous Habitat Management Plan Map (Figure 3). Cabbage palms from the development footprint may be relocated and used for the restoration planting plan below.

Table 1. *Rare and Unique Upland Restoration Planting Table

Botanical Name	Common Name	Minimum Size/Container	Maximum Spacing	Quantity
Trees				
<i>Quercus virginiana</i>	Live Oak	6' tall/BR	18 Feet Centers	2,348
<i>Quercus laurifolia</i>	Laurel Oak	6' tall/BR	18 Feet Centers	1,174
<i>Sabal palmetto</i>	Cabbage Palm	6' tall/FG	18 Feet Centers	1,174
Shrubs				
<i>Rapanea punctata</i>	Myrsine	1 Gallon	18 Feet Centers	939
<i>Myrica cerifera</i>	Wax Myrtle	1 Gallon	18 Feet Centers	939
<i>Psychotria nervosa</i>	Wild Coffee	1 Gallon	18 Feet Centers	939
<i>Eugenia foetida</i>	Spanish Stopper	1 Gallon	18 Feet Centers	939

<i>Callicarpa americana</i>	Beauty Berry	1 Gallon	18 Feet Centers	939
Ground Cover				
<i>Serenoa repens</i>	Saw Palmetto	Liner	8 Feet Centers	4,754
<i>Muhlenbergia</i> sp.	Muhley Grass	Liner	8 Feet Centers	4,754
<i>Andropogon virginicus</i>	Broom Sedge	Liner	8 Feet Centers	4,754
<i>Aristida beyrichiana</i>	Wiregrass	Liner	8 Feet Centers	4,754
<i>Spartina bakeri</i>	Cordgrass	Liner	8 Feet Centers	4,754

*Additional plant species may be included in the planting table prior to development order approval

At the time of development order, areas within the 50' or provided natural waterway buffer must demonstrate if the existing native vegetation to be retained meets the requirement of six native canopy trees and 50 native shrubs per 100 linear feet at a 1:1 credit ratio. If supplemental trees or shrubs are required to meet the required buffer plantings, trees must comply with LDC Section 10-420 and be a minimum 10' in height and shrubs must be a minimum 24" in height at time of planting. At the time of development order, the area along North River Road must contain native canopy trees a minimum of 14' in height spaced approximately 25 feet on center.

Littoral Marsh Restoration

Approximately 2.94 acres of hydric and upland pasture will be restored to littoral marsh wetlands as shown on the Indigenous Habitat Management Plan Map (Figure 3). The existing pasture will be excavated and sloped appropriately to transition from the uplands to the created flushing basin. Spoil material will be removed and used in development areas of the site. The restoration area will then be planted with native ground cover and trees, as listed in the Wetland Restoration Planting Table (Table 2). The final species list will be based upon site specific conditions and on plant material availability at the time of planting. A total of 2,000 herbaceous plants will be planted in the restoration area shown on the attached Indigenous Habitat Management Plan Map (Figure 3).

Table 2. *Wetland Restoration Planting Table

Botanical Name	Common Name	Minimum Size/Container	Maximum Spacing	Quantity
Ground Cover				
<i>Acrostichum</i> sp.	Leather Fern	Liner	8 Feet Centers	250
<i>Juncus roemerianus</i>	Black Needle Rush	Liner	8 Feet Centers	250

<i>Thalia geniculata</i>	Fire Flag	Liner	8 Feet Centers	250
<i>Osmunda regalis</i>	Royal Fern	Liner	8 Feet Centers	250
<i>Nuphar luteum</i>	Spatterdock	Liner	8 Feet Centers	250
<i>Spartina bakeri</i>	Sand Cordgrass	Liner	8 Feet Center	250
<i>Pontederia cordata</i>	Pickereelweed	Liner	8 Feet Centers	250
<i>Sagittaria</i> sp.	Arrowhead	Liner	8 Feet Centers	250

*Additional plant species may be included in the planting table prior to development order approval

At the time of development order, areas within the 50' or provided natural waterway buffer must demonstrate if the existing native vegetation to be retained meets the requirement of six native canopy trees and 50 native shrubs per 100 linear feet at a 1:1 credit ratio. If supplemental trees or shrubs are required to meet the required buffer plantings, trees must comply with LDC Section 10-420 and be a minimum 10' in height and shrubs must be a minimum 24" in height at time of planting.

Flushing Basin

Additionally, 12.55 acres of hydric pasture, upland pasture, and exotic vegetation dominated wetlands will be restored to surface water habitat as part of the flushing basin associated with the proposed docking facility. This flushing basin will act as a tidal pump and will connect to Trout Creek east of the proposed access bridge and to the interface of Trout Creek and the Caloosahatchee River at the proposed docking facility in the south of the site, improving the water quality in the vicinity of the docking facility. These areas will be excavated to appropriate grades and will transition into the wetland restoration area. Spoil material will be removed and used in development areas of the site. Please see Figure 3.

Initial Exotic Vegetation Treatment

All exotic and nuisance species (defined per LDC Sec. 10-420(f) and Category I and II species on the Florida Exotic Pest Plant Council's List of Invasive Species) within the upland and wetland preservation areas will be treated. A vegetation removal permit associated with the development order is required for the initial exotic vegetation treatment. Non-native trees and shrubs will be cut by chainsaw or machete just above natural grade and the stump treated with an appropriate herbicide suitable for aquatic application. Treatment will occur immediately following cutting to ensure maximal uptake of the herbicide. All preserved areas will have the resulting vegetative material from the Conservation Easement and disposed of in accordance with local regulations. If non-woody exotics, such as cattail, are present within the preserve they will be treated by a foliar application of an appropriate herbicide suitable for aquatic application. Herbicides will be used in strict accordance with label directions by trained applicators. Care will be

taken to reduce damage to non-target native species to the maximum extent practical.

The owner or his designee shall conduct vegetation control through the management of exotic, invasive and nuisance vegetation. Treatment efforts of the forested and herbaceous areas will include removal, monitoring and maintenance of invasive vegetation. The primary species to be eradicated include melaleuca, Brazilian pepper, and torpedo grass.

Exotic control of melaleuca and Brazilian pepper will be accomplished by chainsaw or machete. Large trees (greater than four-inch diameter at breast height (DBH)) may be girdled and killed in place with a stump specific herbicide suitable for aquatic application. The four inch DBH and smaller trees and shrubs will be cut just above natural grade and the stump treated with an appropriate herbicide suitable for aquatic application. The resulting vegetative material will be disposed of by one or more of the following methods: 1) cut into four to six feet sections and stacked on the ground with alternating layers of trees at right angles to each other (log cabin) with the stacks no higher than 5± feet and spaced a minimum of 100± feet apart, 2) cut and placed into piles (tee-pee) with piles spaced a minimum of 100± feet apart, 3) where exotic density is less than 25 percent the exotics may be cut into two to four foot sections and scattered on the ground, and 4) woody exotic vegetation may be removed from the preserves. No piles of debris (log cabins or tee-pees) will be placed within the FEMA floodway of Owl or Trout Creek as shown on Exhibit A. Herbicides will be used in strict accordance with label directions by trained applicators. Care will be taken to reduce damage to non-target native species to the maximum extent practical. Access for the initial exotic vegetation treatment to the indigenous vegetation preserves will be via the existing farm fields.

Coverage by exotic vegetation within these areas will be maintained below five percent aerial cover. A marker dye will be added to the spray solution to help visualize where the solution is being applied. An appropriately licensed herbicide applicator will supervise the crew. Herbicides will be used carefully in accordance with the label provided.

Barricading

Prior to commencement of construction activities, the mitigation areas will be staked in the field and the required erosion control barriers installed. These barriers will be inspected by County staff prior to commencement of construction activities. The operation of construction equipment, storage of equipment, and stockpiling of fill and construction material will be prohibited within the preservation areas. The staking identifying the limits of the preservation area will be maintained for the duration of adjacent construction activities.

Schedule

The wetland preservation must be within a recorded conservation easement and the rare and unique upland preservation and restoration areas must be completed or bonded before recording of a plat containing the 323th dwelling unit. Restoration must be certified complete prior to certificate of occupancy of the 323th dwelling unit.

Conservation Easement

A Conservation Easement will be recorded and placed over the upland, wetland, and surface waters preservation areas totaling 186.94± acres. Signs demarking the preservation areas will be posted at 100 feet intervals along the outer edge of all preservation areas.

Ecological Performance Standards

To meet the objective of this plan, the following performance standards will apply to the onsite wetland and upland preservation and restoration areas:

1. At least 80 percent cover by appropriate wetland species (i.e. facultative wet or obligate) within the wetlands and the restored littoral marsh and 80 percent coverage by appropriate upland species in the upland preservation and restoration areas.
2. The conservation easement areas are free of exotics immediately following maintenance treatment events. All exotic and nuisance species (defined as Category I and II species on the Florida Exotic Pest Plant Council's List of Invasive Species) within these wetlands will be treated. The nuisance species dog fennel (*Eupatorium capillifolium*), Caesar weed (*Urena lobata*), primrose willow (*Ludwigia peruviana*), grape vine (*Vitis* sp.), and cattail (*Typha* spp.) as well as exotic species shall total less than five percent combined between maintenance events.
3. Monitoring of the preserve areas shall be conducted for a minimum of 5 years with annual reports submitted to the County. After the initial restoration plantings described above, if native wetland, transitional, and upland species (in upland preserve areas) do not achieve 80% coverage within the initial two years of the monitoring program (obligate and facultative wet species exceed facultative species in wetland areas), native species shall be planted in accordance with the maintenance program. At the end of the monitoring program the entire mitigation area shall contain an 80% survival rate of planted vegetation and an 80% coverage of desirable obligate and facultative wetland species.
4. The preserve areas shall be maintained in perpetuity to ensure coverage by native desirable vegetation and the target habitat types and success criteria are maintained as specified in the permit.
5. The preserve areas shall be managed such that exotic/nuisance vegetation species do not dominate any one section of areas within the preserves.

These performance standards will be achieved by the end of the five year monitoring period.

Long Term Management

The applicant and/or the homeowners association will be responsible for the long term maintenance of the onsite preservation areas. Vegetation removal permits are required for ongoing management activities associated with this approved Indigenous Habitat Management Plan that is preserve area specific for the type of management that is being requested.

Adaptive Management

If during monitoring of the onsite preservation area, areas do not appear to be trending toward meeting the above ecological performance standards, the methods for treating exotic vegetation will be re-evaluated.

Maintenance

A routine maintenance program will be initiated upon the completion of the initial exotic treatment and native plant installation. A vegetation removal permit will be required for preserve maintenance. For the first two years following the initial treatment, the preservation areas will be inspected twice a year (late spring and fall) and all exotic and/or nuisance species will be treated. During these inspections the preservation areas will be qualitatively evaluated, potential problems (if any) identified, and corrective actions recommended. After the second year, inspections and treatments will be conducted annually during the dry season. The property owner will be responsible for long term management of the preserves.

Pruning and trimming activities will not be performed in the preserve however invasive exotic vegetation may have to be treated within planting areas. The frequency of maintenance will be based on how successful the new plantings are and the extent to which nuisance pest species enter into the newly planted area. Semi-annual monitoring will be conducted in each newly planted area for one year to carefully evaluate these parameters. Herbicide maintenance will be conducted semi-annually during the first year following implementation of the pest control program and at least annually thereafter, in accordance with LDC 12-119(b)(13) and LDC 10-420(h).

If monitoring events reveal severe deer grazing or other disturbance from wild hogs, the affected planting area will be temporarily isolated with a fence to keep out larger animals until the plantings are well established. Once success criteria are achieved, all temporary fencing will be removed from the preserve.

Newly planted areas will be included in the invasive pest control program. The herbicide maintenance areas shall expand to control exotic and nuisance species as necessary where native vegetation is being established. Periodic management of the planting areas is required to ensure that the plants will survive and thrive. This will guarantee success and allow desirable indigenous species an opportunity to recruit into the planting areas. As part of ongoing management of the site, the owner or his designee shall treat and/or remove exotic species (per LDC Sec. 10-420(h) and 12-113(n)) and nuisance species as necessary at least semiannually for one year and annually thereafter. Nuisance species shall mean those species of flora whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, the designated use of the waters under consideration, as defined in rules 62-312.310(8) and 62-302.200(14), F.A.C.. Invasive exotic species include at a minimum the species listed in LDC Sec. 10-420(h).

Protected Species

The November 2020 Protected Species Assessment resulted in no observations of listed species.

While no nesting areas for any listed wading birds have been observed onsite during any site visits, the following species recognized as Species of Special Concern (SSC) by the State may forage on the subject property. Little blue herons (*Egretta caerulea*), roseate spoonbills (*Ajaia ajaja*), snowy egrets (*Egretta thula*), and tricolored herons (*Egretta tricolor*), may foraging in wetland areas and ditches throughout the property.

Given the habitat types present there is also a potential for Big Cypress fox squirrels (*Sciurus niger avicennia*) to utilize the property. These squirrels, listed as threatened by the FWC, are typically found nesting in melaleuca trees in areas with sparse or open ground cover.

The Florida sandhill crane is listed as threatened by the FWC and potentially may forage in the pasture areas. While suitable habitat occurs throughout the property and within the designated County buffer, no sandhill crane nesting activity was observed.

The wood stork (*Mycteria americana*), is listed as threatened by the FWC and the FWS. Although no wood storks were observed they may forage in the wetlands and ditches. Nesting has not been documented onsite, nor do wood storks appear there in the most recent FWC listed species occurrence database. Wood stork colony locations provided by FWC show two colonies within a 25-mile radius of the property. The closest colony location is approximately three miles to the west of the subject parcel.

The American alligator was not observed, however, the ditches provide potential habitat. According to the FWC list of Florida's Endangered Species, Threatened Species and Species of Special Concern published in November 2007, the American alligator has a SSC status because it is vulnerable to environmental impacts and loss of habitat.

Audubon's crested caracara is a raptor that typically nests in solitary or small groups of cabbage palms within larger areas of open grasslands. This species is listed as threatened by both the FWC and FWS. Although the quality of the potential habitat on-site is poor, Audubon's crested caracara were observed foraging along North River Road during the nesting survey for this species in winter 2021. The closest known caracara nest is located approximately 1 mile to the east of the subject parcel.

The property is not located within the primary and secondary zones of the 2007 Florida Panther Focus Area or in the 2003 Panther Consultation Area identified by the FWS. The Florida panther (*Felis concolor coryi*) is listed as endangered by both the FWS and FWC. There is one FWC telemetry points located approximately 3 miles south of the subject property, with none onsite. This telemetry point occurs south of the Caloosahatchee River.

A review of the FWC listed species occurrence database (updated in June 2020) indicated that a Florida black bear (*Ursus americanus floridanus*) had been recorded approximately 1 mile to the north of the property. The Florida black bear delisted in 2012, is still protected by the Florida Black Bear Management Plan and is not listed by the FWS.

The project is located within the National Marine Fishery Service's (NMFS) defined critical habitat area for the smalltooth sawfish. NMFS issued their Jacksonville Biological Opinion (JAXBO) on November 20, 2017. The JAXBO analyzes the effects from 10 categories of minor in-water activities occurring in Florida and the U.S. Caribbean on sea turtles, smalltooth sawfish, Nassau grouper, scalloped hammerhead shark, Johnson's seagrass, sturgeon, corals, whales, and their designated critical habitat.

Protected Species Management Plans

Several measures have been taken to reduce potential impact to wildlife. Adverse impacts to wildlife including listed wildlife are not anticipated as a result of the proposed residential project. All agricultural activities will cease in the Preserve Areas once construction commences, with human disturbance in those areas limited to activities consistent with the conservation easement.

The habitat improvements and preservation resulting from implementation of this plan are expected to encourage transient wildlife species to utilize the Preserve Lands onsite as shown on the Enhancement and Preservation Map (Figure 2). The applicant has committed to placing the preservation areas under a conservation easement prior to construction of the residential units, consistent with state law, as a condition of the zoning approval, which means 129.58+/- acres of native upland and wetland habitats of this area will be permanently protected for wildlife usage. A total of 34.92 acres of farm fields and disturbed uplands will be restored to rare and unique uplands by planting with native species. Additionally, 2.94 acres of hydric and upland pasture will be restored as littoral marsh wetlands and 12.55 acres of flushing basin will be created. This preservation will enhance the value of the Preserve Areas for wildlife and provide a permanent link between the surrounding wildlife corridor areas and a permanent refuge for wildlife if the project is approved as proposed. (See Figures 1 and 2).

If the zoning is approved as proposed, additional wildlife surveys will be conducted as required by state, federal, and county requirements when the plans are submitted for permitting/development approval.

Should the zoning be approved as proposed, both FWC and FWS will be consulted relative to any state or federally listed species potentially occurring on site and listed species guidelines implemented as applicable prior to any construction.

Wading Bird Management Plan

Wood storks were not found during wildlife surveys of the property and no nesting activities were observed. Suitable foraging habitat occurs throughout the property.

Additionally, the property occurs within 18.6 miles of two known wood stork colonies. Based on the FWS "Effect Determination Key", dated November 9, 2007 (Service Consultation Code 41420-2007-I-0964), the proposed project may affect the wood stork. Formal consultation for the wood stork is anticipated to be required by the FWS. On behalf of the applicant, at the appropriate time, we will be coordinating with FWS to develop a wood stork mitigation plan which will effectively offset any potential impacts to foraging habitat of this federally listed species. Additionally, it is expected that existing foraging habitat for the wood stork will be enhanced by the removal and maintenance of invasive exotic plants and protected by implementation of the wetland enhancement and preservation plan and the reclamation plan. The proposed littoral marsh wetland restoration which includes 2.94 acres of littoral shelves described above will also benefit the wood stork by adding a significant amount of foraging area.

Existing wading bird foraging habitat will be enhanced through removal and maintenance of exotic invasive plants. The proposed site conditions will result in a total of over 106.46 of preserved wetlands and 2.94 acres of restored littoral marsh habitat on the property. Implementation of the proposed wetland preservation plan would assure that any potential temporary impacts to these species would be offset. This plan would meet applicable requirements of South Florida Water Management District and Lee County as well as the FWS and FWC.

The enhancement of the property will ultimately provide increased acreage of higher quality habitat for wading birds in preservation and areas as well as within the littoral marsh restoration areas. Additionally, protection provided by the wetland preservation plan will provide long-term viability for wading birds.

Big Cypress Fox Squirrel Management Plan

Appropriate habitat for the Big Cypress fox squirrel (*Sciurus niger avicennia*) occurs in the forested portion the property. However, no fox squirrel nests were observed within the project boundaries. Prior to clearing the site, a qualified biologist will survey the construction limits for the presence of Big Cypress fox squirrels or their nests. Any potential nests will be monitored to determine if they are currently being utilized by Big Cypress fox squirrels. Nests found to be utilized by a Big Cypress fox squirrel will be temporarily protected from clearing by a 125 foot radius undisturbed buffer. These nests will be taken outside of the February 1st to May 30th nesting season once the absence of young fox squirrels within the nests is confirmed. The required authorization from the FWC will be obtained prior to removing the nest tree.

Forested habitat suitable for this species will be enhanced via treatment of invasive exotic plant species in 129.68 acres (FLUCCS 427, 428, 434, 618, and 630) and 34.92 acres will be restored as rare and unique uplands by planting appropriate species. The protection provided by implementation of the Indigenous Habitat Management Plan will provide long-term viability for the Big Cypress fox squirrel and would assure that any impacts to this species are offset.

Florida Sandhill Crane Management Plan

Florida sandhill cranes or their nests were not observed during wildlife surveys of the property. Suitable habitat occurs throughout the property and within the designated County buffer. A total of 3.55 acres of existing foraging habitat (FLUCCS 641) for the sandhill crane will be enhanced through removal and maintenance of invasive exotic plants. Additionally, 2.94 acres of littoral marsh wetlands will be restored. Implementation of the proposed Indigenous Habitat Management Plan would assure that any impacts to the foraging pattern of this species are offset.

American Alligator Management Plan

Potential habitat for American alligators on-site consists of the open water area and surrounding marsh. The property includes numerous ditches and scattered wetlands which provide refuge for this species. The property was thoroughly inspected for gator nests, which are often conspicuous on the bank of waterways. No alligator nests were ever found on the property during protected species surveys. If the proposed project is approved, the wetland enhancement and restoration in the Indigenous Habitat Management Plan will ultimately provide increased acreage of higher quality habitat for the alligator. The proposed site conditions will result in a total of over 106.46 acres of preserved wetlands (FLUCCS 618, 630, and 641), 2.94 acres of restored littoral marsh wetlands, 1.34 acres of preserved other surface waters, 5.61 acres of preserved surface waters, and 12.55 acres of created flushing basin habitat on the property.

Alligators will commonly move from water body to water body in response to factors such as season, disturbances, food supply, etc. In the event that an alligator is present within the limits of construction at the time of site clearing, work within the immediate vicinity of the alligator will be halted and the animal will be allowed to move out of harms way. Once the American alligator has moved work can be restarted. The protection provided by implementation of the Indigenous Habitat Management Plan will provide long-term viability for the American alligator onsite.

Audubon's Crested Caracara Management Plan

Although crested caracaras are known to forage in the vicinity of the subject property, no evidence of nesting of this species was found onsite. To minimize the potential of impacts to nesting habitat, the cabbage palms located in the proposed development areas will be relocated to the rare and unique upland restoration area and appropriate preservation areas prior to construction activity initiation, if feasible. The proposed Indigenous Habitat Management Plan includes the preservation of 23.12 acres of uplands (FLUCCS 427, 428, and 434) and the restoration of 34.92 acres of rare and unique uplands. The implementation of this Indigenous Habitat Management Plan will provide long-term viability for Audubon's crested caracara and will assure that any impacts to this species are offset.

Florida Panther and Florida Black Bear Management Plan

No Florida panthers or black bears or their signs were observed during wildlife surveys of the property. The project is not in any FWS Florida panther zones and the nearest FWC telemetry point is 3 miles to the south of the project and across the Caloosahatchee River.

Black bears have been documented approximately 1 mile north of the property per the FWC listed species occurrence database. It is expected that existing forage and prey habitat for the Florida panther and black bear will be enhanced through removal and maintenance of invasive exotic plants and protected by implementation of this IHMP.

The preservation and restoration of 186.94± acres of uplands (FLUCCS 427, 428, and 434), wetlands (FLUCCS 618, 630, and 641), other surface waters (FLUCCS 510D), and surface waters (FLUCCS 510) will link the surrounding conservation lands, restoring a link that has been disrupted by the extensive exotic vegetation infestation in that area and will allow movement of wildlife across the Owl Creek property. Please see the Owl Creek Wildlife Corridor Map (Figure 1).

Smalltooth Sawfish Management Plan

The project is located within the National Marine Fishery Service's (NMFS) defined critical habitat area for the smalltooth sawfish. There will be minor impacts to the shallow euryhaline habitat along the shore to accommodate the flushing improvements for the proposed docking facility. The project includes the restoration of 12.55 acres of created flushing basin habitat on the property which potentially will function as smalltooth sawfish habitat.

The applicant will coordinate with NMFS during the federal permitting process for the project and will obtain the required permits. All required construction methods will be followed. Please see Exhibit B for NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions dated March 23, 2006.

Wildlife Habitat Area Corridors

Two Wildlife Corridors totaling 139.64 acres will be established as part of the proposed Indigenous Habitat Management Plan. Please see Figures 1 and 2. The Owl Creek and Trout Creek corridors currently consists of active pasture, Owl Creek, and exotic vegetation infested uplands and wetlands. These areas will be enhanced and preserved as described above. The Rare and Unique Upland restoration areas will be planted as described above and shown in the Enhancement and Preservation Map (Figure 2).

The Owl Creek and Trout Creek wildlife corridors average approximately 770' and 1,350' in width, respectively. Prior to the issuance of a MOP, the south corridor will be placed under a Conservation Easement. The onsite wildlife corridors will be placed under a Conservation Easement prior to the issuance of the certificate of occupancy.

Human Coexistence with Wildlife Plan

The following Human Coexistence with Wildlife Plan will be incorporated into the project's Homeowners Association documents.

Residential Areas

American Alligator

Signs will be posted on the subject property adjacent to the water management lakes and bodies of water advising residents that feeding or harassing the American alligators is punishable by state law. An educational brochure, such as the attached "A Guide to Living with Alligators" prepared by the FWC (Exhibit C), will be provided to residents. Residents, commercial tenants, and property maintenance staff will be instructed to contact the FWC for assistance in the event a nuisance alligator is present within the lakes.

Florida Black Bear

An educational brochure, such as the attached "A Guide to Living in Bear County" (Exhibit C) prepared by the FWC, will be provided to residents and commercial tenants. Residents will be instructed to contact the FWC for assistance in the event a nuisance black bear is present on-site.

Florida Panther

An educational brochure, such as the attached "A Guide to Living with Florida Panthers" (Exhibit C) prepared by the FWC, will be provided to residents and commercial tenants. This brochure provides advise for residents on how to keep their family and pets safe and suggestions on how to handle encounters with panthers.

