BANKS ENGINEERING

Professional Engineers, Planners & Land Surveyors

August 13, 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
1st Sufficiency Response

Dear Dirk:

This letter is written in response to the review comments dated April 22, 2021. Please note that the application has been revised to reduce the number of dwelling units requested from a maximum of 440 to a maximum of 385 dwelling units. With this letter we are submitting the following additional information requested for the project:

1. Revised PD Application
2. Revised MCP (24"x36" & 11"x17")
3. Lee County Manatee Protection Plan Assessment Email from Lesli Haynes dated June 17, 2020
4. Revised Property Development Regulations
5. Schedule of Deviations and Justifications
6. Proposed Conditions of Approval
7. Revised Narrative of Request
8. Correspondence from SFWMD dated June 23, 2021, regarding the requested Jurisdictional Determination.
9. Indigenous Habitat Management Plan
10. Enhancement and Preservation Map
11. Protected Species Assessment
12. FLUCCS/VegetationMap
13. Wetland Map
14. Revised Surface Water Management Plan/Stormwater Planning Report
15. Canoe/Kayak Launch Details
16. Revised Water Resources Report
17. Bathymetric Survey
18. Revised Schedule of Uses
19. Private Multi-Slip Docking Facility and Tidal Lagoon Plans and Details
20. Revised Hurricane Evacuation Analysis
21. Marina Emergency Preparedness Plan
22. Marina Management Plan
23. Response from TR Transportation Consultants, Inc.

Presented below are responses to each review comment:

ZONING

Comment 1: The Master Concept Plan. The single-family tracts appear to have additional line work breaking up the residential areas. Are these erroneous lines, or is there an intended purpose?

Response: ***Please see revised MCP. The additional linework depicted potential easements and lot layouts that were conceptual so have been removed.***

Comment 2: There are several areas on the Master Concept Plan that are darked, but there is not a correlating reference in the Legend. The most notable area is in the southern portion of Tract 7. Please identify the intended purpose of these areas on the Master Concept Plan.

Response: ***The "darked" areas were proposed other surface water impacts, however the scale was not the same as the legend. Please see revised MCP which has removed these areas. Please refer to Environmental Reports. There are ±5.74 acres of existing Surface Waters (510-Streams and Waterways) of which ±0.13 acre is minimally impacted for filling for a road crossing which will maintain existing flow by providing twin 48" culverts which matches what is provided for the North River Road crossing. ±5.61 acres of Surface Waters are preserved. There are ±3.69 acres of Other Surface Waters consisting of 510D - existing man-made ditches of which ±3.09 acres will be impacted and ±0.6 acre preserved. There is ±0.73 acre of Other Surface Waters consisting of 524 – man-made lake of which ±0.06 acre will be impacted and ±0.67 acre preserved.***

Comment 3: The North arrow on the Master Concept Plan is oriented incorrectly, please update.

Response: ***Please see revised MCP.***

Comment 4: Please provide evidence of consistency with the Manatee Protection Plan as it relates to the proposed Multi-slip Docking Facility.

Response: ***According to the Manatee Protection Plan of Lee County; the subject site is allowed 5 slips allowed per 100 linear feet of shoreline. The site plan has a total of 96 proposed residential slips, which is well under the maximum number of 330 slips allowed. The subject property is located east of State Road 31 Bridge and not located within the Caloosahatchee River Area of Special Concern. Please refer to the Lee County MPP Assessment attached.***

Comment 5: Please provide evidence of parking for the proposed Multi-slip docking facility as required in LDC Section 34-2020(b).

Response: ***The Master Concept Plan has been revised to show parking for the private multi-slip docking facility. LDC Section 34-2020(b) does not provide parking standards for a private multi-slip docking facility that is an amenity to the residential community. A commercial multi-slip docking facility's required***

parking is to be determined by the Director while commercial boat slips require 1 space for every 2 slips. Since the use is a private amenity, the applicant proposes to provide a minimum of 1 parking space for every 3.5 slips. This has been added to the attached revised Property Development Regulations.

Comment 6: It is unclear from the Master Concept Plan, but it appears that Tract 7 will be gated. Please provide the required design requitements in LDC Section 34-1748.

Response: ***We have provided the required turn around at the internal privacy gates. The eastern entry to the community from North River Road will be for residents only. Deviation 1 is being requested to allow this entry to not have the turnaround at the gates for this reason. Please see submitted Schedule of Deviations and Justifications.***

Comment 7: It appears that the public information meetings were specific to the Comprehensive Plan Amendment Case Numbers CPA2020-00004 & CPA2020-00005. Please provide evidence of compliance with LDC Section 33-1663 and Lee Plan Policy 27.1.8.

Response: ***A proposed master concept plan was also presented at the public information meetings; however since the master concept plan has changed, we are in the process of scheduling additional public information meetings to update the communities and will provide summaries of the meetings to Lee County.***

Comment 8: In your request statement, it is stated that the request proposes conditions of approval that accommodate the location of the multipurpose path along North River Road. Would this be located outside the boundary of the Planned Development or within the boundaries of the subject property?

Response: ***The applicant proposes to grant 8' of easement adjacent to the North River Road right-of-way within the boundary of the Planned Development to accommodate the multipurpose path. Please see proposed condition 3.d in the attached Proposed Conditions of Approval and Section A-A on page 2 of the MCP.***

Comment 9: Will there be a location for a clubhouse or other amenities within the community?

Response: ***Tract 4 on the MCP is designated as an amenity area which is proposed to contain a clubhouse and amenities for the residents.***

Comment 10: Staff note: Are any Deviations requested as part of this Planned Development? Policy 29.1.4 states that deviations can only be approved when variance criteria of LDC Section 34-145 are met.

Response: ***The revised MCP and attached Schedule of Deviations and Justifications***

include two deviation requests: Deviation 1 is to allow no turnaround at the resident only eastern access point onto North River Road and Deviation 2 is to allow a T-turn around in lieu of a standard cul-de-sac within Tract 7. It should be noted that Policy 29.1.4 only requires deviations from landscaping, signage, or architectural standards to meet the variance criteria of LDC Section 34-145 and the requested deviations are not from these standards and therefore are not required to meet variance criteria.

Comment 11: Staff note: In the request statement, the applicant states that stringent conditions of approval will be provided for consideration, and staff was not able to locate a document that provided these conditions of approval. Will there be additional documentation aside from property development regulations and schedule of uses?

Response: ***Please see attached Proposed Conditions of Approval to accompany the Property Development Regulations and Schedule of Uses.***

Comment 12: Staff note: This review may be subject to additional comments as the review of CPA2020-00004 and CPA2020-00005 continues.

Response: ***Acknowledged.***

PLANNING

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

Response: ***Please see updated Lee Plan analysis in the revised Narrative of Request. A new Lee Plan analysis will be provided once the companion CPA cases are found sufficient, if deemed necessary.***

ENVIRONMENTAL SCIENCES

Comment 1: Provide correspondence from SFWMD as it pertains to the jurisdictional wetland determination and proposed mitigation for wetland impacts. If jurisdictional wetland determination has been issued, please provide a copy.

Response: ***Please find correspondence from SFWMD dated June 23, 2021, regarding the requested Jurisdictional Determination. The Environmental Resource Permit application has not yet been submitted to SFWMD. The attached Indigenous Habitat Management Plan describes the proposed wetland impacts and mitigation.***

Comment 2: Please provide an indigenous management plan that includes the preserve areas that meet the definition of indigenous per LDC Section 10-1 and demonstrate how the other preserve areas will be restored/enhanced to provide habitat for wildlife, water quality, wildlife connections, and onsite mitigation.

Response: ***Please find attached an Indigenous Habitat Management Plan. Revised FLUCCS Vegetation map, Rare and Unique Upland Habitat map, Wetlands Map, Protected Species Assessment and an Enhancement and Preservation Map are also attached.***

Comment 3: The surface water management plan depicts the preserve areas to be utilized for drainage. The MCP depicts upland preservation outlining each wetland preserve. Please depict the impact to the upland for drainage and discuss how the wetland preserves will not be negatively impacted by the influx of surface water.

Response: ***The wetland preserves will not be part of the controlled surface water management system. The storm water management system has been designed to mimic the natural sheet flow pattern. This will allow the offsite flows to pass through the site without being affected by the project. The discharge from the storm water management system basins 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. Please see attached revised Stormwater Planning Report.***

Comment 4: Please include information on the water levels within the wetland preserve, how the development may or may not affect the hydroperiods, and how the change in water levels post development will affect the existing and future protected species, such as wading birds.

Response: ***The site elevations generally slope from north to south. 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. These natural wetlands and the offsite flows are being preserved with only minimal impacts where unavoidable. In addition to the offsite flows, onsite flows from the developed site will be controlled and discharged to the onsite wetlands to mimic pre-development flows. No negative impacts to water levels, wetland hydroperiods are expected therefore no impact to protected species such as wading birds is anticipated. Please see attached Stormwater Planning Report and Indigenous Habitat Management Plan.***

Comment 5: The indigenous management plan must include details with supporting maps to depict how the preserve areas will be restored by means of mechanical or non-mechanical.

Response: ***Please find attached an Indigenous Habitat Management Plan which provides the requested information.***

Comment 6: Include a preserve restoration phasing schedule and map.

Response: ***The activities outlined in the attached Indigenous Habitat Management Plan (IHMP) will be initiated prior to and during the construction of the first phase of***

the project. There is no phased plan for the activities in the IHMP.

Comment 7: Provide a species management plan to include specific information regarding Florida panther, Florida Black Bear, wading birds, small tooth sawfish, and any other species that may utilize the site post development in accordance with the FLUCCS.

Response: ***Please find attached an Indigenous Habitat Management Plan which provides the requested information.***

Comment 8: Provide details/correspondence of how the wetland and possible species habitat will be mitigated. If onsite, please provide restoration details and if offsite please state the requirements per the state agencies.

Response: ***Please find attached an Indigenous Habitat Management Plan which provides the requested information. Mitigation for wetland and wildlife impacts are being provided by enhancing the onsite preserves.***

Comment 9: Provide a critical wildlife connection map.

Response: ***Please find attached an Indigenous Habitat Management Plan which provides the requested information.***

Comment 10: Provide a human-wildlife coexistence plan to include educational programs and development standards.

Response: ***Please find attached an Indigenous Habitat Management Plan which provides the requested information.***

Comment 11: Courtesy Comment: Prior to the issuance of a vegetation removal permit for any phase of development, an acoustic Bonneted Bat and tree cavity surveys must be submitted.

Response: ***Acknowledged.***

Comment 12: The narrative states that a 50-foot setback and buffer will be provided. Please provide a buffer details as part of the MCP to depict the proposed landscape enhancements, fencing (if applicable), berm (if applicable), multi-use path along North River Road, and how the proposed enhanced buffer interfaces with the wetland/upland preserve depicted along the property lines.

Response: ***The majority of the 50' setback area will consist of upland/wetland preservation areas or rare and unique upland restoration areas as depicted on the MCP. Two areas along the eastern property line and one area along the western property line will consist of the perimeter berm and planted dry detention areas as part of the stormwater management system with no lots within the 50' setback. A cross section has been added for North River Road***

which depicts the proposed 8' multi-use path easement, 25' right-of-way buffer with 14' tall native canopy trees spaced ±25' on center and rare and unique upland restoration areas.

Comment 13: Provide a 50-foot natural waterway detail as part of the MCP to depict Owl Creek and Trout Creek 50-foot buffer as measured from top of bank or mean high water, whichever is further landward and demonstrate how the landscaping/indigenous complies with compliance with LDC Section 10-416(d)(9). Please indicate in the 50-foot natural waterway detail where the proposed canoe/kayak launch is proposed. Provide cross section for clarity.

Response: ***We have added the 50' natural waterway buffer and details of the proposed public canoe/kayak launch to the MCP. We have also provided separate details for the canoe/kayak launch prepared by Hans Wilson & Associates. Compliance with LDC Section 10-416(d)(9) by either existing native vegetation or by planting plan will be demonstrated at the time of development order application.***

Comment 14: The narrative states that the site will be designed to incorporate green infrastructure within the proposed swales, dry detention, and lakes. Provide a green infrastructure detail to depict these planned development components to be located in common element and provide landscape planting details to support water quality.

Response: ***The project stormwater management system includes "soft" features such as preserved/restored flow-ways, lakes with littoral plantings, preserved/restored wetlands, and planted dry detention areas that provide pretreatment before the wet detention. We have included a typical planting detail for the dry pretreatment areas. Attached please also find the Indigenous Habitat Management Plan with details for the restoration plantings and enhancements to the onsite preserves. A lake management plan will be submitted at the time of local development order that follows BMP's for erosion control and bank stabilization, deep lake management that includes native plantings and aeration of the lakes, and limitations on fertilizer and pesticide application. See conditions 1.a.i and 2.d of the Proposed Conditions of Approval and Stormwater Planning Report.***

Comment 15: CPA2020-00005 is pending and the application proposes 60% open space of which 48% must be in a conservation easement. Demonstrate how the proposed open space areas provide habitat of wildlife, onsite mitigation, and restoration to support the CPA2020-00005. Currently, the applicant states that the restoration is limited to exotic removal. Some of the proposed preserve areas are not indigenous with the FLUCCS indicating pasture or areas that are predominantly exotic. Indicate how the non-indigenous areas will support wildlife and water quality to enhance the proposed project.

Response: ***The companion CPA applications have been revised as reflected in the revised Narrative of Request. Conditions 1.a and c in the attached Proposed Conditions of Approval require the minimum 60% open space and a minimum 49% Conservation Easement. Please see the attached Indigenous Habitat Management Plan that demonstrates how we are proposing to restore***

some of the previously cleared areas to create rare and unique upland habitat. Please also see attached revised Stormwater Planning Report and Water Resources Report regarding water quality.

DEVELOPMENT SERVICES

Comment 1: 10-256(a) All development and redevelopment proposed within future urban areas or future suburban areas as defined by the Lee Plan, or along trails depicted on the Greenways Master Plan (Lee Plan Map 22) are required to provide for bikeways and pedestrian ways.
- The Comprehensive Plan change to sub-outlying suburban will require the proposed development to provide for bikeways and pedestrian ways.

Response: ***The companion CPA applications have been revised and no longer propose to change the Future Land Use designation to sub-outlying suburban so the site will remail Rural and non-urban. The MCP and proposed condition 3.d provide for an 8' easement to accommodate the multi-use path for the Greenways Master Plan.***

Comment 2: [10-296(k)(1)] Cul-de-Sacs. Dead-end streets, designed to be so permanently, must be closed at one end by a circular turnaround for vehicles and constructed in compliance with the LCLDC.
- The MCP shows dead-end streets in Tract 7 near the proposed boat slips and a T intersection with dead-ends. Tract 1 also contains a dead-end. Please revise the MCP or request a deviation as applicable.

Response: ***We are requesting a deviation to allow the T turnarounds in Tracts 1 and 7 instead of the standard cul-de-sac design in these two locations. These areas only provide access to ±4-5 lots each. Please see attached Schedule of Deviations and Justifications.***

Comment 3: [10-418(1)] Surface Water Management Systems. The design of the shoreline of excavations must be sinuous rather than straight.
- Several of the lakes do not appear to meet this requirement.
- The MCP shows a lake boundary. What does that boundary represent? Control elevation or TOB?

Response: ***Please see attached revised MCP which reflects revised lake shorelines so that they are more sinuous. The lake boundary represents the top of bank.***

Comment 4: [10-329(d)(1)a.1] Excavation Setback from Local Street. Excavations must be set back twenty-five (25) feet from any existing or proposed local street right-of-way line or easement.
- Please ensure that this requirement is met or a deviation is requested. Given the scale of the drawings it is hard to tell if Lake 1, 4, 6, 8 and 9 meet this requirement.
- The MCP differs from the plan presented at the community information meeting. Specifically, the access point to North River Road has been shifted to the south. Has a follow up meeting been conducted?
- Owl Creek Road is privately maintained and provides access to the existing

marina and a single-family residence. Will the existing easement be vacated? Has the applicant had discussions with the existing marina and single-family residence concerning access?

Response: ***All lakes will meet the street setback required by the LDC. We are in the process of scheduling follow up community meetings to provide an update regarding the plan changes. The developer is in discussions with Owl Creek Boatworks and the existing single-family residence owner that access the existing Owl Creek Road. It is our intention to replace the existing road with the new road through the project.***

Comment 5: Will Owl Creek Road be gated or have restricted access?

Response: ***The new Owl Creek Road will be gated. The access will be open during the day to allow public access. After dark the gates will close for security. Access will remain available for Owl Creek Boatworks and for the existing single-family residence. This language has been addes as proposed condition 8.***

DOT

Comment 1: Owl Creek Boat Works & Storage is located at south of this project and connects to N. River Road via Owl Creek Drive. The Master Concept Plan shows Owl Creek Drive will be relocated and a gate be placed on Owl Creek Drive just south of N. River Road. The applicant needs to clarify how Owl Creek Boat Works & Storage will access to N. River Road.

Response: ***The developer is in discussions with Owl Creek Boatworks and the existing single-family residence owner that access the existing Owl Creek Road. It is our intention to replace the existing road with the new road through the project. The new Owl Creek Road will be gated. The access will be open during the day to allow public access. After dark the gates will close for security. Access will remain available for Owl Creek Boatworks and for the existing single-family residence.***

TIS

Comment 1: N. River Road from Owl Creek Drive to ST 31 is significant impact by the project. An intersection LOS analysis is required for the intersection of SR 31/N. River Road.

Response: ***See attached response from TR Transportation Consultants, Inc.***

Comment 2: The four-lane widening of SR 31 from SR 78 to County Line is only PD&E study. The four-lane service volumes cannot be used for the link LOS analysis.

Response: ***See attached response from TR Transportation Consultants, Inc.***

Comment 3: The Master Concept Plan shows Owl Creek Drive will be relocated and will be the on the west of the other proposed project's driveway. Figure 2 needs to

be revised.

Response: ***See attached response from TR Transportation Consultants, Inc.***

Comment 4: The proposed project's build-out year is within 5 years (2025). The existing service volumes of N. River Road shall be used for the LOS analysis.

Response: ***See attached response from TR Transportation Consultants, Inc.***

NATURAL RESOURCES

Comment 1: Please provide supporting hydrologic and hydraulic models to ensure the conveyance capacity of the proposed flowway will improve or provide the same capacity as existing conditions.

Response: ***Please see attached Stormwater Planning Report. All offsite flows will be maintained. The natural creeks and adjacent areas are being preserved to the maximum extent possible. The crossing of Trout Creek will be improved with the installation of a new bridge that provides larger spans and more vertical clearance. The old bridge will be removed which will improve flow.***

Comment 2: Please provide details, including calculations and exhibits that demonstrate how the contributing area, existing flows, and proposed flows were determined.

Response: ***There is only one creek crossing and that is of the tributary to Owl Creek. Otherwise the creeks will be preserved and enhanced by exotic removal and replanting with native plants. The road crossing maintains the upstream culvert sizing. Discharges from the surface water management system are limited to pre-development quantities in accordance with the basin discharge rates for Owl Creek and Trout Creek.***

Comment 3: Please provide an analysis of Lee Plan Objective 128.5.

Response: ***In accordance with the Marine Facilities Sighting Requirements contained in Lee Plan Objective 128.5, Hans Wilson Associates 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 completed (see attached) 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.***

Comment 4: Please provide a Lee Plan analysis of Lee Plan Policy 60.1.3, 60.4.3, 61.3.1, 61.3.3, 61.3.6, and 125.1.4.

Response: ***See attached revised Narrative of Request, Stormwater Planning Report and Water Resources Report. Owl Creek and Trout Creek and their adjacent wetland systems will be maintained as regional flow-ways and enhanced by exotic removal. The natural wetlands and the offsite flows are being preserved with only minimal impacts where unavoidable, consistent with Policies 60.1.3 and 60.4.3. The wetland preserves will not be part of the controlled surface water management system. The storm water management system has been designed to mimic the natural sheet flow pattern. 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 mimic pre-development flows and help to hydrate the wetland systems and improve water levels, consistent with Policies 61.3.1, 61.3.3 and 61.3.6. 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.***

Comment 5: Please provide a sampling location map attachment for the Surface Water and Groundwater Monitoring Plan located within the Hydrogeologic Water Resources Report for review.

Response: ***Refer to Figure 8 within the attached Water Resources Report for a map showing the proposed monitoring locations for the Surface Water and Groundwater Monitoring Plan at the Owl Creek development. The proposed monitoring locations and plan may be further refined during the Development Order process.***

Comment 6: Please contact Lesli Haynes with the Lee County Department of Natural Resources to obtain a Manatee Protection Plan evaluation.

Response: ***Please refer to the Lee County MPP Assessment attached.***

Comment 7: The Schedule of Uses includes "Marina: Private Multi-slip docking facility". Marina and Private Multi-slip docking facility are two independent uses; please clarify which use is being proposed.

Response: ***Proposed is an accessory private multi-slip docking facility and not a commercial marina. A revised schedule of uses is attached which removes marina.***

Comment 8: Please provide additional information on the proposed multi-slip docking facility.

Response: ***The proposed multi-slip docking facility has 96 wet slips. It also includes a***

proposed tidal lagoon to assist with flushing to meet water quality standards, and wetland plantings that are planned for the site. It also includes riprap where a split in flow from Trout Creek is proposed, a paddle craft storage and launch site. The project site also includes a proposed tidal lagoon that would be excavated to -1' MLLW (538,063 sf). The dockage in the basin would include a flushing channel to connect the interior wetlands and tidal lagoon. There will be two fixed wooden bridges to reach the mainland, one 150 feet long and the other being 340 feet long, both 8 feet wide. There are 6 proposed docks providing moorings ranging for 10 to 40 slips. See attached drawings for details, breakdowns, and cross sections. Please also see attached Marina Management Plan.

Comment 9: How many boat slips (wet and dry) are proposed?

Response: ***The proposed docking facility supports 96 wet slips, all in a separate basin, which does not encroach on the Caloosahatchee River, or interrupt boat traffic. No dry slips are proposed.***

Comment 10: How will residents access the multi-slip docking facility? Where will residents park?

Response: ***Parking will be provided as shown on the site plan.***

Comment 11: How far into the Caloosahatchee River will the docking facility extend?

Response: ***The proposed docking facility will not extend or encroach into the Caloosahatchee River. It is located in a natural basin that is connected to the Caloosahatchee via a marked navigational channel.***

Comment 12: The Schedule of Uses includes a boat ramp; please identify the proposed boat ramp location on the MCP.

Response: ***No boat ramp is proposed at the private multi-slip docking facility. The boat ramp has been removed from the schedule of uses. A public canoe/kayak launch is proposed in a separate location depicted on the MCP.***

Comment 13: Please provide a detail of the proposed kayak launch.

Response: ***The proposed paddle craft storage and launch site includes 2,000 sf of natural beach slope. There is proposed littoral shelf between the beach and box culvert at 2,210 feet. Please see attached drawing for more details.***

Comment 14: Please revise the "Existing Historic Flow-Ways" exhibit to "Existing Historic Floodways", as the exhibit depicts the FEMA Floodway not historic flowways.

Response: ***Please see attached Stormwater Planning Report which includes Existing Historic Flow-ways and FEMA floodways.***

Comment 15: Please expand on how the impacts of the FEMA Floodway will be addressed. Please provide an exhibit with the Floodway overlaid on the MCP.

Response: ***Please see attached Stormwater Planning Report which includes exhibits showing the current limit of the FEMA floodway and pending revised FEMA map in relation to the proposed development. The County is in the process of updating the FEMA maps for the Coastal areas of Lee County. The Owl Creek Reserve project is within the update area. The new map places the project within the Coastal A zone and eliminates the FEMA floodway within the Coastal A zone. The Owl Creek Reserve project will comply with the requirements of the FEMA map in affect at the time of Development Order permitting.***

Comment 16: How will filling of the canals near Lake 10 and 11 effect surrounding properties? Does this canal system provide offsite conveyance for surrounding properties or drainage for adjacent properties?

Response: ***The existing canal is no longer being filled, but is being adjusted and expanded to provide a flushing cut. The upland area along the canal is being excavated to create a tidal pump with restored surface waters and littoral shelf that helps to increase the flushing from Trout Creek.***

Comment 17: Please note a drainage easement is required per LDC 10-328 to allow the County to access the flowway for the right but not the obligation to maintain the flowway. Please address this on the MCP.

Response: ***We propose that a condition be included that requires the drainage easement to be granted at the time of the first plat for the project. Please see condition 7 in the attached Proposed Conditions of Approval.***

Comment 18: Please revise the Hydrogeologic Water Resources Report to provide analysis on how water use will be effected based on the existing livestock water use. Row crops have not been active for the last 7 years.

Response: ***The Hydrogeologic Water Resources Report has been revised as requested. Please refer to pages 3, 10, and 11 for applicable changes.***

Comment 19: Please provide details for all proposed creek and surface water crossings. What is the proposed height of the Trout Creek bridge crossing?

Response: ***Please see attached Stormwater Planning Report, Revised MCP. We have added a detail for the proposed bridge crossing of Trout Creek. The new bridge will provide more clearance compared to the existing bridge.***

Comment 20: Please include all existing culverts and stormwater structures on the site plan or stormwater narrative maps.

Response: ***We have added the existing culverts to the Stormwater Planning Report maps.***

Comment 21: Please clarify whether the existing Owl Creek Drive will remain. Will there be one or two roads crossing Trout Creek?

Response: ***Owl Creek Drive will be removed once the new roadway is constructed. The existing crossing of Trout Creek will be removed once the new bridge is constructed. This will result in the removal of the pilings that support the existing bridge and impede flow.***

Comment 22: Please address Administrative Code 7-7 for emergency preparedness.

Response: ***The applicant will comply with Administrative Code 7-7 C and D "Emergency Preparedness Plan Criteria for Marinas, Multi-slip Docking Facilities, and certain residential developments". Policy/Procedure C and D will require an Emergency Preparedness Plan be submitted for the residential and marina portions of the development, respectively. These emergency preparedness plans are to be submitted to Lee County Emergency Management for review and approval by the director of the division of emergency management during the site plan approval. This information has been included in the attached revised Hurricane Evacuation Analysis and attached Marina Emergency Preparedness Plan.***

Comment 23: Please note the Master Concept Plans must match in DCI2021-00011 and CPA2020-00004/00005.

Response: ***Acknowledged.***

Comment 24: Please provide details and demonstrate how the proposed irrigation system will comply with Lee County Ordinance 17-04.

Response: ***The project will have central irrigation that will be controlled by the HOA. The HOA can control the operation of the system to assure compliance with Lee County Ordinance 17-04. The HOA will also be required to monitor the water usage as part of required permits with SFWMD. This provides another layer of accountability to assure compliance with best management practices and emergency restrictions.***

Comment 25: Please provide details why the applicant has not investigated the use of the Lower Hawthorn as a source, since this area was irrigated by this source at one time.

Response: ***The Lower Hawthorn Aquifer was not selected as a potential irrigation source due to its significant use by Lee County Utilities for Public Water Supply in the immediate area.***

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

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

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 ☐ YES[1] 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 385 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)]**

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	±222.1*	Acres	±64.6	% of Total
Wetlands	±120.58**	Acres	±35.4	% of Total
		Acres		% of Total

*includes ±4.42 ac artificial ditches & lake/OSW
**±114.84 ac & ±5.74 ac SW/OSW

H. Property Dimensions:

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

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)**			**342.68**	**Acres**
1.	Submerged land subject to tidal influence		0	Acres	
2. a.	Preserved freshwater wetlands	±103.36 Acres	±6.95 AC SW/OSW		
b.	Impacted wetlands	±11.48 Acres			
c.	Preserved saltwater wetlands	0 Acres			
d.	Total wetlands (A.2.a. plus A.2.b. plus A.2.c.)		±114.84	Acres	
3.	R-O-W providing access to non-residential uses		0	Acres	
4.	Non-residential use areas (1) (2)		0	Acres	

B. Total area not eligible as gross residential acreage (Items A.1. + A.3. + A.4.). **0** **Acres**

C. Gross residential acres. (A minus B) (3) **342.68** **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	±222.1	Acres
	b.	Rural, ~~Outer Island, Rural Community Preserve –~~ wetlands preserved	±103.36	Acres
		Rural, impacted wetlands	±11.48	
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	±5.74	
		TOTAL (should equal "C" above)	**342.68**	**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)				**385**
2.	**Bonus Units [2-143]**					
	a.	Site-built Affordable Housing				
	b.	Transferrable Dwelling Units				
	c.	Sub-total				
3.	**Total Permitted Units** (1)					**385**

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*

		Height	Total Floor Area (Square Feet)
A.	**Commercial**		
1.	Medical		
2.	General Office		
3.	Retail		
4.	Other: _____		
5.	**TOTAL FLOOR AREA**		

		Height	Total Floor Area (Square Feet)
B.	**Industrial**		
1.	Under Roof		
2.	Not Under Roof		
3.	**TOTAL FLOOR AREA**		

		Depth	Total Acres
C.	**Mining**		
1.	Area to be excavated		

		Height	Total Beds/Units
D.	**Assisted Living Facilities**		
1.	Dependent Living Units		
2.	Independent Living Units		
3.	**TOTAL BEDS/UNITS**		

		Height	Total Rental Units
E.	**Hotels/Motels (Room Size)**		
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 and canoe launch 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		
Clearly label your attachments as noted in bold below		
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]

BANKS ENGINEERING

Professional Engineers, Planners & Land Surveyors

Owl Creek Reserve Minor RPD

Narrative of Request

DCI2021-00011
Revised August 2021

Introduction

The Owl Creek property is ±342.68 acres located on the south side of N. River Road approximately ½ 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.

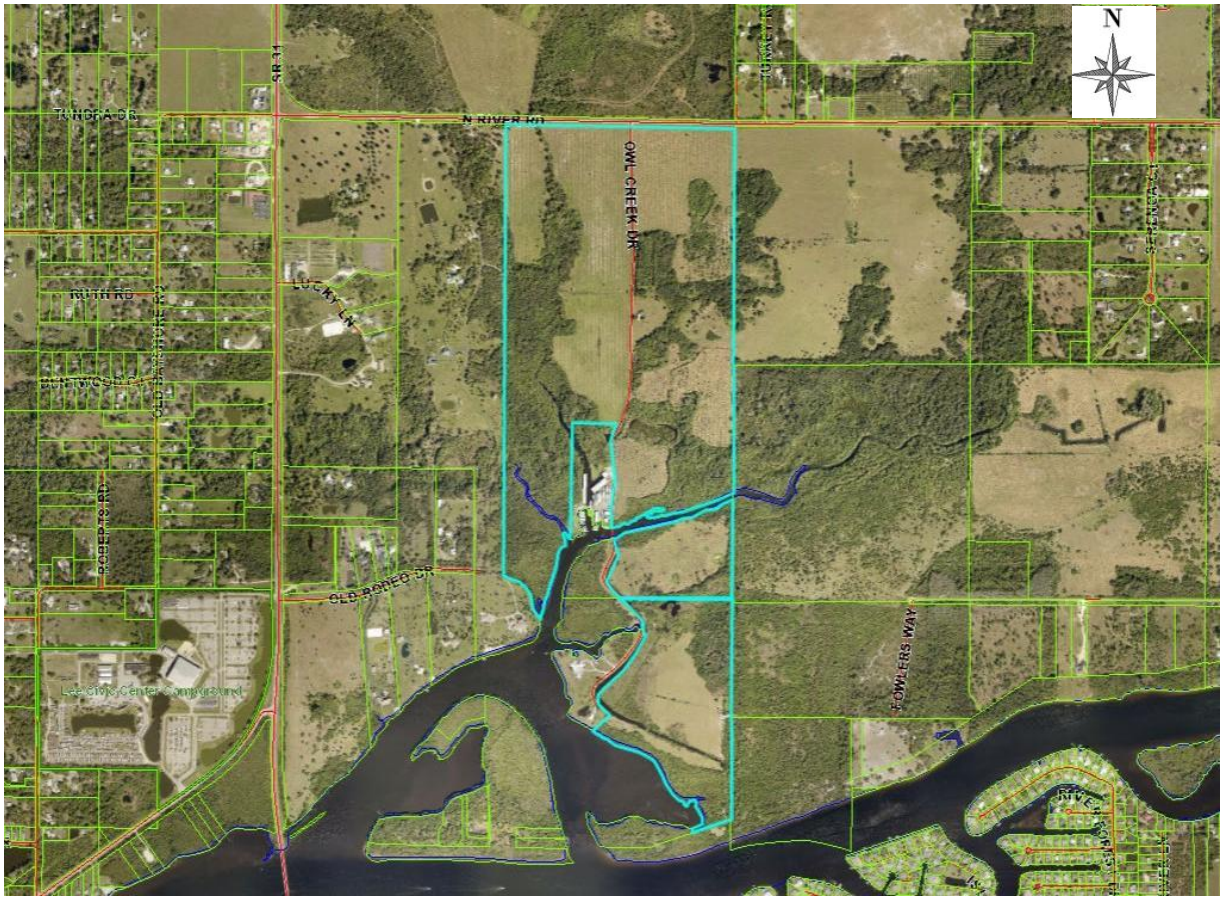

Figure 1. Location of Subject Property

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 385 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 ±169.12* acres (49% 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 90% (±103.36 acres) of wetlands
14. Water Quality enhancements and monitoring
15. Remove potential for up to 228 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 (±23.72 acres) and restoration (±34.8 acres)
27. Preservation of historic flow-ways associated with Owl and Trout Creeks and associated wetlands

*This does not include the ±3.08 acres of restored littoral shelf/marsh wetlands and ±13.01 acres of restored surface waters that will also be placed in conservation.

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 ¼ 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 ¼-acre lot subdivisions west of the commercial node. Sub-Outlying Suburban FLU category is a little over ½ 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 ±½ 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± 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 ±217.68 acres of uplands plus ±4.42 acres of other surface waters consisting of artificial ditches and a lake allowing 222 dwelling units. Policy 1.5.1 provides that the Wetlands category has a maximum density of 1 dwelling unit per 20 acres for the ±114.84 acres of wetlands allowing an additional 6 dwelling units for a total maximum density of 228 dwelling units. The remaining ±5.74 acres of surface waters consisting of existing natural bodies of water were not included for density calculations.

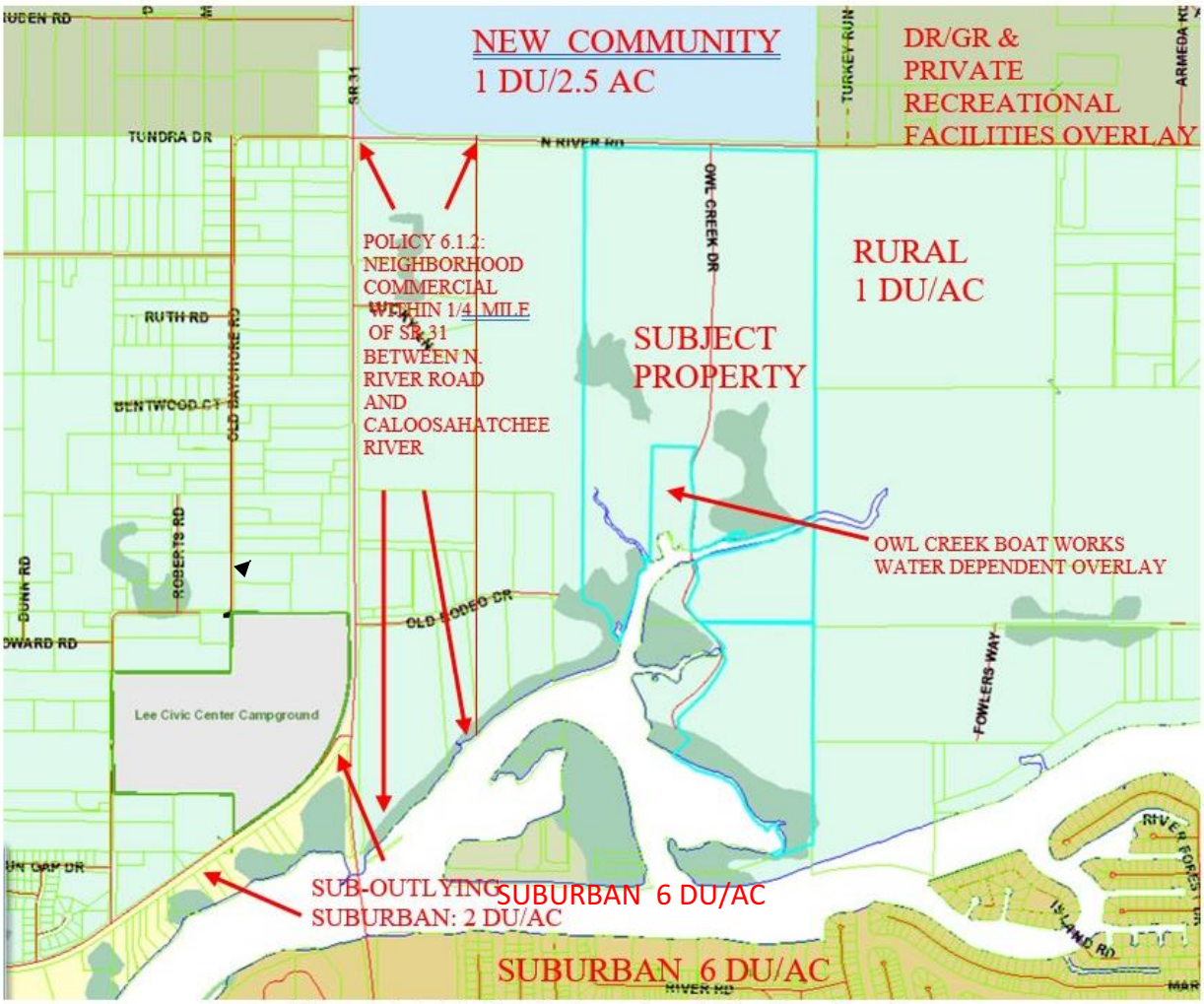

Figure 2. Future Land Use Designation

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 (±217.68 AC) & Manmade ditches/lake (±4.42 AC) = 222.1 AT 1 DU/AC:	222.1 DU
Preserved Wetlands ±103.36 AC transferred to adjacent uplands at 1 DU/AC:	103.36 DU
Impacted Wetlands ±11.48 AC at 1 DU/20 AC:	0.57 DU
±5.74 AC Natural Open Water not eligible for density	
Additional 1 DU/AC Preserved Rare and Unique Upland Habitat ±23.72 AC:	23.72 DU
Additional 1 DU/AC for Restored Rare and Unique Upland Habitat ±34.8 AC:	34.80 DU
Total Maximum Density:	385 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 385 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 228 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 228 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 ±11.48 acres of exotic infested wetlands of the existing ±114.84 acres of pending jurisdictional wetlands will be impacted for public facilities such as transportation or storm water management areas. To mitigate these impacts, ±169.12 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 49% 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 49% 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 polices 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 49% 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 ±13.01 acres of surface waters and ±3.08 acres of littoral marsh wetlands/littoral shelf to create a flushing channel.

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 90% of the onsite wetlands providing protection and enhancements through exotic removal and maintenance and upland buffers. A minimum of 49 percent of the property (±169.12 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. There is an additional ±3.08 acres of restored littoral shelf/marsh wetlands and ±13.01 acres of restored surface waters proposed to be added to the conservation area. 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 provide 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 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 90% of on-site wetlands, and replacing the potential 228 private well and septic systems with privately funded extensions and connection to public water and sewer. 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. 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 10%.

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 90% of the onsite wetlands providing protection and enhancements and will result in the protection and integration of ±58.52 acres of preserved/restored rare and unique upland habitat, consistent with Policy 123.1.1. A minimum of 49 percent of the property (±169.12 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. There is an additional ±3.08 acres of restored littoral shelf/marsh wetlands and ±13.01 acres of restored surface waters proposed to be added to the conservation area. 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 49% 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 10% or less and will protect, enhance and preserve the remaining 90% by exotic vegetation removal and placement within a conservation easement. The project will be permitted though 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 90% of on-site wetlands, and replacing the potential 228 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 CRITERA

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.

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.

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 49% 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 ±11.48 acres of exotic infested wetlands of the existing ±114.84 acres of pending jurisdictional wetlands will be impacted for public facilities such as transportation or storm water management areas. To mitigate these impacts, ±169.12 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 49% 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 385 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.

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OWL CREEK RESERVE MINOR RPD

DCI2020-00011

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 90% 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 *(49% of property) ±169.12 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.
    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 primarily in areas previously impacted by agricultural uses and other development activities.

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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.
    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-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

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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.

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Owl Creek Reserve Minor RPD

Schedule of Deviations and Justifications

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 Tracts 1 and 7 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 t-turnarounds in Tracts 1 and 7 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. The t-turnaround in Tract 7 is ±125' in length to the west and ±165' in length to the east in lieu of a cul-de-sac to access five lots in the southernmost portion of the development. Access to these few lots do not require a turn-around per NFPA standards. These short streets only serve 4-5 units and the one in Tract 7 provides access to the parking lot for the private multi-slip docking facility. The t-turnarounds provide adequate access to the units and for emergency vehicles. At the time of development order approval, the applicant must demonstrate no objection from the Bayshore Fire Protection and Rescue Service District.

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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.

