

Planning Commission Agenda Request

Date of Meeting: September 16, 2019

Date Submitted: September 9, 2019

To: Honorable Chairman and Members of the Commission

From: Somer Pell, Director, Planning and Community Development
Melissa Corbett, Senior Planner

Subject: Transmittal of Application for Comprehensive Plan Map Amendment
CP19-02
(Golden Construction Company, Inc., applicant; Edwin Brown & Associates, agent)

Statement of Issue:

This agenda item provides the Commission with an Application for Comprehensive Plan Map Amendment CP19-02.

Background:

This Application requests to transmit a Large-Scale Comprehensive Plan Map Amendment to alter the future land use from Agriculture (Primary Agriculture) and Urban Fringe to Urban Fringe, on a parcel located on the southwest side of the intersection of Dr. Martin Luther King Jr. Memorial Road and Alexander Road. The Subject Property contains 14.35 acres, 10.64 acres of which has an Agriculture future land use and 3.71 acres are in the Urban Fringe future land use designation. This Amendment requests for the entire parcel to have an Urban Fringe designation. A residential subdivision is planned for the property if the Application is approved (Attachment 1).

Technical Review Committee (TRC): On August 8, 2019, the request was reviewed by the Technical Review Committee. Several items were noted that were needed to complete the file. All requested documents were subsequently submitted (Attachment 2).

Analysis:

Comprehensive Plan: The Future Land Use Map (FLUM) designations for the Subject Property are Agriculture (Policy 1.2.3 FLUE) and Urban Fringe (Policy 1.2.7 FLUE). The Agriculture designation allows for residential uses at one unit per twenty acres at best. This designation also allows silviculture and agricultural uses. The Urban Fringe designation permits a density of two residential units per acre with connection to central water and sewer or permits one residential unit per acre with connection to central water and the use of a septic tank. Non-residential uses are also permissible in this designation with a maximum floor area ratio (FAR) of 0.3 when there is a connection to central water and sewer.

The proposed application seeks to amend the future land use designation so that all the property would be designated as Urban Fringe. The allowable residential and non-residential uses in Urban Fringe are as previously noted above (Attachment 3).

| DEVELOPMENT POTENTIAL COMPARISION CHART | | | |
|--|---|--|---|
| LAND USE | MAXIMUM RESIDENTIAL DENSITY ALLOWED | POTENTIAL RESIDENTIAL UNITS | MAXIMUM NON-RESIDENTIAL ALLOWED |
| <i>Agriculture and Urban Fringe (Existing land uses)</i> | Agriculture: 1 unit/20 acres <u>or</u> 1 unit/40 acres in wetland areas Urban Fringe: 2 units/1 acre with central water and sewer <u>or</u> 1 unit/20 acres in wetland areas | 0.53 units in Agriculture + 7.42 units in Urban Fringe = Total of 7.95 units | Maximum Floor Area Ratio (FAR) of 0.05 in Agriculture and 0.3 in Urban Fringe = 71,656 square feet possible (23,174 square feet in Agriculture and 48,482 in Urban Fringe) |
| <i>Urban Fringe (Proposed land use)</i> | 2 units/1 acre with central water and sewer <u>or</u> 1 unit/20 acres in wetland areas | 28.7 units | Maximum Floor Area Ration (FAR) of 0.3 = 187,526 square feet possible |

Land Development Code (LDC): The current zoning districts for the property are AG (Agriculture), RR-5 (Rural Residential) and RR-1 (Semi-Rural Residential). The Agriculture zoning allows for site-built houses and mobile homes in addition to farming and silviculture activities. It allows one residential unit per five acres. In the RR-5 zoning district, site-built houses and mobile homes are also allowed in addition to farming and silviculture activities. This district also permits residential units at a density of one per five acres. Additionally, the RR-1 zoning district allows for site-built houses and mobile homes, but here these residential units are permissible at a ratio of one unit per acre. Commercial and agricultural activities are not allowed in this zoning district (Attachment 4).

Site Conditions: The FEMA flood zone designations for the property are zones “X” and “A”. Zone “X” is an area at moderate risk for flooding, but usually does not require flood insurance by mortgage lenders. The Zone “A” area is part of the special flood hazard area where structures may have to be elevated and flood insurance is required for a federally backed mortgage.

Currently, the site is vacant and is being utilized as timberland.

Apalachee Environmental, Inc. completed an environmental analysis of the site in April of 2019. They concluded that no wetlands, watercourses or karst features were present on the Subject Property. In

addition, no protected species were identified during the analysis either. If any threatened or endangered species are located on the site during development, then all State required mitigation actions will have to be followed.

Archaeological Consultants, Inc. performed a cultural resource assessment on the parcel. No archaeologically or historically significant materials were discovered during the group's survey. This survey consisted of document research on the background use of property in the area and site tests on the Subject Property.

Staff visited the Subject Property on September 5, 2019 (Attachment 5).

Adjacent Parcels: Abutting parcels are designated with the Agriculture and Urban Fringe future land use designations. The Agriculture and Urban Fringe land uses have the same allowances as previously noted (Attachment 6).

Compatibility: The requested Urban Fringe land use would be compatible with the Urban Fringe that already exists to the west and north of the Subject Property. This land use is also a predominant designation in the general area. It is important to note that the Urban Core land use is within a quarter mile of the Subject Property. Urban Core permits up to ten residential units per acre, which is a much higher density than that requested by the applicant.

The current AG and RR-1 zoning districts are in the portion of the Subject Property that has an Agriculture land use. The AG zoning is compatible with this designation, but the RR-1 zoning district is not. The current RR-5 zoning district is contained within the portion with an Urban Fringe land use and is compatible with this designation. All the current zoning districts would be compatible with the requested Urban Fringe land use.

Public Notification: This request has been noticed and advertised in accordance with the provisions of the Wakulla County Land Development Code. The Planning Department also posted appropriate signage on the property indicating the Map Amendment request.

The advertisement for this public hearing appeared in The Wakulla News on September 5, 2019 (Attachment 7).

Additional Issues: A traffic study for the proposed amendment was prepared by Hydra Engineering & Construction, LLC in which the impacts of the proposed amendment on the transportation network was evaluated. The study concluded that no roadway improvements would be needed to accommodate the proposed development. A more detailed analysis of the transportation impacts will be required as part of the future platting process.

It is important to note that the latest Residential Needs Analysis prepared in 2017 by Kimley Horn and Associates determined that there is adequate density to accommodate future growth through 2035 without any further land use amendments. Additionally, the analysis notes that market preference should be realized, and additional units may be necessary to account for such. So, the applicants of

this request argue that the Subject Property is a more desirable location for future development. They note it is part of the Crawfordville Town Plan and provides easy access to the amenities of downtown Crawfordville. Additionally, they note its location on two collector roads provides easy access to recreational activities.

In the Data and Analysis submitted for this project, a review letter from the Wakulla County School Board was included in which the education system impacts of the potential residential subdivision were evaluated. In this review it was projected that there will be no available capacity at the high school level to serve this subdivision. School concurrency is assessed at the Site Plan or Preliminary Plat stage per the Comprehensive Plan Public School Facilities Element Policy 2.2.5. Therefore, addressing this issue is not required at this time. However, staff has discussed this matter with School Board staff and they anticipate that they would not seek mitigation for the project's impacts at this time due to an anticipated decrease in high school enrollment before buildout of the development.

The Subject Property is not located within the Wakulla Springs Special Planning Area; however, it is contained within the State's Basin Management Action Plan area for Wakulla Springs. As such, State requirements on advanced septic tanks would be applicable should septic tanks be utilized on this site in the future.

This parcel is situated outside of the Coastal High Hazard Area and therefore, is at a lower general risk for flooding. The Coastal High Hazard Area is known as an area below the elevation of the category 1 storm surge line.

It is important to note that this property is located within Crawfordville Town Plan. As the Crawfordville Town Plan is one of the main areas where growth has been noted as desirable, development on the Subject Property would allow its future residents to be close to the amenities of Crawfordville but not have to rely on its more congested roadways for all of their trips.

The transmittal of this Comprehensive Plan Map Amendment request will be considered by the Board of County Commissioners at their September 23, 2019 public hearing. Should the Board vote to transmit the item, it will be sent to the State for review and then come back to the County to be considered for final adoption.

Options:

1. Conduct a Public Hearing and vote to recommend transmittal of the proposed Comprehensive Plan Map Amendment, amending the Future Land Use Map designation from Agriculture (Primary Agriculture) and Urban Fringe land use to Urban Fringe, based upon the recommendation of staff and the findings of fact and conclusions of law made by the Commission and any evidence submitted at the Hearing hereon.
2. Conduct a Public Hearing and vote to not recommend transmittal of the proposed Comprehensive Plan Map Amendment, retaining the existing Agriculture (Primary Agriculture) and Urban Fringe land use designations based upon the findings of fact and

conclusions of law made by the Commission and any evidence submitted at the Hearing hereon.

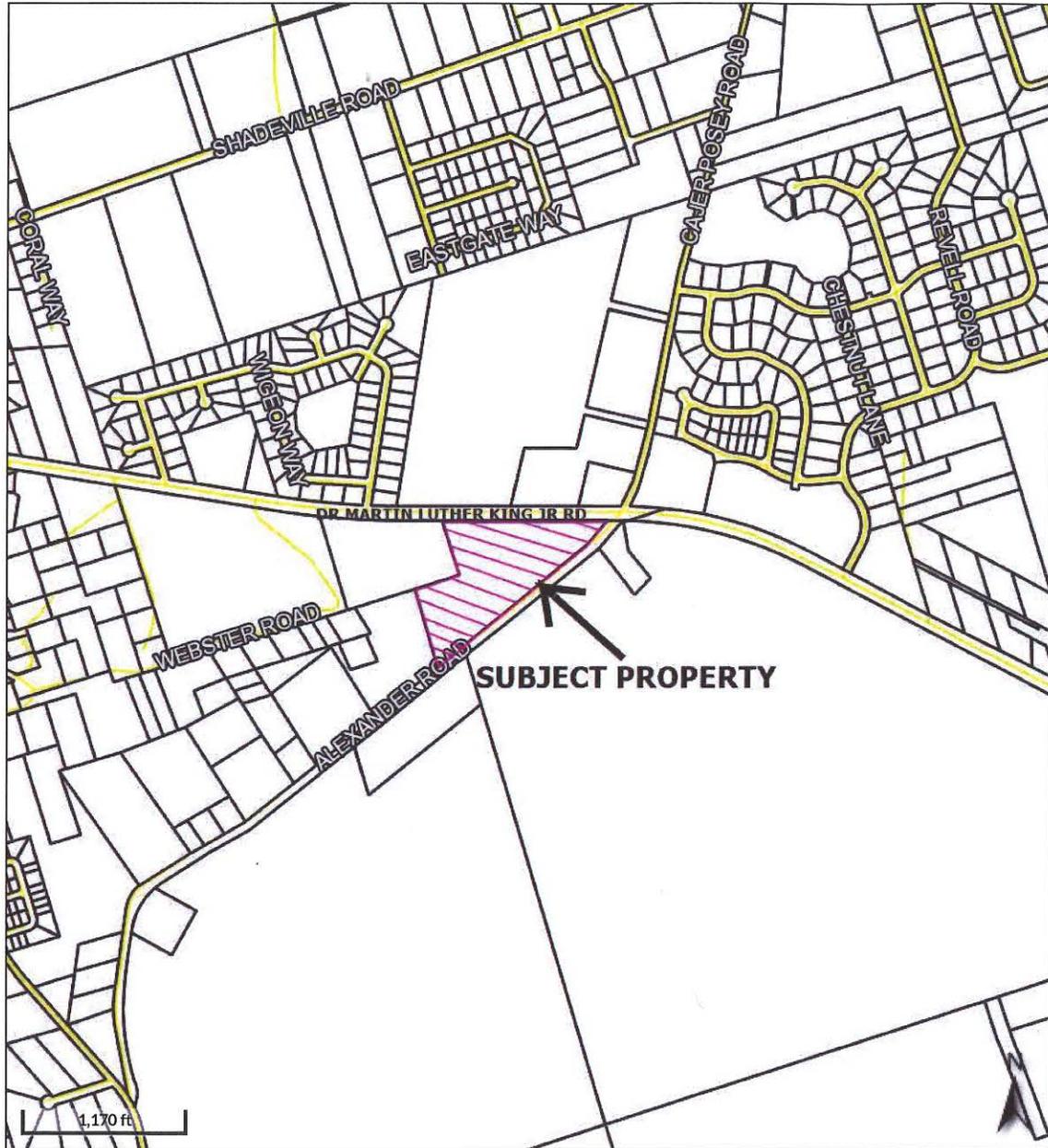
3. Commission Direction.

Recommendation:

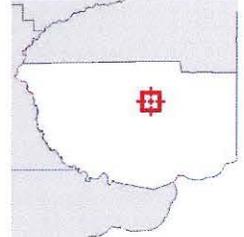
Option 1.

Attachment(s):

1. Location Map
2. Data and Analysis
3. FLUM Policies 1.2.3 and 1.2.7
4. Sections 5-25, 5-26, and 5-27, LDC
5. Site Photos
6. FLU Map
7. Advertisement
8. Draft Ordinance



Overview



Legend

-  Parcels
-  Roads
-  City Labels

Date created: 9/5/2019
Last Data Uploaded: 9/4/2019 10:45:58 PM

Developed by  Schneider
GEOSPATIAL

**A COMPREHENSIVE PLAN MAP AMENDMENT TO A 10.64 ACRE (+/-)
PORTION OF WAKULLA COUNTY PARCEL ID# 00-00-059-000-10047-
000 LOCATED BETWEEN DR. MARTIN LUTHER KING JR. MEMORIAL
ROAD AND ALEXANDER ROAD.**



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RESOURCES REPORT AND ARCHAEOLOGICAL STUDY
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11. SCHOOL CAPACITY LETTER



WAKULLA COUNTY

PLANNING & COMMUNITY DEVELOPMENT

3093 Crawfordville Highway • Crawfordville, FL 32327 • 850/926-3695
Fax – 850/926-1528 • email: wakullaplanning@mywakulla.com

**APPLICATION FOR COMPREHENSIVE PLAN
MAP AMENDMENT**

Applicant: Golden Construction Co., Inc. **Request No.:** CPM 19-02
Address: 204 Shadeville Road **Home Phone:** _____
Crawfordville, FL 32327 **Business Phone:** 850- 509-0376

1. Name of map:
 - Future Land Use Map
 - Other Map (Specify which Map) _____
 - Small Scale Map Amendment (under 10 acres)

2. Nature of Map Amendment. Applicant must describe in detail the requested change, and shall provide a map which clearly illustrates the requested amendment. The applicant shall provide the following (where applicable):
 - Tax Identification Number: 00-00-059-000-10047-000
 - Parcel Size (acres): 14.35 acres
 - Current Atlas Zoning: AG & RR-5
 - Requested Map Designation: Urban fringe
 - Intended land use that requires change to Future Land Use Map Category:
 - Residential
 - Non-residential
 - Mixed development
 - List of adjacent property owners and addresses

3. Attach Applicant's findings regarding the proposed change's consistency with applicable sections of Chapter 163, F.S. (Attach all pertinent support data and related studies)

4. If conservation or wetlands areas could be impacted by proposal, additional environmental studies may be required.

5. Attach Transportation Concurrency Review Application or Transportation Impact Analysis

6. Attach a Needs Analysis

FEES: \$5,155.00 -- Large Scale
\$3,065.00 -- Small Scale

Receipt # CPM 19-02

NOTE: A pre-application conference with Wakulla County Planning and Community Development shall be completed prior to filing this application. To schedule this meeting call (850) 926-3695.

Applicant's signature below certifies that the applicant understands that the Future Land Use Map Amendment may require a rezoning, environmental analysis and/or other permit approvals before developmental activity can begin. Call Planning at (850) 926-3695 for information on the rezoning process. By submitting this application I (we) am (are) voluntarily granting permission to Wakulla County officers, employees, and agents to enter onto and inspect the property that is subject to this application at all reasonable times for determining the suitability of the applied for development order and for compliance with County development regulations contained within the Wakulla County Code of Ordinances and Comprehensive Plan. I (we) further acknowledge that refusing access to Wakulla County officers, employees, and agents is grounds for and may result in my application being denied.

Received By: *[Signature]*
Date: 7-3-19

[Signature]
Signature of Property Owner/ Agent

LETTER OF AUTHORIZATION

I hereby authorize Edwin Brown & Associates to act on my behalf or as my agent for the following transaction:

- Comprehensive Plan Amendment
- Rezoning
- Preliminary Plat
- Final Plat
- Site Plan
- Conditional Use
- Temporary Use
- Variance
- Minor Lot Split/Boundary Line Adjustment
- Other: Landuse change RTU

Property Location: Northwest corner of Martin Luther King Jr. & Cajal Posey Road.

Southwest Corner of MLK & Alexander. Lying North of Alexander

Parcel ID#: 00-00-059-000-10047-006 00 00 059-000-10047-000

[Handwritten Signature]
(Property Owner Signature)

7/30/19
(Date)

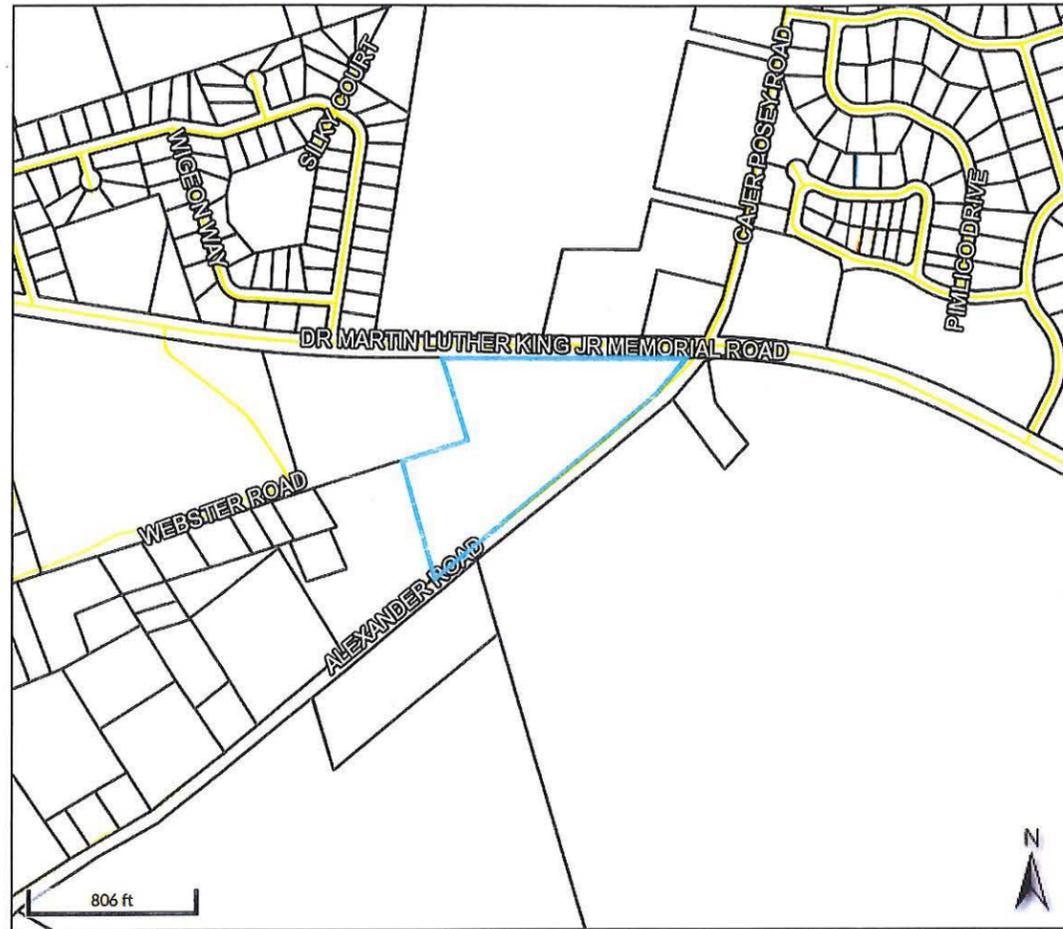
The foregoing instrument was sworn to and subscribed before me this 30th day of July 2019, by Robert Miller, who, upon being duly sworn, testified that the above information is true and correct. Robert Miller is personally known to me or has produced a driver's license as identification.

[Handwritten Signature]
NOTARY PUBLIC, STATE OF FLORIDA

(Print Name of Notary Public) SUSAN M. VICKERS
Commission # GG 167104 Expires December 11, 2021
Bonded Thru Troy Fain Insurance 800-385-7019

All owners must sign a Letter of Authorization

SITE MAP AND LIST OF ADJOINING LAND OWNERS



Overview



Legend

-  Parcels
-  Roads
-  City Labels

| | | | | | |
|-----------------------|--|--------------|---------------|---------|-----------------------------|
| Parcel ID | 00-00-059-000-10047-000 | Alternate ID | 10047 0000000 | Owner | GOLDEN CONSTRUCTION COMPANY |
| Sec/Twp/Rng | --59 | ID | 059000 | Address | 204 SHADEVILLE RD |
| Property | DR MARTIN LUTHER KING JR | Class | NO AG ACRE | | CRAWFORDVILLE, FL 32327 |
| Address | RD | Acreage | 14.35 | | |
| District | 3 | | | | |
| Brief Tax Description | LOT 59 HS P-12-M-14 | | | | |
| | <i>(Note: Not to be used on legal documents)</i> | | | | |

Date created: 6/30/2019
 Last Data Uploaded: 6/28/2019 10:16:04 PM

ADJOINING LAND OWNERS

JON & BRENDA HATFIELD
517 DR. MARTIN LUTHER KING JR. MEMORIAL ROAD
CRAWFORDVILLE, FL 32327

TALLAHASSEE COMMUNITY COLLEGE FOUNDATION
444 APPELYARD DRIVE
TALLAHASSEE, FL 32304

WILLIAM NATHANIEL ALLEN & CAROLYN F DAVIS AS JTFRS
359 ALEXANDER ROAD
CRAWFORDVILLE, FL 32327

WILLIAMS SYLVESTER
244 ALEXANDER ROAD
CRAWFORDVILLE, FL 32327

ST. JOE LAND & DEVELOPMENT CO.
133 SOUTH WATERSOUND PARKWAY
WATERSOUNF, FL 32413

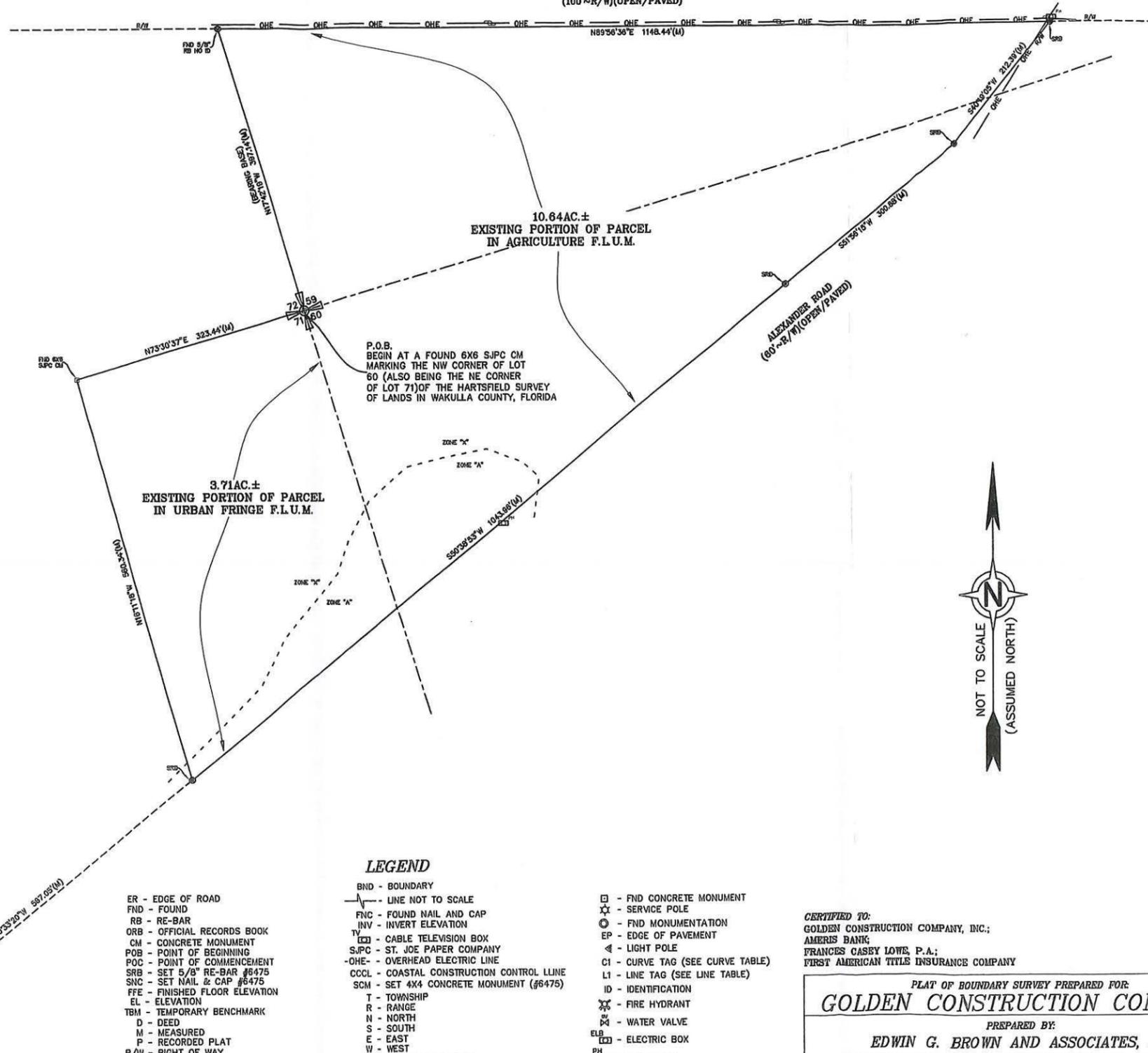
SURVEY AND LEGAL DESCRIPTION

NOTES:

1. No improvements were located in this survey other than those shown hereon.
2. No underground encroachments, utilities or foundations were located in this survey.
3. All measurements shown hereon are Standard U.S. Survey Feet, and decimals thereof.
4. As scaled from Flood Insurance Rate Map for Wakulla County, Florida, Community-Panel Number 12129C 0250 E; Date of Firm Index: September 26, 2014. This Property is located in Zone "X" & "A".
5. The use of this survey is limited to the specific transaction shown hereon.
6. Subject to zoning setbacks, easements and restrictions of record.
7. Adjoining deeds of record were not provided to this firm.
8. This survey was performed without benefit of deed.

PARCEL I.D. #00-00-059-000-10047-000
TOTAL PARCEL 14.35AC.±
(VACANT)

DR. MARTIN LUTHER KING, JR. MEMORIAL ROAD
(100'-R/W)(OPEN/PAVED)



LEGAL DESCRIPTION

Begin at a found 6x6 St. Joe Paper Company concrete monument marking the Northwest corner of Lot 60 (also being the Northeast corner of Lot 71) of the Hartsfield Survey of Lands in Wakulla County, Florida; thence leaving said POINT OF BEGINNING run North 17 degrees 42 minutes 19 seconds West 397.14 feet to a re-bar lying on the Southerly right of way line of a 100 foot wide right of way known as Dr. Martin Luther King Jr. Memorial Road; thence run along said Northerly right of way line North 89 degrees 56 minutes 36 seconds East 1148.44 feet to a re-bar, said point marking the intersection of said Southerly right of way line with the Northwesterly right of way line of a 60 foot wide right of way known as Alexander Road; thence leaving said Southerly right of way line run along said Northwesterly right of way line as follows: South 40 degrees 19 minutes 05 seconds West 212.39 feet to a re-bar; thence run South 51 degrees 56 minutes 15 seconds West 300.88 feet to a re-bar; thence run South 50 degrees 38 minutes 53 seconds West 1043.96 feet to a re-bar; thence leaving said Northwesterly right of way line run North 16 degrees 11 minutes 18 seconds West 560.34 feet to a 6x6 St. Joe Paper Company concrete monument; thence run North 73 degrees 30 minutes 37 seconds East 323.44 feet to the POINT OF BEGINNING. Containing 14.35 acres more or less.



EDWIN BROWN & ASSOCIATES
SURVEYORS * MAPPERS * ENGINEERS
(850) 926-3016 888-433-4436 FAX (850) 926-8180
P.O. Box 625 2813 Crawfordville Hwy. Crawfordville, FL 32326

The undersigned surveyor has not been provided a current title opinion or abstract of matters affecting title or boundary to the subject property. It is possible there are deeds of records, unrecorded deeds, easements or other instruments which could affect the boundaries.

Not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper.

WADE G. BROWN
Surveyor & Mapper
Florida Certificate No. 5959
(LB# 6475)

LEGEND

- ER - EDGE OF ROAD
 - FND - FOUND
 - RB - RE-BAR
 - ORB - OFFICIAL RECORDS BOOK
 - CM - CONCRETE MONUMENT
 - POB - POINT OF BEGINNING
 - POC - POINT OF COMMENCEMENT
 - SRB - SET 5/8" RE-BAR #6475
 - SNC - SET NAIL & CAP #6475
 - FFE - FINISHED FLOOR ELEVATION
 - EL - ELEVATION
 - TBM - TEMPORARY BENCHMARK
 - D - DEED
 - M - MEASURED
 - P - RECORDED PLAT
 - R/W - RIGHT OF WAY
 - RAD - RADIUS
 - DEL - DELTA OR INCLUDED ANGLE
 - CH - CHORD LENGTH
 - CB - CHORD BEARING
 - L - ARC LENGTH
 - R/C - ROD AND CAP
 - IP - IRON PIPE
 - PC - POINT OF CURVATURE
 - CL - CENTER LINE
 - C - CALCULATED
- BND - BOUNDARY
 - LINE NOT TO SCALE
 - FNC - FOUND NAIL AND CAP
 - INV - INVERT ELEVATION
 - TV - CABLE TELEVISION BOX
 - SJPC - ST. JOE PAPER COMPANY
 - OHE- OVERHEAD ELECTRIC LINE
 - CCCL - COASTAL CONSTRUCTION CONTROL LINE
 - SCM - SET 4X4 CONCRETE MONUMENT (#6475)
 - T - TOWNSHIP
 - R - RANGE
 - N - NORTH
 - S - SOUTH
 - E - EAST
 - W - WEST
 - ⊙ - CALCULATED POINT
 - RND - ROUND
 - (TYP) - TYPICAL
 - POT - POINT OF TERMINUS
 - ⊙ - POWER POLE
 - SRB 5/8" #6475
 - X- INDICATES FENCE & TIE TO PROPERTY LINE
- ⊠ - FND CONCRETE MONUMENT
 - ☆ - SERVICE POLE
 - ⊙ - FND MONUMENTATION
 - EP - EDGE OF PAVEMENT
 - ⊙ - LIGHT POLE
 - C1 - CURVE TAG (SEE CURVE TABLE)
 - L1 - LINE TAG (SEE LINE TABLE)
 - ID - IDENTIFICATION
 - ⊙ - FIRE HYDRANT
 - ⊙ - WATER VALVE
 - ELB - ELECTRIC BOX
 - PH - PHONE BOX
 - ⊙ - WATER METER
 - RCP - RIGID CONCRETE PIPE
 - PVC - POLYVINYL CHLORIDE PIPE
 - CMP - CORRUGATED METAL PIPE
 - MHWL - MEAN HIGH WATER LINE

CERTIFIED TO:
GOLDEN CONSTRUCTION COMPANY, INC.;
AMERIS BANK
FRANCES CASEY LOWE, P.A.;
FIRST AMERICAN TITLE INSURANCE COMPANY

| | | | |
|--|--------------------------|-------------------------------|------------------|
| PLAT OF BOUNDARY SURVEY PREPARED FOR | | | |
| GOLDEN CONSTRUCTION COMPANY | | | |
| PREPARED BY: | | | |
| EDWIN G. BROWN AND ASSOCIATES, INC. | | | |
| 2813 CRAWFORDVILLE HWY. P.O. BOX 625 CRAWFORDVILLE, FL 32326 (850)926-3016 | | | |
| NOTEBOOK/PAGE 888/81 | COUNTY: WAKULLA | DRAWN BY: AA | REVIEWED BY: WGB |
| NOTEBOOK/PAGE | HARTSFIELD LOTS 69,80&71 | | CHECKED BY: WGB |
| NOTEBOOK/PAGE | | SURVEY DATE: FEBRUARY 8, 2018 | |
| SHEET: 1 OF 1 | | JOB NUMBER | PSC# |
| | | 06-171 | 38528 |

INTRODUCTION

INTRODUCTION

Wakulla County Parcel ID# 00-00-059-000-10047-000 containing 14.35 acres is located between Dr. Martin Luther King Jr. Memorial Road and Alexander Road. The land use change request is for the Easterly 10.64 acres of the subject parcel which is currently in the AG land use to be changed to Urban Fringe. The Westerly 3.71 acres of this parcel is currently in the Urban fringe land use therefore the requested change to the 10.64 acres will be infill to the rest of the parcel as well as the adjoining parcels to the West and North.

The subject parcel is currently owned by Golden Construction Company, INC. and has historically and is currently being used for silviculture purposes (planted pines and pine tree harvesting). The Current owner desires to change the current land use to allow single family residential usage.

The use of the adjoining properties is as follows:

Adjoining property to the South of Alexander Road is currently zoned agriculture and is under the agriculture future land use designation. The property is currently being used for silviculture purposes (planted pines and pine tree harvesting).

A portion of this parcel as well as the adjoining properties to the West is under the urban fringe future land use designation and is currently vacant.

Adjoining parcels North of Martin Luther King Jr. Memorial Road is the Wakulla County Expo Site under the agricultural future land use designation and a parcel at the intersection of Cajer Posey Road is under the urban fringe land use.

NARRATIVE

The Subject Parcel is located on the Southerly side of Martin Luther King Junior Memorial Road between Mallard Pond Subdivision and The Farm Subdivision. The parcel is also located within the Crawfordville town plan and consists of 10.64 acres of agricultural land use and 3.71 acres of urban fringe land use. The requested urban fringe land use change of the 10.64 will create an increase in residential density of 21.28 units (two units per acre). This will be consistent to and will create infill between said Mallard Pond and The Farm Subdivision as well as the adjoining 3.71 acres. Central sewer and central water is available for the site (see attached capacity letters from utility providers).

City of Sopchoppy

August 6, 2019

Robby Miller
Golden Construction
204 Shadeville Road
Crawfordville, FL 32327

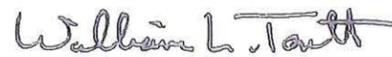
Re: MLK/Alexander Development
Parcel ID: 00-00-059-000-10047-000

Dear Mr. Miller:

The City of Sopchoppy understands the above referenced property is located within the potable water service area of the City of Sopchoppy. The City of Sopchoppy is dedicated to providing potable water service to meet the needs of the project as it develops. We look forward to remaining in contact with you to ensure that our system remains adequate.

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

Sincerely,



William L. Tartt
Public Works Director



**BOARD OF
COUNTY COMMISSIONERS**

Charles Hess, Ph.D.
Chairman, District 5

Mike Stewart
Vice-Chairman, District 3

Ralph Thomas
District 1

Randy Merritt
District 2

Quincee Messersmith
District 4

J. David Edwards
County Administrator

Heather J. Encinosa
County Attorney
(850) 224-4070

August 06, 2019

Robby Miller
Golden Construction Company, INC.
204 Shadeville Road, Crawfordville, FL 32327

RE: Request for Verification of Capacity in Wakulla County's Sewer System
for 28 Unit Development Parcel ID 00-00-059-000-10047-000

Dear Applicant:

On August 05, 2019, Golden Construction requested the County provide a letter in reference to the capacity of the sewer system and wastewater treatment facility that would serve a 28 unit development at the area of Martin Luther King Jr. Blvd & Alexander Road.

The County WWTF is currently under construction to increase capacity, however upon review the County says that sewer capacity for this development does exist.

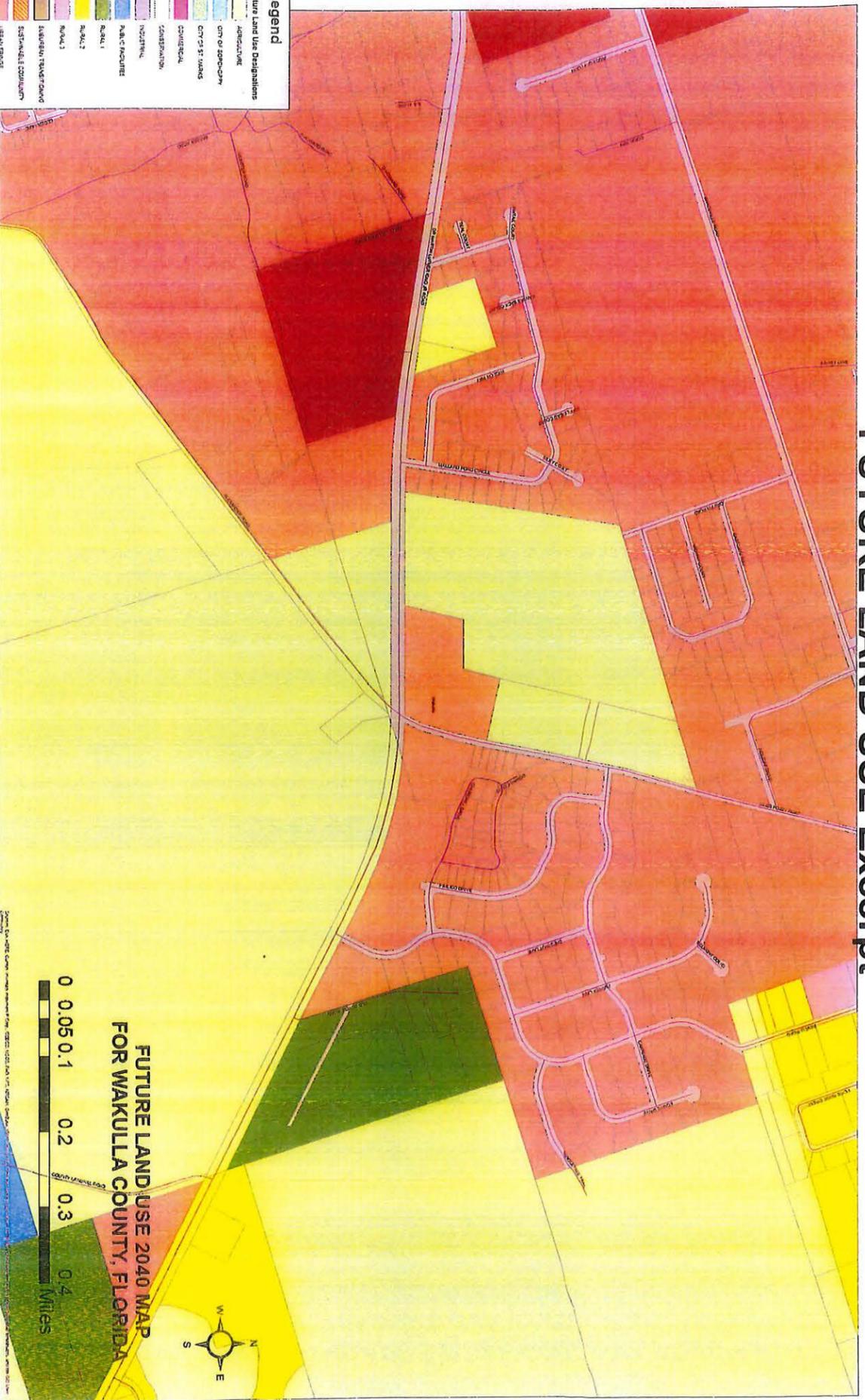
If you have any questions regarding this material, please contact the Wakulla Utility Department at 850.962.3026.