Multi-Slip Docking Facility

American Alligator

Signs will be posted on the subject property adjacent to the docking facility advising residents that feeding or harassing the American alligators is punishable by state law. An educational brochure, such as the attached "A Guide to Living with Alligators" prepared by the FWC (Exhibit C), will be provided to residents. Residents, commercial tenants, and property maintenance staff will be instructed to contact the FWC for assistance in the event a nuisance alligator is present within docking facility.

Public Canoe Launch

American Alligator

Signs will be posted on the subject property adjacent to the public canoe launch advising the public that feeding or harassing the American alligators is punishable by state law. An educational brochure, such as the attached "A Guide to Living with Alligators" prepared by the FWC (Exhibit C), will be provided to the public at the launch. Residents, commercial tenants, and property maintenance staff will be instructed to contact the FWC for assistance in the event a nuisance alligator is present at the canoe launch.

Monitoring Plan

The proposed monitoring of the preserved wetlands will consist of baseline monitoring, time-zero monitoring, and annual monitoring of vegetation. The baseline monitoring

documents the pre-exotic removal conditions within the wetlands. The time-zero report will document the conditions immediately following wetland exotic removal and planting. The annual reports will document the extent of success of the project and, if needed, identify specific actions to be taken to improve conditions within the project area. Sampling stations and methodology of data collection will remain the same for all monitoring events.

The owner or his designee shall also monitor and record water elevations at staff gauges and monitoring wells within the undeveloped wetland areas to provide reasonable assurance to the agencies that no significant hydrological impacts to wetlands resulted from mining. Hydrologic monitoring shall occur monthly during the dry season (November through May) and biweekly during the wet season (June through October) in all of the preserved onsite wetlands. The staff gauges and monitoring wells shall be visually inspected. If the water level at any staff gauge is below the land surface for more than 60 days, the below-ground water level would be used for that location. Hydrologic monitoring shall begin within 12 months of mining commencing.

An important component of the monitoring reports will be the before and after pictures. All monitoring reports will include panoramic photographs from photo stations as shown on Figure 3.

The results of monitoring events within the preserve areas will be reported as stated in this plan. Specific maintenance requirements will be explained in the monitoring report(s). Monitoring reports will describe if/where herbicide treatment is necessary to control nuisance species. The report will also explain if/where plantings need to be replaced or if new plantings should be added to a specific area to improve diversity or percent coverage. Prior to any preserve maintenance, Lee County Division of Environmental Sciences will be notified in writing.

The proposed monitoring of the planted littoral zone and Rare and Unique Uplands will consist of baseline monitoring, time-zero monitoring, and annual monitoring of vegetation, wildlife, rainfall, and wetland water levels. Baseline monitoring will document the conditions as they exist prior to initiating the proposed planting/enhancement effort. The time-zero report will document the conditions immediately following completion of planting/enhancement activities. In addition, a monitoring report will be submitted annually to the Lee County Division of Environmental Sciences for five consecutive years starting one year from the date of the Certificate of Compliance issued for the project's infrastructure. The annual reports will document the extent of success of the created wetlands and, if needed, identify specific actions to be taken to improve the conditions within the project area.

A baseline monitoring report is required for approval of the development order. Please see Exhibit D for baseline conditions photographs from the five photo points. The baseline monitoring report will include a description of each of the specific areas and a map depicting the location of each photo station. Copies of the baseline reports will be submitted to regulating agencies, including Lee County.

The time-zero monitoring report will be provided prior to certification of compliance. Vegetation removal permits are required for ongoing management activities associated with this approved Indigenous Habitat Management Plan that is preserve area specific for the type of management that is being requested. This report will include the date the planting activity was completed and color photographs to provide an accurate representation of the specific area. The photographs shall be taken from fixed reference points described in the baseline monitoring report and shown on a scaled plan view. A table depicting numbers, spacing, and sizes of each species planted will also be provided. The tree height will be used to measure the size of saplings until the tree is mature enough to enable the diameter-breast height (DBH) to be measured. Subsequent annual monitoring reports will be submitted to requesting agencies within thirty (30) days after each monitoring event. The monitoring reports will include a general qualitative and quantitative characterization of the areas. Any pertinent climatological conditions preceding the monitoring event will be described. Qualitative parameters may include estimates of % bare ground, % desirable species, % undesirable species (nuisance and exotic), notations regarding faunal presence and use, and an overall numerical ranking (1-lowest, 10-highest) of the conditions of the system. This numerical ranking is done annually, preferably by the same evaluators, and takes into consideration all parameters of the qualitative assessment. The monitoring will be completed by September of every year (toward the end of the growing season) and an annual report submitted to the reviewing agencies by the end of October. All data collected and analyzed will be included in the report.

Vegetation Monitoring

The vegetation within the uplands and wetlands will be monitored using the line intercept methodology. Six (6) 100 feet long transects will be established in representative portions of each upland and wetland area (Figure 3). A measuring tape will be stretched along the transect and the plants occurring directly below (ground cover) and above (midstory and canopy) the tape will be recorded at three feet intervals along the transect. Ground cover species include woody vegetation less than three feet in height and all non-woody plants. Midstory vegetation consists of all woody plants greater than three feet in height and less than four inches DBH. Canopy species consist of woody vegetation greater than four inches DBH. Bare ground and open sky will also be recorded in this manner. The resulting data will be used to calculate percent cover of the three strata.

Wildlife Monitoring

Regular observations of fish and wildlife will be made during all monitoring events by qualified ecologists. This will consist of recording evidence and signs of wildlife (i.e., direct sighting, vocalization, nests, tracks, droppings, etc.).

Photographic Documentation

Permanent fixed-point photograph stations will be established in each of the monitored areas thereby providing physical documentation of the condition and appearance of an area, as well as any changes taking place. Panoramic photographs will accompany vegetation data in each report. Locations of photo stations will remain the same throughout the duration of the monitoring program.

Report

The methodology and results of each monitoring event will be documented in an annual monitoring report. Data will typically be collected towards the end of the growing season (September - October) and submitted to the agencies with 90± days of data collection.

Method and Frequency of Pruning and Trimming

No pruning or thinning of native vegetation within the indigenous vegetation preserves is proposed at this time. In the event that trimming becomes necessary to meet the ecological goals of this management plan, the trimming will be accomplished by hand using chainsaws or machetes and will be restricted to no more than 25 percent of an area during any particular one year interval. Cut vegetation will remain on-site.

The Lee County Division of Environmental Sciences will be notified prior to any preserve maintenance (other than routine annual exotic maintenance events).

Garbage Management

All garbage will be removed from the preserves prior to the issuance of the Certificate of Compliance for any part of the development. The preserves will be surveyed for garbage semi-annually.

Archeological Historic Preservation Areas

Please see Exhibit E for the archeologist recommended guidelines for the three archeological historic preservation areas. These three areas are also shown in Figure 2. They are located in preserved uplands and wetlands with a very small area within a rare and unique upland restoration area. These archeological historic preservation areas are all within areas that will be placed under a conservation easement. The exotic vegetation removal and planting outlined in this plan will adhere to the archeologist recommend guidelines for work in these areas.

Proposed Work Schedule

The invasive exotic and nuisance plant control program will commence after approval of this project's development order. The initial exotic treatment will be initiated during the first dry season following issuance of all required federal, state, and local authorizations. It is anticipated that the initial treatment will be completed in less than two months. The supplemental plantings will be initiated within approximately two months of the completion of the initial exotic removal, weather permitting.

Summary

The foregoing IHMP provides for preservation and enhancement of existing natural flowways that the County deems important for local or regional water resource

management, restoration of Rare and Unique Uplands that the County deems important, preservation of indigenous areas that are occupied wildlife habitat to the maximum extent possible, and interconnection to off-site preserves and conservation lands via indigenous preservation, flowway preservation or restoration, and appropriate planted open space or buffer areas per Lee LDC 10-415. Additionally, this IHMP provides for preservation and restoration of natural resources, including but not limited to wetlands, natural existing and historic flowway corridors, sloughs, creeks, ponds and lakes, and native plant communities and native trees per Lee LDC 10-474

It exceeds the open space requirements and the Indigenous Preservation requirements of Lee LDC 10-415 by providing over 54% of the site as preservation, creation, and restoration areas.

It details and exceeds the Invasive Exotic Removal requirements including exotic removal and long term maintenance continuing in perpetuity in Lee LDC 10-420(h). This IHMP includes details of preservation, enhancement, and restoration within buffers per Lee LDC 10-415.

This IHMP provides for interconnectivity of wildlife habitat areas, including Florida black bear habitat and to allow this large mammal to move locally within their range, as this project has been designed to allow movement of Florida black bear through indigenous preserves or appropriately planted buffer and open space areas per Lee LDC 10-474

The wetland mitigation that is proposed for impacts associated with the project is outlined in detail above in this IHMP, consists of the preservation of the highest quality indigenous habitat onsite, the enhancement and restoration of indigenous habitats onsite, the restoration and connection of Owl Creek and Trout Creek Wildlife Corridors and flowways and the reconnection of public conservation lands through the subject property.

The proposed site plan impacts 13.99+/- acres of exotic infested wetlands, 3.09 acres of ditches, and 0.26 acres of surface waters which are proposed to be mitigated on-site as detailed in the IHMP. In summary, the IHMP includes:

- (i) Preservation of 136.53 acres of existing high quality habitat, existing native tree areas (none is required by LDC Section 10-415), other surface waters, and surface waters;
 - a. 106.46 acres of wetlands
 - b. 23.12 acres of forested uplands and rare and unique uplands
 - c. 5.61 acres of surface waters (Owl and Trout Creeks)
 - d. 1.34 acres of other surface waters
- (ii) Restoration of 34.92 acres of Rare and Unique Uplands;
- (iii) Restoration of 2.94 acres of littoral shelf wetlands;
- (iv) Creation of 12.55 acres of flushing basin
- (v) Preservation of historic flowways associated with Owl and Trout Creeks; and

- (vi) Connection of existing county conservation lands through the subject property (see Figure 1).

The overall effect of the proposed preservation and restoration described in items (i) through (iv) above will be a total of 186.94± acres of uplands, wetlands, other surface waters, and surface waters on-site.

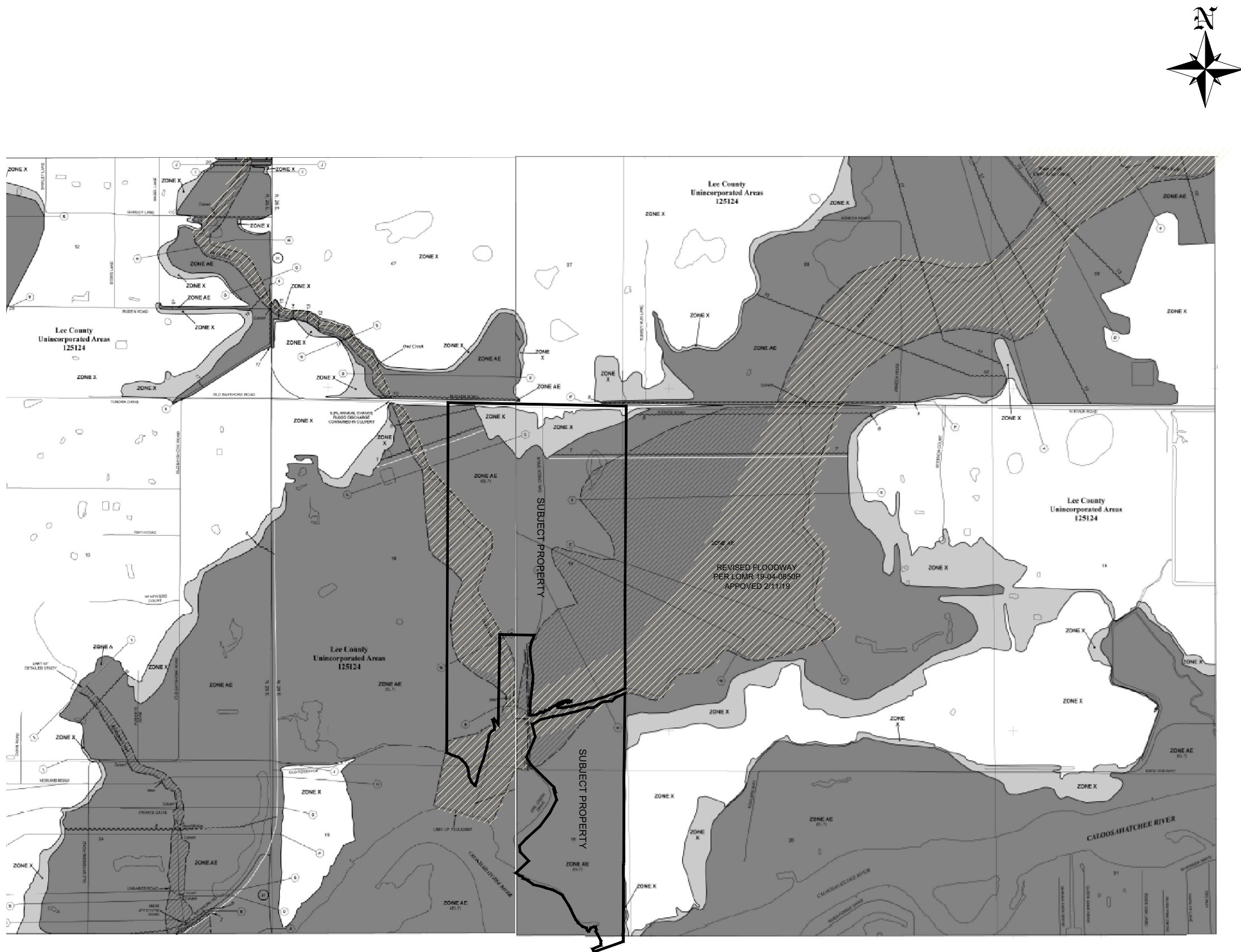
This IHMP was designed to consider the unique aspects of the proposed development, including but not limited to, restored Rare and Unique Uplands, restored littoral zone wetlands, preservation areas, wildlife habitat and the interplay between proposed future uses, including associated impacts on the environment.

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Exhibit A

FEMA Floodway Map

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LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual 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 atypical 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 deactivated. 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 well in or adjacent to Special Flood Hazard Areas.

— Floodplain boundary

— Floodway boundary

— Zone D boundary

— CBRS and OPA boundary

— Boundary dividing Special Flood Hazard Area zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

— Base Flood Elevation line and value; elevation in feet*

— Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

— Cross section line

— Transect line

87° 07' 45", 32° 22' 30"

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

1000-meter Universal Transverse Mercator grid values, zone 17

600000 FT

5000-foot grid ticks: Florida State Plane coordinate system, West zone (FIPS/USNG 1602), Transverse Mercator projection

DX5510 X

See explanation in Notes to Users section of this FIRM panel

1M 1.5

1000 FT

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MAP DELINEATING MOST RECENT FLOOD INSURANCE EXHIBIT-M-12-4

OWL CREEK
LEE COUNTY, FLORIDA

DATE	PROJECT	DRAWING	DESIGN	DRAWN	CHECKED	SCALE	SHEET
08/24/2020	8504	_EXHIBIT	KG	KG	DRU	N.T.S.	01

Exhibit B

NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions dated March 23, 2006.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

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Exhibit C

A Guide to Living with Alligators
A Guide to Living in Bear County
A Guide to Living with Florida Panthers

■ Never feed alligators – it's dangerous and illegal. When fed, alligators can overcome their natural wariness and learn to associate people with food. When this happens, some of these alligators have to be removed and killed.

■ Dispose of fish scraps in garbage cans at boat ramps and fish camps. Do not throw them into the water. Although you are not intentionally feeding alligators when you do this, the result can be the same.

■ Seek immediate medical attention if you are bitten by an alligator. Alligator bites can result in serious infections.

■ Observe and photograph alligators only from a distance. Remember, they're an important part of Florida's natural history as well as an integral component of aquatic ecosystems.



Janice Plain

To report nuisance alligators call
866-FWC-GATOR (866-392-4286).



MyFWC.com/Alligator



Tim Donovan, FWC

Call 866-FWC-GATOR (392-4286) to report nuisance alligators.

A Guide to Living with **Alligators**



Jamie Feddersen



Florida Fish and Wildlife
Conservation Commission
MyFWC.com



Lizabeth West, FWC

Do not swim outside of posted swimming areas or in waters that may be inhabited by alligators.

Living with Alligators

In Florida, the growing number of people living and recreating near water has led to a steady rise in the number of alligator-related complaints. The majority of these complaints relate to alligators being where they simply aren't wanted. Because of these complaints, the Florida Fish and Wildlife Conservation Commission's Statewide Nuisance Alligator Program permits the killing of approximately 7,000 nuisance alligators each year. Using this approach, and through increased public awareness, the rate of alligator bites on people has remained constant despite the increased potential for alligator-human interactions as Florida's human population has grown.

Alligators are an important part of Florida's landscape and play a valuable role in the ecology of our state's wetlands. Alligators are predators and help keep other aquatic animal populations in balance. A better understanding of the facts and information presented in this brochure will help ensure that people and alligators can continue to coexist.

Visit MyFWC.com/Gators for more information about alligators and the latest nuisance alligator program statistics.



Tim Donovan, FWC

Alligators and People

Alligators are a fundamental part of Florida's wetlands, swamps, rivers and lakes, and they are found in all 67 counties. Florida continues to experience human population growth. Many new residents seek waterfront homes, resulting in increased interactions between people and alligators.

Although most Floridians understand that we have alligators living in our state, the potential for conflict exists. Because of their predatory nature, alligators may target pets and livestock as prey. Unfortunately, people also are occasionally bitten. Since 1948, Florida has averaged about five unprovoked bites per year. During that period, a little more than 300 unprovoked bites to people have been documented in Florida, with 22 resulting in deaths.

In the past 10 years, the Florida Fish and Wildlife Conservation Commission has received an average of nearly 16,000 alligator-related complaints per year. Most of these complaints deal with alligators occurring in places such as backyard ponds, canals, ditches and streams, but other conflicts occur when alligators wander into garages, swimming pools and golf course ponds. Sometimes, alligators come out of the water to bask in the sun or move between wetlands. In many cases, if left alone, these alligators will eventually move on to areas away from people.

Safety Tips

■ Generally, alligators less than four feet in length are not large enough to be dangerous unless handled. However, if you encounter any alligator that you believe poses a threat to people, pets or property,

call the Nuisance Alligator Hotline at 866-FWC-GATOR (866-392-4286). Please be aware, nuisance alligators are killed, not relocated.

- Be aware of the possibility of alligators when you are in or near fresh or brackish water. Bites may occur when people do not pay close enough attention to their surroundings when working or recreating near water.
- Do not swim outside of posted swimming areas or in waters that might be inhabited by large alligators.
- Alligators are most active between dusk and dawn. Therefore, avoid swimming at night.
- Dogs and cats are similar in size to the natural prey of alligators. Don't allow pets to swim, exercise or drink in or near waters that may contain alligators. Dogs often attract an alligator's interest, so do not swim with your dog.
- Leave alligators alone. State law prohibits killing, harassing or possessing alligators. Handling even small alligators can result in injury.



Tim Donovan, FWC

A young alligator wanders onto a porch in a residential neighborhood.



Milt Fox

Discouraging bears from visiting your home

Properly storing or securing residential garbage and other attractants is a proven method of discouraging bears and preventing bear conflicts around homes, farms and neighborhoods. The following items attract bears and should be protected by an electric fence, wildlife resistant container, or stored in a secure place, such as a garage or sturdy shed:

- Trash and recycling containers
- Bird and squirrel feeders
- Game feeders
- Pet foods and bowls
- Barbeque grills and smokers
- Pets and small livestock
- Livestock feed
- Compost piles
- Beehives
- Fruit and nut-bearing trees and shrubs

Funds from the “Conserve Wildlife” license plate help support efforts to reduce human-bear conflicts. Buy one today at your local tax collector’s office or online at BuyAPlate.com.

Secure common bear attractants

- Use electric fencing to protect gardens, compost piles, apiaries, fruit trees and livestock.
- Store garbage and recyclables in bear-resistant containers or in a secure area until the morning of pick up.
- Feed pets indoors or bring food dishes (even if empty) inside before dark.
- Store pet and livestock feed in bear-resistant containers or inside a secure area.
- Remove bird and wildlife feeders. Ensure the area is free of all seed, corn, or other wild animal feed.
- Keep gardens and fruiting trees and shrubs tidy. Remove rotten fruit and harvest ripe nuts, fruits and vegetables.
- Clean meat smokers and barbeque grills with a degreasing detergent. Properly dispose of food remnants after each use.

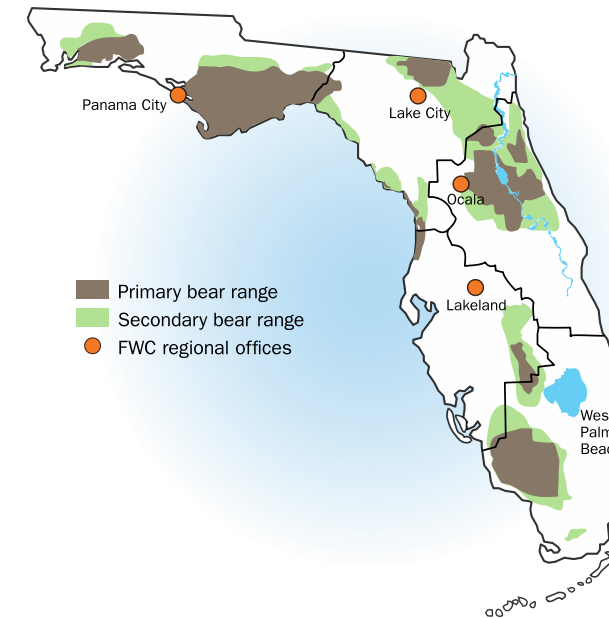
Learn more about black bears with the Florida Black Bear Curriculum Guide. The guide is designed to educate teachers and students in 3rd to 8th grade and offers a comprehensive series of lessons on Florida’s black bear.

To get tips on how to secure bear attractants, watch videos about bears or how to install electric fencing, and learn more about bear-resistant containers, visit MyFWC.com/Bear.



Rick Sinnott

Bear range in Florida



If you are experiencing bear problems, please contact the nearest FWC regional office.

North Central, Lake City	386-758-0525
Northeast, Ocala	352-732-1225
Northwest, Panama City	850-265-3676
South, West Palm Beach	561-625-5122
Southwest, Lakeland	863-648-3200

If you suspect illegal activity, call FWC’s Wildlife Alert Hotline at 1-888-404-3922.

Follow us on:



Cover photo by Ashley Hockenberry



Florida Fish and Wildlife
Conservation Commission
MyFWC.com

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A guide to living in bear country



Florida Fish and Wildlife
Conservation Commission
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Ashley Hockenberry

If you live in Florida, you should know

Florida black bear populations have been recovering from historically low numbers in most areas of the state. At the same time, the human population is rapidly expanding in and around bear range. As a result, bears and humans are encountering each other more than ever.

Calls to the Florida Fish and Wildlife Conservation Commission (FWC) about human-bear encounters have increased from 1,000 in 2001 to over 4,000 in 2010. The most common calls refer to bears in yards and getting into garbage.

The mere presence of a black bear does not represent a problem. In fact, living in bear country can provide unique and rewarding experiences for residents.

While feeding bears is illegal in Florida, bears are still often fed by humans, either intentionally or unintentionally. When black bears have access to pet food, garbage, birdseed, livestock feed or other human-provided items, they quickly learn to associate people with food. Bears that have become

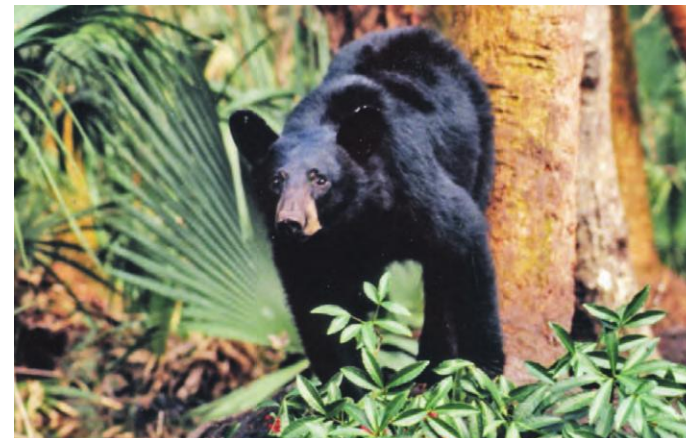
too comfortable around people are more likely to be killed, either by vehicle collisions, illegal shooting, or as a result of bear management actions.

People ask why problem bears can't simply be relocated to a "wild area where they won't bother anyone." Unfortunately, areas large and remote enough for bears to avoid people are rare in Florida. Also, most relocated bears typically leave the new area, either to return to their original home or to leave an area already occupied by other bears. Some bears will wander through unfamiliar areas and cross busy roads, creating a danger to the bear and to motorists. In addition, bears remaining in the relocation area often exhibit the same, unwanted behavior, thus shifting the problem to a new location. As a result, relocation is not a desirable or effective solution to bear conflicts. Wildlife biologists can provide technical advice to residents who live in bear country to help them take actions to discourage bears from becoming a problem. The FWC is committed to addressing the safety concerns of residents and visitors while ensuring the long-term well-being of black bears.