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Owl Creek Reserve Minor RPD

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Revised August 2021

Schedule of Uses

Accessory Uses and Structures
Administrative Offices
Agricultural uses, existing only until time of DO
Boat dockage
Clubs, private
Community Gardens
Community Residential Home
Consumption on Premises, clubhouse (indoor and outdoor)
Dwelling Unit
- Single-Family
- Two-Family Attached (limited to Tract 1)

Entrance Gate and Gatehouse
Essential Services
Essential Service Facilities, Group I only.
Excavation, Water Retention.
Fences, Walls
Fishing piers
Home care facility
Home occupation
Private Multi-slip docking facility
Models: Display center, display group, model home
Parks, Group I
Parking Lot: Accessory
Public canoe/kayak launch
Real Estate Sales Office
Recreational Facilities: Personal, Private-on-site
Residential accessory uses
Signs, in accordance with Chapter 30
Stable: Boarding, Private, limited to lots 40,000 SF or greater in area
Temporary Uses, temporary construction trailers and equipment storage sheds

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Owl Creek Reserve Minor RPD

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Property Development Regulations

Development Perimeter Setback: 50 feet

Minimum Open Space No open space or indigenous open space required per LDC
60% common open space provided

Single Family
Minimum lot size: 6,500 square feet
Minimum lot width: 40 feet*
Minimum lot depth: 100 feet*
*Minimum width or depth may be utilized, but lots must meet minimum lot size of 6,500 SF

Minimum Setbacks:
- Private Street: 20 feet (15 feet for side-loading garage)
- Public Street: 20 feet
- Side: 5 feet
- Rear: 20 feet (5 feet for accessory structure)
- Waterbody: 25 feet
- Preserve: 20 feet (10 feet for accessory structure), 30 feet for communities subject to fire

Maximum building height: 35 feet
Maximum lot coverage: 55 percent
Setback for lot line from Owl Creek Boat Works: 100 feet to internal residential lot lines

Two-Family Attached
Minimum lot size: 3,750 square feet
Minimum lot width: 32 feet**
Minimum lot depth: 100 feet**
**Minimum width or depth may be utilized, but lots must meet minimum lot size of 3,750 SF

Minimum Setbacks:
- Private Street: 20 feet (15 feet for side-loading garage)
- Public Street: 20 feet
- Side: 5 feet (0 feet for common wall unit)
- Rear: 20 feet (5 feet for accessory structure)
- Waterbody: 25 feet

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Preserve:	20 feet (10 feet for accessory structure), 30 feet for communities subject to fire

Maximum building height: 35 feet
Maximum lot coverage: 55 percent
Setback for property line from Owl Creek Boat Works: 100 feet to internal residential lot lines

Recreation Area

Minimum lot size:	N/A
Minimum lot width:	N/A
Minimum lot depth:	N/A

Minimum Setbacks:

Private Street:	20 feet
Public Street:	20 feet
Side:	5 feet
Rear:	20 feet (5 feet for accessory structure)
Waterbody:	25 feet
Preserve:	20 feet (10 feet for accessory structure), 30 feet for communities subject to fire

Maximum building height: 35 feet
Maximum lot coverage: 55 percent

Parking for Private Multi-Slip Docking Facility: 1 parking space for every 3.5 slips

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Owl Creek Reserve Minor RPD
Preliminary Density Calculations

DCI2021-00011

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 (±217.68 AC) & Manmade ditches/lake (±4.42 AC) = 222.1 AT 1 DU/AC:	222.1 DU
Preserved Wetlands ±103.36 AC transferred to adjacent uplands at 1 DU/AC:	103.36 DU
Impacted Wetlands ±11.48 AC at 1 DU/20 AC:	0.57 DU
±5.74 AC Natural Open Water not eligible for density	
Additional 1 DU/AC Preserved Rare and Unique Upland Habitat ±23.72 AC:	23.72 DU
Additional 1 DU/AC for Restored Rare and Unique Upland Habitat ±34.8 AC:	34.80 DU
Total Maximum Density:	**385 DU**

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OWL CREEK RESERVE
Comprehensive Plan Amendment

Proposed Text Changes
Exhibit T4
CPA2020-00004 & CPA2020-00005
Revised August 2021

The Owl Creek Reserve application includes 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 Amendments 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 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.

POLICY 124.1.1: Ensure that development in wetlands is limited to very low density residential uses and uses of a recreational, open space, or conservation nature that are compatible with wetland functions. The maximum density in the Wetlands category is one unit per 20 acres, except that one single family residence will be permitted on lots meeting the standards in Chapter XIII, and except that owners of wetlands adjacent to Intensive Development, General Interchange, Central Urban, Urban Community, Suburban, New Community, Outlying Suburban and Sub-Outlying Suburban areas may transfer densities to developable contiguous uplands under common ownership (see Table 1(a)). **For wetlands adjacent to Rural areas within North Olga Planning Community see Policy 29.2.4.a.**

Table 1(a):

[8] Higher densities may be allowed under the following circumstances where wetlands are preserved on the subject site:

(a) If the dwelling units are relocated off-site through the Transfer of Development Rights program provided in Chapter 2 of the Land Development Code; or

(b) Dwelling units may be relocated to developable contiguous uplands designated Intensive Development, General Interchange, Central Urban, Urban Community, Suburban, Outlying Suburban, Sub-Outlying Suburban, and New Community from preserved freshwater wetlands at the same underlying density as permitted for those uplands (see Policy 124.1.1). **For wetlands adjacent to Rural areas within North Olga Planning Community see Policy 29.2.4.a.** Impacted wetlands will be

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calculated at the standard Wetlands density of 1 dwelling units per 20 acres. Planned Developments or Development Orders approved prior to October 20, 2010 are permitted the density approved prior to the adoption of CPA2008-18.

POLICY 29.2.4: Clustered developments within the Rural future land use category may utilize the following incentives that 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.**

TABLE 1(a)

SUMMARY OF RESIDENTIAL DENSITIES[1]

FUTURE LAND USE CATEGORY	STANDARD OR BASE DENSITY RANGE		BONUS DENSITY
	MINIMUM[2] (Dwelling Units per Gross Acre)	MAXIMUM (Dwelling Units per Gross Acre)	MAXIMUM TOTAL DENSITY[3] (Dwelling Units per Gross Acre)
Intensive Development[14]	8	14	22
General Interchange[2]	8	14	22
Central Urban[15]	4	10	15
Urban Community[4,5,16]	1	6	10
Suburban[17]	1	6	No Bonus
Outlying Suburban	1	3	No Bonus
Sub-Outlying Suburban	1	2	No Bonus
Rural[10]	No Minimum	1	No Bonus
Outer Islands	No Minimum	1	No Bonus
Rural Community Preserve[6]	No Minimum	1	No Bonus
Open Lands[7]	No Minimum	1 du/5 acres	No Bonus
Density Reduction/Groundwater Resource[13]	No Minimum	1 du/10 acres	No Bonus
Wetlands[8]	No Minimum	1 du/20 acres	No Bonus
New Community[19]	No Minimum	6	No Bonus
University Community[9]	1	2.5	No Bonus
Destination Resort Mixed Use Water Dependent[11]	6	9.36	No Bonus
Burnt Store Marina Village[12]	No Minimum	160 Dwelling Units; 145 Hotel Units	No Bonus
Coastal Rural[18]	No Minimum	1 du/2.7 acres	No Bonus

CLARIFICATIONS AND EXCEPTIONS

[1]See the glossary in Chapter XII for the full definition of "density".

[2]Except in the General Interchange future land use category adherence to minimum densities is not mandatory but is recommended to promote compact development.

[3]These maximum densities may be permitted by transferring density from non-contiguous land through the provisions of the Bonus Density Program identified in Chapter 2 of the Land Development Code.

[4]Within the Future Urban Areas of Pine Island Center, rezonings that will allow in excess of 3 dwelling units per gross acre must "acquire" the density above 3 dwelling units per gross acre utilizing TDUs that were created from Greater Pine Island (see Objective 24.6), or transfer dwelling units in accordance with Policy 24.3.4.

[5]In all cases on Gasparilla Island, the maximum density must not exceed 3 du/acre.

[6]Within the Buckingham area, new residential lots must have a minimum of 43,560 square feet.

[7]The maximum density of 1 unit per 5 acres can only be approved through the planned development process (see Policy 1.4.4), except in the approximately 135 acres of land lying east of US41 and north of Alico Road in the northwest corner of Section 5, Township 46, Range 25.

[8]Higher densities may be allowed under the following circumstances where wetlands are preserved on the subject site:

(a) If the dwelling units are relocated off-site through the provision of Transfer of Development Rights Ordinance 86-18, as amended or replaced; or

(b) Dwelling units may be relocated to developable contiguous uplands designated Intensive Development, General Interchange, Central Urban, Urban Community, Suburban, Outlying Suburban, Sub-Outlying Suburban, and New Community from preserved freshwater wetlands at the same underlying density as permitted for those uplands (see Policy 124.1.1). For wetlands adjacent to Rural areas within North Olga Planning Community see Policy 29.2.4.a. Impacted wetlands will be calculated at the standard Wetlands density of 1 dwelling units per 20 acres. Planned Developments or Development Orders approved prior to October 20, 2010 are permitted the density approved prior to the adoption of CPA2008-18.

[9]Overall average density for the University Village sub-district must not exceed 2.5 du/acre.

[10]In the Rural category located in Section 24, Township 43 South, Range 23 East and south of Gator Slough, the maximum density is 1 du/2.25 acres.

[11]Overall number of residential dwelling units is limited to 271 units in the Destination Resort Mixed Use Water Dependent district.

[12]The residential dwelling units and hotel development portions of this redevelopment project must be located outside of the designated Coastal High Hazard Area in accordance with Lee Plan, Map 5.

[13]See Policies 33.3.2, 33.3.3, and 33.3.4 for potential density adjustments resulting from concentration or transfer of development rights.

[14]The maximum total density may be increased to 30 du/acre utilizing Greater Pine Island TDUs.

[15]The maximum total density may be increased to 20 du/acre utilizing Greater Pine Island TDUs.

[16]The maximum total density may be increased to 15 du/acre utilizing Greater Pine Island TDUs.

[17]The maximum total density may be increased to 8 du/acre utilizing Greater Pine Island TDUs.

[18] The standard maximum density is 1 du/2.7 acres unless the "Adjusted Maximum Density" of 1 du/acre is achieved in accordance with requirements of Policy 1.4.7 and Chapter 33 of the Land Development Code.

[19]Maximum density in the New Community future land use category is limited to 1 du/2.5 acres in the North Olga Community Plan area in accordance with Policy 1.6.1.

HWA
Hans Wilson & Associates
Marine Engineers and Environmental Consultants

EMERGENCY PREPARDENESS PLAN

Per Lee County Administrative Code 7-7

July 30, 2021

Owl Creek Reserve (Owner)

Introduction

The state of Florida is ground zero for tropical storms and hurricanes. Florida is also a boating Mecca with over 850,000 registered vessels in the state. The coastal areas of the state are the most heavily populated with the highest concentration of boaters located along this interface between land and sea. Hurricanes create the greatest impact along these coastal waters with high winds and storm surges. Boats, whether moored at residential docks, commercial marinas, in dry storage buildings, or on trailers are very susceptible to the impacts of tropical storms and hurricanes. It is imperative that every marina have an Emergency Preparedness Plan to not only protect the marina, boat the boaters and vessels.

Site Specific Information

The Owl Creek Reserve site is located on the north bank of the Caloosahatchee River, approximately 23 miles from San Carlos Bay (Lat:26.72177; Long: -81.7477). The proposed 96 boat slips are for residential use. The site is located in a AE Special Flood Hazard Area, according to Florida Emergency Management Agency (FEMA), which means the subject site structures be inundated by a flood having 1 percent chance of being equaled or exceeding in any given year.

Name: Owl Creek Reserve
17900 Owl Creek Drive
Alva Florida, 33920

Owner: DR Horton
10541 Ben C. Pratt Six Mile Cypress Parkway
Fort Myers, Florida 33966

Responsible for implementing plan: Owner / Designee of Private Marina

Basic Procedures

The following are the basic Hurricane/Storm Preparation Procedures Owl Creek Reserve will implement and follow during hurricane season. This document is not all-inclusive but provides the majority of items that are useful during planning, preparation, and management of the marina in the event of a hurricane. A resident owner of any vessel left in the marina during a hurricane will be solely responsible for any damage to docks, piers, dock systems, other vessels, and/or marina property. Residents are solely responsible for removal and cleanup of their vessel if damaged or sunk during a hurricane.

Hurricane Procedures

1. Docks will be cleared of all loose items
2. If significant surge is expected, electrical service to the docks will be shut down
3. Prior to, or during, a hurricane watch or warning, residents will be asked to relocate their vessel to its home mooring. If the owner requests boaters to relocate their vessel, and they refuse, the owner will take appropriate action to secure the vessel as required to prevent damage to property or the marina
4. In accordance with Sec. 327.59, Florida Statutes (**see below**) boaters will be required to removed their vessel from the marina once a **Hurricane Warning** has been issued for the area

Fuel and / or Oil Spill

The marina does not supply fuel service. Yet because most of the docked vessels are powered by fuel, a spill can happen. In this case it has to be reported immediately to:

- State Warning Point 24h: (800)-320-0519
- Nearest containment service can be provided through local Sea Spill Services (Sea Tow Services of Fort Myers)
  3725 Del Prado Boulevard South, Cape Coral Florida 33904, (239)-945-4820

Florida Statutes (Section 327.59) – Marina Evacuation

NOTICE TO VESSEL OWNER: Owl Creek Reserve hereby informs you that in the event you fail to promptly remove your vessel from the marina once a **hurricane watch or warning** has been issued for Lee County, Florida, the owner will take action as follows: Under Florida Law, the owner or his/her designee, under no obligation to the vessel owner, are authorized to remove vessels, if reasonable, from its slip. In addition, and as deemed appropriate, the owner or his/her designee may take any and all other

reasonable actions to better secure a vessel and to protect marina property, private property, and the environment. Boaters may be charged a reasonable fee for any such action. Moreover, any damage caused as a result of the vessel not being moved or properly secured will be at the sole cost, expense and liability of the vessel owner.

Hurricane Information

The following are definitions and information about the various weather systems that lead up to a hurricane event.

Tropical disturbance: A rotary circulation with little to no development of the ocean surface but better development in the upper atmosphere and no strong winds, a common phenomenon in the tropics

Tropical Depression: A low pressure area with some rotary circulation on the ocean surface and a sustained wind speed of less than 39 mph

Tropical Strom: A low pressure with a distinct rotary circulation and sustained wind speeds of 39 mph to 73 mph

Hurricane: A low-pressure area with a strong and pronounced rotary circulation and a sustain wind speed of at least 74 mph

Categorical Strength – The Saffir-Simpson Scale is used to estimate potential property damage from the sustained wind speeds associated with a hurricane.

- **Category 1:** Winds of 74-95 mph; some damage
- **Category 2:** Winds of 96-110 mph; extensive damage
- **Category 3:** Winds of 111-130 mph; devastating damage
- **Category 4:** Winds of 131-155 mph; catastrophic damage
- **Category 5:** Winds above 155 mph; catastrophic damage

Strom Surge: Water that is pushed toward the shore by the force of the winds swirling around the storm and creating a friction across the surface of the water building waves. This advancing surge combines with the normal tides to create the hurricane storm tide.

Tropical Strom Watch: An announcement that tropical-storm condition are *possible* within the specified area

Hurricane Watch: An announcement that hurricane conditions are *possible* within the specified area. Because outside preparedness activities become difficult once winds reach tropical storm force, ***watches are issued 48 hours in advance of the anticipated onset of tropical-storm-force winds.*** *Action:* During a watch, prepare your property and review your plan for evacuation in case a Hurricane or Tropical Storm Warning is issued.

Tropical Storm Warning: An announcement that tropical-storm conditions are *expected* within the specified area.

Hurricane Warning: An announcement that hurricane conditions are *expected* within the specified area. Because outside preparedness activities become difficult once winds reach tropical storm force, ***warnings are issued 36 hours in advance of the anticipated onset of tropical-storm-force winds.*** *Action:* During a warning, complete storm preparations and immediately leave the threatened area if directed by local officials.

Extreme Wind Warning Extreme sustained winds of a major hurricane (115 mph or greater) usually associated with the eyewall, are expected to begin within an hour. *Action:* Take immediate shelter in the interior portion of a well-built structure

Evacuation Order: Once issued, an evacuation order is mandatory under state law

Roster of Emergency Numbers

- USCG National Response Center (800) 424-8802
- Florida Fish and Wildlife Commission: (800) 342-5367
- Lee County Sheriff's Office: 9-1-1 for emergencies, (239) 477-1000 for non-emergencies
- Lee County EMS (Emergency Medical Services): 9-1-1 for emergencies (239) 533-3911 for non-emergencies
- Bayshore Fire Department: 9-1-1 for emergencies (239) 543-3443 for non-emergencies

Owl Creek Reserve

17900 Owl Creek Drive
Alva, FL 33920

MARINA MANAGEMENT PLAN

Prepared by:

HWA
Hans Wilson & Associates

Marine & Environmental Consultants
1938 Hill Avenue • Fort Myers, Florida 33901
(239) 334-6870 • FAX (239) 334-7810
May 2018

Marina Management Plan – Owl Creek Reserve

Introduction: Owl Creek Reserve is a private docking facility for its residents. The marina facility will be owned and operated by The Owl Creek Reserve Yacht Club (owner).

The Marina Management Plan (MMP) is a program implementing Best Management Practices (BMP's) for all elements of the marina operations. The MMP contains guidelines expressly designed to eliminate the potential discharge of pollutants into State waters.

The MMP and the overall management of activities in and adjacent to the marina are paramount to maintaining water quality standards and creating a healthy waterway that invites boating use. It is the Owner's intent to maintain clean water within the facility, which is necessary for the promotion of healthy aquatic plant and animal life, public health, and appeal of the marina.

It is the responsibility of the Owner to implement all provisions of the MMP. In order to provide the Department of Environmental Protection (DEP) reasonable assurance that state water quality standards are met, the MMP mimics the goals and objectives of the Florida Clean Marina Program and assures compliance with the DEP permit issued for the dock construction. The MMP will be included in the Association Rules and Procedures for using the docks.

Enforcement: It is the responsibility of the Owner, or successor in title, to protect and maintain water quality standards within the marina. It is the responsibility of the Owner to identify pollution sources within the marina that may result in water quality violations, and to take appropriate actions to prevent such occurrences.

It is the Owner's responsibility to monitor all boaters using the marina on a daily basis. Upon observation of any non-compliance with the provisions of the MMP, the Owner will serve a written/verbal "Caution" statement to the boater, informing them of the infraction. A second infraction will result in a written "Warning" notice, informing the boater of a second infraction. A third infraction will result in the immediate termination of the use of the slip. Infractions do not have to be identical, and separate notices of violations are cumulative. All Caution, Warning, and Termination Notices will be documented by the Owner, including the reason for the infraction. Copies of such Notices resulting from violations of the restriction conditions of the agreement will be forwarded to the DEP.

Violations: The Owner reserves the right to identify any offender causing a violation within the marina, and to name said offender in any enforcement action. The Owner acknowledges that it has the duty to monitor its residents to ensure their compliance with the MMP conditions and requirements. Should the Owner fail to enforce or improperly monitor the MMP with respect to activities of its residents, then, the Owner acknowledges its responsibility and liability for violations of State rules, statutes, and water quality standards. Nothing herein will be construed to waive any defenses provided to the Owner in Chapters 403 and 376, Florida Statutes, in any enforcement action brought by the agencies.

Sewage Pump out Facilities: Sewage pumpout is available at Sweetwater Landing within a mile of the project site. Residents will be informed of the availability. No discharge of sewage or other pollutants within the facility will be allowed. Any discharge into the marina will be a violation of the MMP and will require enforcement action as defined in the Plan.

Discharge of Waste or Other Materials: State and Federal law prohibits discharge of any fluids, wastes or other materials, regardless of nature, except for clean bilge water or properly treated wastewater. Illegal discharges into adjacent water bodies or within the marina would adversely impact public health. If the Owner observes any such discharge, including any discharge of wastewater, in the marina, they will immediately notify the DEP or call the State Warning Point number (850-815-4001). In the event of an accidental discharge in the marina, the vessel captain or operator will notify the Owner immediately to ensure action will commence to contain the spilled/discharged material.

Severe Storm or Hurricane Plan: Boaters will be warned to exercise prudent and appropriate judgment in the event that a severe storm or hurricane threatens the area. Evacuation of the marina will not be mandatory; however all resident boaters will be required to maintain proper insurances and to authorize the Harbormaster to take whatever action is necessary to protect the marina and vessels within the marina. The owner will recommend to owners that vessels be relocated to the mainland or if possible, removed from the water and stored at the upland owners residence. Every effort will be made to remove vessels from the water. Those that remain will be prepared by removing lose objects, removing or securing canvass covers, and mooring in the slips to accommodate storm surges. A copy of the marina's Hurricane Plan and Procedures is available to all boaters in the marina.

Solid Waste Receptacles: Solid waste receptacles will be provided and maintained by the Owner to prevent the discharge of any solid waste products. Additionally, the Owner will remove and properly dispose of trash to an appropriate upland landfill or incinerator.

Boat Cleaning: The use of deleterious cleaning products containing high concentrations of chlorines, phosphates, and ammonia will be discouraged. Use of environmentally friendly cleaning method and products will be encouraged and will be available at the ships store. Fresh water will be available to clean boats after every use, minimizing the use of cleansers. Major repairs or refitting of vessels, including any activity that could result in a deposition of any petroleum products into adjacent waters, or within the marina, will be strictly prohibited within the wet slips.

Battery Management: Information will be available in the Harbormasters office to alert the public about the disposal ban on lead acid and rechargeable batteries. They include the phone number of 1-800-CLEANUP for nickel-cadmium battery recycling information or check the Earth911 web site at www.Earth911.org. The DEP information line phone number for waste compliance is 850-245-8707 and the DEP website is www.dep.state.fl.us for help in recycling batteries or other materials.

The handling of batteries over the water surface and on the docks will include the use of containers to hold batteries during transport to minimize potential for spillage of battery acid, or loss of batteries. The storage of batteries on docks is prohibited.

Marina Education Plan: Standard manatee, marine turtle, and sawfish related education materials will be posted in the Harbormasters office as required by the Florida Fish and Wildlife Conservation Commission (FWCC) and to help raise boater awareness of the need to protect these resources. The Owl Creek Development intenteds on advancing the education process and will implement a comprehensive education plan that promotes manatee protection, sawfish disentanglement procedures, boating safety, seagrass protection, wildlife identification, and knowledge about other important resources needing protection.

Education Components

Boater Kits – The owner of Reserve Yacht Club will provide every resident using a slip with a boater kit that contains information on safe boating, sawfish, marine turtles, and manatees. Boating safety information will include the most recent versions as follows:

- Complete copies of the Marina Management Plan & Hurricane Preparedness Plan.
- Boating and Angling Guide to Lee and Charlotte County which is downloadable from: **http://goboatingflorida.com/resources/lee-county-boaters-guide/**
- Information about How to Get a Boating Safety Education Identification Card, as presented at: **http://myfwc.com/boating/safety-education/id/**
- Manatee information will include FWCC's Commonly Asked Questions About Manatees, Manatee Protection Rules, The Manatee Program and Funding Sources brochure, which is downloadable from: **http://myfwc.com/wildlifehabitats/managed/manatee/**
- Sawfish information will include FAQ's, habitat identification, disentanglement procedures, and cultural impacts as available at the Florida Fish and Wildlife Conservation Commission website: **http://myfwc.com/research/saltwater/fish/sawfish/**

  Other brochures that will be available at the Owl Creek Development will include the following, as they are made available to the public, and as resource focuses change over time. Examples would include the following:

- Help Prevent Entanglement-Protecting Marine Mammals and Marine Turtles
- Florida's Seagrass Meadows
- Lee County Boaters Guide
- The Florida Manatee-A Florida Treasure
- The Florida Manatee
- Florida's Seagrasses

Educational Signage – The owner, as a function of implementing their Resource Protection Plan, will post Manatee, Sea Turtle, and Sawfish signs at strategic locations throughout the marina. These signs will be typically located at the base of the docks, where most passengers will pass by.

Monofilament Recovery and Recycling Program – The owner will provide monofilament line recovery bins, as promoted by the FWCC at **http://www.fishinglinerecycling.com/** at various locations around the marina.

Employee Education – The owner will provide annual updates to the residents for the marina regarding implementation, compliance, and monitoring of the Marina Management Plan. The program will be tailored to promote methods and procedures for executing the BMP's listed in the Management Plan by the residents.

TR TRANSPORTATION CONSULTANTS, INC

2726 OAK RIDGE COURT, SUITE 503
FORT MYERS, FL 33901-9356
OFFICE 239.278.3090
FAX 239.278.1906

TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
SIGNAL SYSTEMS/DESIGN

August 13, 2021

Ms. Stacy Hewitt, AICP
Banks Engineering
10511 Six Mile Cypress Pkwy, Suite 101
Fort Myers, FL 33966

RE: Owl Creek RPD
DCI2021-00011

Dear Ms. Hewitt:

TR Transportation Consultants, Inc. has reviewed the Traffic Impact Statement (TIS) comments issued by the Lee County Department of Community Development regarding the above project. The comments and TR Transportation's response to those comments are listed below for reference.

LC T.I.S. Application Sufficiency Checklist:

1. *N. River Rd from Owl Creek Dr to SR 31 is significant impacted by the project. An intersection LOS analysis is required for the intersection of SR 31/N River Rd.*

Acknowledged. See attached intersection analysis. Note, the proposed rezoning request is now for 385 single-family dwelling units. The trip generation for this request is shown below. Intersection analysis at the site access drives has also been revised based on the new proposed intensity. Note, all analyzed intersections were shown to operate at acceptable Level of Service both with and without project traffic.

Trip Generation
Proposed Rezoning
Owl Creek Reserve Minor RPD

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Detached Housing (385 Dwelling Units)	70	208	278	234	137	371	3,594

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

2. *The four lane widening of SR 31 from SR 78 to County Line is only PD&E study. The 4 lane service volumes cannot be used in link LOS analysis.*

Acknowledged. Attached Table 5A has been revised to satisfy this comment.

3. *The Master Concept Plan shows Owl Creek Dr will be relocated and will be on the west of the proposed project's driveway. Figure 2 needs to be revised.*

Acknowledged. Attached Figure 2 has been revised to satisfy this comment. Note, Figure 3 and Table 6A have also been revised based on the latest traffic data.

4. *The proposed project's build-out is within 5 years (2025). The existing service volumes of N River Rd shall be used for the LOS analysis.*

Acknowledged. Attached Table 5A has been revised to satisfy this comment.

If you have any additional questions, please do not hesitate to contact us.

Sincerely,

Yury Bykau, E.I.
Transportation Consultant

Attachments

TABLES 5A & 6A

REZONING ANALYSIS

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

TABLE 5A
LEVEL OF SERVICE THRESHOLDS
OWL CREEK RESERVE MINOR RPD

TOTAL AM PEAK HOUR PROJECT TRAFFIC =	278 VPH	IN=	70	OUT=	208
TOTAL PM PEAK HOUR PROJECT TRAFFIC =	371 VPH	IN=	234	OUT=	137

ROADWAY	ROADWAY SEGMENT	# LANES	ROADWAY DESIGNATION	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PERCENT PROJECT TRAFFIC	PROJECT TRAFFIC	PROJ/ LOS C
N. River Rd	E. of Owl Creek Dr	2LU	Uninterrupted Flow Highway	170	370	620	860	1,140	5%	12	1.9%
	W. of Owl Creek Dr	2LU	Uninterrupted Flow Highway	170	370	620	860	1,140	95%	222	35.9%
SR 31	N. of N. River Rd.	2LU	Uninterrupted Flow Highway	0	580	890	1,200	1,610	20%	47	5.3%
	S. of N. River Rd.	2LU	Arterial	0	0	830	880	880	75%	176	21.1%
	S. of SR 78	2LU	Arterial	0	0	830	880	880	50%	117	14.1%
SR 78 (Bayshore Rd)	W. of SR 31	2LU	Arterial	0	0	872	924	924	25%	59	6.7%
SR 80 (Palm Beach Blvd)	W. of SR 31	6LD	Arterial	0	0	3,087	3,171	3,171	35%	82	2.7%
	E. of SR 31	4LD	Arterial	0	0	2,006	2,100	2,100	10%	23	1.2%

- Denotes the LOS Standard for each roadway segment

* Level of Service Thresholds for Lee County arterials/collectors taken from the Lee County Link-Specific Service Volumes Table.
* Level of Service Thresholds for State mantained roadways were taken from FDOT's Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas Table 7.

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

TABLE 6A
LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS
OWL CREEK RESERVE MINOR RPD

TOTAL PROJECT TRAFFIC AM =	278	VPH	IN =	70	OUT=	208
TOTAL PROJECT TRAFFIC PM =	371	VPH	IN=	234	OUT=	137

FDOT Sta. #	K	D
120273	0.095	0.527
121001	0.095	0.537
120030	0.090	0.537
121002	0.090	0.537
126005	0.090	0.537
120085	0.090	0.537

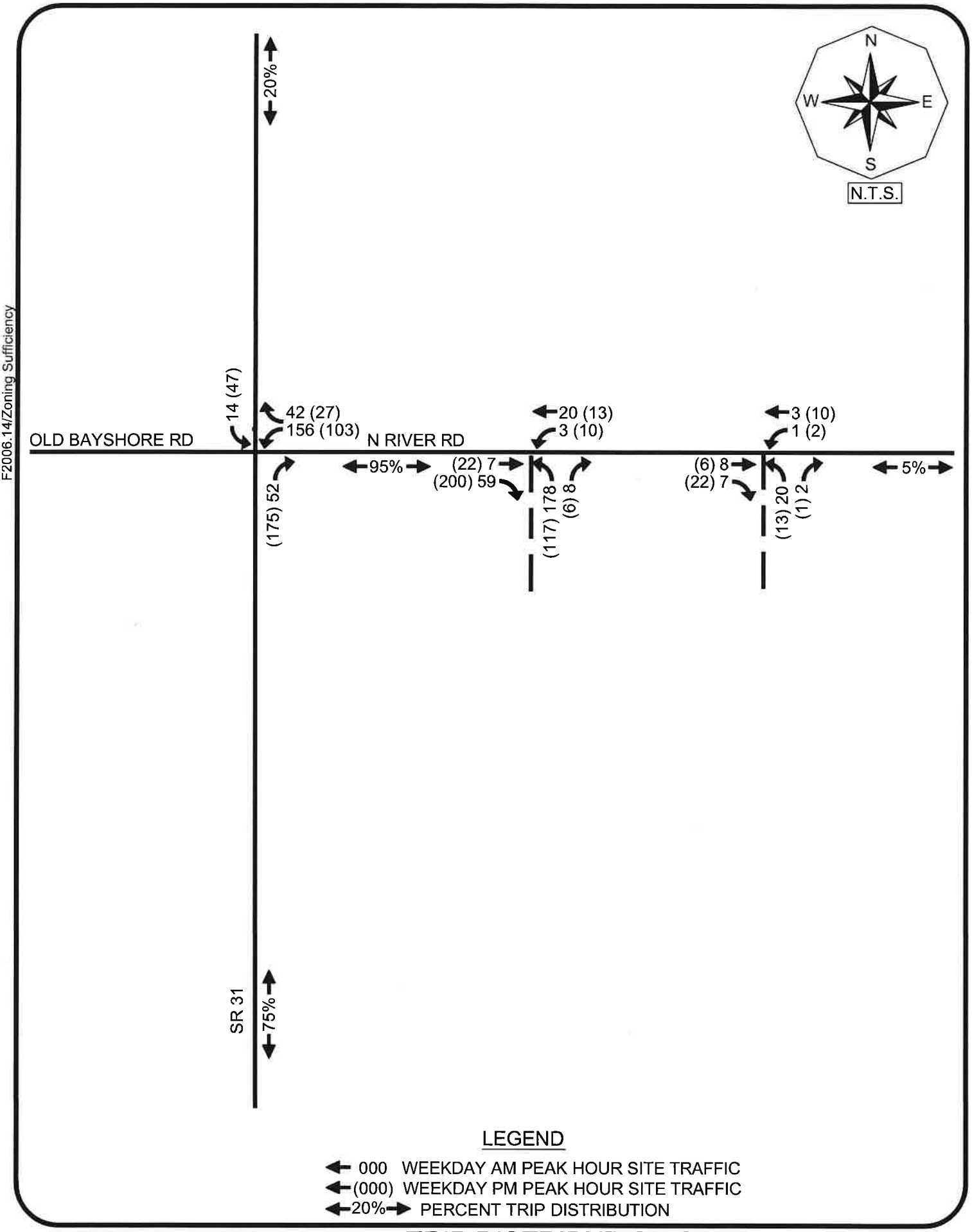
ROADWAY	ROADWAY SEGMENT	LCDOT PCS OR FDOT SITE #	BASE YR ADT	2018/2019 ADT	YRS OF GROWTH.[1]	ANNUAL RATE	2019/2020 PK HR PK SEASON PEAK DIR.[2]	2025 PK HR PK SEASON PEAK DIRECTION VOLUME	LOS	V/C Ratio	PERCENT PROJECT TRAFFIC	AM PROJ TRAFFIC	PM PROJ TRAFFIC	2025 BCKGRND + AM PROJ VOLUME	LOS	V/C Ratio	2025 BCKGRND + PM PROJ VOLUME	LOS	V/C Ratio
N. River Rd	E. of Owl Creek Dr	348	2,200	2,900	8	3.51%	156	192	B	0.17	5%	10	12	202	B	0.18	204	B	0.18
	W. of Owl Creek Dr	348	2,200	2,900	8	3.51%	156	192	B	0.17	95%	198	222	390	C	0.34	414	C	0.36
SR 31	N. of N. River Rd.	120273	5,532	9,182	15	3.44%	460	544	B	0.61	20%	42	47	586	C	0.66	591	C	0.66
	S. of N. River Rd.	121001	10,400	11,000	15	2.00%	561	620	C	0.75	75%	156	176	776	C	0.93	795	C	0.96
	S. of SR 78	120030	10,500	13,800	15	2.00%	667	736	C	0.84	50%	104	117	840	D	0.95	853	D	0.97
SR 78 (Bayshore Rd)	W. of SR 31	121002	8,600	11,000	15	2.00%	532	587	C	0.64	25%	52	59	639	C	0.69	645	C	0.70
SR 80 (Palm Beach Blvd)	W. of SR 31	126005	26,004	33,500	12	2.13%	1,619	1,799	C	0.57	35%	73	82	1,872	C	0.59	1,881	C	0.59
	E. of SR 31	120085	31,500	36,500	15	2.00%	1,764	1,948	C	0.93	10%	21	23	1,968	C	0.94	1,971	C	0.94

1 AGR for all roadways was calculated based the historical traffic data obtained from Lee County Traffic Count Report and Florida Traffic Online webpage.

2 Current peak hour peak season peak direction traffic volumes for all County roadways were obtained from the 2020 Lee County Public Facilities Level of Service and Concurrency Report.

2 Current peak hour peak season peak direction traffic volumes for state mantained roadways were obtained by adjusting the 2020 AADT by the appropriate K and D factors.

FIGURE 2 & FIGURE 3

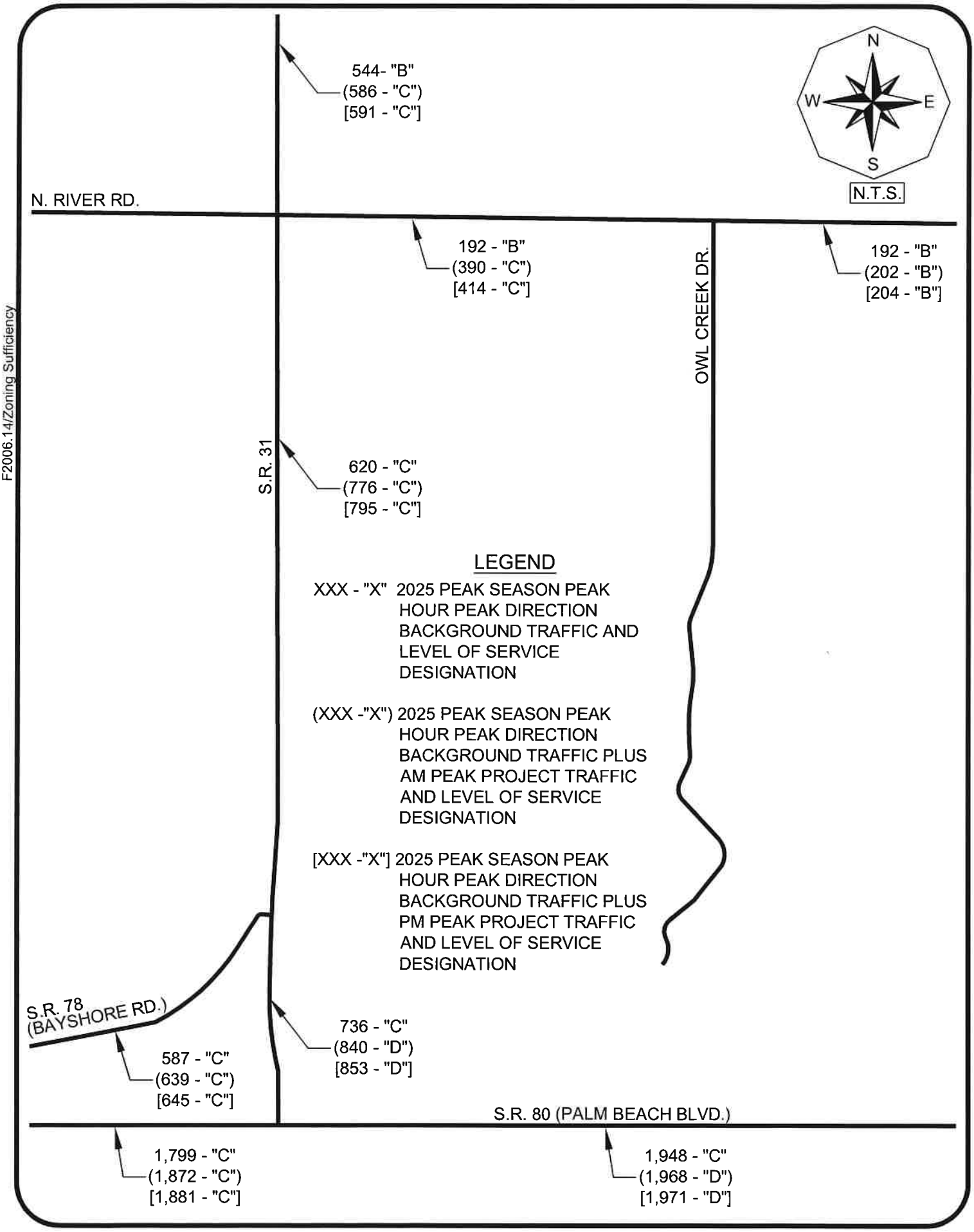


F2006.14/Zoning Sufficiency

TR TRANSPORTATION CONSULTANTS, INC

TRIP DISTRIBUTION &
SITE TRAFFIC ASSIGNMENT
OWL CREEK RESERVE MINOR RPD

Figure 2



TR TRANSPORTATION CONSULTANTS, INC

2025 LEVEL OF SERVICE ANALYSIS
OWL CREEK RESERVE MINOR RPD

Figure 3

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

LEE COUNTY LINK SPECIFIC SERVICE VOLUMES

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

LINK-SPECIFIC SERVICE VOLUMES ON ARTERIALS IN LEE COUNTY (2015 DATA)

ROAD SEGMENT	FROM	TO	TRAFFIC DISTRIC	LENGTH (MILE)	ROAD TYPE	SERVICE VOLUMES (PEAK HOUR PEAK DIRECTION)					SERVICE VOLUMES (PEAK HOUR--BOTH DIRECTIONS)				
						A	B	C	D	E	A	B	C	D	E
McGREGOR BLVD	COLLEGE PKWY	WINKLER RD	4	1.4	2LN	0	830	900	900	900	0	1,630	1,780	1,780	1,780
	WINKLER RD	BRENTWOOD	1	0.8	2LN	0	830	900	900	900	0	1,630	1,780	1,780	1,780
	BRENTWOOD	COLONIAL BLVD	1	0.8	2LN	0	830	900	900	900	0	1,630	1,780	1,780	1,780
METRO PKWY	US 41	SIX MILE PKWY	4	2.5	6LD	0	2,280	2,280	2,280	2,280	0	4,060	4,060	4,060	4,060
	SIX MILE PKWY	DANIELS PKWY	4	1.3	6LD	0	0	2,060	2,060	2,060	0	0	3,670	3,670	3,670
	DANIELS PKWY	CRYSTAL DR	4	1.3	4LD	0	1,340	1,660	1,660	1,660	0	2,400	2,980	2,980	2,980
	CRYSTAL DR	DANLEY DR	4	1.1	4LD	0	1,340	1,660	1,660	1,660	0	2,400	2,980	2,980	2,980
	DANLEY DR	COLONIAL BLVD	1	1.2	4LD	0	1,340	1,660	1,660	1,660	0	2,400	2,980	2,980	2,980
DR. MARTIN LUTHER KING, JR. BLVD (SR 82)	MICHIGAN LINK	ORTIZ AVE	1	0.8	4LD	260	1,700	1,700	1,700	1,700	450	2,940	2,940	2,940	2,940
	ORTIZ AVE	I-75	1	0.6	6LD	400	2,560	2,560	2,560	2,560	690	4,430	4,430	4,430	4,430
	I-75	BUCKINGHAM RD	1	1.5	6LD	0	2,740	2,740	2,740	2,740	0	4,730	4,730	4,730	4,730
	BUCKINGHAM RD	COLONIAL BLVD	1	1.0	6LD	0	2,740	2,740	2,740	2,740	0	4,730	4,730	4,730	4,730
	COLONIAL BLVD	GATEWAY BLVD	3	1.0	2LN	700	1,160	1,160	1,160	1,160	1,210	2,010	2,010	2,010	2,010
	GATEWAY BLVD	GUNNERY RD	3	3.5	2LN	1,040	1,040	1,040	1,040	1,040	1,670	1,670	1,670	1,670	1,670
	GUNNERY RD	ALABAMA RD	3	3.5	2LN	140	450	860	1,210	1,360	230	730	1,390	1,960	2,200
	ALABAMA RD	BELL BLVD	3	4.2	2LN	140	450	860	1,210	1,360	230	730	1,390	1,960	2,200
	BELL BLVD	COUNTY LINE	3	2.7	2LN	140	450	860	1,210	1,360	230	730	1,390	1,960	2,200
NORTH RIVER RD	SR 31	FRANKLIN LOCK RD	2	4.5	2LN	170	370	620	860	1,140	280	610	1,020	1,410	1,870
	FRANKLIN LOCK RD	BROADWAY RD	2	5.7	2LN	170	370	620	860	1,140	280	610	1,020	1,410	1,870
	BROADWAY RD	COUNTY LINE	2	3.6	2LN	170	370	620	860	1,140	280	610	1,020	1,410	1,870
ORANGE RIVER BLVD	SR 80	STALEY RD	3	1.3	2LN	110	260	430	590	1,000	210	500	820	1,120	1,890
	STALEY RD	BUCKINGHAM RD	3	3.0	2LN	110	260	430	590	1,000	210	500	820	1,120	1,890
ORTIZ AVE	COLONIAL BLVD	SR 82	1	1.7	2LN	0	790	900	900	900	0	1,340	1,520	1,520	1,520
	SR 82	BALLARD ST	1	1.1	2LN	0	790	900	900	900	0	1,340	1,520	1,520	1,520
	BALLARD ST	TICE ST	1	1.3	2LN	0	790	900	900	900	0	1,340	1,520	1,520	1,520
	TICE ST	SR 80	1	0.3	2LN	0	790	900	900	900	0	1,340	1,520	1,520	1,520
PINE ISLAND RD/ BAYSHORE RD (SR 78)	STRINGFELLOW RD	BURNT STORE RD	5 & 6	5.4	2LN	70	220	380	530	950	140	440	750	1,040	1,870
	BURNT STORE RD	CHIQUITA BLVD	5	2.0	4LD	1,230	1,820	1,820	1,820	1,820	2,280	3,370	3,370	3,370	3,370
	CHIQUITA BLVD	SANTA BARBARA BLVD	5	2.3	4LD	1,250	2,020	2,020	2,020	2,020	2,320	3,760	3,760	3,760	3,760