Sincerely,

Ned F. Nobles
Project Manager
ESG / Wakulla County

EXISTING WAKULLA COUNTY LAND USE AND ZONING MAPS

FUTURE LAND USE Excerpt



CONSISTENCY OF AMENDMENT WITH WAKULLA COUNTY
COMPREHENSIVE PLAN

Policy 1.2.7. Urban Fringe:

- 1) Description - This designation provides for higher density development in rural areas which are near urban areas or which are intended to become urban during the planning period. When full urban services are in place, an area designated for Urban-1 shall be converted to Suburban Transitioning or Urban Core through the plan amendment process. This designation also accommodates existing clusters of development not strictly consistent with the Rural designation.
- 2) Permitted/Prohibited Uses
 - (a) Residential development shall be permitted.
 - (b) Commercial development shall be permitted.
 - (c) Public uses including schools shall be permitted. Public land uses may be permitted within this land use designation subject to a staff review, public hearing, and approval process if compatible and consistent with the land use designation and established as a Conditional Use in the Wakulla County Land Development Code.
 - (d) Light industrial and manufacturing uses may be permitted subject to the locational and compatibility standards in (4) below.
Residential development is proposed for subject property.
- 3) Density/Intensity Limitations
 - (a) Residential development shall be permitted at a density not to exceed two (2) units per acre with connection to central sewer and water, and one (1) unit per acre with connection to central water and where soil tests determine suitability for septic tanks.
Central water is available at the subject property and central sewer is located within 500 feet of the subject property.
 - (b) In addition to (a) above, residential development within the "Panacea Area Sewer System" service area as identified in the data analysis section of the Infrastructure Element, densities at two (2) units per acre shall require installation of and connection to the sewer system.
N/A: Not located in the Panacea area sewer system.
 - (c) Non-residential development shall not exceed a floor-area ratio (FAR) of 0.3 with connection to central water and sewer (including package plants) and 0.15 where connection to central water and sewer are not available but fire protection is deemed adequate through a concurrency determination at the Technical Review process.
Residential use is planned.
 - (d) In calculating residential density in areas which are habitats for threatened or endangered species, density shall be maintained at the residential land use density for that land use classification. Actual development shall be addressed by transfer of density in the Land Development Code.
Site does not contain threatened or endangered species (SEE ATTACHED: Environmental Assessment)

- (e) In calculating residential density, areas which are in wetlands, the density shall be permitted at an overall density of one (1) unit per twenty (20) acres.
Site does not contain any wetlands (SEE ATTACHED: Environmental Assessment)

4) Special Development Standards

- (a) Commercial development shall be permitted only where the parcel has access to an arterial or collector road. Access to roads should be from frontage or side roads rather than directly. Access to commercial areas located along principal arterials shall be set back sufficiently to accommodate future right-of-way identified in the Transportation Element.
Property fronts on two collector roads Martin Luther King Jr. Memorial Road & Alexander Road. However residential use is planned for this site not commercial.

(b) New Commercial Development

1. Commercial developments shall be required to be located in clusters of not more than four (4) establishments and be limited to a maximum of fifteen thousand (15,000) square feet in floor area per intersection quadrant. New commercial development shall be permitted only within one quarter mile of an intersection of two (2) collectors, collector and arterial, or two (2) arterial roadways. New commercial rezonings beyond one-quarter mile of the intersection may be approved if the Board of County Commissioners makes the following findings: (a) that the proposed rezoning is compatible with the existing character of the surrounding area; and (b) existing residentially zoned parcels will not be negatively impacted by the proposed rezoning. The aforementioned commercial locations requirements in this subsection shall not apply to properties within the Crawfordville Town Plan that have been identified as High Intensity Commercial, Low Intensity Commercial, Neighborhood Serving Commercial or Cottage Commercial.
Residential use is planned.
 2. Non-residential land uses shall also provide a landscape and design plan at the development review stage that clearly indicates how each site will meet the land development code's open space and landscape provisions. It is the intent of this requirement to promote the use of native vegetation to the fullest extent possible.
Residential use is planned.
- (c) Non-residential development in structures over five thousand (5,000) gross square feet in area shall have public water service and meet fire flow concurrency as determined by the Technical Review Committee process.
Residential use is planned.
- (d) Schools, nursing facilities and all activities used by over fifty (50) persons at one time shall have central sewer facilities (including package plants) and meet fire flow concurrency as determined by the Technical Review Committee process.
Central water is available at the subject property and central sewer is located within 500 feet of the subject property. However residential use is planned for the subject property.
- (e) Proposed non-residential land uses may be permitted if the proposed use is not harmful or inconsistent with surrounding land uses. Development approval shall be subject to review and approval by the Planning Department and local planning agency pursuant to the review

procedures identified in the Land Development Code. Land use approval shall be contingent upon Comprehensive Plan consistency and a showing that needed facilities and service capacity are available concurrent with the proposal's impacts. Development approval may be subject to landscape buffers, screening walls, or other similar requirements to ensure compatibility.

Residential use is planned.

- (f) Proposed non-residential land uses shall be consistent with the FLUM and the existing and proposed character and nature of the area. Compatibility will be determined through staff technical review process and/or the public hearing process before the local planning agency and County Commission where required by the Land Development Code.

Residential use is planned.

- 5) Of the thirtyone (31) acres of land changed from Rural- 2 to Urban-1 by Ordinance 2007- 04, all of the land is restricted to residential use only.

Future Land Use Element Policy 13.4:

- 2) There will be no concentration or storage of hazardous materials allowed within this project.

FLORIDA STATUES CHAPTER 163

The 2017 Florida Statutes
Chapter 163

2. The future land use plan and plan amendments shall be based upon surveys, studies, and data regarding the area, as applicable, including:

- a. The amount of land required to accommodate anticipated growth.
This project will contain 10.64 acres.
- b. The projected permanent and seasonal population of the area.
Between 2016 – 2025 the population is projected to increase by 11.9% totaling 35,367. According to the Office of Economic and Demographic Research.

SEE ATTACHED POPULATION STUDY

- c. The character of undeveloped land.
Historically has been used for silviculture purposes (pine planting and pine harvesting) See attached Natural Feature and Cultural Resource Assessment.
- d. The availability of water supplies, public facilities, and services.
Central water is available at the subject property and central sewer is located within 500 feet west of the subject property along Martin Luther King Jr. Memorial Road.
- e. The need for redevelopment, including the renewal of blighted areas and the elimination of nonconforming uses which are inconsistent with the character of the community.

This land use change proposed is urban fringe and is infill to the westerly portion of this parcel as well as adjoining properties located to the West and North. Residential use is planned for the project which is consistent with the area.

- f. The compatibility of uses on lands adjacent to or closely proximate to military installations.

N/A

- g. The compatibility of uses on lands adjacent to an airport as defined in s. [330.35](#) and consistent with s. [333.02](#).

N/A

- h. The discouragement of urban sprawl.

This land use change proposed is urban fringe and is infill to the westerly portion of this parcel as well as adjoining properties located to the West and North. Residential use is planned for the project which is consistent with the area.

SEE ATTACHED LAND USE MAP

i. The need for job creation, capital investment, and economic development that will strengthen and diversify the community's economy.

This project will provide jobs for local surveyors, engineers, housing industry (contractors and sub-contractors, site contractors, real estate companies, title companies, landscapers as well as lawn maintenance companies).

j. The need to modify land uses and development patterns within antiquated subdivisions.

See attached needs and analysis.

8. Future land use map amendments shall be based upon the following analyses:

a. An analysis of the availability of facilities and services.

The proximity of this project will provide quick and easy access to downtown Crawfordville which provides parks, dining, shopping as well as work for many Wakulla County Residents. A further demand for residential lots in this area is the quick and easy commute to enjoy the recreational use of the boat landings, fishing piers, hiking trails, of the many nearby rivers, refuge, and Gulf coast.

b. An analysis of the suitability of the plan amendment for its proposed use considering the character of the undeveloped land, soils, topography, natural resources, and historic resources on site.

See attached Natural Feature and Cultural Resource Assessment.

c. An analysis of the minimum amount of land needed to achieve the goals and requirements of this section.

The Subject Parcel consists of 10.64 acres of agricultural land use. The requested urban fringe land use change of the 10.64 will create an increase in residential density of 21.20 units.

9. The future land use element and any amendment to the future land use element shall discourage the proliferation of urban sprawl.

a. The primary indicators that a plan or plan amendment does not discourage the proliferation of urban sprawl are listed below. The evaluation of the presence of these indicators shall consist of an analysis of the plan or plan amendment within the context of features and characteristics unique to each locality in order to determine whether the plan or plan amendment:

(I) Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses.

(II) Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while not using undeveloped lands that are available and suitable for development.

(III) Promotes, allows, or designates urban development in radial, strip, isolated, or ribbon patterns generally emanating from existing urban developments.

This is a low-density project allowing 21.28 units over 10.64 acres.

This land use change is for a proposed residential subdivision of .50 acre lots in size and will be infill development of the surrounding residential properties. (See attached land use map) With the recent Real Estate trends in Wakulla County there is a demand for .50-acre residential lots especially within downtown Crawfordville. The demand for these lots are due to the fact they allow the homeowner the ability to build and live in a paved road subdivision with centralized utilities and will provide quick and easy access to downtown Crawfordville which provides parks, dining, shopping as well as work for many Wakulla County Residents. A further demand for residential lots in this area is the quick and easy commute to enjoy the recreational use of the boat landings, fishing piers, hiking trails, of the many nearby rivers, refuge, and Gulf coast.

(IV) Fails to adequately protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

Project does not contain any wetlands or environmentally sensitive areas. (SEE ATTACHED Environmental Assessment)

(V) Fails to adequately protect adjacent agricultural areas and activities, including silviculture, active agricultural and silvicultural activities, passive agricultural activities, and dormant, unique, and prime farmlands and soils.

The subject property is located between the intersection of two paved County roadways with roadside swales which separate and protects adjoining properties North and South of the project. Therefore, not impacting silviculture activities located South of the project.

(VI) Fails to maximize use of existing public facilities and services.

Central water is available and will be utilized in this project.

(VII) Fails to maximize use of future public facilities and services.

Central sewer is located within 500 feet West of the subject property which can be extended and utilized in this project.

(VIII) Allows for land use patterns or timing which disproportionately increase the cost in time, money, and energy of providing and maintaining facilities and services, including roads, potable water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government.

The infrastructure necessary for this project. i.e., paved roadways and storm water ponds, central sewer(if utilized) and central water will be constructed at the cost of the developer as well as being constructed to Wakulla County standards. A homeowner's association and or

developer will be responsible for the maintenance and or repairs of the infrastructure until buildout of the project before dedicating maintenance to Wakulla County. The project is located within downtown Crawfordville allowing quick and easy access for law enforcement and emergency response. School and healthcare facilities are located nearby and quickly accessed by uncongested paved County roadways.

(IX) Fails to provide a clear separation between rural and urban uses.

This land use change is for a proposed urban fringe land use and residential use which is infill of the existing parcel and surrounding parcels.

(X) Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.

Urban fringe is infill to this area (SEE ATTACHED Land use Map)

(XI) Fails to encourage a functional mix of uses.

Urban fringe is a functional use in this area.

(XII) Results in poor accessibility among linked or related land uses.

Property fronts on two existing County paved roadways.

(XIII) Results in the loss of significant amounts of functional open space.

Clearing within the project will be encouraged to be limited to the footprint and immediate yard area of proposed single family residential construction.

b. The future land use element or plan amendment shall be determined to discourage the proliferation of urban sprawl if it incorporates a development pattern or urban form that achieves four or more of the following:

(I) Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

This land use change is for a subdivision containing half acre residential lots and will be infill development of the surrounding residential properties.

See attached land use map and attached Natural Features and Cultural Resource Assessment.

(II) Promotes the efficient and cost-effective provision or extension of public infrastructure and services.

(III) Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

The proposed paved roadway within the project will connect to a network of uncongested paved county roadways allowing quick vehicular as well as bicycle commutes to the downtown Crawfordville area. The downtown area provides parks, dining, shopping as well as work for many Wakulla County Residents.

(IV) Promotes conservation of water and energy.

Best management practices and principals of Florida Yards and Neighborhoods Program will be required within the development through covenant and restrictions.

(V) Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

The subject property is located between the intersection of two paved County roadways with roadside swales which separate and protects adjoining properties North and South of the project. Therefore, not impacting silviculture activities located South of the project.

(VI) Preserves open space and natural lands and provides for public open space and recreation needs.

The proposed project is located in the downtown Crawfordville area which connects to a network of uncongested paved county roadways allowing quick vehicular as well as bicycle commutes to the downtown Crawfordville area. The downtown area provides parks, dining, shopping as well as work for many Wakulla County Residents.

(VII) Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

(VIII) Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. [163.3164](#).

This land use change is for a proposed residential subdivision of .50 acre lots in size and will be infill development of the surrounding residential properties. (See attached land use map) With the recent Real Estate trends in Wakulla County there is a demand for .50-acre residential lots especially within downtown Crawfordville. The demand for these lots are due to the fact they allow the homeowner the ability to build and live in a paved road subdivision with centralized utilities and will provide quick and easy access to downtown Crawfordville which provides parks, dining, shopping as well as work for many Wakulla County Residents. A further demand for residential lots in this area is the quick and easy commute to enjoy the recreational use of the boat landings, fishing piers, hiking trails, of the many nearby rivers, refuge, and Gulf coast.

POPULATION STUDY
(ATTACHMENT)

Wakulla County

Florida's 49th most populous county
with 0.2% of Florida's population



Population

| | Wakulla County | Florida |
|--|----------------|------------|
| Census Population | | |
| 1980 Census | 10,887 | 9,746,961 |
| 1990 Census | 14,202 | 12,938,071 |
| % change 1980-90 | 30.4% | 32.7% |
| 2000 Census | 22,863 | 15,982,824 |
| % change 1990-00 | 61.0% | 23.5% |
| 2010 Census | 30,776 | 18,801,332 |
| % change 2000-10 | 34.6% | 17.6% |
| Age | | |
| % Under 18 years of age | 22.5% | 21.3% |
| % 65 years of age and over | 10.8% | 17.3% |
| Race & Ethnicity | | |
| % White alone | 82.0% | 75.0% |
| % Black or African American alone | 14.5% | 16.0% |
| % Hispanic or Latino (of any race) | 3.3% | 22.5% |
| Estimates and Projections | | |
| 2016 Estimate | 31,599 | 20,148,654 |
| % change 2010-16 | 2.7% | 7.2% |
| 2020 Projection based on 2016 estimate | 33,329 | 21,438,743 |
| % change 2016-20 | 5.5% | 6.4% |
| 2025 Projection based on 2016 estimate | 35,367 | 22,943,880 |
| % change 2020-25 | 6.1% | 7.0% |
| 2016 Median Age | 39.3 | 41.6 |

Housing

| | Wakulla County | Florida |
|----------------------------|----------------|-----------|
| Housing Counts | | |
| Housing units, 2000 Census | 9,820 | 7,302,947 |
| Occupied | 8,450 | 6,337,929 |
| Owner-occupied | 7,111 | 4,441,799 |
| Renter-occupied | 1,339 | 1,896,130 |
| Vacant | 1,370 | 965,018 |
| Housing units, 2010 Census | 12,804 | 8,989,580 |
| Occupied | 10,490 | 7,420,802 |
| Owner-occupied | 8,469 | 4,998,979 |
| Renter-occupied | 2,021 | 2,421,823 |
| Vacant | 2,314 | 1,568,778 |
| Units Permitted | | |
| 1990 | 112 | 128,384 |
| 2000 | 394 | 155,269 |
| 2010 | 81 | 38,679 |
| 2011 | 47 | 42,360 |
| 2012 | 58 | 64,810 |
| 2013 | 95 | 86,752 |
| 2014 | 106 | 84,075 |
| 2015 | 136 | 109,924 |
| 2016 | 169 | 116,240 |

Density

| | Wakulla County | Florida |
|-------------------------|----------------|---------|
| Persons per square mile | | |
| 2000 | 37.7 | 296.4 |
| 2010 | 50.8 | 350.6 |
| 2016 | 52.1 | 375.7 |

Population Characteristics

| | Wakulla County | Florida |
|--|----------------|----------------|
| Language spoken at home other than English | | |
| Persons aged 5 and over | 6.1% +/- 1.3% | 28.1% +/- 0.1% |
| Place of birth | | |
| Foreign born | 2.6% +/- 0.9% | 19.7% +/- 0.1% |
| Veteran status | | |
| Civilian population 18 and over | 12.0% +/- 1.4% | 9.7% +/- 0.1% |

Households and Family Households

| | Wakulla County | Florida |
|-------------------------------------|----------------|-----------|
| Households | | |
| Total households, 2000 Census | 8,450 | 6,338,075 |
| Family households, 2000 Census | 6,237 | 4,210,760 |
| % with own children under 18 | 48.3% | 42.3% |
| Total households, 2010 Census | 10,490 | 7,420,802 |
| Family households, 2010 Census | 7,591 | 4,835,475 |
| % with own children under 18 | 44.0% | 40.0% |
| Average Household Size, 2010 Census | 2.61 | 2.48 |
| Average Family Size, 2010 Census | 3.03 | 3.01 |

| | Wakulla County | Florida |
|-----------------------------------|----------------|----------------|
| Residence 1 Year Ago | | |
| Persons aged 1 and over | | |
| Same house | 81.0% +/- 3.1% | 83.8% +/- 0.1% |
| Different house in the U.S. | 18.8% +/- 3.1% | 15.2% +/- 0.1% |
| Same county in Florida | 7.5% +/- 2.1% | 9.4% +/- 0.1% |
| Different county in Florida | 9.4% +/- 1.8% | 3.1% +/- 0.1% |
| Different county in another state | 1.9% +/- 1.4% | 2.8% +/- 0.1% |
| Abroad | 0.2% +/- 0.3% | 0.9% +/- 0.1% |

According to Census definitions, a household includes all of the people who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or an 18th or older group of related or unrelated people who share living quarters. A family includes a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. Census counts may be corrected for Census Count Question Resolution (CCQR).

Employment by Industry

| | Wakulla County | Florida |
|-------------------------------------|----------------|---------|
| Number of Establishments | | |
| 2016 preliminary | | |
| All Industries | 508 | 670,061 |
| Natural Resource & Mining | 10 | 5,368 |
| Construction | 93 | 66,377 |
| Manufacturing | 13 | 20,584 |
| Trade, Transportation and Utilities | 102 | 141,843 |
| Information | 3 | 10,923 |
| Financial Activities | 30 | 71,938 |
| Professional & Business Services | 71 | 154,679 |
| Education & Health Services | 42 | 71,153 |
| Leisure and Hospitality | 51 | 55,437 |
| Other Services | 56 | 54,912 |
| Government | 32 | 6,137 |

| | Wakulla County | Florida |
|-------------------------------------|----------------|---------|
| Percent of All Establishments | | |
| 2016 preliminary | | |
| All Industries | 508 | 670,061 |
| Natural Resource & Mining | 2.0% | 0.8% |
| Construction | 18.3% | 9.9% |
| Manufacturing | 2.6% | 3.1% |
| Trade, Transportation and Utilities | 20.1% | 21.1% |
| Information | 0.6% | 1.6% |
| Financial Activities | 5.9% | 10.7% |
| Professional & Business Services | 14.0% | 23.1% |
| Education & Health Services | 8.3% | 10.6% |
| Leisure and Hospitality | 10.0% | 8.3% |
| Other Services | 11.0% | 8.2% |
| Government | 6.3% | 0.9% |

Industries may not add to the total due to confidentiality and unclassified.

Employment by Industry

| Average Annual Employment, % of All Industries, 2016 preliminary | Wakulla County | Florida | Average Annual Wage 2016 preliminary | Wakulla County | Florida |
|---|----------------|-----------|---|----------------|----------|
| All Industries | 5,496 | 8,309,088 | All Industries | \$33,998 | \$47,060 |
| Natural Resource & Mining | 0.5% | 0.9% | Natural Resource & Mining | \$38,978 | \$31,501 |
| Construction | 6.4% | 5.7% | Construction | \$31,007 | \$47,342 |
| Manufacturing | NA | 4.3% | Manufacturing | NA | \$57,824 |
| Trade, Transportation and Utilities | 17.0% | 20.6% | Trade, Transportation and Utilities | \$24,256 | \$41,939 |
| Information | NA | 1.6% | Information | NA | \$77,256 |
| Financial Activities | 1.8% | 6.5% | Financial Activities | \$36,966 | \$69,701 |
| Professional & Business Services | 9.3% | 15.5% | Professional & Business Services | \$40,841 | \$58,930 |
| Education & Health Services | 6.8% | 14.8% | Education & Health Services | \$29,832 | \$48,616 |
| Leisure and Hospitality | 13.0% | 14.1% | Leisure and Hospitality | \$14,516 | \$24,399 |
| Other Services | 2.4% | 3.3% | Other Services | \$23,238 | \$33,998 |
| Government | 32.6% | 12.6% | Government | \$36,237 | \$52,022 |

Industries may not add to the total due to confidentiality and unclassified.

Labor Force

| Labor Force as Percent of Population Aged 18 and Older | Wakulla County | Florida | Unemployment Rate | Wakulla County | Florida |
|---|----------------|---------|-------------------|----------------|---------|
| 1990 | 77.3% | 84.3% | 1990 | 3.9% | 6.1% |
| 2000 | 68.8% | 63.7% | 2000 | 3.2% | 3.7% |
| 2010 | 61.2% | 62.2% | 2010 | 8.4% | 11.1% |
| 2016 | 57.6% | 61.4% | 2016 | 4.1% | 4.9% |

Income and Financial Health

| Personal Income (\$000s) | Wakulla County | Florida | Per Capita Personal Income | Wakulla County | Florida |
|--------------------------|----------------|---------------|----------------------------|----------------|----------|
| 1990 | \$211,246 | \$260,093,588 | 1990 | \$14,632 | \$19,958 |
| 2000 | \$531,055 | \$477,315,998 | 2000 | \$23,166 | \$29,744 |
| % change 1990-2000 | 151.4% | 83.5% | % change 1990-00 | 58.3% | 49.0% |
| 2010 | \$882,420 | \$728,063,852 | 2010 | \$28,617 | \$38,624 |
| % change 2000-10 | 66.2% | 52.5% | % change 2000-10 | 23.5% | 29.9% |
| 2011 | \$908,473 | \$773,315,948 | 2011 | \$29,300 | \$40,478 |
| % change 2010-11 | 2.7% | 6.2% | % change 2010-11 | 2.4% | 4.8% |
| 2012 | \$908,130 | \$793,103,892 | 2012 | \$29,481 | \$40,983 |
| % change 2011-12 | 0.2% | 2.6% | % change 2011-12 | 0.6% | 1.3% |
| 2013 | \$902,575 | \$798,885,890 | 2013 | \$29,148 | \$40,771 |
| % change 2012-13 | -0.6% | 0.7% | % change 2012-13 | -1.1% | -0.5% |
| 2014 | \$943,909 | \$853,317,759 | 2014 | \$30,052 | \$42,888 |
| % change 2013-14 | 4.6% | 6.8% | % change 2013-14 | 3.1% | 5.1% |
| 2015 | \$990,363 | \$900,636,248 | 2015 | \$31,405 | \$44,429 |
| % change 2014-15 | 4.9% | 5.5% | % change 2014-15 | 4.6% | 3.6% |

| Earnings by Place of Work (\$000s) | Wakulla County | Florida | Median Income | Wakulla County | Florida |
|------------------------------------|----------------|---------------|--|----------------------|--------------------|
| 1990 | \$75,439 | \$161,317,329 | Median Household Income | \$50,340 +/- \$4,378 | \$47,507 +/- \$202 |
| 2000 | \$194,396 | \$313,054,047 | Median Family Income | \$59,145 +/- \$3,946 | \$57,504 +/- \$300 |
| % change 1990-2000 | 157.7% | 94.1% | +/- = margin of error based on a 69% confidence level. | | |
| 2010 | \$299,304 | \$437,054,465 | Percent in Poverty, 2015 | | |
| % change 2000-10 | 54.0% | 39.6% | All ages in poverty | 16.5% | 15.8% |
| 2011 | \$292,049 | \$447,731,548 | Under age 18 in poverty | 21.3% | 23.4% |
| % change 2010-11 | -2.4% | 2.4% | Ages 5-17 in families in poverty | 19.1% | 22.0% |
| 2012 | \$286,148 | \$465,347,164 | | | |
| % change 2011-12 | -2.0% | 3.9% | | | |
| 2013 | \$282,769 | \$479,490,070 | | | |
| % change 2012-13 | -1.2% | 3.0% | | | |
| 2014 | \$289,556 | \$508,051,449 | | | |
| % change 2013-14 | 2.4% | 6.0% | | | |
| 2015 | \$306,187 | \$544,852,633 | | | |
| % change 2014-15 | 5.7% | 7.2% | | | |

Education

| Personal Bankruptcy Filing Rate (per 1,000 population) | Wakulla County | Florida | Public Education Schools Traditional Setting (2016-17) | Wakulla County School District | Florida |
|---|----------------|---------|---|-----------------------------------|---------|
| 12-Month Period Ending March 31, 2016 | 1.58 | 2.55 | Total (state total includes special districts) | 10 | 3,245 |
| 12-Month Period Ending March 31, 2017 | 1.54 | 2.10 | Elementary | 5 | 1,931 |
| State Rank | 28 | NA | Middle | 2 | 591 |
| | | | Senior High | 2 | 723 |
| | | | Combination | 1 | 472 |

Quality of Life

| Crime | Wakulla County | Florida | Educational attainment Persons aged 25 and older | Wakulla County | Florida |
|--|----------------|---------|---|----------------|----------------|
| Crime rate, 2016 (index crimes per 100,000 population) | 1,759.5 | 3,181.4 | % HS graduate or higher | 88.9% +/- 1.2% | 86.9% +/- 0.1% |
| Admissions to prison FY 2015-16 | 57 | 30,289 | % bachelor's degree or higher | 16.1% +/- 2.2% | 27.3% +/- 0.2% |
| Admissions to prison per 100,000 population FY 2015-16 | 182.2 | 155.3 | +/- = margin of error based on a 69% confidence level | | |

| Workers Aged 16 and Over Place of Work in Florida | Wakulla County | Florida |
|--|----------------|----------------|
| Worked outside county of residence | 65.2% +/- 3.8% | 17.5% +/- 0.1% |
| Travel Time to Work | Wakulla County | Florida |
| Mean travel time to work (minutes) | 33.0 +/- 1.4 | 28.4 +/- 0.1 |

+/- = margin of error based on a 90% confidence level

Reported County Government Revenues and Expenditures

| Revenue 2014-15 | Wakulla County | Florida* | Expenditures 2014-15 | Wakulla County | Florida* |
|---|----------------|----------------|---|----------------|-----------------|
| Total - All Revenue Account Codes (\$000s) | \$50,004.4 | \$39,173,950.7 | Total - All Expenditure Account Codes (\$000s) | \$51,394.69 | \$37,648,543.60 |
| Per Capita \$ | \$1,598.45 | \$2,071.64 | Per Capita \$ | \$1,642.58 | \$1,990.97 |
| % of Total | 100.0% | 100.0% | % of Total | 102.9% | 96.1% |
| Taxes (\$000s) | \$13,845.6 | \$12,048,064.2 | General Government Services** (\$000s) | \$6,216.17 | \$6,826,642.19 |
| Per Capita \$ | \$442.59 | \$637.14 | Per Capita \$ | \$198.71 | \$361.01 |
| % of Total | 27.7% | 30.8% | % of Total | 12.4% | 17.4% |
| Permits, Fee, and Special Assessments (\$000s) | \$3,795.7 | \$1,603,417.1 | Public Safety (\$000s) | \$15,115.18 | \$8,691,656.62 |
| Per Capita \$ | \$121.34 | \$84.79 | Per Capita \$ | \$483.18 | \$459.64 |
| % of Total | 7.6% | 4.1% | % of Total | 30.2% | 22.2% |
| Intergovernmental Revenues (\$000s) | \$11,256.9 | \$3,997,485.2 | Physical Environment (\$000s) | \$5,390.04 | \$4,201,869.90 |
| Per Capita \$ | \$359.84 | \$211.40 | Per Capita \$ | \$172.30 | \$222.21 |
| % of Total | 22.5% | 10.2% | % of Total | 10.6% | 10.7% |
| Charges for Services (\$000s) | \$6,597.9 | \$12,014,816.2 | Transportation (\$000s) | \$4,134.59 | \$4,472,600.28 |
| Per Capita \$ | \$210.91 | \$635.38 | Per Capita \$ | \$132.17 | \$236.53 |
| % of Total | 13.2% | 30.7% | % of Total | 8.3% | 11.4% |
| Judgments, Fines, and Forfeits (\$000s) | \$102.8 | \$213,460.3 | Economic Environment (\$000s) | \$1,360.76 | \$1,274,070.27 |
| Per Capita \$ | \$3.29 | \$11.29 | Per Capita \$ | \$43.50 | \$67.38 |
| % of Total | 0.2% | 0.5% | % of Total | 2.7% | 3.3% |
| Miscellaneous Revenues (\$000s) | -\$815.4 | \$924,478.7 | Human Services (\$000s) | \$757.66 | \$3,046,122.82 |
| Per Capita \$ | -\$26.06 | \$48.89 | Per Capita \$ | \$24.22 | \$161.09 |
| % of Total | -1.6% | 2.4% | % of Total | 1.5% | 7.8% |
| Other Sources (\$000s) | \$15,220.9 | \$8,372,229.2 | Culture / Recreation (\$000s) | \$2,040.25 | \$1,462,898.42 |
| Per Capita \$ | \$486.55 | \$442.75 | Per Capita \$ | \$65.22 | \$77.38 |
| % of Total | 30.4% | 21.4% | % of Total | 4.1% | 3.7% |
| | | | Other Uses and Non-Operating (\$000s) | \$15,220.88 | \$8,734,703.84 |
| | | | Per Capita \$ | \$486.55 | \$356.15 |
| | | | % of Total | 30.4% | 17.2% |
| | | | Court-Related Expenditures (\$000s) | \$1,149.16 | \$937,979.28 |
| | | | Per Capita \$ | \$36.73 | \$49.60 |
| | | | % of Total | 2.3% | 2.4% |

* All County Governments Except Duval - The consolidated City of Jacksonville / Duval County figures are included in municipal totals rather than county government totals

** (Not Court-Related)

State Infrastructure

| | Wakulla County | Florida |
|---|----------------|-------------|
| Transportation | | |
| State Highway | | |
| Centerline Miles | 81.0 | 12,109.9 |
| Lane Miles | 162.0 | 43,819.1 |
| State Bridges | | |
| Number | 12 | 6,783 |
| State Facilities | | |
| Buildings/Facilities (min. 300 Square Feet) | | |
| Number | 119 | 9,319 |
| Square Footage | 720,636 | 63,971,860 |
| State Owned Lands | | |
| Conservation Lands | | |
| Parcels | 41 | 38,326 |
| Acreage | 12,047.4 | 3,140,422.9 |
| Non-Conservation Lands | | |
| Parcels | 36 | 5,880 |
| Acreage | 592.5 | 160,353.7 |

State and Local Taxation

| 2016 Ad Valorem Millage Rates | Wakulla County | |
|-------------------------------|----------------|------------------|
| | County-Wide | Not County-Wide* |
| County | 8.2500 | |
| School | 7.3660 | |
| Municipal | | 0.1352 |
| Special Districts | 0.0366 | |

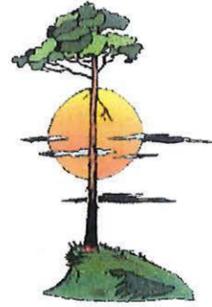
*MSTU included in Not County-Wide "County" category



Prepared by:
 Florida Legislature
 Office of Economic and Demographic Research
 111 W. Madison Street, Suite 574
 Tallahassee, FL 32399-6588
 (850) 437-1402 <http://edr.state.fl.us>

July 2017

ENVIRONMENTAL ASSESSMENT & HISTORICAL RESOURCES
REPORT AND ARCHAEOLOGICAL STUDY



Apalachee Environmental, Inc.
1115 Domingo Dr., Tallahassee, FL 32304
850-445-5300

- Permitting
- Wetland Delineations
- Natural Features Inventory
- Septic Soil Tests & Septic Designs
- Flood Letters & Elevation Benchmarks
- ISA Certified Tree Arborist & Tree Surveys

Environmental Assessment & Historical Resources Report

April 02, 2019

Project Site: 14.35 acres at the intersection of Dr Martin Luther King Jr Road and Alexander Road, Wakulla County, FL

Parcel No.: 00-00-059-000-10047-000

Applicant: Golden Construction

Date of Field Work: March – April 2019

Environmental Specialist: Rich Bray, Biologist / Arborist
Apalachee Environmental, Inc.

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Methods of Assessment Page 2

Geology of Site Pages 2 - 3

Natural Features Inventory Pages 3 - 4

Protected Species Page 4

Archaeological & Historical Resources Page 5

Exhibit A – Environmental Assessment Map

Exhibit B – Topography and Flood Zone Map

Exhibit C – Site Evaluation Sheets with Soil Analyses

Exhibit D – USDA Soil Survey of Wakulla County, FL – specific soil descriptions

Exhibit E – Protected Species Report from Florida Natural Areas Inventory

Exhibit F – Archaeological & Historical Resources Report from Florida Department of State

Project Overview

The project site consists of 14.35 acres +/- in a parcel of land bordered by Dr Martin Luther King Jr Road to the north and Alexander Road to the east in Wakulla County, FL.

This project site is currently owned by Golden Construction and was previously owned by St Joe Land & Development Co who historically used the property for silvicultural purposes for many years, primarily timber / pine tree harvesting, growth, and production. The current property owner desires to change the land use zoning for this parcel for a proposed residential development. The Wakulla County Planning & Zoning Department has indicated that a Comprehensive Land Use Amendment is needed. This Environmental Assessment & Historical Resources Review Report is submitted as required for the Comprehensive Land Use Amendment.

Methods of Assessment

The latest high resolution aerial photography was reviewed prior to conducting the onsite data acquisition at the actual project site. Onsite natural features and biological data of the current actual conditions of the project site were collected by traversing and studying the site on foot via 30 parallel transects on 50 ft centers from south to north.

The geology of the site was assessed utilizing current topography maps and the USDA Soil Survey Manual of Wakulla County, FL. Onsite geological data was collected at the project site by physically extracting core borings to 6 ft deep each utilizing a 3.5 in diameter hand auger. Five borings were equally spaced and extracted throughout this project site to provide data regarding the geology of this site.

Geology of Site

The current USDA Soil Survey of Wakulla County, FL, classifies this parcel as 71% Alpin Sand, 27.7% Ortega Sand, and 1.3% Otela Fine Sand (see Exhibit D). To determine the actual soils existing on this parcel, five borings to 6 ft deep each were dug via hand auger and the soil type carefully studied and identified (see Exhibit A for the location of the soil borings and see Exhibit C for the soil analyses). Three different soils were identified on this parcel from analyzing all the soil borings. Soil borings 1 and 3 were Otela Fine Sand. Soil boring 2 was Ortega Fine Sand. Soil borings 4 and 5 keyed out as Alpin Fine Sand. All of the soils identified by the soil survey and by the soil testing conducted on this parcel were well draining sandy soils with deep water tables and these soil types are suitable for onsite septic systems. This parcel is within the Basin Management Action Plan (BMAP) Springs Priority Focus Area recently established by the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection requiring nitrogen-reducing septic systems on parcels of land less than one acre in size. No

karst features and no signs of karst activity were observed on this parcel during this study. Below is a map from the soil survey showing the location and extent of the expected soil types on this parcel.



Natural Features Inventory

The natural features and biological data acquired from traversing the 30 parallel transects on foot revealed two ecological features / vegetative communities on this property (Altered Uplands and Upland Mixed Woodland). 12.96 acres +/- of this 14.35 acres parcel are Altered Uplands. No wetlands or hydric soils were observed on this parcel during this study period. Humans have altered most of this parcel by conducting silvicultural activities in the form of timber / pine tree harvesting, growth, and production. Dogfennel is the dominant vegetation throughout the altered area of this parcel. Genetically altered slash pines are planted in straight rows on 6 ft centers and are the second-most dominant species within the altered acreage of this parcel.

Approximately 1.39 acres +/- of this parcel are Upland Mixed Woodland. The Upland Mixed Woodland area is a high quality mature forest dominated by native longleaf pines and laurel oak trees in the canopy and wild blueberry and yaupon holly in the subcanopy and groundcover. No wetlands or hydric soils were observed in this wooded area during this study period. See

Exhibit A for the location of the ecological features on this parcel. The following is a list of the dominate species observed on this parcel during this study in order of domination:

Altered Uplands / Planted Pines = 12.96 acres +/-

Dogfennel (*Eupatorium capillifolium*)
Planted Slash Pines (*Pinus elliottii* – genetically altered)
Blackberry (*Rubus* spp.)
Yaupon Holly (*Ilex vomitoria*)
American Beautyberry (*Callicarpa Americana*)
Winged Sumac (*Rhus copallina*)
Numerous species of flowering vines and weeds

Upland Mixed Woodland = 1.39 ac +/-

Longleaf Pine (*Pinus palustris*)
Laurel Oak (*Quercus hemisphaerica*)
Wild Blueberry (*Vaccinium* spp.)
Yaupon Holly (*Ilex vomitoria*)
Southern Wild Grape (*Vitis* spp.)

Protected Species

At the request of Apalachee Environmental, Inc., a Threatened / Endangered Species Assessment was conducted by the Florida Natural Areas Inventory (FNAI). FNAI provided a report on March 06, 2019 (See Exhibit E). In their report, FNAI states that rare species and natural communities may be identified on or near the site based on computer models. The report then recommends that “professionals familiar with Florida’s flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.” A qualified and experienced biologist with Apalachee Environmental, Inc. did not observe any of the protected species listed in the FNAI report during the inspections conducted on the site as part of this environmental assessment (Note – There are millions of individual specimens on this parcel and to identify every single specimen to the species level was not feasible with the time constraints and budget allowed for this project). The only natural community existing on this parcel is the high-quality native forest (Upland Mixed Woodland) comprising approximately 1.39 ac +/- located on the west side of this parcel, as shown and described in this environmental assessment report provided by Apalachee Environmental, Inc.

In their report, FNAI listed an actual observation and occurrence of a protected species (Eastern Indigo Snake *Drymarchon couperi*); however, this documented observation of a protected species occurred in 1982 and is approximately 1.4 miles away (to the southeast) of this project site.

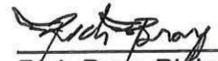
Archaeological & Historical Resources

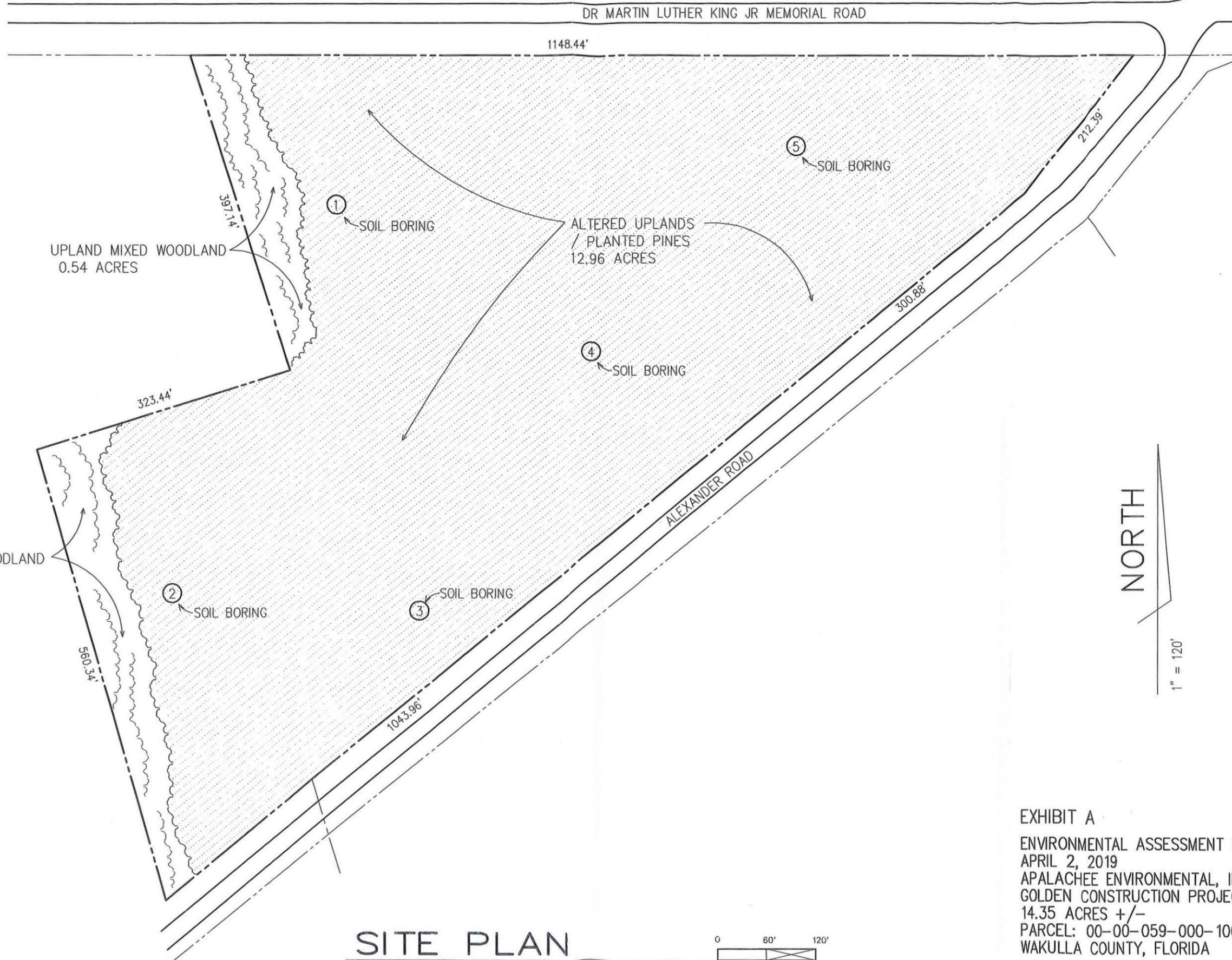
At the request of Apalachee Environmental, Inc., an Archaeological and Historical Resources Assessment of the site was conducted by the Florida Department of State – Division of Historical Resources (FDOS). The FDOS issued a report on April 01, 2019 (See Exhibit F). In the report, the FDOS states,

"A review of the Florida Master Site File indicates that the project area is in the vicinity of a recorded archaeological site, 8WA23, whose eligibility for inclusion in the National Register of Historic Places has not been evaluated. Further, the project area has not been surveyed for historical and archaeological resources. Based on the potential for the discovery of cultural resources during ground-disturbing activities, we recommend that the project area be subjected to a professional cultural resources assessment survey. The resultant survey report should conform to the provisions of Chapter 1A-46, Florida Administrative Code, and should be sent to our office upon completion. The report will help us complete the review process and provide comments or recommendations to the permitting agency in a timely fashion."