If a bear comes into your yard

If you encounter a black bear at close range, remain standing upright, back up slowly and speak to the bear in a calm, assertive voice.

- Do not intentionally feed or attract bears. If a bear is eating something on your property, take note of what it is and secure it after the bear has left the area.



Charles Towne



Ashley Hockenberry

- Never approach or surprise a bear. Keep as much distance between you and the bear as possible.
- Make sure you are in a secure area and the bear has a clear escape route to leave the area - then yell, bang pots and pans, or use an air horn to scare the bear away.
- Do not turn your back, play dead or run from a black bear. Back away slowly into a house, car or building.
- Report any bear threatening the safety of humans, pets or livestock, or causing property damage to the FWC (see back panel).
- Warning! It is illegal to injure or kill black bears under Florida state law. If you are found guilty, you could face fines and/or jail time.

Climbing trees is a bear's natural escape route. If the bear climbs a tree, keep people and pets away. The bear will come down the tree and leave when it feels safe, usually after dark.

Did you know?

Black bears are shy animals and generally not aggressive towards people. When a bear stands on its hind legs, it is merely trying to get a better view, rather than acting in a threatening way. Black bears may huff, snap their jaws, swat the ground or "bluff charge" when cornered, threatened or caught stealing food. Stand your ground and then slowly back away. Always respect bears – they are large and powerful wild animals and can act unpredictably. Bears used to getting food from humans may lose their natural fear of people and are more likely to damage property or become a safety threat.

The bear facts

Black bears are the only species of bear in Florida and once roamed the entire state.

- FWC biologists estimate there are 2,500-3,000 black bears in Florida.
- Florida bears are generally black with a brown muzzle and may have a white chest marking called a blaze.
- Adult black bears typically weigh between 150 to 400 pounds; males are usually larger than females.
- Female bears have their first litter at about 3½ years of age and generally have one to three cubs every other year.
- In Florida, the breeding season runs from June to August and cubs are born in late January or early February.
- Bears of all ages are excellent climbers and will climb trees when they are frightened or looking for food (e.g., acorns).
- About 80 percent of a black bear's diet comes from plants (e.g., fruits, nuts, berries), 15 percent from insects (e.g., termites, ants, yellow jackets) and 5 percent from meat (e.g., opossums, armadillos, carrion).

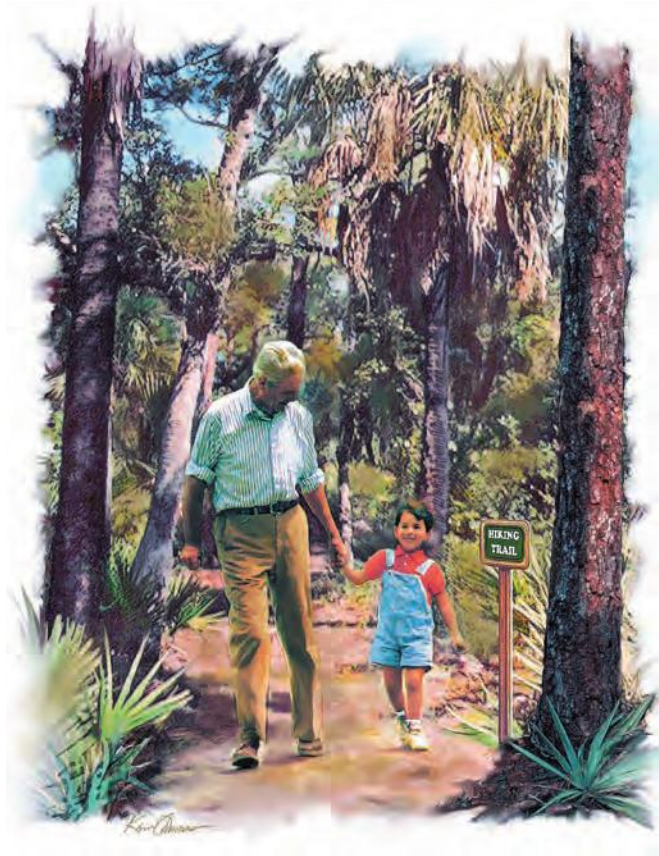
It is illegal to intentionally place food or garbage out that attracts bears and causes conflicts. Anything that attracts dogs, cats or raccoons also will attract bears!



You live in Florida panther country

Florida panthers are reclusive and rarely seen by people. They normally live in remote, undeveloped areas. However, as the number of people in southern Florida grows, there is an increased chance of an encounter with a Florida panther.

This brochure contains some guidelines to help you live safely in Florida panther country.



Keep children within sight and close to you, especially outdoors between dusk and dawn.

If you feel threatened by a panther, or have lost pets or livestock to a panther, please call the Florida Fish and Wildlife Conservation Commission's Wildlife Alert Hotline at 1-888-404-FWCC (3922).

If you see a Florida panther

The Florida panther moves primarily at night. The chances of seeing a panther are slim. But if you live in Florida panther country, you need to know what to do if you see one.

-  **Keep children within sight and close to you.** Pick up any small children so they don't panic and run. Try to do this without bending over or turning away from the Florida panther.
-  **Give them space.** Florida panthers typically will avoid a confrontation. Give them a way to escape.
-  **Do not run.** Running may stimulate a panther's instinct to chase. Stand and face the animal. Make eye contact to let the panther know you are aware of its presence.
-  **Avoid crouching or bending over.** Squatting or bending makes you look smaller, resembling a prey-sized animal.
-  **Appear larger.** Make gestures that indicate you are not prey and that you may be a danger to the panther. Raise your arms. Open your jacket. Throw stones, branches or whatever you can reach without crouching or turning your back. Wave your arms slowly and speak firmly in a loud voice.
-  **Fight back if attacked.** There has never been a reported panther attack in Florida. In western states, where attacks by cougars have occurred very rarely, potential victims have fought back successfully with rocks, sticks, caps, jackets, garden tools and their bare hands. Since large cats usually try to bite the head or neck, try to remain standing and face the animal.



Mark Lotz

printed on recycled paper



Florida Fish and Wildlife
Conservation Commission
620 S. Meridian Street
Tallahassee, FL 32399-1600
MyFWC.com/Panther

A guide to living with Florida Panthers



© Lynn Stone

MyFWC.com/Panther

7 ways to live safely in Florida panther country

While these guidelines are meant to help you live safely in Florida panther habitat, they also apply to living with more commonly encountered wildlife, including raccoons, snakes, bears and alligators.

1. Be alert from dusk 'til dawn (and whenever deer are active)

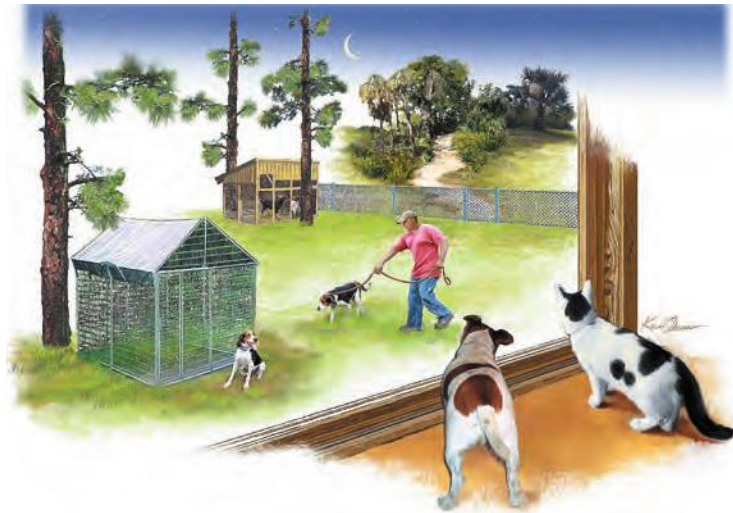
Florida panthers primarily are active at night. Exercise more caution at dawn, dusk or dark.

2. Keep panther prey away

Deer, raccoons, rabbits, armadillos and wild hogs are prey for the Florida panther. By feeding deer or other wildlife, people inadvertently may attract panthers. Do not leave potential wildlife food outside, such as unsecured garbage or pet food. Consider fencing vegetable gardens.

3. Keep pets secure

Free-roaming pets, or pets that are tethered and unfenced, are easy prey for predators, including panthers. Bring pets inside or keep them in a secure and covered kennel at night. Feeding pets outside also may attract raccoons and other panther prey; do not leave uneaten pet food available to wildlife.



Keep your pets safe and secure. Bring pets inside or keep them in a secure and covered kennel at night.



Keep livestock safe and secure.

4. Keep domestic livestock secure

Where practical, place chickens, goats, hogs or other livestock in enclosed structures at night. Electric fencing can be an effective predator deterrent.

5. Landscape for safety

Remove dense or low-lying vegetation that would provide hiding places for panthers and other predatory animals near your house.

- Remove plants that deer like to eat.
- Choose plants that do not attract deer or other panther prey species. For information on plants that deer do not like to eat, visit edis.ifas.ufl.edu/UW137.
- Appropriate fencing will make your yard or play area uninviting to prey animals such as deer.

6. Consider other deterrents

Outdoor lighting, motion sensors and electric fencing also may deter prey animals and panthers from entering your yard. Outdoor lighting also will make approaching prey and panthers more visible to you.

7. Hike or bike with a friend

When recreating outdoors, it's a good practice to let friends or family know your whereabouts and when you expect to return. Better yet, take a friend with you!

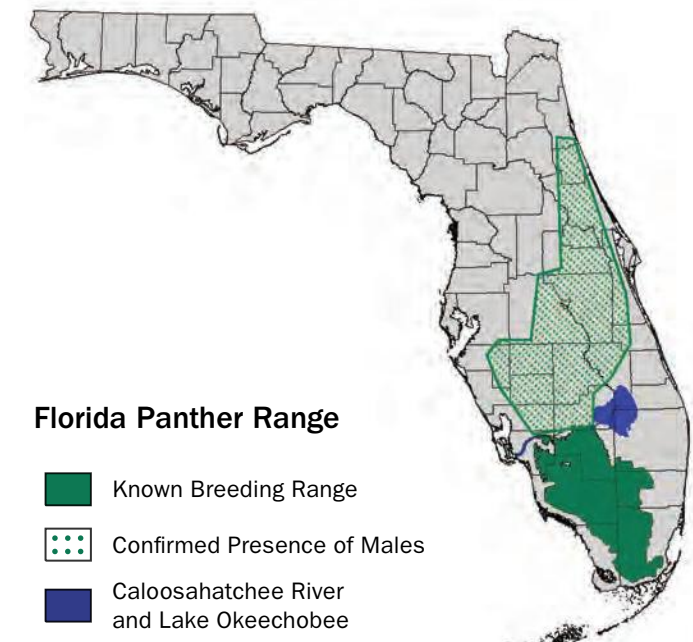
Florida panther facts

- 🐾 The Florida panther is a subspecies of puma, also known as a mountain lion or cougar. It is the last subspecies still surviving in the eastern United States.
- 🐾 Biologists estimate roughly 100-160 adult and subadult Florida panthers remain in the wild. Most panthers live in southwest Florida, south of the Caloosahatchee River, although some panthers have been documented traveling as far north as central Georgia.
- 🐾 The Florida panther's decline occurred prior to 1950, when it still was legal to hunt panthers. It was listed as endangered in 1967 and is protected under federal and state laws.
- 🐾 Florida panther numbers declined to roughly 30 cats by the early 1980s. Severe inbreeding resulted in many health and physical problems. A genetic restoration project in 1995 was successful in improving the genetic health and vigor of the panther population.
- 🐾 Florida panthers are found primarily in the Big Cypress/Everglades ecosystem in Collier, Lee, Hendry, Monroe and Miami-Dade counties.
- 🐾 Florida panthers' home range sizes vary by sex and by individual. Female home ranges are typically 60-75 square miles whereas males' are typically 160-200 square miles.



FWC panther team

- 🐾 There is no record of a Florida panther attacking a person. Florida panthers are rarely seen.
- 🐾 The biggest threat to the future of the Florida panther is habitat loss. A number of panthers also die each year due to vehicle strikes on roadways.
- 🐾 The Florida panther was chosen as the State Animal of Florida in 1982 by a vote of elementary school students throughout the state.



Florida Panther Range



This brochure was produced through a partnership of the Audubon Society of Florida, Conservancy of Southwest Florida, Defenders of Wildlife, Florida Fish and Wildlife Conservation Commission, Florida Wildlife Federation, Friends of the Florida Panther Refuge, Mountain Lion Foundation, National Park Service, National Wildlife Federation, Seminole Tribe of Florida, University of Florida and the U.S. Fish and Wildlife Service.

Funding provided by the Florida Fish and Wildlife Conservation Commission, Friends of the Florida Panther Refuge and the National Fish and Wildlife Foundation.

Exhibit D

Baseline Conditions Photographs from Photo Points

Owl Creek Reserve Baseline Conditions

Photo Station 1



Photo Station 1: Facing North



Photo Station 1: Facing East



Photo Station 1: Facing South

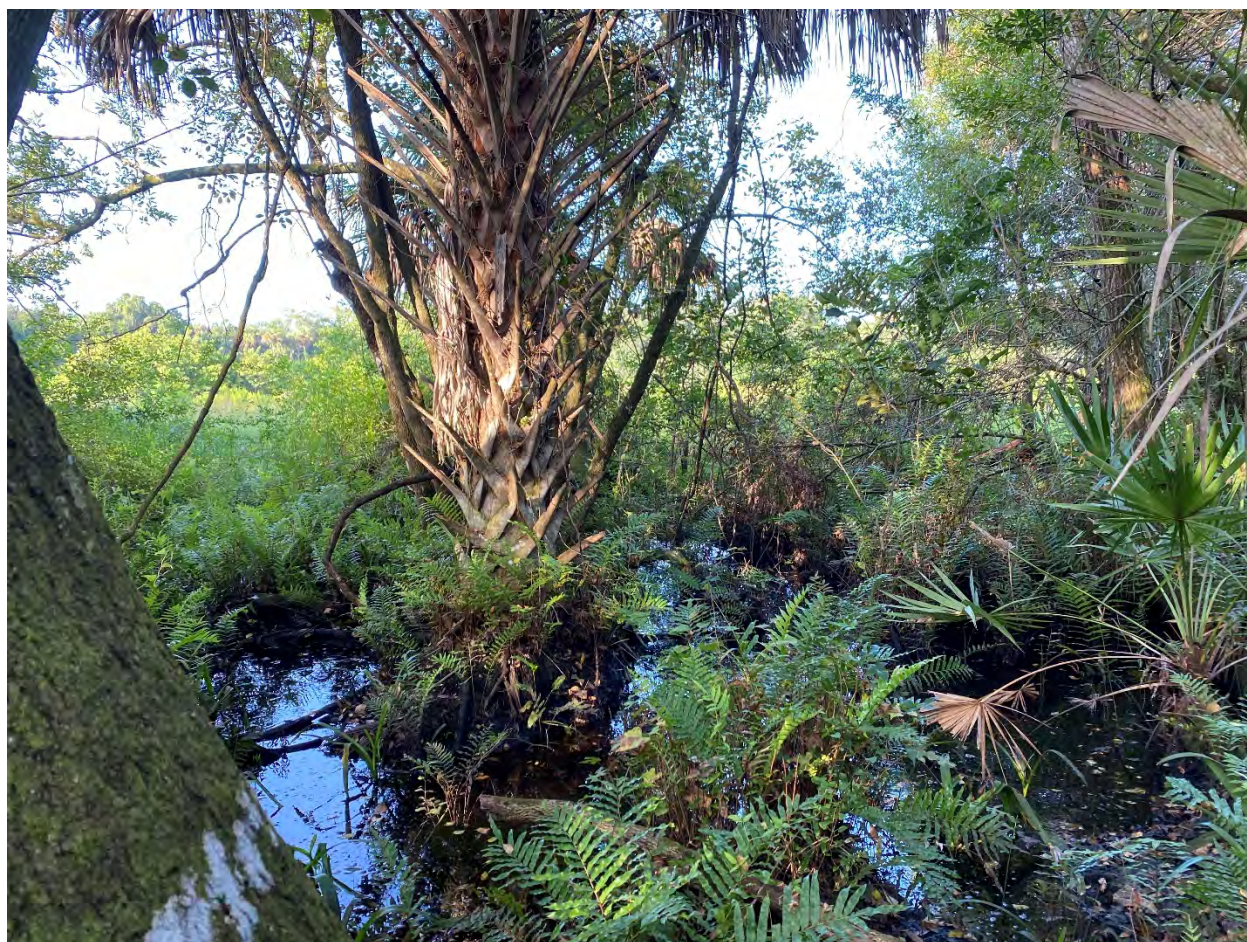


Photo Station 1: Facing West

Photo Station 2



Photo Station 2: Facing North



Photo Station 2: Facing East



Photo Station 2: Facing South



Photo Station 2: Facing West

Photo Station 3



Photo Station 3: Facing North



Photo Station 3: Facing East



Photo Station 3: Facing South



Photo Station 3: Facing West

Photo Station 4



Photo Station 4: Facing North



Photo Station 4: Facing East



Photo Station 4: Facing South



Photo Station 4: Facing West

Photo Station 5



Photo Station 5: Facing North



Photo Station 5: Facing East



Photo Station 5: Facing South



Photo Station 5: Facing West

Exhibit E

Archeologist Recommended Guidelines

In October 2021, an AHC archaeologist visited three archaeological sites (8LL2397, 8LL2398, and 8LL2399) at the Owl Creek parcel. Each site was bounded with wooden stakes at a 25' buffer around the site. Staking was done to allow for a survey crew to accurately survey the sites.

In order to ensure the maintenance and preservation of 8LL2397, 8LL2398 and 8LL2399, the following guidelines are recommended:

1. If construction or ground disturbing activities are in proximity to the sites, the site boundaries should be marked by orange construction fencing prior to improvements or clearing to ensure that they are visible and avoid inadvertent impacts;
2. Any clearing of vegetation within the sites should be done by hand;
3. It is important to avoid machines running over the sites since the deposits are shallow and the movement of machines can create substantial disturbances;
4. Within the sites, vegetation should not be pulled from the ground, but should be cut above the ground surface;
5. No storage of equipment, fill, or other materials should occur within the sites;
6. New planting within the site boundaries should be small as possible, with planting holes not exceeding 1 foot depth.
7. Intermittent archaeological monitoring should be conducted for all ground disturbances within 25m of the marked sites;
8. If a significant cultural deposit or feature is discovered during monitoring, the consultant archaeologist should be contacted within 48 hours for consultation, and the work should cease at that location;
9. If human remains are identified then that discovery will be subject to the provisions of Florida Statute 872.05.

Exhibit C.2.2

Owl Creek Parcel

Sections 18 & 19, Township 43 South, Range 26 East
Lee County, Florida

**Protected Species Assessment & Florida Bonneted
Bat Roost Survey**

**November 2020
Revised October 2021**

Prepared for:

**D.R. Horton Homes
10541 Six Mile Cypress Pkwy., Suite 100
Fort Myers, FL 33966**

Prepared by:

***DexBender*
4470 Camino Real Way, Suite 101
Fort Myers, FL 33966
(239) 334-3680**

INTRODUCTION

The 342.68± acre Owl Creek property consists of Strap Numbers 18-43-26-00-00002.0020, 18-43-26-00-00002.0000, and 19-43-26-00-00002.1020. The parcel is located within a portion of Sections 18 & 19, Township 43 South, Range 26 East, Lee County, Florida (see Figure 1). The property is bisected by Trout Creek.

This project consists of three separate parcels. Based on a review of historic aerial photography, the property had been primarily used for row crop farming. By early 2014 farming operations had ceased. This area is currently being used as improved pasture for cattle.

SITE CONDITIONS

This project consists of three separate parcels. Based on a review of historic aerial photography, the property had been primarily used for row crop farming. By early 2014 farming operations had ceased. This area is currently being used as improved pasture by cattle. Many of the forested areas have been disturbed by cattle and primitive surface water management.

VEGETATIVE CLASSIFICATIONS

The predominant vegetation associations were mapped based on 2010 digital 1" = 120' scale aerial photography. In order to minimize redundancy only the base FLUCCS Codes are described (i.e. description provided for FLUCCS Code 427D but not for FLUCCS Codes 427DE1, 427DE2, 427DE3, and 427DE4). Twenty-six vegetation associations were identified using the Florida Land Use, Cover and Forms Classification System (FLUCCS). The attached map (see Figure 2) depicts the approximate location and configuration of these vegetation associations and the acreages are summarized by FLUCCS code in Table 1. A brief description of each FLUCCS code is also provided below.

Table 1. Acreage Summary by FLUCCS

FLUCCS CODE	DESCRIPTION	ACREAGE
211	Improved Pastures	178.11
***211H	Improved Pastures – hydric	7.29
422	Brazilian pepper	1.20
427DE1	Live Oak, Disturbed, Invaded by Exotics (10-25%)	3.03
427DE2	Live Oak, Disturbed, Invaded by Exotics (26-50%)	4.91
427DE3	Live Oak, Disturbed, Invaded by Exotics (51-75%)	7.97
427DE4	Live Oak, Disturbed, Invaded by Exotics (76-90%)	7.24
***428DE4	Cabbage Palm, Disturbed, Invaded by Exotics (76-90%)	0.50
***429HE	Wax Myrtle - hydric, Invaded by Exotics (5-9%)	1.96
434DE4	Hardwood – Coniferous Mixed, Disturbed, Invaded by Exotics (76-90%)	1.62
*510	Streams and Waterways	5.74
**510D	Ditches	3.69
**524	Lakes less than 10 acres which are dominant features	0.73

***618DE1	Willow, Disturbed, Invaded by Exotics (10-25%)	1.29
***618DE2	Willow, Disturbed, Invaded by Exotics (26-50%)	0.23
***618DE3	Willow, Disturbed, Invaded by Exotics (51-75%)	0.11
***618DE4	Willow, Disturbed, Invaded by Exotics (76-90%)	8.70
***619BP	Hydric Brazilian Pepper	30.97
***630DE2	Wetland Forested Mixed, Disturbed, Invaded by Exotics (26-50%)	2.44
***630DE3	Wetland Forested Mixed, Disturbed, Invaded by Exotics (51-75%)	19.84
***630DE4	Wetland Forested Mixed, Disturbed, Invaded by Exotics (76-90%)	43.30
***641DE4	Freshwater Marsh, Disturbed, Invaded by Exotics (76-90%)	3.83
740	Disturbed Land+	6.06
743	Spoil Area	0.80
814	Roads and Highways	1.12
Upland Subtotal		212.07
Wetland Subtotal		120.45
Surface Waters		5.74
Other Surface Waters Subtotal		4.42
Total		342.68

FLUCCS Code 211, Improved Pastures

These upland areas are currently being utilized for cattle grazing. Based on a review of historical aerial photography, it appears that the majority of these areas were once used for row crop farming. Areas mapped as this FLUCCS Code contain a greater percentage of upland species as compared to areas mapped as FLUCCS Code 211H described below. Vegetation present in this association includes bahia grass (*Paspalum notatum*), broomsedge (*Andropogon* spp.), smutgrass (*Sporobolus indicus*), false buttonweed (*Spermacoce verticillata*), and scattered wiregrass (*Aristida* sp.).

FLUCCS Code 211H, Improved Pastures – hydric

Areas mapped as this association contain greater coverage of wetland species and more significant signs of hydrology as compared to areas mapped as FLUCCS Code 211 described above. Beakrush (*Rhynchospora* sp.), lovegrass (*Eragrostis* sp.), red ludwigia (*Ludwigia repens*), frog-fruit (*Phyla* sp.), coinwort (*Centella asiatica*), scattered torpedo grass (*Panicum repens*), fringe-rush (*Fimbristylis* sp.), water hyssop (*Bacopa* sp.), scattered slash pine (*Pinus elliotii*), false buttonweed, bahia grass, Brazilian pepper (*Schinus terebinthifolius*), wax myrtle (*Myrica cerifera*), and cabbage palm (*Sabal palmetto*) are present.

FLUCCS Code 422, Brazilian Pepper

This upland is dominated by the exotic, Brazilian pepper and contains scattered cabbage palm and wax myrtle.

FLUCCS Code 427D, Live Oak, Disturbed

The canopy of this upland area contains live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), pop ash (*Fraxinus caroliniana*), and cabbage palm. The shrub and ground cover strata consist of wax myrtle, saw palmetto (*Serenoa repens*), beauty berry

(*Callicarpa americana*), myrsine (*Rapanea punctata*), Spanish stopper (*Eugenia foetida*), Boston fern (*Nephrolepis* sp.), carpet grass (*Axonopus* sp.), wild coffee (*Psychotria nervosa*), swamp bay (*Persea palustris*), grape vine (*Vitis* sp.), green briar (*Smilax* sp.), pepper-vine (*Ampelopsis arborea*), poison ivy (*Toxicodendron radicans*), Brazilian pepper, bahia grass and caesar weed (*Urena lobata*).

FLUCCS Code 428D, Cabbage Palm

These mesic wetlands are dominated by cabbage palm, with scattered live oak, saw palmetto, beggar tick (*Bidens* sp.), wax myrtle, wild coffee, dog fennel (*Eupatorium capillifolium*), guineagrass (*Panicum maximum*), foxtail grass (*Setaria* sp.), broomsedge, and swamp fern (*Blechnum serrulatum*) and Brazilian pepper.