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LEE COUNTY PUBLIC FACILITIES LEVEL OF SERVICE AND CONCURRENCY REPORT

5/25/2020

LEE COUNTY Road Link Volumes (County- and State-Maintained Roadways)

LINK NO.	NAME	ROADWAY LINK FROM	TO	ROAD TYPE	PERFORMANCE STANDARD LOS	CAPACITY	2019 100TH HIGHEST HOUR LOS	VOLUME	FORECAST FUTURE LOS	VOLUME	NOTES
13500	IMPERIAL PKWY	COUNTY LINE	BONITA BEACH RD	4LD	E	1,920	B	1,017	B	1,069	*
13550	IMPERIAL PKWY	E TERRY ST	COCONUT RD	4LD	E	1,920	B	1,015	B	1,067	
13600	IONA RD	DAVIS RD	McGREGOR BLVD	2LN	E	860	C	381	C	460	
13700	ISLAND PARK RD	PARK RD	US 41	2LN	E	860	C	79	C	251	
13800	JOEL BLVD	BELL BLVD	18TH ST	4LN	E	2,120	B	660	B	876	Joel Blvd CPD
13900	JOEL BLVD	18TH ST	SR 80	2LN	E	1,010	D	495	D	520	
14000	JOHN MORRIS RD	BUNCHE BEACH	SUMMERLIN RD	2LN	E	860	C	62	C	72	old count projection
14100	JOHN MORRIS RD	SUMMERLIN RD	IONA RD	2LN	E	860	C	236	C	267	
14200	KELLY RD	McGREGOR BLVD	SAN CARLOS BLVD	2LN	E	860	C	277	C	291	
14300	KELLY RD	SAN CARLOS BLVD	PINE RIDGE RD	2LN	E	860	C	106	C	120	old count projection(2010)
14500	LAUREL DR	BUS 41	BREEZE DR	2LN	E	860	C	324	C	340	*
14600	LEE BLVD	SR 82	ALVIN AVE	6LD	E	2,840	B	2,202	B	2,318	
14700	LEE BLVD	ALVIN AVE	GUNNERY RD	6LD	E	2,840	B	2,161	B	2,340	
14800	LEE BLVD	GUNNERY RD	HOMESTEAD RD	6LD	E	2,840	B	2,131	B	2,240	
14900	LEE BLVD	HOMESTEAD RD	WILLIAMS AVE	4LD	E	1,980	B	630	B	662	
14930	LEE BLVD	WILLIAMS AVE	LEELAND HEIGHTS	2LN	E	1,020	B	630	B	665	
15000	LEE RD	SAN CARLOS BLVD	ALICO RD	2LN	E	860	C	544	D	614	old count projection(2015)
15100	LEELAND HEIGHTS	HOMESTEAD RD	JOEL BLVD	4LN	E	1,800	B	832	B	867	*
15200	LEONARD BLVD	GUNNERY RD	WESTGATE BLVD	2LN	E	860	D	650	D	706	
15300	LITTLETON RD	CORBETT RD	US 41	2LN	E	860	C	470	C	494	
15400	LITTLETON RD	US 41	BUS 41	2LN	E	860	C	417	C	439	*
15500	LUCKETT RD	ORTIZ AVE	I-75	2LN	E	880	B	326	B	401	4 Ln design & ROW
15600	LUCKETT RD	I-75	COUNTRY LAKES DR	2LN	E	860	C	273	C	287	
15700	MAPLE DR*	SUMMERLIN RD	2ND AVE	2LN	E	860	C	77	C	89	old count projection
15800	McGREGOR BLVD	SANIBEL T PLAZA	HARBOR DR	4LD	E	1,960	B	1,153	B	1,212	
15900	McGREGOR BLVD	HARBOR DR	SUMMERLIN RD	4LD	E	1,960	B	1,114	B	1,170	
16000	McGREGOR BLVD	SUMMERLIN RD	KELLY RD	4LD	E	1,960	A	964	B	1,022	
16100	McGREGOR BLVD	KELLY RD	GLADIOLUS DR	4LD	E	1,960	A	964	A	1,013	
16200	McGREGOR BLVD (SR 867)	OLD McGREGOR BLVD/GI	IONA LOOP RD	4LD	D	2,100	C	1,594	C	1,731	
16300	McGREGOR BLVD (SR 867)	IONA LOOP RD	PINE RIDGE RD	4LD	D	2,100	C	1,594	C	1,731	
16400	McGREGOR BLVD (SR 867)	PINE RIDGE RD	CYPRESS LAKE DR	4LD	D	2,100	C	1,832	D	2,082	
16500	McGREGOR BLVD (SR 867)	CYPRESS LAKE DR	COLLEGE PKWY	4LD	D	2,100	C	1,832	D	2,082	
16600	McGREGOR BLVD (SR 867)	COLLEGE PKWY	WINKLER RD	2LN	D	924	C	792	C	861	Constrained
16700	McGREGOR BLVD (SR 867)	WINKLER RD	TANGLEWOOD BLVD	2LN	D	970	F	1,187	F	1,260	Constrained
16800	McGREGOR BLVD (SR 867)	TANGLEWOOD BLVD	COLONIAL BLVD	2LN	D	970	F	1,187	F	1,260	Constrained
16900	METRO PKWY (SR 739)	SIX MILE PKWY	DANIELS PKWY	6LD	D	3,171	C	1,123	C	1,391	
17000	METRO PKWY (SR 739)	DANIELS PKWY	CRYSTAL DR	4LD	D	2,100	C	1,193	C	1,441	
17100	METRO PKWY (SR 739)	CRYSTAL DR	DANLEY DR	4LD	D	2,100	C	1,544	C	1,764	
17200	METRO PKWY (SR 739)	DANLEY DR	COLONIAL BLVD	4LD	D	2,100	C	1,615	C	1,845	
	MICHAEL RIPPE PKWY	US41	SIX MILES PKWY	6LD	D	3,171	C	1,381	C	1,945	
17600	MILWAUKEE BLVD	ALABAMA BLVD	BELL BLVD	2LN	E	860	C	171	C	180	
17700	MILWAUKEE BLVD	BELL BLVD	COLUMBUS BLVD	2LN	E	860	C	171	C	183	
17800	MOODY RD	HANCOCK B. PKWY	PONDELLA RD	2LN	E	860	C	182	C	206	old count projection(2009)
17900	NALLE GRADE RD	SLATER RD	NALLE RD	2LN	E	860	C	68	C	71	
18000	NALLE RD	SR 78	NALLE GRADE RD	2LN	E	860	C	114	C	134	
18100	NEAL RD	ORANGE RIVER BLVD	BUCKINGHAM RD	2LN	E	860	C	120	C	126	
18200	NO RIVER RD	SR 31	FRANKLIN LOCK RD	2LN	E	1,140	A	156	B	275	
18300	NO RIVER RD	FRANKLIN LOCK RD	BROADWAY RD	2LN	E	1,140	A	156	B	301	
18400	NO RIVER RD	BROADWAY RD	COUNTY LINE	2LN	E	1,140	A	108	A	141	
18900	OLGA RD*	SR 80 W	SR 80 E	2LN	E	860	C	82	C	95	old count projection
19100	ORANGE GROVE BLVD	CLUB ENTR.	HANCOCK B. PKWY	2LN	E	860	C	393	C	488	old count(2009)
19200	ORANGE GROVE BLVD	HANCOCK B. PKWY	PONDELLA RD	4LN	E	1,790	C	590	C	620	
19300	ORANGE RIVER BLVD	SR 80	STALEY RD	2LN	E	1,000	C	427	C	449	
19400	ORANGE RIVER BLVD	STALEY RD	BUCKINGHAM RD	2LN	E	1,000	C	427	C	461	
19500	ORIOLE RD	SAN CARLOS BLVD	ALICO RD	2LN	E	860	C	130	C	136	
19600	ORTIZ AVE	COLONIAL BLVD	SR 82	2LN	E	900	B	764	C	803	
19700	ORTIZ AVE	SR 82	LUCKETT RD	2LN	E	900	B	749	C	788	4 Ln design & ROW
19800	ORTIZ AVE	LUCKETT RD	SR 80	2LN	E	900	B	382	B	402	4 Ln design & ROW
19900	PALM BEACH BLVD (SR 80)	PROSPECT AVE	ORTIZ AVE	4LD	D	2,100	C	1,175	C	1,310	
20000	PALM BEACH BLVD (SR 80)	ORTIZ AVE	I-75	6LD	D	3,171	C	1,199	C	1,310	
20100	PALM BEACH BLVD (SR 80)	I-75	SR 31	6LD	D	3,171	C	1,701	C	2,056	
20200	PALM BEACH BLVD (SR 80)	SR 31	BUCKINGHAM RD	4LD	D	2,100	C	1,774	C	1,824	
20300	PALM BEACH BLVD (SR 80)	BUCKINGHAM RD	WERNER DR	4LD	D	3,280	B	1,361	B	1,421	
20330	PALM BEACH BLVD (SR 80)	WERNER DR	JOEL BLVD	4LD	C	1,607	C	1,180	C	1,254	
20400	PALM BEACH BLVD (SR 80)	JOEL BLVD	HENDRY CO. LINE	4LD	C	2,210	B	954	B	1,006	
20500	PALOMINO LN	DANIELS PKWY	PENZANCE BLVD	2LN	E	860	C	395	C	418	
20600	PARK MEADOWS DR	SUMMERLIN RD	US 41	2LN	E	860	C	197	C	207	
20800	PENZANCE BLVD	RANCHETTE RD	SIX MILE PKWY	2LN	E	860	C	173	C	185	
20900	PINE ISLAND RD	STRINGFELLOW RD	BURNT STORE RD	2LN	E	950	E	607	E	657	Constrained

TRAFFIC DATA

FDOT FLORIDA TRAFFIC ONLINE

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1200 LEE COUNTYWIDE

MOCF: 0.90

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.91	1.01
* 2	01/05/2020 - 01/11/2020	0.89	0.99
* 3	01/12/2020 - 01/18/2020	0.86	0.96
* 4	01/19/2020 - 01/25/2020	0.85	0.94
* 5	01/26/2020 - 02/01/2020	0.84	0.93
* 6	02/02/2020 - 02/08/2020	0.83	0.92
* 7	02/09/2020 - 02/15/2020	0.82	0.91
* 8	02/16/2020 - 02/22/2020	0.85	0.94
* 9	02/23/2020 - 02/29/2020	0.88	0.98
*10	03/01/2020 - 03/07/2020	0.91	1.01
*11	03/08/2020 - 03/14/2020	0.95	1.06
*12	03/15/2020 - 03/21/2020	0.98	1.09
*13	03/22/2020 - 03/28/2020	1.08	1.20
14	03/29/2020 - 04/04/2020	1.18	1.31
15	04/05/2020 - 04/11/2020	1.28	1.42
16	04/12/2020 - 04/18/2020	1.38	1.53
17	04/19/2020 - 04/25/2020	1.31	1.46
18	04/26/2020 - 05/02/2020	1.25	1.39
19	05/03/2020 - 05/09/2020	1.18	1.31
20	05/10/2020 - 05/16/2020	1.12	1.24
21	05/17/2020 - 05/23/2020	1.11	1.23
22	05/24/2020 - 05/30/2020	1.11	1.23
23	05/31/2020 - 06/06/2020	1.10	1.22
24	06/07/2020 - 06/13/2020	1.09	1.21
25	06/14/2020 - 06/20/2020	1.09	1.21
26	06/21/2020 - 06/27/2020	1.09	1.21
27	06/28/2020 - 07/04/2020	1.10	1.22
28	07/05/2020 - 07/11/2020	1.11	1.23
29	07/12/2020 - 07/18/2020	1.11	1.23
30	07/19/2020 - 07/25/2020	1.10	1.22
31	07/26/2020 - 08/01/2020	1.08	1.20
32	08/02/2020 - 08/08/2020	1.06	1.18
33	08/09/2020 - 08/15/2020	1.05	1.17
34	08/16/2020 - 08/22/2020	1.04	1.16
35	08/23/2020 - 08/29/2020	1.04	1.16
36	08/30/2020 - 09/05/2020	1.03	1.14
37	09/06/2020 - 09/12/2020	1.03	1.14
38	09/13/2020 - 09/19/2020	1.02	1.13
39	09/20/2020 - 09/26/2020	1.00	1.11
40	09/27/2020 - 10/03/2020	0.99	1.10
41	10/04/2020 - 10/10/2020	0.97	1.08
42	10/11/2020 - 10/17/2020	0.96	1.07
43	10/18/2020 - 10/24/2020	0.95	1.06
44	10/25/2020 - 10/31/2020	0.95	1.06
45	11/01/2020 - 11/07/2020	0.95	1.06
46	11/08/2020 - 11/14/2020	0.95	1.06
47	11/15/2020 - 11/21/2020	0.95	1.06
48	11/22/2020 - 11/28/2020	0.94	1.04
49	11/29/2020 - 12/05/2020	0.93	1.03
50	12/06/2020 - 12/12/2020	0.92	1.02
51	12/13/2020 - 12/19/2020	0.91	1.01
52	12/20/2020 - 12/26/2020	0.89	0.99
53	12/27/2020 - 12/31/2020	0.86	0.96

* PEAK SEASON

Additional info dated 08-13-2021

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0273 - SR-31,202' NORTH OF FOXHILL ROAD,LEE CO.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	9182 C	N 4508	S 4674	9.50	52.70	23.40
2019	9292 C	N 4645	S 4647	9.50	52.10	25.30
2018	7959 C	N 4032	S 3927	9.50	54.10	26.90
2017	7337 C	N 3712	S 3625	9.50	53.40	28.20
2016	6620 C	N 3338	S 3282	9.50	53.90	26.60
2015	5216 C	N 2618	S 2598	9.50	55.60	28.00
2014	4653 C	N 2325	S 2328	9.50	55.60	27.00
2013	4195 C	N 2099	S 2096	9.50	55.90	29.00
2012	4217 C	N 2149	S 2068	9.50	56.40	26.90
2011	4126 C	N 2094	S 2032	9.50	55.10	25.60
2010	4034 C	N 2041	S 1993	9.79	54.46	26.00
2009	3964 C	N 1994	S 1970	9.81	52.26	25.10
2008	4232 C	N 2124	S 2108	9.88	55.53	23.50
2007	6039 C	N 3027	S 3012	10.95	51.84	43.50
2006	5719 C	N 2850	S 2869	10.95	51.84	43.50
2005	5532 C	N 2773	S 2759	10.30	51.10	43.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Additional info dated 08-13-2021

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 1001 - SR 31, SOUTH OF CR 78/NORTH RIVER ROAD (LC393)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	11000 C	N 5500	S 5500	9.50	53.70	23.40
2019	11000 C	N 5500	S 5500	9.50	54.00	25.30
2018	9400 C	N 4700	S 4700	9.50	55.20	26.90
2017	8800 C	N 4500	S 4300	9.50	54.40	20.20
2016	8600 F	N 4200	S 4400	9.50	57.70	20.20
2015	7800 C	N 3800	S 4000	9.50	57.50	20.20
2014	7200 F	N 3600	S 3600	9.50	56.80	20.50
2013	7000 C	N 3500	S 3500	9.50	56.50	20.50
2012	7500 C	N 3800	S 3700	9.50	54.20	22.60
2011	7300 F	N 3700	S 3600	9.50	56.20	17.60
2010	7300 C	N 3700	S 3600	9.91	56.34	17.60
2009	7100 C	N 3600	S 3500	9.98	55.90	19.70
2008	7700 C	N 3900	S 3800	10.16	57.01	23.50
2007	9200 C	N 4600	S 4600	10.16	54.76	32.60
2006	11100 C	N 5500	S 5600	8.81	55.95	43.90
2005	10400 C	N 5200	S 5200	9.60	53.80	33.40

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Additional info dated 08-13-2021

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0030 - SR 31, NORTH OF SR 80/PALM BEACH BOULEVARD LC391

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	13800 C	N 6600	S 7200	9.00	53.70	17.80
2019	13500 C	N 6600	S 6900	9.00	54.00	20.80
2018	11500 C	N 5600	S 5900	9.00	55.20	18.60
2017	11200 C	N 5500	S 5700	9.00	54.40	19.00
2016	11100 F	N 5500	S 5600	9.00	57.70	12.50
2015	10100 C	N 5000	S 5100	9.00	57.50	12.50
2014	8700 F	N 4300	S 4400	9.00	56.80	14.90
2013	8500 C	N 4200	S 4300	9.00	56.50	14.90
2012	8700 C	N 4400	S 4300	9.00	54.20	13.80
2011	8500 F	N 4200	S 4300	9.00	56.20	13.70
2010	8500 C	N 4200	S 4300	9.91	56.34	13.70
2009	7800 C	N 3800	S 4000	9.98	55.90	13.40
2008	8500 C	N 4200	S 4300	10.16	57.01	12.80
2007	8700 C	N 4300	S 4400	10.16	54.76	10.80
2006	12500 C	N 6100	S 6400	10.23	54.38	33.20
2005	10500 C	N 5200	S 5300	10.30	54.10	23.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 1002 - SR 78/BAYSHORE ROAD, SOUTHWEST OF SR 31

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	11000 C	E 5700	W 5300	9.00	53.70	18.90
2019	10600 C	E 5500	W 5100	9.00	54.00	22.00
2018	9600 C	E 5000	W 4600	9.00	55.20	21.60
2017	9200 C	E 4600	W 4600	9.00	54.40	13.00
2016	8600 F	E 4300	W 4300	9.00	57.70	13.00
2015	7800 C	E 3900	W 3900	9.00	57.50	13.00
2014	7300 F	E 3700	W 3600	9.00	56.80	14.00
2013	7100 C	E 3600	W 3500	9.00	56.50	14.00
2012	7500 C	E 3800	W 3700	9.00	54.20	16.40
2011	6800 F	E 3500	W 3300	9.00	56.20	14.90
2010	6800 C	E 3500	W 3300	9.91	56.34	14.90
2009	6900 C	E 3500	W 3400	9.98	55.90	17.00
2008	7500 C	E 3800	W 3700	10.16	57.01	19.30
2007	8400 C	E 4300	W 4100	10.16	54.76	23.30
2006	8400 C	E 4300	W 4100	10.23	54.38	21.60
2005	8600 C	E 4400	W 4200	10.30	54.10	25.10

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

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 6005 - SR 80/PALM BEACH BLVD, 0.25 MI W OF SR 31. PTMS 104, LCPR 05

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	33500 S	0	0	9.00	53.70	11.50
2019	35000 F	0	0	9.00	54.00	12.30
2018	35091 C	0	0	9.00	64.90	12.60
2017	34000 F	0	0	9.00	64.90	11.10
2016	32970 C	E 16326	W 16644	9.00	64.90	10.40
2015	30167 C	E 14945	W 15222	9.00	63.20	11.00
2014	27785 C	E 13885	W 13900	9.00	62.60	5.90
2013	26228 C	E 12981	W 13247	9.00	61.80	9.50
2012	25563 C	E 12791	W 12772	9.00	61.60	10.80
2011	26888 C	E 13397	W 13491	9.00	61.60	12.40
2010	26743 C	E 13334	W 13409	9.89	61.01	8.90
2009	25939 C	E 12914	W 13025	9.90	62.73	9.60
2008	26004 C	E 12909	W 13095	10.24	63.18	9.20

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

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0085 - SR 80/PALM BEACH BLVD, EAST OF SR 31 LC360

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	36500 C	E 18000	W 18500	9.00	53.70	8.30
2019	36500 C	E 18000	W 18500	9.00	54.00	9.00
2018	33500 C	E 16500	W 17000	9.00	55.20	9.30
2017	33500 C	E 16500	W 17000	9.00	54.40	8.50
2016	35000 C	E 17500	W 17500	9.00	57.70	8.20
2015	32000 C	E 16000	W 16000	9.00	57.50	9.00
2014	29500 S	E 15000	W 14500	9.00	56.80	9.20
2013	28500 F	E 14500	W 14000	9.00	56.50	9.20
2012	28500 C	E 14500	W 14000	9.00	54.20	9.20
2011	29500 F	E 14500	W 15000	9.00	56.20	9.40
2010	29500 C	E 14500	W 15000	9.91	56.34	9.40
2009	29500 C	E 14500	W 15000	9.98	55.90	9.50
2008	30000 C	E 15000	W 15000	10.16	57.01	8.10
2007	34000 C	E 17000	W 17000	10.16	54.76	8.50
2006	36000 C	E 18000	W 18000	10.23	54.38	11.00
2005	31500 C	E 15500	W 16000	10.30	54.10	12.10

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

TRAFFIC COUNTS

SR 31 @ N. RIVER RD

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

SR 31 @ North River Rd 6-30-2021 AM

File Name: SR 31 @ North River Rd 6-30-2021 AM
Location:

All Vehicles

Site Code:
Study Date: 06/30/2021

	SR 31 Southbound					North River Rd Westbound					SR 31 Northbound					Old Bayshore Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	3	91	0	0	94	8	8	26	0	42	11	93	3	0	107	3	5	14	0	22	265
07:15	3	132	6	0	141	5	2	20	0	27	17	81	5	0	103	5	5	12	0	22	293
07:30	2	112	1	0	115	4	5	27	0	36	13	66	5	0	84	3	0	8	0	11	246
07:45	2	104	10	0	116	5	10	35	0	50	12	94	4	0	110	2	6	15	0	23	299
Total	10	439	17	0	466	22	25	108	0	155	53	334	17	0	404	13	16	49	0	78	1103
08:00	3	100	3	0	106	3	6	27	0	36	13	75	1	0	89	4	4	13	0	21	252
08:15	3	92	6	0	101	7	7	19	0	33	17	77	3	0	97	7	2	12	0	21	252
08:30	1	90	6	0	97	5	8	27	0	40	16	85	3	0	104	2	3	6	0	11	252
08:45	4	105	0	0	109	9	5	14	0	28	13	107	5	0	125	4	4	7	0	15	277
Total	11	387	15	0	413	24	26	87	0	137	59	344	12	0	415	17	13	38	0	68	1033
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	21	826	32	0	879	46	51	195	0	292	112	678	29	0	819	30	29	87	0	146	2136
Appr %	02.4	94.0	03.6	00.0		15.8	17.5	66.8	00.0		13.7	82.8	03.5	00.0		20.5	19.9	59.6	00.0		
Total %	01.0	38.7	01.5	00.0		02.2	02.4	09.1	00.0		05.2	31.7	01.4	00.0		01.4	01.4	04.1	00.0		
% Trucks	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0
AM Pk Hr	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00
AM Pk Vol	10	439	17	0	466	22	25	108	0	155	53	334	17	0	404	13	16	49	0	78	1103
AM PHF	0.833	0.831	0.425	NaN	0.826	0.688	0.625	0.771	NaN	0.775	0.779	0.888	0.850	NaN	0.918	0.650	0.667	0.817	NaN	0.848	0.922

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

SR 31 @ North River Rd 6-30-2021 AM

File Name: SR 31 @ North River Rd 6-30-2021 AM
Location:

All Vehicles

Site Code:
Study Date: 06/30/2021

SR 31

Right	Thru	Left	U-Turn
10	439	17	0

North River Rd

Right	Thru	Left	U-Turn
22	25	108	0

AM Peak Hour Statistics
AM Peak Hour Begins: 07:00
AM Peak Hour Volume: 1103
AM Peak Hour Factor: 0.922

Old Bayshore Rd

Right	Thru	Left	U-Turn
13	16	49	0

SR 31

U-Turn	Left	Thru	Right
0	17	334	53

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

SR 31 @ North River Rd 6-30-2021 PM

File Name: SR 31 @ North River Rd 6-30-2021 PM
Location:

All Vehicles

Site Code:
Study Date: 06/30/2021

	SR 31 Southbound					Old Bayshore Rd Westbound					SR 31 Northbound					North River Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00	3	112	10	0	125	4	4	13	0	21	33	70	1	0	104	6	6	5	0	17	267
16:15	4	92	7	0	103	2	3	15	0	20	19	80	5	0	104	7	3	8	0	18	245
16:30	3	100	9	0	112	1	4	20	0	25	28	121	12	0	161	8	8	9	0	25	323
16:45	2	87	7	0	96	5	5	16	0	26	30	91	5	0	126	1	6	13	0	20	268
Total	12	391	33	0	436	12	16	64	0	92	110	362	23	0	495	22	23	35	0	80	1103
17:00	3	83	17	0	103	6	6	17	0	29	36	115	14	0	165	2	7	8	0	17	314
17:15	0	89	7	0	96	4	3	16	0	23	35	102	7	0	144	3	5	6	0	14	277
17:30	3	87	11	0	101	4	2	10	0	16	37	94	5	0	136	7	4	2	0	13	266
17:45	4	77	4	0	85	1	1	11	0	13	31	98	4	0	133	4	5	8	0	17	248
Total	10	336	39	0	385	15	12	54	0	81	139	409	30	0	578	16	21	24	0	61	1105
18:00	0	6	2	0	8	0	0	2	0	2	1	7	0	0	8	0	0	0	0	0	18
Total	14	419	45	0	478	16	13	67	0	96	171	514	34	0	719	20	26	32	0	78	1371
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	22	733	74	0	829	27	28	120	0	175	250	778	53	0	1081	38	44	59	0	141	2226
Appr %	02.7	88.4	08.9	00.0		15.4	16.0	68.6	00.0		23.1	72.0	04.9	00.0		27.0	31.2	41.8	00.0		
Total %	01.0	32.9	03.3	00.0		01.2	01.3	05.4	00.0		11.2	35.0	02.4	00.0		01.7	02.0	02.7	00.0		
% Trucks	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0	00.0	00.0	-	00.0	00.0
PM Pk Hr	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30	16:30
PM Pk Vol	8	359	40	0	407	16	18	69	0	103	129	429	38	0	596	14	26	36	0	76	1182
PM PHF	0.667	0.898	0.588	NaN	0.908	0.667	0.750	0.863	NaN	0.888	0.896	0.886	0.679	NaN	0.903	0.438	0.813	0.692	NaN	0.760	0.915

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

SR 31 @ North River Rd 6-30-2021 PM

File Name: SR 31 @ North River Rd 6-30-2021 PM
Location:

All Vehicles

Site Code:
Study Date: 06/30/2021

SR 31

Right	Thru	Left	U-Turn
8	359	40	0

North River Rd

Right	Thru	Left	U-Turn
14	26	36	0

PM Peak Hour Statistics
PM Peak Hour Begins: 16:30
PM Peak Hour Volume: 1182
PM Peak Hour Factor: 0.915

Old Bayshore Rd

Right	Thru	Left	U-Turn
16	18	69	0

SR 31

U-Turn	Left	Thru	Right
0	38	429	129

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

DEVELOPMENT OF FUTURE YEAR BACKGROUND TURNING VOLUMES

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

Development of Future Year Background Turning Volumes

Intersection	**North River Rd @ SR 31**
Count Date	June 30, 2021
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	17	334	53	17	439	10	49	16	13	108	25	22
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	21	407	65	21	536	12	60	20	16	132	31	27
Growth Rate	2.00%	2.00%	2.00%	3.44%	3.44%	3.44%	2.00%	2.00%	2.00%	3.51%	3.51%	3.51%
Years to Build-out	4	4	4	4	4	4	4	4	4	4	4	4
2025 Background Turning Volumes	**23**	**441**	**70**	**24**	**614**	**14**	**65**	**22**	**17**	**152**	**36**	**31**
Project Turning Volumes	0	0	52	14	0	0	0	0	0	156	0	42
2025 Background + Project	**23**	**441**	**122**	**38**	**614**	**14**	**65**	**22**	**17**	**308**	**36**	**73**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	38	429	129	40	359	8	36	26	14	69	18	16
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	46	523	157	49	438	10	44	32	17	84	22	20
Growth Rate	2.00%	2.00%	2.00%	3.44%	3.44%	3.44%	2.00%	2.00%	2.00%	3.51%	3.51%	3.51%
Years to Build-out	4	4	4	4	4	4	4	4	4	4	4	4
2025 Background Turning Volumes	**50**	**566**	**170**	**56**	**501**	**11**	**48**	**35**	**18**	**96**	**25**	**23**
Project Turning Volumes	0	0	175	47	0	0	0	0	0	103	0	27
2025 Background + Project	**50**	**566**	**345**	**103**	**501**	**11**	**48**	**35**	**18**	**199**	**25**	**50**

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

Development of Future Year Background Turning Volumes

Intersection	**North River Rd @ West Site Access**
Count Date	June 30, 2021
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	86	0	0	155	0
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	0	0	0	0	0	0	0	105	0	0	189	0
Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.51%	0.00%	0.00%	3.51%	0.00%
Years to Build-out	4	4	4	4	4	4	4	4	4	4	4	4
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**0**	**0**	**217**	**0**
Project Turning Volumes	178	0	8	0	0	0	0	7	59	3	20	0
2025 Background + Project	**178**	**0**	**8**	**0**	**0**	**0**	**0**	**128**	**59**	**3**	**237**	**0**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	195	0	0	103	0
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	0	0	0	0	0	0	0	238	0	0	126	0
Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.51%	0.00%	0.00%	3.51%	0.00%
Years to Build-out	4	4	4	4	4	4	4	4	4	4	4	4
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**273**	**0**	**0**	**145**	**0**
Project Turning Volumes	117	0	6	0	0	0	0	22	200	10	13	0
2025 Background + Project	**117**	**0**	**6**	**0**	**0**	**0**	**0**	**295**	**200**	**10**	**158**	**0**

Additional info dated 08-13-2021

DCI2021-00011 Lee County ePlan

Development of Future Year Background Turning Volumes

Intersection	**N. River Rd @ East Site Access**
Count Date	June 30, 2021
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	86	0	0	155	0
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	0	0	0	0	0	0	0	105	0	0	189	0
Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.51%	0.00%	0.00%	3.51%	0.00%
Years to Build-out	6	6	6	6	6	6	6	6	6	6	6	6
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**129**	**0**	**0**	**232**	**0**
Project Turning Volumes	20	0	2	0	0	0	0	8	7	1	3	0
2025 Background + Project	**20**	**0**	**2**	**0**	**0**	**0**	**0**	**137**	**7**	**1**	**235**	**0**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	195	0	0	103	0
Peak Season Correction Factor	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Current Peak Season Volumes	0	0	0	0	0	0	0	238	0	0	126	0
Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.51%	0.00%	0.00%	3.51%	0.00%
Years to Build-out	6	6	6	6	6	6	6	6	6	7	7	7
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**293**	**0**	**0**	**160**	**0**
Project Turning Volumes	13	0	1	0	0	0	0	6	22	2	10	0
2025 Background + Project	**13**	**0**	**1**	**0**	**0**	**0**	**0**	**299**	**22**	**2**	**170**	**0**

HCS RESULTS

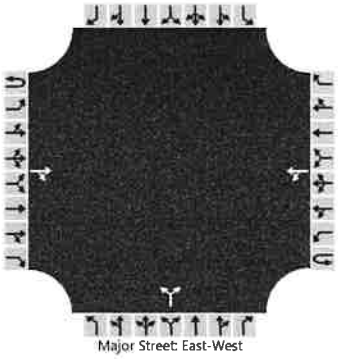
NORTH RIVER RD @

WEST SITE ACCESS

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	N. Rriver Rd/W. Access
Agency/Co.	TR Transportation Consult	Jurisdiction	Lee County
Date Performed	8/13/2021	East/West Street	N. River Rd
Analysis Year	2025	North/South Street	W. Site Access
Time Analyzed	AM Pk Hr	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	F2006.14		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			128	59		3	237			178		8				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						3					202					
Capacity, c (veh/h)						1362					583					
v/c Ratio						0.00					0.35					
95% Queue Length, Q_{95} (veh)						0.0					1.5					
Control Delay (s/veh)						7.6					14.4					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)					0.1				14.4							
Approach LOS									B							

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HCS7 Two-Way Stop-Control Report

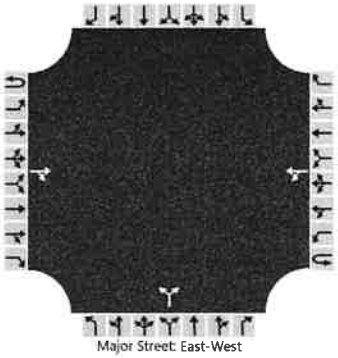
General Information

Analyst	
Agency/Co.	TR Transportation Consult
Date Performed	8/13/2021
Analysis Year	2025
Time Analyzed	PM Pk Hr
Intersection Orientation	East-West
Project Description	F2006.14

Site Information

Intersection	N. River Rd/W. Access
Jurisdiction	Lee County
East/West Street	N. River Rd
North/South Street	W. Site Access
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			295	200		10	158			117		6				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						11					134					
Capacity, c (veh/h)						1025					449					
v/c Ratio						0.01					0.30					
95% Queue Length, Q_{95} (veh)						0.0					1.2					
Control Delay (s/veh)						8.5					16.4					
Level of Service (LOS)						A					C					
Approach Delay (s/veh)					0.6				16.4							
Approach LOS									C							

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HCS RESULTS

NORTH RIVER RD @

EAST SITE ACCESS

HCS7 Two-Way Stop-Control Report

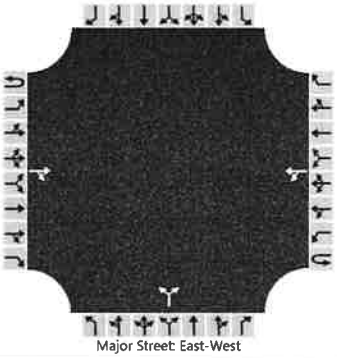
General Information

Analyst	
Agency/Co.	TR Transportation Consult
Date Performed	8/13/2021
Analysis Year	2025
Time Analyzed	AM Pk Hr
Intersection Orientation	East-West
Project Description	F2006.14

Site Information

Intersection	N. Rriver Rd/E. Access
Jurisdiction	Lee County
East/West Street	N. River Rd
North/South Street	E. Site Access
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			137	7		1	235			20		2				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1					24					
Capacity, c (veh/h)						1417					614					
v/c Ratio						0.00					0.04					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.5					11.1					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)					0.0				11.1							
Approach LOS									B							

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HCS7 Two-Way Stop-Control Report

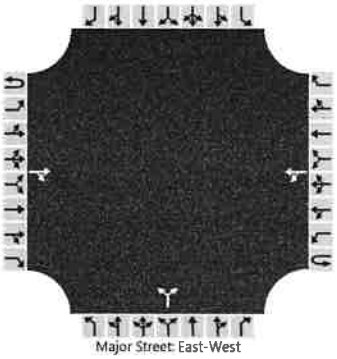
General Information

Analyst	
Agency/Co.	TR Transportation Consult
Date Performed	8/13/2021
Analysis Year	2025
Time Analyzed	PM Pk Hr
Intersection Orientation	East-West
Project Description	F2006.14

Site Information

Intersection	N. Rriver Rd/E. Access
Jurisdiction	Lee County
East/West Street	N. River Rd
North/South Street	E. Site Access
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			299	22		2	170			13		1				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						2					15					
Capacity, c (veh/h)						1204					520					
v/c Ratio						0.00					0.03					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						8.0					12.1					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)					0.1				12.1							
Approach LOS									B							

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SYNCHRO RESULTS

SR 31 @

N. RIVER RD

(BACKGROUND CONDITIONS)

Lanes, Volumes, Timings
3: SR 31 & Old Bayshore Rd/N. River Rd

2025 AM Pk Hr Background
08/13/2021

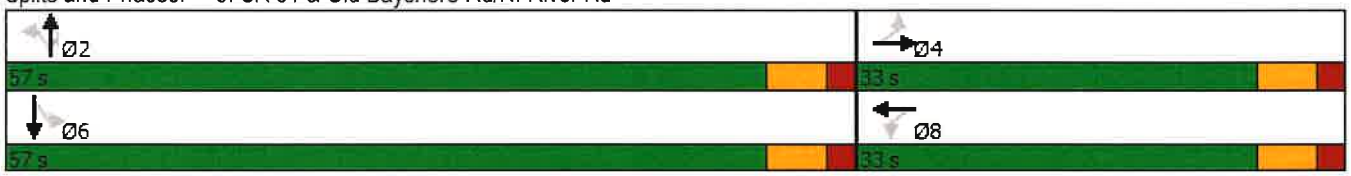
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	22	17	152	36	31	23	441	70	24	614	14
Future Volume (vph)	65	22	17	152	36	31	23	441	70	24	614	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	635		635	610		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.981				0.850		0.997	
Flt Protected		0.970			0.966		0.950			0.950		
Satd. Flow (prot)	0	1767	0	0	1765	0	1770	1863	1583	1770	1857	0
Flt Permitted		0.721			0.724		0.251			0.421		
Satd. Flow (perm)	0	1313	0	0	1323	0	468	1863	1583	784	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			10				76		2	
Link Speed (mph)		35			55			60			60	
Link Distance (ft)		1221			1772			857			907	
Travel Time (s)		23.8			22.0			9.7			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	24	18	165	39	34	25	479	76	26	667	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	238	0	25	479	76	26	682	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		15.5			15.5		28.2	28.2	28.2	28.2	28.2	
Actuated g/C Ratio		0.27			0.27		0.50	0.50	0.50	0.50	0.50	
v/c Ratio		0.31			0.64		0.11	0.52	0.09	0.07	0.74	
Control Delay		19.2			27.8		10.0	12.4	2.8	8.9	17.5	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		19.2			27.8		10.0	12.4	2.8	8.9	17.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C		A	B	A	A	B	
Approach Delay		19.2			27.8			11.0			17.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		24			61		4	92	0	4	154	
Queue Length 95th (ft)		82			175		19	224	18	18	369	
Internal Link Dist (ft)		1141			1692			777			827	
Turn Bay Length (ft)							635		635	610		
Base Capacity (vph)		679			683		410	1634	1398	688	1629	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.17			0.35		0.06	0.29	0.05	0.04	0.42	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: SR 31 & Old Bayshore Rd/N. River Rd



Lanes, Volumes, Timings
3: SR 31 & Old Bayshore Rd/N. River Rd

2025 PM Pk Hr Background
08/13/2021

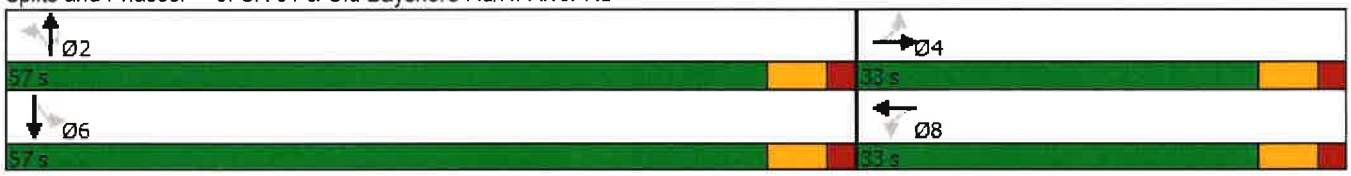
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	35	18	96	25	23	50	566	170	56	501	11
Future Volume (vph)	48	35	18	96	25	23	50	566	170	56	501	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	635		635	610		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.978				0.850		0.997	
Flt Protected		0.977			0.968		0.950			0.950		
Satd. Flow (prot)	0	1774	0	0	1763	0	1770	1863	1583	1770	1857	0
Flt Permitted		0.804			0.733		0.376			0.328		
Satd. Flow (perm)	0	1460	0	0	1335	0	700	1863	1583	611	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			11				185		2	
Link Speed (mph)		35			55			60			60	
Link Distance (ft)		1221			1772			857			907	
Travel Time (s)		23.8			22.0			9.7			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	38	20	104	27	25	54	615	185	61	545	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	156	0	54	615	185	61	557	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		11.2			11.2		25.1	25.1	25.1	25.1	25.1	
Actuated g/C Ratio		0.23			0.23		0.52	0.52	0.52	0.52	0.52	
v/c Ratio		0.32			0.50		0.15	0.64	0.20	0.19	0.58	
Control Delay		17.5			21.8		8.2	12.7	2.0	8.9	11.5	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.5			21.8		8.2	12.7	2.0	8.9	11.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C		A	B	A	A	B	
Approach Delay		17.5			21.8			10.1			11.3	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		20			31		7	105	0	8	91	
Queue Length 95th (ft)		68			98		26	245	23	30	212	
Internal Link Dist (ft)		1141			1692			777			827	
Turn Bay Length (ft)							635		635	610		
Base Capacity (vph)		843			770		668	1778	1519	583	1773	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.13			0.20		0.08	0.35	0.12	0.10	0.31	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 48.7
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: SR 31 & Old Bayshore Rd/N. River Rd



SYNCHRO RESULTS

SR 31 @

N. RIVER RD

(BACKGROUND + PROJECT CONDITIONS)

Lanes, Volumes, Timings
3: SR 31 & Old Bayshore Rd/N. River Rd

2025 AM Pk Hr With Project
08/13/2021

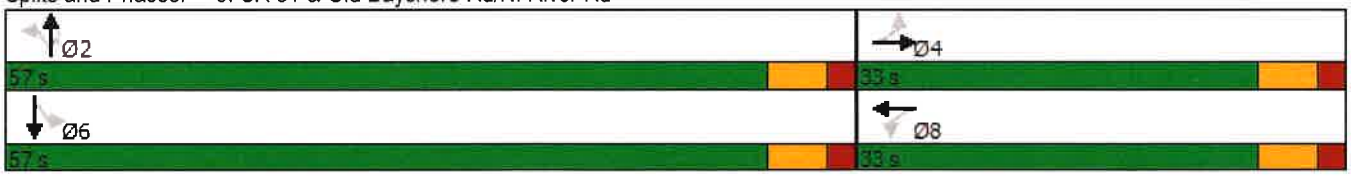
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	22	17	308	36	73	23	441	122	38	614	14
Future Volume (vph)	65	22	17	308	36	73	23	441	122	38	614	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	635		635	610		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.976				0.850		0.997	
Flt Protected		0.970			0.964		0.950			0.950		
Satd. Flow (prot)	0	1767	0	0	1753	0	1770	1863	1583	1770	1857	0
Flt Permitted		0.682			0.711		0.170			0.359		
Satd. Flow (perm)	0	1242	0	0	1293	0	317	1863	1583	669	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12				133		2	
Link Speed (mph)		35			55			60			60	
Link Distance (ft)		1221			1772			857			907	
Travel Time (s)		23.8			22.0			9.7			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	24	18	335	39	79	25	479	133	41	667	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	453	0	25	479	133	41	682	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		27.4			27.4		31.1	31.1	31.1	31.1	31.1	
Actuated g/C Ratio		0.39			0.39		0.44	0.44	0.44	0.44	0.44	
v/c Ratio		0.23			0.89		0.18	0.58	0.17	0.14	0.83	
Control Delay		17.8			45.5		14.4	17.5	2.6	11.9	26.9	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.8			45.5		14.4	17.5	2.6	11.9	26.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			D		B	B	A	B	C	
Approach Delay		17.8			45.5			14.3			26.1	
Approach LOS		B			D			B			C	
Queue Length 50th (ft)		28			172		6	148	0	10	246	
Queue Length 95th (ft)		83			#454		21	225	24	27	371	
Internal Link Dist (ft)		1141			1692			777			827	
Turn Bay Length (ft)							635		635	610		
Base Capacity (vph)		488			509		232	1365	1195	490	1361	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.23			0.89		0.11	0.35	0.11	0.08	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 70.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 72.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 31 & Old Bayshore Rd/N. River Rd



Lanes, Volumes, Timings
3: SR 31 & Old Bayshore Rd/N. River Rd

2025 PM Pk Hr With Project
08/13/2021

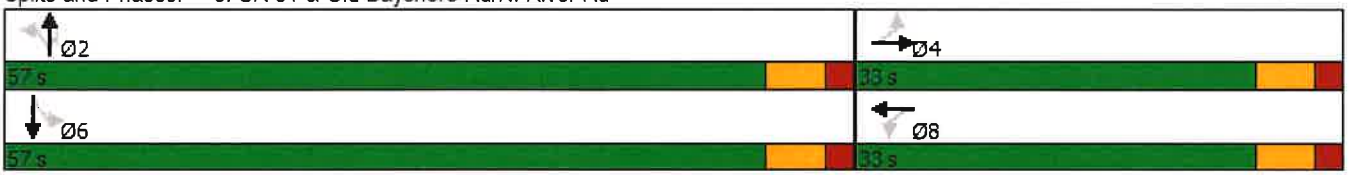
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	35	18	199	25	50	50	566	345	103	501	11
Future Volume (vph)	48	35	18	199	25	50	50	566	345	103	501	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	635		635	610		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.975				0.850		0.997	
Flt Protected		0.977			0.965		0.950			0.950		
Satd. Flow (prot)	0	1774	0	0	1753	0	1770	1863	1583	1770	1857	0
Flt Permitted		0.780			0.716		0.334			0.284		
Satd. Flow (perm)	0	1417	0	0	1300	0	622	1863	1583	529	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			13				375		2	
Link Speed (mph)		35			55			60			60	
Link Distance (ft)		1221			1772			857			907	
Travel Time (s)		23.8			22.0			9.7			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	38	20	216	27	54	54	615	375	112	545	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	297	0	54	615	375	112	557	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		17.9			17.9		27.8	27.8	27.8	27.8	27.8	
Actuated g/C Ratio		0.30			0.30		0.47	0.47	0.47	0.47	0.47	
v/c Ratio		0.25			0.73		0.18	0.70	0.40	0.45	0.63	
Control Delay		17.5			31.3		11.4	17.3	2.6	17.9	15.6	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.5			31.3		11.4	17.3	2.6	17.9	15.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C		B	B	A	B	B	
Approach Delay		17.5			31.3			11.7			16.0	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		24			84		10	151	0	23	131	
Queue Length 95th (ft)		76			#223		35	319	39	76	276	
Internal Link Dist (ft)		1141			1692			777			827	
Turn Bay Length (ft)							635		635	610		
Base Capacity (vph)		710			651		542	1623	1427	461	1618	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.15			0.46		0.10	0.38	0.26	0.24	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 58.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 31 & Old Bayshore Rd/N. River Rd



Trescott Planning Solutions, LLC

Urban and Regional Planning

421 Norwood Court ● Fort Myers, Florida 33919
Cell 239-850-7163 ● Office 239-433-4067
Email: trescottplanningsolutions@gmail.com

August 13, 2021

Stacy Ellis Hewitt, AICP
Director of Planning
Banks Engineering
10511 Six Mile Cypress Parkway
Fort Myers, Florida 33966

Dear Stacy:

As requested, this document provides my consulting services to addressing Coastal High Hazard Area (CHHA) and Hurricane Preparedness/Mitigation for the Owl Creek Map and Text amendments to place the property within the Lee County Utilities Future Water Service Area to allow for privately funded expansion of water service and to provide 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 to accommodate the clustered development of up to 385 single-family dwelling units and internal amenities. This request will allow an increase of 157 dwelling units from the 228 dwelling units that could be developed currently. The Owl Creek property is ±342.68 acres located on the south side of N. River Road approximately ½ 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. It is my expert opinion the proposed Owl Creek project Map and Text Amendments are consistent with Lee Plan Goals, Policies and Objectives, Land Development Code (LDC) and state law relative to addressing the protection of human life along with current and future development from the impacts of coastal flooding.