Golden Construction hired a professional to conduct the cultural resources assessment survey requested by the FDOS and can provide copies of that report upon request.

- This concludes the Environmental Assessment & Historical Resources Report -

 4-02-19
Rich Bray, Biologist / Arborist
Apalachee Environmental, Inc.
850-445-5300
richbray@embarqmail.com



SITE PLAN

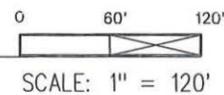
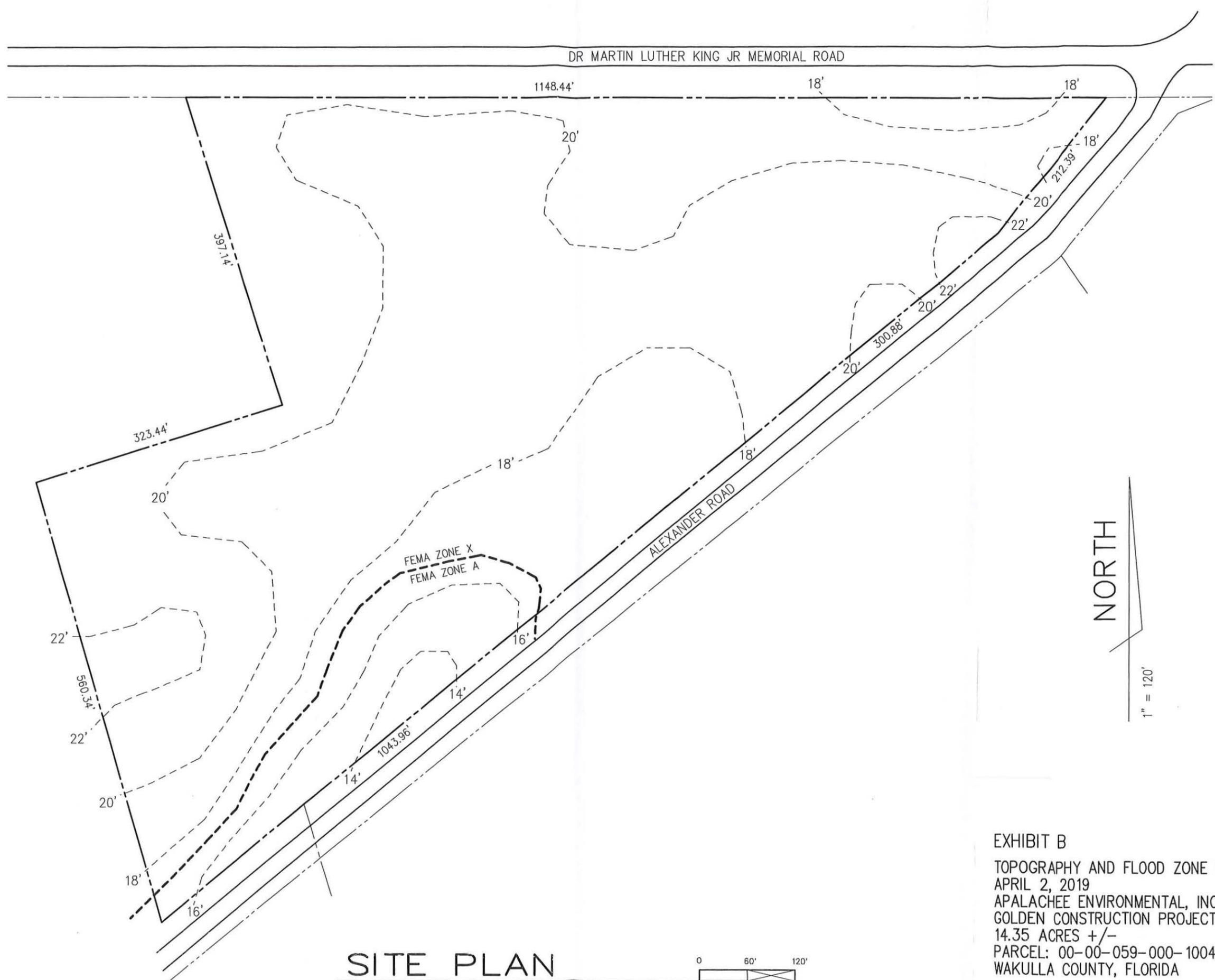
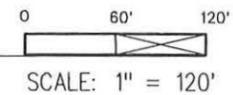


EXHIBIT A
 ENVIRONMENTAL ASSESSMENT MAP
 APRIL 2, 2019
 APALACHEE ENVIRONMENTAL, INC.
 GOLDEN CONSTRUCTION PROJECT
 14.35 ACRES +/-
 PARCEL: 00-00-059-000-10047-000
 WAKULLA COUNTY, FLORIDA



SITE PLAN



NORTH

1" = 120'

EXHIBIT B
 TOPOGRAPHY AND FLOOD ZONE MAP
 APRIL 2, 2019
 APALACHEE ENVIRONMENTAL, INC.
 GOLDEN CONSTRUCTION PROJECT
 14.35 ACRES +/-
 PARCEL: 00-00-059-000-10047-000
 WAKULLA COUNTY, FLORIDA



Exhibit C

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT #.

APPLICANT: GOLDEN Construction AGENT: Robby Miller

LOT: BLOCK: SUBDIVISION: DR MARTIN LUTHER KING JR Road

PROPERTY ID #: 00.00.059.000.10047.000 [Section/Township/Parcel No. or Tax ID Number]

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTMENT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEERS MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

PROPERTY SIZE CONFORMS TO SITE PLAN: [X] YES [] NO NET USABLE AREA AVAILABLE: 14.35 ACRES
TOTAL ESTIMATED SEWAGE FLOW: * GALLONS PER DAY [RESIDENCES-TABLE 1/OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: 35,875 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: SQFT UNOBSTRUCTED AREA REQUIRED: * SQFT

BENCHMARK/REFERENCE POINT LOCATION:
ELEVATION OF PROPOSED SYSTEM SITE IS [] [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES
SURFACE WATER: NA FT DITCHES/SWALES: 15 FT NORMALLY WET? [] YES [X] NO
WELLS: PUBLIC: NA FT LIMITED USE: NA FT PRIVATE: NA FT NON-POTABLE: NA FT
BUILDING FOUNDATIONS: 5 FT PROPERTY LINES: 5 FT POTABLE WATER LINES: 2 FT

SITE SUBJECT TO FREQUENT FLOODING: [] YES [X] NO 10 YEAR FLOODING? [] YES [X] NO
10 YEAR FLOOD ELEVATION FOR SITE: NA FT MSL/NGVD SITE ELEVATION: NA FT MSL/NGVD

Table with 3 columns: MUNSELL #/COLOR, TEXTURE, DEPTH. Contains soil profile data for Site 1, including layers like 5R 5/1, 10R 6/2, 10R 7/4, 5R 8/1, 7.5R 5/4, 2.5R 7/1, and 5R 7/1. USDA SOIL SERIES: otela Like

Table with 3 columns: MUNSELL #/COLOR, TEXTURE, DEPTH. Contains soil profile data for Site 2, including layers like 5R 5/1, 10R 6/2, 10R 7/4, 5R 8/1, and 2.5R 5/8 C+PRF. USDA SOIL SERIES: Ortega Like

OBSERVED WATER TABLE: 72 INCHES [ABOVE/BELOW] EXISTING GRADE. TYPE: [PERCHED/APARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 50 INCHES [ABOVE/BELOW] EXISTING GRADE
HIGH WATER TABLE VEGETATION: [] YES [X] NO MOTTLING: [X] YES [] NO DEPTH: 50 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: F, Sand 0.80 DEPTH OF EXCAVATION: 69 INCHES
DRAINFIELD CONFIGURATION: [X] TRENCH [] BED [] OTHER (SPECIFY)
REMARKS/ADDITIONAL CRITERIA: This soil is suitable for AN ONSITE SEPTIC SYSTEM.
* Exact SYSTEM Size & SPECS DEPEND ON FUTURE FLOOR PLANS of Proposed Structure(S).
Recommend excavating discontinuous clay to 69" & replace with clean sand prior to system installation.

SITE EVALUATED BY: Rich Bray, CERT. 17-0036 DATE: 3-29-19



Exhibit C

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT #.

APPLICANT: GOLDEN Construction AGENT: Robby Miller

LOT: BLOCK: SUBDIVISION: DR MARTIN LUTHER KING JR Road

PROPERTY ID #: 00-00-059-000-10047-000 [Section/Township/Parcel No. or Tax ID Number]

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTMENT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEERS MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

PROPERTY SIZE CONFORMS TO SITE PLAN: [X] YES [] NO NET USABLE AREA AVAILABLE: 14.35 ACRES
TOTAL ESTIMATED SEWAGE FLOW: * GALLONS PER DAY [RESIDENCES-TABLE 1/OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: 35,875 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: SQFT UNOBSTRUCTED AREA REQUIRED: * SQFT

BENCHMARK/REFERENCE POINT LOCATION:
ELEVATION OF PROPOSED SYSTEM SITE IS [] [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES
SURFACE WATER: NA FT DITCHES/SWALES: 15 FT NORMALLY WET? [] YES [X] NO
WELLS: PUBLIC: NA FT LIMITED USE: NA FT PRIVATE: NA FT NON-POTABLE: NA FT
BUILDING FOUNDATIONS: 5 FT PROPERTY LINES: 5 FT POTABLE WATER LINES: 2 FT

SITE SUBJECT TO FREQUENT FLOODING: [] YES [X] NO 10 YEAR FLOODING? [] YES [X] NO
10 YEAR FLOOD ELEVATION FOR SITE: NA FT MSL/NGVD SITE ELEVATION: NA FT MSL/NGVD

SOIL PROFILE INFORMATION SITE (3)
MUNSELL #/COLOR TEXTURE DEPTH
SUR 5/1 F. Sand 0 TO 6"
10UR 6/2 F. Sand 6 TO 12
10UR 6/3 F. Sand 12 TO 35
7. SUR 6/4 DISC. CLAY 35 TO 70
2. SUR 7/1 C+PRF DISC. CLAY 43 TO 70
SUR 7/1 F. Sand 70 TO 72"
USDA SOIL SERIES: Otela Like

SOIL PROFILE INFORMATION SITE (4)
MUNSELL #/COLOR TEXTURE DEPTH
SUR 5/1 F. Sand 0 TO 5"
10UR 6/2 F. Sand 5 TO 12
10UR 7/4 F. Sand 12 TO 31
SUR 8/1 F. Sand 31 TO 72
7. SUR 5/4 Lamellae F. Sand 50 TO 72"
USDA SOIL SERIES: ALPIN Like

OBSERVED WATER TABLE: 72 INCHES [ABOVE/BELOW] EXISTING GRADE. TYPE: [PERCHED/APARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 43 INCHES [ABOVE/BELOW] EXISTING GRADE
HIGH WATER TABLE VEGETATION: [] YES [X] NO MOTTLING: [X] YES [] NO DEPTH: 43 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: F. Sand 0.80 DEPTH OF EXCAVATION: 70 INCHES
DRAINFIELD CONFIGURATION: [X] TRENCH [] BED [] OTHER (SPECIFY)

REMARKS/ADDITIONAL CRITERIA: This soil is suitable for AN ONSITE SEPTIC SYSTEM.
* Exact SYSTEM Size & SPECS DEPEND ON FUTURE FLOOR PLANS of Proposed Structure(s).
Recommend Excavating discontinuous clay to 70" & REPLACE with clean sand prior to system installation.

SITE EVALUATED BY: Rich Bray, CERT. 17-0036 DATE: 3-29-19



Exhibit C

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT #.

APPLICANT: GOLDEN Construction AGENT: Robby Miller

LOT: BLOCK: SUBDIVISION: DR MARTIN LUTHER KING JR ROAD

PROPERTY ID #: 00-00-059-000-10047-000 [Section/Township/Parcel No. or Tax ID Number]

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTMENT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEERS MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

PROPERTY SIZE CONFORMS TO SITE PLAN: [X] YES [] NO NET USABLE AREA AVAILABLE: 14.35 ACRES
TOTAL ESTIMATED SEWAGE FLOW: * GALLONS PER DAY [RESIDENCES-TABLE 1/OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: 35,875 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: SQFT UNOBSTRUCTED AREA REQUIRED: * SQFT

BENCHMARK/REFERENCE POINT LOCATION:
ELEVATION OF PROPOSED SYSTEM SITE IS [] [INCHES/FT] [] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES
SURFACE WATER: NA FT DITCHES/SWALES: 15 FT NORMALLY WET? [] YES [X] NO
WELLS: PUBLIC: NA FT LIMITED USE: NA FT PRIVATE: NA FT NON-POTABLE: NA FT
BUILDING FOUNDATIONS: 5 FT PROPERTY LINES: 5 FT POTABLE WATER LINES: 2 FT

SITE SUBJECT TO FREQUENT FLOODING: [] YES [X] NO 10 YEAR FLOODING? [] YES [X] NO
10 YEAR FLOOD ELEVATION FOR SITE: NA FT MSL/NGVD SITE ELEVATION: NA FT MSL/NGVD

Table with 3 columns: MUNSELL #/COLOR, TEXTURE, DEPTH. Includes handwritten soil profile data for site 5 and USDA SOIL SERIES: ALPIN LIKE.

Table with 3 columns: MUNSELL #/COLOR, TEXTURE, DEPTH. Includes USDA SOIL SERIES field.

OBSERVED WATER TABLE: 72 INCHES [] ABOVE/BELOW [] EXISTING GRADE. TYPE: [] PERCHED/APARENT []
ESTIMATED WET SEASON WATER TABLE ELEVATION: 72 INCHES [] ABOVE/BELOW [] EXISTING GRADE
HIGH WATER TABLE VEGETATION: [] YES [X] NO MOTTLING: [] YES [X] NO DEPTH: NA INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: F. Sand 0.80 DEPTH OF EXCAVATION: NA INCHES
DRAINFIELD CONFIGURATION: [X] TRENCH [] BED [] OTHER (SPECIFY)
REMARKS/ADDITIONAL CRITERIA: This soil is suitable for AN ONSITE SEPTIC SYSTEM.
* Exact SYSTEM Size + SPECS DEPEND ON FUTURE FLOOR PLANS of Proposed Structure(S).

SITE EVALUATED BY: Rich Bray, CERT. 17-0036 DATE: 3-29-19

Ocilla soils, which are similar to the Lutterloh soil but have a loamy subsoil between depths of 20 and 40 inches. Also occurring are some similar soils that are underlain by limestone bedrock.

Included in this map unit are small areas of dissimilar soils. These are Plummer, Ridgewood, Otela, and Ortega soils. Plummer soils are lower on the landscape than the Lutterloh soil and are poorly drained. Ridgewood soils are sandy throughout. Otela and Ortega soils are in the higher positions and are better drained than the Lutterloh soil. Also, Ortega soils are sandy throughout. Dissimilar soils make up about 15 percent of the map unit.

This Lutterloh soil has a seasonal high water table at a depth of 18 to 30 inches for 2 to 4 months of the year and at a depth of 30 to 72 inches for most of the remainder of the year. The available water capacity is very low in the surface layer and subsurface layer and is moderate in the subsoil. Permeability is rapid in the surface layer and subsurface layer and is moderate in the subsoil. The organic matter content is moderately low, and natural fertility is low.

The natural vegetation includes longleaf pine, slash pine, and mixed hardwoods, such as white oak, live oak, laurel oak, sweetgum, hickory, dogwood, and persimmon. The understory consists of native grasses and shrubs, such as huckleberry, briars, and pineland threawn.

This soil has severe limitations affecting cultivated crops because of periodic wetness and droughtiness in the root zone. The variety of suitable crops that can be grown is very limited unless intensive water-control measures are used. With adequate water control, corn, soybeans, and peanuts are moderately well suited to this soil. Close-growing, soil-improving cover crops should be included in the rotation with row crops at least two-thirds of the time. Applications of lime and fertilizer are needed for the best yields.

This soil has moderate limitations affecting hay and pasture. Proper management is needed to obtain maximum yields. Coastal bermudagrass, bahiagrass, and clover are well suited to this soil. These plants respond well to applications of fertilizer and lime. A simple drainage system is needed to remove excess subsurface water during wet periods. Controlled grazing helps to maintain plant vigor and obtain optimum yields.

The potential of this soil for the production of slash pine, loblolly pine, and longleaf pine is high. A moderate equipment limitation, seedling mortality, and plant competition are the main management concerns. Slash pine and loblolly pine are the preferred trees to plant.

This soil has severe limitations affecting septic tank

absorption fields, trench and area sanitary landfills, shallow excavations, dwellings with basements, small commercial buildings, lawns and landscaping, and golf fairways. It has moderate limitations affecting dwellings without basements and local roads and streets. The wetness is the main limitation.

This soil has severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The main limitations are the wetness and the sandy texture of the surface layer.

The land capability classification is IIIe.

4—Alpin sand, 0 to 5 percent slopes. This nearly level to gently undulating, excessively drained soil is on the uplands. The mapped areas are irregular in shape and range from 5 to 200 acres in size.

Typically, the surface layer is grayish brown sand about 3 inches thick. The subsurface layer is sand. It extends to a depth of about 42 inches. The upper part is light yellowish brown, and the lower part is very pale brown. The subsoil, to a depth of 80 inches or more, is very pale brown and white sand that has thin lamellae of brownish yellow loamy sand.

Other soils occurring in areas of this map unit include Lakeland and Ortega soils, which are similar to the Alpin soil but do not have thin bands of loamy material at a depth of more than 40 inches. Ortega soils are slightly lower on the landscape than the Alpin soil.

Included in this map unit are small areas of dissimilar soils. These are Shadeville, Hurricane, and Otela soils. Shadeville soils have a loamy subsoil between depths of 20 and 40 inches and are underlain by limestone. Hurricane soils are lower on the landscape than the Alpin soil and are somewhat poorly drained. Otela soils are in the lower positions on the landscape, are moderately well drained, and have a loamy subsoil at a depth of more than 40 inches. Dissimilar soils make up about 12 percent of the map unit.

This Alpin soil has a water table at a depth of more than 72 inches. The available water capacity is low in the surface layer, very low in the subsurface layer, and low in the subsoil. Permeability is moderately rapid in the surface layer, rapid in the subsurface layer, and moderately rapid in the subsoil. The organic matter content and natural fertility are low.

The natural vegetation includes longleaf pine, turkey oak, bluejack oak, laurel oak, and blackjack oak. The understory consists of honeysuckle, pineland threawn, and running oak.

This soil has severe limitations affecting cultivated crops. Intensive management practices are needed in cultivated areas. Droughtiness and rapid leaching of

plant nutrients limit the variety of plants that can be grown and reduce the potential yield of adapted crops. In the more sloping areas, row crops should be planted on the contour in alternating strips with close-growing cover crops. The cover crops should be grown at least three-fourths of the time. Only a few crops can produce high yields without irrigation. Irrigation generally is feasible if water is readily available.

This soil has moderate limitations affecting hay and pasture. Deep-rooted plants, such as coastal bermudagrass and bahiagrass, are well suited to this soil, but yields are reduced by the periodic droughtiness. Regular applications of lime and fertilizer are needed for the best yields. Controlled grazing helps to maintain plant vigor and obtain optimum yields.

The potential of this soil for the production of slash pine and loblolly pine is moderately high. The equipment limitation and seedling mortality are the main management concerns. Slash pine and loblolly pine are the preferred trees to plant.

This soil has severe limitations affecting trench and area sanitary landfills, shallow excavations, lawns and landscaping, and golf fairways. Seepage and the sandy texture of the soil are limitations.

This soil has severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The main limitation is the sandy texture of the surface layer.

The land capability classification is IVs.

6—Bayvi, Isles, and Estero soils, frequently flooded. These soils are nearly level and are very poorly drained. They are in the tidal marsh areas on the gulf coast and are flooded daily by high tides. Slopes are smooth and are 0 to 1 percent.

In 95 percent of the areas mapped as Bayvi, Isles, and Estero soils, frequently flooded, the major soils and similar soils make up 95 percent of the map unit. Generally, the mapped areas are about 48 percent Bayvi and similar soils, 32 percent Isles soils, and 15 percent Estero and similar soils. Dissimilar soils make up about 5 percent. Individually, the soils in this map unit may not occur in every mapped area. The relative proportion of the major soils and similar soils varies. The areas of the individual soils are large enough to map separately. Because of the present and predicted land uses, however, they were mapped as one unit. The percentage of Isles and other soils that are underlain by limestone bedrock greatly decreases in areas southwest of Spring Creek.

Typically, the Bayvi soil has a very dark brown mucky sand surface layer about 26 inches thick. The

underlying material is sand. The upper part, to a depth of about 50 inches, is dark gray, and the lower part, to a depth of 80 inches or more, is dark grayish brown.

The Bayvi soil is flooded daily by normal high tides. The available water capacity is high in the surface layer and very low in the underlying material. Permeability is moderately rapid in the surface layer and rapid in the underlying material. The organic matter content is moderate in the surface layer and moderately low in the underlying material. Natural fertility is low.

Typically, the Isles soil has a black sand surface layer about 9 inches thick. The subsurface layer, to a depth of about 35 inches, is dark grayish brown sand. The subsoil, to a depth of about 51 inches, is greenish gray sandy clay loam. Limestone bedrock is at a depth of about 51 inches.

The Isles soil is flooded daily by normal high tides. The available water capacity is moderate in the surface layer, low in the subsurface layer, and high in the subsoil. Permeability is rapid in the surface layer and subsurface layer and is moderate in the subsoil. The organic matter content is moderate in the surface layer and subsurface layer and is moderately low in the subsoil. Natural fertility is low.

Typically, the upper part of the surface layer of the Estero soil is very dark gray muck about 4 inches thick. The lower part, to a depth of about 14 inches, is very dark grayish brown sand. The subsurface layer, to a depth of about 34 inches, is grayish brown sand. The subsoil, to a depth of about 54 inches, is very dark brown sand. The substratum, to a depth of 80 inches or more, is dark grayish brown sand.

The Estero soil is flooded daily by normal high tides. The available water capacity is high in the surface layer and very low or low in the subsurface layer and in the subsoil. Permeability is moderately rapid. The organic matter content is moderate in the surface layer and moderately low in the subsurface layer and in the subsoil. Natural fertility is low.

Other soils occurring in areas of this map unit include some soils that are similar to the Bayvi and Estero soils but are underlain by limestone between depths of 40 and 80 inches.

Included in this map unit are some small areas of dissimilar soils. These are Chaires, Leon, and Tooles soils, which are in slightly elevated areas. Also included are some soils that have a high concentration of saline bands in the surface layer. These soils are around the elevated areas and along transition areas to the marsh.

The natural vegetation consists mainly of needlerush, saltgrass, smooth cordgrass, and marshhay cordgrass.

The soils in this map unit generally are not used for

cultivated crops, for hay crops or pasture, or for woodland. They are not suited to cultivated crops. Wetness and salinity are severe limitations affecting cropland. Trees do not grow on these soils.

These soils have severe limitations affecting septic tank absorption fields, trench and area sanitary landfills, shallow excavations, dwellings with or without basements, small commercial buildings, local roads and streets, lawns and landscaping, and golf fairways. The wetness and the flooding are the main limitations.

These soils have severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The wetness is the main limitation.

The land capability classification is VIIIw.

7—Otela fine sand, 0 to 5 percent slopes. This nearly level to gently sloping, moderately well drained soil is on low knolls and broad uplands. The mapped areas are elongated or irregular in shape and range from 5 to 200 acres in size.

Typically, the surface layer is grayish brown fine sand about 7 inches thick. The upper part of the subsurface layer, to a depth of about 23 inches, is light gray fine sand. The next part, to a depth of about 58 inches, is white fine sand. The lower part, to a depth of about 67 inches, is a transitional layer of loamy fine sand mottled with shades of red, brown, yellow, and white. The subsoil, to a depth of about 80 inches, is light gray fine sandy loam mottled with strong brown and brownish yellow.

Other soils occurring in areas of this map unit include Shadeville soils, which are similar to the Otela soil but have a loamy subsoil between depths of 20 and 40 inches and are underlain by limestone at a depth of 30 to 60 inches.

Included in this map unit are small areas of dissimilar soils. These are Alpin, Lutterloh, and Ortega soils. Alpin soils are sandy and have lamellae. They are better drained than the Otela soil. Lutterloh soils are lower on the landscape than the Otela soil and are somewhat poorly drained. Ortega soils are sandy. Dissimilar soils make up about 15 percent of the map unit.

This Otela soil has a perched water table above the subsoil during wet periods. Generally, the water table is at a depth of more than 72 inches. The available water capacity is very low in the surface layer and subsurface layer and is moderate in the subsoil. Permeability is rapid in the surface layer and subsurface layer and is moderate in the subsoil. The organic matter content and natural fertility are low.

The natural vegetation includes mainly slash pine,

loblolly pine, longleaf pine, bluejack oak, red oak, and live oak. The understory consists of dwarf huckleberry and pineland threeweed.

This soil has severe limitations affecting most cultivated crops. Droughtiness and rapid leaching of plant nutrients limit the choice of plants that can be grown and reduce the potential yield of adapted crops. In the more sloping areas, row crops should be planted on the contour in alternating strips with close-growing cover crops. Planting soil-improving cover crops and leaving crop residue on the surface help to maintain fertility and control erosion. Irrigation generally is feasible if water is readily available.

This soil has moderate limitations affecting hay and pasture. Deep-rooted plants, such as coastal bermudagrass and improved bahiagrass, are well suited to this soil, but yields are reduced by the periodic droughtiness. Regular applications of lime and fertilizer are needed for the best yields. Controlled grazing helps to maintain plant vigor and a good ground cover.

The potential of this soil for the production of pine trees is moderately high. The equipment limitation, seedling mortality, and plant competition are the main management concerns. Slash pine is the preferred tree to plant.

This soil has moderate limitations affecting septic tank absorption fields, trench sanitary landfills, dwellings with basements, lawns and landscaping, and golf fairways. It has severe limitations affecting area sanitary landfills and shallow excavations. The wetness and the sandy texture of the soil are limitations.

This soil has severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The sandy texture of the surface layer is the main limitation.

The land capability classification is IIIa.

8—Otela sand, 5 to 8 percent slopes. This moderately sloping, moderately well drained soil is on low knolls and side slopes adjacent to stream channels in the uplands. The mapped areas are elongated or irregular in shape and range from 5 to 50 acres in size.

Typically, the surface layer is dark grayish brown sand about 6 inches thick. The subsurface layer is sand. It extends to a depth of about 48 inches. The upper part is yellowish brown, the next part is light yellowish brown, and the lower part is very pale brown. The subsoil is sandy clay loam to a depth of 80 inches or more. The upper part, to a depth of about 62 inches, is brownish yellow mottled with strong brown. The next part, to a depth of about 74 inches, is very pale brown

The natural vegetation includes water-tolerant hardwoods, such as water oak, sweetbay, blackgum, sweetgum, red maple, black willow, common alder, and cypress. Pond pine and slash pine grow on the edge of the delineations and in high areas.

The soils in this map unit generally are not used for cultivated crops, for hay crops or pasture, or for pine tree production. Severe limitations affect these uses. The wetness and the ponding are the main limitations.

These soils have severe limitations affecting septic tank absorption fields, trench and area sanitary landfills, shallow excavations, dwellings with or without basements, small commercial buildings, local roads and streets, lawns and landscaping, and golf fairways. The wetness and the ponding are the main limitations affecting most of these uses.

These soils have severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The ponding and the excess humus are the main limitations affecting most of these uses.

The land capability classification is VIIw.

17—Ortega sand, 0 to 5 percent slopes. This nearly level to gently undulating, moderately well drained soil is on side slopes or in concave areas on the sandy uplands and is on convex knolls on flatwoods. The mapped areas are irregular in shape and range from 5 to 300 acres in size.

Typically, the surface layer is light gray sand about 3 inches thick. The underlying material extends to a depth of about 80 inches. In sequence downward, it is light yellowish brown sand, brownish yellow fine sand, very pale brown fine sand, very pale brown fine sand mottled with reddish yellow, and white sand mottled with strong brown.

Other soils occurring in areas of this map unit include Alpin and Lakeland soils, which are similar to the Ortega soil but are in slightly higher positions on the landscape and are better drained. Also occurring are small areas of soils that are similar to the Ortega soil but have a thicker surface layer.

Included in this map unit are small areas of dissimilar soils. These are Shadeville, Hurricane, Otela, Ridgewood, and Scranton soils. Shadeville and Otela soils have a loamy subsoil. Hurricane, Ridgewood, and Scranton soils are lower on the landscape than the Ortega soil and are more poorly drained. Dissimilar soils make up about 15 percent of the map unit.

In most years this Ortega soil has a seasonal high water table that fluctuates between depths of 60 and 72

inches for more than 6 months of the year and is at a depth of 42 to 60 inches for 1 to 3 months during periods of heavy rainfall. The available water capacity is low in the surface layer and very low in the underlying material. Permeability is rapid. The organic matter content and natural fertility are low.

The natural vegetation includes mainly longleaf pine, slash pine, and turkey oak. The understory consists of pineland threeawn.

This soil has severe limitations affecting most cultivated crops. Droughtiness and rapid leaching of plant nutrients limit the choice of plants that can be grown and reduce the potential yield of adapted crops. When it is within a depth of 50 inches, the water table increases the amount of available water in the root zone. In very dry periods, however, it drops too low for any beneficial effects. Cover crops should be grown at least two-thirds of the time. Applications of lime and fertilizer are needed for the best yields. Planting soil-improving cover crops and leaving crop residue on the surface help to maintain fertility and control erosion. Irrigation generally is feasible if water is readily available. Tile drains or other drains are needed to reduce the crop damage caused by the high water table during the growing season. Intensive management of soil fertility and water is required.

This soil has moderate limitations affecting hay and pasture. The droughtiness and rapid leaching of nutrients are the main limitations. Deep-rooted plants, such as coastal bermudagrass and bahiagrass, are well suited to this soil, but applications of lime and fertilizer are needed for the best yields. Controlled grazing is needed to maintain plant vigor and obtain maximum yields. Intensive management of soil fertility and water is required.

The potential of this soil for the production of longleaf pine and slash pine is moderately high. The droughtiness and the sandy texture of this soil are the main limitations. Slash pine is the preferred tree to plant.

This soil has severe limitations affecting trench and area sanitary landfills, shallow excavations, lawns and landscaping, and golf fairways. It has moderate limitations affecting septic tank absorption fields and dwellings with basements. The wetness and the hazard of seepage are the main management concerns.

This soil has severe limitations affecting the development of camp areas, picnic areas, playgrounds, and paths and trails. The sandy texture of the surface layer is the main limitation.

The land capability classification is IIIs.



Exhibit E

March 6, 2019

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-6207
fax 850-681-9364
www.fnai.org

Rich Bray
Apalachee Environmental, Inc.
1115 Domingo Drive
Tallahassee, FL 32304

Dear Mr. Bray,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project: Land Use Change – Golden Construction
Date Received: 03/04/19
Location: Wakulla County

Element Occurrences

A search of our maps and database indicates that we currently have a few element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Tracking Florida's Biodiversity

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

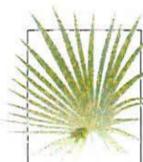
Thank you for your use of FNAI services. An invoice will be mailed separately. If I can be of further assistance, please contact me at (850) 224-8207 or at kbrinegar@fnai.fsu.edu.

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
www.fnai.org

FLORIDA
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Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive

Point Indicates General Vicinity of Element

U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves



Land Acquisition Projects

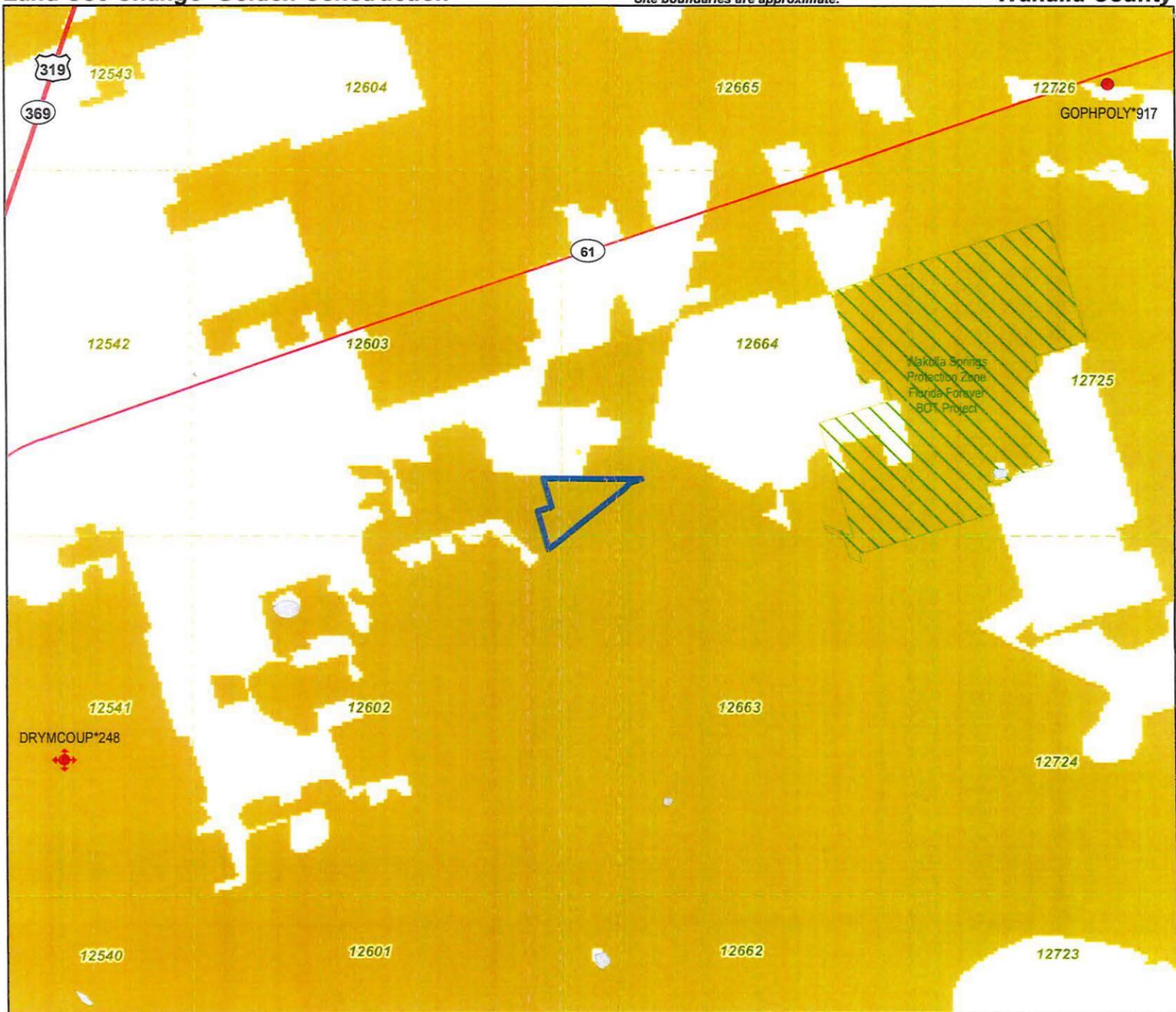
Florida Forever Board of Trustees Projects

FNAI Rare Species Habitat

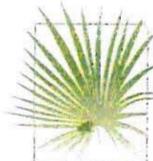
FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water

NOTE
Map should not be interpreted without accompanying documents.