FLUCCS Code 429, Wax Myrtle

This shrub community is dominated by wax myrtle. Scattered cabbage palm, melaleuca, saltbush (*Baccharis halimifolia*), willow (*Salix caroliniana*), and Brazilian pepper are also present. The ground cover consists of swamp fern, marsh pennywort (*Hydrocotyle umbellata*), coinwort, and water hyssop.

FLUCCS Code 434D, Hardwood – Coniferous Mixed, Disturbed

The canopy of this upland consists of live oak, slash pine, and cabbage palm. The shrub stratum includes saw palmetto, wax myrtle, Brazilian pepper, saltbush, beauty berry, and cabbage palm. Ground cover includes bahia grass, broomsedge, smutgrass, marsh pennywort, caesar weed, green briar, and dayflower (*Commelina diffusa*).

FLUCCS Code 510, Streams and Waterways

Owl and Trout Creeks are located along the southern portion of the site.

FLUCCS Code 510D, Ditches

Several ditches are present on the site. These ditches contained standing water approximately three feet below grade at the time of our site inspection. Scattered clumps of red mangrove (*Rhizophora mangle*) are located along the banks of the ditches.

FLUCCS Code 524, Lakes less than 10 acres which are dominant features

This open water area is located on the east side of Owl Creek Drive, north of Trout Creek. The banks are lined with willow and Brazilian pepper.

FLUCCS Code 618D, Willow, Disturbed

Willow is the predominant species in these wetlands with cabbage palm, Brazilian pepper, and wax myrtle in the canopy and sub-canopy. Ground cover includes smartweed (*Polygonum* sp.), cattail (*Typha* spp.), dayflower, primrose willow (*Ludwigia peruviana*), and white-top sedge (*Rhynchospora colorata*).

FLUCCS Code 619BP, Hydric Brazilian Pepper

This area is dominated by Brazilian pepper. Cordgrass (*Spartina bakeri*), cabbage palm, pond apple (*Annona glabra*), melaleuca, marsh pennywort, leather fern (*Acrostichum* sp), climbing hemp weed (*Mikania scandens*), elephant ears (*Colocasia esculenta*), and wax myrtle are also present. There is a thin fringe of red mangroves along the shoreline. This fringe is intermittent with a few individual trees in clumps. This fringe is one tree

wide at approximately 10-20' in width with half of it in state sovereign lands which is not applicant owned.

FLUCCS Code 630D, Wetland Forested Mixed, Disturbed

Live oak, laurel oak, pop ash, cabbage palm, slash pine, willow, and swamp bay are found within the canopy of these areas. The sub-canopy includes Brazilian pepper, myrsine, saltbush, cabbage palm, wild coffee, primrose willow, swamp dogwood, swamp bay, and buckthorn (*Sideroxylon* sp.). The ground cover consists of beauty berry, swamp fern, royal fern (*Osmunda regalis*), shield fern (*Thelypteris* sp.), arrowhead (*Sagittaria* sp.), water hyssop, smartweed, caesar weed, torpedo grass, pepper-vine, grape vine, poison ivy, green briar, and cattail.

FLUCCS Code 641D, Freshwater Marsh, Disturbed

This wetland includes cattail, primrose willow, leather fern, wax myrtle, marsh pennywort, Brazilian pepper, saw-grass (*Cladium jamaicense*), and saltbush in the sub-canopy and herbaceous strata.

FLUCCS Code 740, Disturbed Land

These disturbed uplands include Brazilian pepper with scattered pop ash, live oak, buckthorn, swamp fern, grape vine, and green briar.

FLUCCS Code 743, Spoil Area

These upland areas consist of spoil material that was displaced during the creation of the adjacent ditches.

FLUCCS Code 814, Roads and Highways

Owl Creek Drive is centrally located in the northern parcel bisecting the property.

SURVEY METHOD

Lee County Protected Species Ordinance No. 89-34 lists several protected species of animals that could potentially occur on-site based on the general vegetative associations found on the subject parcel. Each habitat type was surveyed for the occurrence of these and any other listed species likely to occur in the specific habitat types. The survey was conducted using meandering linear pedestrian belt transects. This survey methodology is based on the Lee County administratively approved Meandering Transect Methodology and US Fish and Wildlife Service (FWS) guidance on Florida bonneted bat roost surveys. In order to provide at least 80 percent visual coverage of habitat types listed in Ordinance No. 89-34, the transects were spaced approximately 100 feet apart. The approximate location of all direct sighting or signs (such as tracks, nests, and droppings) of a listed species, were denoted on the aerial photography. The attached 1" = 500' scale aerial Protected Species Assessment Map depicts the approximate location of the survey transects and the results of the survey. The listed species survey was conducted during October 20, 27 and 29, 2020. During the survey the weather was mild and sunny.

Species listed as endangered, threatened, or species of special concern by the Florida Fish and Wildlife Conservation Commission (FWC) or the United States Fish and Wildlife Service (FWS) that could potentially occur on the subject parcel according to the Lee County Protected Species Ordinance are shown in Table 2. This list from the

Lee County Protected Species Ordinance is general in nature, does not necessarily reflect existing conditions within or adjacent to the property, and is provided for general informational purposes only.

Prior to conducting the protected species survey, a search of the FWC species database (updated in 2019) was conducted to determine the known occurrence of listed species in the project area. This search revealed no known protected species occurring on or immediately adjacent to the site.

Table 2. Listed Species That Could Potentially Occur On-site

FLUCCS CODE	Percent Survey Coverage	Species Name	Present	Absent
211& 211H	80	Florida Sandhill Crane (<i>Grus canadensis pratensis</i>) Florida Panther (<i>Felis concolor coryi</i>)		√ √
422	20	none		
427	80	Eastern Indigo Snake (<i>Drymarchon corais couperi</i>) Gopher Tortoise (<i>Gopherus polyphemus</i>) Florida Panther (<i>Felis concolor coryi</i>) Hand Adder's Tongue Fern (<i>Ophioglossum palmatum</i>) Simpson's Stopper (<i>Myrcianthes frangrans</i> var. <i>simpsonii</i>) Twisted Air Plant (<i>Tillandsia flexuosa</i>) Florida Bonneted Bat (<i>Eumops floridanus</i>)		√ √ √ √ √ √ √
428	80	Eastern Indigo Snake (<i>Drymarchon corais couperi</i>) Audubon's Crested Caracara (<i>Polyborus plancus audubonii</i>) Florida Panther (<i>Felis concolor coryi</i>) Simpson's Stopper (<i>Myrcianthes frangrans</i> var. <i>simpsonii</i>)		√ √ √ √
429H	80	None		
434	80	Florida Panther (<i>Felis concolor coryi</i>)		√
510, 510D, & 524	80	American Alligator (<i>Alligator mississippiensis</i>) Little Blue Heron (<i>Egretta caerulea</i>) Reddish Egret (<i>Egretta rufescens</i>) Roseate Spoonbill (<i>Ajaia ajaja</i>) Tricolored Heron (<i>Egretta tricolor</i>) Everglades Mink (<i>Mustela vison evergladensis</i>)		√ √ √ √ √ √

618	80	American Alligator (<i>Alligator mississippiensis</i>) Little Blue Heron (<i>Egretta caerulea</i>) Reddish Egret (<i>Egretta rufescens</i>) Tricolored Heron (<i>Egretta tricolor</i>) Wood Stork (<i>Mycteria americana</i>) Big Cypress Fox Squirrel (<i>Sciurus niger avicennia</i>) Everglades Mink (<i>Mustela vison evergladensis</i>)		√ √ √ √ √ √ √
619BP	20	None		
630	80	American Alligator (<i>Alligator mississippiensis</i>) Little Blue Heron (<i>Egretta caerulea</i>) Tricolored Heron (<i>Egretta tricolor</i>) Wood Stork (<i>Mycteria americana</i>) Everglades Mink (<i>Mustela vison evergladensis</i>) Florida Panther (<i>Felis concolor coryi</i>) Florida Bonneted Bat (<i>Eumops floridanus</i>)		√ √ √ √ √ √ √
641	80	American Alligator (<i>Alligator mississippiensis</i>) Florida Sandhill Crane (<i>Grus canadensis pratensis</i>) Little Blue Heron (<i>Egretta caerulea</i>) Reddish Egret (<i>Egretta rufescens</i>) Snail Kite (<i>Rostrhamus sociabilis</i>) Tricolored Heron (<i>Egretta tricolor</i>) Wood Stork (<i>Mycteria americana</i>) Everglades Mink (<i>Mustela vison evergladensis</i>)		√ √ √ √ √ √ √
740	80	None		
743	80	None		
747	80	None		
814	80	None		

SURVEY RESULTS

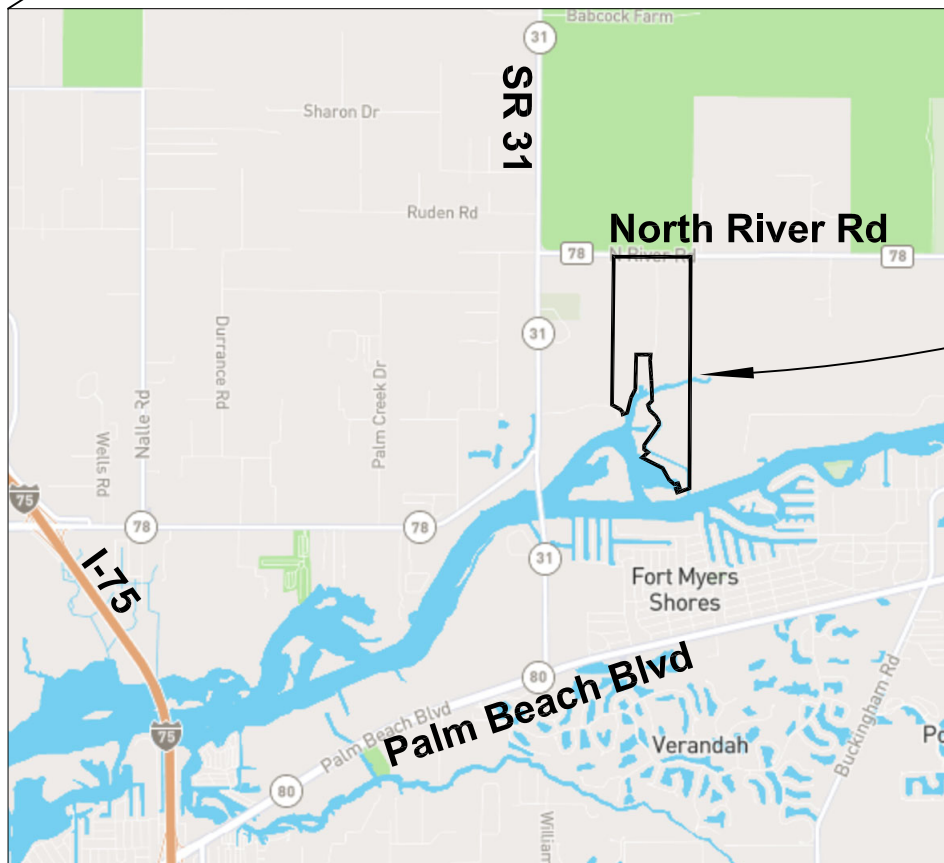
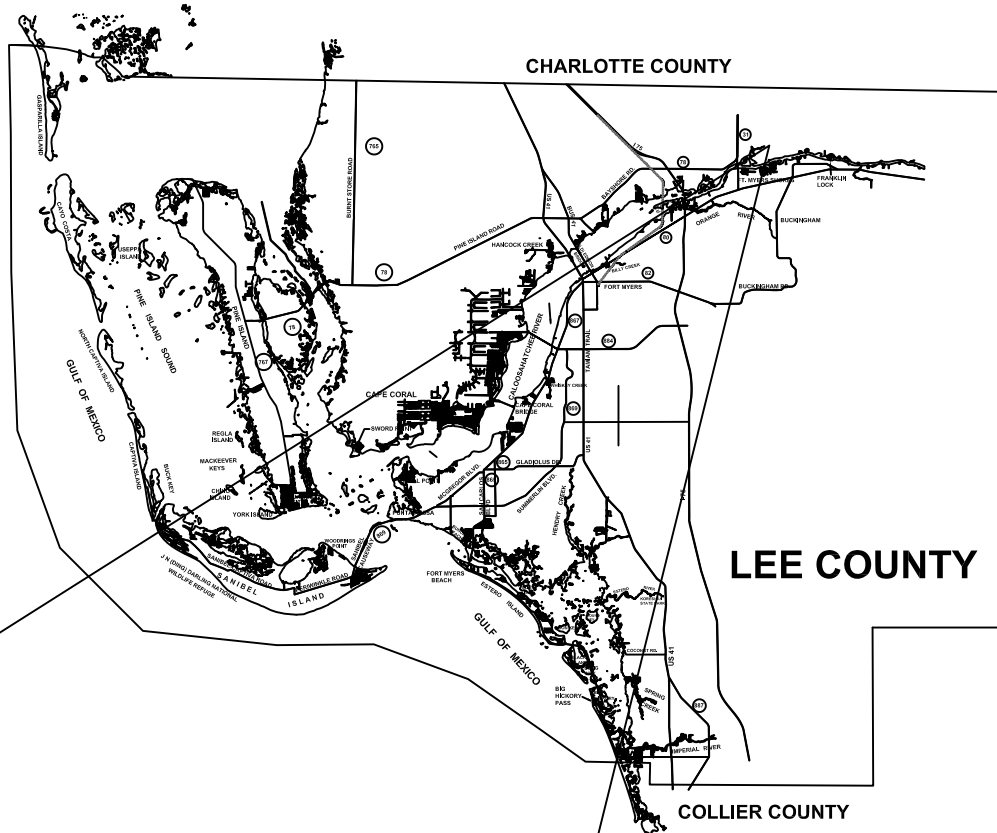
No species listed by either the FWS or the FWC were observed on the site during the protected species survey or during other site visits. There is the potential for periodic opportunistic foraging by both listed and non listed species of wading birds within the wetlands on-site. In addition to the site inspections, a search of the FWC species database (updated in 2019) revealed no additional known protected species within or immediately adjacent to the project limits.

A total of 5 snags were identified containing potential roost cavities. No cavities were found in living trees. The snags with potential roost cavities were all dead cabbage palms. All potential trees on the site within and adjacent to the impact areas were surveyed for the presence of cavities. No evidence of Florida bonneted bats or their guano was observed in or around the base of any of the potential roost cavity trees on-site.

Y:\DRHOR-455\PSA\PSA10-2020.doc

SECTION: 18 & 19
TOWNSHIP: 43 S
RANGE: 26 E

Owl Creek Parcel



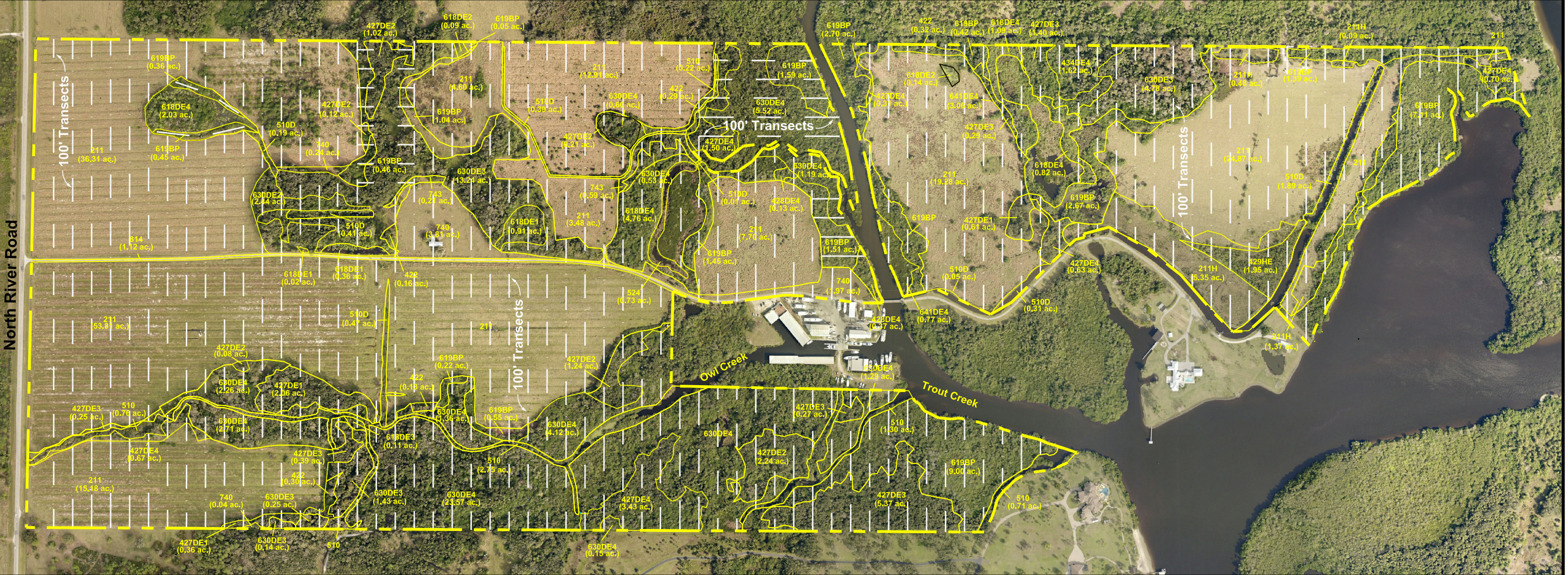
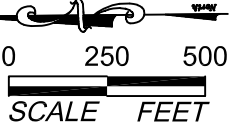
Project Location

*PERMIT USE ONLY,
NOT FOR CONSTRUCTION*

November 10, 2020 10:51:05 a.m.
 Drawing: DRHOR455LOCATION.DWG

Figure 1. Location Map

SECTIONS: 18 & 19
TOWNSHIP: 43 S
RANGE: 26 E



- Notes:
- 1. Property boundary is approximate and was obtained from the Lee County Property Appraiser's Website.
 - 2. Mapping based on photointerpretation of 2019 aerial photography and ground truthing in February 2020.
 - 3. Delineation of jurisdictional wetlands is preliminary and subject to field review/approval by applicable regulatory agencies.
 - 4. Protected species assessment conducted on October 20, 27, and 29, 2020

FOR CONCEPTUAL PLANNING PURPOSES ONLY

October 27, 2021 3:43:23 p.m.
Drawing: DRHOR455 PSA.DWG

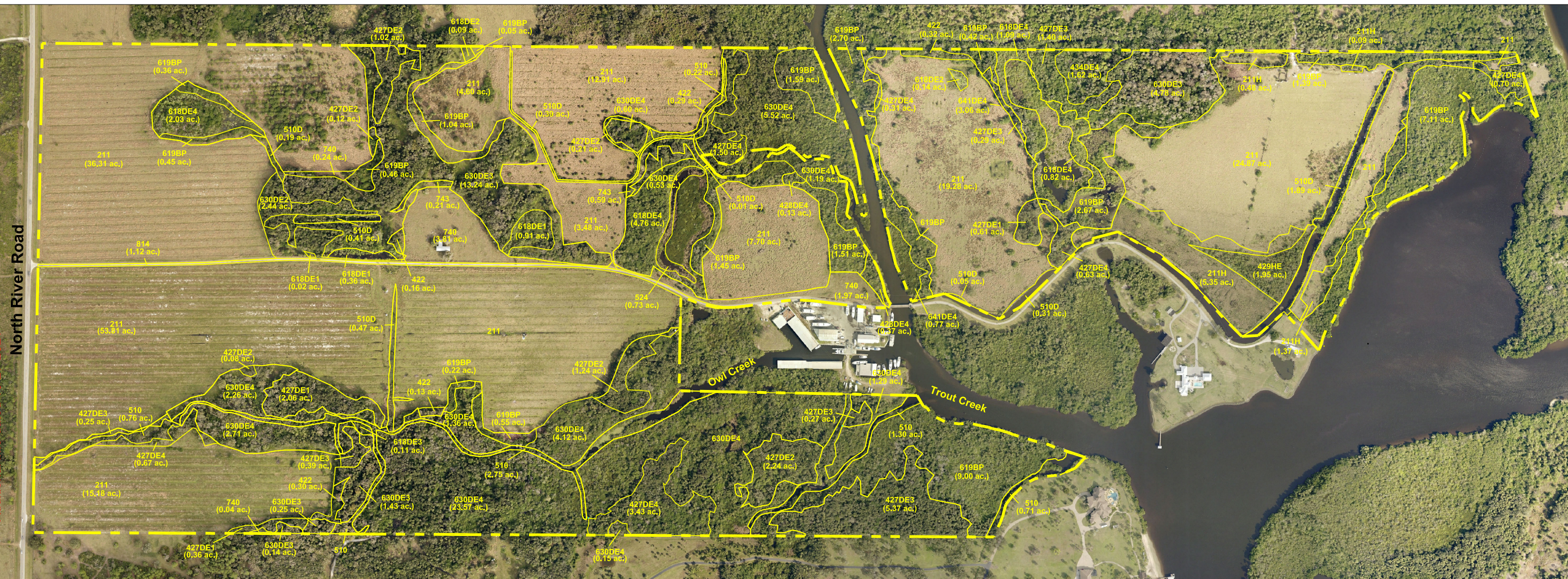
FLUCCS	Description	Acreage
211	Improved Pastures	178.11 ac.
211H	Improved Pastures - hydric	7.29 ac.
422	Brazilian Pepper	1.20 ac.
427DE1	Live Oak, Disturbed, Invaded by Exotics (10-25%)	3.03 ac.
427DE2	Live Oak, Disturbed, Invaded by Exotics (26-50%)	4.91 ac.
427DE3	Live Oak, Disturbed, Invaded by Exotics (51-75%)	7.97 ac.
427DE4	Live Oak, Disturbed, Invaded by Exotics (76-90%)	7.24 ac.
428DE4	Cabbage Palm, Disturbed, Invaded by Exotics (76-90%)	0.50 ac.
429HE	Wax Myrtle, Invaded by Exotics (5-9%)	1.96 ac.
434DE4	Hardwood- Coniferous Mixed, Disturbed, Invaded by Exotics (76-90%)	1.62 ac.
510	Streams and Waterways	5.74 ac.
510D	Ditches	3.69 ac.
524	Lakes less than 10 acres which are dominant features	0.73 ac.

FLUCCS	Description	Acreage
618DE1	Willow, Disturbed, Invaded by Exotics (10-25%)	1.29 ac.
618DE2	Willow, Disturbed, Invaded by Exotics (26-50%)	0.23 ac.
618DE3	Willow, Disturbed, Invaded by Exotics (51-75%)	0.11 ac.
618DE4	Willow, Disturbed, Invaded by Exotics (75-90%)	8.70 ac.
619BP	Hydric Brazilian Pepper	30.97 ac.
630DE2	Wetland Forested Mixed, Disturbed, Invaded by Exotics (26-50%)	2.44 ac.
630DE3	Wetland Forested Mixed, Disturbed, Invaded by Exotics (51-75%)	19.84 ac.
630DE4	Wetland Forested Mixed, Disturbed, Invaded by Exotics (76-90%)	43.30 ac.
641DE4	Freshwater Marsh, Disturbed, Invaded by Exotics (76-90%)	3.83 ac.
740	Disturbed Land	6.06 ac.
743	Spoil Area	0.80 ac.
814	Roads and Highways	1.12 ac.
Total		342.68 ac.

Figure 2. Protected Species Assessment Map

Owl Creek Reserve

A horizontal scale bar with a decorative flourish at the left end. It is marked with the numbers 0, 250, and 500. Below the bar, the word "SCALE" is written under the 0-250 segment, and the word "FEET" is written under the 250-500 segment.