Hurricane Storm Surge/Tide Analysis/Flood Insurance Rate Map Flood Level

The CHHA definition is found in Florida Statutes 163.3178(2)(h) and is as follows.

"Designation of coastal high-hazard areas and the criteria for mitigation for a comprehensive plan amendment in a coastal high-hazard area as defined in subsection (8). The coastal high-hazard area is the area below the elevation of the category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government."

The Owl Creek project site is within the Hurricane Category 1 Storm Surge/Tide area (see Attachment I 10/23/2020 Lee SLOSH Map and Attachment II Map 5 CHHA in Lee Plan) and Lee County Evacuation Zone Level A (see Attachment III). The Lee SLOSH Map Category 1 red area defines the Coastal High Hazard Area as defined by state statute. Attachment II Map 5 CHHA in Lee Plan is not consistent with the most updated South Florida SLOSH Model in that a little less area is within the Category 1 area. Table

I below shows the Category 1 Storm Surge/Tide Heights at mean and high tides for the project site and Attachment IV shows the South Florida SLOSH Model Display map.

Table I

Potential Storm Tide Heights* for Project Site (In feet above ground** and Sea Level***)

Category Hurricane	High Tide	Mean Tide
1**	5.7 – 6.7	4.8 – 5.8
1***	8.6	7.9

*2017 South Florida (SLOSH) Model Display Program (1.79) Category Hurricane Based on the Saffir-Simpson Hurricane Wind Scale

Storm tide heights represents the maximum values from SLOSH MOMs (Max of the Max tide heights)

Protection of Property Mitigation Measures

To mitigate the effects and impacts on loss of life, property and evacuation issues the new development including the residential units will have to elevate the first floor to 7 feet above means sea level to meet the Federal Flood Insurance 100-year floodplain requirement (See Attachment V FIRMs). The applicant has committed in the application to not fill within any regulatory floodway and all homes will be constructed a minimum of one foot above the base flood elevation in effect at the time of construction. The FIRM elevation is for flood insurance minimum floor elevation purposes to mitigate loss of property whereas, the SLOSH Model elevations are for mitigating the loss of life used for evacuation planning. The 7 feet first floor FIRM elevation requirement plus the one foot extra to 8 feet applicant commitment essentially elevates the residential units above of the CHHA storm surge elevation of 7.9 feet during a mean tide storm surge. This is a mitigation measure that protects property in the CHHA.

Another property protection mitigation measure is the applicant agreeing to place a minimum of ±169.12 acres (49% of property) 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 project will be 60% open space and will preserve a minimum of 90% of the wetlands on site (See Attachment VI, Enhancement and Preservation Map). This adjusted site design and clustered density with the wetland preserves on the development site, protect the proposed project from the effects of velocity flooding and wave action associated with storm events. These wetland preserves will serve their function by dissipating wave energy and storm surge.

In Lee County the Florida Building Code 7th Edition (2020) is another property protection measure that now requires residential construction is this area to be designed to withstand 150 mph "ultimate design wind speed", which is equivalent to Category 4 hurricane wind levels. Further, because the development proposal includes a multi-slip docking facility the applicant must prepare hurricane plans with the assistance of the county which describe measures to be taken to minimize damage to marina sites, neighboring properties, and the environment. This hurricane plan is subject to county approval as required in Policy 128.6.6.

The building elevation, strong wind code construction, protection of 169.12 acres of conservation easements (60% open space 90% of the wetlands preserved) and hurricane plan for marina are property

mitigation measures that are **consistent with Goal 101, Objectives 101.1 and 101.3 and Policies 5.1.2, 101.1.1, 101.3.2,101.3.5 and 128.6.6).**

Protection of Life Mitigation Measures

Lee County staff comments on this application has indicated that the project will not increase density in the Coastal High Hazard Area. The applicant will comply with Lee County Land Development Code (LDC) Article XI – Hurricane Preparedness Section Sec. 2-482, which applies only to development required to obtain a development order under LDC Chapter 10 and is applicable to all new residential development within unincorporated Lee County that is located in a land falling category 1, 2, or 3 storm surge area. Section 2-485(b)(3) provides the formula for calculating the appropriate mitigation for payment in lieu of physically creating additional sheltering space. Based on the LDC adopted methodology, the total shelter impact mitigation would be **$29,108**. The project will also generate additional funding for hurricane preparedness mitigation by future residents providing yearly Ad Valorem tax funding to Lee County's All Hazard MSTU fund, typically used to improve hurricane shelter capacity in the county.

Based on the LDC Article XI – Hurricane Preparedness Section 2-484(c) determining evacuation impacts, the assumption is that a total of 424 vehicles would result from the 385-unit development. The statewide evacuation model does not measure less than half hour increases and as such is not designed to analyze the impact for a small 385 dwelling unit project as proposed. Based on the methodology I applied in previous Lee County cases I have worked on the 424 evacuating vehicles is de minimis and would have no consequential impact to countywide evacuation times (5.4-minute increase).

The applicant will provide evacuation route mitigation in accordance with LDC Article XI – Hurricane Preparedness Section(c) "Evacuation impacts. One or a combination of the following options may be used to address the impacts on hurricane evacuation routes with respect to evacuation timing and infrastructure precipitated by the proposed residential development. Acceptability and appropriateness of the type of mitigation proposed will be determined by the Division and the Lee County Department of Transportation (DOT).

(1) Roadway elevation or improvements. Acceptability and appropriateness of this option will be determined by the DOT based upon the residential development vulnerability conditions. Mitigation under this option may include one or more of the following:

a. Construction of roads in the development or subdivision will be built to meet the same elevation of the nearest segment of a designated evacuation route. Determination as to the applicable route or segment will be made by the division in consultation with the Lee County DOT.

b. Construction of the main access or spine road in the development or subdivision to an elevation meeting the one in ten to the one in 25-year storm event. The Lee County DOT will determine the applicable storm event standard.

Furthermore, because the project is close to the northern and eastern boundaries of the county and will have easy access to State Roads 31 (future 6 lanes), 78 and 80 to leave the county, residents will be able to evacuate the county quickly.

The applicant will comply with Administrative Code 7-7 C and D "Emergency Preparedness Plan Criteria for Marinas, Multi-slip Docking Facilities, and certain residential developments". Policy/Procedure C and D will require an Emergency Preparedness Plan be submitted for the residential and marina portions of the development, respectively. These emergency preparedness plans are to be submitted to Lee County Emergency Management for review and approval by the director of the division of emergency management during the site plan approval.

The combination of a LDC shelter mitigation payment requirement, future residents paying yearly Ad Valorem tax funding to Lee County's All Hazard MSTU fund, development of emergency preparedness plans for the residents and marina, high evacuation route capacities in the project area and evacuation impact mitigation the community residents loss of life can be prevented. These losses of life mitigation measures will continue to protect the public's health, safety and welfare in the surrounding area from the proposed development's minor impact on hurricane shelter and evacuation. These loss of life mitigation measures are **consistent with Goals 73, 95, 101, Objectives 73.1, 101.3, Policies 72.2.2, 73.2.2, 101.3.4 and 101.3.5.**

Conclusion

In conclusion, it is my expert opinion the proposed project is **consistent with the Lee Plan Goals 73, 95, 101, Objectives 73.1, 101.3, 101.3, Policies 5.1.2, 72.2.2, 73.2.2, 101.1.1, 101.3.2, 101.3.4, 101.3.5, 128.6.6, LDC.** The Lee Plan or state law do not preclude development in the CHHA as long there is consistency with the Future Land Use Map, Goals, Objectives and Policies. The combination of loss of life and property mitigation measures listed below will ensure the protection of the public health, safety and welfare.

- FIRM elevation requirement plus one-foot applicant commitment for new construction at the CHHA mean tide SLOSH Model level of 8 feet **(consistent with Policy 5.1.2 Goal 101, Objectives 101.1 and 101.3 and Policies 101.1.1, 101.3.2 and 101.3.5)**.

- Preservation of ±169.12 acres (49% of property) into a conservation easement. The project will be 60% open space and will preserve a minimum of 90% of the wetlands on site that will dissipate wave energy and storm surge and protect the proposed project from the effects of velocity flooding and wave action associated with storm events **(consistent with Goal 101, Objectives 101.1 and 101.3 and Policies 5.1.2, 101.1.1 and 101.3.2)**.

- Category 4 hurricane wind building code construction standards **(consistent with Goal 101 and Objective 101.3)**.

- Compliance with Administrative Code 7-7 C and D "Emergency Preparedness Plan Criteria for Marinas, Multi-slip Docking Facilities, and certain residential developments". These emergency preparedness plans are to be submitted to Lee County Emergency Management for review and approval by, the director of the division of emergency management during the site plan approval.

- Development of a hurricane plan with county assistance for the multi-slip docking facility which describe measures to be taken to minimize damage to marina sites, neighboring properties, and the environment **(consistent with Goal 101, Objective 101.3 and Policies 101.1.1, 101.3.2, and 128.6.6).**

- LDC shelter impact mitigation payment of **$29,108 (consistent with LDC Article XI – Hurricane Preparedness Section 2-485(b)(3) and Lee Plan Goals 73, 95, 101, Objectives 73.1, 101.3, Policies 72.2.2, 73.2.2, 101.3.4 and 101.3.5).**

- LDC evacuation impact mitigation **(consistent with LDC Article XI – Hurricane Preparedness Section 2-485(c)(1) and Lee Plan Goals 73, 101, Objectives 73.1, 101.3).**

- Future residents paying yearly Ad Valorem tax funding to Lee County's All Hazard MSTU fund will mitigate for any additional demand on sheltering and evacuation in the county **(consistent with Goals**

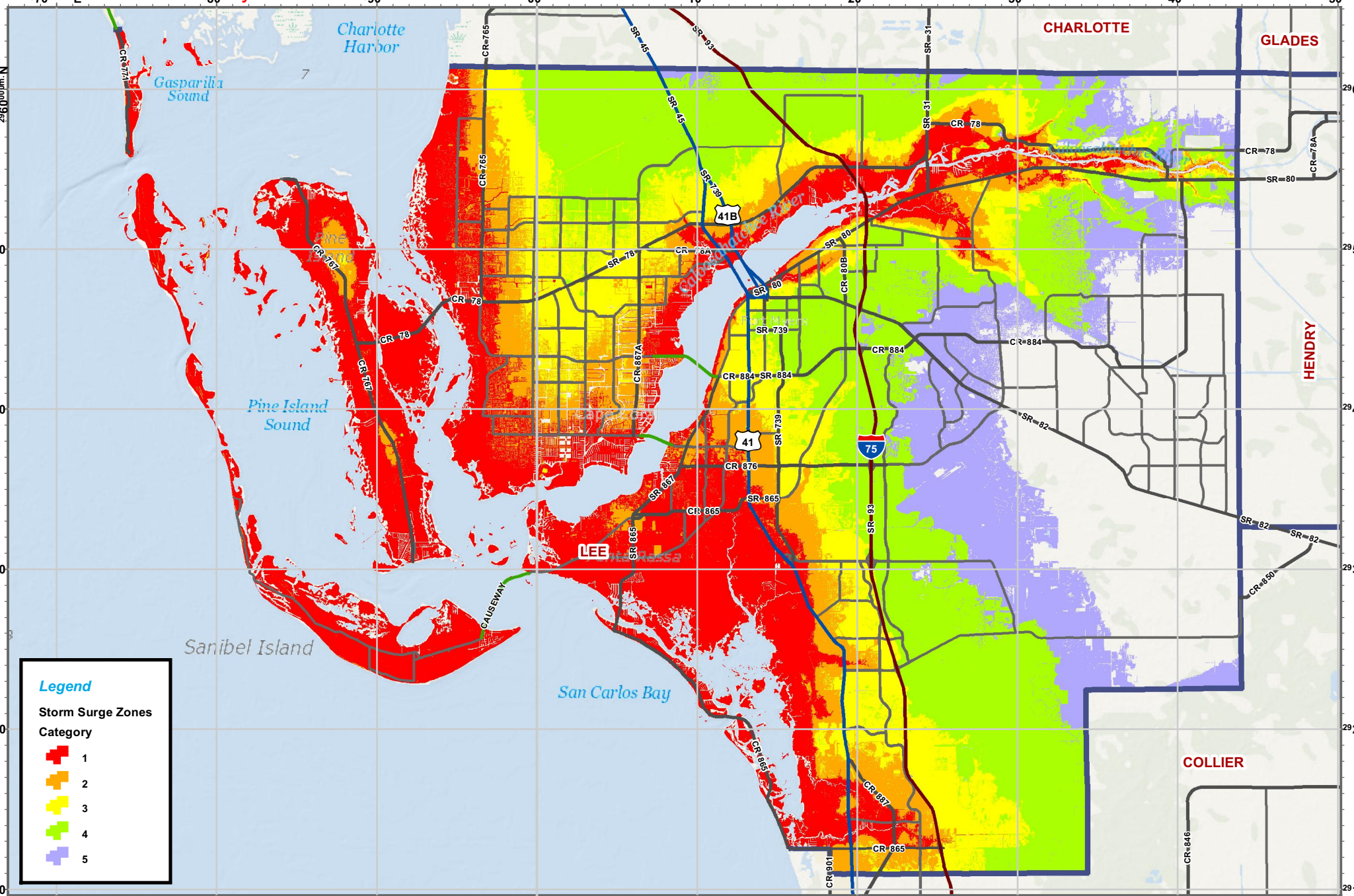
73, 95, 101, Objectives 73.1, 101.3, Policies 72.2.2, 73.2.2 and 101.3.4).

If you have any questions, please let me know.

Sincerely,

Daniel L. Trescott, MSP
President

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021



Disclaimer: Map is intended for reference only
No warranty for accuracy provided

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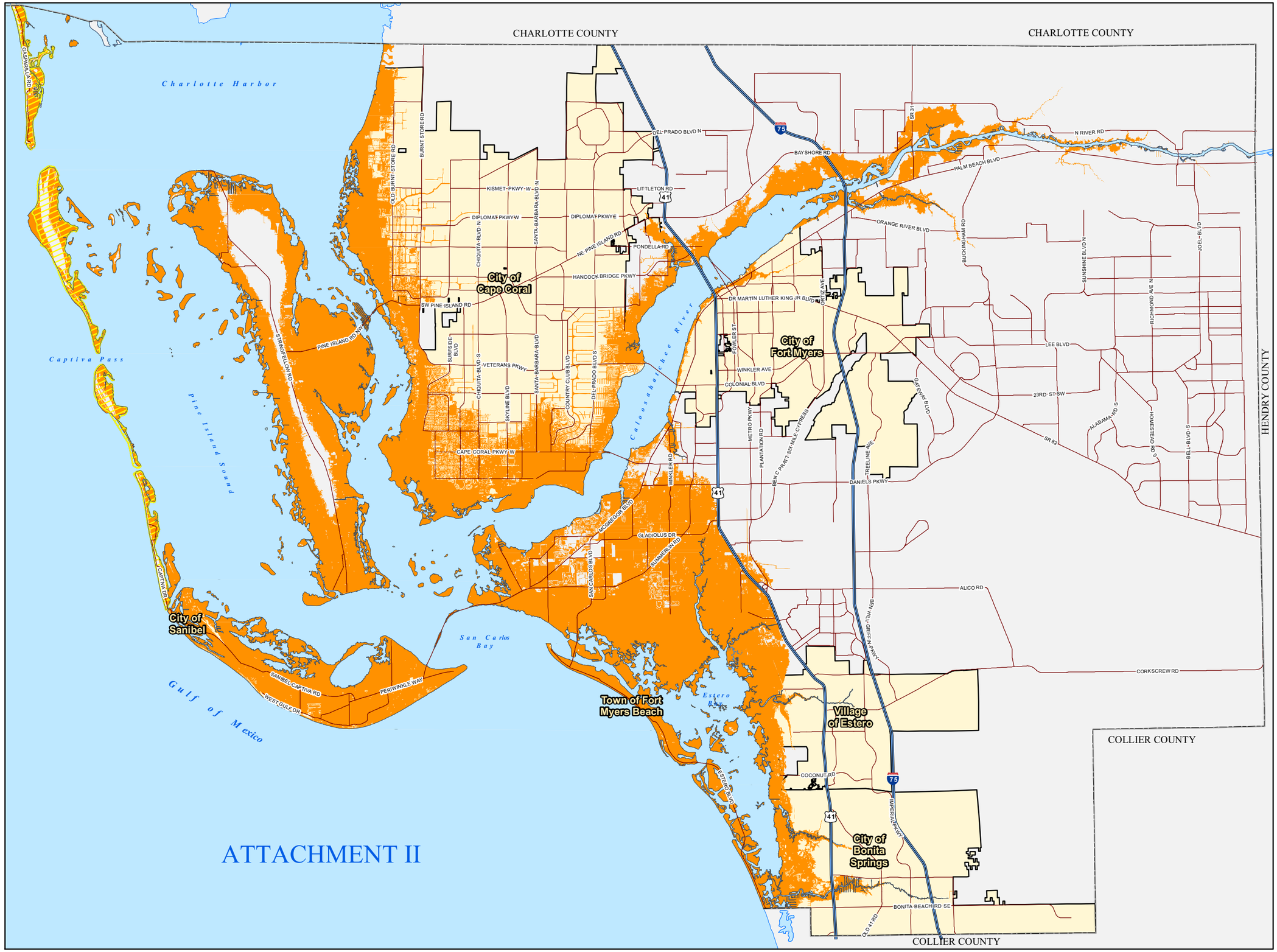
LEE
STORM SURGE ZONES

ATTACHMENT I

0 1.5 3 4.5 6 Miles



ATTACHMENT II

LEE COUNTY COASTAL HIGH HAZARD AREA (CHHA) AND COASTAL BUILDING ZONE

- Coastal High Hazard Area
- Coastal Building Zone
- County Line
- City Limits

Lee County Southwest Florida

N W E S

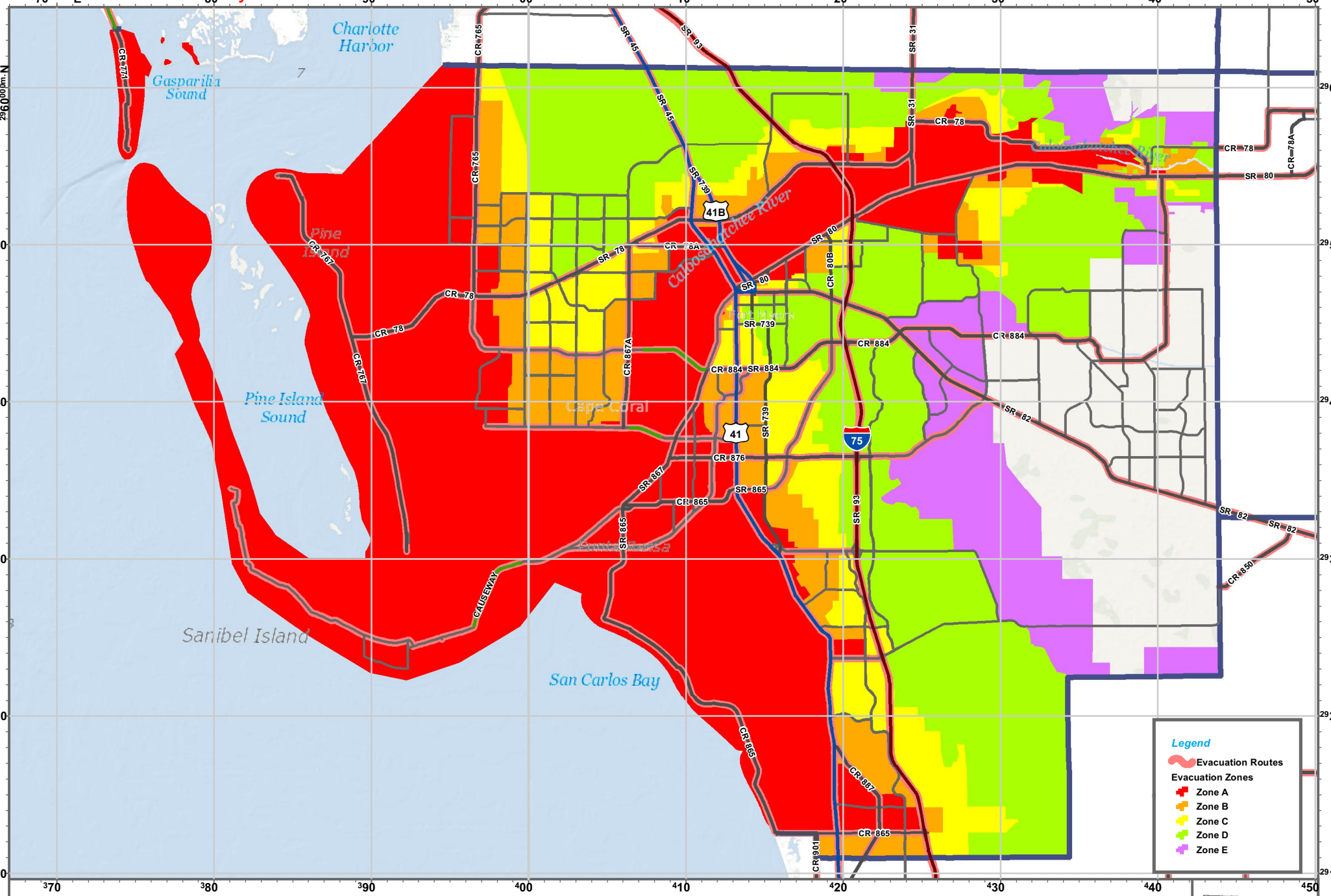
0 0.5 1 2 3 4 5 Miles

Map Generated: May 2019
City Limits current to date of map generation

Source: 2010 Evacuation Study
Florida Statewide Regional Evacuation Study
Storm Tide Atlas for Lee County

Ordinance No. 99-17, 09-17, 16-13, 18-28

Lee Plan Map 5



Disclaimer: Map is intended for reference only
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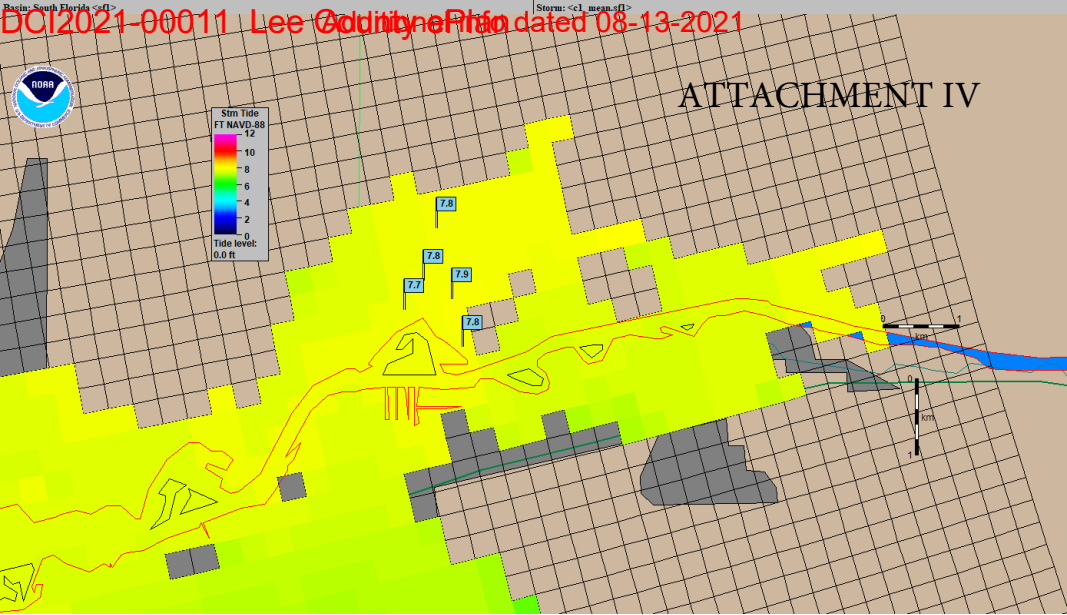
LEE
EVACUATION ROUTES & ZONES

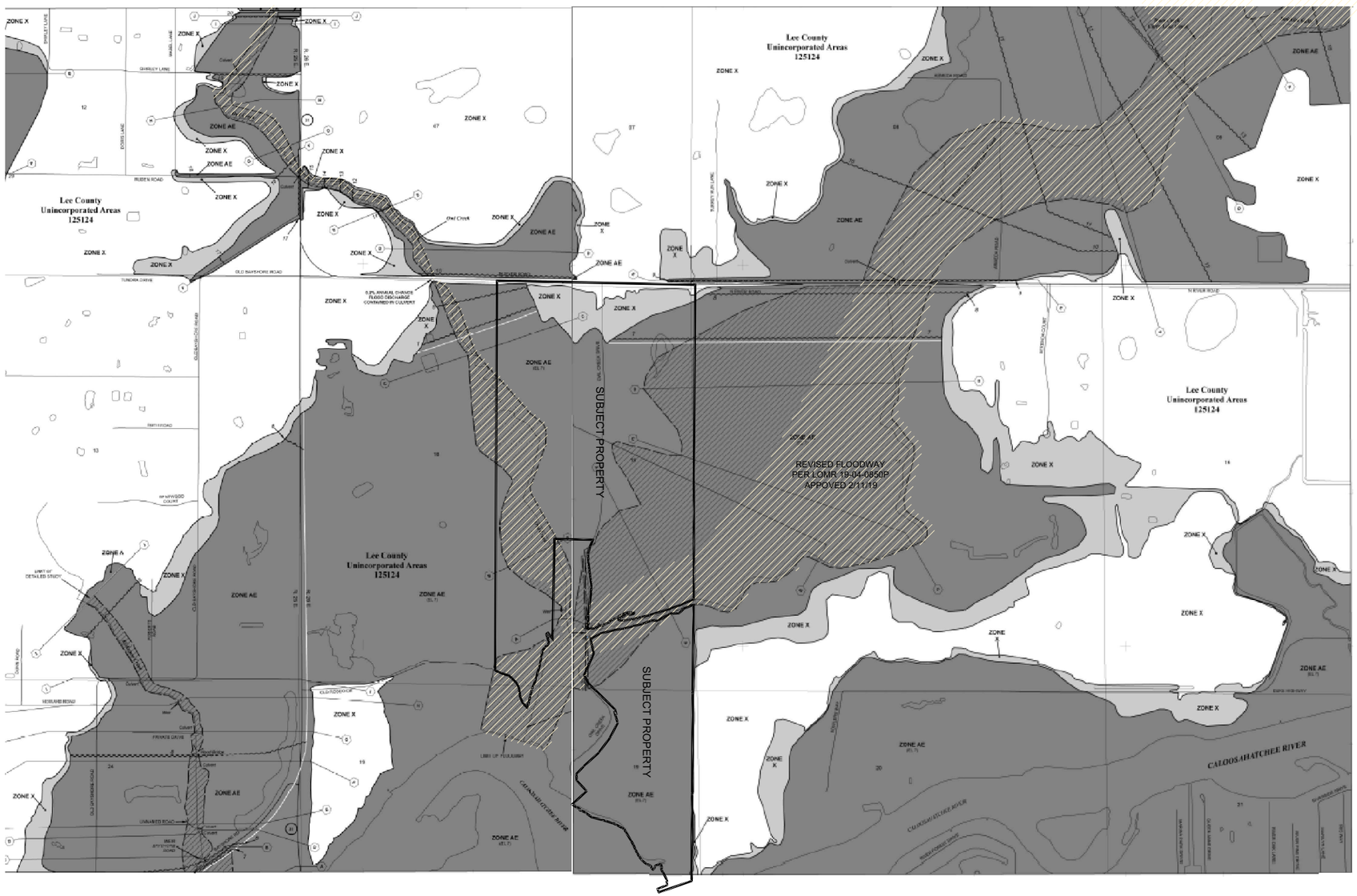
ATTACHMENT III

DCI2021-00011 Lee County Info Additional Info dated 08-13-2021

Basin: South Florida <sfl> Storm: <c1_mean.sfl>

ATTACHMENT IV





N

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 alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

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.

513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)———(A)	Cross section Line
(23)- - - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
7778000FT N	1000-meter Universal Transverse Mercator grid values, zone 17
600000 FT	5000-foot grid ticks: Florida State Plane coordinate system, West zone (FIPSZONE 0902), Transverse Mercator projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
♦M1.5	River Mile

BANKS ENGINEERING
Professional Engineers, Planners, & Land Surveyors
Serving The State Of Florida

10511 SIX MILE CYPRESS PARKWAY
FORT MYERS, FLORIDA 33966
PHONE: (239) 939-5490 FAX: (239) 939-2523

ENGINEERING LICENSE # EB 6469
SURVEY LICENSE # LB 6690

WWW.BANKSENG.COM

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

OWL CREEK

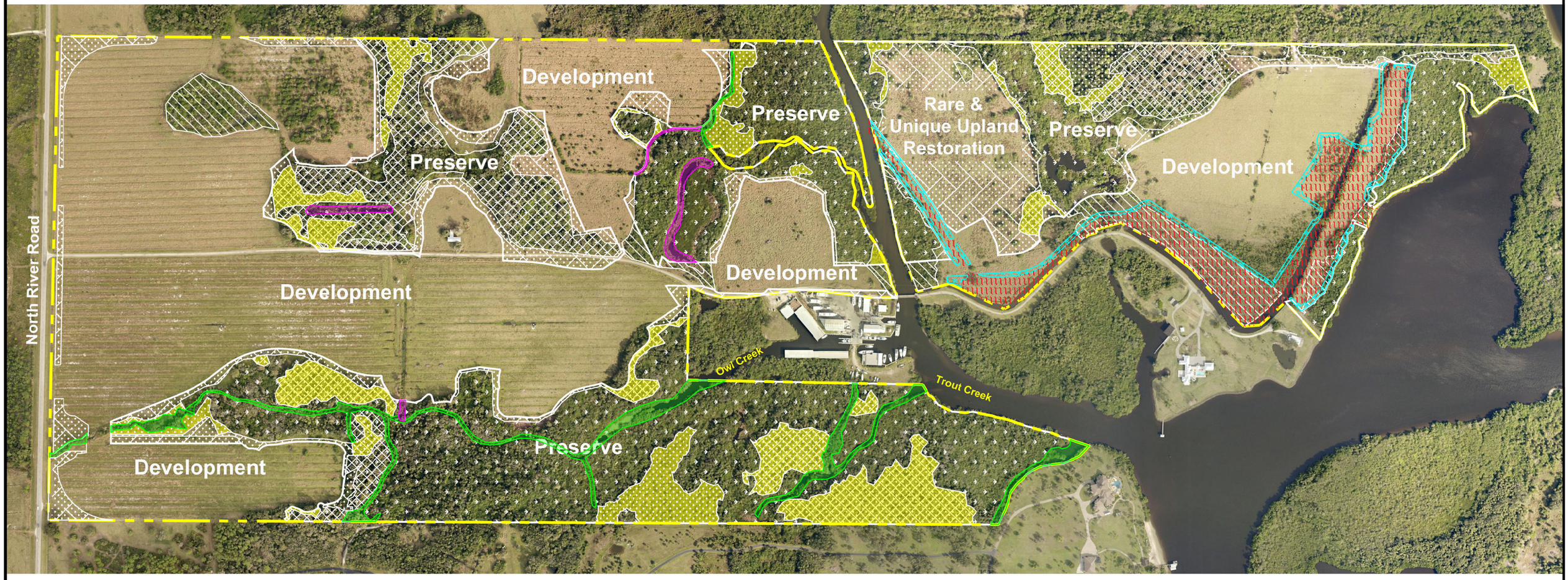
LEE COUNTY, FLORIDA

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

S:\JOBS\85XX\8504\EXHIBITS\8504_EXISTING FEMA.DWG 9/8/2020 11:21 AM KEVIN GONZALEZ

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

0 250 500
SCALE FEET



Total Wetland Preservation & Restoration (103.36 ac.)	Wetland Impact (11.48 ac.)	Rare & Unique Upland Restoration (34.80 ac.)	Surface Water Preservation (5.61 ac.)	Littoral Shelf (3.08 ac.)
Total Upland Preservation & Restoration (60.15 ac.)	Indigenous Habitat Preservation (38.28 ac.)	Rare and Unique Uplands Preservation (23.72 ac.)	Other Surface Water - Ditches Preservation (1.34 ac.)	Surface Water Restoration (13.01 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.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

August 09, 2021 10:44:20 a.m.
Drawing: DRHOR455 ENHANCEMENT-PRESERVATION.DWG

Enhancement & Preservation Map

Owl Creek Reserve

DEXBENDER
ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

Stacy Hewitt

From: Hans Wilson <hans@hanswilson.com>

From: Haynes, Lesli <LHaynes@leegov.com>
Sent: Wednesday, June 17, 2020 10:17 AM
To: Paul Owen <powen@dexbender.com>
Cc: Boutelle, Stephen <SBoutelle@leegov.com>
Subject: RE: LCMPP Analysis Request

Hi Paul,
It was nice speaking with you this morning. As stated, we had evaluated these 3 parcels as one project and based on current data and conditions, they rank as **Conditional**. I've attached the full score sheet and a map. In the map, you will see the qualified shoreline highlighted in purple. Mitigation measures for new slips at this property include but are not limited to: 1. Standard manatee construction conditions; 2. Manatee education activities as required per section 8.4.5; and 3. Funding for enhanced marine law enforcement per section 8.4.5. Note that the MPP determination does not alleviate the need to comply with zoning and all other applicable local, state and federal regulations, some or all of which may be more restrictive. Let me know if you need any additional information.
Thank you,
Lesli

5/10/2019

Facility	Corps reach	Shore ft	existing "slips"	ratio	rounded	Slips per 100'	**max slip**	**expansion**
Owl Creek_TalonVentures (3parcels)	32	6,595	0	65.95	66	5	330	
transferred rights				0	0			

Lesli Haynes
Marine Environmental Specialist, Sr
Lee County Natural Resources
Marine Services
1500 Monroe Street
Ft. Myers, Fl 33901
239-533-8566
lhaynes@leegov.com

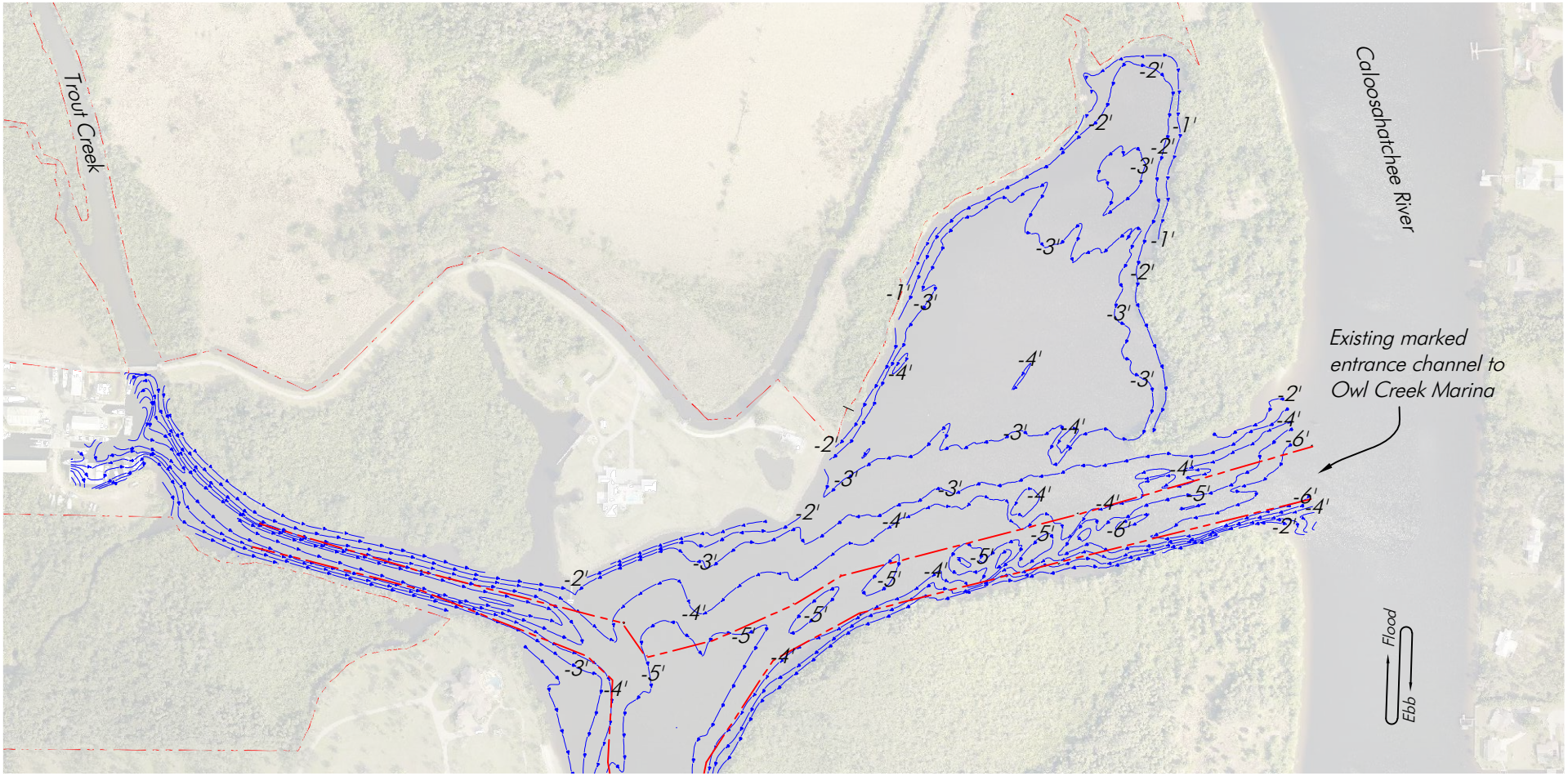
Please note: Florida has a very broad public records law. Most written communications to or from County Employees and officials regarding County business are public records available to the public and media upon request. Your email communication may be subject to public disclosure.