Map produced by KAB
3/6/2019



118 Thomasville Road
 Suite 200-C
 Tallahassee, FL 32303
 (850) 224-8207
 (850) 681-9364 Fax
 www.fnai.org

FLORIDA
 Natural Areas
 INVENTORY

FNAI ELEMENT OCCURRENCE REPORT on or near
Land Use Change- Golden Construction



| Map Label | Scientific Name | Common Name | Global State Federal State Observation | | | | Date | Description | EO Comments |
|--------------|---------------------------|----------------------|--|------|--------|---------|----------|------------------------------|---|
| | | | Rank | Rank | Status | Listing | | | |
| DRYMC0UP*248 | <i>Drymarchon couperi</i> | Eastern Indigo Snake | G3 | S3 | T | FT | 1982 pre | No general description given | 1982-Pre (post-1970): K. Hill (FL Game & Fresh Water Fish Commission) observed indigo near Crawfordville (1981-12-14 interview of K. Hill by P. Moler: U82MOL01FLUS). |



| Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing |
|---|------------------------------|-------------|------------|----------------|---------------|
| Matrix Unit ID: 12602 | | | | | |
| Likely | | | | | |
| Upland hardwood forest | | G5 | S3 | N | N |
| <i>Ursus americanus floridanus</i> | Florida Black Bear | G5T2 | S2 | N | N |
| Potential | | | | | |
| <i>Agrimonia incisa</i> | incised groove-bur | G3 | S2 | N | T |
| <i>Ambystoma cingulatum</i> | Frosted Flatwoods Salamander | G2 | S1S2 | T | FT |
| <i>Amphiuma pholeter</i> | One-toed Amphiuma | G3 | S3 | N | N |
| <i>Asclepias viridula</i> | southern milkweed | G2 | S2 | N | T |
| <i>Athene cunicularia floridana</i> | Florida Burrowing Owl | G4T3 | S3 | N | ST |
| <i>Calamovilfa curtissii</i> | Curtiss' sandgrass | G3 | S3 | N | T |
| <i>Carex chapmannii</i> | Chapman's sedge | G3 | S3 | N | T |
| <i>Drymarchon couperi</i> | Eastern Indigo Snake | G3Q | S3 | T | FT |
| <i>Forestiera godfreyi</i> | Godfrey's swampprivet | G2 | S2 | N | E |
| <i>Gopherus polyphemus</i> | Gopher Tortoise | G3 | S3 | C | ST |
| <i>Helianthus debilis</i> ssp. <i>cucumerifolius</i> | cucumberleaf dune sunflower | G5T5 | S3 | N | N |
| <i>Heterodon simus</i> | Southern Hognose Snake | G2 | S2 | N | N |
| <i>Leitneria floridana</i> | corkwood | G3 | S3 | N | T |
| <i>Liatris provincialis</i> | Godfrey's blazing star | G2 | S2 | N | E |
| <i>Litsea aestivalis</i> | pondspice | G3? | S2 | N | E |
| <i>Lythrum curtissii</i> | Curtiss' loosestrife | G1 | S1 | N | E |
| <i>Matelea floridana</i> | Florida spiny-pod | G2 | S2 | N | E |
| <i>Myotis austroriparius</i> | Southeastern Bat | G4 | S3 | N | N |
| <i>Neofiber alleni</i> | Round-tailed Muskrat | G3 | S3 | N | N |
| <i>Notophthalmus perstriatus</i> | Striped Newt | G2G3 | S2 | C | N |
| <i>Peucaea aestivalis</i> | Bachman's Sparrow | G3 | S3 | N | N |
| <i>Phyllanthus liebmannianus</i> ssp. <i>platylepis</i> | pinewoods dainties | G4T2 | S2 | N | E |
| <i>Picoides borealis</i> | Red-cockaded Woodpecker | G3 | S2 | E | FE |
| <i>Pityopsis flexuosa</i> | zigzag silkgrass | G3 | S3 | N | E |
| <i>Rhexia parviflora</i> | small-flowered meadowbeauty | G2 | S2 | N | E |
| <i>Rhexia salicifolia</i> | Panhandle meadowbeauty | G2 | S2 | N | T |
| <i>Ruellia noctiflora</i> | nightflowering wild petunia | G3? | S2 | N | E |
| <i>Schisandra glabra</i> | bay star-vine | G3 | S2 | N | E |
| <i>Xyris scabrifolia</i> | Harper's yellow-eyed grass | G3 | S3 | N | T |
| Matrix Unit ID: 12603 | | | | | |
| Likely | | | | | |
| Mesic flatwoods | | G4 | S4 | N | N |
| Upland hardwood forest | | G5 | S3 | N | N |
| <i>Ursus americanus floridanus</i> | Florida Black Bear | G5T2 | S2 | N | N |
| Potential | | | | | |
| <i>Agrimonia incisa</i> | incised groove-bur | G3 | S2 | N | T |
| <i>Amphiuma pholeter</i> | One-toed Amphiuma | G3 | S3 | N | N |
| <i>Asclepias viridula</i> | southern milkweed | G2 | S2 | N | T |
| <i>Athene cunicularia floridana</i> | Florida Burrowing Owl | G4T3 | S3 | N | ST |
| <i>Carex chapmannii</i> | Chapman's sedge | G3 | S3 | N | T |

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.



| Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing |
|---|-----------------------------|-------------|------------|----------------|---------------|
| <i>Drymarchon couperi</i> | Eastern Indigo Snake | G3Q | S3 | T | FT |
| <i>Forestiera godfreyi</i> | Godfrey's swampprivet | G2 | S2 | N | E |
| <i>Gopherus polyphemus</i> | Gopher Tortoise | G3 | S3 | C | ST |
| <i>Helianthus debilis</i> ssp. <i>cucumerifolius</i> | cucumberleaf dune sunflower | G5T5 | S3 | N | N |
| <i>Heterodon simus</i> | Southern Hognose Snake | G2 | S2 | N | N |
| <i>Leitneria floridana</i> | corkwood | G3 | S3 | N | T |
| <i>Liatris provincialis</i> | Godfrey's blazing star | G2 | S2 | N | E |
| <i>Litsea aestivalis</i> | pondspice | G3? | S2 | N | E |
| <i>Lythrum curtissii</i> | Curtiss' loosestrife | G1 | S1 | N | E |
| <i>Matelea floridana</i> | Florida spiny-pod | G2 | S2 | N | E |
| <i>Myotis austroriparius</i> | Southeastern Bat | G4 | S3 | N | N |
| <i>Neofiber alleni</i> | Round-tailed Muskrat | G3 | S3 | N | N |
| <i>Notophthalmus perstriatus</i> | Striped Newt | G2G3 | S2 | C | N |
| <i>Peucaea aestivalis</i> | Bachman's Sparrow | G3 | S3 | N | N |
| <i>Phyllanthus liebmannianus</i> ssp. <i>platylepis</i> | pinewoods dainties | G4T2 | S2 | N | E |
| <i>Picoides borealis</i> | Red-cockaded Woodpecker | G3 | S2 | E | FE |
| <i>Pityopsis flexuosa</i> | zigzag silkgrass | G3 | S3 | N | E |
| <i>Rhexia parviflora</i> | small-flowered meadowbeauty | G2 | S2 | N | E |
| <i>Rhexia salicifolia</i> | Panhandle meadowbeauty | G2 | S2 | N | T |
| <i>Schisandra glabra</i> | bay star-vine | G3 | S2 | N | E |

Matrix Unit ID: 12663

Likely

| | | | | | |
|------------------------------------|--------------------|------|----|---|---|
| Upland hardwood forest | | G5 | S3 | N | N |
| <i>Ursus americanus floridanus</i> | Florida Black Bear | G5T2 | S2 | N | N |

Potential

| | | | | | |
|---|------------------------------|------|------|---|----|
| <i>Agrimonia incisa</i> | incised groove-bur | G3 | S2 | N | T |
| <i>Ambystoma cingulatum</i> | Frosted Flatwoods Salamander | G2 | S1S2 | T | FT |
| <i>Amphiuma pholeter</i> | One-toed Amphiuma | G3 | S3 | N | N |
| <i>Asclepias viridula</i> | southern milkweed | G2 | S2 | N | T |
| <i>Athene cunicularia floridana</i> | Florida Burrowing Owl | G4T3 | S3 | N | ST |
| <i>Calamovilfa curtissii</i> | Curtiss' sandgrass | G3 | S3 | N | T |
| <i>Carex chapmannii</i> | Chapman's sedge | G3 | S3 | N | T |
| <i>Drymarchon couperi</i> | Eastern Indigo Snake | G3Q | S3 | T | FT |
| <i>Forestiera godfreyi</i> | Godfrey's swampprivet | G2 | S2 | N | E |
| <i>Gopherus polyphemus</i> | Gopher Tortoise | G3 | S3 | C | ST |
| <i>Helianthus debilis</i> ssp. <i>cucumerifolius</i> | cucumberleaf dune sunflower | G5T5 | S3 | N | N |
| <i>Heterodon simus</i> | Southern Hognose Snake | G2 | S2 | N | N |
| <i>Leitneria floridana</i> | corkwood | G3 | S3 | N | T |
| <i>Liatris provincialis</i> | Godfrey's blazing star | G2 | S2 | N | E |
| <i>Litsea aestivalis</i> | pondspice | G3? | S2 | N | E |
| <i>Lythrum curtissii</i> | Curtiss' loosestrife | G1 | S1 | N | E |
| <i>Matelea floridana</i> | Florida spiny-pod | G2 | S2 | N | E |
| <i>Myotis austroriparius</i> | Southeastern Bat | G4 | S3 | N | N |
| <i>Neofiber alleni</i> | Round-tailed Muskrat | G3 | S3 | N | N |
| <i>Notophthalmus perstriatus</i> | Striped Newt | G2G3 | S2 | C | N |
| <i>Peucaea aestivalis</i> | Bachman's Sparrow | G3 | S3 | N | N |
| <i>Phyllanthus liebmannianus</i> ssp. <i>platylepis</i> | pinewoods dainties | G4T2 | S2 | N | E |

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.



| Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing |
|---------------------------|-----------------------------|-------------|------------|----------------|---------------|
| <i>Picoides borealis</i> | Red-cockaded Woodpecker | G3 | S2 | E | FE |
| <i>Pityopsis flexuosa</i> | zigzag silkgrass | G3 | S3 | N | E |
| <i>Rhexia parviflora</i> | small-flowered meadowbeauty | G2 | S2 | N | E |
| <i>Rhexia salicifolia</i> | Panhandle meadowbeauty | G2 | S2 | N | T |
| <i>Ruellia noctiflora</i> | nightflowering wild petunia | G3? | S2 | N | E |
| <i>Schisandra glabra</i> | bay star-vine | G3 | S2 | N | E |
| <i>Xyris scabrifolia</i> | Harper's yellow-eyed grass | G3 | S3 | N | T |

Matrix Unit ID: 12664

Likely

| | | | | | |
|------------------------------------|--------------------|------|----|---|---|
| Mesic flatwoods | | G4 | S4 | N | N |
| Upland hardwood forest | | G5 | S3 | N | N |
| <i>Ursus americanus floridanus</i> | Florida Black Bear | G5T2 | S2 | N | N |

Potential

| | | | | | |
|--|-----------------------------|------|----|---|----|
| <i>Agrimonia incisa</i> | incised groove-bur | G3 | S2 | N | T |
| <i>Amphiuma pholeter</i> | One-toed Amphiuma | G3 | S3 | N | N |
| <i>Asclepias viridula</i> | southern milkweed | G2 | S2 | N | T |
| <i>Athene cunicularia floridana</i> | Florida Burrowing Owl | G4T3 | S3 | N | ST |
| <i>Calamovilfa curtissii</i> | Curtiss' sandgrass | G3 | S3 | N | T |
| <i>Carex chapmannii</i> | Chapman's sedge | G3 | S3 | N | T |
| <i>Drymarchon couperi</i> | Eastern Indigo Snake | G3Q | S3 | T | FT |
| <i>Forestiera godfreyi</i> | Godfrey's swampprivet | G2 | S2 | N | E |
| <i>Gopherus polyphemus</i> | Gopher Tortoise | G3 | S3 | C | ST |
| <i>Helianthus debilis ssp. cucumerifolius</i> | cucumberleaf dune sunflower | G5T5 | S3 | N | N |
| <i>Heterodon simus</i> | Southern Hognose Snake | G2 | S2 | N | N |
| <i>Leitneria floridana</i> | corkwood | G3 | S3 | N | T |
| <i>Liatris provincialis</i> | Godfrey's blazing star | G2 | S2 | N | E |
| <i>Litsea aestivalis</i> | pondspice | G3? | S2 | N | E |
| <i>Lythrum curtissii</i> | Curtiss' loosestrife | G1 | S1 | N | E |
| <i>Matelea floridana</i> | Florida spiny-pod | G2 | S2 | N | E |
| <i>Myotis austroriparius</i> | Southeastern Bat | G4 | S3 | N | N |
| <i>Neofiber alleni</i> | Round-tailed Muskrat | G3 | S3 | N | N |
| <i>Notophthalmus perstriatus</i> | Striped Newt | G2G3 | S2 | C | N |
| <i>Peucaea aestivalis</i> | Bachman's Sparrow | G3 | S3 | N | N |
| <i>Phyllanthus liebmannianus ssp. platylepis</i> | pinewoods dainties | G4T2 | S2 | N | E |
| <i>Picoides borealis</i> | Red-cockaded Woodpecker | G3 | S2 | E | FE |
| <i>Pityopsis flexuosa</i> | zigzag silkgrass | G3 | S3 | N | E |
| <i>Rhexia parviflora</i> | small-flowered meadowbeauty | G2 | S2 | N | E |
| <i>Rhexia salicifolia</i> | Panhandle meadowbeauty | G2 | S2 | N | T |
| <i>Ruellia noctiflora</i> | nightflowering wild petunia | G3? | S2 | N | E |
| <i>Schisandra glabra</i> | bay star-vine | G3 | S2 | N | E |
| <i>Xyris scabrifolia</i> | Harper's yellow-eyed grass | G3 | S3 | N | T |

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 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.

Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

Element Ranking and Legal Status

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

FNAI GLOBAL ELEMENT RANK

- G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** = Apparently secure globally (may be rare in parts of range).
- G5** = Demonstrably secure globally.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTR** = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4** = Apparently secure in Florida (may be rare in parts of range).
- S5** = Demonstrably secure in Florida.
- SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

E = Endangered: species in danger of extinction throughout all or a significant portion of its range.

E, T = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

E, PDL = Species currently listed endangered but has been proposed for delisting.

E, PT = Species currently listed endangered but has been proposed for listing as threatened.

E, XN = Species currently listed endangered but tracked population is a non-essential experimental population.

T = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

PE = Species proposed for listing as endangered

PS = Partial status: some but not all of the species' infraspecific taxa have federal

PT = Species proposed for listing as threatened

SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

C = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

FXN = Federal listed as an experimental population in Florida

FT(S/A) = Federal Threatened due to similarity of appearance

ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.

SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)

N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

E = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

T = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

N = Not currently listed, nor currently being considered for listing.

Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

- A** = Excellent estimated viability
- A?** = Possibly excellent estimated viability
- AB** = Excellent or good estimated viability
- AC** = Excellent, good, or fair estimated viability
- B** = Good estimated viability
- B?** = Possibly good estimated viability
- BC** = Good or fair estimated viability
- BD** = Good, fair, or poor estimated viability
- C** = Fair estimated viability
- C?** = Possibly fair estimated viability
- CD** = Fair or poor estimated viability
- D** = Poor estimated viability
- D?** = Possibly poor estimated viability
- E** = Verified extant (viability not assessed)
- F** = Failed to find
- H** = Historical
- NR** = Not ranked, a placeholder when an EO is not (yet) ranked.
- U** = Unrankable
- X** = Extirpated

*For additional detail on the above ranks see: <http://www.natureserve.org/explorer/eorankguide.htm>

FNAI also uses the following EO ranks:

- H?** = Possibly historical
- F?** = Possibly failed to find
- X?** = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).



Exhibit F

FLORIDA DEPARTMENT OF STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Apalachee Environmental, Inc.
1115 Domingo Dr.
Tallahassee, Florida 32304

April 01, 2019

RE: DHR Project File No.: 2019-1350, Received by DHR: March 04, 2019
Project: *Land Use Change – Golden Construction*
County: Wakulla

To Whom It May Concern:

Our office reviewed the referenced project in accordance with Chapters 267.061 and 373.414, *Florida Statutes*, and implementing state regulations, for possible effects on historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value.

A review of the Florida Master Site File indicates that the project area is in the vicinity of a recorded archaeological site, 8WA23, whose eligibility for inclusion in the *National Register of Historic Places* has not been evaluated. As the project area is in moderately-well drained sandy soils on rises, knolls, and ridges of mesic uplands and excessively drained sandy soils on ridges and dunes of xeric uplands, the environmental conditions are conducive to archaeological sites. Further, the project area has not been surveyed for historical and archaeological resources. Based on the potential for the discovery of cultural resources during ground-disturbing activities, we recommend that the project area be subjected to a professional cultural resource assessment survey. The resultant survey report should conform to the provisions of Chapter 1A-46, *Florida Administrative Code*, and should be sent to our office upon completion. The report will help us complete the review process and provide comments or recommendations to the permitting agency in a timely fashion.

The Division of Historical Resources cannot endorse specific archaeological or historic preservation consultants. However, the American Cultural Resources Association maintains a listing of professional consultants at www.acra-crm.org, and the Register of Professional Archaeologists maintains a membership directory at www.rpanet.org. The Division encourages checking references and recent work history.

If you have any questions, please contact Kristen Hall, Historic Sites Specialist, by email at Kristen.Hall@dos.myflorida.com, or by telephone at 850.245.6342 or 800.847.7278.

Sincerely,

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
& State Historic Preservation Officer



CULTURAL RESOURCE ASSESSMENT SURVEY
OF THE 14.35 – ACRE REZONE PROPERTY,
WAKULLA COUNTY, FLORIDA.

**CULTURAL RESOURCE ASSESSMENT SURVEY
OF THE 14.35-ACRE REZONE PROPERTY,
WAKULLA COUNTY, FLORIDA**

Prepared for:

**Golden Construction, Inc.
111 Belle Forbes Lane
Crawfordville, Florida 32327**

Prepared by:



Florida's First Choice in Cultural Resource Management

**Archaeological Consultants, Inc.
8110 Blaikie Court, Suite A
Sarasota, Florida 34240
(941) 379-6206**

May 2019

**CULTURAL RESOURCE ASSESSMENT SURVEY
OF THE 14.35-ACRE REZONE PROPERTY,
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111 Belle Forbes Lane
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8110 Blaikie Court, Suite A
Sarasota, Florida 34240

Marion Almy - Project Manager
Elizabeth A. Horvath - Project Archaeologist
Melissa Walsh - Archaeologist

May 2019

EXECUTIVE SUMMARY

Archaeological Consultants, Inc. (ACI) conducted a cultural resource assessment survey (CRAS) of the 14.35-acre parcel at the southwest corner of Dr. Martin Luther King Jr. Memorial Road and Cajal Posey Road in Wakulla County for Golden Construction, Inc. The purpose of this investigation was to locate and identify any cultural resources within the area of potential effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). As defined in 36 CFR Part § 800.16(d), the APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." Based on the scale and nature of the activities, the project has a limited potential for any indirect (visual or audible) or cumulative effects outside the immediate footprint of construction. Therefore, the archaeological and historical APE are limited to the footprint of proposed activities within the existing boundaries of the project. The CRAS, conducted in February and May 2019, was conducted at the request of Wakulla County as part of the Comprehensive Plan amendment process. All work was carried out in accordance with Section 106 of the *National Historic Preservation Act* of 1966 (Public Law 89-655, as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*, effective August 2004), as well as Chapters 267 and 373, *Florida Statutes (FS)*, Chapter 1A-46, *Florida Administrative Code (FAC)*, and Florida's Coastal Management Program. All work was performed in accordance with the standards and guidelines contained in the *Cultural Resource Management Standards and Operational Manual: Module 3* (Florida Division of Historical Resources [FDHR] 2003). The Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

Archaeological background research, including a review of the Florida Master Site File (FMSF) and the NRHP, indicated that no archaeological sites are recorded within the APE, and only one is recorded within one mile. Based on this information, and a review of relevant site information for environmentally similar areas, the APE was considered to have a low to moderate archaeological potential. No archaeological sites were discovered during this CRAS.

Background research, including a review of the FMSF and the NRHP, revealed no previously recorded historic resources (50 years of age or more) within the APE, nor any within one mile. A review of the property appraiser's web site indicated that no historic buildings are located within the parcel (Harvey 2019). The aerial photographs did not depict any structures in the APE (USDA 1952, 1973). The field reconnaissance confirmed the absence of historic resources.

Based on the results of this CRAS, it is the professional opinion of ACI that the proposed undertaking will have no effect on any archaeological sites or historic resources that are listed, determined eligible, or that appear potentially eligible for listing in the NRHP.

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APPENDIX

Survey Log

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1.0 INTRODUCTION

Archaeological Consultants, Inc. (ACI) conducted a cultural resource assessment survey (CRAS) of the 14.35-acre parcel at the southwest corner of Dr. Martin Luther King Jr. Memorial Road and Alexander Road in Wakulla County for Golden Construction, Inc. The purpose of this investigation was to locate and identify any cultural resources within the area of potential effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). As defined in 36 CFR Part § 800.16(d), the APE is the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.” Based on the scale and nature of the activities, the project has a limited potential for any indirect (visual or audible) or cumulative effects outside the immediate footprint of construction. Therefore, the archaeological and historical APE are limited to the footprint of proposed activities within the existing boundaries of the project. The CRAS, conducted in February 2019, was conducted at the request of the County as part of the Comprehensive Plan amendment process. All work was carried out in accordance with Section 106 of the *National Historic Preservation Act* of 1966 (Public Law 89-655, as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*, effective August 2004), as well as Chapters 267 and 373, *Florida Statutes (FS)*, Chapter 1A-46, *Florida Administrative Code (FAC)*, and Florida’s Coastal Management Program. All work was performed in accordance with the standards and guidelines contained in the *Cultural Resource Management Standards and Operational Manual: Module 3* (Florida Division of Historical Resources [FDHR] 2003). The Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The field survey was preceded by background research, which served to provide an informed set of expectations concerning the kinds of cultural resources that might be anticipated within the APE, as well as a basis for evaluating any new sites discovered.

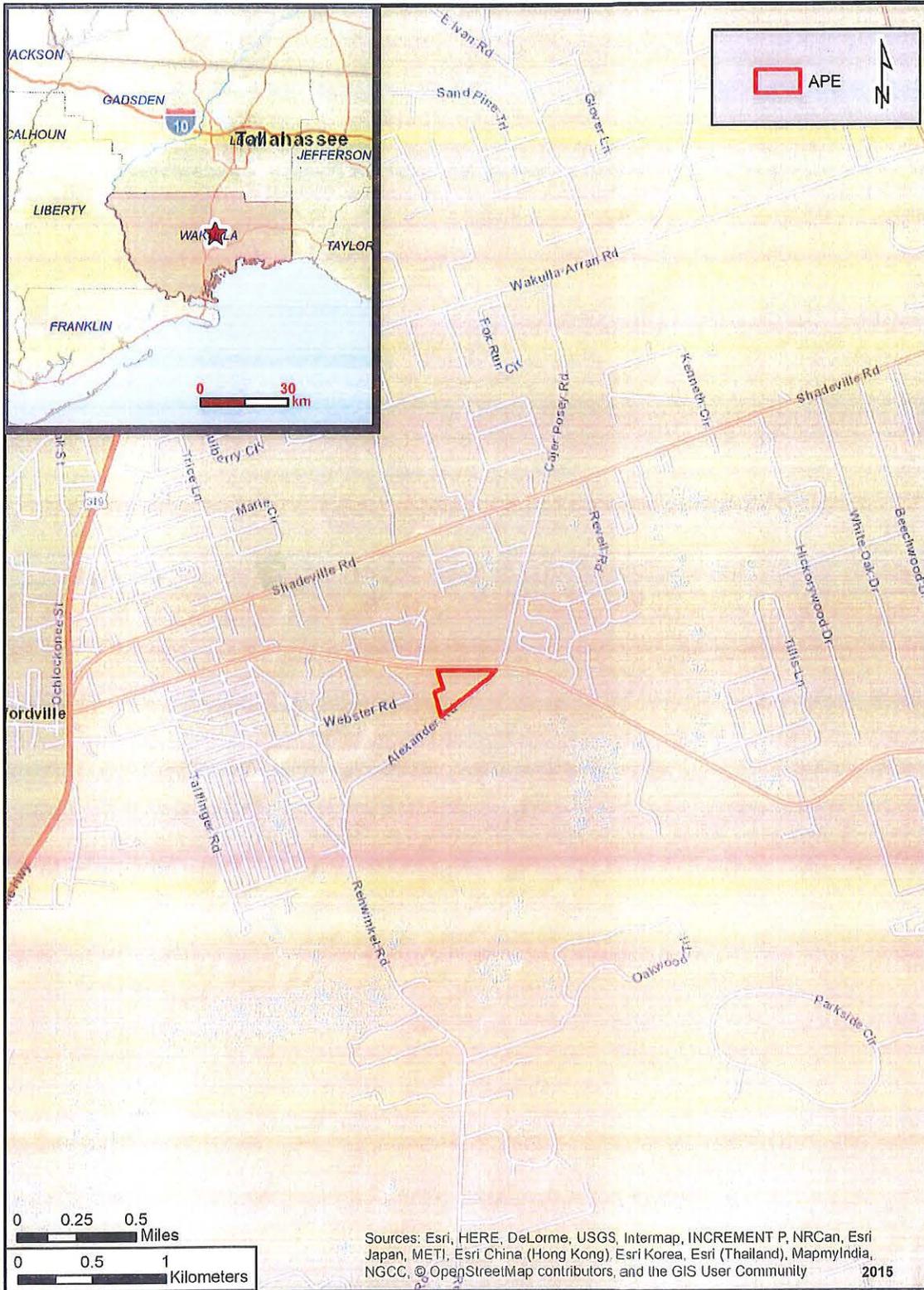


Figure 1.1. Location of the 14.35-acre parcel, Wakulla County.

2.0 ENVIRONMENTAL SETTING

Environmental factors such as geology, topography, relative elevation, soils, vegetation, and water are important in determining where archaeological sites were likely located. These variables influenced what types of resources were available in each area, which in turn influenced decisions regarding settlement location and land-use patterns. Because of the influence of these environmental factors upon the inhabitants, a discussion of the effective environment is included.

2.1 Location and Environment

The 14.35-acre parcel is in Sections 59, 60, and 71 of the Hartsfield Survey (United States Geological Survey [USGS] Crawfordville East 1973) (**Figure 2.1**). It is located at the southwest corner of Dr. Martin Luther King Jr. Memorial Road and Alexander Road. This parcel ranges from 4 to 6 meters (m) (15-20 feet [ft]) above mean sea level (amsl). The area had been planted pine, which was harvested in 2005. Most of the land was cleared of vegetation in 2013, although the western end remains wooded (**Photos 2.1 and 2.2**).

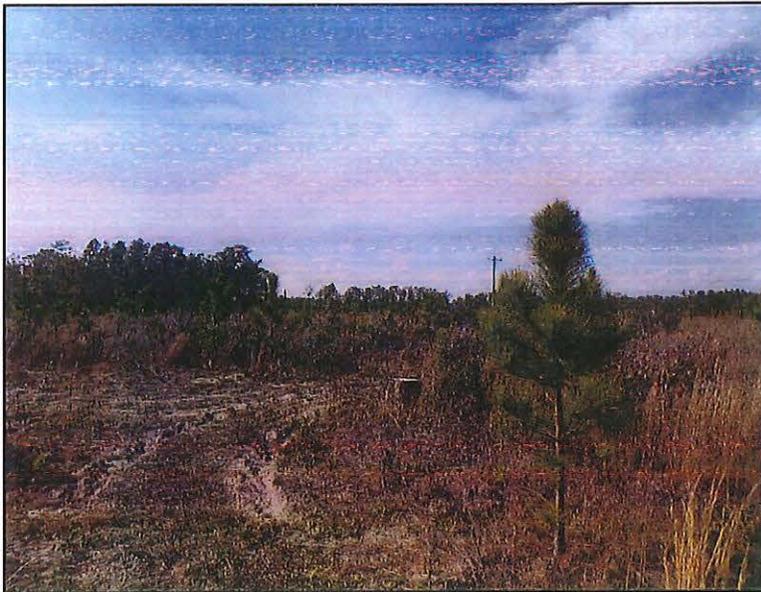


Photo 2.1. General project setting, facing east

2.2 Geomorphology and Geology

The property is within the north or proximal physiographic zone (White 1970) and more specifically within the Gulf Coastal Lowlands. The area is underlain by St. Marks formation limestone, which is surficially evidenced by limestone (Schmidt 1979; Scott 2001; Scott et al. 2001).

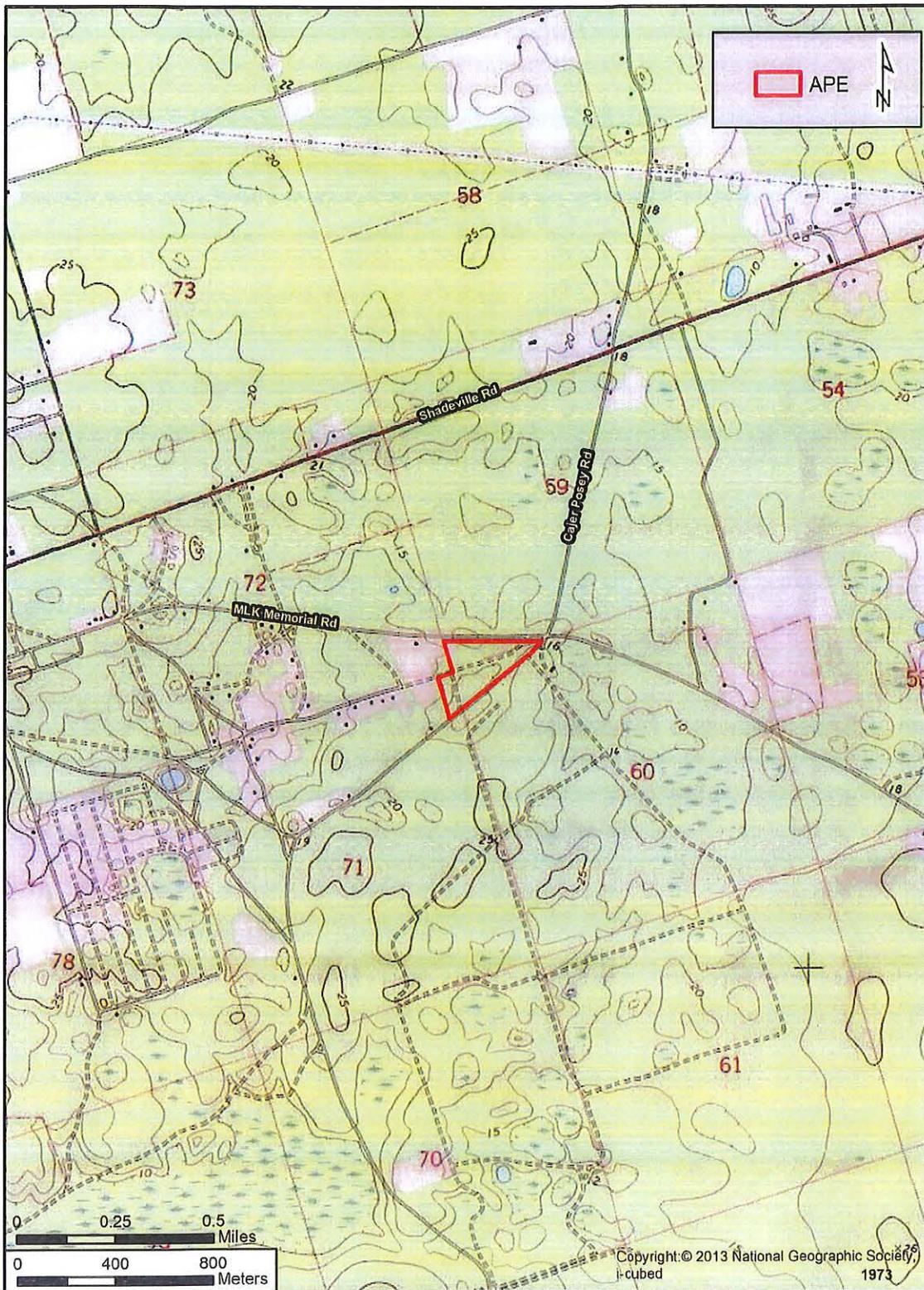


Figure 2.1. Environmental setting of the 14.35-acre parcel.



Photo 2.2. Western end of the property, facing north.

2.3 Soils and Vegetation

According to the U.S. Department of Agriculture (USDA), the property is underlain by the Otela-Alpin-Shadeville soil association that is characterized by nearly level to gently undulating, excessively drained and moderately well drained sandy soils on broad upland ridges. The *Natural Vegetation of Florida* map indicates that the area is within a zone of hardwood forest (Davis 1980). The native vegetation consists of slash pine, longleaf pine, loblolly pine, turkey oak, laurel oak, live oak, bluejack oak, and cabbage palm with an understory of blackberry, honeysuckle, dwarf huckleberry, chalky bluestem and pineland threeawn (Allen 1991). The property is specifically underlain by Alpin sand, 0-5% slopes; Otela sand, 0-5% slopes; and Ortega sand, 0-5% slopes (USDA 2017) (**Figure 2.2**). Ortega sand is moderately well drained and occurs on side slopes, in concave areas on the sandy uplands, and on convex knolls in the flatwoods, while Alpin sand is an excessively drained soil of the uplands. Otela sand is moderately well drained and occurs on low knolls and broad uplands (Allen 1991).

The soils support different vegetative regimes, which in turn provide habitats for the local animal population, and thus providing essential food resources. Soils have variable suitability for openland, woodland, and wetland habitats. The habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses, and legumes, and wild herbaceous plants. The wildlife attracted to these areas include bobwhite quail, dove, meadowlark, field sparrow, cottontail, and sparrow hawk. Both soils are rated fair for openland wildlife habitat. Woodland wildlife habitat includes area of deciduous plants or coniferous plants or both and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include turkey, thrushes, woodpeckers, squirrels, gray fox, racoon, wild hog, white-tailed deer, and owl. Both soils are rated fair for this type of habitat. The habitat for wetland wildlife includes areas of open, marshy, or swampy, shallow water areas. Wildlife in these areas include ducks, egrets, herons, ibis, kingfishers, alligators, mink, and otters. Neither soil is suitable for wetland habitats (Allen 1991:Table 7).

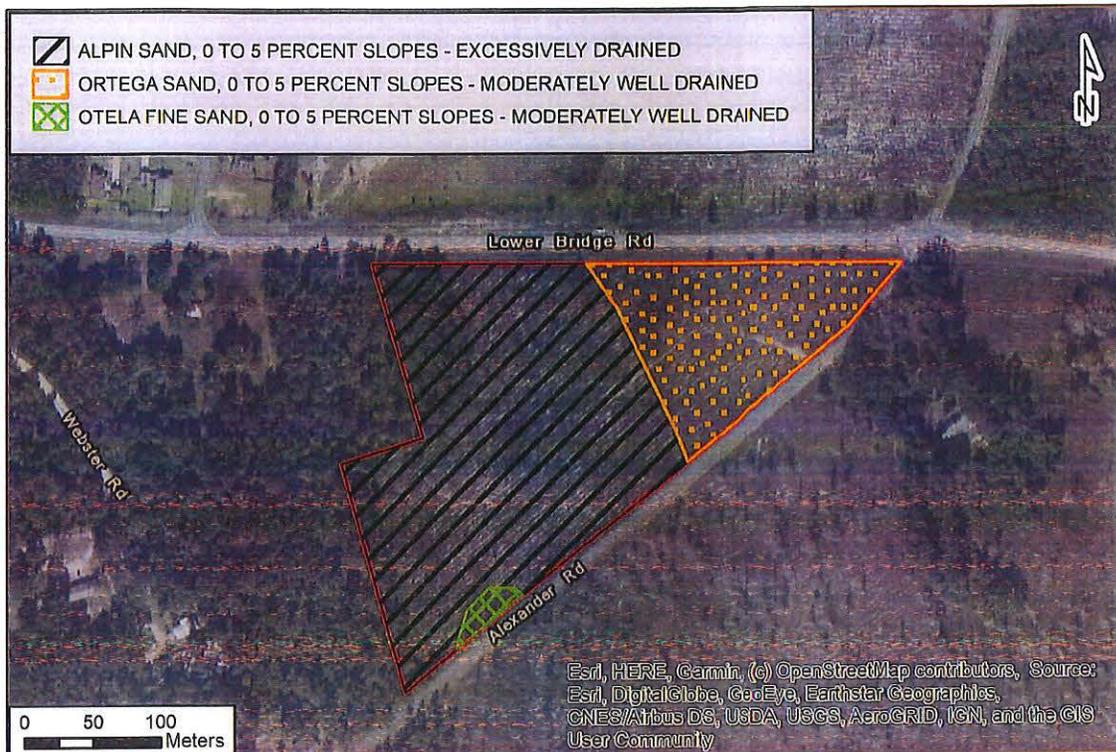


Figure 2.2. Soil types within the APE.

2.4 Paleoenvironmental Considerations

The early environment of the region was different from that seen today. Sea levels were lower, the climate was arid, and fresh water was scarce. An understanding of human ecology during the earliest periods of human occupation in Florida cannot be based on observations of the modern environment because of changes in water availability, botanical communities, and faunal resources. Aboriginal inhabitants would have developed cultural adaptations in response to the environmental changes taking place, which were then reflected in settlement patterns, site types, artifact forms, and subsistence economies.

Due to the arid conditions between 16,500 and 12,500 years ago, the perched water aquifer and potable water supplies were absent. Palynological studies conducted in Florida and Georgia suggest that between 13,000 and 5000 years ago, this area was covered with an upland vegetation community of scrub oak and prairie (Watts 1969, 1971, 1975). However, the environment was not static. Evidence recovered from the inundated Page-Ladson Site in north Florida has clearly demonstrated that there were two periods of low water tables and dry climatic conditions and two episodes of elevated water tables and wet conditions (Dunbar 2006c). The rise of sea level reduced xeric habitats over the next several millennia.

By 5000 years ago, a climatic event marking a brief return to Pleistocene climatic conditions induced a change toward more open vegetation. Southern pine forests replaced the oak savannahs. Extensive marshes and swamps developed along the coasts and subtropical hardwood forests became established along the southern tip of Florida (Delcourt and Delcourt 1981). Northern Florida saw an increase in oak species, grasses, and sedges (Carbone 1983). At Lake Annie, in south central Florida, wax myrtle and pine dominated pollen cores. The assemblage suggests that by this time, a forest dominated by longleaf pine along with cypress swamps and bayheads existed in the area (Watts 1971,

1975). About 5000 years ago, surface water was plentiful in karst terrains and the level of the Floridan aquifer rose to 1.5 m (5 ft) above present levels. With the establishment of warmer winters and cooler summers than in the preceding early Holocene, the fire-adapted pine communities prevailed. These depend on the high summer precipitation caused by the thunderstorms and the accompanying lightning strikes to spark the fires (Watts et al. 1996; Watts and Hansen 1994). The increased precipitation resulted in the formation of the large swamp systems such as the Okefenokee and Everglades (Gleason and Stone 1994). After this time, modern floral, climatic, and environmental conditions were established.

3.0 CULTURAL CHRONOLOGY

A discussion of the culture history of an area is included to provide a framework within which the local archaeological and historical records can be examined. Archaeological sites and historic features are not individual entities, but rather were part of once dynamic cultural systems. As a result, individual sites cannot be adequately examined or interpreted without reference to other sites and resources in the area. In general, the culture history of an area (i.e. an archaeological region) outlines the sequence of archaeological cultures through time. These cultures are defined largely in geographical terms, but also reflect shared environmental and cultural factors. The property is located within the Northwest Florida archeological region (Milanich 1994:xix), which extends west of the Aucilla River and includes the entire panhandle region (**Figure 3.1**). The Paleoindian, Archaic (Early, Middle, and Late), Woodland (Deptford, Swift Creek, Weeden Island), and Mississippian (Fort Walton) Stages have been defined by unique sets of material cultural traits such as stone tools and ceramics, as well as subsistence, settlement, and burial patterns (cf., Bense 1989; Brose and White 1999; Milanich 1994).

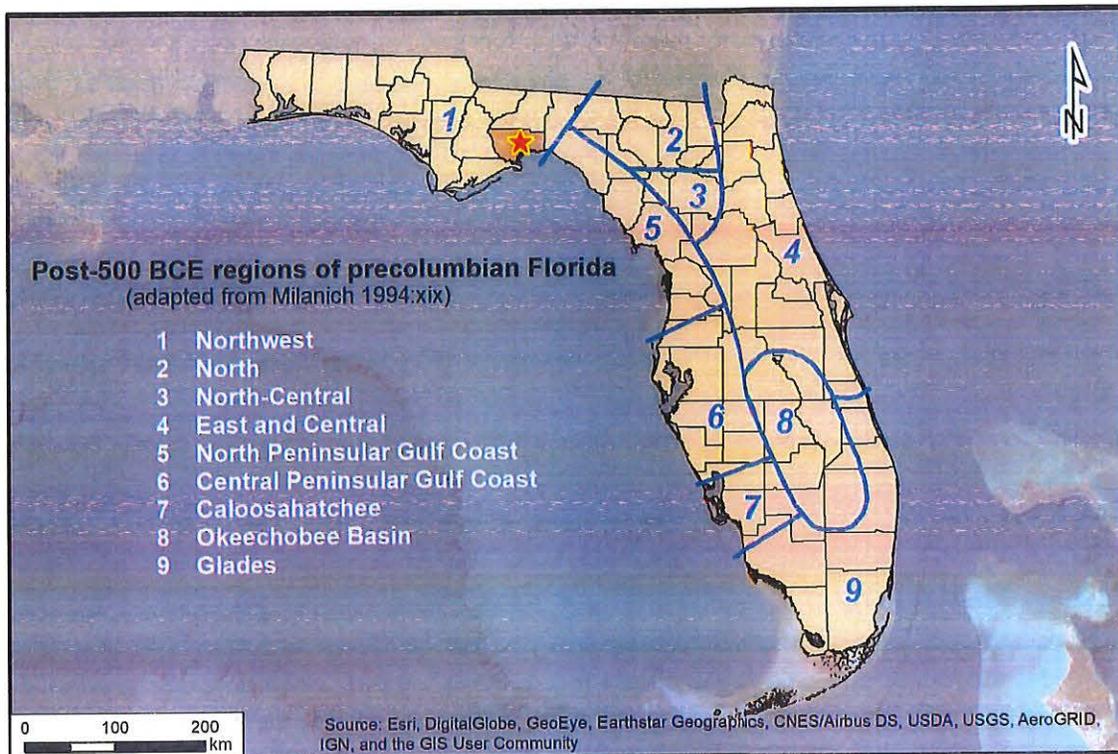


Figure 3.1. Florida Archaeological Regions.

The local history of the region is divided into four broad periods based initially upon the major governmental powers. The first period, Colonialism, occurred during the exploration and control of Florida by the Spanish and British from around 1513 until 1821. At that time, Florida became a territory of the United States and 21 years later became a State (Territorial and Statehood). The Civil War and Aftermath (1861-1899) period deals with the Civil War, the period of Reconstruction following the war, and the late 1800s, when the transportation systems were dramatically increased and development throughout the state expanded. The Twentieth Century has subperiods based on important historic events such as the World Wars, the Boom of the 1920s, and the Depression. Each of these periods evidenced differential development and utilization of the region, thus effecting the historic archeological site distribution across the land.

3.1 Paleoindian

The Paleoindian stage is the earliest known cultural manifestation in Florida, dating from roughly 20,000 to 7500 BCE (Before Common Era) (Milanich 1994; Webb and Dunbar 2006). Archaeological evidence for Paleoindians consists primarily of scattered finds of diagnostic lanceolate-shaped projectile points. The Florida peninsula at that time was quite different than today. In general, the climate was cooler and drier with vegetation typified by xerophytic species with scrub oak, pine, open grassy prairies, and savannas (Milanich 1994:40). When human populations were arriving in Florida, the sea levels were still as much as 40 to 60 m (130-200 ft) below present levels and coastal regions of Florida extended miles beyond present-day shorelines (Faught 2004). Thus, many sites have been inundated (Faught and Donoghue 1997).

The Paleoindian period has been sub-divided into three horizons based upon characteristic tool forms (Austin 2001). Traditionally, it is believed that the Clovis Horizon (10,500-9000 BCE) represents the initial occupation of Florida and is defined based upon the presence of the fluted Clovis points. These are somewhat more common in north Florida. Research suggests that Suwannee and Simpson points may be contemporary with or predate Clovis (Dunbar 2006a, 2016; Stanford et al. 2005). Research at the Page-Ladsen site, in the Aucilla River, has provided evidence of a Pre-Clovis occupation as early as 22,000 years ago, with the latest dated level from 4100 to 3400 years ago (Webb and Dunbar 2006). Pre-Clovis materials were also reported from the Sloth Hole site, also within the Aucilla River (Hemmings 1999). The Suwannee Horizon (9000-8500 BCE) is the best known of the three Paleoindian horizons. The lanceolate-shaped, unfluted Simpson and Suwannee projectile points are diagnostic of this time (Bullen 1975; Daniel and Wisenbaker 1987; Purdy 1981). The Suwannee tool kit includes a variety of scrapers, adzes, spokeshaves, unifacially retouched flakes, and blade-like flakes as well as bone and ivory foreshafts, pins, awls, daggers, anvils, and abraders (Austin 2001:23).

Following the Suwannee Horizon is the Late Paleoindian Horizon (8500-8000 BCE). The smaller Tallahassee, Santa Fe, and Beaver Lake projectile points have traditionally been attributed to this horizon (Milanich 1994). However, many of these points have been recovered stratigraphically from Late Archaic and Early Woodland period components and thus, may not date to this period at all (Austin 2001; Farr 2006). Florida notched or pseudo-notched points, including the Union, Greenbriar, and Hardaway-like points may represent late Paleoindian types, but these types have not been recovered from datable contexts and their temporal placement remains uncertain (Dunbar 2006a:410).