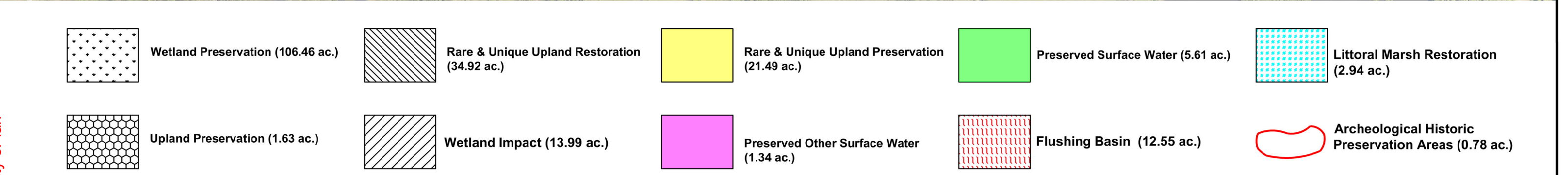
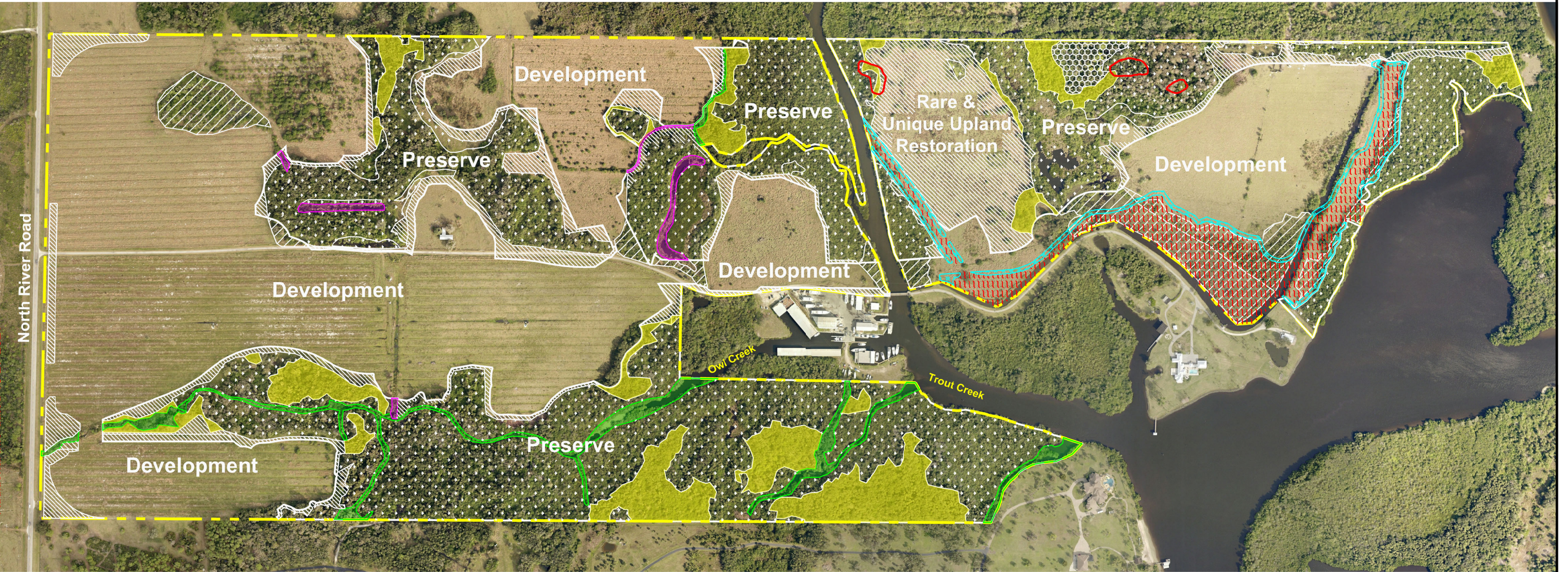


FLUCCS	Description	Acreage
*** 618DE1	Willow, Disturbed, Invaded by Exotics (10-25%)	1.29 ac.
*** 618DE2	Willow, Disturbed, Invaded by Exotics (26-50%)	0.23 ac.
*** 618DE3	Willow, Disturbed, Invaded by Exotics (51-75%)	0.11 ac.
*** 618DE4	Willow, Disturbed, Invaded by Exotics (75-90%)	8.70 ac.
*** 619BP	Hydric Brazilian Pepper	30.97 ac.
*** 630DE2	Wetland Forested Mixed, Disturbed, Invaded by Exotics (26-50%)	2.44 ac.
*** 630DE3	Wetland Forested Mixed, Disturbed, Invaded by Exotics (51-75%)	19.84 ac.
*** 630DE4	Wetland Forested Mixed, Disturbed, Invaded by Exotics (76-90%)	43.30 ac.
*** 641DE4	Freshwater Marsh, Disturbed, Invaded by Exotics (76-90%)	3.83 ac.
740	Disturbed Land	6.06 ac.
743	Spoil Area	0.80 ac.
814	Roads and Highways	1.12 ac.
	Total	342.68 ac.

FOR CONCEPTUAL PLANNING PURPOSES ONLY
October 26, 2021 9:53:17 a.m.
Drawing: DRHOR-455 VEG - WET.DWG

Owl Creek Parcel

DEXBENDER
ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680



Notes:

1. Property boundary is approximate and was obtained from the Lee County Property Appraiser's Website.

2. Development footprint provided by Banks Engineering.

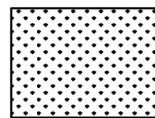
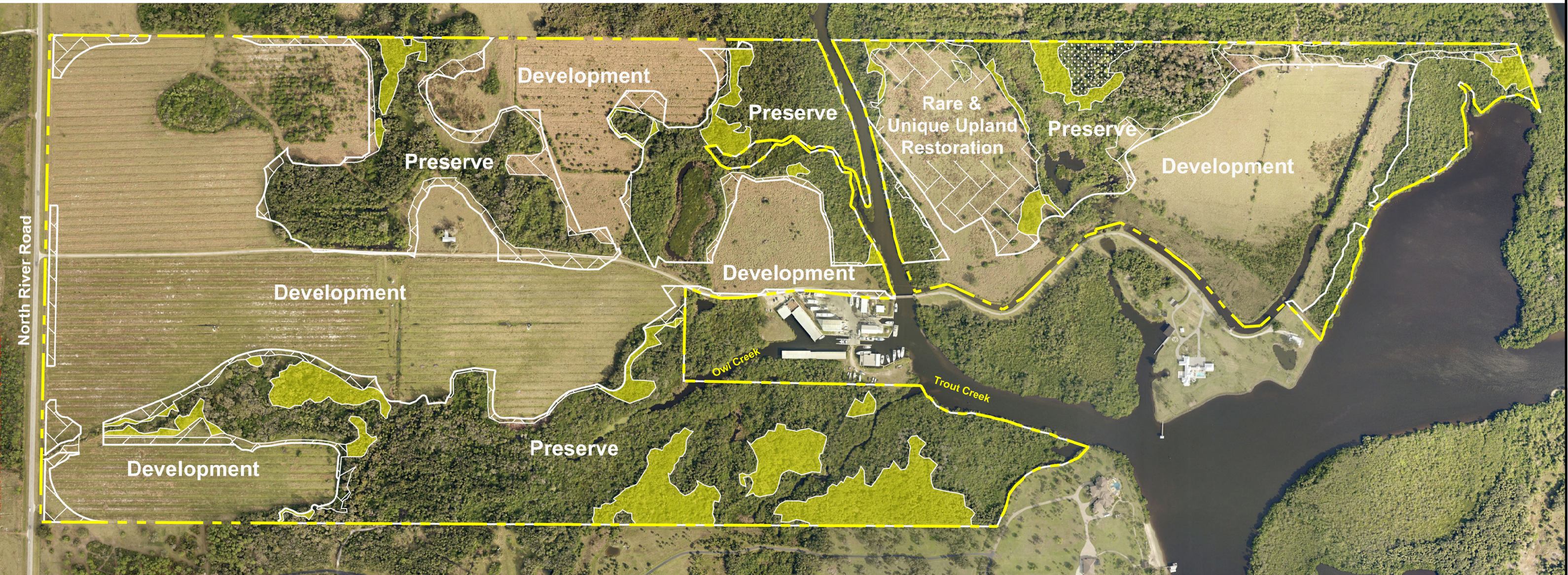
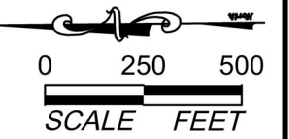
3. The rare & unique upland and wetland restoration must be complete before recording the plat containing the 325th dwelling unit.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

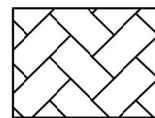
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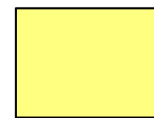
SECTIONS: 18 & 19
TOWNSHIP: 43 S
RANGE: 26 E



Upland Preservation (1.63 ac.)



Rare & Unique Upland
Restoration (34.92 ac.)



Rare and Unique Uplands
Preservation (21.49 ac.)

Notes:

1. Property boundary is approximate and was obtained from the Lee County Property Appraiser's Website.
2. Development footprint provided by Banks Engineering.
3. The rare & unique upland and wetland restoration must be complete before recording the plat containing the 325th dwelling unit.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

October 14, 2021 11:19:33 a.m.
Drawing: DRH0R-455 RARE AND UNIQUE MAP.DWG

Rare & Unique Upland Preservation Map

Owl Creek Reserve

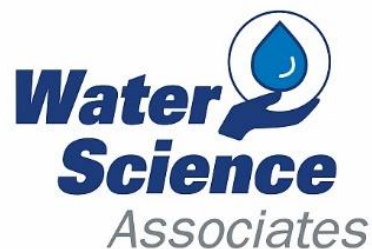
B DEXBENDER
ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

Water Resources Report Owl Creek Reserve North Olga, Lee County, Florida

Banks Engineering, Inc.
10511 Six Mile Cypress Parkway, Suite 101
Fort Myers, Florida 33966



OCTOBER 2021
(REVISED PER REVIEW COMMENTS
DATED SEPTEMBER 10, 2021)



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Fort Myers, Florida 33912
O 239.204.5300 - F 866.398.2426
www.waterscienceassociates.com

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION.....	2
GROUNDWATER RESOURCES	5
SURFACE WATER RESOURCES	8
WATER DEMANDS	10
IRRIGATION IMPACT ASSESSMENT	12
SURFACE WATER AND GROUNDWATER MONITORING PLAN	14

FIGURES

Figure 1.	Location of the Owl Creek Reserve Project
Figure 2.	Owl Creek Reserve Project Site, Regional Watershed Setting
Figure 3.	Aquifer System Underlying Owl Creek Reserve in North Lee County
Figure 4.	Typical Stormwater Management Lake
Figure 5.	Conceptual Site Plan
Figure 6.	Location of Nearby Water Level Monitoring Stations
Figure 7.	Hydrographs of Nearby Water Level Monitoring Stations
Figure 8.	Map Showing Conceptual Monitoring Locations

TABLES

Table 1.	Summary of Historic and Proposed Allocations
Table 2.	Summary of Surface Water and Groundwater Sampling Parameters

SECTION A

EXECUTIVE SUMMARY

The Owl Creek Reserve project is a proposed residential development located in Sections 18 and 19, Township 43 South, Range 26 East in North Olga, Lee County Florida. The project is situated immediately south of State Road 78 and approximately 0.5 miles east of State Road 31 between the Caloosahatchee River to the south, Babcock Ranch Community to the north, and rural and agricultural areas to the east and west. The site consists of approximately 340 acres of predominantly farm fields and undisturbed areas. The fields have a historic agricultural irrigation water use extending from the 1950's through present with water use exceeding 700,000 gallons per day from the Sandstone Aquifer.

Projected irrigation water demands for the project are lower than the historic agricultural use and proposed irrigation supplies will be developed from a combination of stormwater harvesting of the project stormwater management system with supplements from the Sandstone Aquifer. Neither of the proposed irrigation water sources are currently used or projected to be used by Lee County Utilities in the vicinity of the project area. Potable water supplies will be provided by Lee County Utilities and wastewater utility services will be provided by Florida Governmental Utility Authority (FGUA) with the privately funded expansion of services to the project site.

The proposed Owl Creek Reserve development currently lies within the North Olga Community Planning area and is designated within the Future Land Use Map (Lee Plan Map 1, page 1 of 7) as Rural and Wetland categories. The North Olga Community Planning area provides protections to the rural character of the community through restrictions on residential density. The proposed project recognizes that low-density clustered residential development is appropriate for the area and can contribute to the County's water resource improvement initiatives through enhanced onsite water management design. The project has provisions of development that achieve conservation and enhancement of important environmental resources, including water quality, hydrological, and infrastructure enhancements, and protection of the rural character of the surrounding community. The project specifically recognizes the subject property's strategic location proximate to the Caloosahatchee Estuary watershed and its ability to implement and further the County's long-term goals of protecting groundwater and improving surface water management in northern Lee County.

SECTION B INTRODUCTION

Project Overview

The Owl Creek Reserve project is an approximately 340 acre proposed residential development located in Sections 18 and 19, Township 43 South, Range 26 East in North Olga, Lee County Florida within the North Olga Community Planning area. Refer to **Figure 1** for a regional location map of the project site. The property was formerly used for agricultural purposes and consists of fallow farm fields and heavily impacted wetland areas. The project historically maintained an agricultural water use permit and currently maintains a livestock water use permit for the Blackburn Groves project.

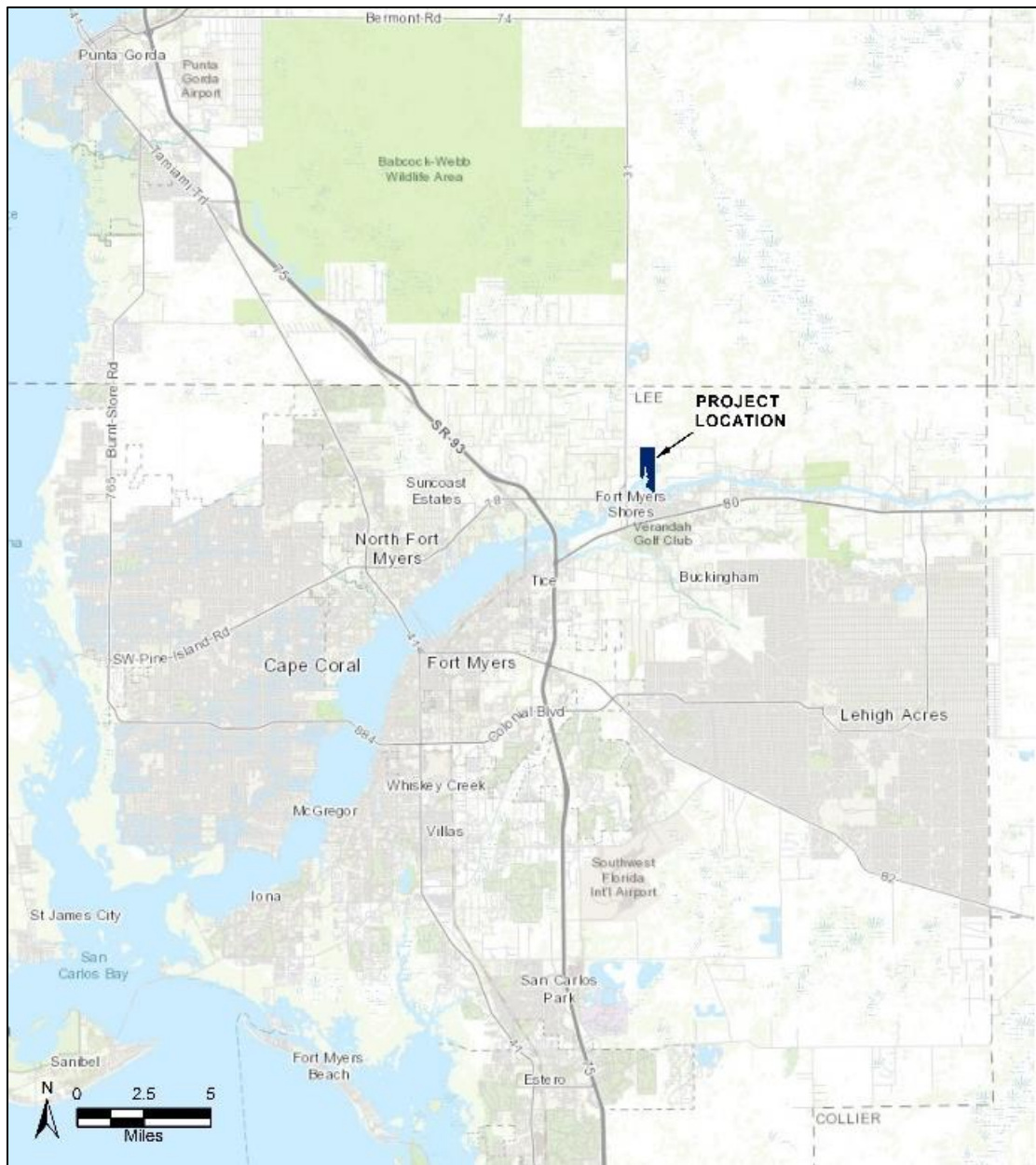


Figure 1. Location of the Owl Creek Reserve Project

The project is situated immediately south of State Road 78 and approximately 0.5 miles east of State Road 31 between the Caloosahatchee River to the south, Babcock Ranch Community to the north, and rural and agricultural areas to the east and west. The project lies within the Tidal North watershed and the Trout Creek sub-watershed of the Caloosahatchee Estuary (**Figure 2**). Tributaries of the Caloosahatchee Estuary watershed including Trout Creek and Owl Creek, flow through the project area from the north and northeast. The Owl Creek Reserve project will include a number of stormwater management lakes to provide improved flood management and water quality treatment of stormwater runoff. A number of onsite design and control features are planned to protect and enhance the water quality in the onsite lakes prior to leaving the development into the adjacent watersheds. The stormwater management system will be designed to meet or exceed state and local water quality standards.

Past Land Use and Water Use

The Owl Creek Reserve project falls within three parcels that have been used in the past for agricultural production. The project site was largely undisturbed land until the early 1950's when it was converted to agricultural use. Review of aerial photography indicates that active agricultural activity continued through the mid to late 2000's. The project site, known as Blackburn Groves, maintained a water use permit (WUP No. 36-00594-W) for irrigation through the South Florida Water Management District (SFWMD) since the mid 1980's. Information on file with the SFWMD indicates that the farm irrigated up to 115 acres of citrus groves until October 1996 when the permit was allowed to expire. The permit was renewed in 2008 for the continued agricultural operations and most recently modified in 2013 for the conversion of citrus grove irrigation to a livestock water supply. The current water use permit allocates about 0.076 million gallons on a maximum monthly basis and 0.92 million gallons on an annual average basis. Permitted allocations are from the Sandstone Aquifer via two existing groundwater wells. Prior to the conversion to livestock water supply, the facility was permitted for a peak allocation of 22.6 million gallons per month (0.73 mgd) on a maximum monthly basis and 105 million gallons per year (0.29 mgd) on an annual average basis.

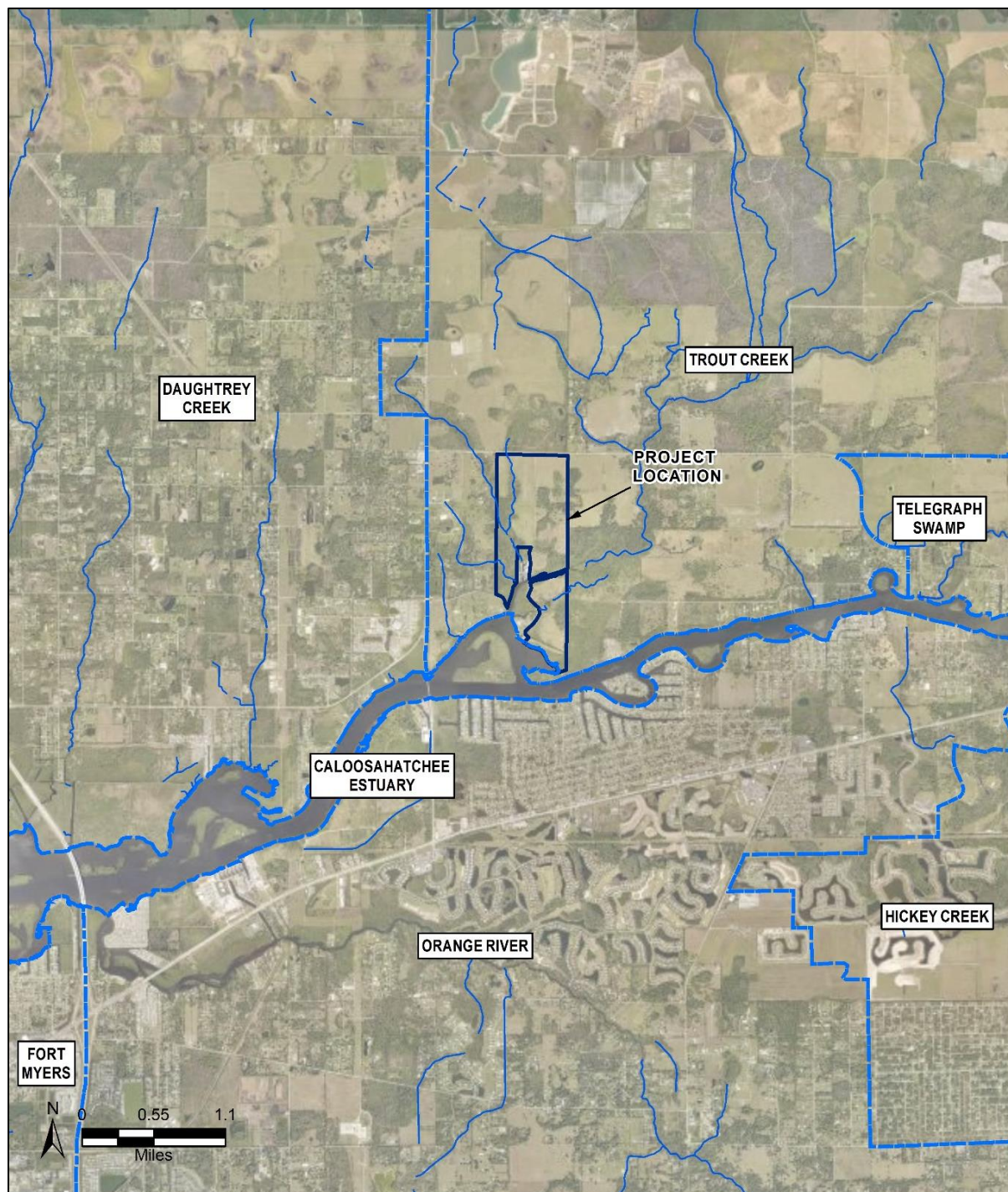


Figure 2. Owl Creek Reserve Project Site, Regional Watershed Setting

SECTION C

GROUNDWATER RESOURCES

Introduction

The hydrostratigraphy underlying the Owl Creek Reserve project is typical for northern Lee County with a series of aquifers and confining beds occupying the Surficial, Intermediate, and Floridan Aquifer Systems. **Figure 3** provides a schematic showing the groundwater sources in north Lee County. In general, freshwater sources are the Water Table and the Sandstone Aquifers. The underlying Mid-Hawthorn Aquifer of the Intermediate Aquifer System is slightly to moderately brackish and generally low yielding and inconsistent in occurrence and continuity in the project area. Highly brackish and saline water sources include the Lower Hawthorn Aquifer and underlying zones of the Upper Floridan Aquifer.

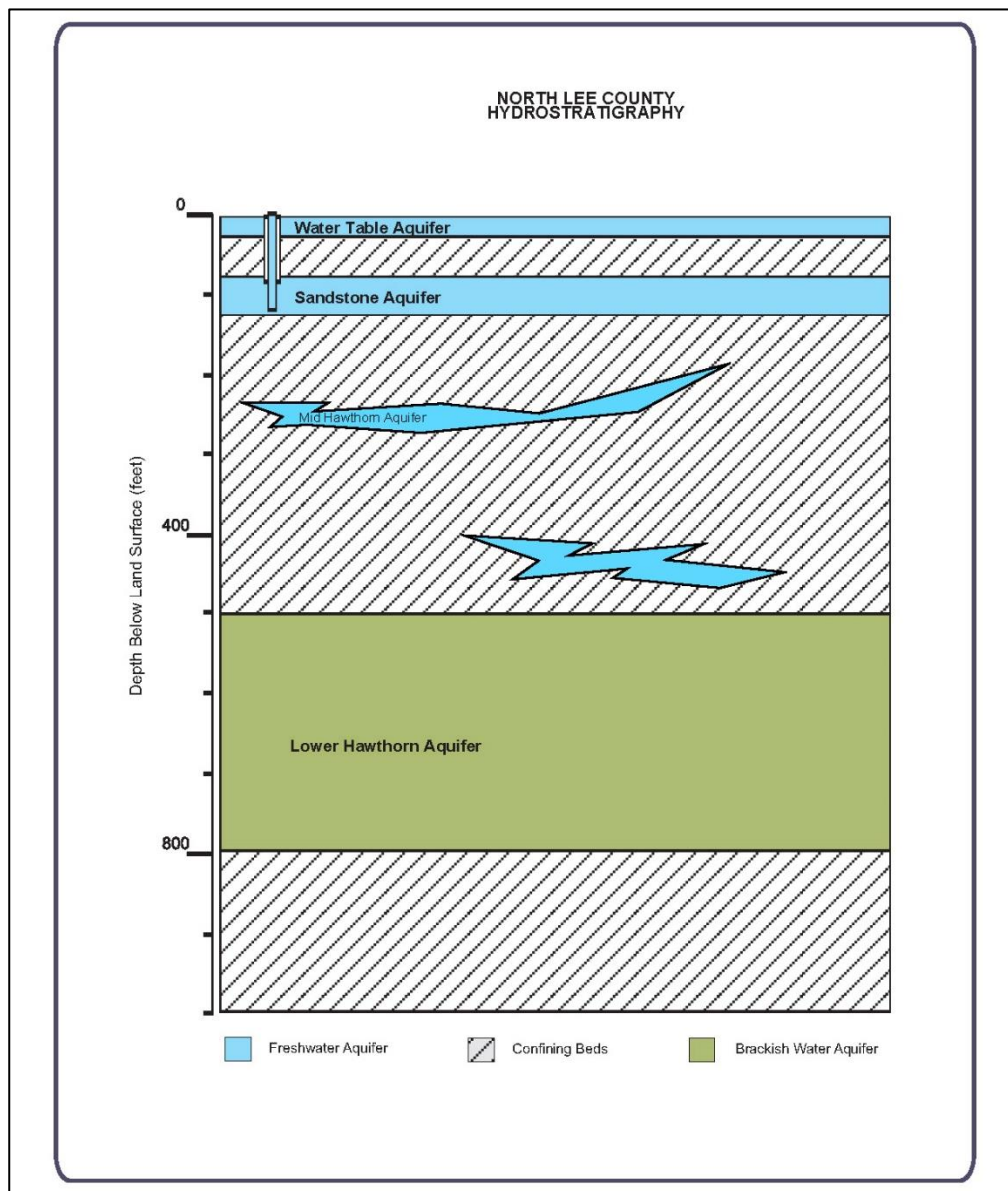


Figure 3. Aquifer System Underlying Owl Creek Reserve in North Lee County

Four primary aquifers are of significance beneath the Owl Creek Reserve project site and are described below in order of increasing depth. These are the Water Table, the Sandstone, the Mid-Hawthorn, and the Lower Hawthorn Aquifers. Deeper underlying aquifers are too saline for direct use at the site. The primary sources of information used to characterize the groundwater resources include information from Lee County, South Florida Water Management District, and U. S. Geological Society.