Under Florida law, email addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0' 250' 500'
SCALE FEET

2019 Lee County Aerial



Site Bathymetry references Mean Low Water datum.
Note: Property lines per Banks Engineering.

Overall Site Bathymetry

SCALE: 1" = 500'

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

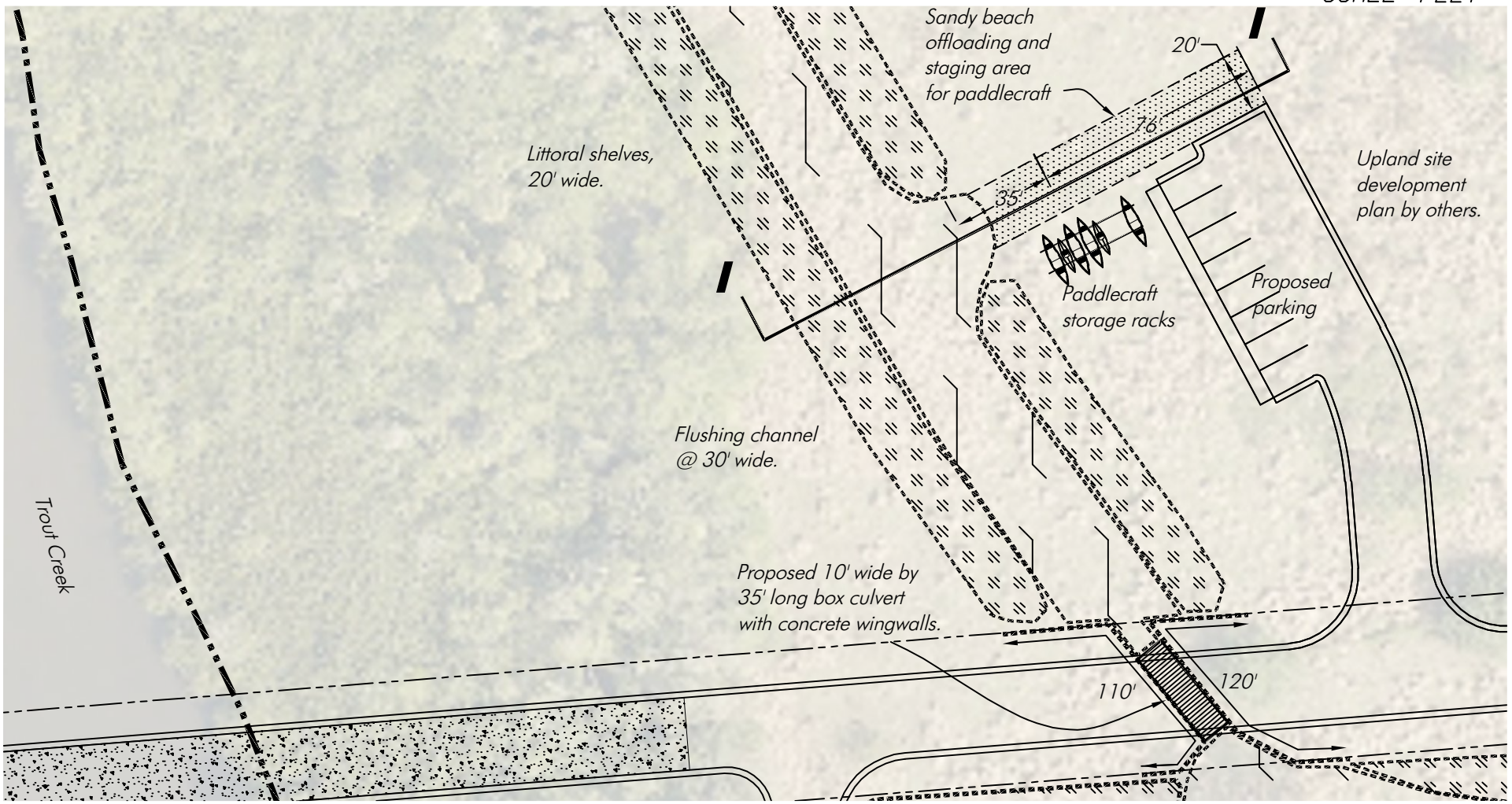
HWA Hans Wilson & Associates
1938 Hill Avenue, Fort Myers, Florida 33901
Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

7-16-21
hjmw

Talon Ventures LLC

SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



Detail F - Proposed Paddlecraft Ramp

SCALE: 1″ = 50′

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

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MARINE and ENVIRONMENTAL CONSULTANTS

7-16-21
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SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

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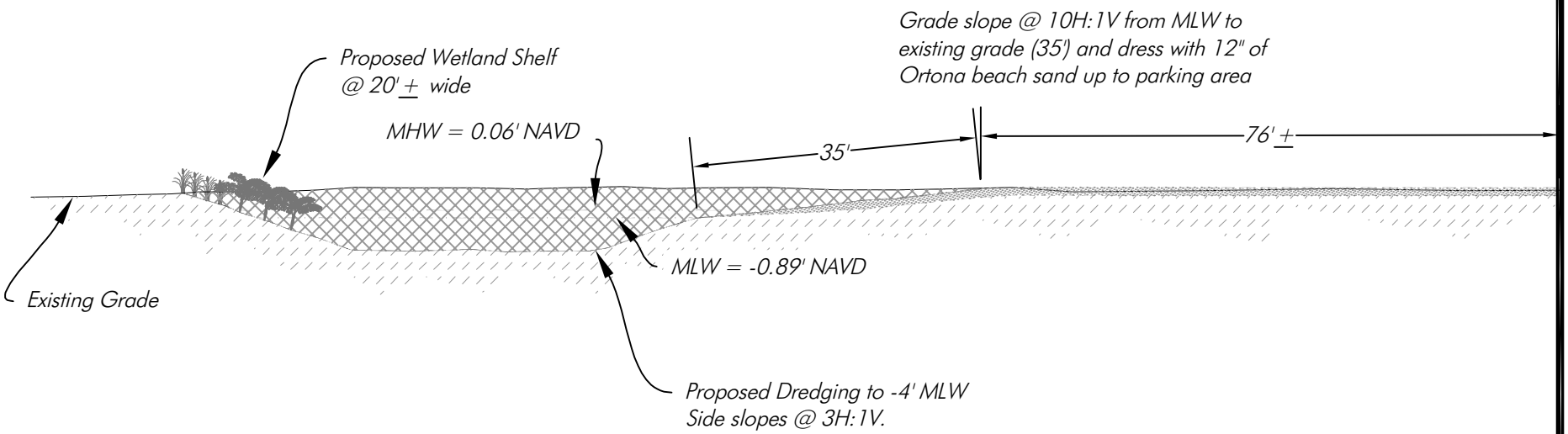
SCALE FEET



Cross Section I-I

SCALE: 1" = 20'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

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

7.19.2021
JWA

Talon Ventures LLC

SHEET

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

Owl Creek Reserve

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

Indigenous Habitat Management Plan

August 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 169.12± acre wetland/upland preservation and upland 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 169.12± 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. The rare and unique upland restoration areas consist of upland pasture and disturbed upland areas. The wetland restoration areas currently consist of hydric pasture and upland pasture. Each aspect of the plan is described below.

Preservation

Approximately 103.36 acres of wetlands and 25.35 acres of uplands will be preserved as shown on the Enhancement and Preservation Map (Figure 2). 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 these wetlands and uplands will be treated. 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 wetland and upland 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

Additional info dated 08-13-2021

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

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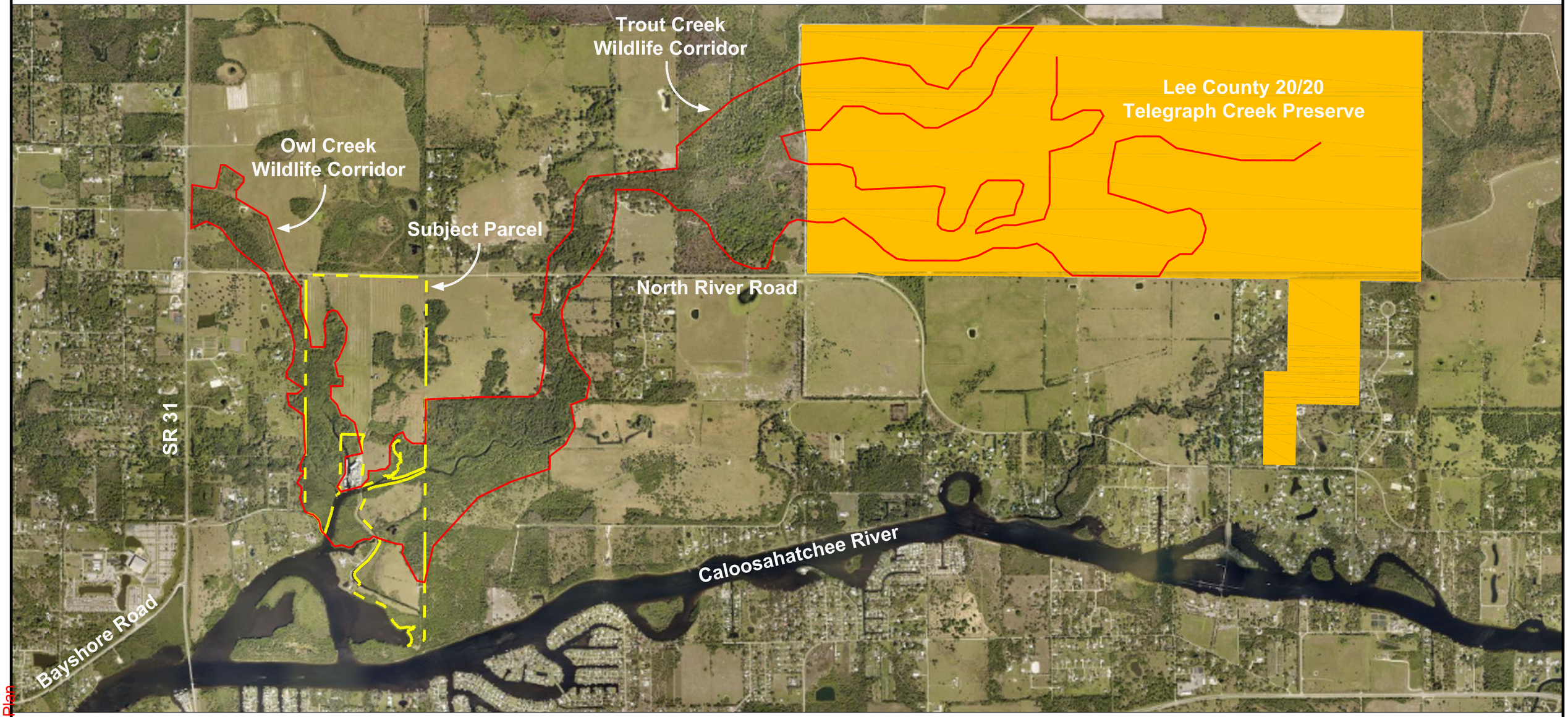
SCALE FEET



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.

PERMIT USE ONLY, NOT FOR CONSTRUCTION

July 09, 2021 2:22:50 p.m.
Drawing: DRHOR-455 WILDLIFE CORRIDOR.DWG

Figure 1. Owl Creek Wildlife Corridor Map

Owl Creek Parcel

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DCI2021-00011 Lee County ePlan

Additional info dated 08-13-2021

SECTIONS: 18 & 19
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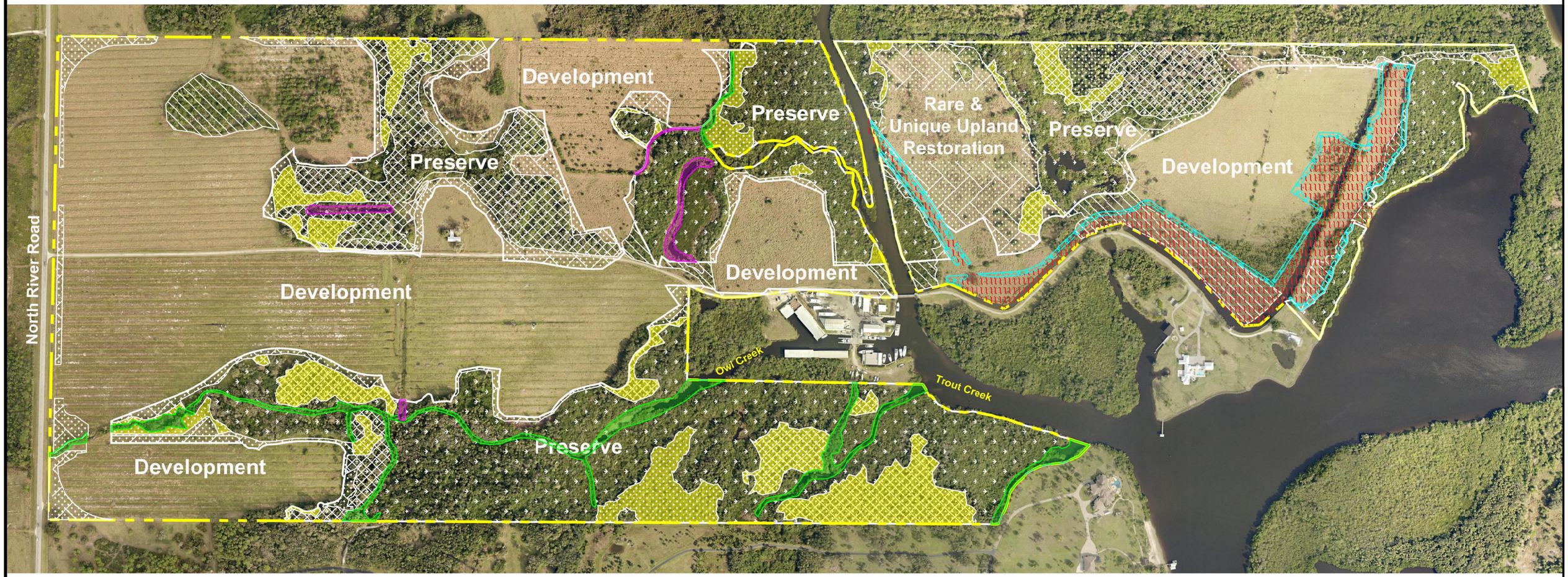
SCALE FEET



Total Wetland Preservation & Restoration (103.36 ac.)

Wetland Impact (11.48 ac.)

Rare & Unique Upland Restoration (34.80 ac.)

Surface Water Preservation (5.61 ac.)

Littoral Shelf (3.08 ac.)

Total Upland Preservation & Restoration (60.15 ac.)

Indigenous Habitat Preservation (38.28 ac.)

Rare and Unique Uplands Preservation (23.72 ac.)

Other Surface Water - Ditches Preservation (1.34 ac.)

Surface Water Restoration (13.01 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.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

August 09, 2021 10:44:20 a.m.
Drawing: DRHOR455 ENHANCEMENT-PRESERVATION.DWG

Figure 2. Enhancement & Preservation Map

Owl Creek Reserve

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FORT MYERS 239-334-3680

DCI2021-00011 Lee County ePlan

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 torpedograss.

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, 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. 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 the indigenous vegetation preserve 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.

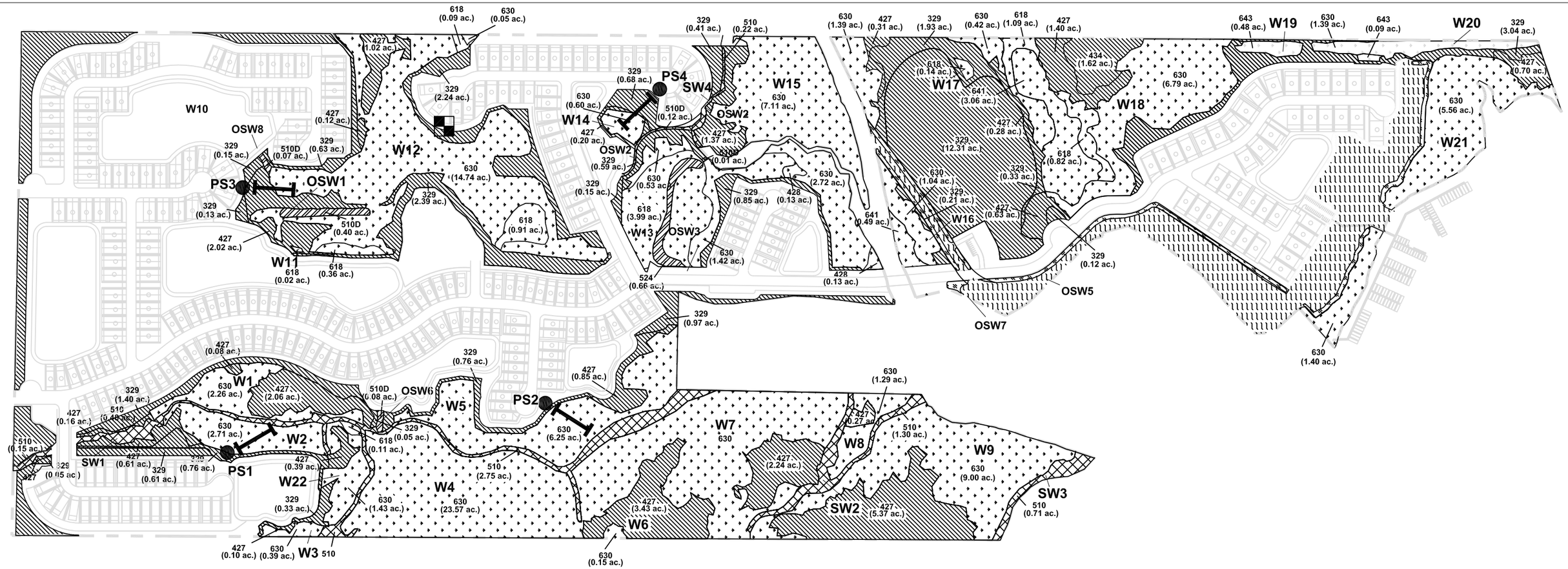
Restoration

Approximately 34.8 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 restoration area will be planted with native ground cover and trees, as listed in the 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 4,809 trees, 4,809 shrubs, and 24,348 herbaceous plants will be planted in the restoration area shown on the attached Indigenous Habitat Management Plan Map. Cabbage palms from the development footprint may be relocated and used for the restoration planting plan below.

Additional info dated 08-13-2021

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

0 250 500
SCALE FEET



Total Wetland Preservation & Restoration (103.36 ac.)	Preserved Other Surface Water (1.34 ac.)
Total Upland Preservation & Restoration (60.15 ac.)	Preserved Surface Water (5.61 ac.)
Littoral Shelf (3.08 ac.)	Surface Water Restoration (13.01 ac.)

FLUCCS	Description	Acreage
329	Shrub and Brush	34.81 ac.
427	Live Oak	23.72 ac.
428	Cabbage Palm	0.26 ac.
434	Hardwood- Coniferous Mixed	1.62 ac.
510	Streams and Waterways	5.61 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	92.01 ac.
641	Freshwater Marsh	3.57 ac.
643	Wet Prairies	0.57 ac.
	Total	171.04 ac.

Notes:
1. Property boundary was obtained from Banks Engineering.
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. FLUCCS table includes preserved wetlands, surface waters, other surface waters, and uplands.

Photo Station (PS)(6)

Peizometer (2)

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August 09, 2021 11:34:07 a.m.
Drawing: DRHOR-455 PROPOSED CONDITIONS UPDATED.DWG

Figure 3. Indigenous Habitat Management Monitoring Plan Map

Owl Creek Reserve

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DCI2021-00011 Lee County ePlan

Table 1. *Rare and Unique Upland Restoration Planting Table

Botanical Name	Common Name	Minimum Size/Container	Maximum Spacing	Quantity
Trees				
Quercus virginiana	Live Oak	6' tall/BR	18 Feet Centers	1,603
Quercus laurifolia	Laurel Oak	6' tall/BR	18 Feet Centers	1,603
Sabal palmetto	Cabbage Palm	6' tall/FG	18 Feet Centers	1,603
Shrubs				
Rapanea punctata	Myrsine	1 Gallon	18 Feet Centers	1,603
Psychotria nervosa	Wild Coffee	1 Gallon	18 Feet Centers	1,603
Callicarpa americana	Beauty Berry	1 Gallon	18 Feet Centers	1,603
Ground Cover				
Serenoa repens	Saw Palmetto	Liner	8 Feet Centers	6,087
Muhlenbergia sp.	Muhley Grass	Liner	8 Feet Centers	6,087
Aristida beyrichiana	Wiregrass	Liner	8 Feet Centers	6,087
Spartina bakeri	Cordgrass	Liner	8 Feet Centers	6,087

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

Approximately 3.08 acres of hydric pasture and upland pasture will be restored to littoral marsh wetlands as shown on the Indigenous Habitat Management Plan Map (Figure 3). The restoration area will be planted with native ground cover and trees, as listed in the 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 2,100 herbaceous plants will be planted in the restoration area shown on the attached Indigenous Habitat Management Plan Map.

Table 2. *Wetland Restoration Planting Table

Botanical Name	Common Name	Minimum Size/Container	Maximum Spacing	Quantity
Ground Cover				
Acrostichum sp.	Leather fern	Liner	8 Feet Centers	350
Juncus roemerianus	Black needle rush	Liner	8 Feet Centers	350
Nuphar luteum	Spatterdock	Liner	8 Feet Centers	350
Spartina bakeri	Sand cordgrass	LIner	8 Feet Center	350
Pontederia cordata	Pickerelweed	LIner	8 Feet Centers	350
Sagittaria sp.	Arrowhead	Liner	8 Feet Centers	350

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

Additionally, 13.01 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. Please see Figure 3.

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.

Conservation Easement

A Conservation Easement will be recorded and placed over the upland, wetland, and surface waters preservation areas totaling 169.12± 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 163.5± acre onsite wetland and upland preservation area:

1. At least 80 percent cover by appropriate wetland species (i.e. facultative wet or obligate) within the 103.36± acres of wetlands and the 3.08 acres of restored

wetlands and 80 percent coverage by appropriate upland species in the 60.15± acres of 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. 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.

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. 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 <u>not</u> 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 163.5+/- acres of native upland and wetland habitats of this area will be permanently protected for wildlife usage before construction commences. A total of 34.8 acres of farm fields and disturbed uplands will be restored to rare and unique uplands by planting with native species. Additionally, 3.08 acres of hydric and upland pasture will be restored as littoral marsh wetlands and 13.01 acres of surface waters will be restored. 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 3.08 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 103.36 + 3.08 acres of preserved and restored freshwater 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 shelves and littoral marsh drawdown 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. 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. Existing foraging habitat for the sandhill crane will be enhanced through removal and maintenance of invasive exotic plants. 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 103.36 acres of preserved wetlands, 3.08 acres of restored freshwater marsh, 1.34 acres of preserved other surface waters, 5.61 acres of preserved surface waters, and 13.01 acres of restored

surface water 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 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 of the 170.45 acres of uplands, wetlands, other surface waters, and surface waters 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 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 A for NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions dated March 23, 2006.

Wildlife Habitat Area Corridors

Two Wildlife Corridors totaling 169.12 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 500' and 600' in width, respectively. Prior to the issuance of a MOP, the south corridor will be placed under a Conservation Easement. The north and third corridor will be graded, planted, and placed under a Conservation Easement after mining operations are complete.

Human Coexistence with Wildlife Plan

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

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 B), 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 B) 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 B) 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.

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. 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. 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.

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 49% of the site as preservation 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 11.48+/- 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 134.32 acres of existing high quality indigenous habitat, existing native tree areas (none is required by LDC Section 10-415), and surface waters;
   a. 103.36 acres of wetlands
   b. 25.35 acres of forested uplands
   c. 5.61 acres of surface waters (Owl and Trout Creeks)

(ii) Restoration of 34.8 acres of Rare and Unique Uplands;

(iii) Restoration of 3.08 acres of littoral shelf wetlands;

(iv) Restoration of 13.01 acres of surface water

(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) and (ii) above will be a total of 169.12 acres of uplands, wetlands, 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.

Exhibit A

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
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

Exhibit B

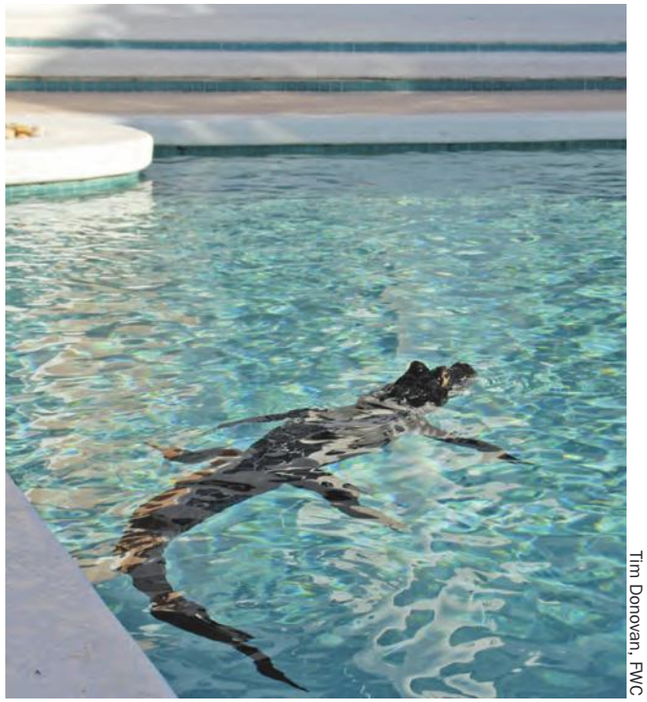
A Guide to Living with Alligators
A Guide to Living in Bear County
A Guide to Living with Florida Panthers

- 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.



Tim Donovan, FWC

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

Janice Plain

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

MyFWC.com/Alligator

REWARD
Report Fish & Wildlife Violations
1-888-404-3922

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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.

DCI2021-00011 Lee County ePlan
Additional info dated 08-13-2021

Mitt 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

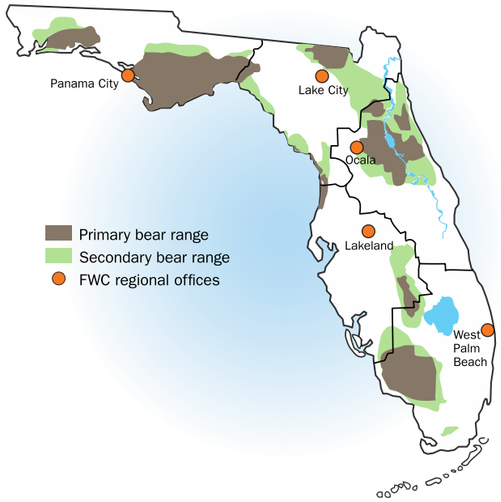
- Use electric fencing to protect gardens, compost piles, apiaries, fruit trees and livestock.
- Store garbage and recyclables in bear-resistant containers or in a secure area until the morning of pick up.
- Feed pets indoors or bring food dishes (even if empty) inside before dark.
- Store pet and livestock 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

printed on recycled paper

A guide to living in **bear country**

Florida Fish and Wildlife Conservation Commission
MyFWC.com

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).

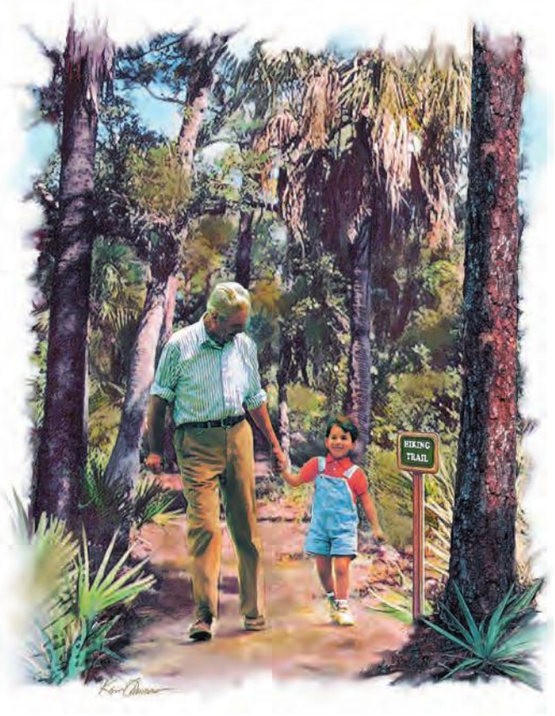
It is illegal to intentionally place food or garbage out that attracts bears and causes conflicts. Anything that attracts dogs, cats or raccoons also will attract bears!

DCI2021-00011 Lee County ePlan
Additional info dated 08-13-2021

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.

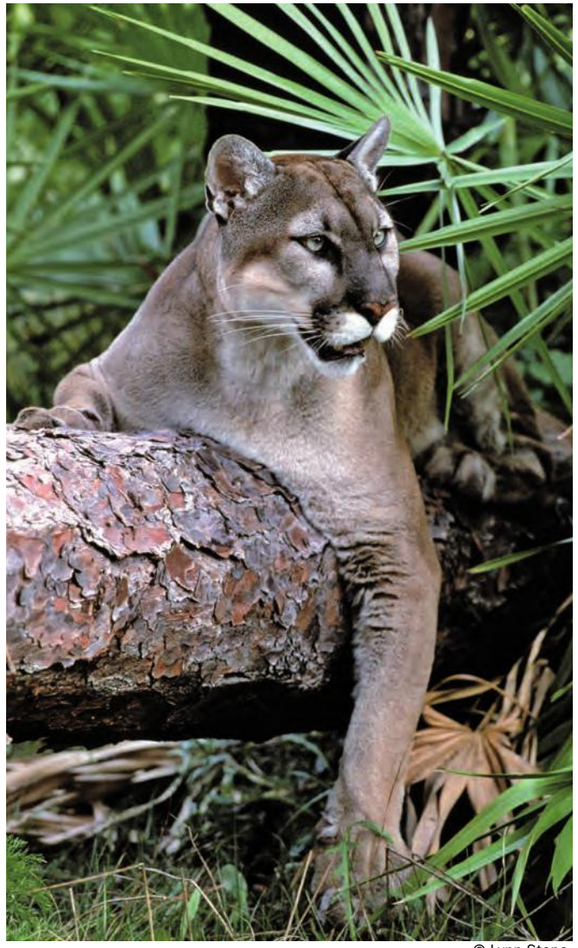
- **Keep children within sight and close to you.** Pick up any small children so they don't panic and run. Try to do this without bending over or turning away from the Florida panther.
- **Give them space.** Florida panthers typically will avoid a confrontation. Give them a way to escape.
- **Do not 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

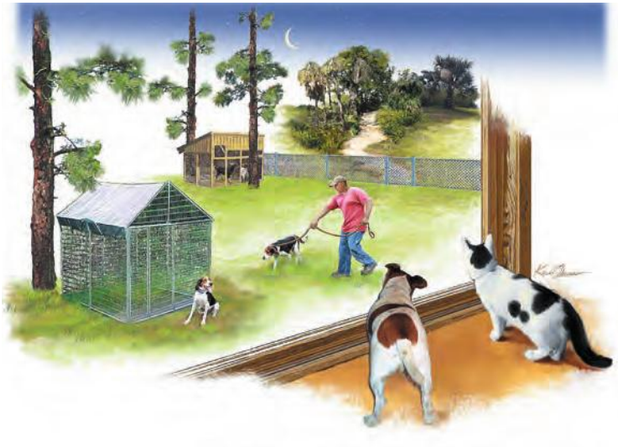
7 ways to live safely in Florida panther country

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.

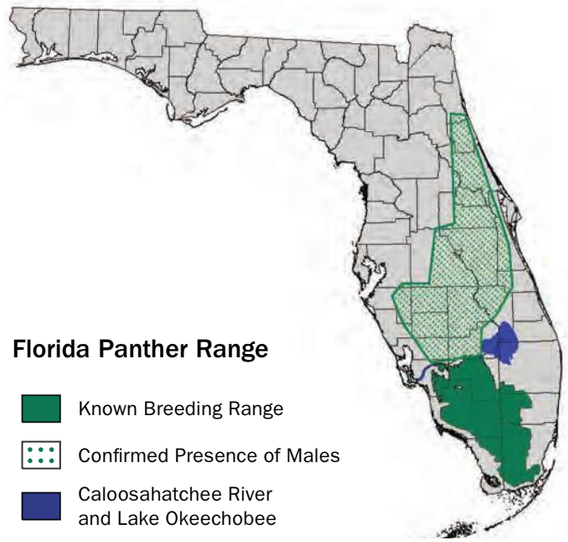
7. Hike or bike with a friend
When recreating outdoors, it's a good practice to let friends or family know your whereabouts and when you expect to return. Better yet, take a friend with you!

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.



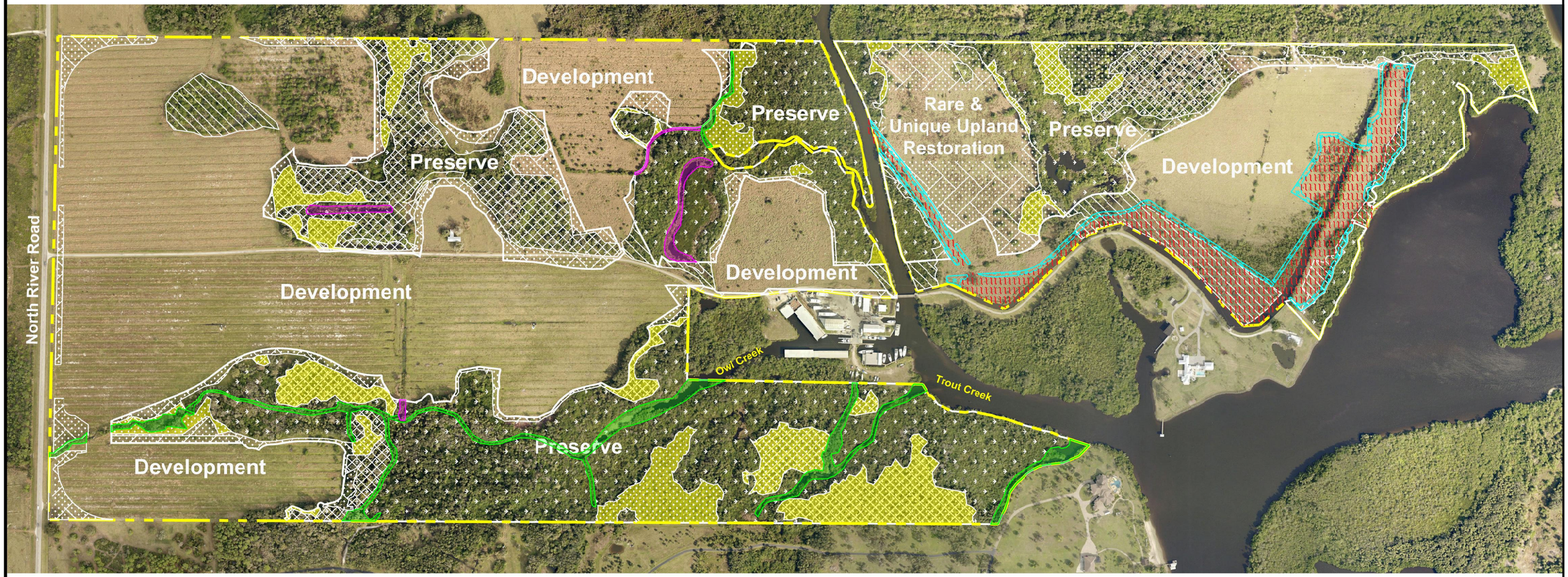
This brochure was produced through a partnership of the Audubon Society of Florida, Conservancy of Southwest Florida, Defenders of Wildlife, Florida Fish and Wildlife Conservation Commission, Florida Wildlife Federation, Friends of the Florida Panther Refuge, Mountain Lion Foundation, National Park Service,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

Additional info dated 08-13-2021

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

0 250 500
SCALE FEET



Total Wetland Preservation & Restoration (103.36 ac.)	Wetland Impact (11.48 ac.)	Rare & Unique Upland Restoration (34.80 ac.)	Surface Water Preservation (5.61 ac.)	Littoral Shelf (3.08 ac.)
Total Upland Preservation & Restoration (60.15 ac.)	Indigenous Habitat Preservation (38.28 ac.)	Rare and Unique Uplands Preservation (23.72 ac.)	Other Surface Water - Ditches Preservation (1.34 ac.)	Surface Water Restoration (13.01 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.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

August 09, 2021 10:44:20 a.m.
Drawing: DRHOR455 ENHANCEMENT-PRESERVATION.DWG

Enhancement & Preservation Map

Owl Creek Reserve

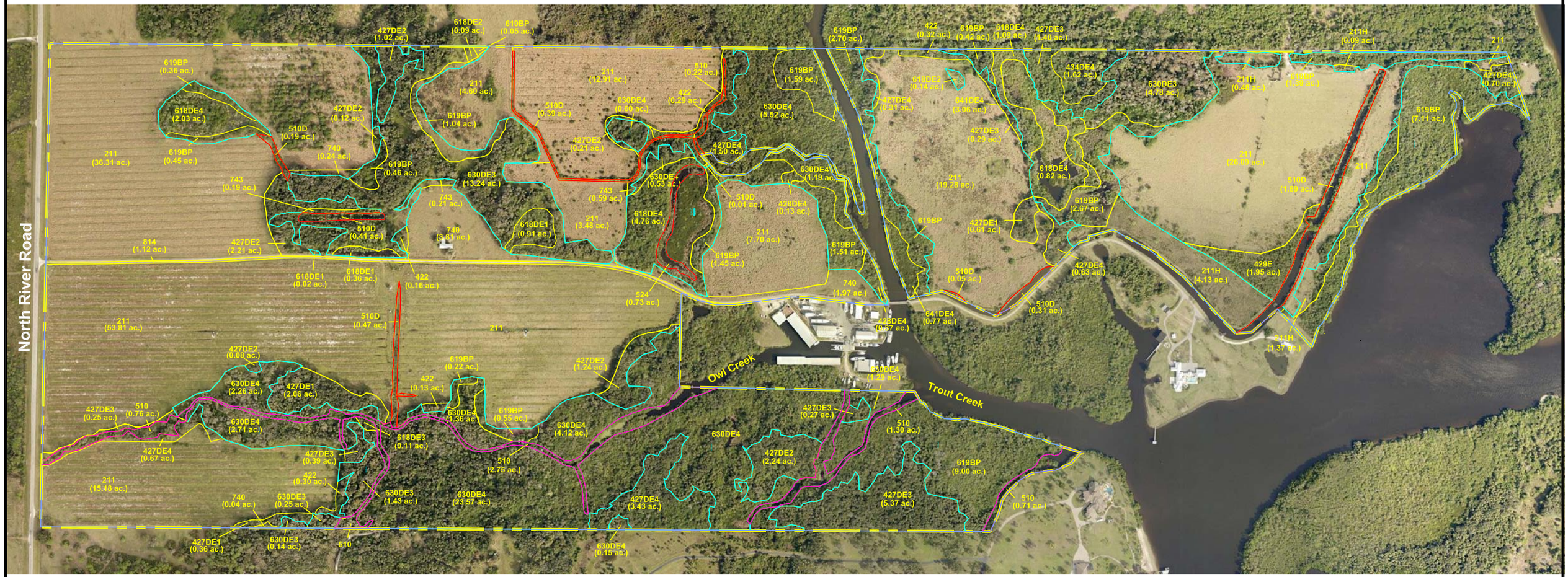
DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

DCI2021-00011 Lee County ePlan

Additional info dated 08-13-2021

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

0 250 500
SCALE FEET



FLUCCS	Description	Acreage
211	Improved Pastures	179.38 ac.
***211H	Improved Pastures - hydric	6.07 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%)	7.12 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.
429E	Wax Myrtle, Invaded by Exotics (5-9%)	1.95 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.
***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	0.99 ac.
814	Roads and Highways	1.12 ac.
	Total	342.68 ac.

* Surface Waters
** Potential jurisdictional other surface waters
*** Potential jurisdictional wetland

Notes:
1. Property boundary was obtained from Banks Engineering.
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.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

May 21, 2021 9:11:40 a.m.
Drawing: DRHOR455PLAN.DWG

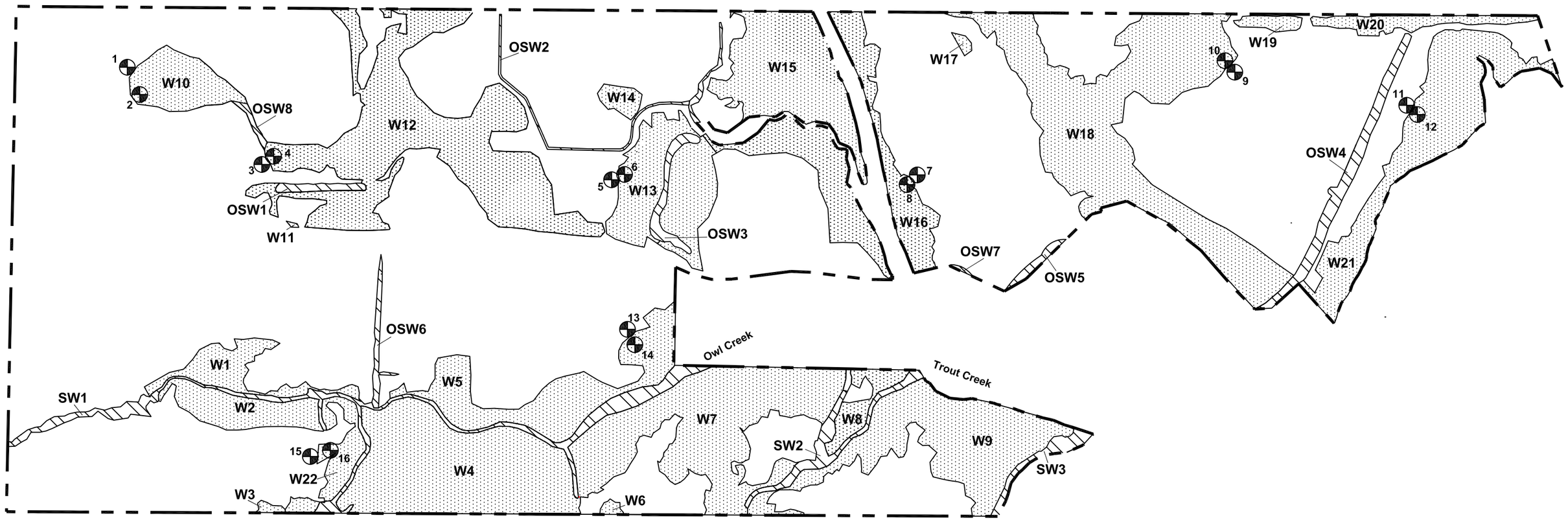
Exhibit C.1.9 - Vegetation Map

Owl Creek Parcel

DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

DCI2021-00011 Lee County ePlan

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



Jurisdictional Wetlands (114.84 ac.)