Archaeologists hypothesize that Paleoindians lived in migratory bands and subsisted by gathering and hunting, including the now-extinct Pleistocene megafauna. In addition, they likely trapped smaller animals such as mink, muskrat, and rabbit for their fur and medium sized mammal such as deer for food as well as raw materials for bone tools (Dunbar 2016; Dunbar and Vojnovski 2007). It is likely that these nomadic hunters traveled between permanent and semi-permanent sources of water, such as artesian springs, exploiting the available resources. These watering holes would have attracted the animals, thus providing food and drink. In addition to being tied to water sources, most Paleoindian sites are near excellent quality lithic resources. The settlement pattern consisted of the establishment of semi-permanent habitation areas and the movement of the resources from their sources of procurement to the residential locale by specialized task groups (Austin 2001:25).

Although the Paleoindian period is generally considered to have been cooler and drier, there were major variations in the inland water tables resulting from large-scale environmental fluctuations. There have been two major theories as to why most Paleoindian materials have been recovered from inundated sites. The Oasis theory, put forth by Wilfred T. Neill, was that due to low water tables and scarcity of potable water, the Paleoindians, and the game animals upon which they depended, clustered around the few available water holes that were associated with sinkholes (Neill 1964). Whereas, Ben

Waller postulated that the Paleoindians gathered around river-crossings to ambush the large Pleistocene animals as they crossed the rivers (Waller 1970). This implies periods of elevated water levels. Based on the research along the Aucilla and Wacissa Rivers, it appears that both theories are correct, depending upon what the local environmental conditions were at that time (Dunbar 2006b, 2016). As such, during the wetter periods, populations became more dispersed because the water resources were abundant and the animals that they relied on could roam over a wider range.

Some of the information about this period has been derived from the underwater excavations at two inland spring sites in Sarasota County: Little Salt Spring and Warm Mineral Springs (Clausen et al. 1979). Excavation at the Harney Flats Site in Hillsborough County has provided a rich body of data concerning Paleoindian life ways. Analysis indicates that this site was used as a quarry-related base camp with special-use activity areas (Daniel and Wisenbaker 1987). It has been suggested that Paleoindian settlement may not have been related as much to seasonal changes as generally postulated for the succeeding Archaic period, but instead movement was perhaps related to the scheduling of tool-kit replacement, social needs, and the availability of water, among other factors (Daniel and Wisenbaker 1987:175). Investigations along the Aucilla and Wacissa Rivers, as well as other sites within the north Florida rivers, have provided important information on the Paleoindian period and how the aboriginals adapted to their environmental setting (Webb 2006). Studies of the Pleistocene faunal remains from these sites clearly demonstrate the importance of these animals not for food alone, but as the raw material for their bone-tool industry (Dunbar and Webb 1996).

3.2 Archaic

As the Paleoindian period gradually ended, climatic changes occurred, and the Pleistocene megafauna disappeared. The disappearance of the mammoths and mastodons resulted in a reduction of open grazing lands, and thus, the subsequent disappearance of grazers such as horse, bison, and camels. With the reduction of open habitat, the more solitary, woodland browser, the white-tailed deer replaced the herd animals (Dunbar 2006a:426). The intertwined data of megafauna' extinction and cultural change suggests a rapid and significant disruption in both faunal and floral assemblages and the Bolen people represent the first culture adapted to the Holocene environment (Carter and Dunbar 2006). This included a more specialized toolkit and the introduction of chipped-stone woodworking implements.

However, because of a lack of excavated collections and the poor preservation of bone and other organic materials in the upland sites, our knowledge of the full range of the Early Archaic tool assemblages is uncertain (Carter and Dunbar 2006; Milanich 1994). Discoveries at the Page-Ladson, Little Salt Spring, and Windover sites indicate that bone and wood tools also were used (Clausen et al. 1979; Doran 2002; Webb 2006). The archaeological record suggests a diffuse, yet well-scheduled, pattern of exploiting both coastal and interior resources. Because water sources were much more numerous and larger than in earlier times, the Early Archaic peoples could sustain larger populations, occupy sites for longer periods, and perform activities that required longer occupation at a specific locale (Milanich 1994:67).

By approximately 6500 years ago, marked environmental changes, which had profound influence upon human settlement and subsistence practices, occurred. Humans adapted to this changing environment and regional and local differences are reflected in the archaeological record (Russo 1994a, 1994b; Sassaman 2008). Among the landscape alterations were rises in sea and water table levels that resulted in the creation of more available surface water. In addition to changed hydrological conditions, this period is characterized by the spread of mesic forests and the beginnings of modern vegetation communities including pine forests and cypress swamps.

The archaeological record for the Middle Archaic is better understood than the Early Archaic. Among the material culture inventory are several varieties of stemmed, broad blade projectile points including those of the Newnan, Levy, Marion, and Putnam types (Bullen 1975). Population growth, as evidenced by the increased number of sites and accompanied by increased socio-cultural complexity, occurred during this time (Milanich and Fairbanks 1980).

Middle Archaic sites recorded throughout the state include large base camps, smaller special-use campsites, quarries, and burial areas. The most common sites are the smaller campsites, which most likely were used for hunting or served as special-use extractive sites for activities such as gathering nuts or other botanical materials. At quarry sites, aboriginal populations mined stone for their tools. They usually roughly shaped the stone prior to transporting it to another locale for finishing. Larger artifact assemblages and a wider variety of tool forms define base camps.

During the Late Archaic period, population increased and became more sedentary. The broad bladed, stemmed projectile styles of the Middle Archaic continued to be made with the addition of Culbreath, Lafayette, Clay, and Westo point types (Bullen 1975). A greater reliance on marine resources is indicated in coastal areas. Subsistence strategies and technologies reflect the beginnings of an adaptation to these resources. By about 2000 BCE, there is evidence of fired clay pottery in Florida. The first ceramics types were tempered with fibers (Spanish moss or palmetto) and are referred to as the Orange or Norwood series. Initially, it was thought that the ceramics lacked decoration until about 1700 BCE when they were decorated with geometric designs and punctations. However, research has called this chronology into question; AMS dating of a series of incised Orange sherds from the middle St. Johns River valley, have produced dates contemporaneous with the plain varieties (Sassaman 2003).

Milanich (1994:86-87) suggests that while there may be little difference between Middle and Late Archaic populations, there are more Late Archaic sites and they were primarily located near wetlands. The abundant wetland resources allowed larger settlements to be maintained. It is likely that the change in settlement patterns is related to environmental changes. By the end of the Middle Archaic, the climate closely resembled that of today; vegetation changed from those species, which preferred moist conditions to pines and mixed forests (Watts and Hansen 1988). Sea levels rose inundating many sites located along the shoreline. The adaptation to this environment allowed for a wider variety of resources to be exploited and a wider variation in settlement patterns. No longer were the scarce waterholes dictating the location of sites. Shellfish, fish, and other food sources were now available from coastal and freshwater wetlands resulting in an increase population size.

The Transitional stage of the Late Archaic refers to that portion of the ceramic Archaic when sand was mixed with the fibers as a tempering agent. The same basic settlement and subsistence patterns were being followed. It has been suggested that during this period there was a diffusion of cultural traits due to the movement of small groups (Bullen 1959, 1965). This resulted in the appearance of several different ceramic and lithic tool traditions indicative of the beginning of cultural regionalism.

3.3 Woodland

The Deptford period (500 BCE – 150 CE [Common Era]) has been well documented as a coastal culture along the Gulf and Atlantic shorelines. Deptford has been described as having a coastal-riverine subsistence base, a Hopewellian religious complex, and a base camp-satellite camp settlement pattern (Bense 1989). The presence of shell middens marked the base camps. Typically, they were in live oak/hickory hammocks on barrier islands near brackish or fresh water (Milanich and Fairbanks 1980). Sea level rise since the Deptford period had inundated some sites and formed islands out of others. Smaller inland sites, probably for hunting, are also known, but less well understood. This

settlement pattern, begun in the Late Archaic, marks a definite shift in settlement toward the coastal lowlands. The collection of specialized non-coastal resources such as nuts, berries, and freshwater fish was carried out in the interior pine forests and river valleys. Archaeologists believe the Deptford people spent most of the year along the lagoons and salt marshes. Seasonally, small groups may have moved inland and up the rivers to exploit the riverine and hammock resources (Milanich and Fairbanks 1980:72). By about 100 CE, the settlement pattern began to change; villages were now being established in the interior, as opposed to only the special-use campsites (Milanich 1994:114).

Deptford pottery is easily identified and is characterized by linear patterns of small rectangles or squares on the outside of pots. Simple stamp, linear check stamp, and check stamp patterns were applied by pressing a carved wooden paddle into the moist clay prior to firing. Other pottery was decorated by wrapping the wooden paddle with a cord and pressing it into the moist clay. Spanish moss had been replaced by better tempering agents such as sand and grit. Lithic, worked shell, and worked bone artifacts tend to be scarce at Deptford sites, suggesting that wood was the primary raw material for their tools (Milanich 1994:126).

Evidence of culture change is manifest by the increased trade and interaction, construction of burial and other ceremonial mounds, and the movement of peoples into the interior on a permanent basis. Deptford peoples, along with contemporaneous American Woodland cultures, participated in an exchange of exotic items such as copper, mica, conch shells, ear spools, and ceramics and began to construct burial mounds. This ceremonialism, termed the Yent complex, was defined by Sears (1962) for the panhandle and north peninsula gulf coast area based upon the excavations at the Crystal River, Yent, and Pierce Mounds. Not all late Deptford sites appear to be associated with that complex as cremations and midden burials have been reported from non-mound sites.

Following the Deptford culture in eastern northwest Florida is Swift Creek, which occurred around 150-350 CE. In the archaeological record, the introduction of complicated stamped pottery evidences this. Again, wooden paddles, carved with elaborate and intricate rectilinear and curvilinear designs, were pressed into the damp clay to produce the decoration. Bense (1992) suggests that the replacement of the Deptford ceramics with the Swift Creek types was a gradual process. In addition to the discernible changes in the material record, there were also changes in mortuary ceremonialism (Sears 1962). Burial mounds with east-side ceramic caches replaced the continuous use mounds of the late Deptford and there is a marked increase in the inclusion of exotic ornaments and ceramics with individual burials.

Hunting, shellfish gathering, and wild plant food collecting continued but there is some evidence for increasing reliance on domesticated plants. Sites were occasionally located back from the coast in forested locales, but still in easy walking distance of the coast (Milanich 2002:358). Later, villages were established in the interior forests and river valleys as well as along the coast, and were likely occupied on a year-round basis (Milanich 1994). These are evidenced by horseshoe or circular midden deposits and may have an associated burial mound. Coastal villages may have a similar site plan as the inland villages, or they may be evidenced by large linear shell middens. In general, oyster and/or marsh clam are the main components of the shell middens, with other midden debris interspersed. In addition to villages, small special-use campsites are scattered throughout the region, including inland hunting camps and smaller coastal shell middens. Inland sites are generally found near streams or lakes.

Weeden Island (350-1000 CE) evolved out of the preceding Swift Creek culture. Originally, Weeden Island was divided into two chronological periods (I and II) based on village midden ceramic assemblages (Willey 1949; Willey and Woodbury 1942). Weeden Island I was identified by the presence of Swift Creek Complicated Stamped and Weeden Island Incised and Punctate ceramics.

Weeden Island II was identified by the lack of complicated stamping, a reduction in the frequencies of the Weeden Island Incised types, and the appearance of check-stamped ceramics in the archaeological record. Percy and Brose (1974) noted that these periods were based on ceramic assemblages and shifts in settlement patterns from interior base camps to dispersed coastal settlements and farmsteads. Further, they report that by Late Weeden Island times, agriculture became essential to the inland populations while marine resources remained the significant dietary staple for coastal populations. They also suggest that in the later part of the Late Woodland period, new settlements appear in the upper reaches of the bay systems. The settlements consist of several small villages and an associated burial mound. The appearance of these settlements may be the result of increased populations and resulting pressures on the food resources of the lower bays.

Ceremonialism and its expressions, such as the construction of complex burial mounds containing exotic and elaborate grave offerings, reached their greatest development during this time. Similarly, the subsistence economy, divided between maritime and terrestrial resources and perhaps horticultural products, represents the maximum effective adjustment to the environment. The settlement pattern resembles that of the preceding Swift Creek culture, although there are more Weeden Island sites (Milanich 1994). Coastal sites were located on barrier and the mainland coast proximate to freshwater and salt marshes. It may be during this time that the dichotomy between coastal and inland adaptations intensified (White 1986:173).

The interior villages are often located in the same location as the preceding Swift Creek villages, such as at the Aspalaga mound-village complex located along the Apalachicola River (Milanich 1994; Moore 1903; Percy and Brose 1974). In Leon County, it has been noted that clusters of Weeden Island sites occurred around Lakes Miccosukee and Iamonia (Tesar 1980). These may represent the continued occupation of the ecologically more productive locales by growing populations. As villages became too large to function effectively, new villages budded off and older villages were abandoned (Milanich 2002:358). Sites were generally located next to a permanent source of water within a mesic hammock. Villages were also close to other aquatic habitats, sand hills, pine scrub, and flatwoods which would have provided an optimal setting for the collecting their requisite resources (Milanich et al. 1984; Sigler-Lavelle 1980).

The presence of Weeden Island ceramic types distinguishes the artifact assemblage. These are among some of the finest ceramics in the southeast; they are often thin, well fired, burnished, and decorated with incising, punctations, complicated stamping, and animal effigies (Milanich 1994:211). These ceramics can be divided into three categories - mortuary pottery, prestige/elite pottery, and utilitarian wares. It should be noted that undecorated ceramics are most common in the village areas whereas the decorated types are most often associated with the burial mounds. Milanich and his colleagues note that greater time and effort were spent on the manufacture of the decorated wares as opposed to the undecorated wares and the elite pottery was better made (Milanich et al. 1984).

The late Weeden Island period in northwest Florida is referred to as Wakulla Weeden Island based upon the predominance of check-stamped ceramics in the non-mound ceramic assemblages. This period revealed not only changes in the secular ceramics, but in mound ceremonialism, settlement patterns, and economic systems (Milanich 2002:362). This period, ca. 700-1000 CE, reflects the adoption of maize agriculture into the Weeden Island subsistence economy (Milanich 1994:194). It is not certain, however, whether agriculture became an important part of the coastal people's economy. Within the interior portions of the panhandle, the number of sites increased, and site locations were now located in areas previously uninhabited. This may have been due to the increase in population as well as the need for suitable agricultural lands. There is also a lack of large nucleated villages and mound centers. Although mounds were still used, they were no longer associated with extensive ceremonialism; they were for interment of family members (Milanich 1994:197). Wakulla Weeden

Island sites are more common, but smaller in size than the preceding Weeden Island sites. This may be due to the use of slash and burn maize agriculture that would have resulted in rapid soil exhaustion, requiring the periodic relocation of the fields. This system did not support the nucleated settlement patterns of the previous eras (Milanich 2002:362).

3.4 Mississippian

The Fort Walton period has been described as the most politically complex culture in Florida and the regional culture with the densest population (Milanich 1994:355). Fort Walton was an indigenous adaptation contemporaneous with other southeastern Mississippian societies that were evolving toward greater complexity through internal reorganization (White 1986:210). Characteristics of this time include mound building, intensification of agriculture, and hierarchical settlement arrangements like other southeastern Mississippian societies.

Cultural contacts with other southeast cultures apparently brought innovative ideas to the indigenous population for organizing increasingly larger societies and more intensive and efficient agriculture (Scarry 1990a, 1990b). Politico-religious centers such as the Lake Jackson Site near Tallahassee (Jones 1982), the Bottle Creek Site in southern Alabama (Brown 2003), and the Curlee Site on the upper Apalachicola River (White 1986) are well documented. In the Tallahassee area, the sites are usually located along the crest of hills, especially during the later periods (Penton 1972). Both large, truncated pyramidal shaped temple mounds and burial mounds were built. Powerful chiefs and a complex society with social classes are evidenced by quantities of exotic grave good found with some burials. Jones' excavations revealed the individuals buried in the tombs at Lake Jackson had been wearing costumes and other paraphernalia symbolic of high rank (Jones 1982).

Marrinan (2012:188-189) has compiled the local data, most of which has come from the Lake Jackson site, and provides the following characteristics of Fort Walton in the Tallahassee Hills area, which is located between the Aucilla and Ochlocknee Rivers and north of the Cody Scarp.

- Dates between 900 and 1500/1550 CE
- Subsistence based on increasing dependence on maize agriculture
- Change from conical/rounded sand mounds featuring group interment and "corporate" caches of mortuary ceramics and gifts to truncated pyramidal mounds containing evidence of multiple building stages and a mortuary pattern of individual interments directly associated with exotic goods, gender indicators, and special treatment
- Change in sociopolitical organization that indicates unequal social rank and ascribed authority and leadership roles of superordinate individuals
- Construction of large platform mounds with an apparent symmetry or site organization indicating the ability of the leadership to mobilize assistance for construction and the conceptual plan that was carried forward through succeeding generations
- Creation of a ceremonial center at Lake Jackson
- Contact with other groups north and west of the Tallahassee Hills
- Settlement pattern featuring dispersed homesteads and larger population centers
- And possibly matrilineal kinship system

The Lake Jackson series of pottery (incised and plain) dominated the artifact assemblages of the early Apalachee-Fort Walton culture. Wakulla Check Stamped pottery was common at many early Fort Walton sites (Tesar 1980:166-167). Later, ceramics are characterized by a shift in temper to smaller grog and nearly equal amounts of fine-grained sand. This trend continued into the following early Leon-Jefferson period (Tesar 1980:168). Scarry has developed a type-variety system of classifying Fort

Walton period ceramics (Scarry 1985). Sites from the Fort Walton period are numerous in the area and include artifact scatters, midden deposits, habitation areas, and farmsteads.

3.5 Colonialism

The first Europeans to enter this part of Florida were members of Pánfilo de Narvaéz's exploration party. Narvaéz and his men camped approximately four miles northwest of St. Marks, close to an Indian town called Aute. They were besieged by malaria and the hostilities of the natives, so they built boats so that they could leave the inhospitable area. The Spanish were forced to slaughter their horses for food and hides. Once their five vessels were finished, they set sail, probably from Shell Point (Cash 1946).

Hernando deSoto came after Narvaéz in 1539. deSoto's expedition occupied the Apalachee village of Anhaica, in Tallahassee, for four months before continuing on their journey westward (Ewen and Hann 1998). In the wake of this *entrada* through the southeast, thousands of natives were decimated not only from battles but from the introduction of European diseases such as small pox, measles, and typhoid fever, to which the natives had no immunities (Gannon 1996). While exploring the area, deSoto was led to the site of Narvaéz's camp by the natives. His reports relate finding the remains of the forge used for ship building, two watering troughs, the bones of the horses, and crosses apparently cut into the trees by Narvaéz's men (Kilgore 1943).

Data regarding the late Apalachee-Fort Walton culture are mostly derived from the chronicles of the deSoto expedition. Preliminary evidence from the Martin Site (Anhaica) indicates that the late Fort Walton ceramic assemblage was basically intact at that time. Thus, the end of the period occurred sometime after 1540 (Ewen et al. 1990:20). The decline of the Velda phase is likely attributed to the introduction of European diseases (Smith 1987). The severe depopulation would have greatly reduced the chief's authority. Scarry suggests that this was a period of political decentralization and weakened central authority with various factions attempted to gain Spanish favor (Scarry 1990b:184).

The Leon-Jefferson period is hypothesized to have begun after the 1540 deSoto expedition and prior to the arrival of the Spanish missionaries in the area in 1607 and is presumed to have lasted until around 1750 (Tesar 1980:204). This period is characterized by complicated-stamped ceramics, burial in cemeteries rather than mounds, and habitation in villages without temple mounds (Milanich and Fairbanks 1980:227).

In the early 1570s, Phillip II of Spain issued three laws for increasing and controlling Spain's American empire. These were the Ordinances of Pacification, Patronage, and Laying Out of Towns (Bushnell 1996). This in effect brought about the beginning of the mission chain across north Florida. Expansion of the missions into the Florida hinterland did not really begin until the early 1600s. In 1623, Franciscan friars began to work among the Yustaga, located between the Suwannee and Aucilla Rivers. By 1628 several missions had been founded and by 1635, it was estimated that 13,000 conversions had been made (Milanich 1999).

In 1633, Spanish missionaries arrived in the Apalachee territory and established the first mission (Hann 1988), which ended the Velda phase and initiated the San Luis phase (Scarry 1990b). There were numerous missions in the Red Hills area around Tallahassee, including San Pedro y San Pablo de Patale I, San Joseph de Ocuya, San Juan de Aspalaga, and O'Connell/San Pedro y San Pablo de Patale II (Johnson 1988; Jones 1973; Jones et al. 1991; Jones and Shapiro 1990; Marrinan 1993; Marrinan et al. 2000). There were no missions Wakulla County. By the height of the Mission period (1675), the native population had declined from 25,000 to about 5,000 (Milanich and Fairbanks

1980:230). The once thriving Apalachee Indians' agricultural economy, based on the excellent soils of the Red Hills, was eventually destroyed (Hann 1988:160-164).

The land of the Apalachee was very productive during the 1600s. Beginning around 1639, maize and beans, amounting to three to four thousand bushels, were sent to St. Augustine from the port at St. Marks (Cash 1946). The first detachment of Spanish soldiers was deployed there in 1645 to protect the Franciscan missions. In 1679, Pablo de Hita Salazar built the first wooden fort at St. Marks, called Fuerte de San Juan de Marcos de Apalache (Olds 1962). Several forts were built of wood after that, but they seldom lasted long due to the site's dampness. The first fort was burned by pirates in 1682. The Apalachee Indians requested the rebuilding of the fort in 1718, and once it was rebuilt, the Apalachee moved back into the area. The Indians established two villages roughly two miles upriver from the fort. In 1739, stone fortifications were begun, but never finished. The Spanish Mission Period ended abruptly when the British and Creek Indians destroyed the missions and forced the Spanish to leave the area in the early 1700s.

The aboriginal culture that follows the destruction of the missions did not continue the development sequence of the local populations but rather replaced them, as the Creeks and related peoples gradually moved into the area (Tesar 1980:252). Following the British raids of 1702-1704, many Creek Indians moved into north Florida. They became known as Seminoles and considered themselves separate and apart from their northern contemporaries and "they were composed of two general groups, Muskogee and non-Muskogee" (Goggin 1964 in Tesar 1980:256). They had an agriculturally based society, focusing upon cultivation of crops and the raising of horses and cattle. Their early history can be divided into two basic periods: *colonization* (1716-1767) when the initial movement of Creek towns into Florida occurred. *Enterprise* (1767-1821) was an era of prosperity under the British and Spanish rule prior to the American presence (Mahon and Weisman 1996). Ewen and his colleagues (1990:25) point out that the material culture of the Seminoles remained similar to the Creeks, the dominant aboriginal pottery type being Chattahoochee Brushed. European trade goods, especially British, were common but the Seminoles did not recreate the extensive agricultural economy of the Apalachee and Fort Walton Indians. The Creek settlement pattern included large villages located near rich agricultural fields and cattle grazing lands.

The area that now constitutes the State of Florida was ceded to England in 1763 after two centuries of Spanish possession. The fort at St. Marks was ceded to the British, but proved of little use to them, and was abandoned by the military in 1769, leaving only a trading post (Olds 1962). England governed Florida until 1783, when the Treaty of Paris returned Florida to Spain. The influence of the Spaniards during this second tenure was limited. The Seminoles would cross into Georgia and Alabama conducting raids and welcoming escaped slaves. This resulted in General Andrew Jackson's invasion of Spanish Florida in 1818, which became known as the First Seminole War.

Also at this time, Panton, Leslie, & Company, an Indian trading company, was established on the west bank of the Wakulla River, some four miles upstream of the abandoned Fort St. Marks (Coker and Watson 1986). It later became Forbes and Company. Over the next 30 years, the Seminoles incurred massive debt with the company and in 1804 and 1811 received much of the land between the Apalachicola and Wakulla Rivers in lieu of the cash payment of \$66,536.5 *reales* (Coker and Watson 1986:251, 253; Rogers and Willis 1997:18). The vast acreage was undetermined but was estimated to be around 1.2 million acres. Of interest was that this did not extinguish all Indian debts, only the balance of the Seminole and Lower Creek tribes in the area. The Hartsfield survey, which includes the current project area, was conducted in 1808, but fieldnotes are not available.

With this acquisition, Forbes and Co. needed to do three things, 1) have the boundary surveyed to determine a legal description of that northern boundary (all other boundaries to the east, south, and

west were bodies of water); 2) survey some of the interior lands into sections that could be sold profitably, and 3) they needed to do quickly to raise cash (Thurmond 2012).

Mr. Hartfield (apparently the “s” was added a few years later) was a surveyor from South Carolina who was hired by Forbes to run the boundary lines of their large parcel of land and to help them in determining what property within the Purchase might be the easiest to sell. After remarking the boundary (it was agreed to and marked back in 1804 by the firm and the Indians), he shared with Forbes and Co. that the most desirable piece of land in the Purchase was just west of the Wakulla River. Hartfield began a survey of this area that he called the Wakulla Survey, but it became known as the Hartsfield Survey. His survey contained just over 59,000 acres (15% of Wakulla County, 4% of the Forbes Purchase) (Figure 3.2). But sales did not pick up even after the partial surveying. Indian credit balance continued to climb at record levels, so in 1811 an additional three smaller, adjacent tracts were added onto the original tract, approved by the Spanish government and with the same restrictions as on the previous property. This entire tract was now known as the Forbes purchase (Coker and Watson 1986; Thurmond 2012).

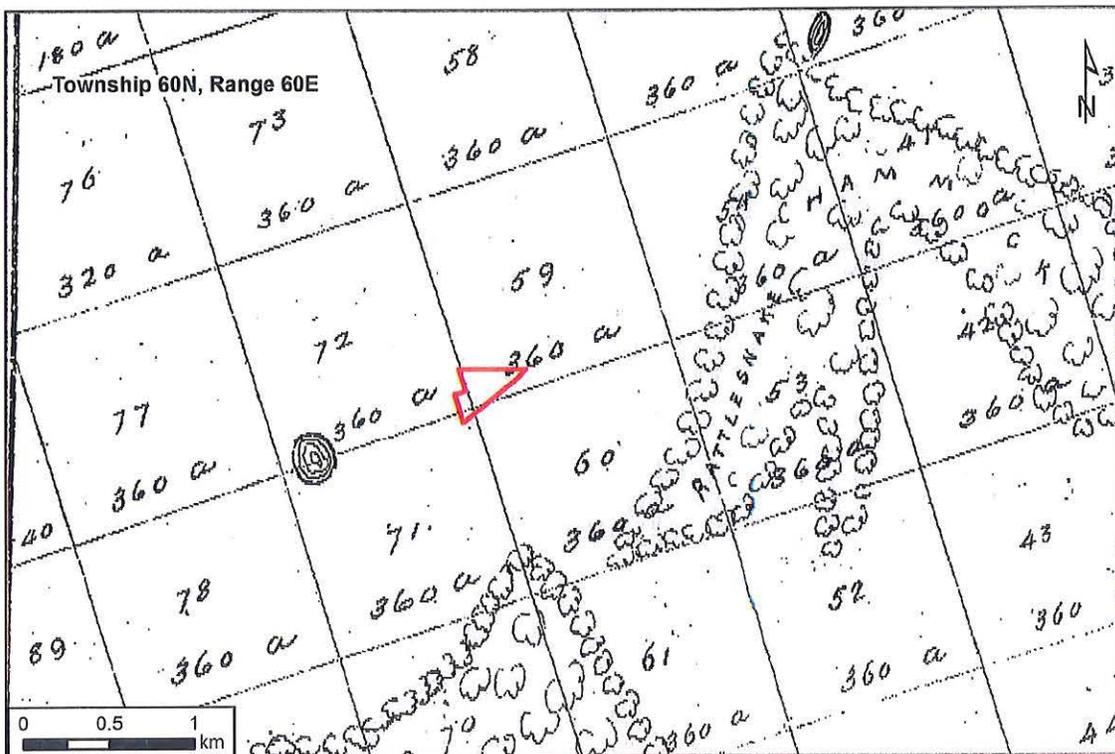


Figure 3.2. Location of the APE within the Hartsfield Survey.

3.6 Territorial and Statehood

Florida was established as a U.S. Territory in 1821 due to the First Seminole War and the Adams-Onis Treaty of 1819. It was subsequently divided into two counties: Escambia and St. Johns which were separated by the Suwannee River. In 1823, Tallahassee, located between Pensacola and St. Augustine, was selected as the new capital. John Lee Williams noted that this area had “abundant evidences of an ancient and dense population with great roads” (Williams 1976:32). In 1824, Leon

County was formed, which then included Wakulla County. The establishment of Florida as a Territory brought an increase in population to the state.

The area known as Middle Florida (Leon, Gadsden, Jefferson, Madison, and Hamilton Counties) quickly became the agricultural center of the state. Planters (owned more than 20 slaves) and yeoman farmers (owned 0-19 slaves) moved down from Virginia, Georgia, and the Carolinas due to the rich soil of the Tallahassee Red Hills. In 1828 alone, the Tallahassee Land Office sold over 140,000 acres, and by 1850, almost all the land in Leon County had been bought by farmers, planters, investors, and or speculators (Brueckheimer 1992; Hering 1954).

Unfortunately, for these earlier settlers, the Seminoles, who had arrived a century earlier, were not willing to leave. To ease the tensions, the Federal government and the Seminole Indians signed the Treaty of Moultrie Creek in 1823. The Indians were to relinquish all their lands for a roughly four million acre reservation in the center of the peninsula (Mahon 1967). Besides decreasing the size of the Seminole land holdings, the Treaty left them with land poorly suited to cultivation. Since neither side lived up to the agreements reached in the Treaty, conflicts continued.

The U.S. government concluded that the only way to solve the "Indian problem" was to remove the Seminoles from Florida entirely. The Treaty of Payne's Landing (1832) and the Treaty of Fort Gibson (1833) were drawn up with Indian deportation as the primary goal. These two treaties infuriated the Indians even more than the previous one. The subsequent increase in hostility and violence culminated in the beginning of the Second Seminole War (1835-1842). With the end of the war, the remaining Seminoles relocated to the Everglades and Big Cypress Swamp.

The population during the antebellum period in North Florida grew with the Florida becoming a territory of the United States. Though nearly a million acres of lands were sold to settlers in north Florida, most of the population growth took place around Tallahassee or Jacksonville. In 1826, the Bellamy Road was opened. This road led from St. Augustine to Tallahassee, following the old mission trail and connected two major Florida centers of commerce (Boyd 1935, 1936). Though some causeways and bridges were constructed, ferries provided crossing of all the major streams on the new road (Tebeau 1980:141).

The Apalachicola Land Company, of whom then Gov. Richard Call was partner, acquired most of the Forbes Purchase lands. The town of St. Marks was chartered in 1829 although it had been an important port before then. "In 1826, at the St. Marks dock were ships loaded with china tea, Havana and St. Domingo coffee, chocolate, Spanish cigars, Holland gin, Jamaica rum, peach and apple brandy, and wines no end, waiting for someone to make an offer for them" (Smith 1975a). The lighthouse was completed in 1831 but had to be moved further inland in 1842. In 1837, the Leon Railway Company, later reorganized as the Tallahassee Railroad Company, built a mule tram from St. Marks to Tallahassee (Paisley 1989; Tebeau 1980). The tram line consisted of a series of stringers on sand, but managed to transport 50,000 bales of cotton to St. Marks in a year (Smith 1965). Around this time, the custom's port was moved from Magnolia to St. Marks and larger sheds were built to house the commodities until their duty was paid (Smith 1975a). In 1839, the Tallahassee Railroad constructed an extension of its line across the river some three miles to Port Leon, which served to cut off all sailing traffic up river. Cotton sheds and wharves were soon constructed. Wakulla County was formed from the southern end of Leon County in 1843 with Port Leon as the county seat. However, before a courthouse to be erected, a hurricane and tidal wave destroyed the town. Survivors moved up the river and established the community of New Port (Anon. n.d.). This community flourished as the ship traffic bypassed St. Marks and conducted their trade upriver (Smith 1975a).

In 1845, the State of Florida was admitted to the Union, and Tallahassee was selected as the state capitol. St. Marks suffered major damage from a hurricane in August 1851. The hurricane reduced the old stone fort to rubble, and destroyed the customs house, railroad depot, and storage facilities (Smith 1975b). The Marine Hospital was built by the US government in 1857 at the location of Fort St. Marks. It was constructed at the request of the Collector of the Port of St. Marks because of the high incident of seamen with yellow fever (Shenkel and Westbury 1965). The structure's foundation was built with the rubble from Fort San Marcos and was a whitewashed two story structure with porches on both floors to catch the sea breezes (Smith 1975b). The year prior, the Tallahassee Railroad Company tore up the tram line and replaced it with steel rails of standard gauge and imported two locomotives to bring it up to date. This resulted in additional development in St. Marks, including the construction of a new hotel at the depot for passengers transferring onto ships or for those wealthy folks coming down to the coast for hunting and fishing (Smith 1975b).

The Third Seminole War, or Billy Bowlegs War, began in 1855 as a result of pressure placed on Native Americans remaining in Florida to move west (Covington 1982). The war started in Collier County and sporadically continued until 1858 when the U.S. Government resorted to monetary incentives to induce the remaining Seminoles to move west (Covington 1982).

In the 1850s, the Atlantic and Gulf Central Railroad was built by David Levy Yulee between Jacksonville and Lake City. From Lake City, the Pensacola and Georgia Railroad was extended to Tallahassee (Schafer 1996). The two lines were connected in 1860. The development of the railroads in north Florida opened the area to rail commerce and further development by the mid nineteenth century.

3.7 Civil War and Aftermath

In 1861, Florida followed South Carolina's lead and seceded from the Union in a prelude to the Civil War. Florida had much at stake in this war as evidenced in a report released from Tallahassee in June 1861. It listed the value of land in Florida as \$35,127,721 and the value of slaves at \$29,024,513 (Dunn 1989:59). Even though the Florida coast experienced a naval blockade during the war, the interior of the state saw very little military action. Batteries were stationed at the lighthouse, at old Port Leon, at the fort, and on the opposite side of the river where it was joined by the Wakulla River (Smith 1975c:11). The State supplied beef to the Confederacy (Akerman 1976). In addition, it became one of the major suppliers of salt, which was used for preserving fish, beef, and hides (Lonn 1965). The water along the Gulf coast, especially in the tidal flats and salt marshes was substantially higher in salt content than seawater, making conditions ideal for salt production (Clausen and Huston 1984:48). The first attack on a local salt works occurred on February 1, 1862 (Smith 1975c:12) and continued throughout the war. The following year, heavy rainstorms in May ruined the crops and devastated the salt works within the encroaching waters. Damage was placed at \$500,000 and included the loss of mules, horses, oxen, carts, and wagons, as well as 40-50,000 bushels of salt (Smith 1975d:15).

The Union Army launched a raid inland from St. Marks in 1865 to cut the railroad between the port and the capital and to take the capital. The plan of the invading force was to land a party of sailors and the Second Florida Cavalry to take the bridge over the East River and capture the cavalry posted there. After which, the other troops would be landed for their march northward. The naval force was to silence the batteries at St. Marks and capture them, to land a force of 500 to 600 seamen at Port Leon to cover the land expedition, and take whatever they could (Smith 1976a:22). The Confederate troops, including cadets from West Florida Seminary, halted the Union advance by winning the Battle of Natural Bridge (Ellis and Rogers 1986) and the naval fleet never made it to St. Marks because several

of the ships became grounded in the river. Tallahassee remained the only Confederate state capital that did not witness hostilities (Paisley 1968).

Although the inland areas faced little in way of hostilities, the war had a devastating effect on the economy. The blockade of the ports prevented the cotton from being shipped abroad. The inflation caused by the scarcity of income and goods grew tremendously during the war such that by 1865, the ratio was 1200 Confederate dollars to one Union dollar (Brueckheimer 1992:16).

In 1865, the Wakulla County legislative delegation voted to move the county seat from New Port to Shell Point (later renamed Crawfordville). At that time, the community had two houses, a school, and a two-story building that housed the Masonic lodge upstairs and the Methodist church downstairs. The town was named after John L. Crawford, the local physician and later State Senator and Florida Secretary of State. The courthouse, which had been in Newport, was torn down and rebuilt in Crawfordville. The courthouse square was 100 yards square and had 32 lots (33 x 66 feet) around the perimeter. The first store was owned by Walked and Morning (Crawford n.d.).

Immediately following the war, the South underwent a period of "Reconstruction" to prepare the Confederate States for readmission to the Union. The program was administered by the U.S. Congress, and on July 25, 1868, Florida officially returned to the Union (Tebeau 1980:251). The economy of Florida was devastated by the war; the Confederate currency and bonds became worthless, the value of the slaves simply evaporated, and much of the cotton had been seized (Brueckheimer 1992). With the war over, the people of Wakulla County went about the job of rebuilding the bridge at Newport (which had been burned to keep the Union troops from using it), repairing the wharves and docks, and bringing their hidden bales of cotton out to sell at highly inflated prices (Smith 1976b:26). St. Marks enjoyed a brief period of prosperity due to the poor condition of the railroad lines between Tallahassee and Jacksonville. As such, cotton was again being shipped to St. Marks by rail and then onto other markets by ship. Once the other railroads were repaired, cotton shipments drastically decreased, but the shipment of lumber was on a steady rise. In 1868, a fire destroyed St. Mark's entire business section, including six large warehouses, a 400-foot-long wharf, an ice-house, and a steam cotton press. The 1870 census indicated that most of the 145 occupants of the town were involved with occupations connected with the water or the railroad. Almost half of the occupants were African Americans (Smith 1976b:26-27). Newport, further up the river, had roughly 1500 inhabitants, with 10 or 12 large stores, warehouses, wharves, turpentine distillery, cotton press, steam, saw, and grist mills, and a drug store (Smith 1976b:28).

There was a twenty percent decline in improved farm land between 1860 and 1870 due to the change in the agricultural economy from a system based on slavery to one based upon tenancy. The fall of 1873 saw another blow to the recovery of the area. A hurricane came through the panhandle destroying the cotton crop, wrecking farm buildings and equipment, and damaging and destroying homes and businesses. It was estimated that over \$200,000 worth of damage occurred (Ellis and Rogers 1986). By 1880, the amount of improved farm lands had risen to approximately that of the pre-war period (Brueckheimer 1992). Diversification in agricultural pursuits became paramount. There was an increased focus on subsistence farming, an increase in animal husbandry, production of vegetables and fruits, and increased use of mechanized farm equipment to reduce labor costs (Paisley 1968). During the 1870s and 1880s, many people moved down from the Carolina and Georgia to farm, timber, and fish in Wakulla County. Settlement took place primarily in the southwestern portion of the county (Wakulla County 2003). The naval stores and lumber industry became particularly important.

During the Reconstruction period, Florida's fiscal crisis, born of pre-war railroad bonded indebtedness, led Governor William Bloxham to search for a buyer for an immense amount of state lands. Bloxham's task was to raise adequate capital in one sale to free from litigation the remainder of

state lands for desperately needed revenue. In 1881, Hamilton Disston, a Philadelphia investor, purchased four million acres from the State. This transaction, known as the Disston Purchase, enabled the distribution of large land subsidies to railroad companies, inducing them to begin extensive construction programs for new lines throughout the state. Disston and the railroad companies, in turn, sold smaller parcels of land to developers and private investors. Henry Plant and Henry Flagler assisted with this venture by developing the east and west coast via their railroads (Harner 1973).

Mann (1983:127, 155) notes that after the Civil War, several of the north Florida railroad were consolidated and reorganized as the Jacksonville, Pensacola, & Mobile Railroad Company, which was later incorporated into the Seaboard Airline Railroad. During this time, Tallahassee remained a small agriculturally oriented community. In 1893, the Carrabelle, Tallahassee, and Georgia Railroad (CT&G) was constructed between Carrabelle, on the coast, and Tallahassee, a 50-mile run. The CT&G was constructed by the Clark Syndicate Companies, which included the Georgia and Florida Investment Co. (GFI). The GFI owned 175,000 acres of timber along the railroad right-of-way which included several large saw mills, a planing mill, a dry kiln, and stores (Smith 1967). In 1902, the CT&G became part of the Georgia, Florida, and Alabama System (GF&A). Numerous towns developed along the railroad including MacEntire, Sopchoppy, Ashmore, Arran, and Hilliardville. The CT&G platted Sopchoppy in 1894 and the company began a strong advertising campaign. However, many of the new arrivals drawn in by the campaign left shortly after arriving since the "rich soil and mild climate" had been vastly overstated (Howard 1993).

With the expansion of the railroad systems, many of the coastal communities, such as St. Marks, Spring Creek, and Shell Point, which had provided water transport and associated facilities, suffered serious decline. From 1900 until the mid-1930s, coastal steamers came into St. Marks primarily to pick up lumber and naval stores to ship to other gulf ports since it was cheaper then to send out cargo by boat than by train, and there was no east-west highway across the state to use any other means of transport (Smith 1976c:30). The economy in these coastal areas turned then toward fishing.