Water Table Aquifer

The Water Table aquifer is an unconfined aquifer that covers all of Lee County. The aquifer is defined as occurring at or near land surface downward to the top of the first regional confining bed. Beneath the Owl Creek Reserve project, the thickness of the aquifer is approximately 10 to 20 feet. The aquifer generally consists of sand and shell overlying porous limestone beneath the project site. The limestone portions of the aquifer typically have a moderate to low permeability and relatively thin in the project area making the aquifer unsuitable for medium to large capacity water production wells. Further the Water Table Aquifer in the vicinity of the project site is over drained by the influences of its topography and vicinity to the Caloosahatchee River. Use of the aquifer is typically limited by the potential for impacts to natural wetland areas from drawdown in the aquifer water level. The aquifer is recharged directly by rainfall with discharges occurring by way of natural or man-made surface drainage features, evaporation and transpiration, and by pumpage from wells. Groundwater flow and levels in the aquifer fluctuate seasonally in response to climatic conditions but are also impacted by local and regional drainage features. Water quality in the aquifer is generally very good and useful for both drinking water and irrigation water needs although high concentrations of naturally occurring iron and organic material are common. Lake extraction is the most efficient use of this aquifer for irrigation purposes, which also typically results in less iron and organic staining, as well as reduced impact to area water levels. Approximately 60-80 feet of confining beds consisting of low permeable clays and silts of the Upper Hawthorn Confining unit are encountered at the base of the Water Table Aquifer.

Sandstone Aquifer

The Sandstone Aquifer underlies the Hawthorn Confining unit and Water Table Aquifer in the northern portion of Lee County. Review of lithologic logs of nearby wells indicates that in the area of the project site, the top of the Sandstone is expected to occur approximately 100 feet below land surface. The Sandstone Aquifer is the uppermost aquifer in the Intermediate Aquifer System and consists of unconsolidated sands and poorly consolidated sandstone. The unit varies in thickness in the area of the project site, ranging from about 30 and 45 feet. The Sandstone aquifer is predominately fresh and can become slightly to moderately brackish closer to the Caloosahatchee River. Salinities however, are generally low enough for either general irrigation supply or blending with fresher water sources for irrigation supply. Productivity of the aquifer is moderate and is the typical water source used in the area of the Owl Creek Reserve project. The aquifer is recharged where overlying confining beds are thin or absent in Hendry and Glades County. Discharge from the aquifer generally occurs as pumpage from wells. Fluctuations in seasonal water levels are common near the Owl Creek Reserve project project site with wet season levels near their historic highs (near land surface) and dry season water levels often at depths of 10 feet. However, dry season water levels can be found at depths of excess of 30 feet in the Lehigh Acres area due to excessive usage. Use of the Sandstone Aquifer to supplement stormwater from the onsite lake system is proposed to meet irrigation demands at the Owl Creek Reserve project.

Mid Hawthorn Aquifer

The Mid-Hawthorn Aquifer is the lowermost aquifer in the Intermediate Aquifer System in Lee County. It consists of moderately permeable limestones of the Arcadia Formation and is separated from the overlying Sandstone Aquifer and underlying Lower Hawthorn Aquifer by thick clay confining beds of the Peace River and Arcadia Formations. It has moderate yield characteristics in western Lee County and exists as a sequence of interbedded limestones and marls that occur at depths between 200 and 300 feet below land surface. The interbedded limestone units generally thin moving eastward in north Lee County, making the aquifer unsuitable for medium to large capacity water production wells. This aquifer is recharged north of Charlotte County where the aquifer is much nearer to land surface and overlying confinement is thin or nonexistent.

Lower Hawthorn Aquifer

The Lower Hawthorn Aquifer is the uppermost water bearing unit in the Upper Floridan Aquifer System. The aquifer has good yield potential but contains brackish water that is only useful for irrigation if blended with other freshwater resources and is only useful for public water supply using reverse osmosis or other desalination technologies. The top of this aquifer is anticipated to be encountered at depths between about 500 and 600 feet below grade at the Owl Creek Reserve project site. The aquifer is separated from the overlying Mid-Hawthorn Aquifer by the Lower Hawthorn Confining Zone which consists of marine silts and clays of very low permeability. The Lower Hawthorn Confining Zone has a thickness of about 200 feet. The aquifer is recharged in the central Florida highlands area between Tampa and Orlando where the aquifer beds are near land surface and confining beds are thin or absent. In general, the South Florida Water Management District supports increased use of the Lower Hawthorn/Upper Floridan aquifer especially for public water supply use. Lee County Utilities uses the Lower Hawthorn Aquifer to feed a reverse osmosis water treatment plant for development of public water supply. The Owl Creek Reserve project proposes no use of the Lower Hawthorn Aquifer.

SECTION D

SURFACE WATER RESOURCES

Onsite Lakes

The development will include stormwater management lakes to provide flood control and water quality treatment. A number of design and control features are planned for the Owl Creek Reserve project to protect and enhance the quality of water in the lakes and adjacent watersheds and provide for hydrological improvements on the project site (refer to **Figure 5** for a conceptual site plan). These elements include collection, treatment, and conveyance of stormwater within the project's water management system, the use of filter marshes, and other water treatment BMP's, and centralized control over the application of irrigation water.



Figure 4. Typical Stormwater Management Lake

The stormwater management system will include the collection and detention of all stormwater generated on the site and will provide stormwater treatment through various dry and wet detention elements within the development footprint that meet or exceed water quality requirements of the South Florida Water Management District, the Florida Department of Environmental Protection, and Lee County. The Owl Creek Reserve project will include a Lake Management Plan following BMP's for erosion control and bank stabilization; deep lake management; and fertilizer and pesticide use to reduce nitrogen and phosphorous loading to the stormwater management system. Additionally, the project will incorporate multiple required best management practices to ensure a maximum potential treatment stormwater including a water quality treatment train consisting of a combination of sediment traps, dry / wet detention, and planted filter marshes that provides a high level of treatment of both onsite generated stormwater and regional flow-through of surrounding area watersheds.

Centralized control of the operation of the irrigation system results in improved adherence to Best Management Practices and water use compliance than if individual homeowners have control of these functions or the ability to override irrigation programming. Application of fertilizers and pesticides within the common areas in the yards of lots/parcels will be controlled and managed by the Homeowners Association. Similarly, the irrigation of residential lots and common areas will be centrally controlled to meet conditions of applicable water use permits, local ordinances, and periodic water use restrictions. Individual homeowners will not have the ability to override irrigation times or quantities.

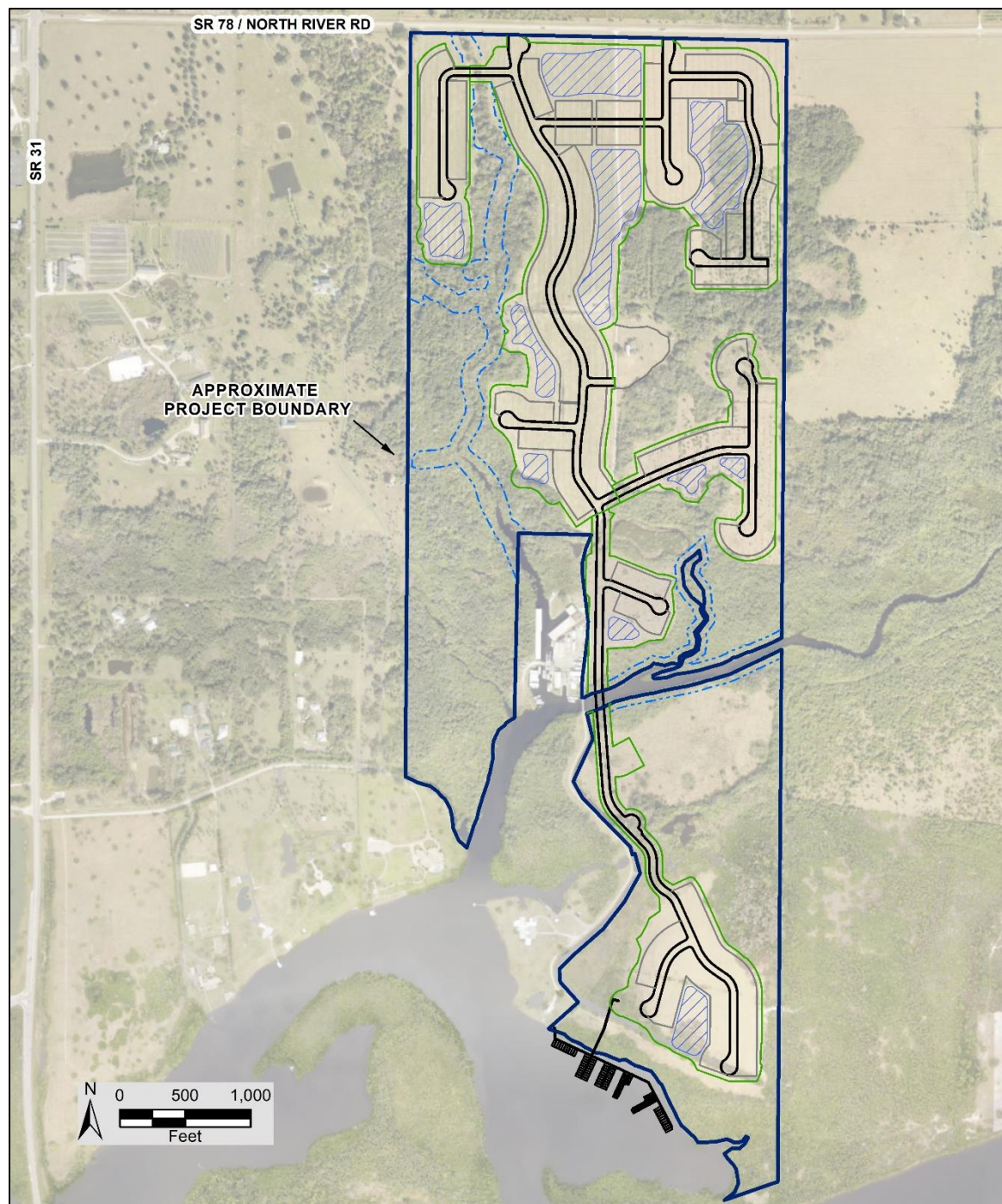


Figure 5. Conceptual Site Plan

SECTION E

WATER DEMANDS

Water demands at the proposed project will consist of in-house potable water and outside irrigation uses. An amendment to Lee County's Future Water Service Areas, Lee County Utilities (Lee Plan Map 6) is proposed to include the Owl Creek Reserve project to allow for privately funded expansion of water service to the development. Potable water service will be provided by Lee County Utilities and Wastewater service will be provided by Florida Governmental Utility Authority (FGUA) with privately funded expansion of the utility services. Irrigation demands will be met with onsite sources including harvesting stormwater from the onsite stormwater lake system with re-supply by groundwater withdrawals. The lake withdrawals will provide an efficient and low impact method for tapping the Water Table Aquifer underlying the project site and effectively harvest available stormwater supplies. Lake volume storage will minimize potential impacts to surface and groundwater levels. Recharge of the lakes from the Sandstone Aquifer will minimize the potential for wetland impacts and provide an effective blending system for slightly brackish water known to occur in the aquifer near the River. The project has a long history of permitted agricultural withdrawals from the Sandstone Aquifer that are larger than the proposed irrigation demands for the Owl Creek Reserve project.

Potable Water and Wastewater

Lee County Utilities and FGUA will provide potable water and wastewater services respectively to the project. This will eliminate the need for individual domestic self-supply wells and individual onsite sewage treatment and disposal systems (septic tanks) which are common for many rural areas of Lee County. Provision of central public utilities to the Owl Creek Reserve project will provide a number of desirable environmental and hydrological advantages. Supplying potable water to the project from the nearby water treatment facility will remove a potentially competing water use from the freshwater aquifers and allow for improved planning and control of area water resources. Similarly, provision of a central sewer system will eliminate septic tank discharges in the area providing a higher level of protection to the existing water resources.

Irrigation Water

The project was historically permitted for Sandstone Aquifer withdrawals for agricultural production. Water use permit WUP No. 36-00594-W was established in the mid 1980's and later modified in 2013 for the conversion of citrus grove irrigation to a livestock water supply. The current water use permit allocates about 0.076 million gallons on a maximum monthly basis and 0.92 million gallons on an annual average basis. Permitted allocations are from the Sandstone Aquifer via two existing groundwater wells. Prior to the conversion to livestock water supply, the facility was permitted for 0.73 million gallons per day on a maximum monthly basis and 0.29 million gallons per day on an annual average basis.

The Owl Creek Reserve project will include stormwater management lakes that are hydraulically connected to the Water Table Aquifer. The proposed irrigation system will consist of stormwater harvesting from the stormwater lake management system with these withdrawals re-supplied by groundwater. The proposed source of groundwater to supplement lake withdrawals will be fresh to mildly brackish groundwater from the Sandstone Aquifer. Actual percentages of lake and groundwater withdrawals will be determined during the water use permitting process with the SFWMD. However, the combination of any use of mildly

brackish groundwater and fresh stormwater will maintain a chloride level of less than 200 mg/l in compliance with SFWMD policy. Use of stormwater as a primary irrigation resource reduces use of potable water supplies, provides additional stormwater treatment, reduces offsite discharges of stormwater, reduces nutrient levels of the stormwater outfalls, and reduces reliance on groundwater systems being used to supply potable water to Lee County Utilities and home sites on individual wells.

Irrigated area for the Owl Creek Reserve project is estimated to be 70 acres of turf grass and landscaping. Using standard Blaney-Criddle calculations used by the SFWMD for irrigation supply permitting, this acreage will result in irrigation water demands of 11.27 million gallons per month (MGM) on a maximum monthly basis (or about 0.36 million gallons per day) and 80.15 million gallons per year on an average annual basis (0.22 million gallons per day). **Table 1** provides a summary of historic water use on the property and proposed allocations for the Owl Creek Reserve project. Projected irrigation demands for the Owl Creek Reserve project indicate a reduction in the historic maximum monthly use by approximately 50%.

Table 1. Summary of Historic and Proposed Allocations.

Allocation	Historically Permitted 36-00594-W	Currently Permitted 36-00594-W	Proposed Total Allocations	Change from Historic Allocations	Change from Current Allocations
Maximum Monthly (MGM)	22.6 MG	0.08 MG	11.27 MG	-11.33 MG	+11.19 MG
Annual Average (MGY)	105 MG	0.92 MG	80.15 MG	-24.85 MG	+79.23 MG

The proposed project will also explore the use of computerized irrigation systems that incorporate onsite data and conditions to provide irrigation on an as-needed bases rather than simply on a scheduled basis. Such systems have been shown to result in reductions in irrigation water use by over 30% in Southwest Florida. In general, these systems operate based on computer software that takes into account soil moisture, rainfall, and elements that influence evaporation and transpiration to determine which locations require irrigation, how much irrigation is needed, and when to apply irrigation water.

SECTION F

IRRIGATION IMPACT ASSESSMENT

Water Levels

Water Science Associates reviewed hydrographs of nearby monitoring wells maintained by Lee County Division of Natural Resources (LCDNR) and surface water data maintained by the SFWMD for the Caloosahatchee River Station (S79_T), located approximately 3.5 miles east of the project and west of the Franklin Lock site shown on **Figure 6**. The nearest wells to the project site with long term water level data (1992 to present) are 27-GW2, located about 1.25 miles northwest of the project site in the Trout Creek sub-watershed and wells 26-GW2 and 26-GW1 located about 1.6 miles west and 1.1 miles southwest of the project site respectively in the Daughtrey Creek sub-watershed, was also reviewed.

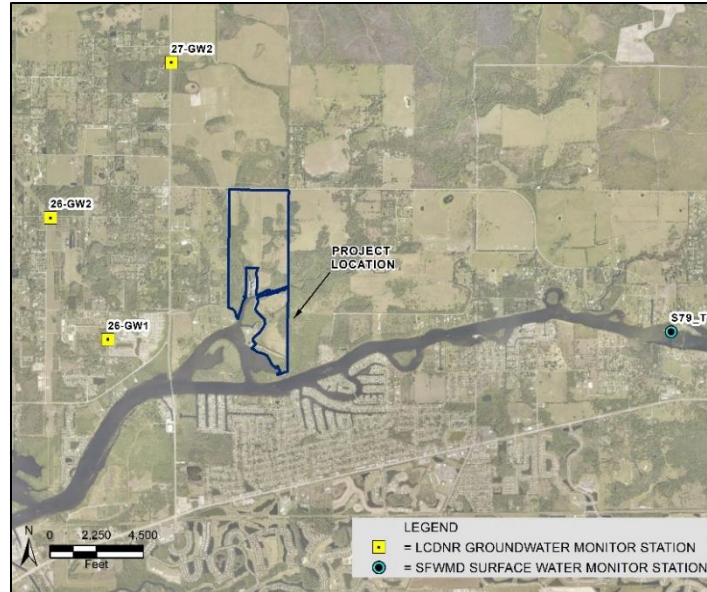


Figure 6. Location of Nearby Water Level Monitoring Stations

The topography in the area of the project site, which influences water elevations, drops significantly from north to south approaching the tidally influenced Caloosahatchee River. In the vicinity of the project site, water level elevations generally range between 0 and 5 feet below land surface depending upon season. The Caloosahatchee Estuary sub-watershed acts as a natural drainage feature for the surrounding areas including surface water from the Trout Creek and Owl Creek within the project area. Groundwater elevations in the upstream monitoring well (27-GW2) show water levels ranging seasonally between +18 and +23 feet NAVD88 with a slight decline trending over the period of record from 1992 to present. Groundwater elevations in well 26-GW2, located laterally to the west of the project site show season water levels ranging between +13 and +18 feet NAVD88 with a steady range over the period of record from 1996 to present. The downstream monitor well 26-GW1 shows seasonal water levels ranging from 0 and +5 feet NAVD88 reflecting close proximity to regional drainage feature of the Caloosahatchee River. This data shows a steady range over the period of record from 1996 to present. Surface water elevations from the Caloosahatchee River Station S79_T show elevations ranging from -2 feet NAVD to +3 feet NAVD88 and a rising trend for the period of record from late 1990 to present.

One hundred percent of the irrigation withdrawals from the stormwater lake management system will be re-supplied with groundwater from the Sandstone Aquifer. Therefore, there is no impact on the water levels in the Water Table Aquifer from the proposed use. Additionally, the project's water management system will provide enhanced water quality treatment and storage thereby providing a positive impact to groundwater recharge and regional water quality.

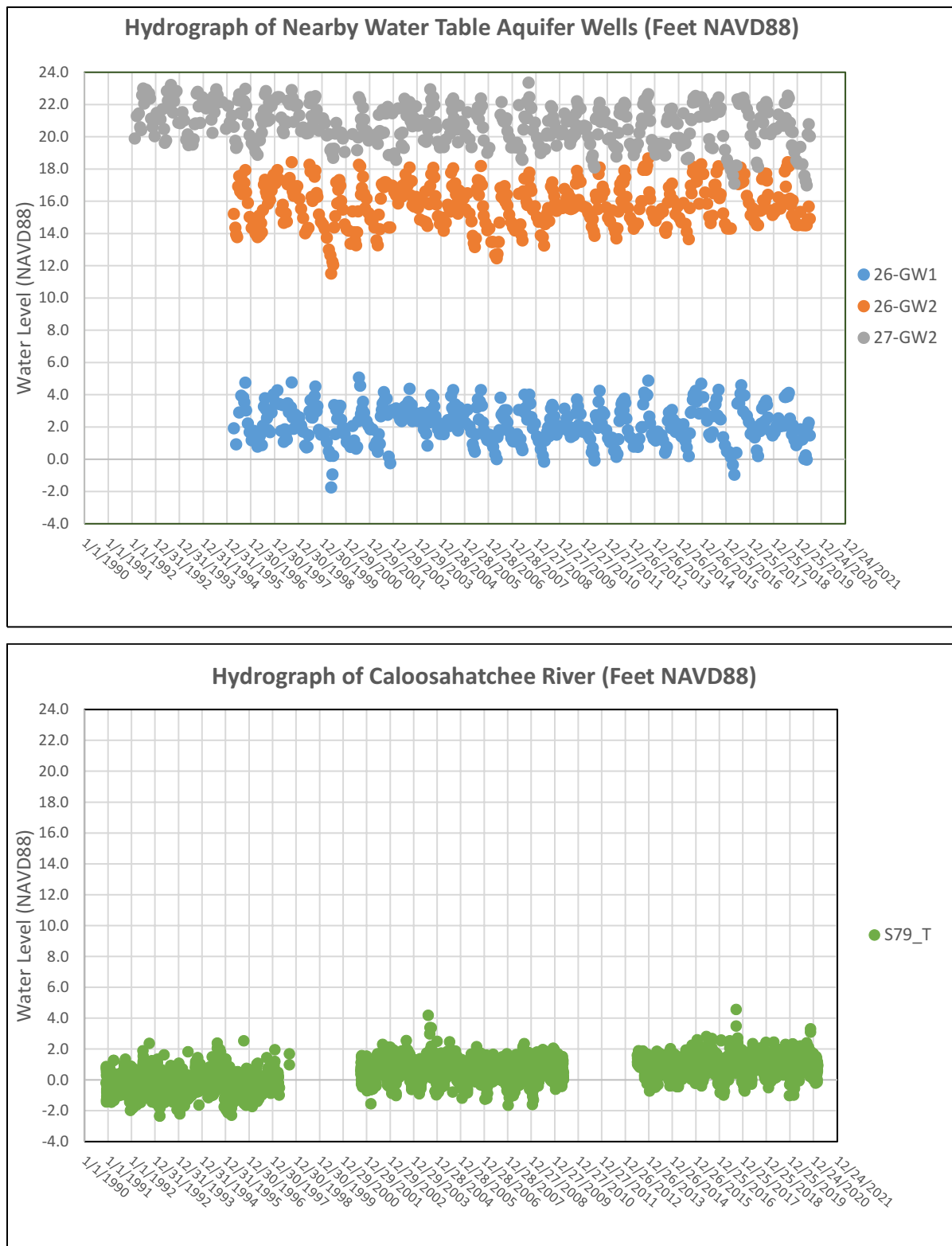


Figure 7. Hydrographs of Nearby Water Level Monitoring Stations

SECTION G

SURFACE WATER AND GROUNDWATER MONITORING PLAN**Purpose**

This Surface Water and Groundwater Monitoring Plan will be initiated to establish baseline conditions for the project site and to quantify potential adverse impacts as a result of the proposed residential development. The Surface Water and Groundwater Monitoring Plan includes sampling locations, sampling frequency, reporting requirements, and evaluations of the water level and water quality within the Owl Creek Reserve project site. The proposed monitoring plan may be further refined during the Development Order process that may include additional or removal of groundwater and/or surface water sampling locations.

Monitoring

The Surface Water and Groundwater Monitoring Plan includes the installation of two shallow monitor wells tapping the upper portion of the Water Table Aquifer (WT-1 & WT-2), a deeper monitor well tapping the upper portion of the Sandstone Aquifer (SS-1), up to seven surface water sample locations (typical outfall locations), and one staff gauge installed within the irrigation withdrawal lake (SG-1) upon operational completion. Refer to **Figure 8** for a map showing the proposed monitoring locations of the Surface Water And Groundwater Monitoring Plan including proposed irrigation withdrawal facilities. All monitor wells and the staff gauge will be equipped with electronic water level transducers set to record water levels every 6 hours. Surface water and groundwater monitoring parameters are provided in **Table 2** and include contaminant target levels where applicable for surface water and groundwater.