Jurisdictional Surface Waters and Other Surface Waters (10.19 ac.)

Uplands (217.65 ac.)

Data Sheet Point (16)(typ.)

Property Line

FOR CONCEPTUAL PLANNING PURPOSES ONLY

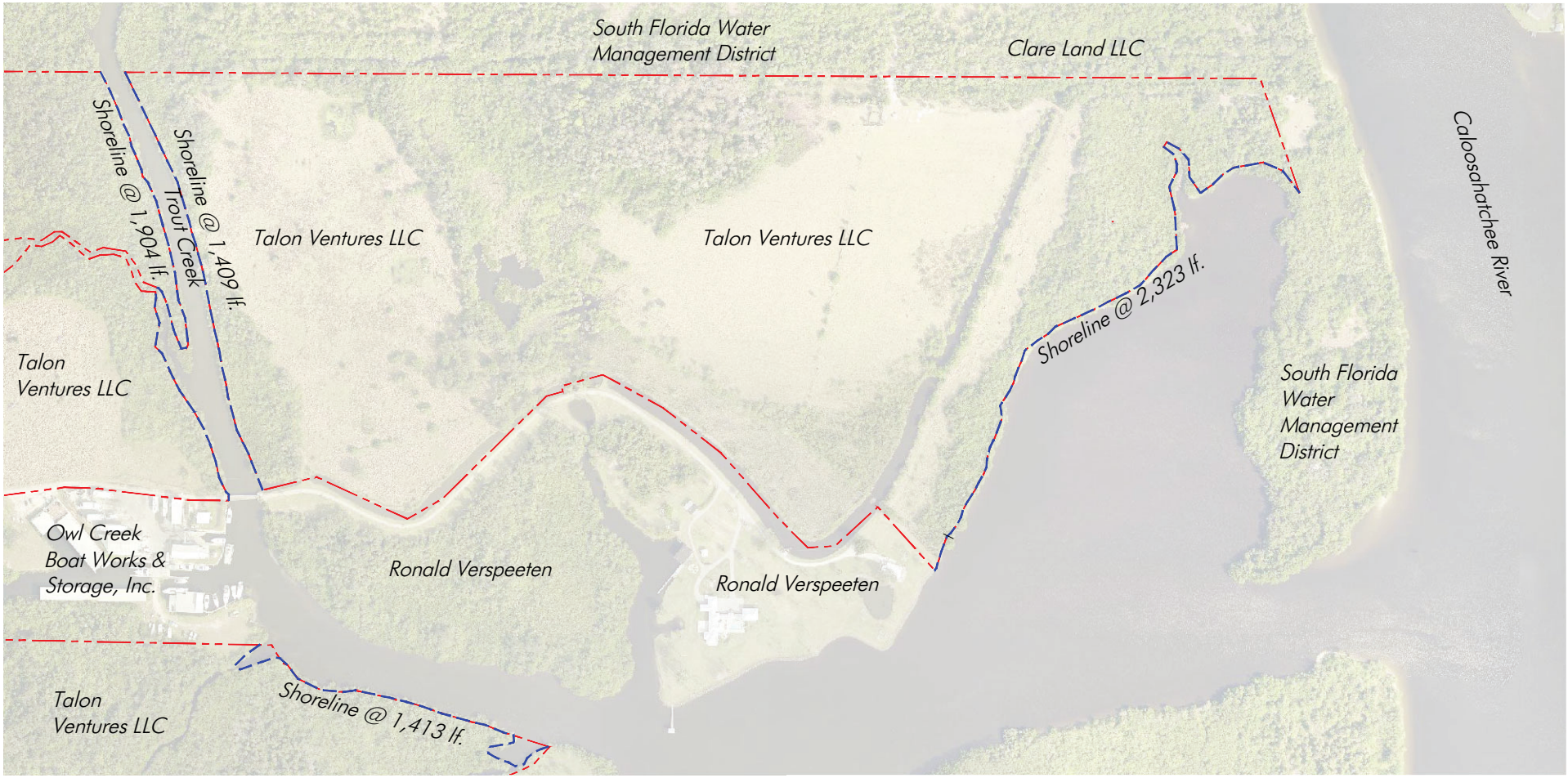
April 21, 2021 3:34:36 p.m.
Drawing: WETLAND JD MAP.DWG

Wetland Map	Owl Creek Parcel	DEXBENDER ENVIRONMENTAL CONSULTING FORT MYERS 239-334-3680

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0' 250' 500'
SCALE FEET

2019 Lee County Aerial



Total project shoreline @ 7,049 lf.

Note: Property lines per Lee County Property Appraiser

Overall Site Plan

SCALE: 1" = 500'

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

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

7-16-21
hjmw

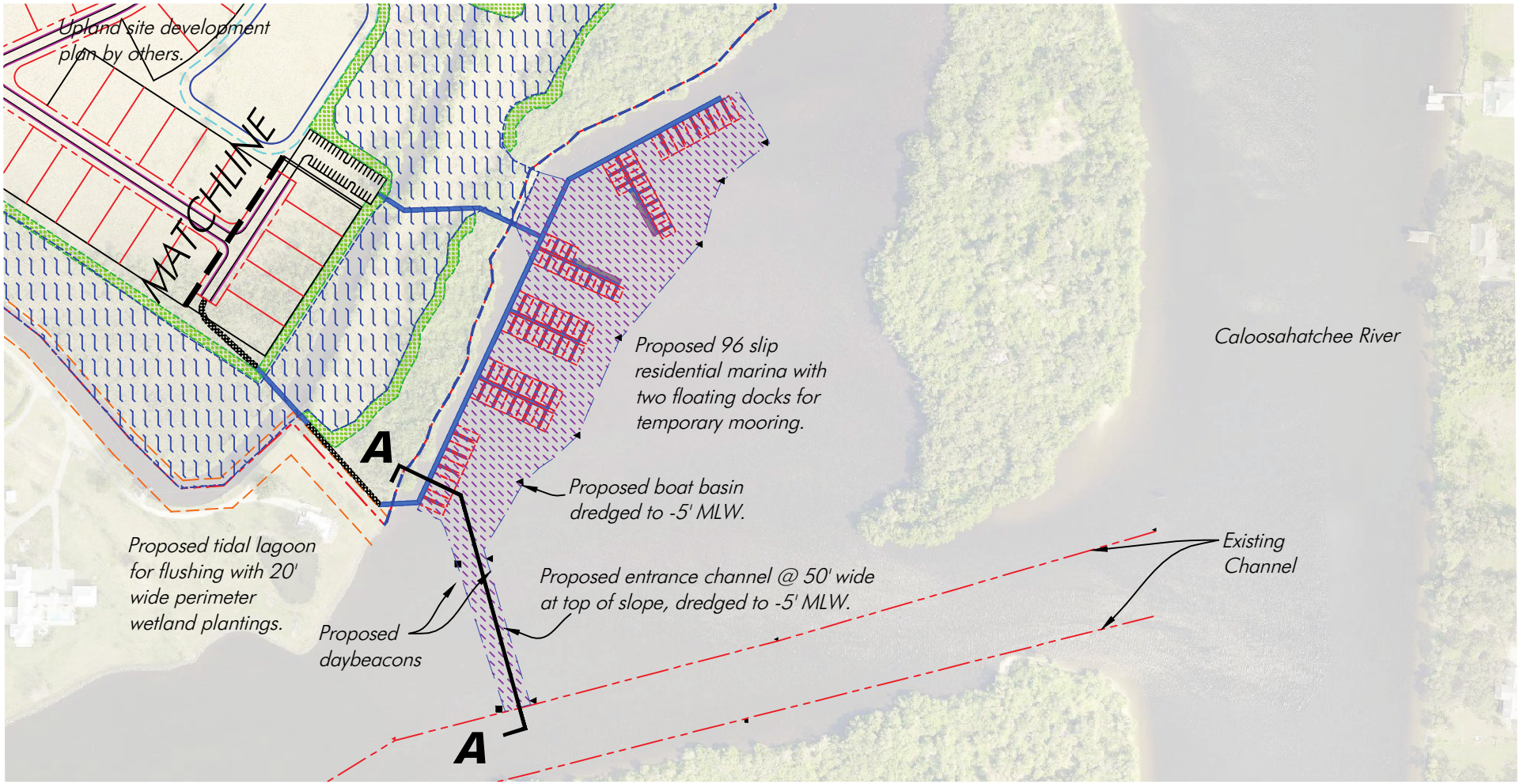
Talon Ventures LLC

SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2019 Lee County Aerial

0' 150' 300'
SCALE FEET



Detail A - Proposed Dock Plan

SCALE: 1" = 300'

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

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

7-16-21
hjmw

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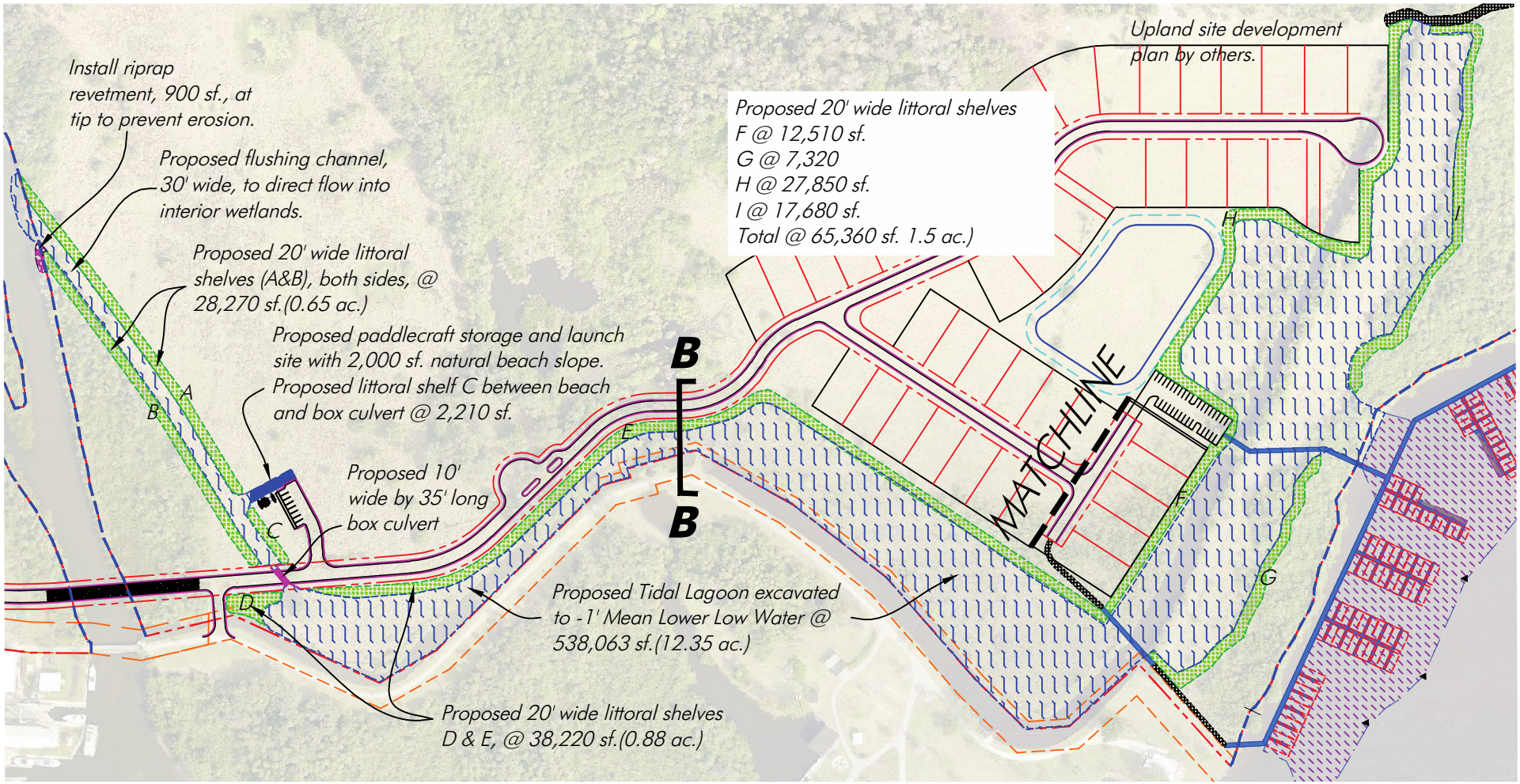
SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2019 Lee County Aerial

0' 150' 300'
SCALE FEET



Detail B - Tidal Lagoons/Flushing Channels

SCALE: 1" = 300'

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REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

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SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2019 Lee County Aerial

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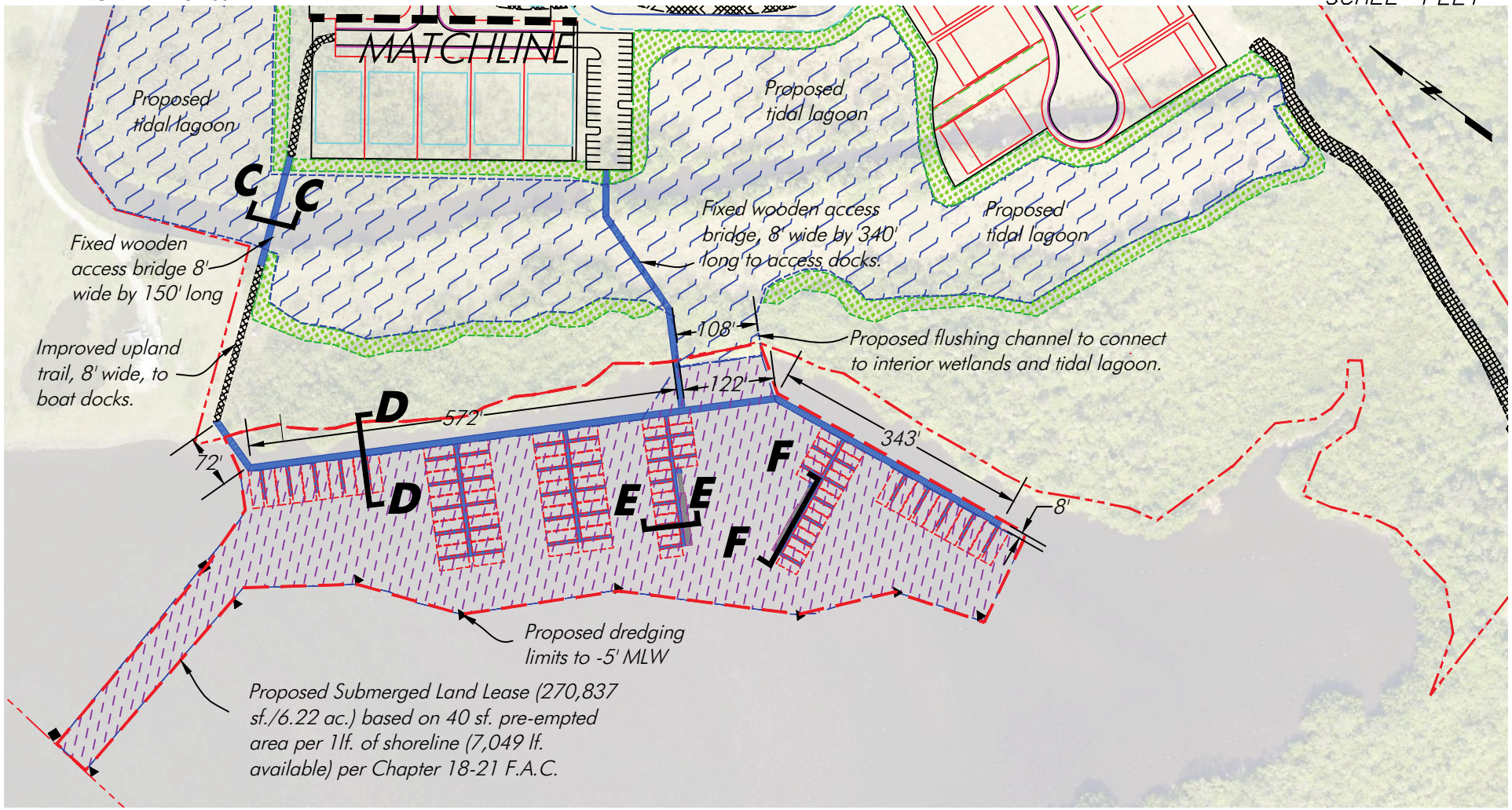
SCALE FEET



Detail C - Proposed Marina Dredging Plan

SCALE: 1" = 200'

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

HWA Hans Wilson & Associates
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Office: 239-334-6870 Fax: 239-334-7810
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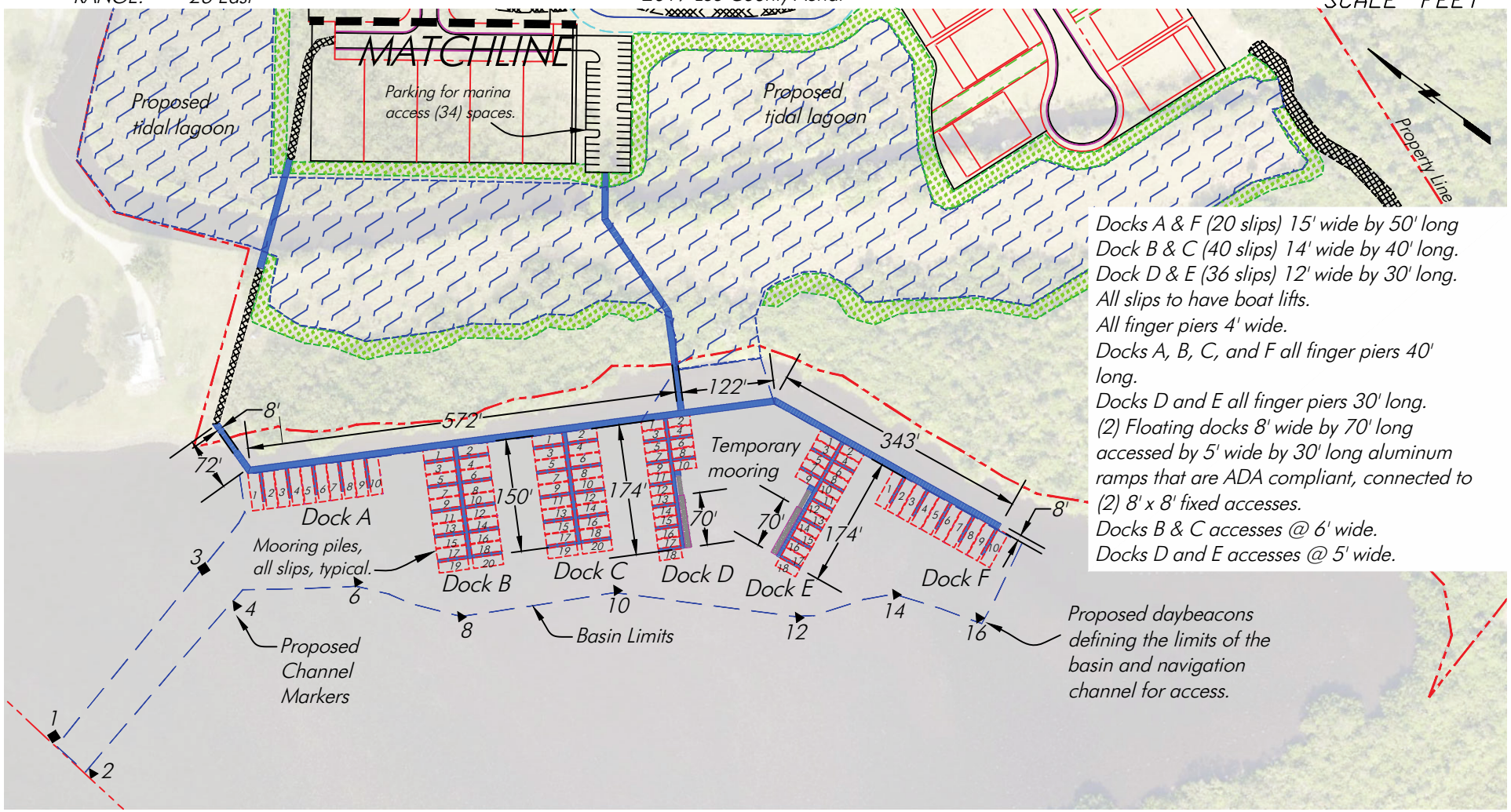
SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



Detail C - Proposed Boat Slips

SCALE: 1" = 200'

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REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: _____

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SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

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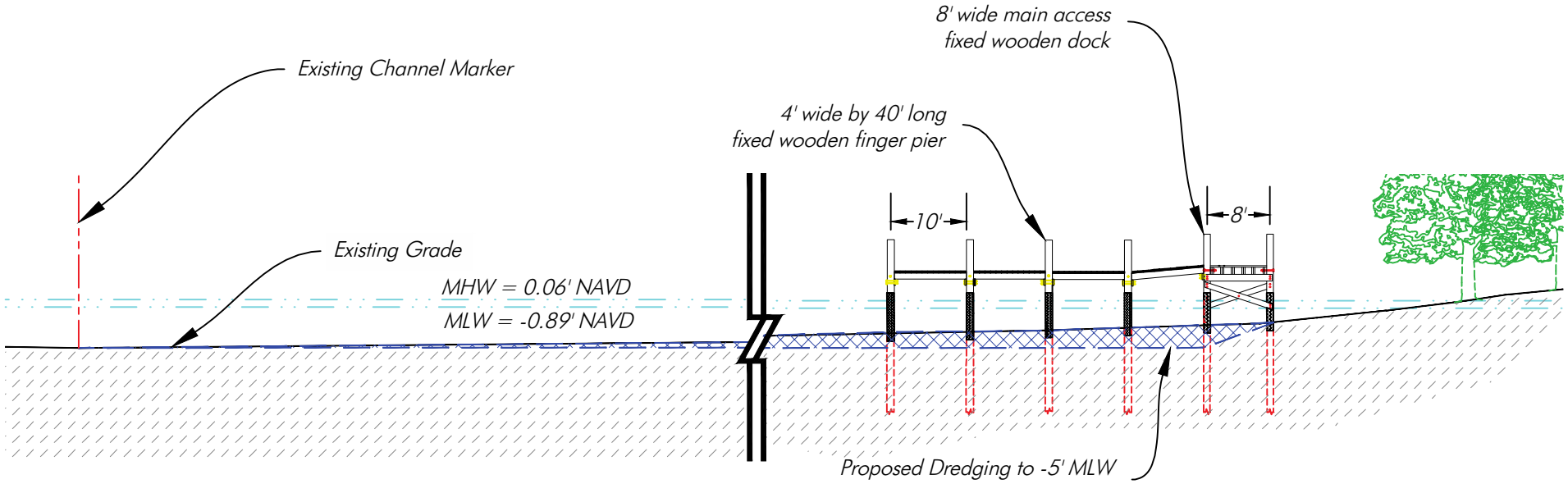
SCALE FEET



Cross Section A-A

SCALE: 1" = 20'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

HWA Hans Wilson & Associates
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Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

7.19.2021

JWA

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SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

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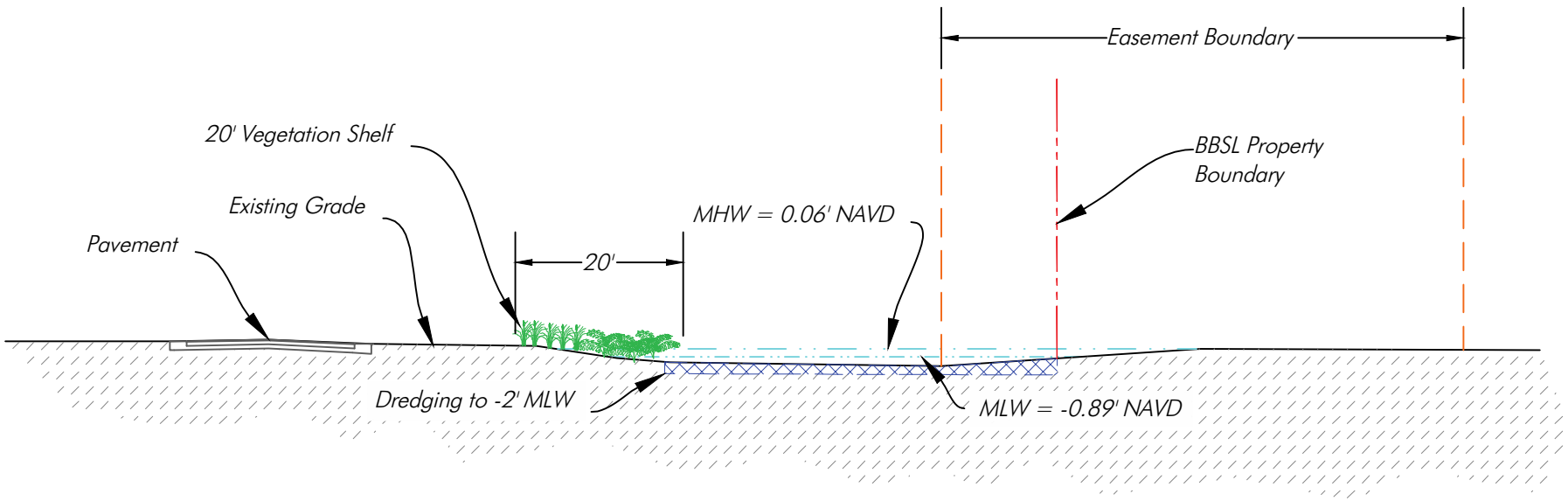
SCALE FEET



Cross Section B-B

SCALE: 1" = 20'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

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7.19.2021
JWA

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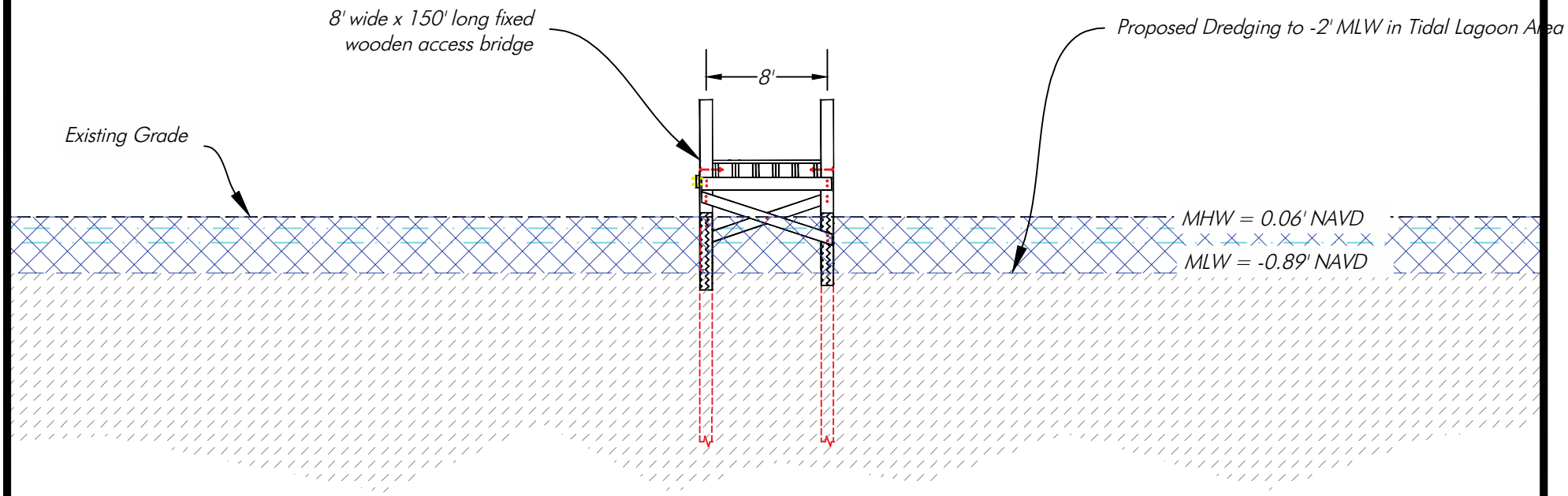
SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 5 10
SCALE FEET



Cross Section C-C

SCALE: 1" = 10'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

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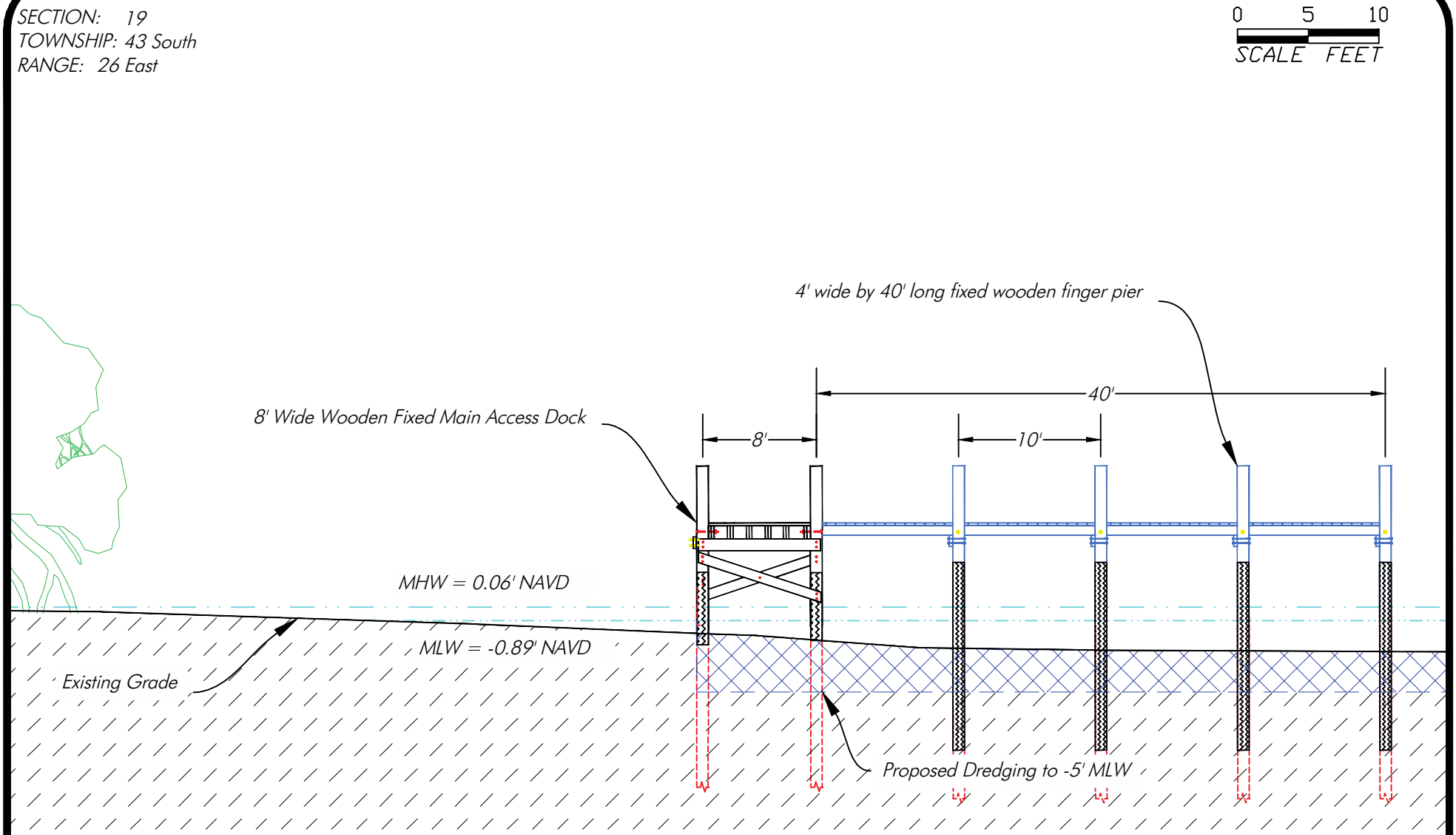
SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



Cross Section D-D

SCALE: 1" = 10'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

HWA Hans Wilson & Associates
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7.19.2021

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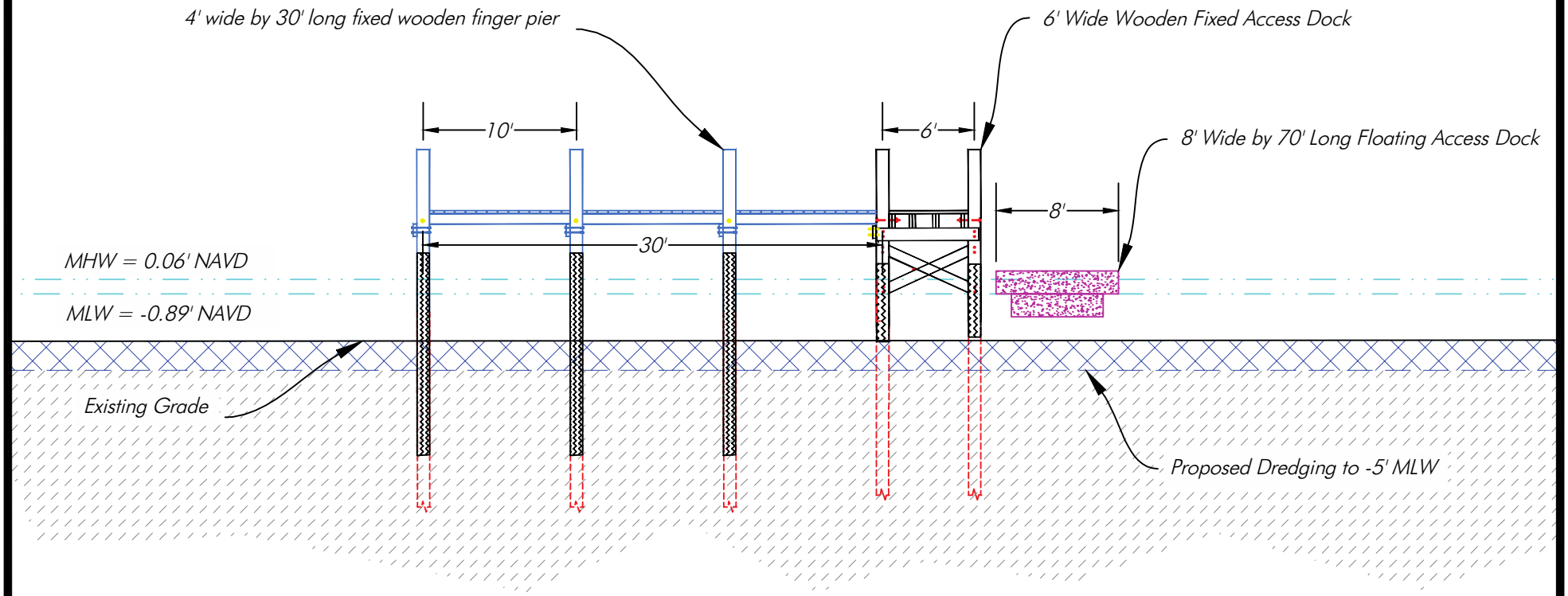
SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 5 10
SCALE FEET



Cross Section E-E

SCALE: 1" = 10'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

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

7.19.2021

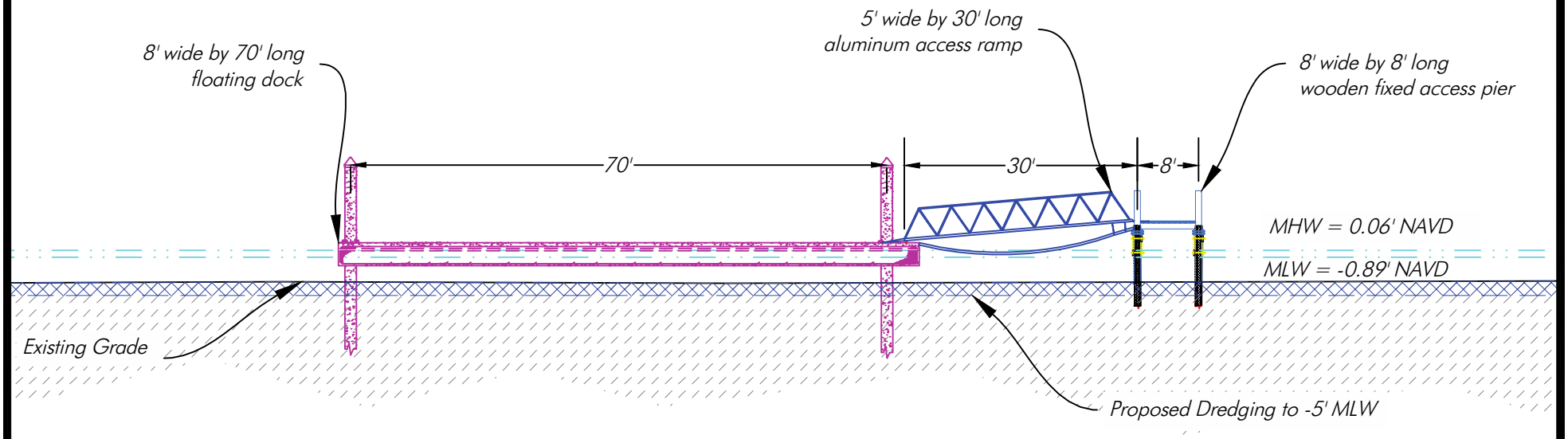
JWA

Talon Ventures LLC

SHEET

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 10 20
SCALE FEET



Cross Section F-F

SCALE: 1" = 20'

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

May 06, 2021 5:48:30 p.m.
Drawing: HORTON3MASTER.DWG

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1938 Hill Avenue, Fort Myers, Florida 33901
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MARINE and ENVIRONMENTAL CONSULTANTS

7.19.2021

JWA

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SHEET

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

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-five 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	179.38
***211H	Improved Pastures – hydric	6.07
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%)	7.12
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
429E	Wax Myrtle, Invaded by Exotics (5-9%)	1.95
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
***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	0.99
814	Roads and Highways	1.12
Upland Subtotal		**217.45**
Wetland Subtotal		**114.84**
Surface Waters		**5.97**
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 elliottii*), 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*) and wax myrtle are also present. There is a fringe of red mangrove on the shoreline.