3.8 Twentieth Century

The turn of the century was period of growth in the state, partially due to the Spanish American War. There was increased development of the ports and coastal cities as facilities were constructed and improved to support of the troops being shipped out from harbors at Pensacola, Tampa, and Key West. Two steamships came into St. Marks weekly from Carrabelle, bringing in cotton that was shipped from there by rail to Tallahassee and then to Jacksonville and up the east coast (Smith 1976c:32). Salted fish packed in barrels were also shipped by rail, but other commodities were hauled by horse and wagon up the old plank road leading from Newport to Chaires Crossroads in eastern Leon County.

In 1904, Gov. Broward introduced many significant reforms, including the Everglades drainage project, railroad regulation, and the construction of roads. During this time, railroads were constructed throughout the state and automobile usage became more prevalent. The improvement of the transportation systems allowed for export of Florida's agricultural and industrial products as well as the growth in the tourist industry.

The naval stores industry became the dominant industry in the county. Business boomed in St. Marks during World War I, and the Standard Lumber company took up almost two town blocks (Smith 1976c:32). In 1900, there were 23 separate naval stores and timber operations throughout the county. The industry suffered a serious setback in 1928 when a hurricane destroyed many of the pine trees (Greene n.d.). This same storm also destroyed the tourist industry in Panacea. In the early part of the

century, the mineral springs at Panacea served as a draw for the Northerners looking for relief from rheumatism, asthma, and other lung ailments (Fernald and Purdum 1996).

Additional developments took place because of World War I. Several new training facilities were established, and the wartime industries brought increased occupation of the state. In addition, the war in Europe required that those who used to vacation abroad now vacation closer to home, serving to increase the tourist industry as well.

The Florida Land Boom of the 1920s saw widespread speculation and development of towns and highways. Several reasons prompted the boom, including the mild winters, the growing number of tourists, the larger use of the automobile, the completion of roads, and the promise by the state legislature never to pass state income or inheritance taxes. Banks and real estate agents advertised cheap land available in Florida as a "paradise found." This appears to have had negligible effect on Wakulla County, however, as according to the U.S. Census Bureau (USCB), the population varied only between 4800 and 5500 until 1960.

By 1926-27, the Florida real estate market collapsed. A downturn in the stock market in 1926 and an investigation by the National Better Business Bureau into fraudulent real estate practices caused investors to pull their monies out of the booming Florida real estate market. Massive freight car congestion from hundreds of loaded cars sitting in railroad yards caused the Florida East Coast Railway to embargo all but perishable goods in August of 1925. The embargo spread to other railroads throughout the state, and, as a result, most construction halted. The decline spread throughout the state resulting in the failure of banks and businesses. To make the situation even worse two hurricanes hit south Florida in 1926 and 1928, destroying confidence in Florida as a tropical paradise and created a flood of refugees fleeing northward. The following year, in 1929, the Mediterranean fruit fly invaded and paralyzed the citrus industry creating quarantines and inspections, which further slowed an already sluggish industry. Confidence in the Florida real estate market quickly diminished, investors could not sell lots, and the Great Depression hit Florida earlier than the rest of the nation (Kendrick 1976:150).

The 1930s saw the closing of mines, mills, and citrus packing plants, along with widespread unemployment throughout Florida. Banks collapsed throughout the region. In Florida, 148 banks closed between 1929 and 1933. Other enterprises throughout the county also closed or downsized, including the Gulf Packing Company which had an ice house in St. Marks that manufactured 100 pound blocks of ice (Smith 1976d:33). At this time, St. Marks boasted a population of 217, and had a boat works, two marine railways capable of handling boats up to 80-feet long, a machine shop and other facilities for boat repairs, the railroad depot, post office, general store, and party fishing boats (Smith 1976c:32).

The diversification of Florida industries, including tourism, citrus, lumbering, phosphate, fishing, and cattle ranching, cushioned Florida from the full impact of the Great Depression. By the mid-1930s, federal programs, implemented by the Roosevelt administration, started employing large numbers of construction workers, helping to revive the state's economy. These programs, including the Civilian Conservation Corp (CCC) and the Civil Works Administration [later the Works Progress Administration], were instrumental in the construction of roads, airports, parks, bridges, and public buildings, and the improvement and preservation of forests, parks, and agricultural lands.

It was during this time that the Apalachicola Forest was established with the CCC involved in the construction of roads, bridges, and fire towers, and other forest related activities. Because much of the land was cut-over or burned, the CCC workers replanted the area and stocked the areas with turkey, deer, and other species (Shofner 1987). In 1931, the U.S. government bought up cut-over timberlands for the formation of the St. Marks Wildlife Refuge (Smith 1976c:32). Development of the refuge required the construction of waterways and dams to provide surface lakes for migratory waterfowl.

By 1940, recovery from the Great Depression was imminent. With many Florida cities receiving military installations during World War II, the incoming servicemembers renewed the state's economy. After Pearl Harbor, an Army base was constructed for about 100 men, including barracks and officer's quarters. The Coast Guard also established a station in St. Marks and another out by the lighthouse (Smith 1976d:34). Dale Mabry Field, Tallahassee's airport, was taken over by the Air Force in 1941. Thousands of fighter pilots were trained at this facility, including the first groups of Chinese pilots and the famed 99th Squadron. The latter were black pilots under the command of Lt. Col. Benjamin O. Davis (Dunn 1974).

As World War II ended, Florida experienced a population boom in the 1950s. Florida's population increased from 1,897,414 to 2,771,305 from 1940 to 1950 (Tebeau 1980:431). A decrease of 200, however, was seen locally (USCB 1995). After the war, car ownership increased making the American public more mobile. Many who had served at Florida's military bases during World War II also returned with their families to live. The county's economy continued to depend on seafood and tourism, with wood products and agriculture following (USDA 1991). In Wakulla County, it wasn't until the 1970s that an appreciable rise in population occurred. Since then, the population has risen from 6300 to almost 30,776 in 2010 (USCB 2017).

3.9 APE Specifics

A review of the historic aerials for the area, available from the Publication of Archival Library and Museum Materials (PALMM), revealed that in 1952 the property was wooded, sometime between 1973 and 1994, the area was planted in pine. In 2005, the trees were harvested, and the vegetation cleared in 2013 (DigitalGlobe 2019; Google Earth 2013; USDA 1952, 1973; USGS 1994) (**Figure 3.3**).

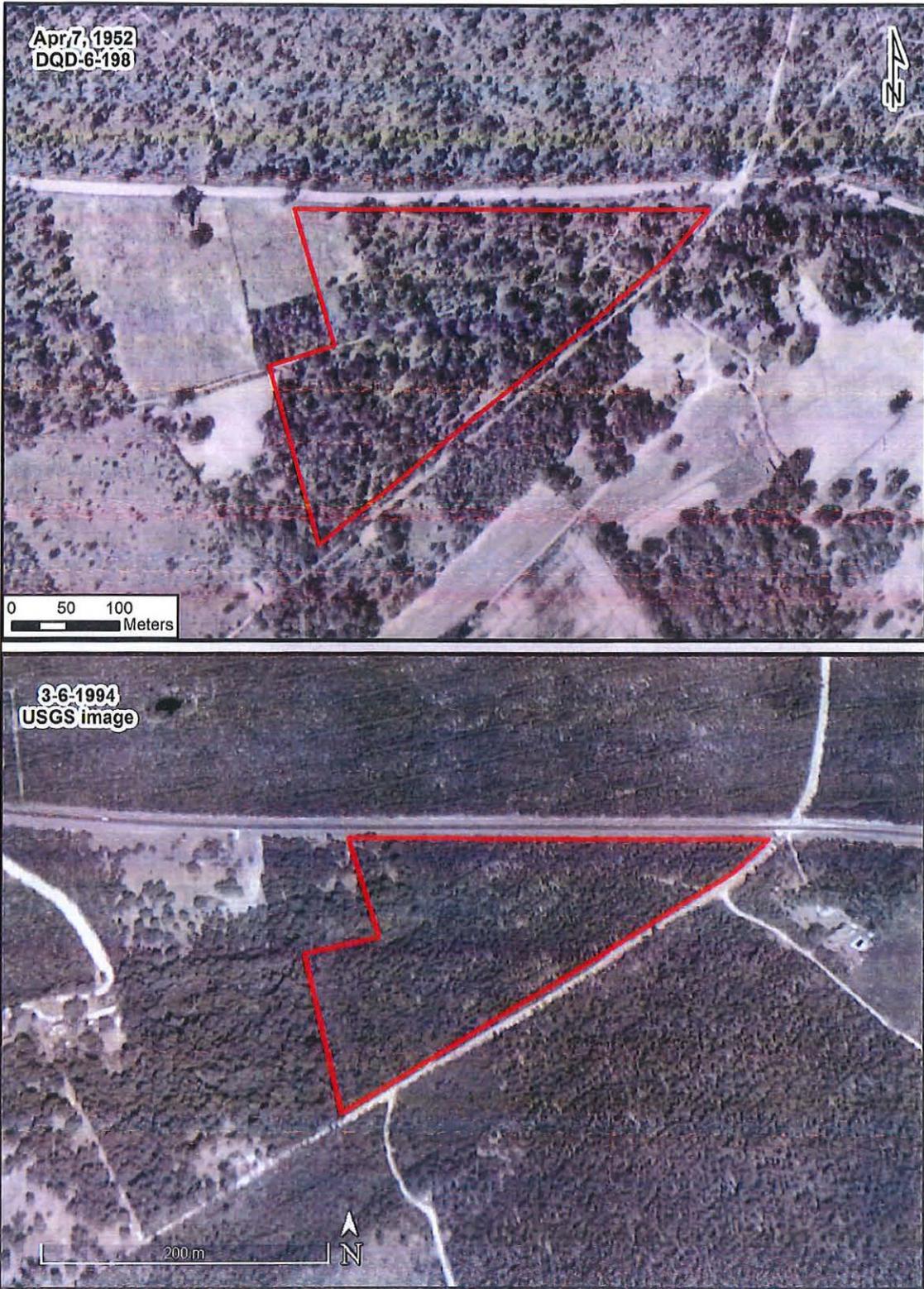


Figure 3.3. 1952 and 1994 aerial photographs of the APE.

4.0 RESEARCH CONSIDERATIONS AND METHODOLOGIES

4.1 Background Research and Literature Review

A review of the archaeological and historical literature, documents, and data pertaining to the property was conducted. The focus of this research was to ascertain the types of cultural resources known in the area, their temporal/cultural affiliations, site location information, and other relevant data. This included a review of sites listed in the NRHP, the Florida Master Site File (FMSF), CRAS reports, published books and articles, unpublished manuscripts, and maps. The FMSF data in this report were obtained in January 2019 although the data may not reflect all recorded resources as according to FMSF staff, input may be a month or more behind receipt of reports and site files and the GIS data are updated quarterly. No one was located who had information relative to the history of the property.

4.2 Archaeological Considerations

The archaeological background research indicates that no previously recorded archaeological sites are within the APE, and only one has been recorded within one mile (**Figure 4.1**). The Crawfordville Sink site (8WA00023) was recorded as a scatter of Fort Walton period pottery on the east/northeast side of a sinkhole that was 50 yards in diameter (FMSF). It was plotted as a “general vicinity” site, so its actual location is uncertain. It has not been evaluated in terms of NRHP eligibility by the State Historic Preservation Officer (SHPO). There has been only one CRAS project conducted within one mile of the APE, but there have been another eight conducted within two miles (**Table 4.1**).

Archaeologists have long realized that sites are not randomly distributed across the landscape, but rather certain environmental settings were favored for site location selection. In addition, the variables chosen by the aboriginal occupants changed over time in part due to environmental factors and during the Fort Walton and Leon-Jefferson periods, a need for arable land. The most important variables in this part of Wakulla County appear to be distance to potable water, soil type, and elevation. Analysis of the data for the 474 Wakulla County aboriginal archaeological sites with known locations in the Gulf Coastal Lowlands physiographic region was conducted. This revealed that 338 of the sites (71.3%) are located within 100 m (328 ft) of a water source (**Table 4.2**), of which one is an underwater site in the Wakulla River that has mastodon remains and lithic debitage (8WA00175). Another 22.6% are located between 100 and 200 m (328-656 ft) of water. Over half of the sites are associated swamps or wetlands, with rivers and creeks accounting for another 27% of the sites.

Elevation may also play a role in site selection (**Figure 4.2**). There seems to be a clear preference for elevations at 3 and 14 m (10 and 45 ft) amsl. In this figure, the Y axis is the number of sites and the X axis is site elevation in feet amsl. In areas of relatively level topography, a slight rise in elevation adjacent to a wetland or swamp would result in better drainage in that area, and a higher probability for aboriginal archaeological site occurrence.

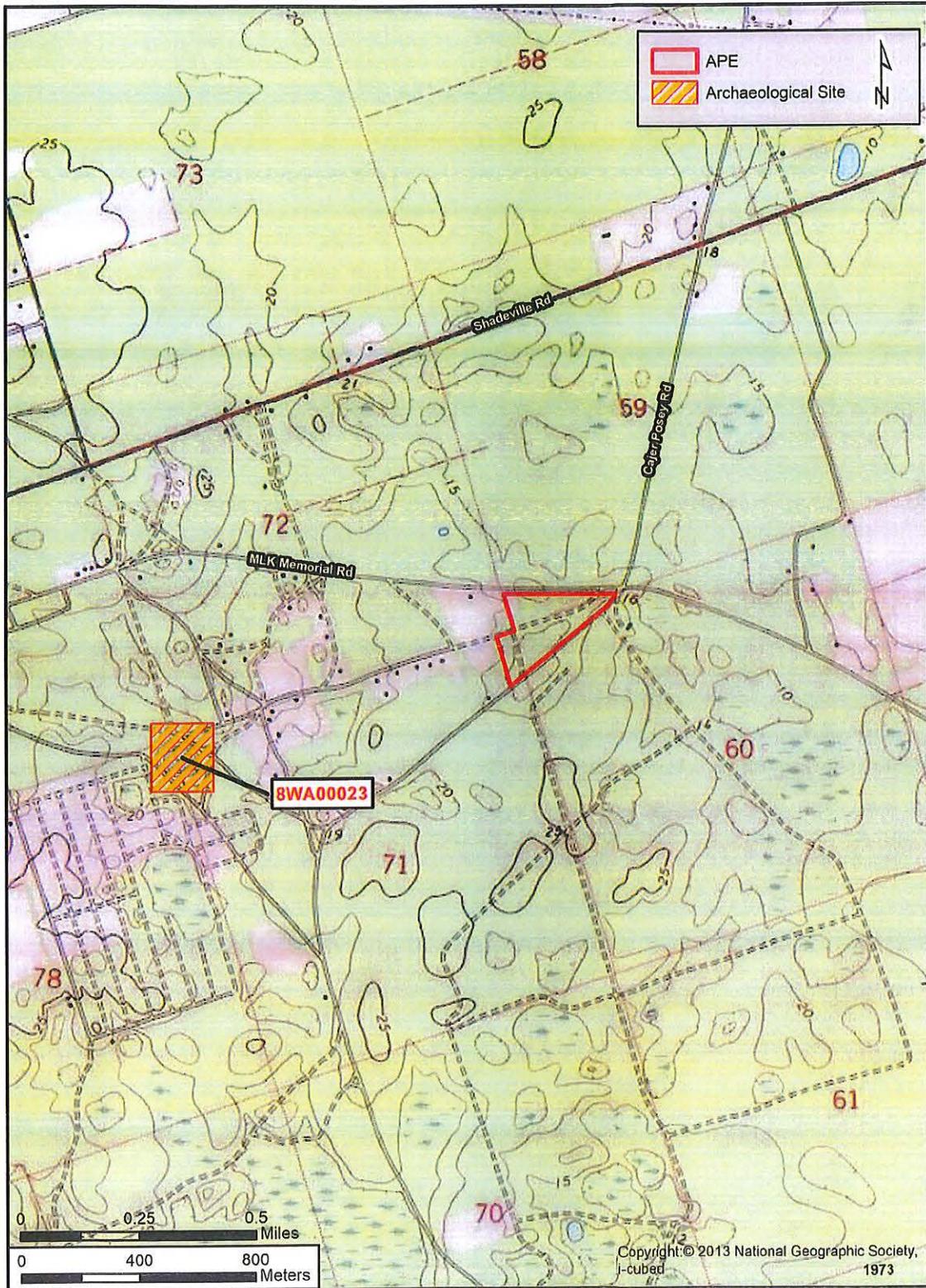


Figure 4.1. Location of the previously recorded archaeological site within 1.6 km (1 mi) of the APE.

Table 4.1. CRAS projects conducted within two miles of the APE.

| REFERENCE | PROJECT | # of newly recorded resources | # of previously recorded resources |
|-----------------------------|---|-------------------------------|------------------------------------|
| (Bellomo and Anderson 1996) | CRAS of Crawfordville Highway (U. S. Highway 319) from State Road 30 (U. S. Highway 98) to South of the Intersection of State Road 363 (Four Points), Wakulla and Leon Counties | 86 | 0 |
| (ACI 2001) | Proposed Cellular Tower Replacement: Crawfordville (FL-141) Crawfordville Hwy, Wakulla County | 0 | 5 |
| (Causey and Penton 2005) | CRAS of Seven Proposed Pond Sites Along Crawfordville Highway (SR 61/SR 369), from Lost Creek Bridge to East Ivan Road in Crawfordville | 1 | 0 |
| (Keel 2005) | CRAS of the Mary Avenue Realignment Project, Crawfordville, Wakulla County | 1 | 1 |
| (Chambless et al. 2014) | CRAS US 319 from US 98 to the Leon County Line, Wakulla County, Florida | 90 | 42 |
| (Pokrant 2014) | CRAS of Seven Proposed Ponds along US 319, Wakulla County | 3 | 1 |
| (ACI 2017) | CRAS of the Miller Rezone Property, Wakulla County | 0 | 0 |
| (ACI 2018b) | CRAS of the 78-acre Parcel, Wakulla County | 0 | 0 |
| (ACI 2018a) | CRAS of the 40-acre Parcel, Wakulla County | 0 | 0 |

Table 4.2. Site distance from water source.

| | 0-100 m | | <200 m | | <300 m | | <400 m | | <500 m | | Total | |
|--------------|------------|-------------|------------|-------------|-----------|------------|----------|------------|----------|------------|------------|--------------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| bay | 5 | 1.1 | 1 | 0.2 | 1 | 0.2 | | 0.0 | | 0.0 | 7 | 1.5 |
| creek | 39 | 8.2 | 23 | 4.9 | 3 | 0.6 | | 0.0 | | 0.0 | 65 | 13.7 |
| pond | 32 | 6.8 | 6 | 1.3 | 4 | 0.8 | | 0.0 | | 0.0 | 42 | 8.9 |
| river | 50 | 10.5 | 10 | 2.1 | 3 | 0.6 | | 0.0 | | 0.0 | 63 | 13.3 |
| swamp | 212 | 44.7 | 67 | 14.1 | 14 | 3.0 | 3 | 0.6 | 1 | 0.2 | 297 | 62.7 |
| Total | 338 | 71.3 | 107 | 22.6 | 25 | 5.3 | 3 | 0.6 | 1 | 0.2 | 474 | 100.0 |

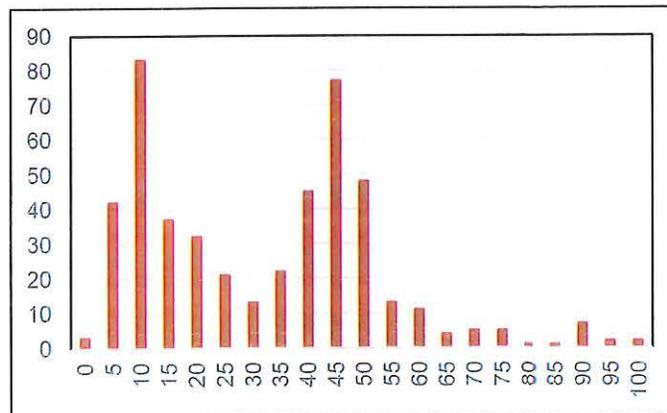


Figure 4.2. Distribution of sites by elevation (ft amsl).

Soil types and their drainage characteristics can also be used to assess the likelihood for aboriginal site occurrence (Almy 1978). There are 38 soil types within the Gulf Coastal Lowlands of Wakulla County; of which 33 have recorded archaeological sites (Table 4.3). Many of the sites occurred on more than one soil type. This analysis only includes the four types covering the greatest acreage for each site, which totaled 750 soil type occurrences. Column "1" indicates that this soil type had the greatest area of the site, and so on down the line, so that Column "4" had the smallest site acreage.

Wakulla County is somewhat soggy in nature, with 63% of the area being underlain by poorly and very poorly drained soils. A little over 30% of the area is underlain by moderately well and somewhat poorly drained soils. These soils account for 55% of the archaeological sites. Excessively drained soils do not appear to be conducive to aboriginal use, as they account for 4.6% of the area, but have only 2.5% of the sites.

There is variable distribution of sites across the landscape. The difference between the percent of sites and percent of area gives a clue as to whether specific soil types were selected or avoided. Those soils that seem to have been preferred are defined as those with a 2% or greater difference between sites and area; they are marked in red on the table. Those that seem to have been avoided have a less than -2% difference and are marked in blue. However, it should be remembered, that although we know the distribution of the sites relative to the soil types, we do not know how much of each soil type has been surveyed for archaeological sites. As such, these data may not reflect the actual distribution of sites across the landscape.

Table 4.3. Distribution of sites by soil drainage and type.

| | % of area | 1 | 2 | 3 | 4 | Total | % of sites | Difference |
|---|---------------|------------|-----------|----------|----------|------------|---------------|---------------|
| EXCESSIVELY DRAINED | | | | | | | | |
| Alpin sand, 0-5 % | 2.44% | 9 | 4 | 1 | | 14 | 1.87% | -0.57% |
| Kershaw sand, 0-5 % | 0.12% | | 1 | | | 1 | 0.13% | 0.02% |
| Lakeland sand, 0-5 % | 2.09% | 1 | 2 | 1 | | 4 | 0.53% | -1.55% |
| Total | 4.64% | 10 | 7 | 2 | 0 | 19 | 2.53% | -2.11% |
| MODERATELY WELL DRAINED | | | | | | | | |
| Ortega sand, 0-5 % | 14.359% | 113 | 23 | 4 | | 140 | 18.67% | 11.98% |
| Otela fs, 0-5 % | 2.07% | 18 | 3 | 2 | | 23 | 3.07% | 1.00% |
| Otela sand, 5-8 % | 0.11% | | | | | 0 | 0.00% | -0.11% |
| Otela, limestone substratum- Ortega sands, 0-5 % | 2.11% | 16 | 8 | | | 24 | 3.20% | 1.09% |
| Otela-Alpin fs, 0-5 % | 3.90% | 4 | | 1 | | 5 | 0.67% | -3.24% |
| Shadeville fs, 0-5 % | 1.71% | 3 | 2 | 1 | | 6 | 0.80% | -0.91% |
| Shadeville-Seaboard fs, 0-3 % | 0.69% | 1 | | | | 1 | 0.13% | -0.55% |
| Total | 17.28% | 155 | 36 | 8 | 0 | 199 | 26.53% | 9.25% |
| POORLY DRAINED | | | | | | | | |
| Chaires fs | 2.45% | 11 | 3 | | | 14 | 1.87% | -0.58% |
| Goldhead fs | 0.42% | | | | | 0 | 0.00% | -0.42% |
| Leon sand | 6.93% | 44 | 12 | 4 | | 60 | 8.00% | 1.07% |
| Meggett and Croatan soils, ff | 1.95% | 3 | 1 | | | 4 | 0.53% | -1.42% |
| Plummer fs | 1.71% | 7 | 7 | 2 | | 16 | 2.13% | 0.42% |
| Pottsburg sand | 0.36% | 2 | 2 | 1 | | 5 | 0.67% | 0.31% |
| Sapelo sand | 0.95% | 3 | 5 | | | 8 | 1.07% | 0.12% |
| Scranton sand | 6.53% | 19 | 4 | 3 | | 26 | 3.47% | -3.06% |
| Tooles-Nutall fs | 5.60% | 19 | 4 | | | 23 | 3.07% | -2.54% |
| Tooles-Nutall-Chaires fs | 4.48% | 1 | 5 | | | 6 | 0.80% | -3.68% |

| | % of area | 1 | 2 | 3 | 4 | Total | % of sites | Difference |
|--|----------------|------------|------------|-----------|----------|------------|----------------|----------------|
| Total | 31.38% | 109 | 43 | 10 | 0 | 162 | 21.60% | -9.78% |
| SOMEWHAT POORLY DRAINED | | | | | | | | |
| Hurricane sand, 0-5 % | 1.00% | 4 | 3 | 1 | | 8 | 1.07% | 0.07% |
| Lutterloh sand, 0-5 % | 1.54% | 13 | 7 | 2 | | 22 | 2.93% | 1.39% |
| Mandarin fs | 2.93% | 31 | 14 | 6 | | 51 | 6.80% | 3.87% |
| Moriah-Pilgrims fs | 2.07% | 16 | 6 | 2 | | 24 | 3.20% | 1.13% |
| Ocilla sand, 0-5 % | 0.11% | | | | | 0 | 0.00% | -0.11% |
| Ridgewood fs, 0-5 % | 6.28% | 80 | 28 | 5 | | 113 | 15.07% | 8.79% |
| Total | 13.93% | 144 | 58 | 16 | 0 | 218 | 29.07% | 15.14% |
| VERY POORLY DRAINED | | | | | | | | |
| Bayvi, Isles, and Estero soils, ff | 1.42% | 6 | 2 | | | 8 | 1.07% | -0.35% |
| Croatan-Dorovan mucks | 15.65% | 14 | 29 | 2 | | 45 | 6.00% | -9.65% |
| Maurepas muck, ff | 0.77% | | | | | 0 | 0.00% | -0.77% |
| Rutlege sand | 3.44% | 5 | 14 | 2 | | 21 | 2.80% | -0.64% |
| Rutlege sand, ff | 5.13% | 12 | 16 | 1 | 1 | 30 | 4.00% | -1.13% |
| Surrency mucky fs | 2.10% | 8 | 6 | | | 14 | 1.87% | -0.24% |
| Tooles-Nutall fs, depressional | 1.17% | | | | | 0 | 0.00% | -1.17% |
| Tooles-Nutall fs, ff | 1.85% | 8 | 9 | 2 | 1 | 20 | 2.67% | 0.82% |
| Total | 31.54% | 53 | 76 | 7 | 2 | 138 | 18.40% | -13.14% |
| OTHER | | | | | | | | |
| Quartzipsamments, dredged | 0.04% | 1 | | | | 1 | 0.13% | 0.09% |
| Udorthents and quartzipsamments, excavated | 0.11% | | 1 | | | 1 | 0.13% | 0.03% |
| Water | 0.94% | 2 | 5 | | | 7 | 0.93% | -0.01% |
| Waters of the Gulf of Mexico | 0.14% | | 4 | 1 | | 5 | 0.67% | 0.52% |
| Total | 1.23% | 3 | 10 | 1 | 0 | 14 | 1.87% | 0.64% |
| Grand Total | 100.00% | 474 | 230 | 44 | 2 | 750 | 100.00% | 0.00% |

There is a fairly even distribution of sites relative to the soil types for most types. However, there are three soils that are preferred. Ortega sand has the highest likelihood for site occurrence, accounting for 18.7% of the sites, but only covering 6.7% of the region. Ridgewood sand has the next highest preference, occurring in 6.3% of the area but having 15% of the sites, with Mandarin sand following next. It has 6.8% of the sites but covers only 3.8% of the area. Although one would not expect to find many sites on the very poorly drained soils, the Croatan-Dorovan mucks appear to be avoided. These cover over 15% of the area, but only have 6% of the sites. However, these very poorly drained soils could have been a source of water, not only for the aboriginal inhabitants, but also for the game animals upon which they depended. Sites within the wetlands/swamps were most likely occupied during periods of low water or during the dry season. Evidence sea level rise can be seen with the underwater site (8WA00175), and the Gulf of Mexico has inundated at least five known sites.

Based on the analysis of site distribution, zones of aboriginal site potential are defined as follows. High probability areas are within 100 m (328 ft) of water, at an elevation around 5-15 or 40-50 feet amsl, and on Ortega, Ridgewood, or Mandarin sand. Moderate probability areas would be on the other soils within 100 m (328 ft) of water, or on the preferred soils between 100 and 200 m (328-646 ft) of water. Low archaeological potential would be very poorly drained soils and areas greater than 200 m (656 ft) of water.

It should be noted that the settlement patterns noted above cannot be applied to sites of the Paleoindian and Early Archaic periods, which precede the onset of modern environmental conditions. In applying these known site location predictive factors and historical information to the property, it

was considered to have a low to moderate archaeological potential. Although Ortega sand is on the property, there are no nearby water resources. A review of the historic maps and aerial photographs of the APE also revealed a low potential for historic archaeological sites.

4.3 Historical Considerations

Examination of the FMSF and NRHP indicated that no historic structures are recorded within the APE. The property appraiser and the aerial photographs suggest no potential for historic structures on the property (DigitalGlobe 2019; Google Earth 2013; Harvey 2019; USDA 1952, 1973; USGS 1994).

4.4 Field Methodology

The FDHR's Module Three, *Guidelines for Use by Historic Professionals*, indicates that the first stage of archaeological field survey is a reconnaissance of the project area to "ground truth," or ascertain the validity of the predictive model (FDHR 2003). During this part of the survey, the researcher assesses whether the initial predictive model needs adjustment based on disturbance or conditions such as constructed features (i.e., parking lots, buildings, etc.), underground utilities, landscape alterations (i.e., ditches and swales, mined land, dredged and filled land, agricultural fields), or other constraints that may affect the archaeological potential. Additionally, these guidelines indicate that non-systematic "judgmental" testing may be appropriate in urbanized environments where pavement, utilities, and constructed features make systematic testing unfeasible; in geographically restricted areas such as proposed pond sites; or within project areas that have limited high and moderate probability zones, but where a larger subsurface testing sample may be desired. While predictive models are useful in determining preliminary testing strategies in a broad context, it is understood that testing intervals may be altered due to conditions encountered by the field crew at the time of survey. A reasonable and good faith effort was made to identify the historic properties within the APE (cf., Advisory Council on Historic Preservation n.d.).

Archaeological field survey methods consisted of surface reconnaissance and systematic subsurface shovel testing. Shovel tests were placed at 50 m (164 ft) intervals throughout the property. The shovel tests were circular and measured 50 centimeters (cm) (20 inches [in]) in diameter by 1 m (40 in) depth. The soil removed from the tests was screened through 0.25 in (.64 cm) mesh hardware cloth to maximize the recovery of artifacts. The locations of all shovel tests were recorded using a Trimble Juno 5, and, following the recording of relevant data such as stratigraphic profile and any artifact finds, all shovel tests were refilled.

Historical field methodology consisted of a reconnaissance of the area to locate any historic properties believed to be 50 years of age or older, and to ascertain if any resources within or adjacent to the property could be eligible for listing in the NRHP. If any historic resources had been located, an in-depth study of each identified historic resource would have been conducted. Photographs would have been taken and information needed for the completion of FMSF forms would have been gathered. In addition to architectural descriptions, each historic property would have been examined to assess style, historic context, and potential NRHP eligibility. A visual reconnaissance of the area was also conducted to ascertain whether any potential historic districts existed within or adjacent to the APE.

4.5 Inadvertent/Unexpected Discovery of Cultural Materials

Occasionally, archaeological deposits, subsurface features or unmarked human remains are encountered during development, even though the project area may have previously received a thorough and professionally adequate cultural resources assessment. Such events are rare, but they do occur. If human burial sites such as Indian mounds, lost historic and aboriginal cemeteries, or other unmarked burials or associated artifacts are found, then the provisions and guidelines set forth in Chapter 872.05, *FS* (Florida's Unmarked Burial Law) are to be followed.

In the event such discoveries are made during the development process, all activities in the immediate vicinity of the discovery will be suspended, and a professional archaeologist will be contacted to evaluate the importance of the discovery. The area will be examined by the archaeologist, who, in consultation with the staff of the Florida SHPO, will determine if the discovery is significant or potentially significant.

In the event the discovery is found to be not significant, the work may immediately resume. If, on the other hand, the discovery is found to be significant or potentially significant, then development activities in the immediate vicinity of the discovery will continue to be suspended until a mitigation plan, acceptable to the SHPO, is developed and implemented. Development activities may then resume within the discovery area, but only when conducted in accordance with the guidelines and conditions of the approved mitigation plan.

4.6 Laboratory Methods and Curation

No cultural materials were recovered; thus, no laboratory methods were utilized. The field notes, photos, and other project documentation will be housed at ACI in Sarasota (P19019) unless the client requests otherwise.

5.0 RESULTS AND CONCLUSIONS

5.1 Archaeological

The archaeological investigations consisted of surface reconnaissance combined with systematic subsurface testing (**Figure 5.1**). Shovel tests were placed at 50 m (164 ft) intervals throughout the property. Twenty-six shovel tests were excavated, none of which contained cultural materials. The basic stratigraphy consisted of 0-40 cm (0-16 in) gray brown sand and 40-100 cm (16-40 in) yellow brown sand in the open areas. Stratigraphy in the wooded area consists of 0-30 cm (0-12 in) dark gray brown sand and 30-100 cm (12-40 in) brown wet sand. The **Appendix** contains the Survey Log.

5.2 Historical

The historical/architectural survey identified no historic resources (50 years of age or older) within the APE. None was expected based on the review of the property appraiser's records and the aerial photographs of the area (DigitalGlobe 2019; Google Earth 2013; Harvey 2019; USDA 1952, 1973; USGS 1994). Field reconnaissance confirmed the absence of historic resources.

5.3 Conclusions

Based on the results of this CRAS, it is the professional opinion of ACI that the proposed undertaking will have no effect on any archaeological sites or historic resources that are listed, determined eligible, or that appear potentially eligible for listing in the NRHP.



Figure 5.1. Location of the shovel tests within the 14.35-acre parcel.

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APPENDIX
Survey Log

Ent D (FMSF only) _____



Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Identification and Bibliographic Information

Survey Project (name and project phase) CRAS 14.35-acre Rezone Property, Wakulla Co.

Report Title (exactly as on title page) Cultural Resource Assessment Survey of the 14.35-acre Rezone Property, Wakulla County, Florida

Report Authors (as on title page, last names first) 1. ACI 2. _____ 3. _____ 4. _____

Publication Date (year) 2019 Total Number of Pages in Report (count text, figures, tables, not site forms) 46
Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
P19019. Conducted for Golden Construction, Inc., Crawfordville by ACI, Sarasota.

Supervisors of Fieldwork (even if same as author) Names Horvath, Elizabeth
Affiliation of Fieldworkers: Organization Archaeological Consultants Inc City Sarasota

Key Words/Phrases (Don't use county name, or common words like *archaeology, structure, survey, architecture, etc.*)
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____

Survey Sponsors (corporation, government unit, organization or person directly funding fieldwork)
Name Golden Construction, Inc. Organization _____
Address/Phone/E-mail 111 Belle Forbes Ln., Crawfordville, FL 32327

Recorder of Log Sheet Horvath, Elizabeth A. Date Log Sheet Completed 5-16-2019

Is this survey or project a continuation of a previous project? No Yes: Previous survey #s (FMSF only) _____

Mapping

Counties (List each one in which field survey was done; attach additional sheet if necessary)
1. Wakulla 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)
1. Name CRAWFORDVILLE EAST Year _____ 2. Name _____ Year _____
3. Name _____ Year _____ 4. Name _____ Year _____
5. Name _____ Year _____ 6. Name _____ Year _____

Description of Survey Area

Dates for Fieldwork: Start 2-11-2019 End 5-15-2019 Total Area Surveyed (fill in one) _____ hectares 14.35 acres
Number of Distinct Tracts or Areas Surveyed 1
If Corridor (fill in one for each) Width: _____ meters _____ feet Length: _____ kilometers _____ miles

Research and Field Methods

Types of Survey (check all that apply): archaeological architectural historical/archival underwater
damage assessment monitoring report other(describe): _____

Scope/Intensity/Procedures background research, systematic subsurface testing (50 m intervals; N=24, all negative), 50 cm diameter, 1 m deep, 1/4" screen; historic resources survey

Preliminary Methods (check as many as apply to the project as a whole)

Florida Archives (Gray Building) library research- local public local property or tax records other historic maps
Florida Photo Archives (Gray Building) library-special collection - nonlocal newspaper files soils maps or data
Site File property search Public Lands Survey (maps at DEP) literature search windshield survey
Site File survey search local informant(s) Sanborn Insurance maps aerial photography
other (describe): _____

Archaeological Methods (check as many as apply to the project as a whole)

Check here if NO archaeological methods were used.
surface collection, controlled shovel test-other screen size block excavation (at least 2x2 m)
surface collection, uncontrolled water screen soil resistivity
shovel test-1/4" screen posthole tests magnetometer
shovel test-1/8" screen auger tests side scan sonar
shovel test 1/16" screen coring pedestrian survey
shovel test-unscreened test excavation (at least 1x2 m) unknown
other (describe): _____

Historical/Architectural Methods (check as many as apply to the project as a whole)

Check here if NO historical/architectural methods were used.
building permits demolition permits neighbor interview subdivision maps
commercial permits exposed ground inspected occupant interview tax records
interior documentation local property records occupation permits unknown
other (describe): _____

Survey Results (cultural resources recorded)

Site Significance Evaluated? Yes No

Count of Previously Recorded Sites 0 Count of Newly Recorded Sites 0

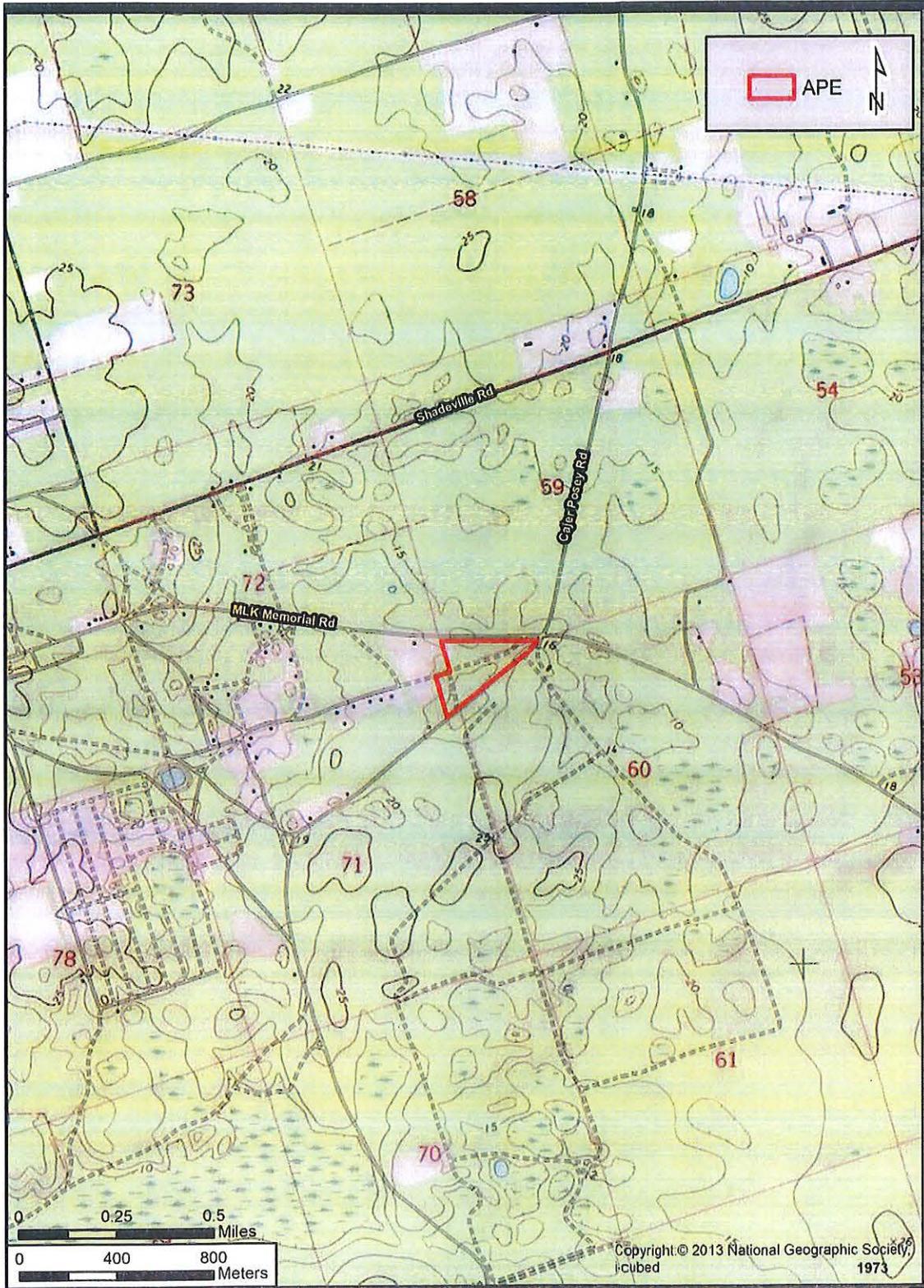
Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8". Attach additional pages if necessary.) NA

Newly Recorded Site #'s (Are all originals and not updates? List site #'s without "8". Attach additional pages if necessary.) NA

Site Forms Used: Site File Paper Form Site File Electronic Recording Form

*** REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S) ***

SHPO USE ONLY SHPO USE ONLY SHPO USE ONLY
Origin of Report: 872 CARL UW 1A32 # _____ Academic Contract Avocational
Grant Project # _____ Compliance Review: CRAT # _____
Type of Document: Archaeological Survey Historical/Architectural Survey Marine Survey Cell Tower CRAS Monitoring Report
Overview Excavation Report Multi-Site Excavation Report Structure Detailed Report Library, Hist. or Archival Doc
MPS MRA TG Other: _____
Document Destination: _____ Plotability: _____



Miller Property
 Township 60 North, Range 60 East, Sections 59, 60 and 71, Hartsfield Survey
 USGS Crawfordville East
 Wakulla County.