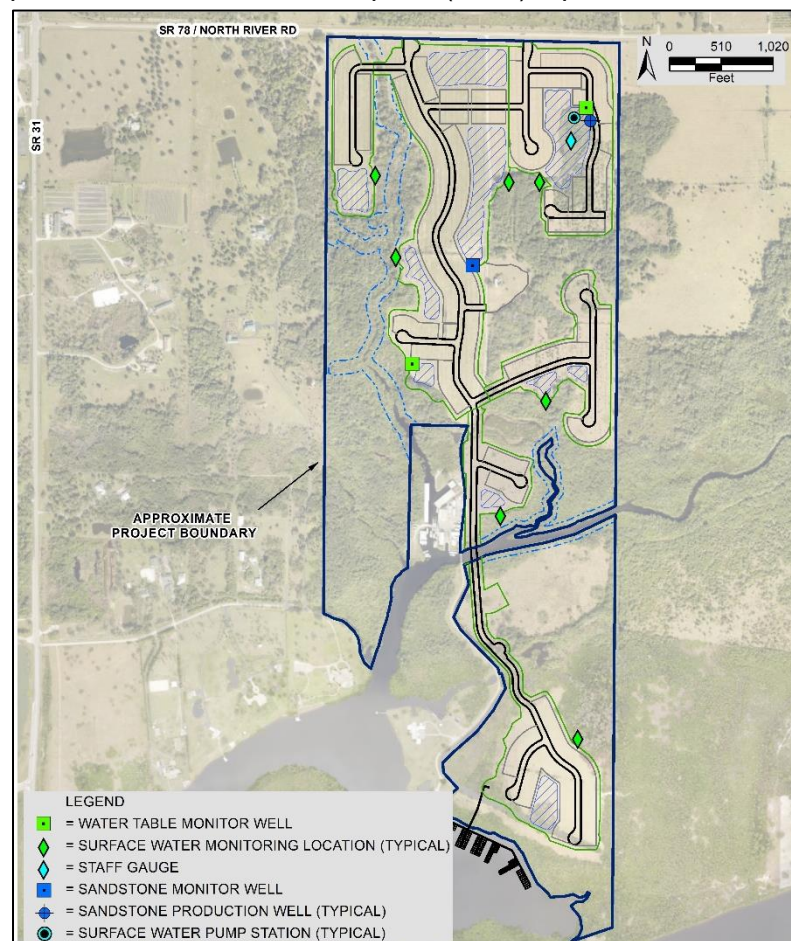


Figure 8. Map Showing Conceptual Monitoring Locations

The proposed Surface Water and Groundwater Monitor Plan includes a baseline sampling event followed by subsequent quarterly sampling events. Two quarterly sampling events will be performed during the wet season (June through September) and two sampling events will be performed during the dry season (October through May).

Quality Assurance

Water samples will be collected and handled following protocols contained in Florida Department of Environmental Protection (FDEP) Quality Assurance Rule F.A.C. 62-160 and adopted as the 2014 FDEP Standard Operating Procedures for Field Activities (DEP-SOP-001/01), effective 7/30/2014. Water Quality samples will be collected from both monitor wells and the staff gauge monitoring station. One field blank and a field duplicate will be collected during each sampling event for quality assurance purposes. Chain of custody forms and laboratory analysis reports will be provided in corresponding quarterly reports.

Water samples will be tested by a certified laboratory under the National Environmental Laboratory Accreditation Program (NELAP) using approved test methods and QA testing requirements (i.e. blanks, sample duplicates, surrogates, matrix spikes etc.) as contained in F.A.C 62-160 QA Rules.

Table 2. Summary of Surface Water and Groundwater Sampling Parameters

PARAMETER	UNITS	BASELINE	Quarterly	Groundwater Target Level	Surface Water Target Levels	ANALYSIS TYPE
Total Kjeldahl Nitrogen (TKN)	mg/L as N	x	x	NA	NON-NUMERIC	Laboratory
Ammonia (un-ionized)	mg/L as N	x	x	NA	0.02	Laboratory
Nitrite+Nitrate as Nitrogen (NOX)	mg/L as N	x	x	10	NON-NUMERIC	Laboratory
Nitrite	mg/L as N	x		1	NON-NUMERIC	Laboratory
Nitrate	mg/L as N	x		10	10	Laboratory
Total Phosphorus	mg/L as P	x	x	NA	NON-NUMERIC	Laboratory
Chloride	mg/L	x	x	250	250	Laboratory
Total Dissolved Solids (TDS)	mg/L	x	x	500	500 Average	Laboratory
Florida PRO (TRPH)	µg/L	x		5000	5000	Laboratory
Arsenic	µg/L	x		10	10	Laboratory
Copper	µg/L	x	x	1000	NON-NUMERIC	Laboratory
Mercury	µg/L	x	x	2	12	Laboratory
Lead	mg/L	x	x	0.015	NON-NUMERIC	Laboratory
E. coli	MPN/100mL	x	x	NA	200 Average	Laboratory
Total Hardness	mg/l	x	x	NA	NA	Laboratory
Temperature	C	x	x	NA	NA	Field
Specific Conductance	mhos/cm	x	x	NA	1275 or <50% Increase	Field
pH	pH units	x	x	6.5-8.5	1 unit from background	Field
Dissolved Oxygen (DO)	mg/L	x	x	NA	>5.0	Field
Lake Stage	ft NAVD	x	x	NA	NA	Field/Recorder
Water Table Aquifer Elevation	ft NAVD	x	x	NA	NA	Field/Recorder
Sandstone Aquifer Elevation	ft NAVD	x	x	NA	NA	Field/Recorder

NA=Not Applicable

Note - Groundwater Target Levels per Chapter 62-550 and Rule 62-520.420, FAC with exception of FL-PRO. FL-PRO is a petroleum screening parameter with a target level of 5 mg/l listed in Chapter 62-777, FAC. Surface Water Target Levels per Chapter 62-302.

Water Monitoring Reporting and Analysis

The Quarterly Surface Water and Groundwater Monitoring Reports will provide evaluation of the analytical results and include conclusions and recommendations. The Quarterly Reports will include a continuous hydrograph of the recorded water levels and updated tables of quarterly water quality sampling results. The data will be reported to the Lee County Department of Natural Resources (LCDNR) in their approved comma delimited electronic format within 30 days of receipt of results from the laboratory. Conclusions and recommendations will be based on applicable target levels and statistical analyses and trends of measured constituents.

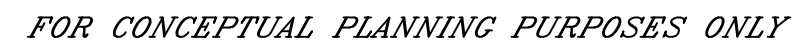
Results of water sampling will be compared to applicable target levels, if listed. Parameters that do not have numeric target levels will be evaluated for trends. The surface water and groundwater laboratory results will undergo statistical analyses for the development of conclusions and recommendations within the Surface Water and Groundwater Monitoring Reports. Statistical methods to be used include determination of standard deviations, linear regressions, and calculation of confidence intervals. Once a sufficient data population of laboratory results of sample analyses has been compiled, these statistical tools will be employed to assist in analyzing the data to identify trends and aid in identifying potential concerns.

Once sufficient data is obtained, a 95% confidence interval and a standard deviation value will be calculated and updated with each sampling event. If an analytical result falls outside either the 95% confidence interval, or two standard deviations from the mean, the data will be further evaluated to aid in determining potential anomalous data. Additionally, a linear regression analysis will be performed on each data set to signify trends in the data. If the r^2 value of the regression analysis falls below 0.8, further investigation will be performed to determine the cause of the variability in the results. If the variability is due to seasonal variations, the data will be segregated into seasonal sets, and linear regression analysis will be performed separately on each set, with the above parameters followed.

Should indications of water level or water quality concerns be identified by exceeding target levels or through statistical trend analyses, site conditions will be reviewed and assessed and if indicated, additional samples will be collected. Following any re-sampling event, the LCDNR will be notified of necessary corrective actions. Should potential areas of concern be identified, the Applicant will coordinate with the LCDNR to aid in identifying potential causes and potential needs to modify monitoring parameters, frequency, and/or reporting.

Water Quality Monitoring will continue for a minimum of 5 years from the date of completion of the stormwater management system. After 5 years of meeting or exceeding state water quality monitoring standards, the developer may amend or discontinue water quality monitoring and reporting after written request, review, and approval by Lee County Division of Natural Resources.

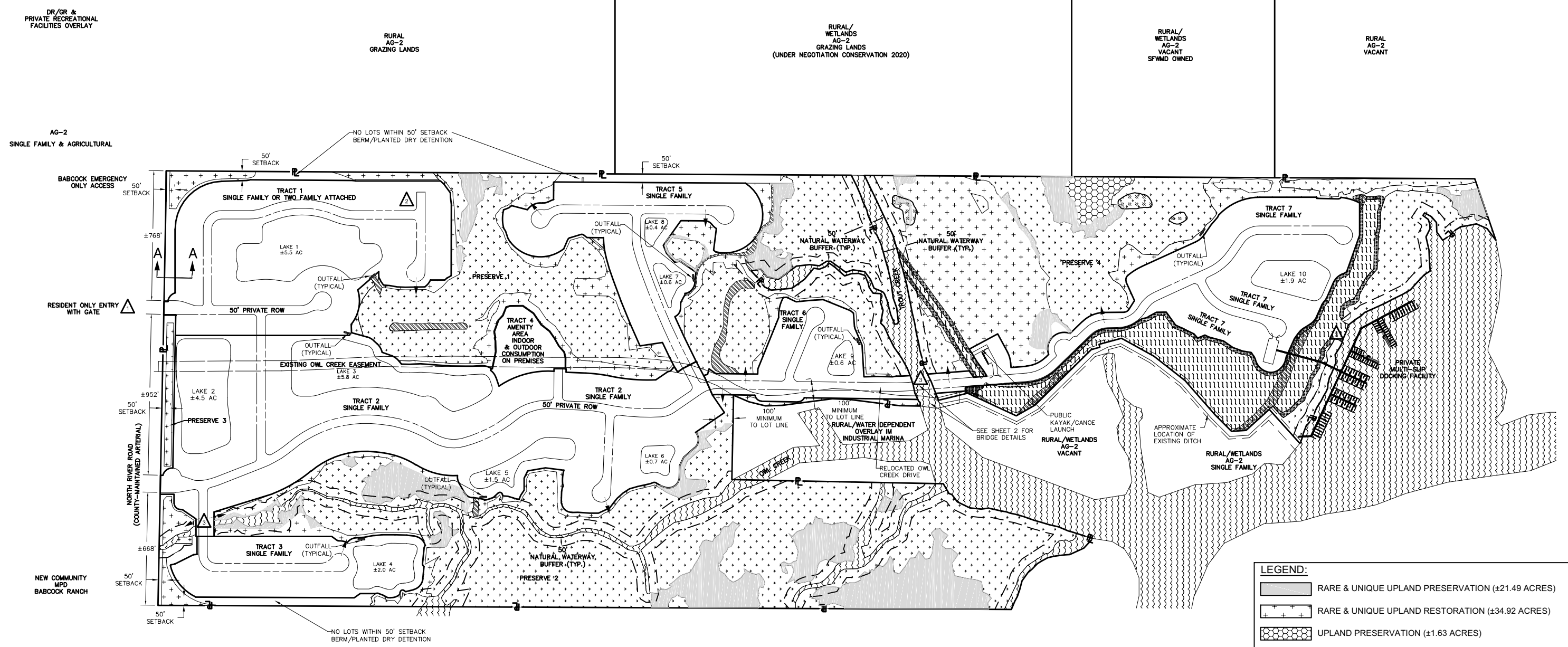
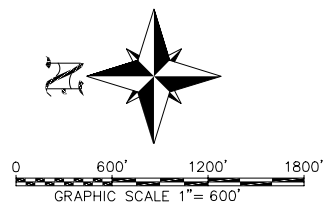
A horizontal scale bar with a decorative flourish at the left end. Below the bar are markings for 0, 250, and 500. The word "SCALE" is centered under the 0-250 segment, and "FEET" is centered under the 250-500 segment.



October 26, 2021 11:09:07 a.m.
Drawing: WETLAND JD MAP.DWG

Owl Creek Parcel

DB DEXBENDER
ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680



NOTES:
SITE AREA: ±342.68 ACRES
LDC REQUIRED OPEN SPACE: NONE* SO NO INDIGENOUS OPEN SPACE REQUIRED
OPEN SPACE PROVIDED: MINIMUM 60% 342.68 X 0.6= ±205.6 ACRES
MAXIMUM 25% OR 51.4 AC OF OPEN SPACE AREAS PROVIDED BY LAKE: ±23.5 ACRES
MINIMUM 54% (±186.94 AC) CONSERVATION EASEMENT (SEE LEGEND)

OPEN SPACE PROVIDED: ±210.44 ACRES

*NO OPEN SPACE REQUIRED FOR SINGLE-FAMILY LOTS MINIMUM 6,500 SF OR TWO-FAMILY ATTACHED LOTS MINIMUM 3,750 SF.

DENSITY PER PENDING CPA2020-00004 & CPA2020-00005 TRANSFERRING PRESERVED WETLAND DENSITY & ADDING 1 DU/ACRE FOR PRESERVED OR RESTORED RARE & UNIQUE UPLANDS:
UPLANDS & MANMADE DITCHES & LAKE (±212.07 AC & ±4.42 AC OSW) ±216.49 AC AT 1DU/AC: 216.49 DU
**PRESERVED WETLANDS ±106.46 AC AT 1DU/AC = 106.46 DU
**IMPACTED WETLANDS: ±13.99 AC AT 1 DU/20AC = 0.70 DU
5.74 AC NATURAL OPEN WATER NOT ELIGIBLE FOR DENSITY
**ADDITIONAL 1 DU/AC PRESERVED RARE AND UNIQUE: ±21.49 AC AT 1 DU/AC = 21.49 DU
**ADDITIONAL 1 DU/AC FOR RESTORED RARE & UNIQUE UPLANDS: ±34.92 AC AT 1 DU/AC = 34.92 DU
(**SEE DENSITY EXHIBIT ON PAGE 2) TOTAL MAXIMUM DENSITY: **380 DWELLING UNITS**

RURAL/
WETLANDS
AG-2
SINGLE FAMILY & GRAZING LANDS

RURAL/
WETLANDS

LEGEND:	
	RARE & UNIQUE UPLAND PRESERVATION (±21.49 ACRES)
	RARE & UNIQUE UPLAND RESTORATION (±34.92 ACRES)
	UPLAND PRESERVATION (±1.63 ACRES)
	WETLAND PRESERVATION (±106.46 ACRES)
	OTHER SURFACE WATERS PRESERVATION (±1.34 ACRES)
	SURFACE WATERS (±5.61 ACRES PRESERVED WITHIN PROPERTY BOUNDARY)
	APPROX. LOCATION OF PRESERVED HISTORIC SITE
	FLUSHING CUT/RESTORED SURFACE WATER (±12.55 ACRES)
	LITTORAL SHELF/ RESTORED WETLAND (±2.94 ACRES)
	DEVIATION NUMBER
	PRESERVE ACCESS LOCATION

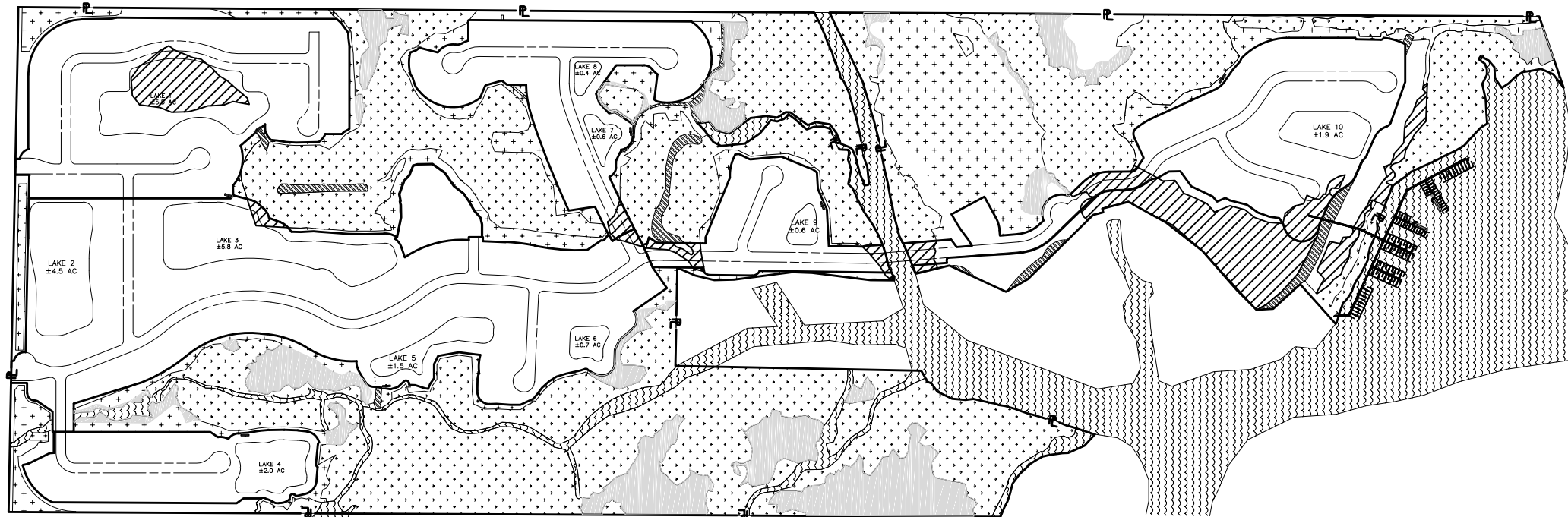
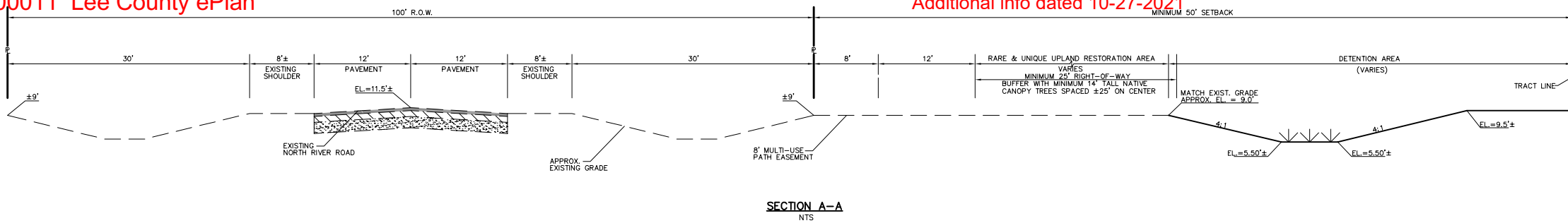
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01	8/11/2021	1ST SUFFICIENCY RESPONSE	KG

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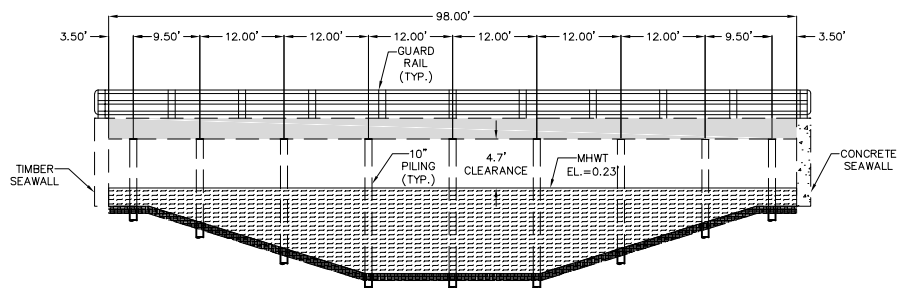
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FORT MYERS, FLORIDA 33966
PHONE: (239) 939-5490 FAX: (239) 939-2523
ENGINEERING LICENSE # EB 6469
SURVEY LICENSE # LB 6690
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MASTER CONCEPT PLAN OWL CREEK RESERVE MINOR RPD LEE COUNTY, FLORIDA						
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07/12/2021	8504	_MCP	KG	KG	DRU	1 OF 2

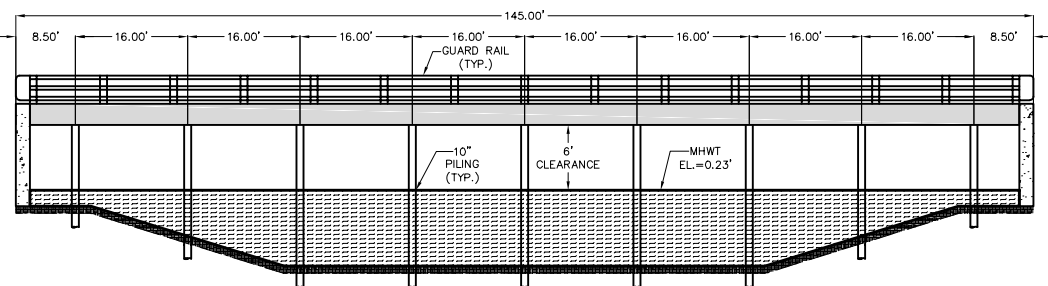


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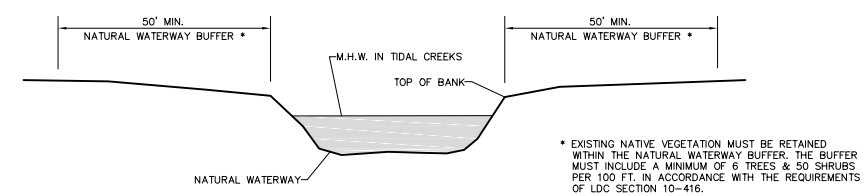
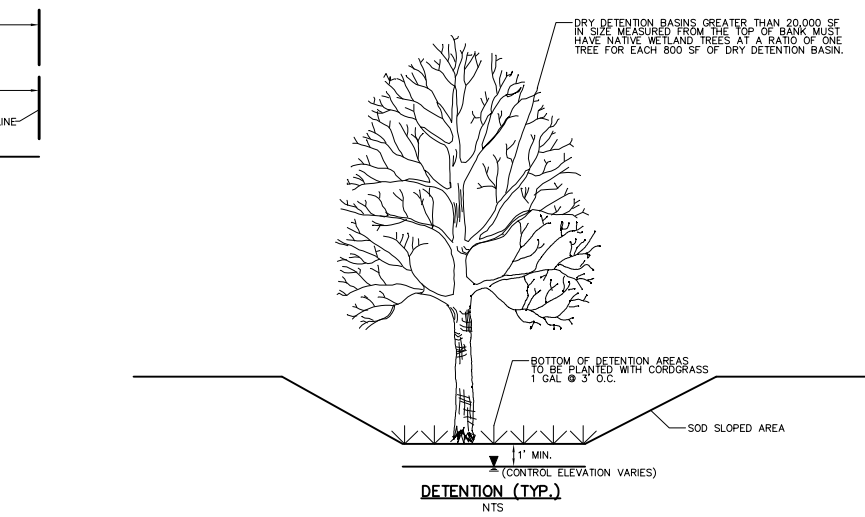
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 - RARE & UNIQUE UPLAND PRESERVATION (±21.49 ACRES)
 - + + + RARE & UNIQUE UPLAND RESTORATION (±34.92 ACRES)
 - ▨ IMPACTED WETLANDS (±13.99 ACRES)



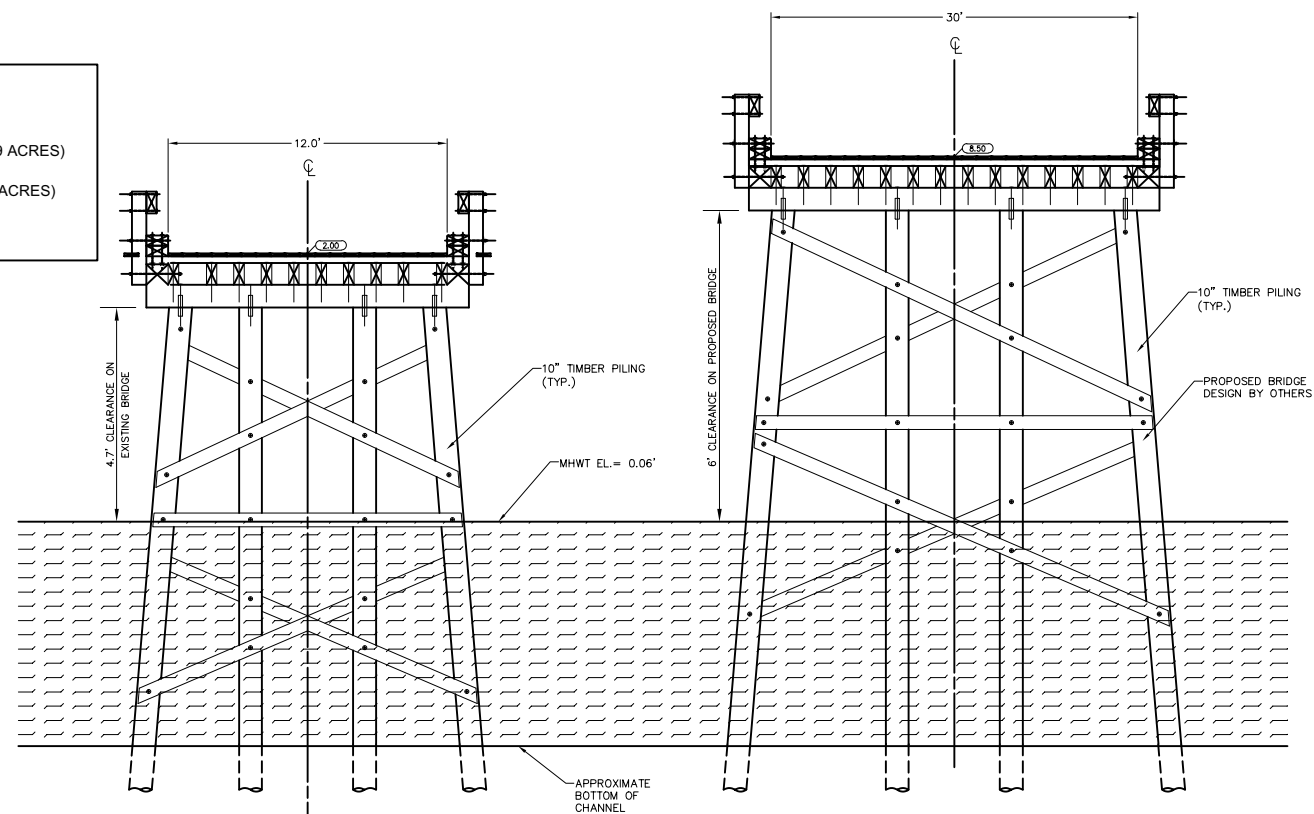
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N.T.S.