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 (*Acrostichum* sp.), 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 (*Grus canadensis pratensis*)		√
		Florida Panther (*Felis concolor coryi*)		√
422	20	none		
427	80	Eastern Indigo Snake (*Drymarchon corais couperi*)		√
		Gopher Tortoise (*Gopherus polyphemus*)		√
		Florida Panther (*Felis concolor coryi*)		√
		Hand Adder's Tongue Fern (*Ophioglossum palmatum*)		√
		Simpson's Stopper (*Myrcianthes frangrans* var. *simpsonii*)		√
		Twisted Air Plant (*Tillandsia flexuosa*)		√
		Florida Bonneted Bat (*Eumops floridanus*)		√
428	80	Eastern Indigo Snake (*Drymarchon corais couperi*)		√
		Audubon's Crested Caracara (*Polyborus plancus audubonii*)		√
		Florida Panther (*Felis concolor coryi*)		√
		Simpson's Stopper (*Myrcianthes frangrans* var. *simpsonii*)		√
429	80	None		
434	80	Florida Panther (*Felis concolor coryi*)		√
510, 510D, & 524	80	American Alligator (*Alligator mississippiensis*)		√
		Little Blue Heron (*Egretta caerulea*)		√
		Reddish Egret (*Egretta rufescens*)		√
		Roseate Spoonbill (*Ajaia ajaja*)		√
		Tricolored Heron (*Egretta tricolor*)		√
		Everglades Mink (*Mustela vison evergladensis*)		√
618	80	American Alligator (*Alligator mississippiensis*)		√
		Little Blue Heron (*Egretta caerulea*)		√
		Reddish Egret (*Egretta rufescens*)		√
		Tricolored Heron (*Egretta tricolor*)		√
		Wood Stork (*Mycteria americana*)		√
		Big Cypress Fox Squirrel (*Sciurus niger avicennia*)		√
		Everglades Mink (*Mustela vison evergladensis*)		√
619BP	20	None		

630	80	American Alligator (*Alligator mississippiensis*) Little Blue Heron (*Egretta caerulea*) Tricolored Heron (*Egretta tricolor*) Wood Stork (*Mycteria americana*) Everglades Mink (*Mustela vison evergladensis*) Florida Panther (*Felis concolor coryi*) Florida Bonneted Bat (*Eumops floridanus*)		√ √ √ √ √ √ √
641	80	American Alligator (*Alligator mississippiensis*) Florida Sandhill Crane (*Grus canadensis pratensis*) Little Blue Heron (*Egretta caerulea*) Reddish Egret (*Egretta rufescens*) Snail Kite (*Rostrhamus sociabilis*) Tricolored Heron (*Egretta tricolor*) Wood Stork (*Mycteria americana*) Everglades Mink (*Mustela vison evergladensis*)		√ √ √ √ √ √ √ √
740	80	None		
743	80	None		
747	80	None		
814	80	None		

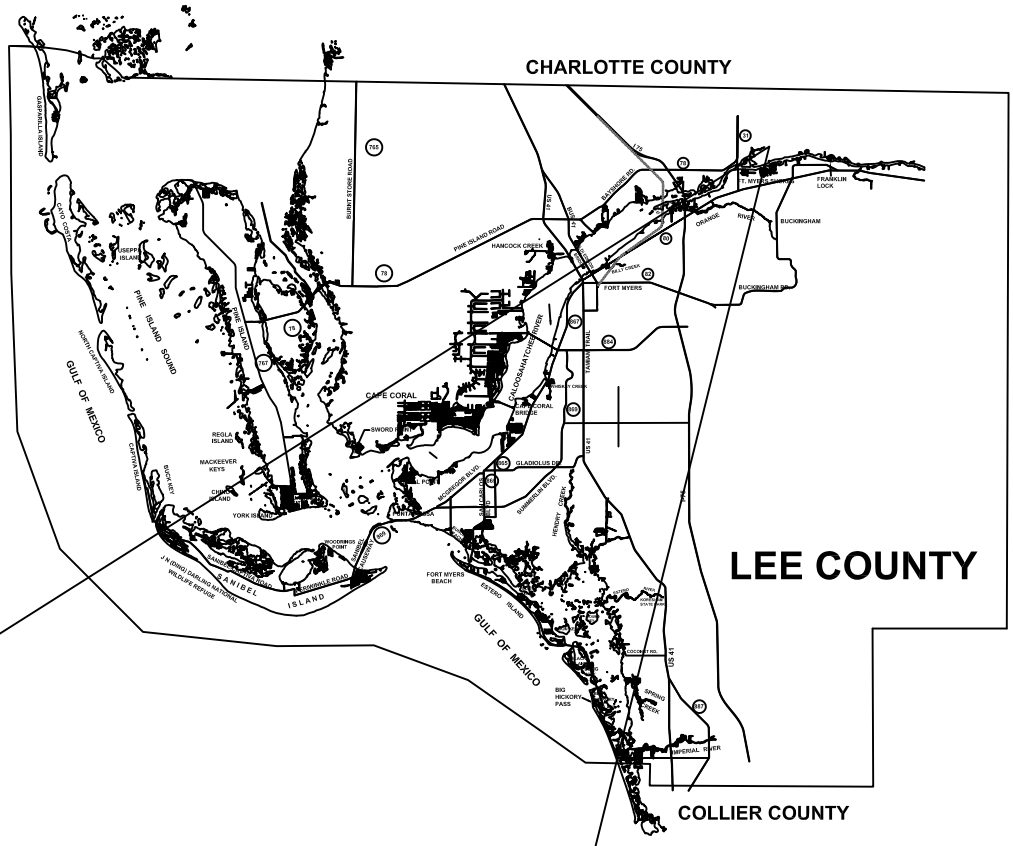
SURVEY RESULTS

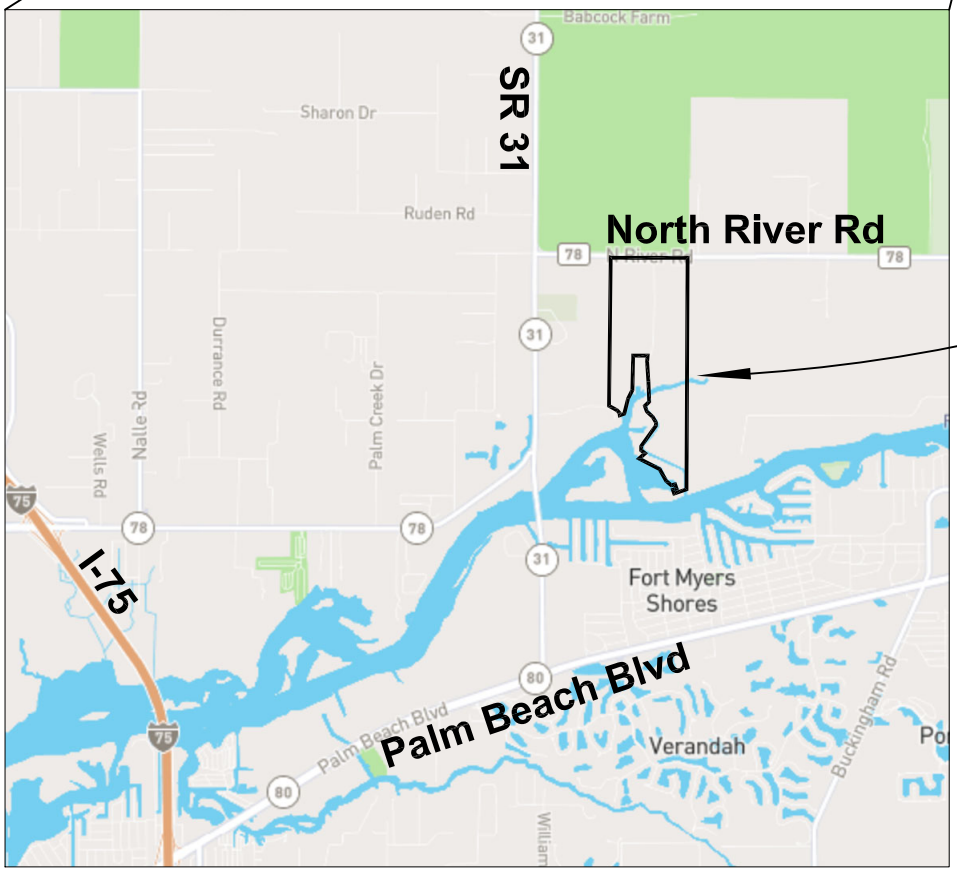
No species listed by either the FWS or the FWC were observed on the site during the protected species survey or during other site visits. There is the potential for periodic opportunistic foraging by both listed and non listed species of wading birds within the wetlands on-site. In addition to the site 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.

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

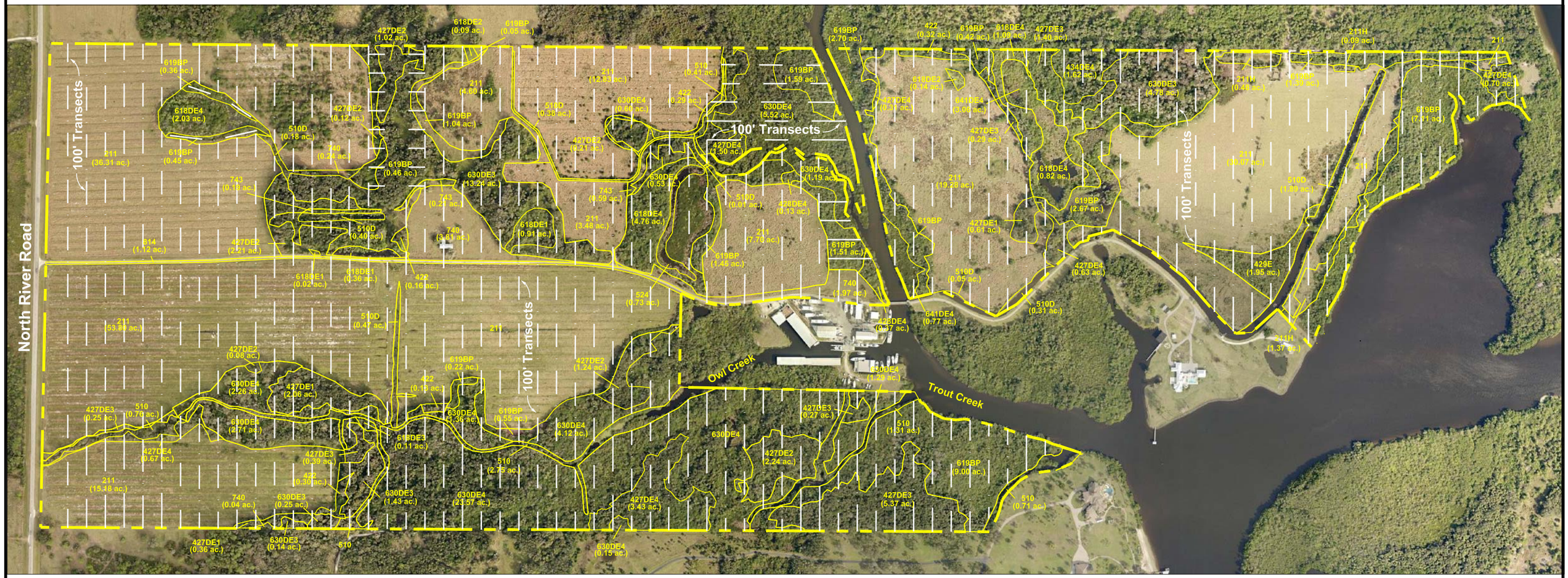
Figure 1. Location Map

DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

Additional info dated 08-13-2021

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

0 250 500
SCALE FEET



FLUCCS	Description	Acreage
211	Improved Pastures	183.28 ac.
211H	Improved Pastures - hydric	1.94 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%)	7.12 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.
429E	Wax Myrtle, Invaded by Exotics (5-9%)	1.95 ac.
434DE4	Hardwood- Coniferous Mixed, Disturbed, Invaded by Exotics (76-90%)	1.62 ac.
510	Streams and Waterways	5.97 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.
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	0.99 ac.
814	Roads and Highways	1.12 ac.
	Total	342.68 ac.

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

August 05, 2021 4:05:49 p.m.
Drawing: DRHOR455 PSA.DWG

Figure 2. Protected Species Assessment Map

Owl Creek Reserve

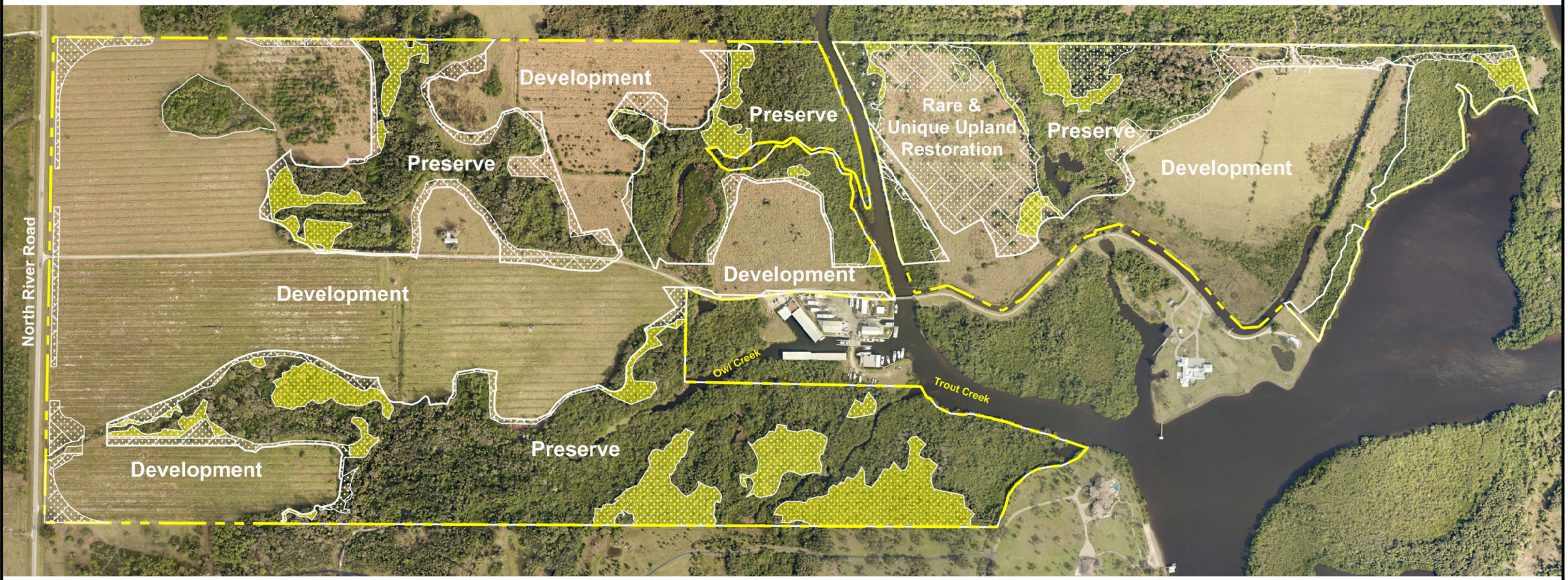
DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

DCI2021-00011 Lee County ePlan

Additional info dated 08-13-2021

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

0 250 500
SCALE FEET



Upland Preservation (60.15 ac.)

Rare & Unique Upland Restoration (34.80 ac.)

Rare and Unique Uplands Preservation (23.72 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.

FOR CONCEPTUAL PLANNING PURPOSES ONLY

July 27, 2021 2:57:25 p.m.
Drawing: DRHOR455 ENHANCEMENT-PRESERVATION.DWG

Rare & Unique Upland Preservation Map	Owl Creek Reserve	DEXBENDER ENVIRONMENTAL CONSULTING FORT MYERS 239-334-3680

DOC2021-00041 | Lee County ePlan

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

** Delivered Via Email*

June 23, 2021

Paul Owen *
Dex Bender
4470 Camino Real Way Suite 101
Fort Myers, FL 33966

Subject: Owl Creek Parcel
Request for Additional Information
Application No. 201211-4858
Lee County

Dear Mr. Owen:

District staff reviewed the above-referenced application. As discussed on 6/22/21, the District is requesting the following information, in accordance with Section 5.5.3.1 of the Environmental Resource Permit Applicant's Handbook Volume I (Vol. I), adopted by reference in Section 62.330.010(4)(a), Florida Administrative Code (F.A.C.), to complete the application and provide reasonable assurances for permit issuance:

1. A review of the information contained in Form 62-330.201(1), F.A.C. (Data Forms) and recent site inspection are not consistent in some areas with the wetland or upland habitat boundaries identified by District staff. Please contact Jewelene Harris at (239) 338-2929 x 7752 to discuss the discrepancies. Wetland data forms will also be required for the non-wetland surface waters on-site. Please submit updated data forms once they are finalized.

   Please note that an additional site inspection will be required to verify the updated information, and to complete the additional data forms. Please contact Jewelene Harris to schedule this site inspection. Once the site visit has been conducted, please submit a revised survey and map of the jurisdictional wetland and other surface water boundaries, if the boundaries have changed. [Section 7.2, Vol. I]

Prior to responding to this letter, please contact the assigned staff members to discuss solutions to the above questions and/or set a meeting to resolve the remaining issues: Jewelene Harris, Senior Environmental Analyst at (239) 338-2929 x7752 or via email at jsharris@sfwmd.gov.

Please submit the complete response electronically on the District's ePermitting website (www.sfwmd.gov/epermitting) using the 'Additional Submittals' link. Information on the District's ePermitting program is enclosed. Alternatively, please provide (1) original hard copy of the requested information, clearly labeled with the application number, to the Fort Myers Service Center.

If a complete response is not provided within 90 days of this letter, this application will be processed for denial, in accordance with Section 5.5.3.5 of Vol. I. If additional time is necessary,

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

please submit a written request for an extension via the ePermitting website before the 90-day period ends, including a description of the circumstances requiring the extension of time.

For projects where more than 90 days will be needed to develop a complete application, it is recommended that the applicant withdraw the current application and resubmit a complete application at a later date. The processing fee, if paid, can be applied to a new application that is submitted within 365 days, pursuant to Rule 62-330.071(3), F.A.C. If the application is denied by the agency, fees will not be returned or credited.

Sincerely,

Melissa M. Roberts, P.E.
Administrator, Environmental Resource Bureau

c: Belinda Ulrich, Talon Ventures LLC *
Wayne Everett, DR Horton *
Paul Owen, Dex Bender *

STORMWATER PLANNING REPORT

PREPARED FOR:

Owl Creek Reserve Minor RPD

DCI2021-00011

Revised August 2021

DR Horton
10541 Six Mile Cypress Pkwy
Fort Myers, FL 33966

PREPARED BY:

BANKS ENGINEERING

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.

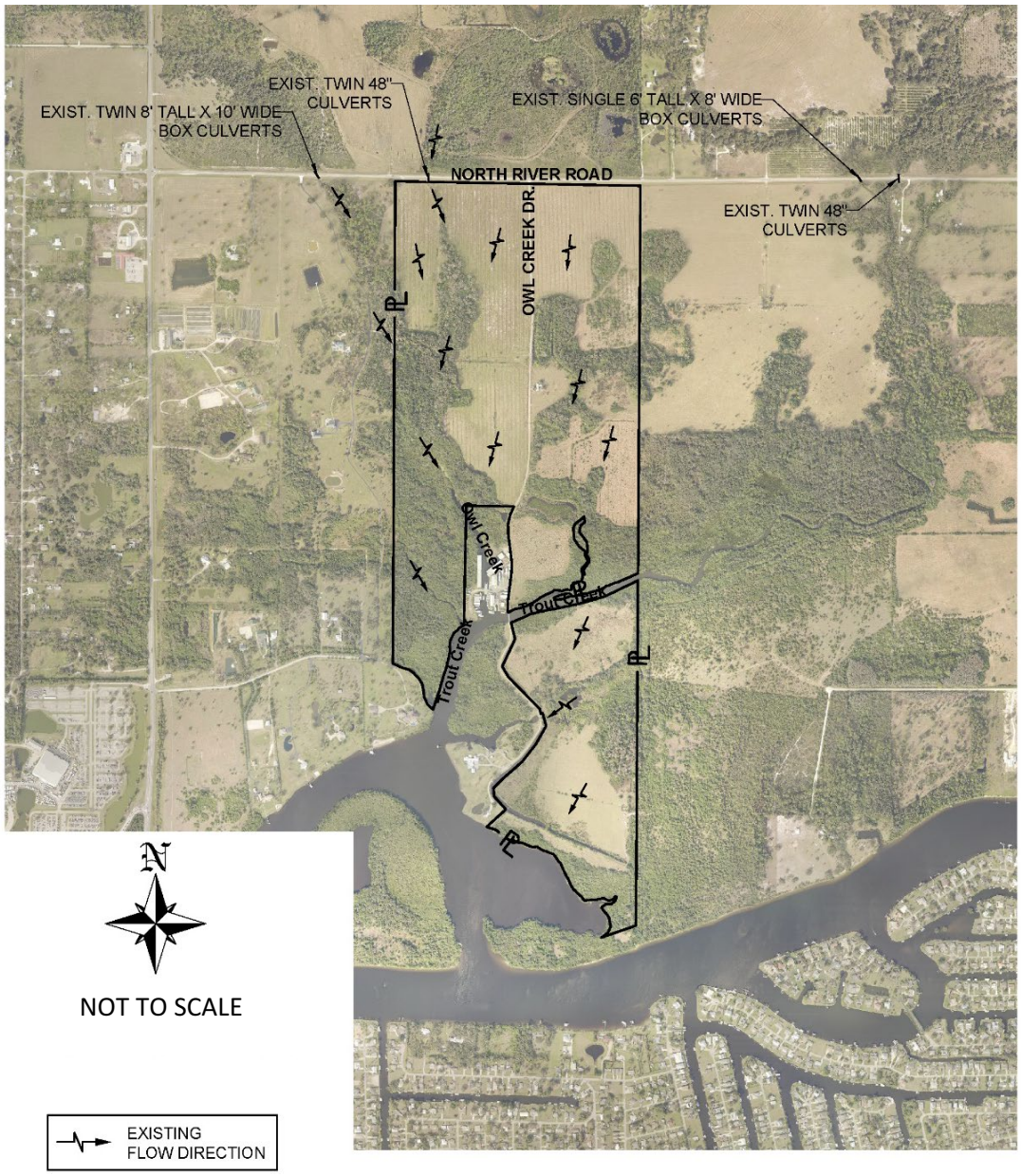


Figure 1: Existing Drainage Map

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

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

DCI2021-00011 Lee County ePlan Additional info dated 08-13-2021

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.

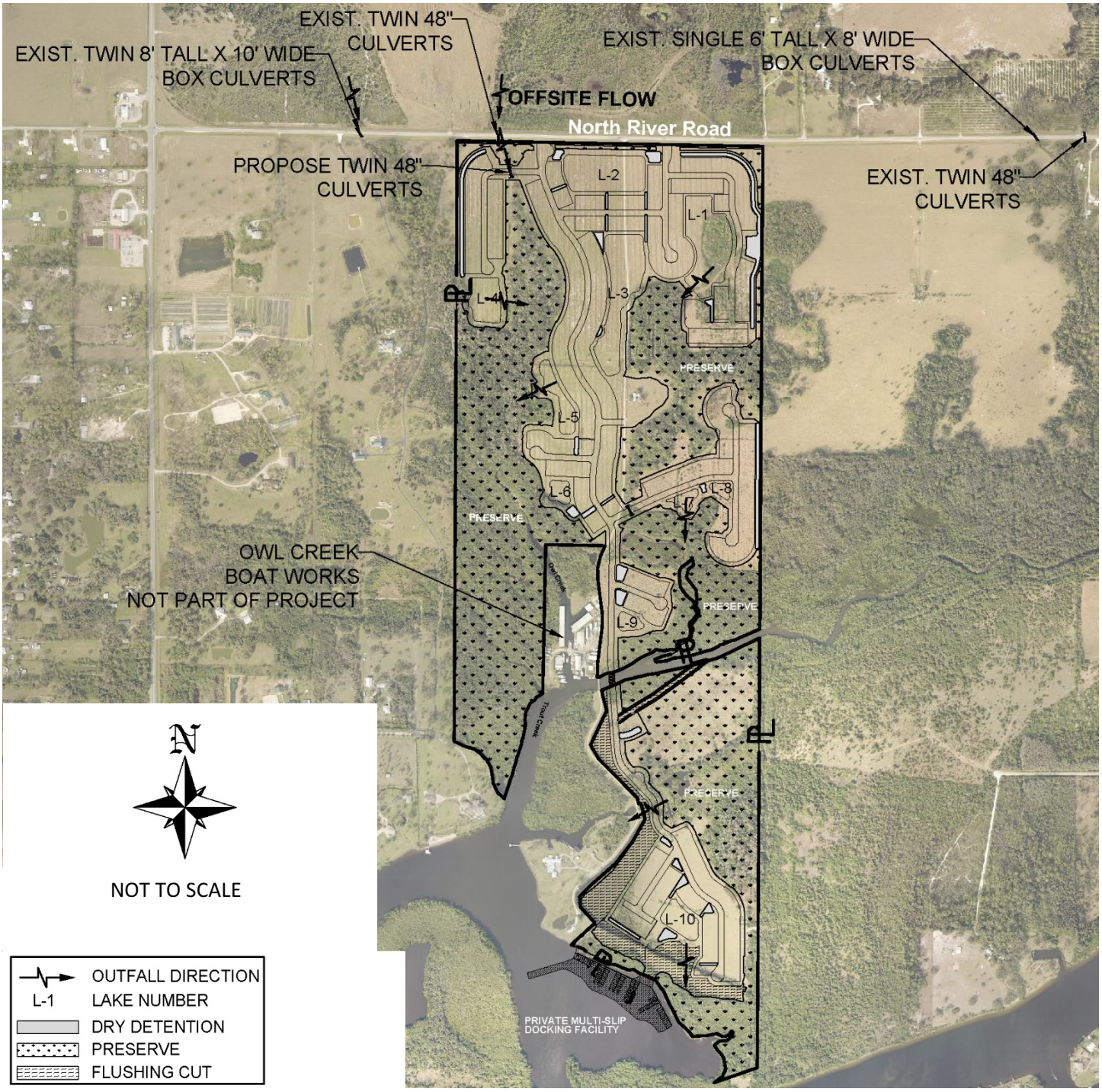


Figure 4: Post Development Drainage Map

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.

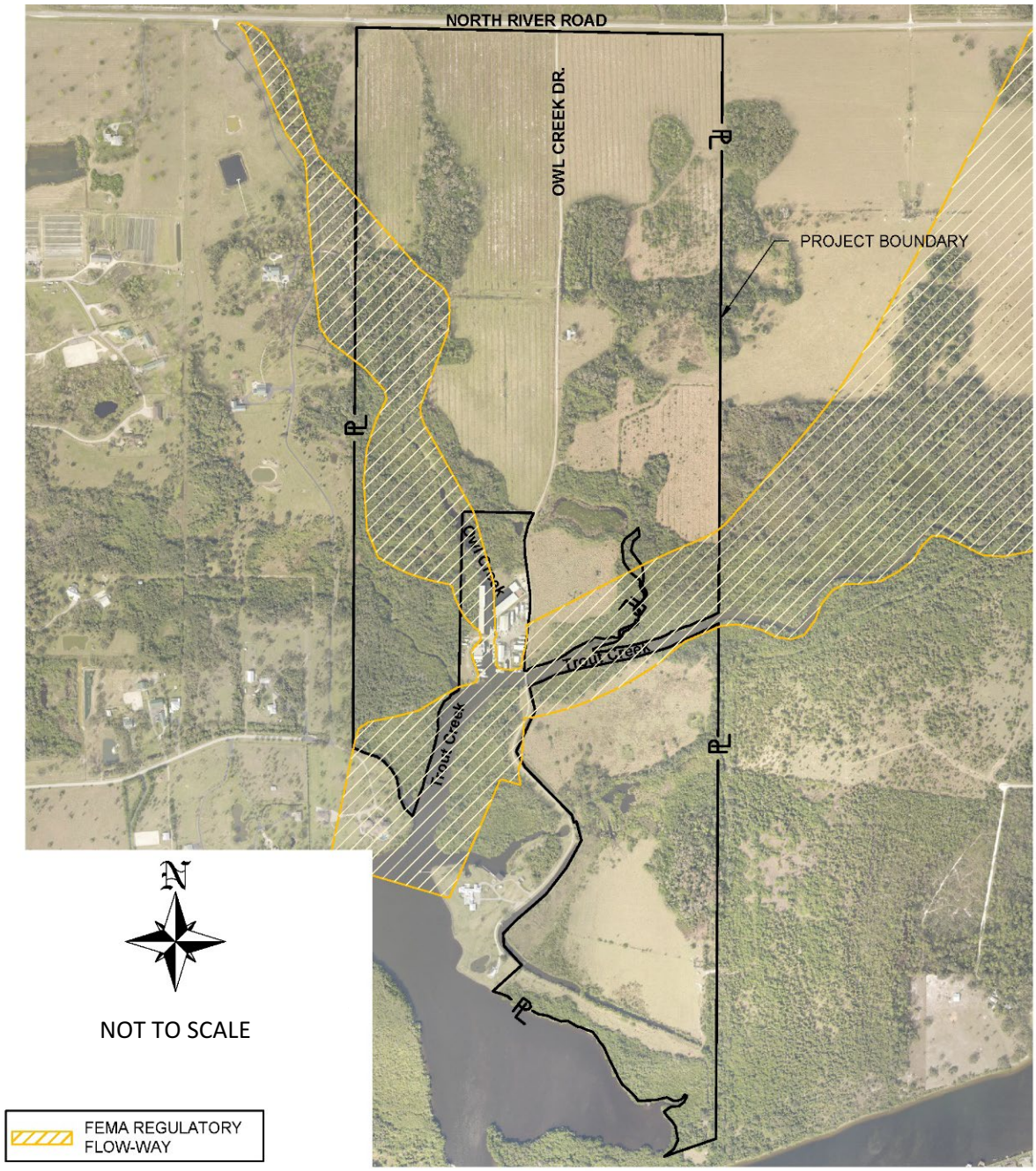


Figure 5: Existing FEMA Flow-way Map

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.

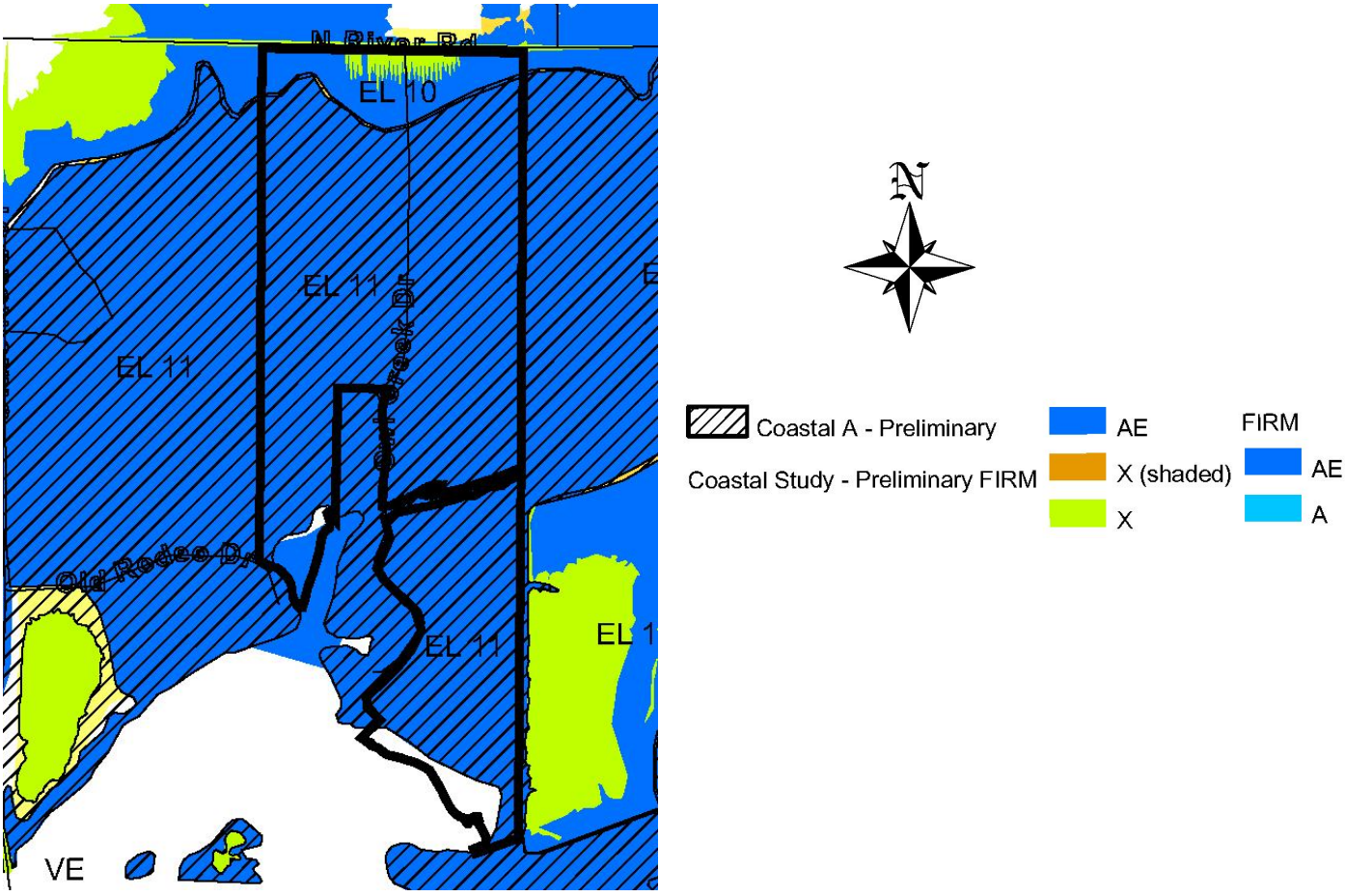


Figure 6: Preliminary Proposed FEMA Map (not implemented)

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.

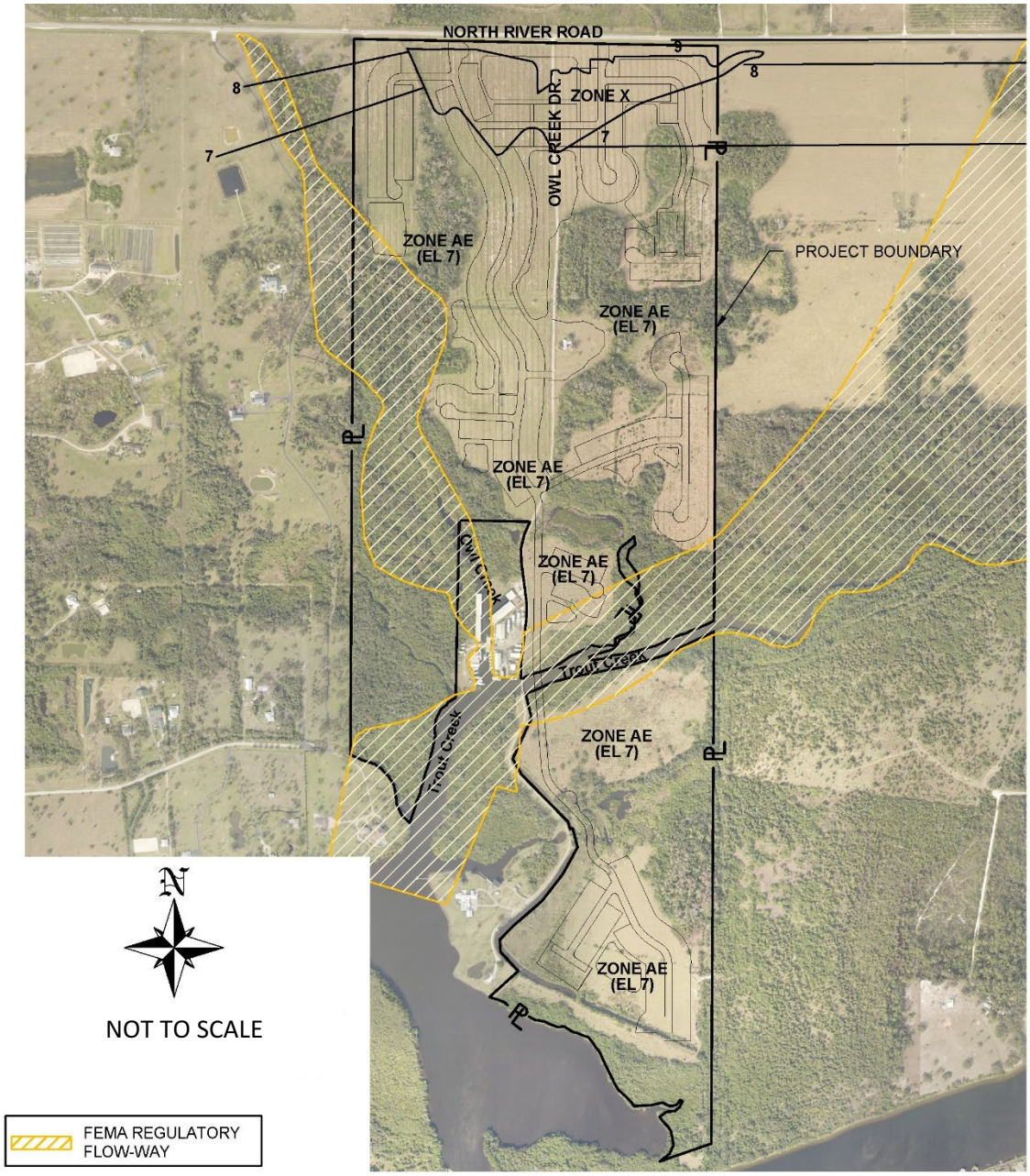


Figure 7: Post Development FEMA Flow-way

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

AUGUST 2021

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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.

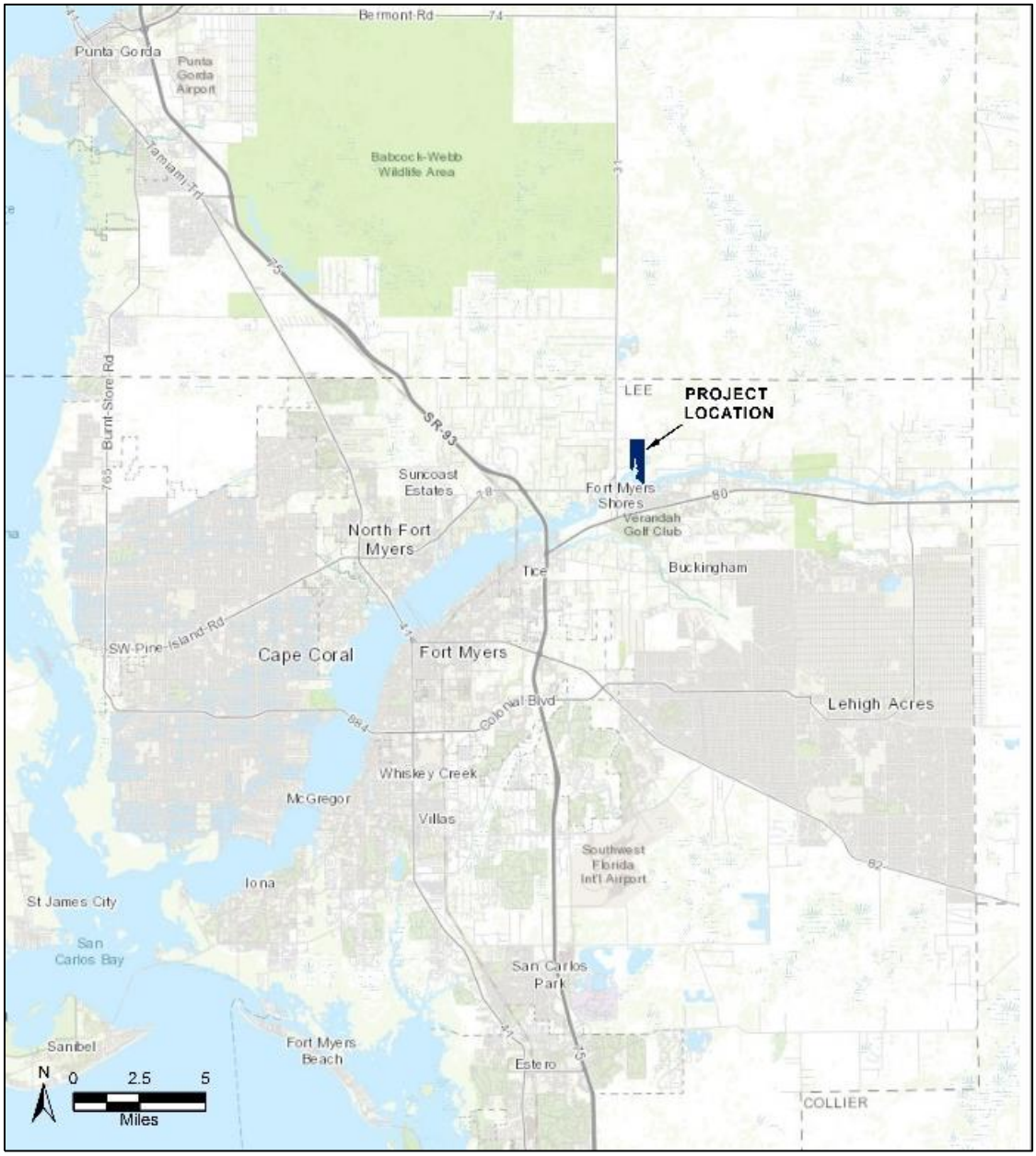


Figure 1. Location of the Owl Creek Reserve Project

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 allocatates 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.

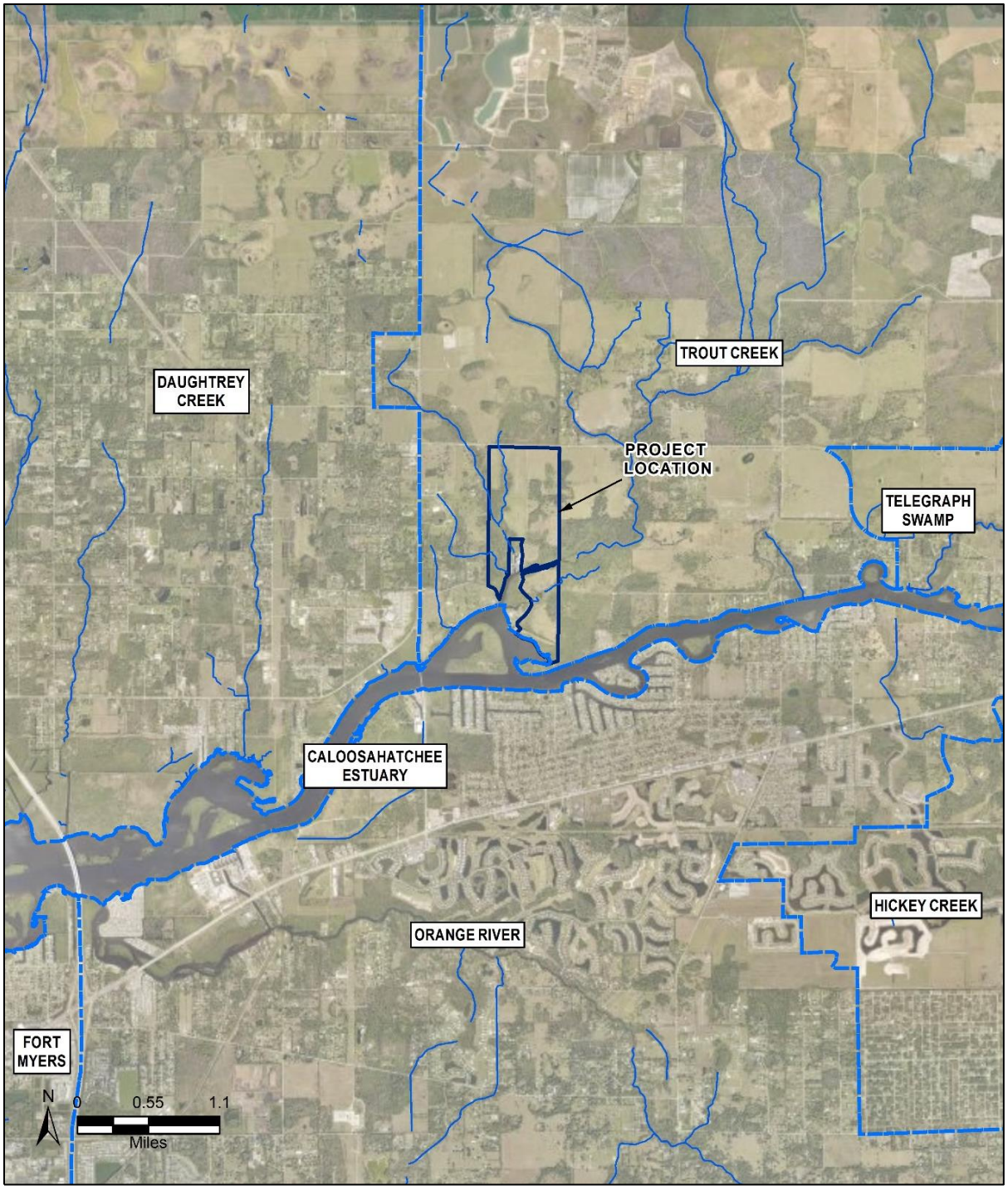


Figure 2. Owl Creek Reserve Project Site, Regional Watershed Setting

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.