TRAFFIC ANALYSIS

**GOLDEN CONSTRUCTION
LAND USE CHANGE
TRAFFIC STUDY**

PREPARED FOR:

Golden Construction Company, Inc.
204 Shadeville Road
Crawfordville, FL 32327

PREPARED BY:

Hydra Engineering & Construction, LLC
36 Jasper Thomas Road
Crawfordville, FL 32327
(850) 926-2593



DATE SUBMITTED:

June 28, 2019

Hydra Project #2019117

CERTIFICATION

This report was prepared by me (or under my direct supervision) in accordance with the Wakulla County, Florida and FDOT Requirements and was designed to comply with the provisions thereof.

Registered Professional Engineer
State of Florida No. 65372

Vernon D. Hope II, P.E.

Hydra Engineering & Construction, LLC
36 Jasper Thomas Road
Crawfordville, Florida 32327
Certificate of Authorization Number 28124

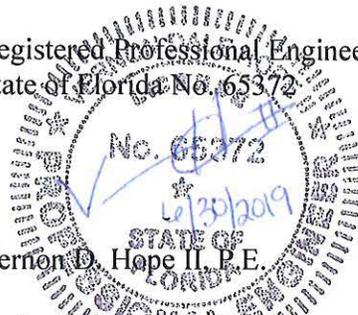


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GOLDEN CONSTRUCTION TRAFFIC STUDY

INTRODUCTION

The purpose of this traffic study is to address the capacity, geometric, and traffic control requirements associated with the rezoning of the property from the existing Agricultural to the proposed Urban-1. The site is located in the southwest quadrant at the intersection of Alexander Road and Dr Martin Luther King Jr Memorial Road. The site can be accessed from either Martin Luther King Jr Memorial Road or Alexander Road. This analysis focuses on the impacts to Dr Martin Luther King Jr Memorial Road.

EXISTING AND PROPOSED LAND USES

The property is currently zoned as Agriculture and the land use is Agriculture. The developer is proposing a land use change to Urban-1. The parcel is 10.64 acres. The maximum density for a residential development is 2 units per acre.

SITE ACCESS

The site's access points are located on Dr. Martin Luther King Jr Memorial Road and Alexander Road.

SURROUNDING ZONINGS

The surrounding zonings are: PUD, Agriculture, Single-Family Residential, and Rural Residential (RR-5).

CRITERIA

The determination of the need for additional auxiliary lanes at the access road was based on the following criteria: Transportation Research Board (NCHRP) Report Number 279.

TRIP GENERATION

The Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition was used to determine daily and PM Peak Hour Trips. ITE Code 210- Single Family Detached Housing was used to determine the PM peak hour trips based on the maximum number of houses allowed per acre (2) on the parcel per Urban-1 requirements. Per ITE Code 210, 0.99 PM peak hour trips of adjacent street traffic per dwelling unit. The proposed development is expected to generate 21 PM peak hour trips.

At the time of this study, the Wakulla County Traffic Concurrency Management System listed Dr. Martin Luther King Jr. Memorial Road as LOS C and under capacity by 367.346 trips along the section from U.S. 319 to Spring Creek Highway (link # 500/501).

Alexander Road is not listed on the Wakulla County Traffic Concurrency Management System.

Based on the new trips generated by this site, the project will be considered a “Small development” under the Wakulla County Traffic Concurrency Management Code. The development is expected to generate 21 PM peak hour trips when developed to its maximum allowed density. The trips were calculated using the ITE section mentioned previously and the maximum density listed in the existing and proposed land uses section. It was assumed that Dr. Martin Luther King Jr Memorial Road will accept 50% (11 trips) of the PM Peak Hour trips produced by the maximized site and Alexander Road will accept the remaining 50% (10 trips). However, the residences accessing Alexander Road will ultimately combine with the trips on Dr. Martin Luther King Jr. Memorial Road. Dr. Martin Luther King Jr Memorial Road is currently below capacity by 367.346 PM Peak Hour/Peak Direction trips and Alexander Road is assumed as well below capacity since it is not part of the county’s concurrency study.

Table 1. TRIP GENERATION

| PM Peak Hour | | |
|--|---------|---------|
| Entering/Exiting | In | Out |
| Dr. Martin Luther King Jr. Memorial Road | 7 Trips | 4 Trips |
| Alexander Road | 6 Trips | 4 Trips |

TRIP DISTRIBUTION

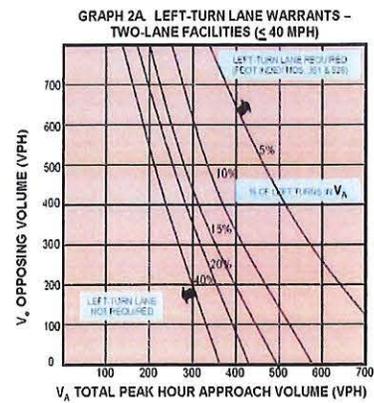
Based on the ITE Trip Generation Manual, 63% of PM Traffic is entering the site and 37% is exiting. Table 1 indicates this distribution of traffic at the proposed entrances on Dr. Martin Luther King Jr. Memorial Road and Alexander Road to enter or exit the site. Based on local knowledge, it is assumed that 50% of the traffic will turn left to enter the site and 50% will turn right. See Trip Distribution diagram and Trip Calculations on Pages 11 and 12 for clarification. Through these assumptions, distribution calculations, and the NCHRP Report 279 the following turn lane analysis was created.

TURN LANE ANALYSIS

Left Turn Lane

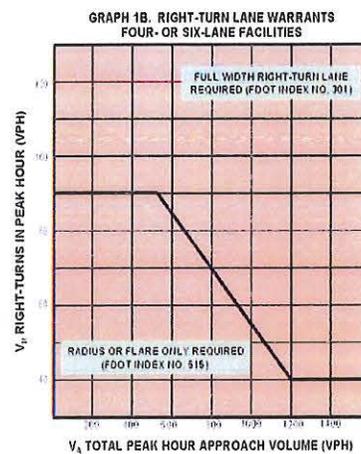
Based on the following graph from the NCHRP Report 279 a left turn lane is not warranted on either road. The worst-case scenario for either road is a total peak hour approach volume is 482.654VPH (V_A) with a maximum of 5 VPH turning left into the site. This corresponds to the 5% line on Graph 2A ($5 / 482.654 = 1.0\%$). On this line,

there must be an opposing volume of at least 540 VPH to warrant the need of a left turn lane. Thus, based on the 482 VPH peak volume in the peak direction per the Wakulla County Transportation Concurrency Management System, a turn lane is not warranted at this time.



Right Turn Lane

Per the Graph 1B, from the NCHRP Report 279, a right turn lane is not warranted for the project. The highest peak hour peak direction for either road is 482.654 VPH (V_A), per the Wakulla County Transportation Concurrency Management System and the largest amount of right turns is 5 VPH (V_R) during Peak hour. This point falls under the line in the graph so a right turn lane is not warranted.



Graph 1A & 1B - Source: From National Cooperative Highway Research Program Report No. 279.

PROCESS OF STUDY

Per the Wakulla County Traffic Concurrency Management Plan, Dr. Martin Luther King Jr. Memorial Road is currently operating at a Level of Service C and under capacity and Alexander Road is considered below capacity as well. Dr. Martin Luther King Jr. Memorial Road can accommodate 50% of the trips generated by the site based on the maximum traffic generated for Urban-1 zoning assuming 2 houses per acre. Alexander Road can handle the remaining 50% of the trips. Also, the turn lane analysis shows that no turn lanes are warranted.

RESULTS

Based on the information gathered and the anticipated site generated traffic, no turn lanes will be required because Dr. Martin Luther King Jr. Memorial Road and Alexander Road can handle 100% of the generated entering trips in any direction without exceeding the amounts listed in the Transportation Research Board (NCHRP) Report Number 279 graphs. Additionally, this study reflects the assumption that the site will be maximized to the highest density allowed for Urban-1, 2 houses per acre, and that traffic will be traveling in the worst-case scenario. A specific site plan in the future may produce less trips and/or distribute the trips in a way that does not strain the levels of service of Dr. Martin Luther King Jr. Memorial Road and Alexander Road as much as this study shows.



VICINITY MAP

SINGLE-FAMILY DETACHED HOUSING TRAFFIC CALCULATIONS

EXISTING SITE DATA

Location = Wakulla County, Fl

Units = 21 Dwelling Units

TRIP GENERATION

To Dr. Martin Luther King Blvd

| | | |
|---------------|------|--------------------------------|
| Units = | 11 | Units |
| Land Use = | 210 | Single-Family Detached Housing |
| PM Peak Hr = | 0.99 | Trips/Unit (Weekday) |
| Total Trips = | 11 | PM Peak Hr Trips |
| Weekday Avg= | 9.44 | Trips / Unit |
| Total Trips = | 104 | Total Daily Trips |

To Alexander Road

| | | |
|---------------|------|--------------------------------|
| Units = | 10 | Units |
| Land Use = | 210 | Single-Family Detached Housing |
| PM Peak Hr = | 0.99 | Trips/Unit (Weekday) |
| Total Trips = | 10 | PM Peak Hr Trips |
| Weekday Avg= | 9.44 | Trips / Unit |
| Total Trips = | 94 | Total Daily Trips |

Combined Trips

| | | |
|---------------|-----|-------------------|
| Total Trips | 21 | PM Peak Hr Trips |
| Total Trips = | 198 | Total Daily Trips |

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: **Dwelling Units**
 On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

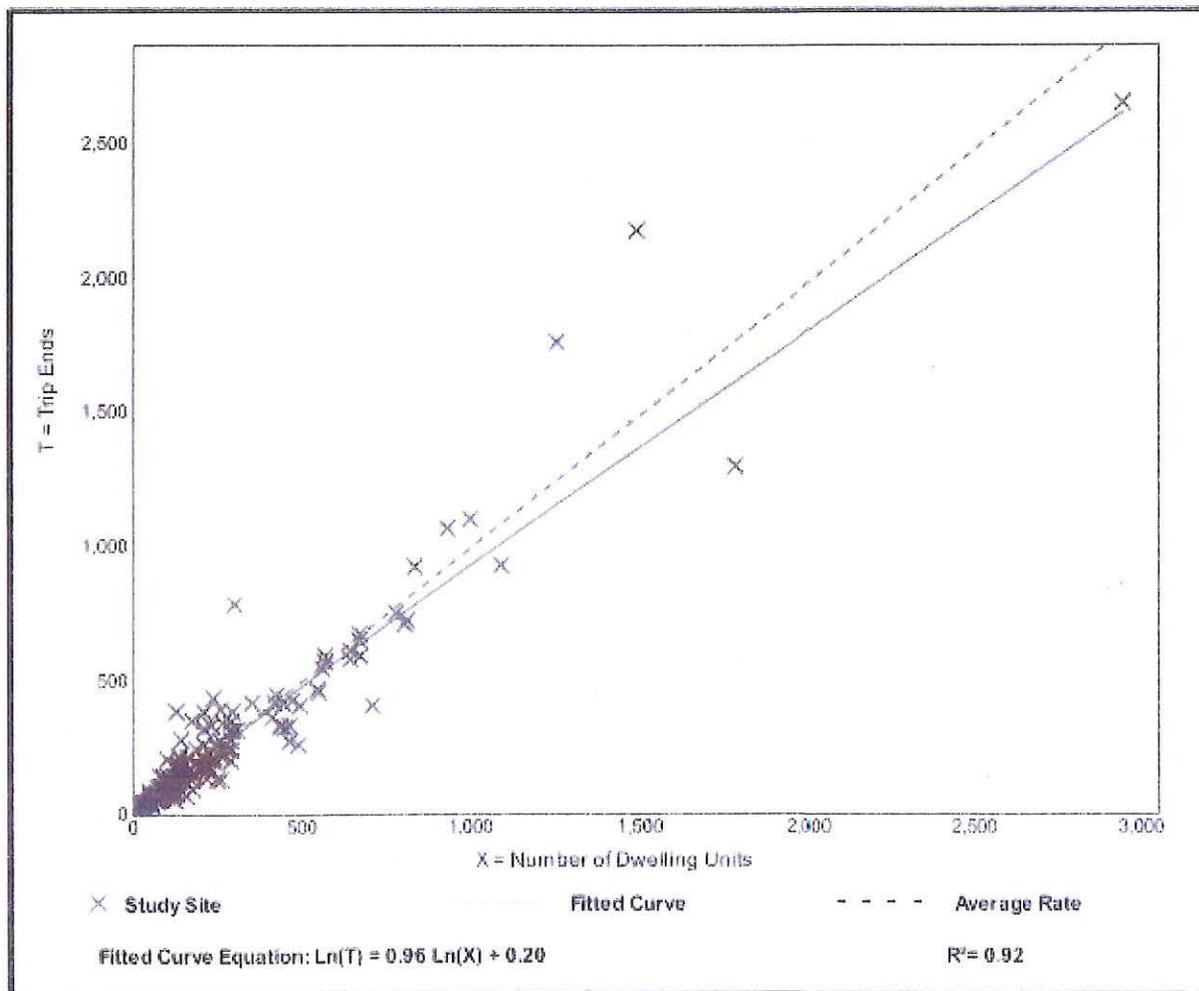
Setting/Location: General Urban/Suburban

Number of Studies: 190
 Avg. Num. of Dwelling Units: 242
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.99 | 0.44 - 2.98 | 0.31 |

Data Plot and Equation



Single-Family Detached Housing (210)

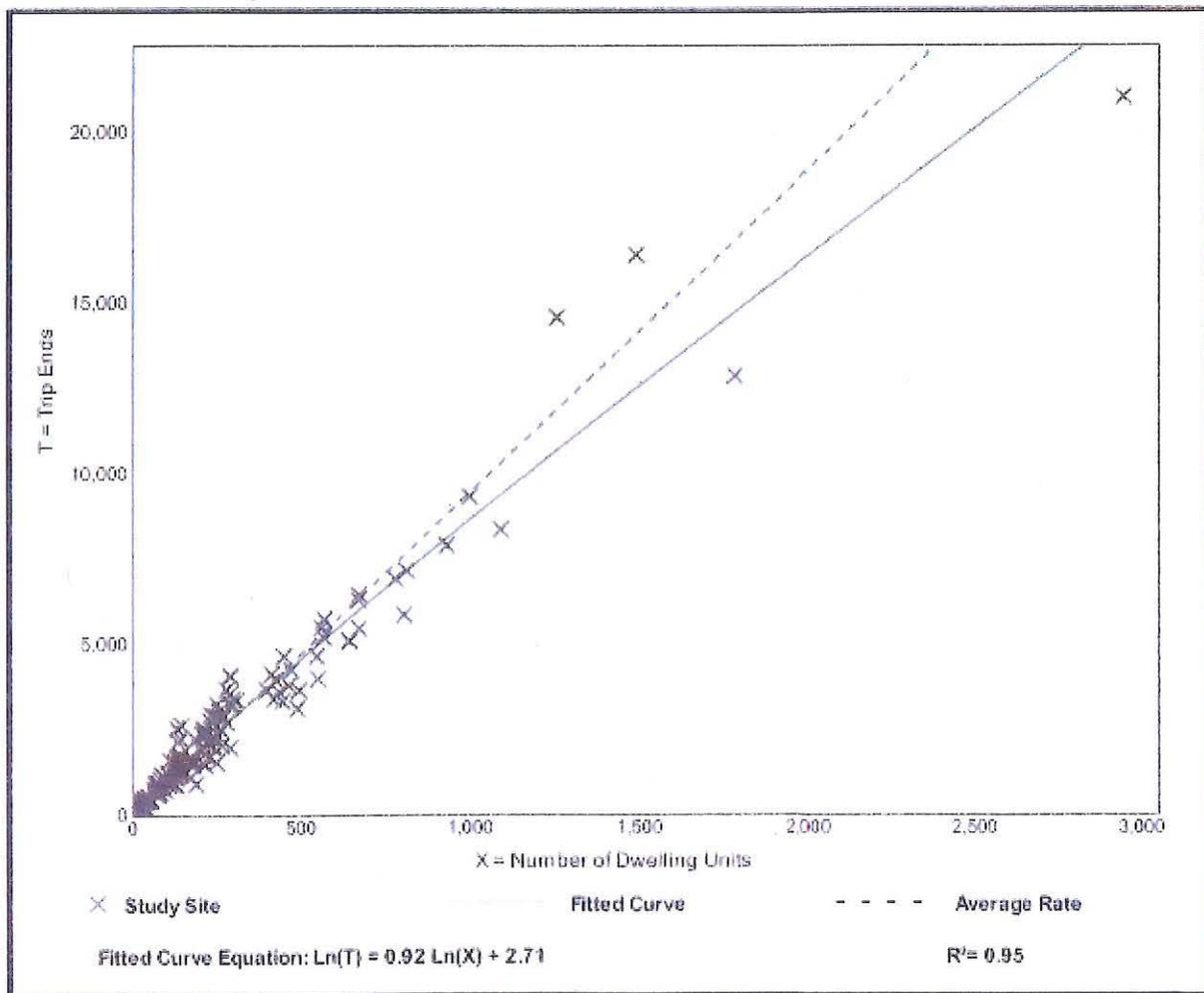
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 159
Avg. Num. of Dwelling Units: 264
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 9.44 | 4.81 - 19.39 | 2.10 |

Data Plot and Equation



NEEDS ANALYSIS

NEEDS AND ANALYSIS

According to the Residential Needs and Analysis prepared for Wakulla County by Kimley Horn in April 2017:

“Additional units are necessary to account for the preference of the desirability of a housing unit.”

The subject property is located within the Crawfordville town plan. this area provides quick and easy access to parks, dining, shopping and work in downtown Crawfordville. Furthermore, the location is situated along two collector roadways providing efficient access to many local recreational activities throughout the County. Thus, proving the subject property to be a desirable location for residential development.

See Attached: Residential needs and Analysis.



RESIDENTIAL NEEDS ANALYSIS

Prepared for:

Wakulla County

APRIL 2017

Prepared By

Kimley»»Horn

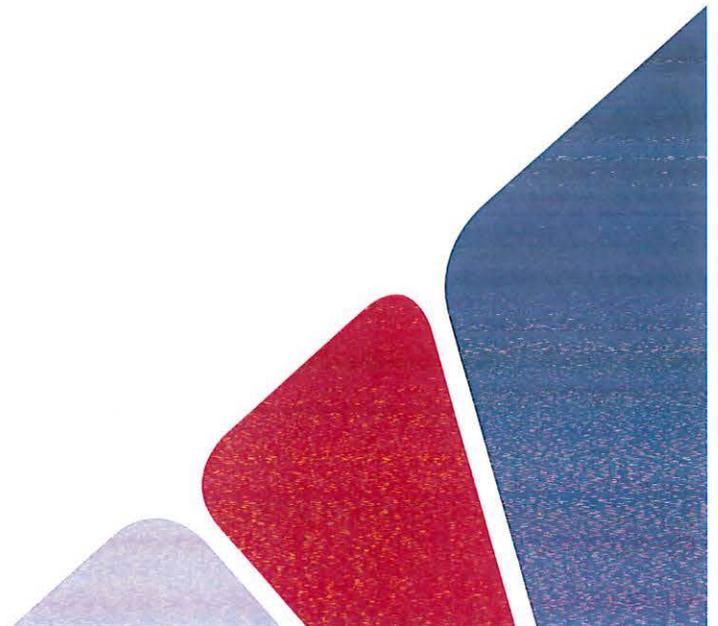


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Table 11: Wakulla County Land Use 8

Table 12: Housing Unit Needs Projection 9

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Table 14: Potential Residential Buildout 10

INTRODUCTION

The purpose of this analysis is to compare the existing Wakulla County Comprehensive Plan Future Land Use provisions with the Wakulla County Future Land Use Map. This comparison using population economic and spatial data will allow for the identification of Wakulla County residential land use needs. This analysis will determine the planning level estimates of future residential needs based on Bureau of Economic and Business Research (BEBR) population projections and other factors out to the 20-year planning horizon (2035). This is an update to the last residential needs analysis completed in 2010.

EXISTING POPULATION

Using 2016 BEBR data, the estimated 2015 population for Wakulla County is 31,283 which includes the populations of The City of St. Marks and The City of Sopchoppy. BEBR has created populations projections based on the 2010 Census which will be used to determine the needs of the County over the planning horizon.

Excluded Populations

Institutionalized Population

Wakulla County is home to the Wakulla County Correctional Institution which currently maintains a sizable inmate population. This institutionalized population skews the population projections creating a misrepresentation of the residential needs. BEBR identified 3,300 institutionalized individuals within their 2015 population analysis and utilized this figure within the population projections. This figure was used as a static input into the data to create the current population estimates and projections. As part of this analysis, the 3,300 institutionalized individuals have been removed from the population projections to provide a clearer representation of the expected population and subsequently the land use needs. Population projections without these individuals will hereinafter be referred to as adjusted projections.

Homeless Population (BEBR Estimate)

Per the BEBR Series 9760 Study, the estimated number of homeless individuals within Wakulla County is 10. This data was provided to BEBR by the Florida Department of Health. The homeless population has not been included within the population projections for Wakulla County. It is assumed that the homeless population within the County will remain nearly constant over the planning horizon.

Seasonal and Tourist Population

Tourist and seasonal populations fluctuate throughout the year within the County much like the rest of Florida. The BEBR population projections included within this study have also excluded tourist and seasonal populations, giving a more accurate representation of the static population within the County.

Projected Population

BEBR medium population projections have been used to determine the future land use needs for the County. As mentioned above, this medium population projection does not include institutionalized, homeless, or seasonal/tourist populations.

Table 1 below displays the BEBR medium projected populations both with and without the 3,300 institutionalized individuals.

Table 1: Population Projection

| Projection | Projection Years | | | |
|---------------------------|------------------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Medium | 33,500 | 35,600 | 37,400 | 39,100 |
| Minus Excluded Population | 30,200 | 32,300 | 34,100 | 35,800 |

Source: 2016 BEBR Medium Projection

Based on the above table, the population of the County is expected to increase from 27,983 to 35,800 individuals by 2035. Approximately 7,817 new individuals are expected within the County over the planning horizon. The adjusted population projections (without the 3,300 institutionalized populations) will be used within this report to determine the future needs of the County.

Aging Population

According to the 2015 American Community Survey 5-Year Estimates (2015 ACS), approximately 12.6% of the population within Wakulla County is 65 years or over. Currently 29.4% of the County's population are between the ages of 45 and 64. Assuming the current ratio of population age remains constant, the population over 65 years old is expected to increase by 29.4% over the 20-year planning horizon. The aging population may require different housing types, such as communal living or apartment style units, which may affect residential development into the future.

Table 2 below displays the 2015 estimated population age breakdown for Wakulla County.

Table 2: Population Age

| | Total | Male | Female |
|-------------------------|----------|----------|----------|
| | Estimate | Estimate | Estimate |
| Total population | 31,128 | 17,366 | 13,762 |
| AGE | | | |
| Under 5 years | 5.1% | 4.5% | 5.8% |
| 5 to 9 years | 4.9% | 4.7% | 5.0% |
| 10 to 14 years | 7.1% | 7.2% | 6.9% |
| 15 to 19 years | 5.9% | 5.7% | 6.0% |
| 20 to 24 years | 6.0% | 5.8% | 6.2% |
| 25 to 29 years | 6.8% | 7.4% | 6.0% |
| 30 to 34 years | 7.3% | 8.1% | 6.3% |
| 35 to 39 years | 7.0% | 7.1% | 6.9% |
| 40 to 44 years | 8.2% | 9.2% | 6.9% |
| 45 to 49 years | 8.0% | 8.7% | 7.1% |
| 50 to 54 years | 7.9% | 8.0% | 7.9% |
| 55 to 59 years | 7.1% | 6.7% | 7.5% |
| 60 to 64 years | 6.4% | 6.1% | 6.8% |
| 65 to 69 years | 4.2% | 4.1% | 4.3% |
| 70 to 74 years | 3.7% | 3.2% | 4.2% |
| 75 to 79 years | 2.1% | 1.8% | 2.5% |
| 80 to 84 years | 1.4% | 0.7% | 2.2% |
| 85 years and over | 1.2% | 0.9% | 1.4% |

Source: 2015 American Community Survey (ACS)

EXISTING HOUSING CHARACTERISTICS

Existing Housing

Per the 2015 ACS there are 12,841 housing units within Wakulla County. **Table 3** below displays the total numbers of housing units within the County.

Table 3: Wakulla Housing Units

| | |
|---------------------|--------|
| Total Housing Units | 12,841 |
|---------------------|--------|

Source: 2015 ACS

Type of Housing Stock (units by structure)

Based on the 2015 ACS estimates, 61.9% (7,952 housing units) of the housing units in the County are 1-unit detached, accompanied by another 31.6% (4,059 housing units) being mobile homes. This data signifies that the majority of housing within the County are single family detached homes **Table 4** below has a breakdown of the units within the housing structures for Wakulla County.

Table 4: Units by Structure

| Units in the Structure | Number of Structures | Percent of Total |
|------------------------|----------------------|------------------|
| 1-unit, detached | 7,952 | 61.9% |
| 1-unit, attached | 146 | 1.1% |
| 2 units | 157 | 1.2% |
| 3 or 4 units | 174 | 1.4% |
| 5 to 9 units | 95 | 0.7% |
| 10 to 19 units | 102 | 0.8% |
| 20 or more units | 83 | 0.6% |
| Mobile home | 4,059 | 31.6% |
| Boat, RV, van, etc. | 73 | 0.6% |
| Total: | 12,841 | ~100% |

Source: 2015 ACS

Age of Existing Units

Based on the ACS estimates, most housing units within Wakulla County were built between 1980 and 2009 (75.6%), with 31.2% of those structures being constructed within the years 2000-2009. **Table 5** below shows build date, the number of structures built, and the percentage of the total number of housing units within a range of years. Throughout the planning horizon, housing units may begin to degrade due in part to their age; As this happens redevelopment of already disturbed lands may be possible.

Table 5: Housing Structure Age

| Year Structures Were Built | Number of Structures | Percent of Total |
|----------------------------|----------------------|------------------|
| Built 2014 or later | 53 | 0.4% |
| Built 2010 to 2013 | 102 | 0.8% |
| Built 2000 to 2009 | 4,006 | 31.2% |
| Built 1990 to 1999 | 3,214 | 25.0% |
| Built 1980 to 1989 | 2,492 | 19.4% |
| Built 1970 to 1979 | 1,619 | 12.6% |
| Built 1960 to 1969 | 502 | 3.9% |
| Built 1950 to 1959 | 377 | 2.9% |
| Built 1940 to 1949 | 130 | 1.0% |
| Built 1939 or earlier | 346 | 2.7% |
| Total: | 12,841 | ~100% |

Source: 2015 ACS

Condition of Housing Stock

The 2015 ACS estimates the number of structures with at least one of the following two deficiencies within the occupied housing units:

- Lacking complete plumbing facilities
- Lacking complete kitchen facilities

Of the occupied housing units within the County approximately 1% of them have at least one of the two deficiencies listed above. Based on this ACS data the number of deficient housing units within the County is relatively low. **Table 6** below displays the amount of structures with deficiencies and the percentage of the total occupied housing units.

Table 6: Housing Unit Deficiencies

| Deficiencies | Number of Structures | Percent of Total |
|--------------------------------------|----------------------|------------------|
| Lacking complete plumbing facilities | 52 | 0.4% |
| Lacking complete kitchen facilities | 78 | 0.6% |
| Total: | 130 | 1.0% |

Source: 2015 ACS

Household Characteristics

Household Size

According to the 2015 ACS data, housing units within the County are 74.8% owner occupied with the remaining 25.2% renter-occupied. The owner-occupied units have an average household size of 2.50 and the rental occupancy is an average of 2.79 individuals in the household. The average number of individuals within both owner and rental housing units is 2.64%.

The historical average of individuals per household within Wakulla County has slightly increased since the 2000 Census, as can be seen below:

- 2000: 2.57 individuals per household (2000 Census)
- 2010: 2.61 individuals per household (2010 Census)

Kimley»Horn

The average owner occupancy within the State of Florida is 2.61 and the renter occupied occupancy is 2.67, leading to an average of 2.64 individuals per household. When looking at the National 2015 ACS data the average owner household size is 2.70 individuals and the average renter household size is 2.53 individuals. Using this data, the average household occupancy for the United States is approximately 2.61 individuals. The County average household size is identical to the State average and slightly larger than the national average.

Affordability

According to the US Department of Housing and Urban Development, households which pay over 30 percent of their income on mortgage/rent are considered "cost burdened". Based on the 2015 ACS, 61.7% (4,932 units) of the owner-occupied units within the County were under a mortgage while only 38.5% (3,066 units) of the units were without a mortgage. Within Wakulla County, an estimated 33% of housing unit owners with a mortgage are spending 30% or more of their household income, whereas approximately 10.5% of owners without a mortgage are paying 30% or more of their household income. These figures suggest that many the County's residents are living in homes that are a significant portion of their income. This may indicate a need for lower cost housing alternatives to be developed over the planning horizon.

Table 7 and **Table 8** below show the percentage of household income between the housing units with and without mortgages.

Table 7: Mortgage Homeowner Costs

| Monthly Owner Costs as a Percentage of Household Income (SMOCAPI) | Housing units with a mortgage (excluding units where SMOCAPI cannot be computed) | Percentage of the Total Number of Mortgaged Homes |
|---|--|---|
| Less than 20.0 percent | 2,093 | 42.6% |
| 20.0 to 24.9 percent | 700 | 14.2% |
| 25.0 to 29.9 percent | 502 | 10.2% |
| 30.0 to 34.9 percent | 396 | 8.1% |
| 35.0 percent or more | 1,227 | 24.9% |
| Not computed | 14 | (X) |

Source: 2015 ACS

Table 8: Non-Mortgage Owner Cost

| Monthly Owner Costs as a Percentage of Household Income (SMOCAPI) | Housing units without a mortgage (excluding units where SMOCAPI cannot be computed) | Percentage of the Total Number of Non-Mortgaged Homes |
|---|---|---|
| Less than 10.0 percent | 1,446 | 47.9% |
| 10.0 to 14.9 percent | 656 | 21.7% |
| 15.0 to 19.9 percent | 381 | 12.6% |
| 20.0 to 24.9 percent | 90 | 3.0% |
| 25.0 to 29.9 percent | 128 | 4.2% |
| 30.0 to 34.9 percent | 149 | 4.9% |
| 35.0 percent or more | 168 | 5.6% |
| Not computed | 48 | (X) |

Source: 2015 ACS

In addition to the owner costs of mortgaged housing units, occupied units paying rent as a percentage of their income have been calculated. Approximately 47.3% of rent paying occupied units are paying 30% or more of their household income. **Table 9** below displays the percentage of household income accompanied by the number and percentage of the total housing units.

Table 9: Renter Costs

| Gross Rent as a Percentage of Household Income (GRAPI) | Occupied units paying rent (excluding units where GRAPI cannot be computed) | Percentage of the Total Occupied Units Paying Rent |
|--|---|--|
| Less than 15.0 percent | 230 | 10.4% |
| 15.0 to 19.9 percent | 431 | 19.4% |
| 20.0 to 24.9 percent | 177 | 8.0% |
| 25.0 to 29.9 percent | 333 | 15.0% |
| 30.0 to 34.9 percent | 190 | 8.6% |
| 35.0 percent or more | 861 | 38.7% |
| Not computed | 471 | (X) |

Source: 2015 ACS

The above data does not include 14 owner mortgaged homes, 48 owner non-mortgaged homes, or 471 rental units due to insufficient data gathered for the 2015 ACS.

Future Land Use Analysis

Existing Land Use Scenario

According to the Future Land Use Element (FLUE) of the Wakulla County Comprehensive Plan, there are 15 land uses that allow residential development. A map of the Future Land use of the County has been included within the **Appendix**. The residential land uses and their residential densities have been included below in **Table 10**.

Table 10: Wakulla Comprehensive Plan – Future Land Use Element

| Policy | Land Use Category | Allowable Residential Development |
|----------|--|---|
| 1.2.1 | Conservation | 1 unit per 40 acres |
| 1.2.2 | Agriculture Primary | 1 unit per 20 acres |
| | | 1 unit per 40 acres (in wetland) |
| 1.2.3 | Rural-1 | 1 unit per 5 acres (paved county or state roads) |
| | | 1 unit per 10 acres (unpaved roadways) |
| | | 1 unit per 20 acres (in wetland) |
| 1.2.4 | Rural-2 | 1 unit per 2 acres (with connection to central water service) |
| | | 1 unit per 5 acres (without connection to central water service) |
| | | 1 unit per 20 acres (in wetland) |
| 1.2.5 | Urban-1 (Urban Fringe) | 2 units per acre (connection to central water and sewer) |
| | | 1 unit per acre (with connection to central water and with septic suitability) |
| | | 2 units per acre (within the "Panacea Area Sewer System" will require installation of/connection to the sewer system) |
| | | 1 acre per 20 acres (in wetland) |
| 1.2.6 | Urban-2 (Urban Services) | 10 units per acre (outside of coastal high hazard area, with connection to the central water and sewer) |
| | | 1 unit per acre (without central water and sewer) |
| | | 4 units per acre (within the coastal high-hazard area, with central water and sewer) |
| | | 1 unit per acre (within the coastal high hazard-area, without central water and sewer) |
| | | 1 unit per 20 acres (in wetland) |
| 1.2.7 | Commercial (Non Urban) | Not permitted |
| 1.2.8 | Industrial | Not permitted |
| 1.2.9 | Sustainable Community | 10 units per acre (Outside coastal high-hazard area, with connection to the central water and sewer) |
| | | 4 units per acre (within costal high hazard-area, with connection to the central water and sewer) |
| 1.2.9.1 | Northeast Wakulla County Sustainable Community | 650 Single family units; 150 multi-family units |
| 1.2.10 | Bloxham Special Area Plan (SAP #1) | 1 unit per acre (special density restrictions identified within the Comp Plan) |
| 1.2.10.2 | Special Area Plan (SAP #2) | 2 units per acre (maximum 141 lots) |
| 1.2.10.3 | Spring Creek Highway (SAP #3) | (special density restrictions identified within the Comp Plan) |
| 1.2.11 | Conservation Residential | 1 unit per 3 acres (minimum 0.25-acre lot size) |
| 1.2.12 | Rural-3 (Rural Residential) | 1 unit per 1 acre (with connection to central water and sewer) |
| | | 1 unit per 5 acres (without connection to central water and sewer) |
| 1.2.13 | Public Facilities | Not permitted |
| 1.2.14 | Crawfordville Town Center 1 | 15 units per acre |
| 1.2.15 | Crawfordville Town Center 2 | 20 units per acre |

Source: Wakulla County Comprehensive Plan: Future Land Use Element

Vacant Land Uses

Using Property Appraiser and County Planning and Zoning data, the total and vacant acreages based on the future land use type have been developed. The County provided GIS information which was used to determine if each parcel had an existing structure. For those properties without a structure, the entire parcel was considered vacant. **Table 11** below details the number of vacant acres per land use category.

Table 11: Wakulla County Land Use

| Land Use | Total Acreage | Vacant Acreage |
|-----------------------|-------------------|-------------------------------|
| Agriculture | 72,213.29 | 62,465.28 |
| Rural 1 | 31,167.10 | 19,126.12 |
| Rural 2 | 24,706.88 | 10,334.05 |
| Rural 3 | 171.48 | 13.85 |
| Commercial | 80.40 | 64.18 |
| Industrial | 1,939.55 | 1,916.23 |
| Conservation | 241,035.31 | 239,143.98 |
| Public | 571.71 | 336.69 |
| Sustainable Community | 623.86 | 623.86 |
| SAP 1 | 471.03 | 293.42 |
| SAP 2 | 75.05 | 48.48 |
| SAP 3 | 163.93 | 87.75 |
| Incorporated | 2,008.42 | 1,364.65 |
| Urban 1 | 7,669.20 | 3,742.38 |
| Urban 2 | 1,755.00 | 1,000.14 |
| Totals: | 384,652.21 | 340,561.10¹ |

Source: Wakulla County Property Appraiser

¹ This figure is greater than the vacant parcels identified within the previous report. The increase in vacant parcels is assumed to be from an increase in the availability and accuracy of the County wide parcel data, as well as the general trend of smaller lot size development.

Wakulla County contains several historic subdivisions which have been identified as areas that may require certain land restrictions based on antiquated lot sizes and the need for sewer or other infrastructure. To account for these historic subdivisions, 1,491.59 acres have been removed from the vacant acreage calculation.

A map in the **Appendix** displays the properties throughout the County which are vacant. It is important to note that these vacant acreages are not entirely developable. Using the Future Land Use Element (FLUE) of the Wakulla County Comprehensive Plan, land use modifiers such as the presence of wetlands, conservation lands or being within the coastal high hazard area (CHHA) must be considered to appropriately estimate the number of developable units and densities of each parcel. A map the **Appendix** shows the wetlands and CHHA boundaries within the County.

NEEDS ASSESSMENT

Household Number Projections

The estimated number of needed households throughout the County was calculated using the average of 2.64 individuals per household. Based on the adjusted BEBR population projections, without the excluded populations, and assuming that the average number of individuals per household will remain similar over the planning horizon, **Table 12** has been created.

Table 12: Housing Unit Needs Projection

| | Projection Years | | | |
|-----------------------------------|------------------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Adjusted Projected Population | 30,200 | 32,300 | 34,100 | 35,800 |
| Estimated Number of Housing Units | 11,439 | 12,235 | 12,917 | 13,561 |

Source: 2016 BEBR Medium Projection

Residential Market Factor

In the time since the previous land use analysis was created in 2010, the Department of Community Affairs (DCA) has been reformed into the Department of Economic Opportunity (DEO). In The Role of Need in Comprehensive Planning, June 2009, the Department of Community Affairs recommended a residential market factor of 1.25. DEO has identified that the most recent residential market factor for Wakulla County was developed under the DCA and this figure of 1.25 has been included within this report. The market factor is intended to account for variation in the housing market, that would not allow for a 1 to 1 ratio of population to housing units. Location, condition, and size of the housing units are all features that change the desirability of a housing unit. Additional units are necessary to account for the preference of the residents. For this report, a range consisting of three market factors has been included to account for changes since the DCA recommendation in 2009. Market factors of 1.15 (low), 1.25 (medium), and 1.35 (high) have been analyzed to estimate the housing need into the future. Based on the outcome of this data, the previously used market factor of 1.25 was deemed the most appropriate. The low 1.15 market factor may not meet the needs of the County and may be too restrictive in terms of potential build out scenarios. Planning for the low market factor may result in a housing deficit for the projected population. The high 1.35 market factor will call for a surplus of homes which is not necessary to serve the projected populations. Using the existing conditions and the projected population increase within the County, it is recommended that the medium market factor of 1.25 be used to predict the necessary amount of housing needed for the future. As conditions within the County change, these figures may be updated to account for major changes in population or regional changes experienced; It may be necessary to use either the low or high market factors to accommodate growth. **Table 13** below displays the estimated number of housing units necessary to meet the projected populations. The bottom three rows of **Table 13** display the number of housing units needed to meet the low, medium, and high market factors.

Table 13: Housing Unit Needs: Adjusted Projection

| | Projection Years | | | |
|--|------------------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Adjusted Projected Population | 30,200 | 32,300 | 34,100 | 35,800 |
| Estimated Number Needed of Housing Units | 11,439 | 12,235 | 12,917 | 13,561 |
| 1.15 Market Factor | 13,155 | 14,070 | 14,854 | 15,595 |
| 1.25 Market Factor | 14,299 | 15,294 | 16,146 | 16,951 |
| 1.35 Market Factor | 15,443 | 16,517 | 17,438 | 18,307 |
| Existing Housing Units | 12,841 | 12,841 | 12,841 | 12,841 |
| 1.15 (Estimated Need - Total Existing Units) | 314 | 1,229 | 2,013 | 2,754 |
| 1.25 (Estimated Need - Total Existing Units) | 1,458 | 2,453 | 3,305 | 4,110 |
| 1.35 (Estimated Need - Total Existing Units) | 2,602 | 3,676 | 4,597 | 5,466 |

Source: 2016 BEBR Medium Projection

Developable Lands

Based on the FLUE of the Comprehensive Plan, the vacant acreage amount has been analyzed to determine the full potential buildout for Wakulla County. **Table 14** describes the potential residential buildout of the County.