PROPOSED BRIDGE CROSS SECTION VIEW
N.T.S.



TYPICAL 50' NATURAL WATERWAY BUFFER
NTS



EXIST. BRIDGE SECTION
N.T.S.

PROPOSED BRIDGE SECTION
N.T.S.

NOTE:
BRIDGE STRUCTURAL DESIGN BY OTHERS. THIS PLAN SHOWS THE MINIMUM BRIDGE HEIGHT.

NO.	DATE	REVISION DESCRIPTION	BY
1	10/26/2021	2ND SUFFICIENCY RESPONSE	JLW

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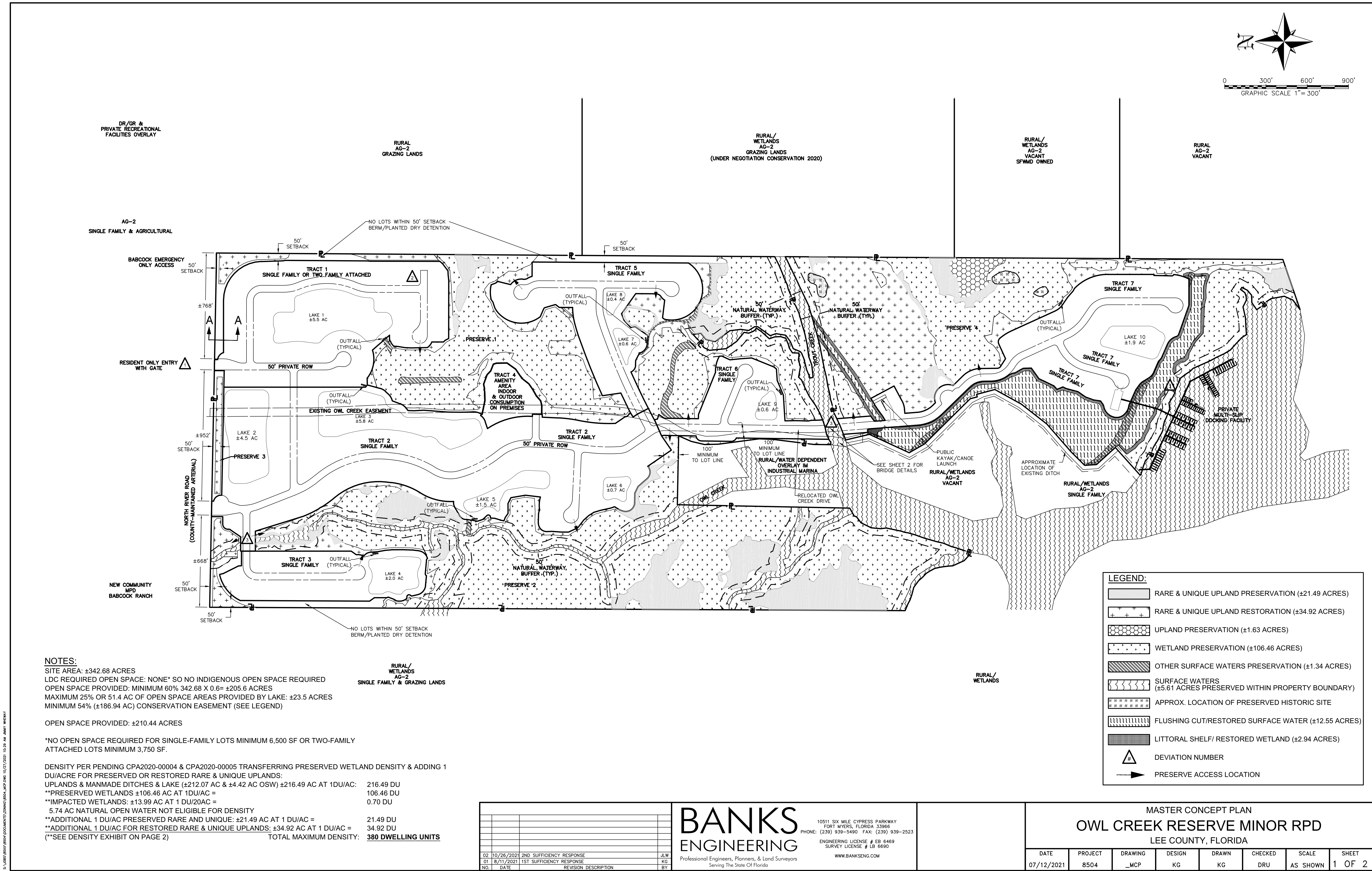
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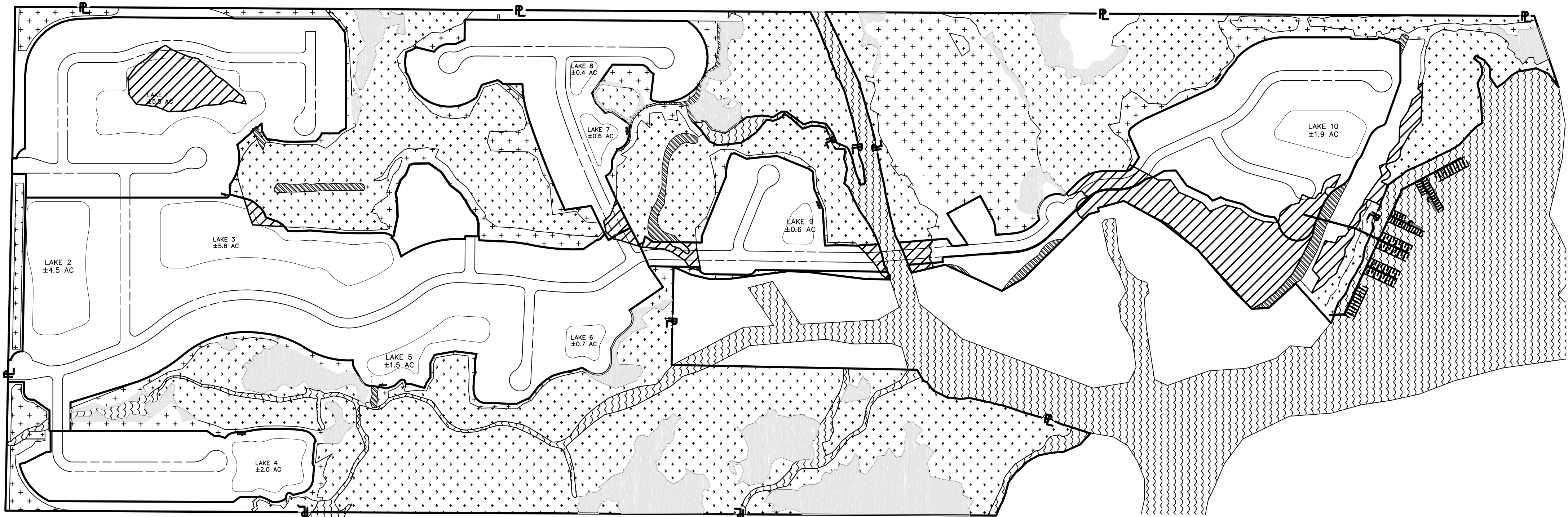
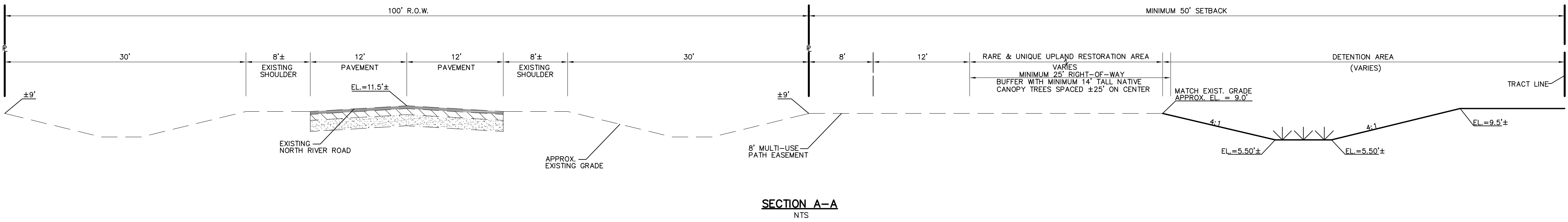
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OWL CREEK RESERVE
LEE COUNTY, FLORIDA

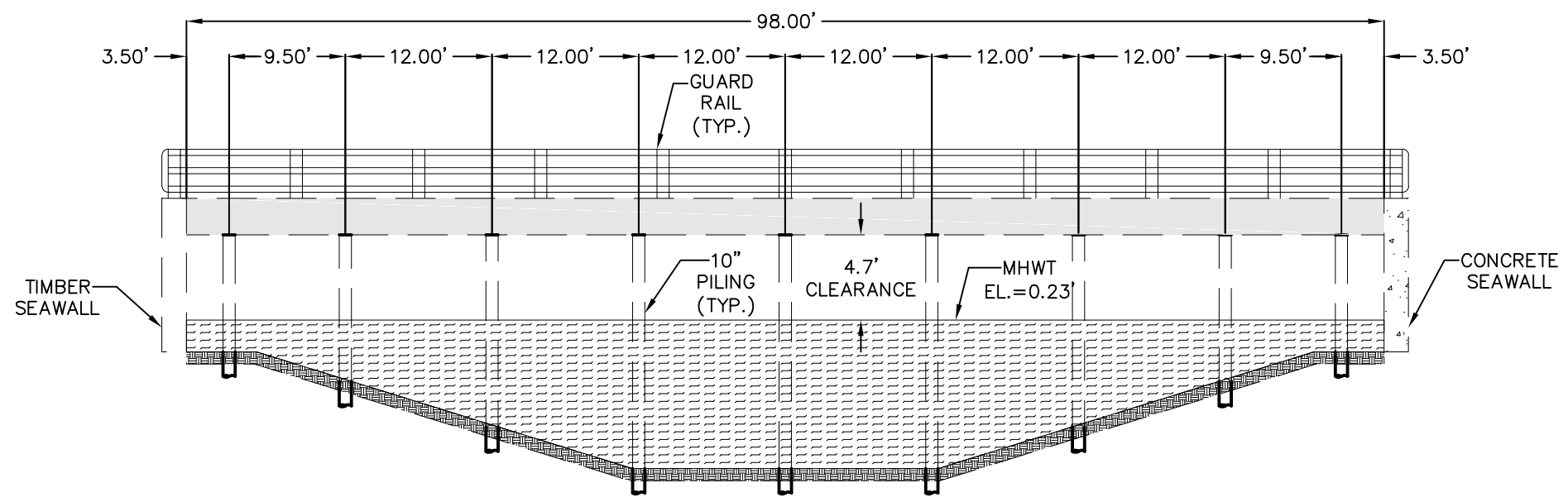
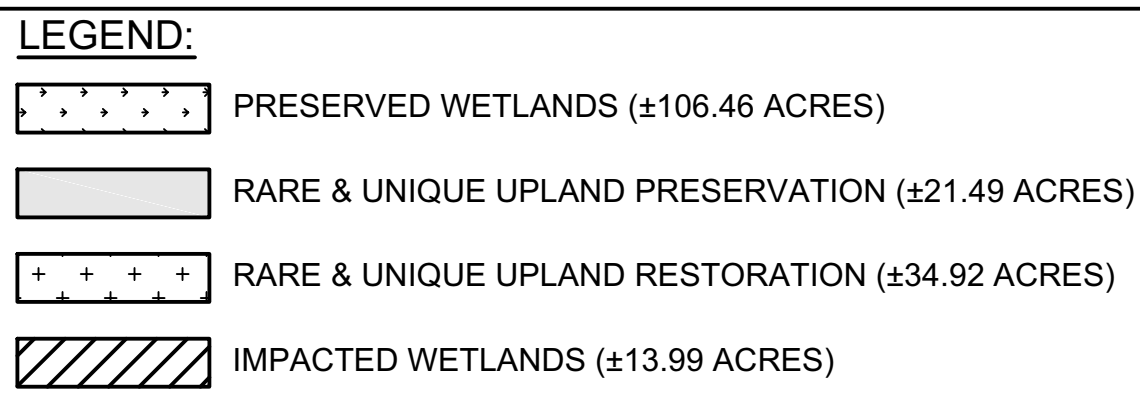
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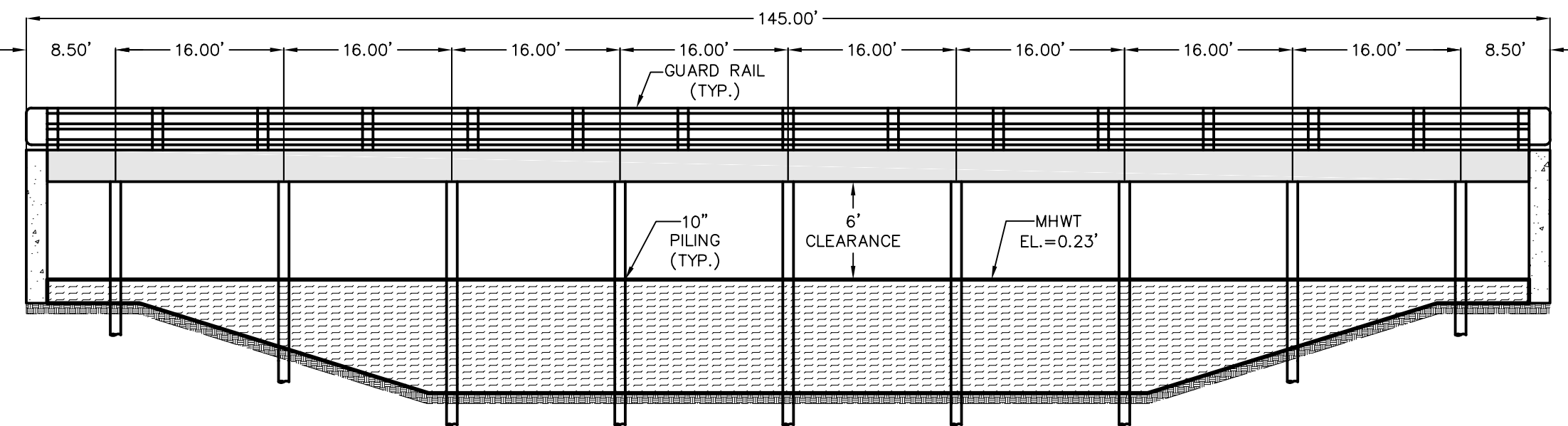




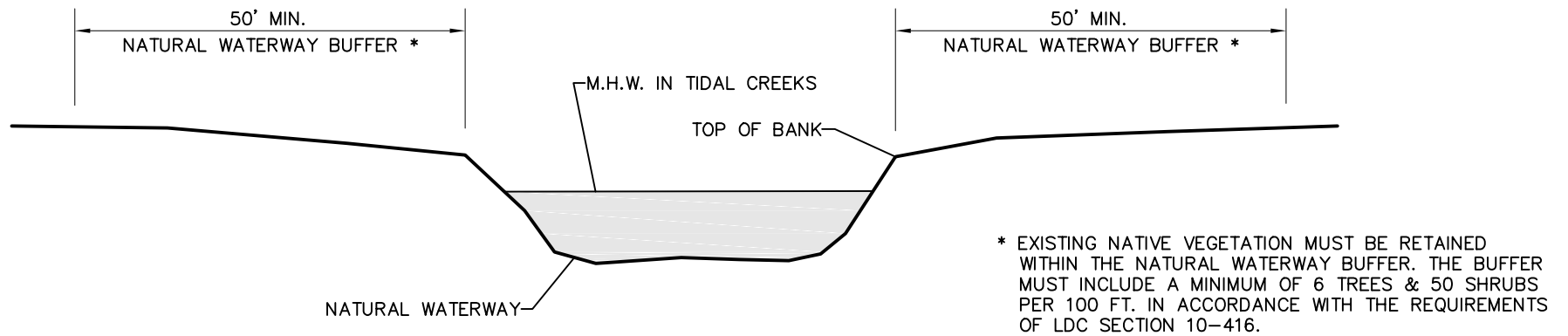
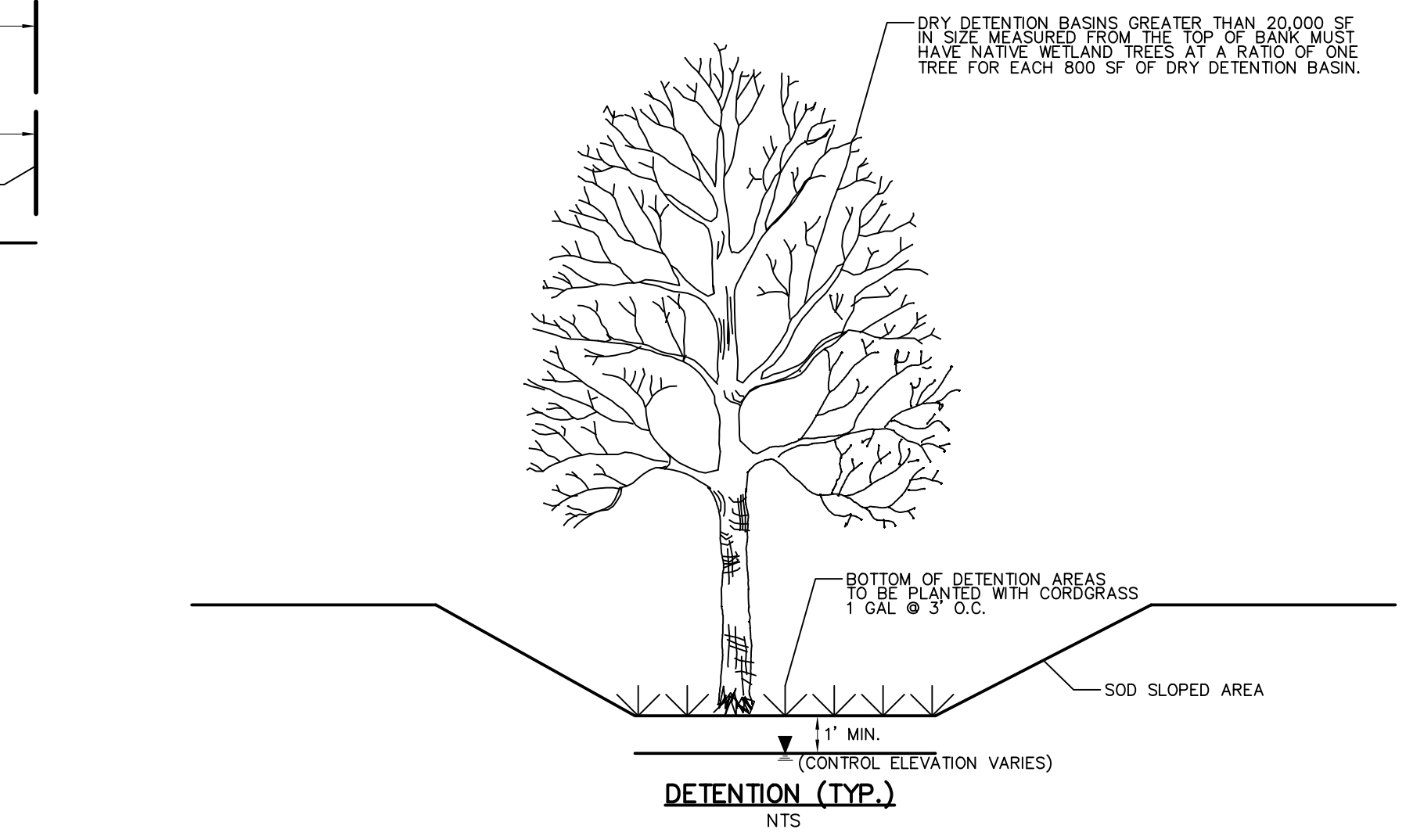
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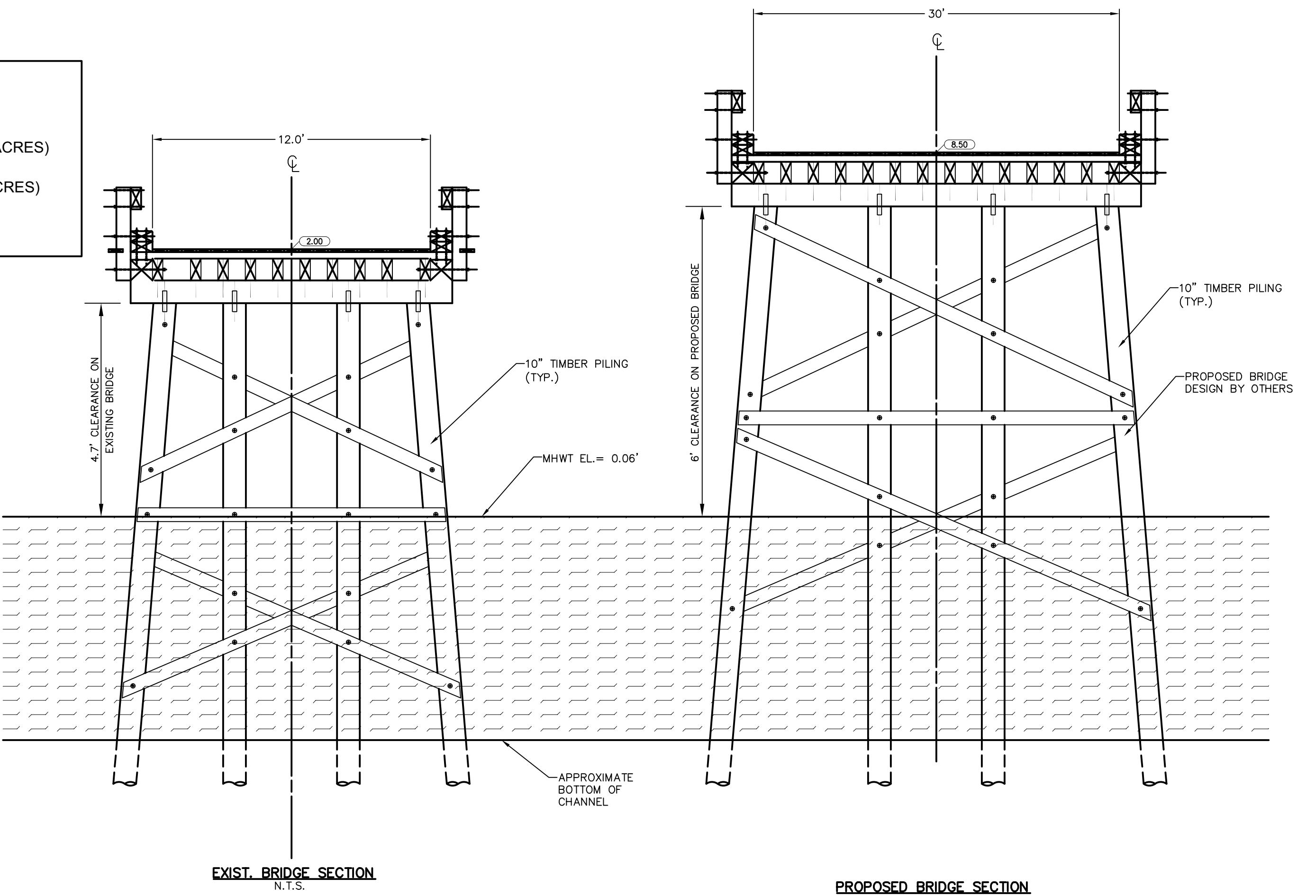
EXISTING BRIDGE CROSS SECTION VIEW
N.T.S.



PROPOSED BRIDGE CROSS SECTION VIEW
N.T.S.



TYPICAL 50' NATURAL WATERWAY BUFFER
NTS



EXIST. BRIDGE SECTION
N.T.S.

PROPOSED BRIDGE SECTION
N.T.S.

NOTE:
BRIDGE STRUCTURAL DESIGN BY OTHERS. THIS PLAN SHOWS THE MINIMUM BRIDGE HEIGHT.

NO.	DATE	2ND SUFFICIENCY RESPONSE	REVISION DESCRIPTION	JLW BY
1	10/26/2021	2ND SUFFICIENCY RESPONSE		

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8/11/2021	8504	_XSEC	KG	KG	DRU	N.T.S.	2 OF 2