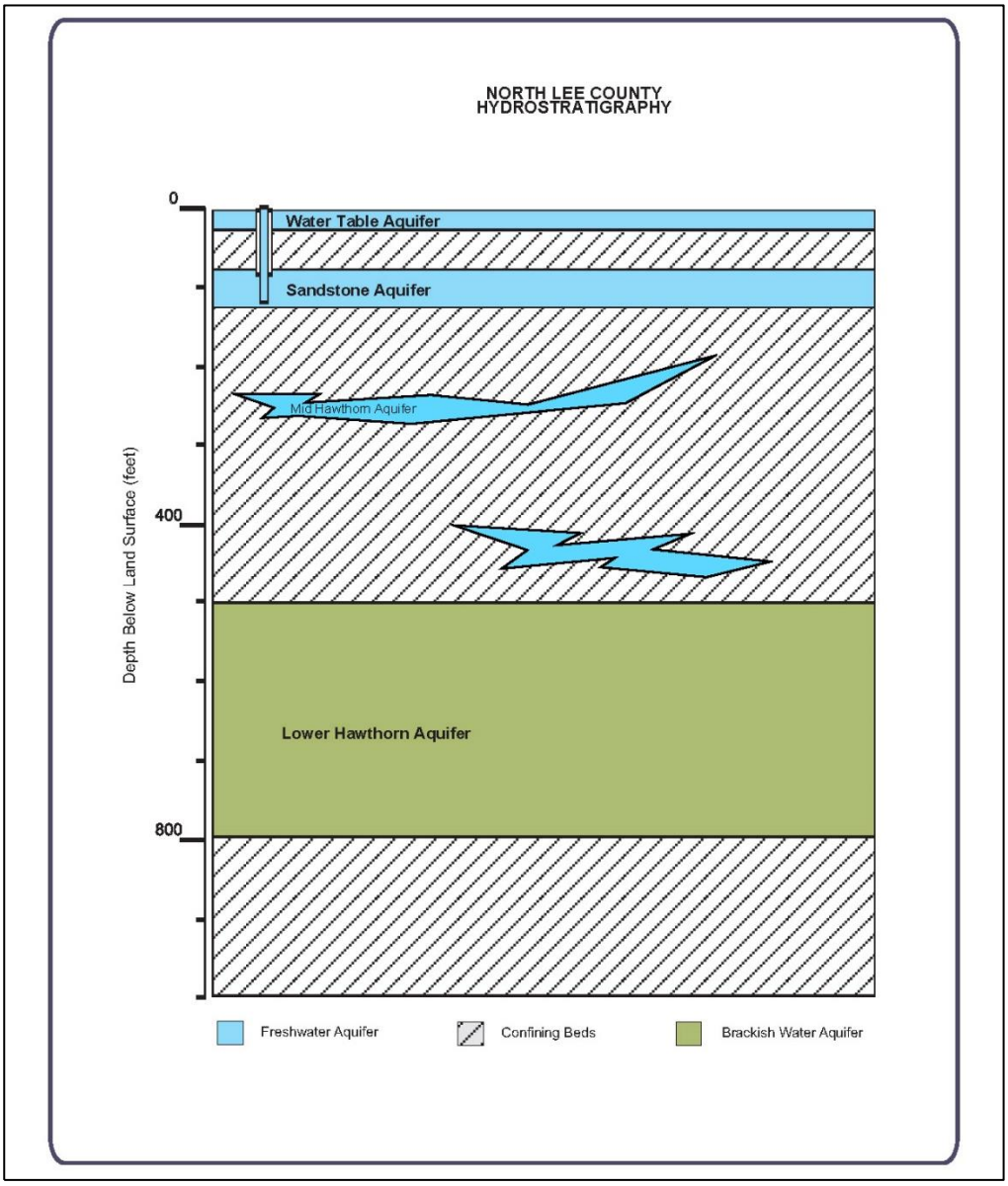


Figure 3. Aquifer System Underlying Owl Creek Reserve in North Lee County

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. Howerver, 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 Aquiferis 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.

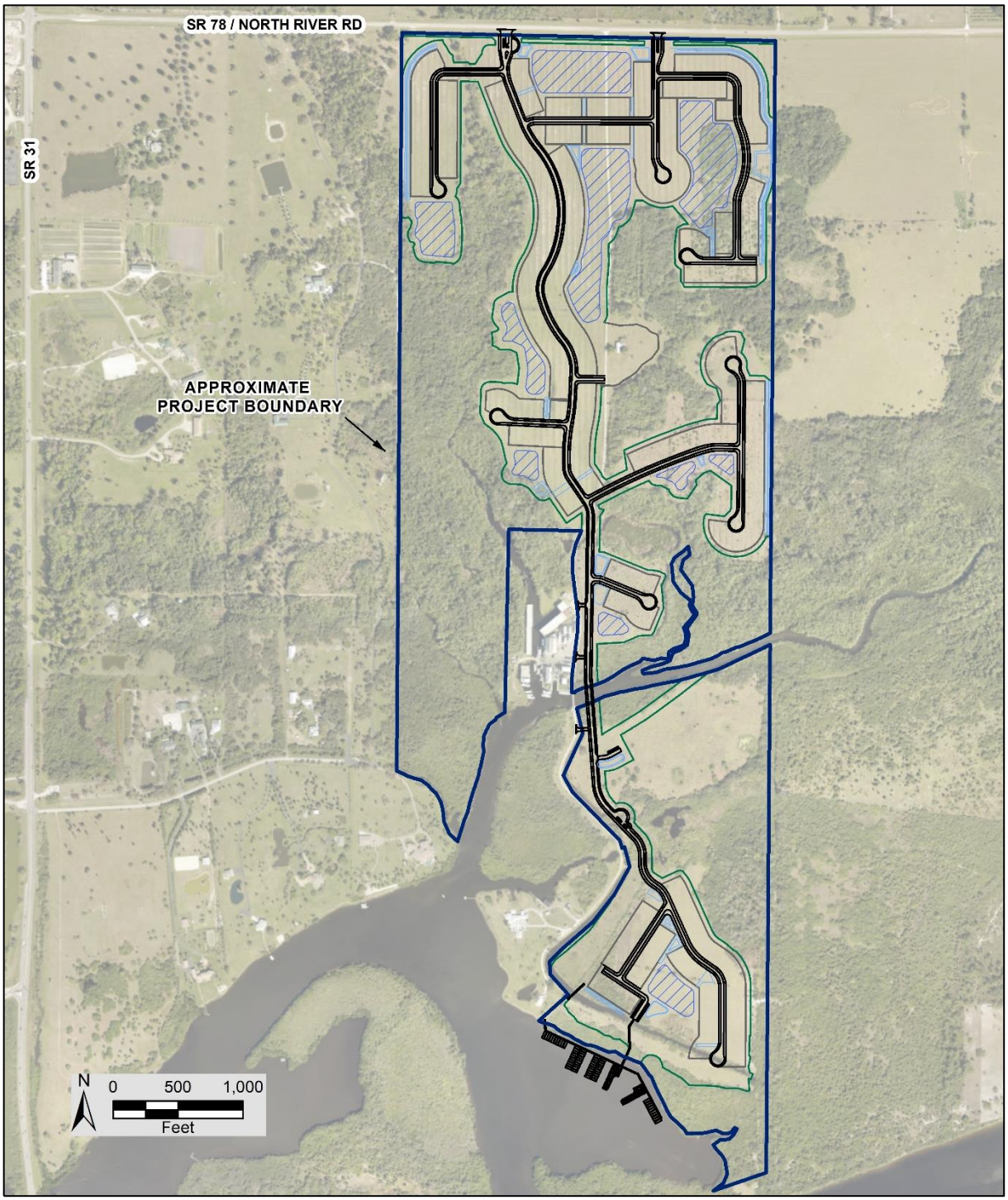


Figure 5. Conceptual Site Plan

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 allocatates 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.

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.

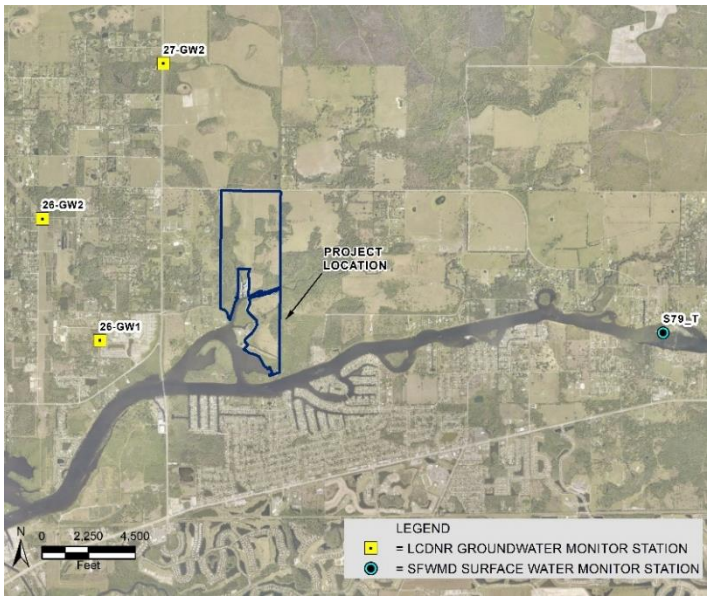
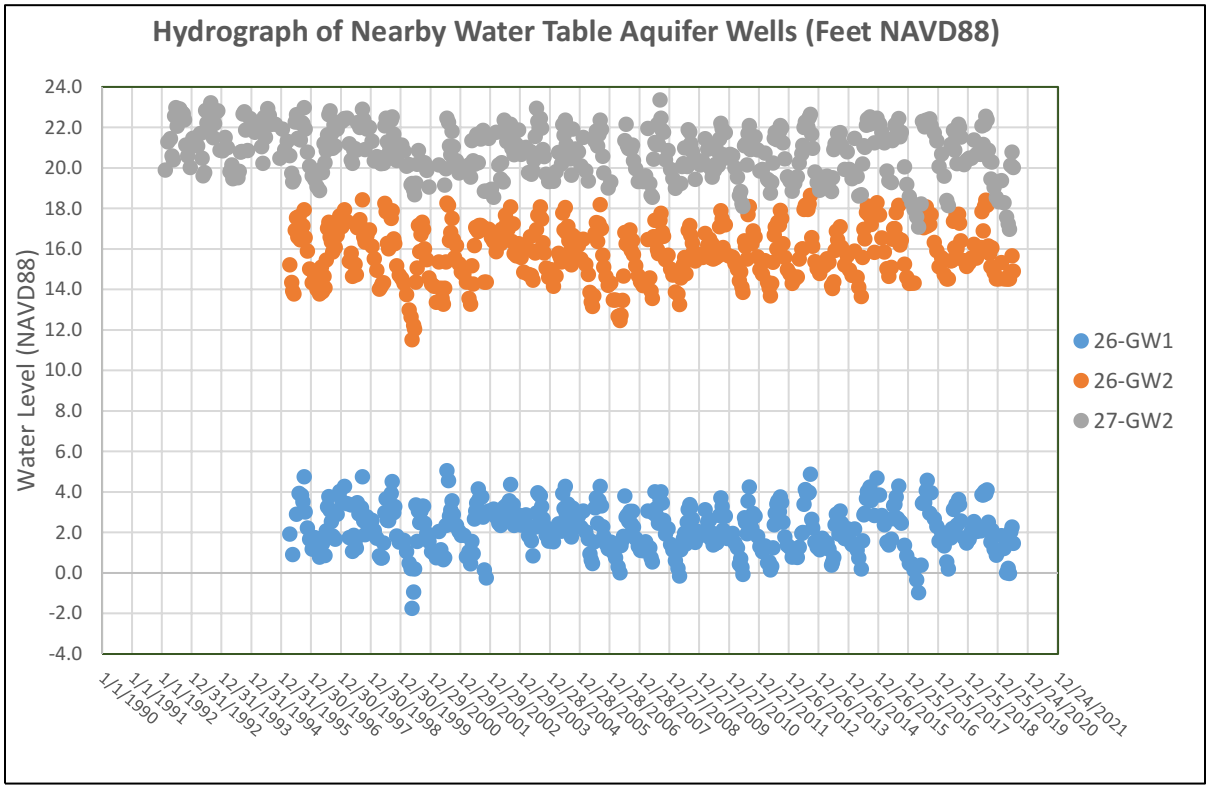


Figure 6. Location of Nearby Water Level Monitoring Stations

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 late1990 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.



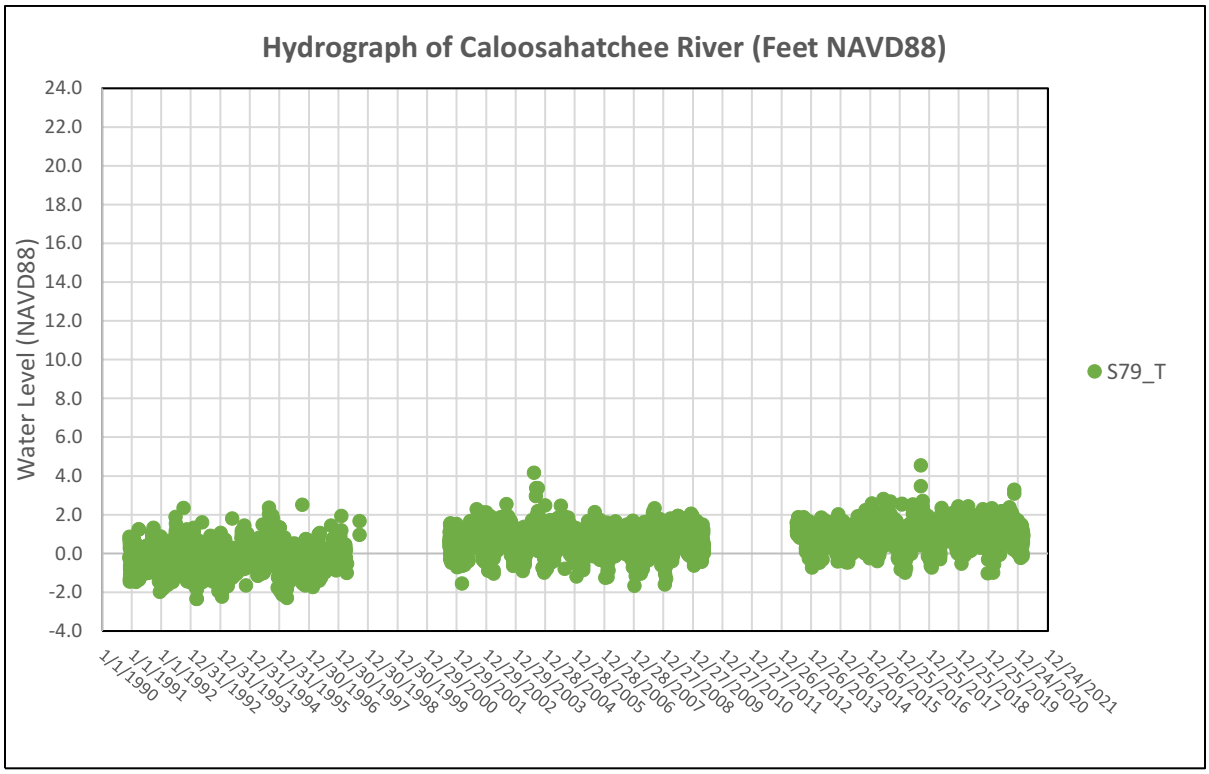


Figure 7. Hydrographs of Nearby Water Level Monitoring Stations

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.

Monitoring

The Surface Water and Groundwater Monitoring Plan includes the installation of a shallow monitor well tapping the upper portion of the Water Table Aquifer (MW-1), a deeper monitor well tapping the upper portion of the Sandstone Aquifer (MW-1A), and one staff gauge installed within the outfall lake system (SG-1) upon operational completion. The locations of the groundwater monitoring wells will be between the proposed stormwater management outfall structure and nearest wetland area. Refer to **Figure 8** for a map showing the proposed monitoring locations of the Surface Water And Groundwater Monitoring Plan. Both monitor wells and the staff gauge will be equipped with electronic water level transducers set to record water levels every 24 hours. Surface water and groundwater monitoring parameters are provided in **Table 2** and include contaminant target levels where applicable for surface water and groundwater.

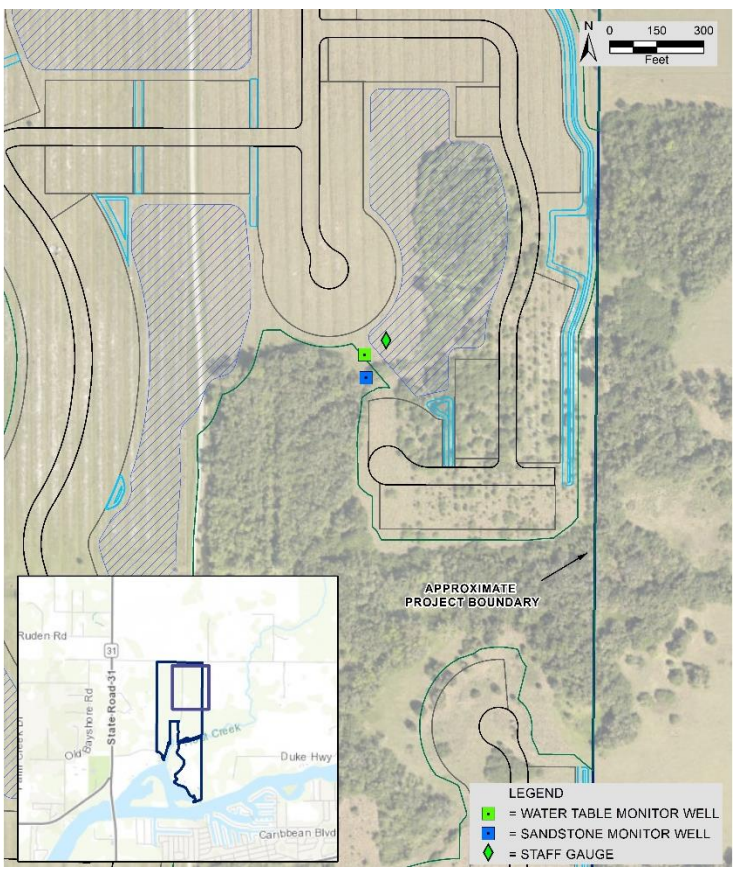


Figure 8. Map Showing Conceptual Monitoring Locations

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)	mg/L	x		5	5	Laboratory
Arsenic	mg/L	x		0.01	0.01	Laboratory
Copper	mg/L	x	x	1	NON-NUMERIC	Laboratory
Mercury	mg/L	x	x	0.002	0.012	Laboratory
Lead	mg/L	x	x	0.015	NON-NUMERIC	Laboratory
Fecal coliform	MPN	x		NA	200 Average	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 NGVD	x	x	NA	NA	Field/Recorder
Water Table Aquifer Elevation	ft NGVD	x	x	NA	NA	Field/Recorder
Sandstone Aquifer Elevation	ft NGVD	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

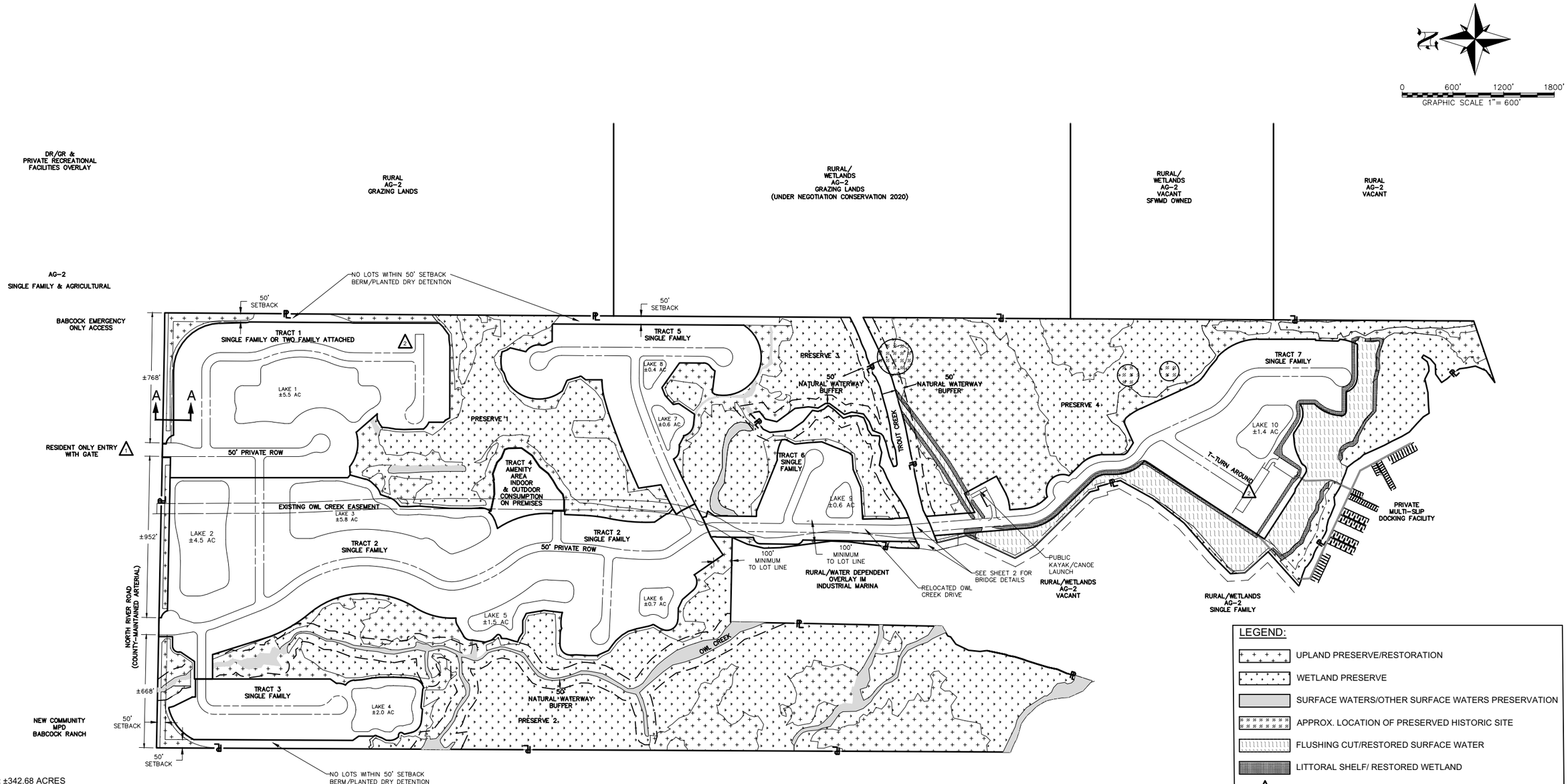
The Quarterly Surface Water and Groundwater Monitoring Reports will provide evaluation of the analytical results and include conclusions and recommendations. The Quarterly Reports will include a continuous hydrograph of the recorded water levels and updated tables of quarterly water quality sampling 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 and may be discontinued if applicable water quality standards are met.



NOTES:

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WETLAND PRESERVE: ±103.36 ACERS
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OTHER OPEN SPACE: ±13.48 ACRES
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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 (±217.68 AC & ±4.42 AC OSW) 222.1 AC AT 1DU/AC:	222.1 DU
**PRESERVED WETLANDS 103.36 AC AT 1DU/AC =	103.36 DU
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5.74 AC NATURAL OPEN WATER NOT ELIGIBLE FOR DENSITY	
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(**SEE DENSITY EXHIBIT ON PAGE 2) TOTAL MAXIMUM DENSITY:	**385 DWELLING UNITS**

NO.	DATE	REVISION DESCRIPTION	BY
01	8/11/2021	1ST SUFFICIENCY RESPONSE	KG

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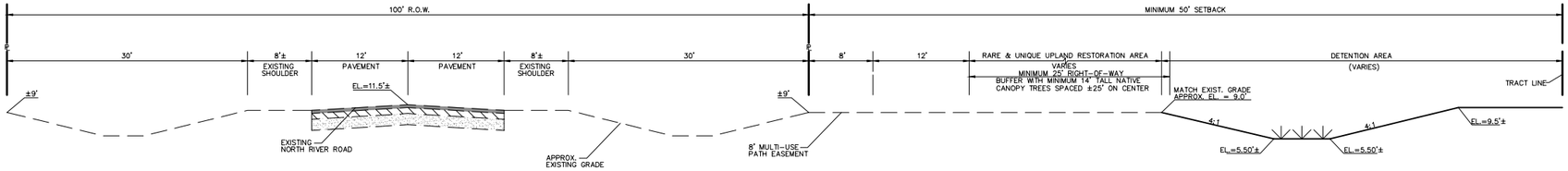
MASTER CONCEPT PLAN

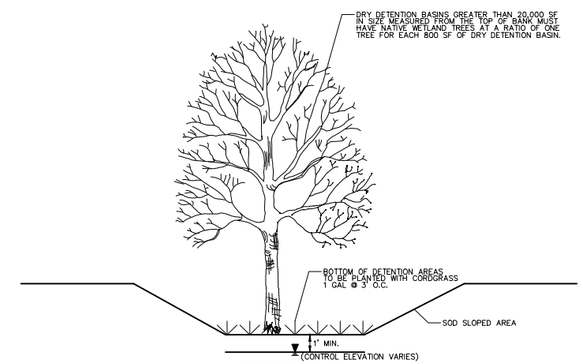
OWL CREEK RESERVE MINOR RPD

LEE COUNTY, FLORIDA

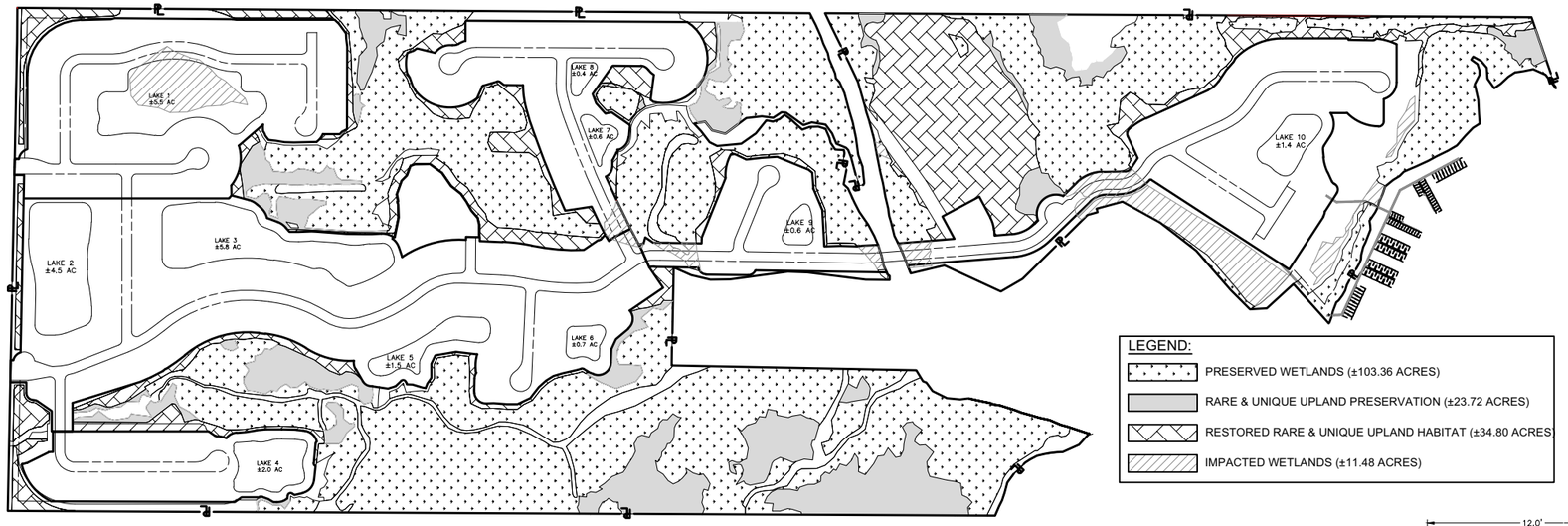
DATE	PROJECT	DRAWING	DESIGN	DRAWN	CHECKED	SCALE	SHEET
07/12/2021	8504	_MCP	KG	KG	DRU	AS SHOWN	1 OF 2



SECTION A–A
NTS



DETENTION (TYP.)
NTS



DENSITY EXHIBIT
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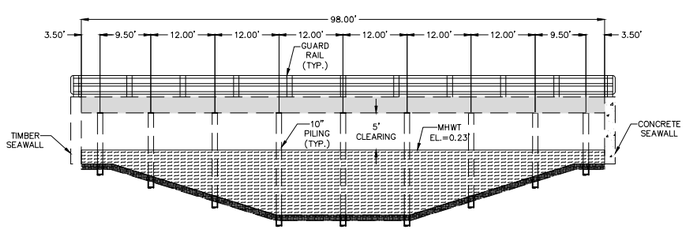
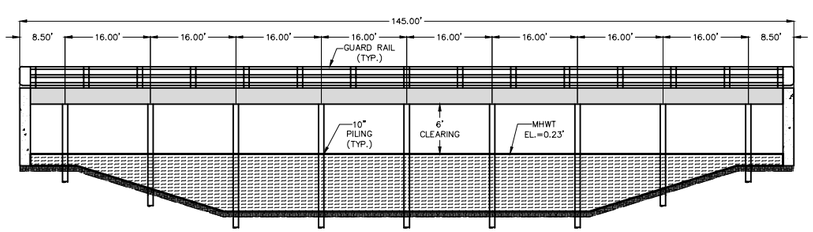


EXISTING BRIDGE CROSS SECTION VIEW
N.T.S.



PROPOSED BRIDGE CROSS SECTION VIEW
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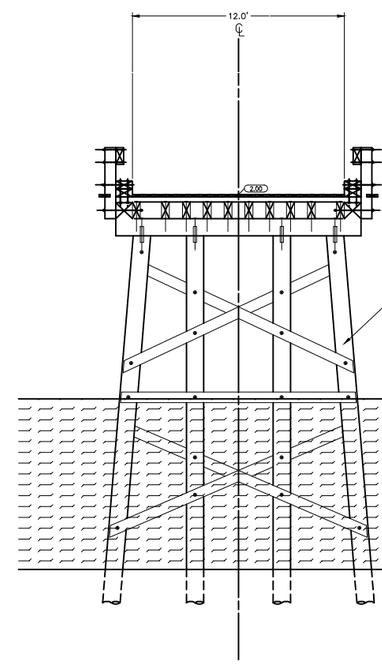

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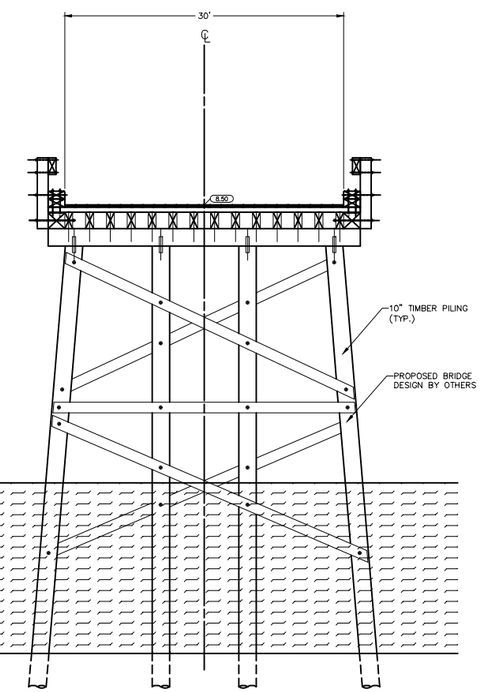

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MASTER CONCEPT PLAN-TYPICAL CROSS SECTIONS & DETAILS

OWL CREEK RESERVE

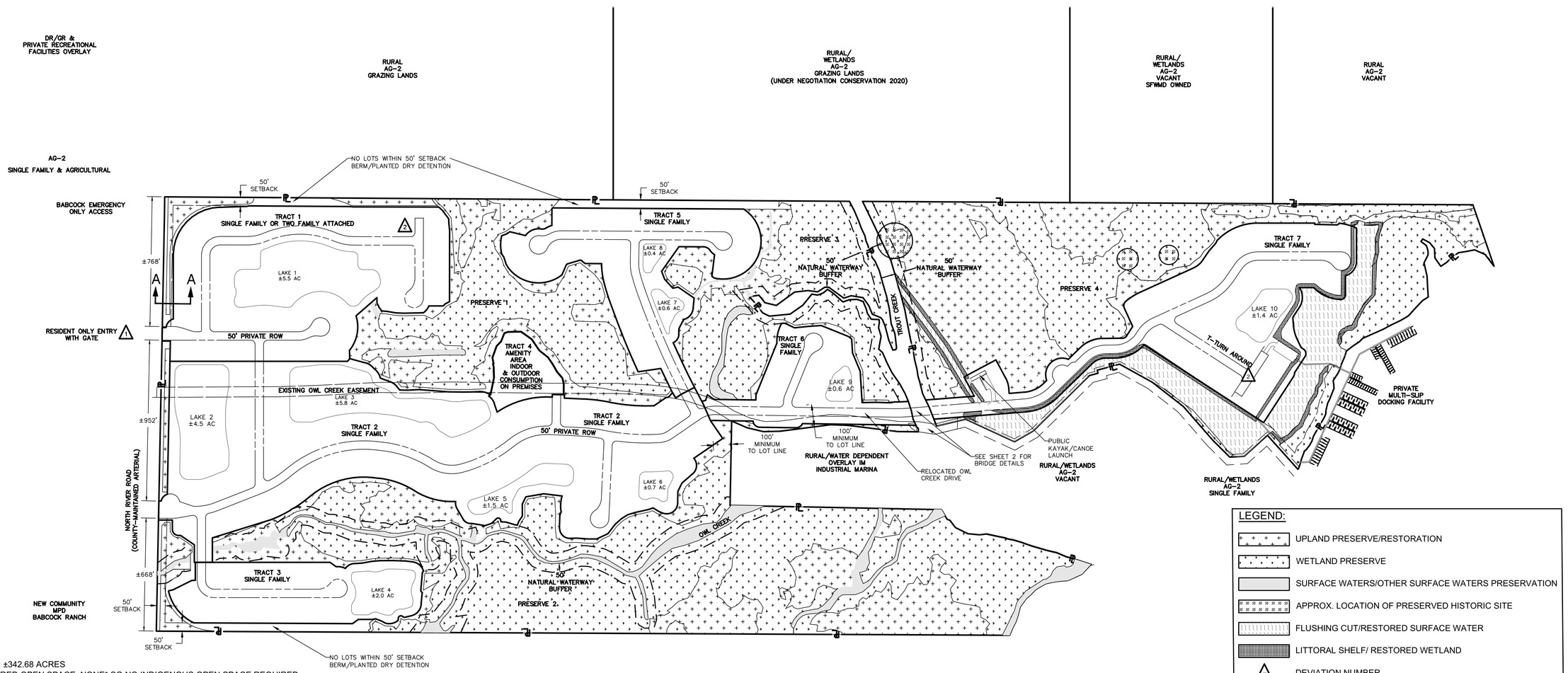
LEE COUNTY, FLORIDA

DATE	PROJECT	DRAWING	DESIGN	DRAWN	CHECKED	SCALE	SHEET
8/11/2021	8504	_XSEC	KG	KG	DRU	N.T.S.	2 OF 2

S:\JOBS\8504\DOCUMENTS\ZONING\8504_MCP.DWG 8/13/2021 8:19 AM KEVIN GONZALEZ

OWL CREEK RESERVE

0 300' 600' 900'
GRAPHIC SCALE 1"= 300'



LEGEND:

- UPLAND PRESERVE/RESTORATION
- WETLAND PRESERVE
- SURFACE WATERS/OTHER SURFACE WATERS PRESERVATION
- APPROX. LOCATION OF PRESERVED HISTORIC SITE
- FLUSHING CUT/RESTORED SURFACE WATER
- LITTORAL SHELF/ RESTORED WETLAND
- # DEVIATION NUMBER

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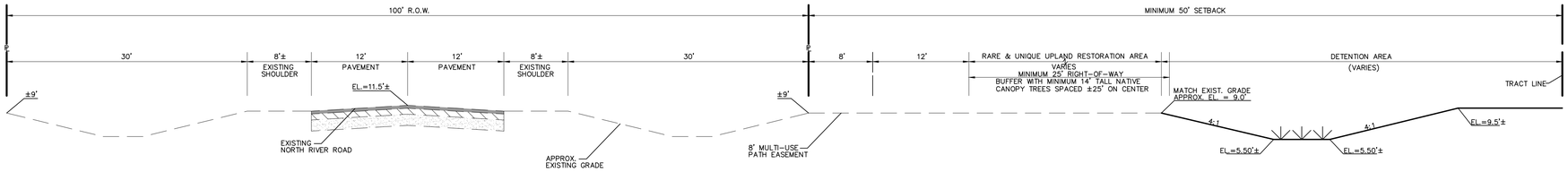
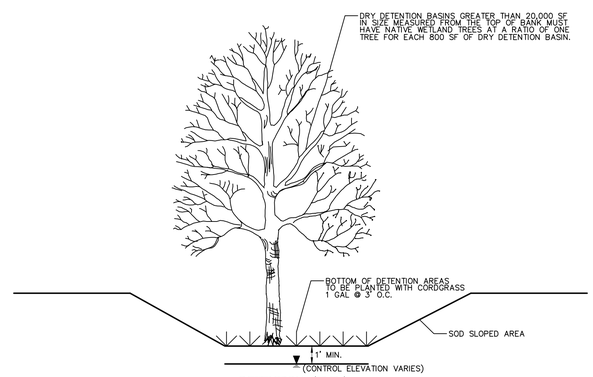


SECTION A-A
NTS



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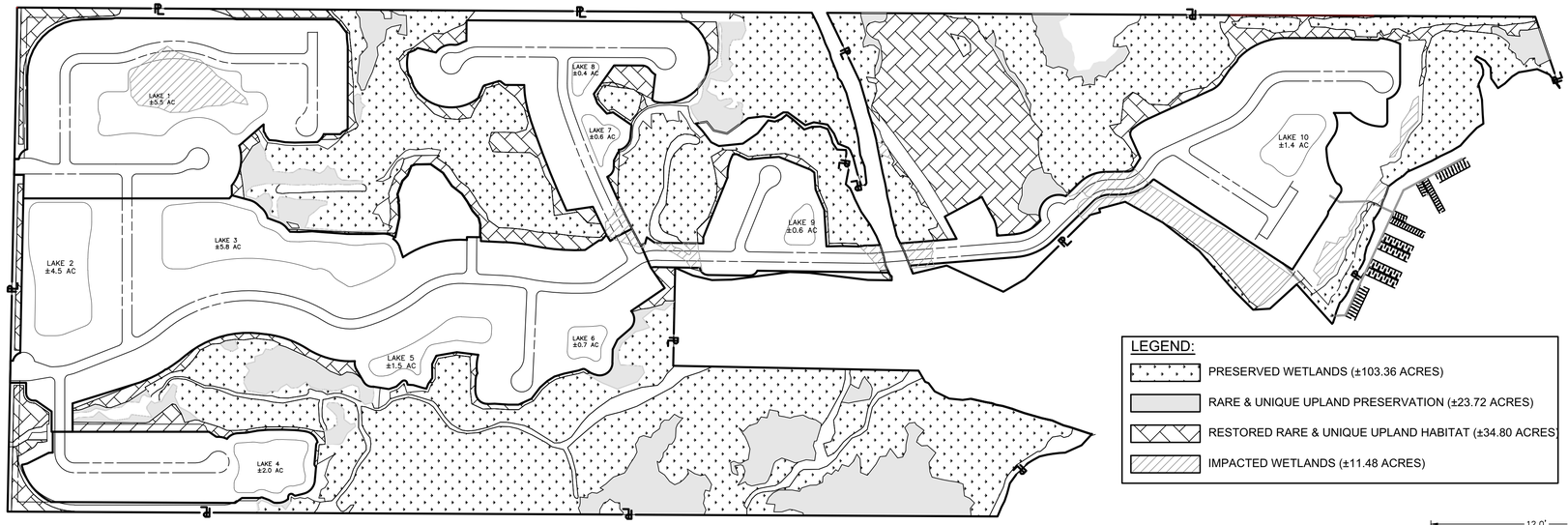

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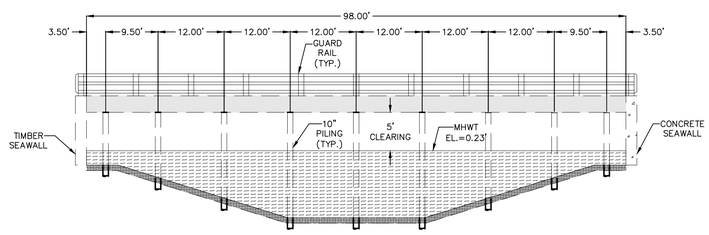

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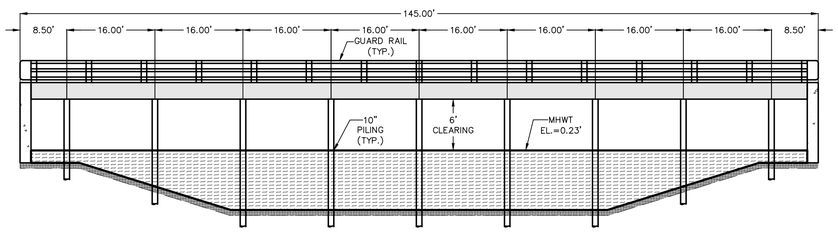

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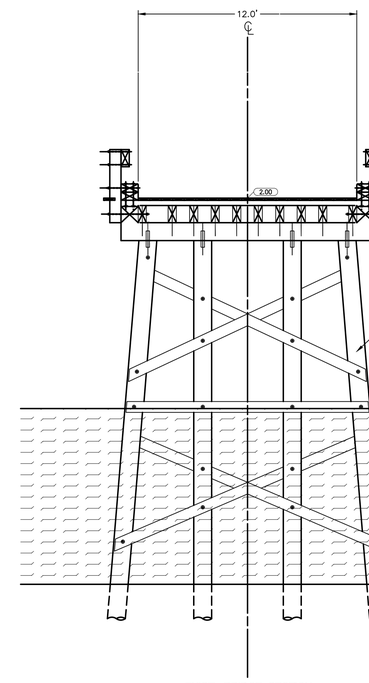

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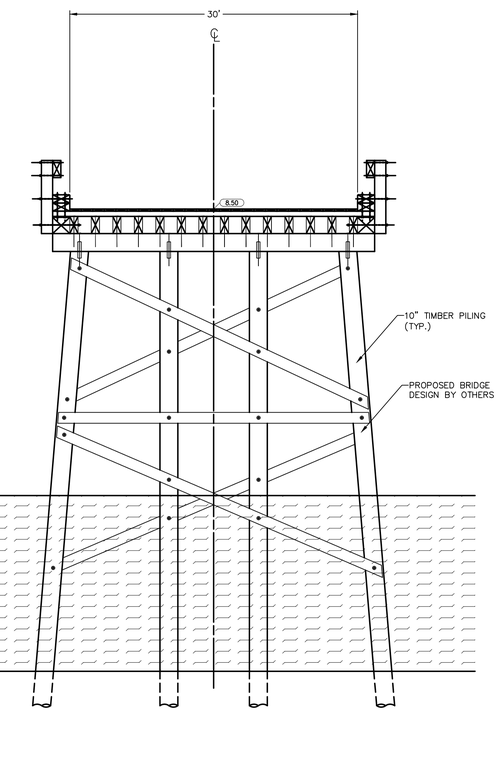

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