Table 14 below shows that the County has large areas of developable land which can be used for residential units. Each land use was analyzed to determine the number of vacant acres, presence of wetlands, coastal high hazard area (CHHA) boundaries, and in the case of Rural-1, the proximity to County and State Roadways. In order to understand the maximum potential build out of Wakulla County, the highest densities within the density guidelines have been used to create **Table 14** below.

GIS data was used to identify the parcels which were within wetland or CHHA boundaries. Many of the future land uses have more restrictive densities within these areas and as such the acreage of these parcels were calculated separately. The allowable development within wetlands and the CHHA has been included in **Table 14** below.

The Rural-1 land use specifically identifies that properties located along select roadways are eligible for increased density, while others located further away are limited to lower densities. Vacant parcels within 75 ft. or less of a County or State Roadway have been included to meet the criteria for increased density. This density figure has been included within the data to provide a more accurate representation of the available unit development.

The Sustainable Community land use also has special development guidelines, which limit the percentage of development by land use category. The maximum development allows for 10 units per acre, but this number can only be between 40-48% of the total development on the parcel. In order to determine the maximum residential development for this land use, the total acreage was multiplied by the 10 units and 48% of the total number of units was used to represent a full residential buildout.

Land use Special Area Plan (SAP) #3 and the incorporated areas of Sopchoppy and St. Marks have special development guidelines which do not have specified residential densities within the FLUE. For SAP #3, page 27 of the FLUE begins the description of the development guidelines on these parcels. The County has identified the City of Sopchoppy and City of St. Marks as Incorporated land uses which will have guideline specific to their jurisdictions.

Table 14: Potential Residential Buildout

| Land Use | Vacant Acreage | Allowable Vacant Land Units | Allowable Wetland Units | Allowable CHHA Units |
|---|----------------|----------------------------------|-------------------------|----------------------|
| Agriculture | 62,465.28 | 2,063 | 531 | n/a |
| Rural 1 | 19,126.12 | 2,711 | 277 | n/a |
| Rural 2 | 10,334.05 | 4,542 | 107 | n/a |
| Rural 3 | 13.85 | 14 | n/a | n/a |
| Commercial | 64.18 | n/a | n/a | n/a |
| Industrial | 1,916.23 | n/a | n/a | n/a |
| Conservation | 239,143.98 | n/a | n/a | n/a |
| Public | 336.69 | n/a | n/a | n/a |
| Sustainable Community | 623.86 | 800 | n/a | n/a |
| SAP 1 | 293.42 | 293 | n/a | n/a |
| SAP 2 | 48.48 | 97 | n/a | n/a |
| SAP 3 | 87.75 | Refer to FLUE-27 | | |
| Incorporated | 1,364.65 | Refer to City Density Guidelines | | |
| Urban 1 | 3,742.38 | 5,925 | 54 | n/a |
| Urban 2 | 1,000.14 | 4,560 | 26 | 61 |
| Totals | 340,561.10 | 21,005 | 995 | 61 |
| Total Allowable Residential Units: | | | 22,061 | |

Source: Wakulla County Property Appraiser and Comprehensive Plan: FLUE

Table 14 above indicates that the County currently has the potential to create 22,061 more residential units. This figure should be considered a maximum residential build out, as several areas will likely see more diverse development which would likely include the commercial units. As the number of built residential units is constructed, the number of supporting land uses such as commercial or public lands need to increase to meet the needs of an increasing population. Comparing this figure to the estimated residential need within **Table 14** above, the County has enough residential space to meet the medium 1.25 market factor need. The medium market need factor estimate for 2035 is 4,110 additional housing units. Using the data that has been gathered, the County will have enough residential buildout potential in 2035 even if it excludes more sensitive land uses such as the Rural (1,2, and 3) and Conservation parcels.

Land uses Crawfordville Town Center 1 and Town Center 2 are listed within the FLUE with densities of 15, and 20 residential units per acre respectively. These two land uses are not included within the vacant acreage calculations because none of the existing parcels have adopted this land use. If the parcels listed within the Town Center areas are developed, the County would have additional and relatively dense residential development opportunity.

CONCLUSION

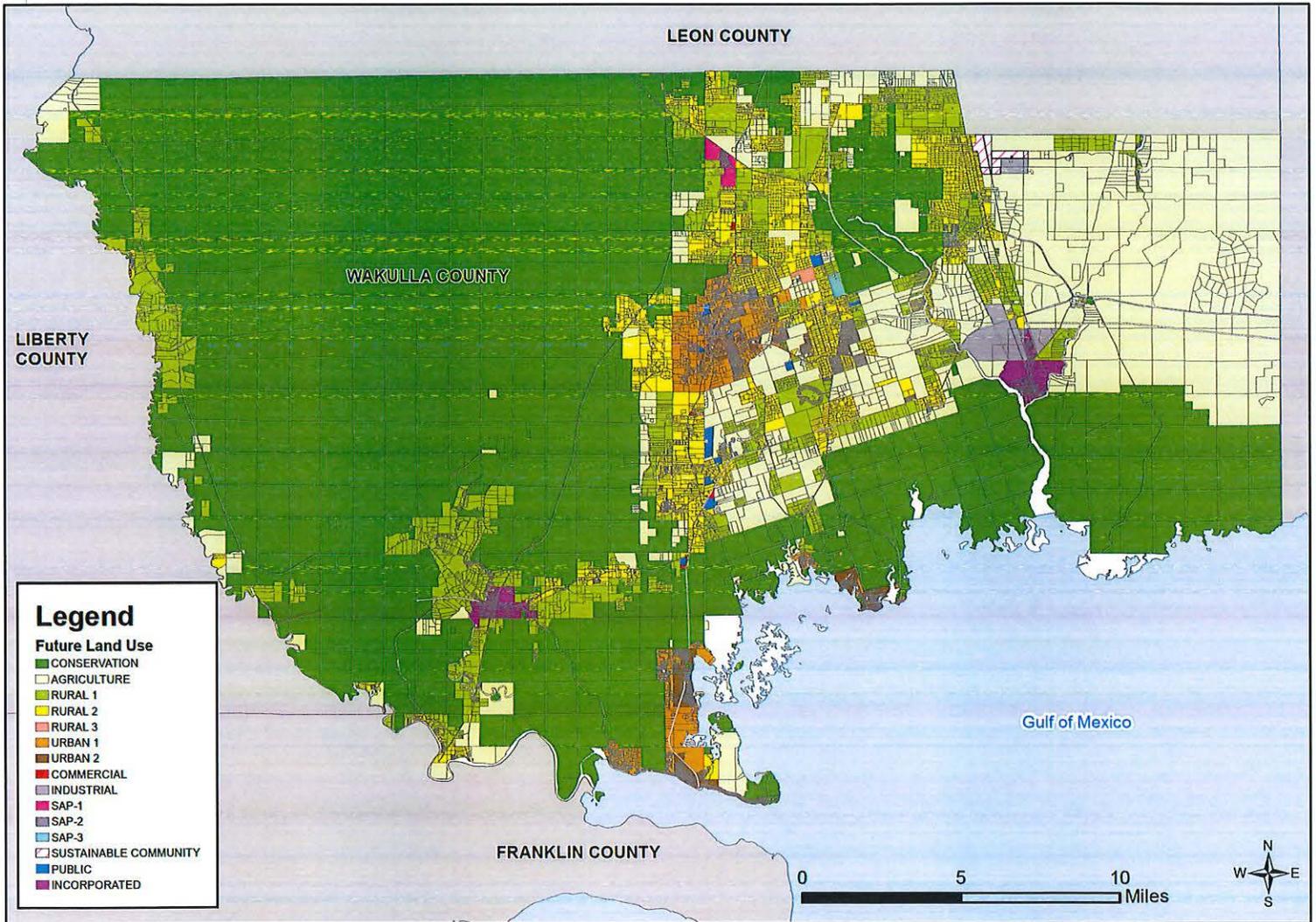
Based on the information provided within this report, Wakulla County currently has the available acreage to meet its projected residential needs in the planning horizon year of 2035. A moderate market factor has been used to estimate the future residential needs of the County. Over the planning horizon of 2035, the County will need an additional 4,110 residential units. The market factor was used to account for preferences in the market and to reduce the possibility of a housing deficit. These factors come into play as individuals may desire housing in certain areas, near a particular school, or based on size, cost or many other factors. It is important to note that the estimates for housing were increased to account for these market preferences. The County currently has the potential to build an additional 22,061 housing units using the buildout capacity of the FLUE. The existing land uses provide enough available acreage for this anticipated need. Based on this analysis diversification of the County's housing stock is needed. This need will lead to more housing units being needed to meet the market demands.

Additionally, within the Crawfordville Area, the Town Center 1 and Town Center 2 land uses have been adopted into the FLUE. Currently no specific parcels have been adopted to these more intense categories, but the possibility exists for the County to increase the number of allowable residential units within the Crawfordville Area. Currently 93.5% percent of the housing units within the County are single family residences of either 1 unit, detached houses or mobile homes. The ability to utilize the increased allowable densities within the Town Center land use categories may allow for the diversification of the housing market. Higher allowable densities may promote the growth of multi-family style residential units, which are currently under represented within the County. Additionally, cluster development strategies present within the FLUE may support the development of denser urban areas throughout the 2035 planning horizon.

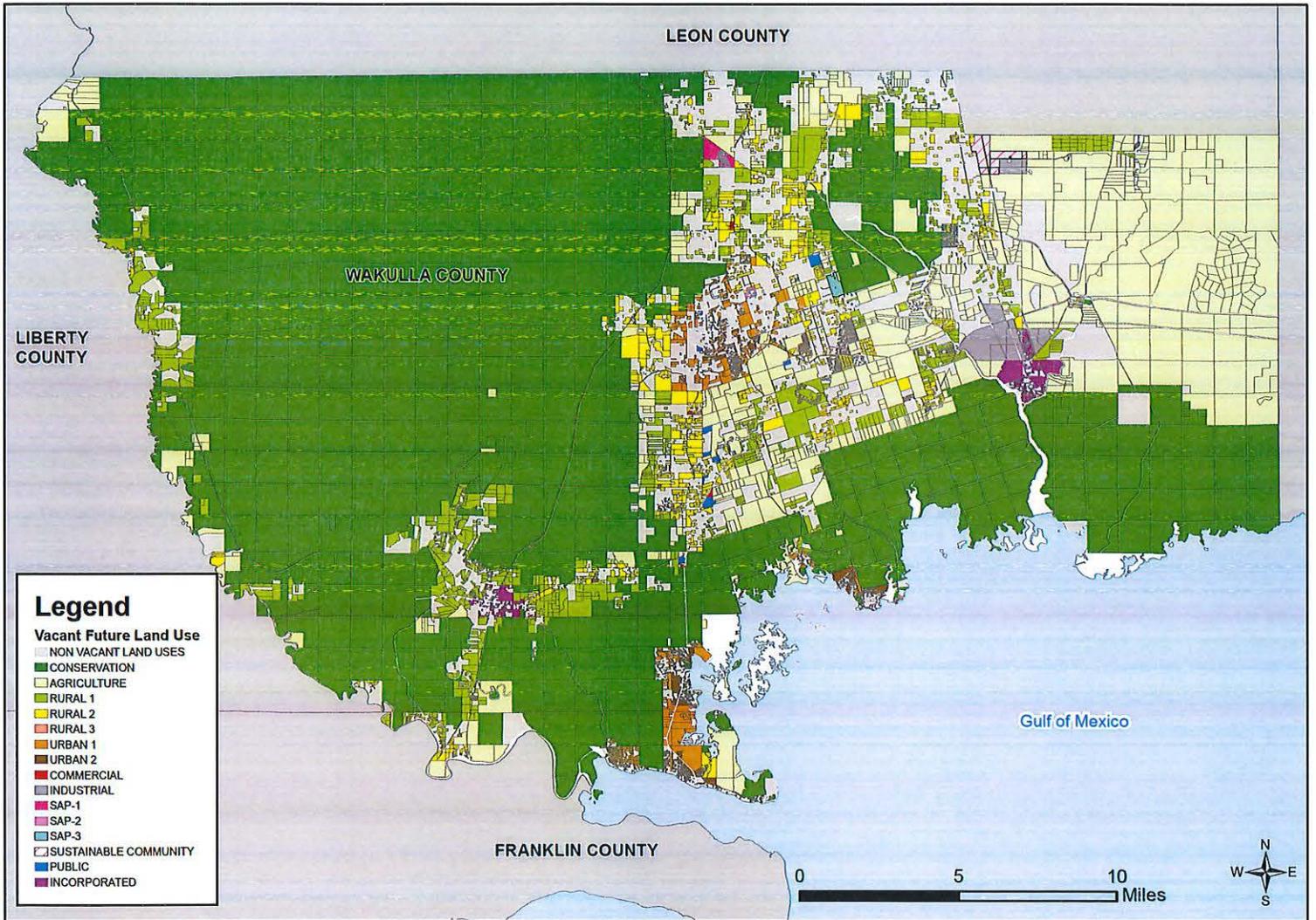
Moving into the future, Wakulla County may have enough residential development potential to meet the projected needs over the planning horizon, providing that the market preference is realized within the County. The available housing and development potential is reliant on the market forces to develop available lands in Wakulla County.

APPENDIX

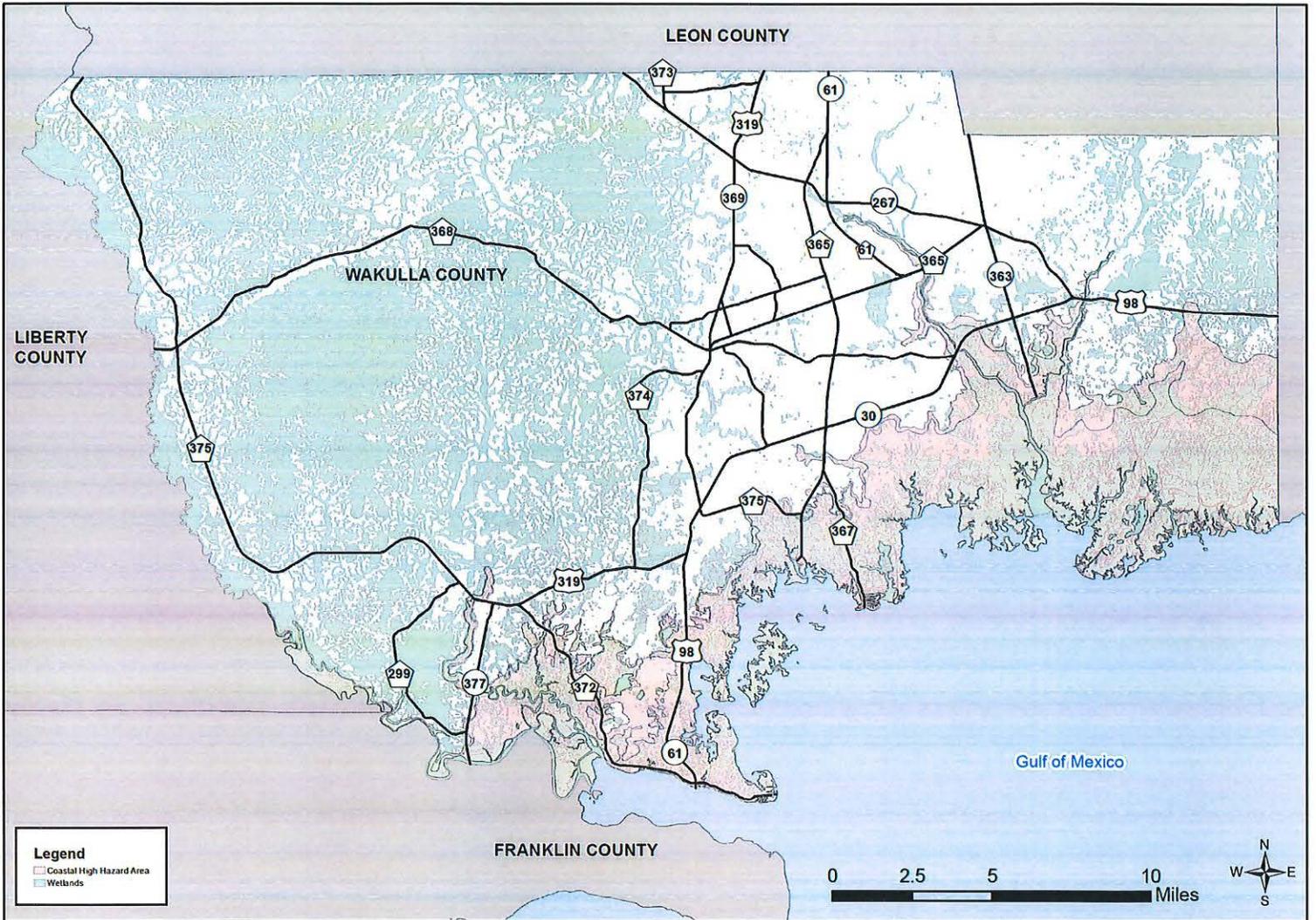
Wakulla County Land Use Needs Analysis Future Land Use



Wakulla County Land Use Needs Analysis Vacant Future Land Use



Wakulla County Land Use Needs Analysis Wetlands and Coastal High Hazard Area



SCHOOL CAPACITY LETTER

**Edwin G. Brown
& Associates, Inc.**
SURVEYORS * MAPPERS * ENGINEERS

June 25, 2019

Mr. Randy Bristol
Wakulla County School Board

Mr. Bristol,

Edwin Brown & Associates is currently preparing an application for a proposed comprehensive plan map amendment on Wakulla County Parcel ID# 00-00-059-000-10047-000. The portion of the subject parcel is located between the intersection of Dr. Martin Luther King Jr. Memorial Road and Alexander Road intersection.

The Subject Parcel is currently zoned agricultural and RR-5 under agricultural future land use map designation allowing only 7.95 residential unit on this approximate 14.35 acre parcel. The parcel is located within the Crawfordville town plan and consists of 10.64 acres of agricultural land use and 3.71 acres of urban fringe land use. The requested urban fringe land use change of the 10.64 will create an increase in residential density of 21.28 units (two units per acre).

Please consider this our formal request for a School capacity letter for the possibility of single family residences on the above described property. As required by Wakulla County planning and zoning department for the purpose of this land use change.

Thank you

Wade G. Brown, PSM
President



WAKULLA COUNTY SCHOOL BOARD

69 ARRAN ROAD
POST OFFICE BOX 100
CRAWFORDVILLE, FLORIDA 32326
TELEPHONE: (850) 926-0065
FAX: (850) 926-0123



ROBERT PEARCE
SUPERINTENDENT

July 3, 2019

CALE LANGSTON
DISTRICT III

VERNA BROCK
DISTRICT I

GREG THOMAS
DISTRICT IV

MELISA TAYLOR
DISTRICT II

JO ANN DANIELS
DISTRICT V

Wade G. Brown
P.O. Box 625
Crawfordville, Florida 32326

Mr. Brown:

The Wakulla County School Board has developed methodology to project the number of student stations which will be created by each unit of residential development. This methodology is based on the 2010 census and is up dated as new census projections are published. Based on this methodology the development you reference in the proposed Comprehensive Plan Amendment on an existing subdivision will generate the following student stations when the project is built out.

This development, known as Parcel ID# 00-00-059-000-10047-000 will generate 7 student stations at the elementary school level (Shadeville Elementary School), 3 at the middle school level (Riversprings Middle School) and 4 at the high school level (Wakulla High School).

The current capacity and student enrollment of each school as of July 2, 2019 was:

| Schools | CES | MES | SES | RES | RMS | WMS | WHS |
|------------|-----|-----|-----|-----|-----|-----|------|
| Capacity | 699 | 669 | 745 | 655 | 613 | 788 | 1454 |
| Enrollment | 564 | 469 | 601 | 449 | 541 | 507 | 1462 |

The current capacity and enrollment of each school level as of July 2, 2019 was:

| Elementary School Level | Middle School Level | High School Level |
|-------------------------|---------------------|-------------------|
| Capacity 2768 | Capacity 1401 | Capacity 1454 |
| Enrollment 2083 | Enrollment 1048 | Enrollment 1462 |

As of July 2, 2019 each school level is at the following capacity:

| Elementary School Level | Middle School Level | High School Level |
|-------------------------|---------------------|--------------------|
| Under Capacity 380 | Under Capacity 154 | Over Capacity -211 |

The addition of the student stations generated by this proposed development and previously proposed Comprehensive Plan Amendments to the current enrollment results in the following:

| | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|------|
| Schools | CES | MES | SES | RES | RMS | WMS | WHS |
| Capacity | 699 | 669 | 745 | 655 | 613 | 788 | 1454 |
| Enrollment | 564 | 469 | 601 | 449 | 541 | 507 | 1462 |

The addition of the student stations generated by this proposed development and previously proposed Comprehensive Plan Amendments to the current enrollment at each school level results in the following:

| | | |
|-------------------------|---------------------|-------------------|
| Elementary School Level | Middle School Level | High School Level |
| Capacity 2768 | Capacity 1401 | Capacity 1454 |
| Enrollment 2083 | Enrollment 1048 | Enrollment 1462 |

The addition of the student stations generated by this proposed development and previously proposed Comprehensive Plan Amendments to the current enrollment at each school level results in the following capacity:

| | | |
|-------------------------|---------------------|--------------------|
| Elementary School Level | Middle School Level | High School Level |
| Under Capacity 380 | Under Capacity 154 | Over Capacity -211 |

It is important to note that the Wakulla County School Board does not control the student capacity of the schools in the District. Capacity is determined by statutes and/or constitutional amendments. Statutes and amendments are interpreted by the Department of Education. This process could cause capacity to be increased or decreased. An example is the Class Size Reduction Constitutional Amendment which drastically reduced school capacity.

Based on current and proposed student capacity in the Five Year Work Plan the Wakulla School District does have sufficient capacity at elementary and middle school levels to house the students generated by the proposed 21 single family development but does not have the capacity at the high school level. The Wakulla School District will review the status of this and other proposed Comprehensive Plan Amendments monthly. If a proposed Amendment does not receive approval to continue forward at any point in the process or if an Amendment is not taken for approval as required in a timely manner the District will contact the developer to determine if the capacity referenced in this letter should be withdrawn.

I am available to answer any questions or provide any additional information required upon request.

Sincerely,

William R. Bristol
Executive Director of Facilities & Maintenance

1.2.3. Agriculture (Primary Agriculture):

1) Description - This designation is designed to address large scale timber industry and/or farming activities on privately owned property, along with limited non-agricultural uses.

2) Permitted/Prohibited Uses

- (a) Forestry and agricultural uses and processing activities shall be permitted (including ancillary processing uses such as sawmills.)
- (b) Residential uses shall only be permitted at very low densities or as an accessory use to a permitted resource management use, such as housing for forestry workers or managers.
- (c) Public uses including schools shall be permitted in this designation. Public land uses may be permitted within this land use designation subject to staff review, public hearing, and approval process if compatible and consistent with the land use designation and established as a Conditional Use in the Wakulla County Land Development Code.
- (d) Areas lying contiguous to Urban Service Areas and/or private ownership may be developed as PUD's so as to protect the environmentally sensitive areas. The density and intensity shall be based on the land use designation contiguous to it. Density transfer within a PUD shall not exceed the overall "density to acreage" provisions of the overlying FLUM land use designations.

3) Density/Intensity Limitations

- (a) Overall residential density shall not exceed one (1) unit per twenty (20) acres.
- (b) Non-residential uses shall not exceed a floor-area ratio (FAR) of 0.05.
- (c) In calculating residential density in areas which are habitats for threatened or endangered species, the density shall be maintained at the residential land use density for that land use classification. Actual development shall be addressed by transfer of density in the land development codes. (see PUD provisions)
- (d) In calculating residential density areas which are in wetlands, overall density shall be permitted at one unit per forty (40) acres. (See Density Clustering Provisions)

4) Special Development Standards

- (a) Residential development shall be arranged so as to utilize a limited number of access points from arterial or collector roads and so as to reduce the visibility of the development from such roads to the maximum extent feasible.

1.2.4. Rural-1 (Agriculture/Rural Fringe):

- 1) Description - This is a more conventional agriculture and low density residential designation designed to provide for general agricultural and forestry activities along with limited residential and non-residential use or service uses in the outlying areas which are not expected to become urban during the planning period.

- iv. Schools, nursing facilities, and all activities used by over fifty (50) persons at one time shall have central sewer facilities and meet fire flow concurrency as determined by the Technical Review Committee.
 - v. Proposed non-residential land uses may be permitted if the proposed use is not harmful or, inconsistent with surrounding land uses. Development approval shall be subject to review and approval by the Planning Department and local planning agency pursuant to the review procedures identified in the Land Development Code. Land use approval shall be contingent upon Plan consistency and a showing that needed facilities and service capacity are available concurrent with the proposal's impacts. Development approval may require landscape buffers, screening walls, or other similar requirements to ensure compatibility.
 - vi. Proposed non-residential land uses shall be consistent with the FLUM and the existing and proposed character and nature of the area. Compatibility will be determined through staff technical review process and/or the public hearing process before the local planning agency and County Commission where required by the Land Development Code.
- b) Developments within the Wakulla Spring Contributory Area as defined by the Northwest Florida Water Management District shall incorporate the following requirements.
- i. The Wakulla Springs Contributory Area is defined by the Northwest Florida Water Management District and is shown on Figure 56 of the "*Nitrate Loading as an Indicator of Non-Point Source Pollution in the Lower St. Marks-Wakulla Rivers Watershed. Water Resources Special Report 02-1.*" Northwest Florida Water Management District (April 2002).
 - ii. Special mitigation considerations to reduce possible groundwater impacts from nitrates are required for developments within the Wakulla Springs Contributory Area.
 - iii. Design considerations and Best Management Practices (BMPs) to reduce groundwater impacts from nitrates shall be incorporated into a special area plan (SAP) to be adopted into the comprehensive plan as part of the Future Land Use Element (FLUE).
- c) Development within this land use shall provide at least twenty percent of the gross land area on which the development is located as open space. The County will ensure through this policy, its land development regulations, and development orders and permits that the open space provided pursuant to this requirement is maintained over time. Such open space shall not be developed except through the application of a Comprehensive Plan amendment.

Policy 1.2.7. Urban Fringe:

- 1) Description - This designation provides for higher density development in rural areas which are near urban areas or which are intended to become urban during the planning period. When full urban services are in place, an area designated for Urban-1 shall be converted to Suburban Transitioning or

Urban Core through the plan amendment process. This designation also accommodates existing clusters of development not strictly consistent with the Rural designation.

2) Permitted/Prohibited Uses

- (a) Residential development shall be permitted.
- (b) Commercial development shall be permitted.
- (c) Public uses including schools shall be permitted. Public land uses may be permitted within this land use designation subject to a staff review, public hearing, and approval process if compatible and consistent with the land use designation and established as a Conditional Use in the Wakulla County Land Development Code.
- (d) Light industrial and manufacturing uses may be permitted subject to the locational and compatibility standards in (4) below.

3) Density/Intensity Limitations

- (a) Residential development shall be permitted at a density not to exceed two (2) units per acre with connection to central sewer and water, and one (1) unit per acre with connection to central water and where soil tests determine suitability for septic tanks.
- (b) In addition to (a) above, residential development within the "Panacea Area Sewer System" service area as identified in the data analysis section of the Infrastructure Element, densities at two (2) units per acre shall require installation of and connection to the sewer system.
- (c) Non-residential development shall not exceed a floor-area ratio (FAR) of 0.3 with connection to central water and sewer (including package plants) and 0.15 where connection to central water and sewer are not available but fire protection is deemed adequate through a concurrency determination at the Technical Review process.
- (d) In calculating residential density in areas which are habitats for threatened or endangered species, density shall be maintained at the residential land use density for that land use classification. Actual development shall be addressed by transfer of density in the Land Development Code.
- (e) In calculating residential density, areas which are in wetlands, the density shall be permitted at an overall density of one (1) unit per twenty (20) acres.

4) Special Development Standards

- (a) Commercial development shall be permitted only where the parcel has access to an arterial or collector road. Access to roads should be from frontage or side roads rather than directly. Access to commercial areas located along principal arterials shall be set back sufficiently to accommodate future right-of-way identified in the Transportation Element.
- (b) New Commercial Development
 - 1. Commercial developments shall be required to be located in clusters of not more than four (4) establishments and be limited to a maximum of fifteen thousand (15,000)

square feet in floor area per intersection quadrant. New commercial development shall be permitted only within one quarter mile of an intersection of two (2) collectors, collector and arterial, or two (2) arterial roadways. New commercial rezonings beyond one-quarter mile of the intersection may be approved if the Board of County Commissioners makes the following findings: (a) that the proposed rezoning is compatible with the existing character of the surrounding area; and (b) existing residentially zoned parcels will not be negatively impacted by the proposed rezoning. The aforementioned commercial locations requirements in this subsection shall not apply to properties within the Crawfordville Town Plan that have been identified as High Intensity Commercial, Low Intensity Commercial, Neighborhood Serving Commercial or Cottage Commercial.

2. Non-residential land uses shall also provide a landscape and design plan at the development review stage that clearly indicates how each site will meet the land development code's open space and landscape provisions. It is the intent of this requirement to promote the use of native vegetation to the fullest extent possible.
 - (c) Non-residential development in structures over five thousand (5,000) gross square feet in area shall have public water service and meet fire flow concurrency as determined by the Technical Review Committee process.
 - (d) Schools, nursing facilities and all activities used by over fifty (50) persons at one time shall have central sewer facilities (including package plants) and meet fire flow concurrency as determined by the Technical Review Committee process.
 - (e) Proposed non-residential land uses may be permitted if the proposed use is not harmful or inconsistent with surrounding land uses. Development approval shall be subject to review and approval by the Planning Department and local planning agency pursuant to the review procedures identified in the Land Development Code. Land use approval shall be contingent upon Comprehensive Plan consistency and a showing that needed facilities and service capacity are available concurrent with the proposal's impacts. Development approval may be escape buffers, screening walls, or other similar requirements to ensure compatibility.
 - (f) Proposed non-residential land uses shall be consistent with the FLUM and the existing and proposed character and nature of the area. Compatibility will be determined through staff technical review process and/or the public hearing process before the local planning agency and County Commission where required by the Land Development Code.
- 5) Of the thirty one (31) acres of land changed from Rural- 2 to Urban-1 by Ordinance 2007- 04, all of the land is restricted to residential use only.

Policy 1.2.8. Suburban Transitioning:

- 1) Description – This land use designation is intended to serve urban areas where infrastructure services are typically available or will be provided upon development but density and intensity are not expected to reach the levels of those supported by the Urban Core designation with the planning period. The designation permits a range of residential and non-residential development, according to the criteria below.
- 2) Permitted/Prohibited Uses

Sec. 5-25. - AG Agricultural District regulations.

- (1) *District intent.* The provisions of this district are primarily intended to protect areas that are suitable for agricultural operations, to prevent the misuse of prime agricultural lands and to accommodate nonagricultural uses that do not conflict with or limit the primary intent of this district. This zoning district is permissible in the Rural-1, Rural-2, Rural-3, Urban Fringe, Urban Core, Agricultural, Conservation Residential, and Public Facilities land use categories identified in the comprehensive plan.
- (2) *Special requirements.* Property zoned agricultural (AG) is not permitted to be subdivided into lots less than five acres in size.
- (3) *Principal uses.*
 1. Agricultural production, crops and livestock.
 2. Crop services.
 3. Fishing, hunting and trapping.
 4. Forestry.
 5. Landscape and horticultural services.
 6. Light infrastructure.
 7. Livestock and agricultural equipment barns.
 8. Mobile homes.
 9. Single-family dwellings.
 10. Soil preparation services.
 11. Community residential home (small).
- (4) *Conditional uses.*
 1. Airports and airstrips.
 2. Borrow pits.
 3. Cemeteries.
 4. Churches and other houses of worship including convents and rectories.
 5. Pet kennels.
 6. Public and private recreation facilities.
 7. Sanitary landfill.
 8. Schools.
 9. Veterinary clinics or hospitals.
 10. Food and kindred products manufacturing, processing, and packaging.
 11. Production, processing and storage of apparel and piece goods, electronic and related products and miscellaneous durable and nondurable goods that are unlikely to cause objectionable impacts such as odor, noise, fumes, or dispersion of waste or radiation to be detected off-site.
 12. Solar power generation facilities.
- (5) *Development standards.*
 1. *Minimum lot size.*
 - (a) Area: five acres.

- (b) Width: 150 feet. Forty feet for cul-de-sac lots.
 - (c) Depth: N/A.
2. *Minimum building setbacks.*
- (a) Applicable side.
 - (i) Front: 50 feet.
 - (ii) Rear: 40 feet.
 - (iii) Side: 15 feet.
 - (iv) Side street: 20 feet.
 - (b) Building setbacks for residential use on platted lots (recorded or unrecorded subdivisions). Residential dwellings proposed on agriculture zoned lots may be reviewed by the zoning official for a determination of applicable setback standards. Where platted lots (recorded or unrecorded subdivisions) [existing] within agriculture zoning districts are proposed for residential development, the zoning official may determine that the minimum residential setbacks of front 25 feet, rear 15 feet, side eight feet, and side street 20 feet, may be applied from the property lines. In the course of review, the zoning official [shall] use best available information to determine compatibility and consistency with existing development trends and the character and nature of an area's uses, and other pertinent information relevant to a development permit application that is otherwise consistent with the county comprehensive plan and land development codes. An appeal of a zoning official's determination shall be pursuant to section 3-23 of this LDC.
3. *Maximum building restrictions.* *
- (a) Coverage: N/A.
 - (b) Height: 35 feet.
 - (c) Density: one dwelling unit per five acres.

* **Note** —Density and building coverage may be further restricted by the comprehensive plan.

(Ord. No. 85-4, 7-23-1985; Ord. No. 93-25, 11-15-1993; Ord. No. 2000-34, § 1(a), 11-20-2000; Ord. No. 11-39, § 1, 12-5-2011; Ord. No. 13-20, § 2, 9-3-2013; [Ord. No. 2015-12, § 1](#), 8-3-2015; [Ord. No. 2015-16, § 4](#), 10-19-2015; Ord. No. [2016-13](#), § 3, 6-20-2016; Ord. No. [2018-32](#), § 5, 9-17-2018)

Cross reference— Roadside stand in AG district, § 6-1(5).

Sec. 5-26. - RR-5 Rural Residential District regulations.

- (1) *District intent.* The provisions of this district are to establish areas where very low residential densities may be maintained and where investment in homes will be protected from the adverse effects sometimes found in agricultural districts. This zoning district is permissible in the Rural-1, Rural-2, Rural-3, Urban Fringe, Urban Core, Conservation Residential, and Public Facilities land use categories as designated in the comprehensive plan.
- (2) *Special requirements.* None.
- (3) *Principal uses.*
 - 1. Agricultural production, crops and livestock.
 - 2. Community residential home (small).
 - 3. Light infrastructure.

4. Livestock and agricultural equipment barns.
5. Mobile homes.
6. Single-family dwellings.

(4) *Conditional uses.*

1. Cemeteries.
2. Churches and other houses of worship including convents and rectories.
3. Public and private recreation facilities.
4. Schools.

(5) *Development standards.*

1. *Minimum lot size.*
 - (a) Area: five acres.
 - (b) Width: 150 feet. Forty feet for cul-de-sac lots.
 - (c) Depth: N/A.
2. *Minimum building setbacks.*
 - (a) Front: 25 feet.
 - (b) Rear: 15 feet.
 - (c) Side: eight feet.
3. *Maximum building restrictions. **
 - (a) Coverage: N/A.
 - (b) Height: 35 feet.
 - (c) Density: one dwelling unit per five acres.

* **Note** —Density and building coverage may be further restricted by the comprehensive plan.

(Ord. No. 85-4, 7-23-1985; Ord. No. 13-20, § 2, 9-3-2013; [Ord. No. 2015-16, § 4](#), 10-19-2015; Ord. No. [2018-32](#), § 6, 9-17-2018)

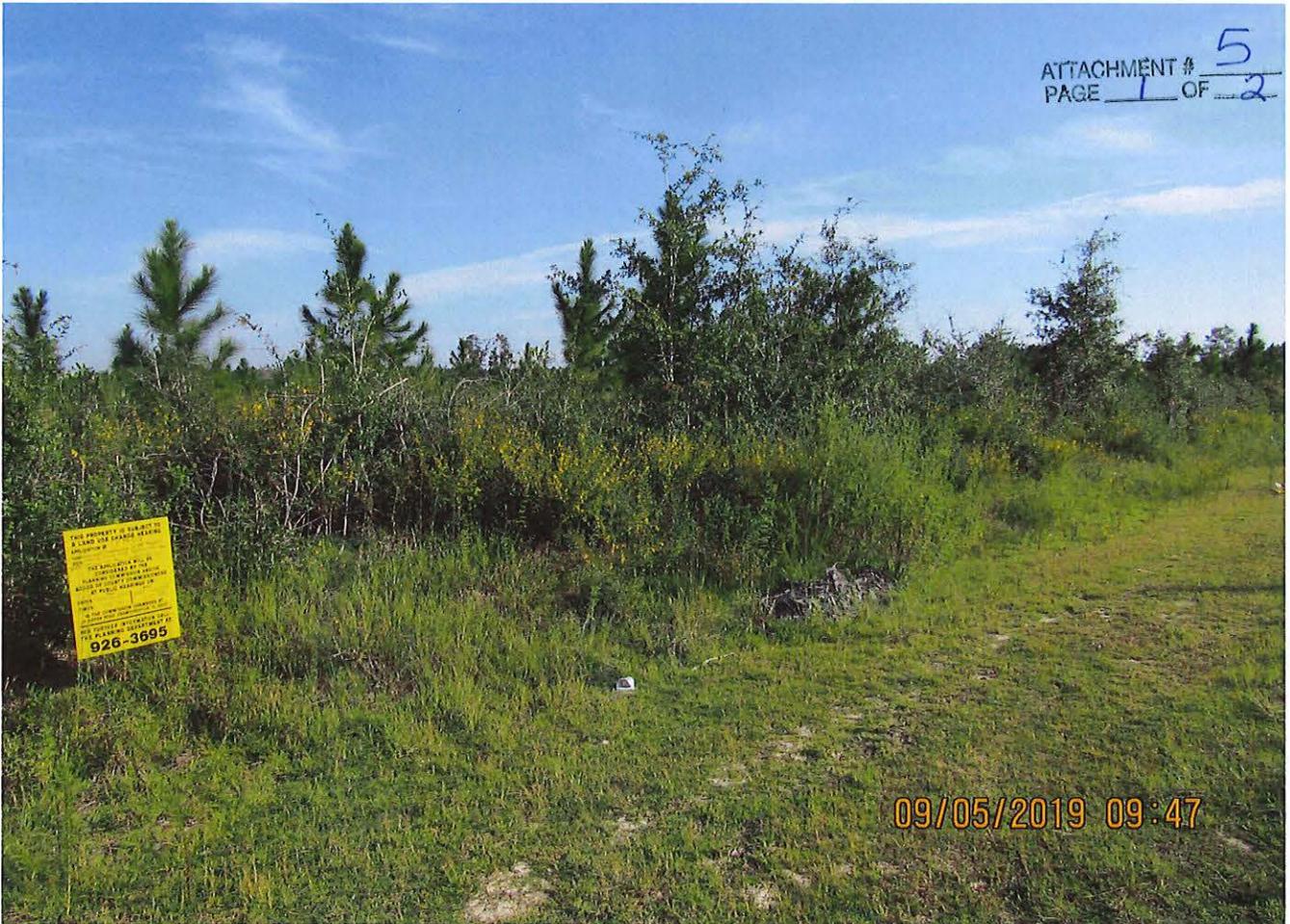
Sec. 5-27. - RR-1 Semi-Rural Residential District regulations.

- (1) *District intent.* The provisions of this district are to establish areas where low residential densities may be maintained and to provide a transition between very low-density rural residential areas and more densely developed urban residential areas. This zoning district is permissible in the Rural-3, Urban Fringe, Urban Core, and Public Facilities land use categories as designated in the comprehensive plan.
- (2) *Special requirements.* None.
- (3) *Principal uses.*
 1. Community residential home (small).
 2. Light infrastructure.
 3. Mobile homes.
 4. Single-family dwellings.
- (4) *Conditional uses.*

1. Cemeteries.
 2. Churches and other houses of worship including convents and rectories.
 3. Public and private recreation facilities.
 4. Schools.
- (5) *Development standards.*
1. *Minimum lot size.*
 - (a) Area: one acre.
 - (b) Width: 150 feet. Forty feet for cul-de-sac lots.
 - (c) Depth: N/A.
 2. *Minimum building setbacks.*
 - (a) Front: 25 feet.
 - (b) Rear: 15 feet.
 - (c) Side: eight feet.
 3. *Maximum building restrictions. **
 - (a) Coverage: N/A.
 - (b) Height: 35 feet.
 - (c) Density: one dwelling unit per acre.

* **Note** —Density and building coverage may be further restricted by the comprehensive plan.

(Ord. No. 85-4, 7-23-1985; Ord. No. 13-20, § 2, 9-3-2013; [Ord. No. 2015-16, § 4](#), 10-19-2015; Ord. No. [2018-32](#), § 7, 9-17-2018)



09/05/2019 09:47



**THIS PROPERTY IS SUBJECT TO
A LAND USE CHANGE HEARING**
APPLICATION #: CP 19-02
NAME: *GOLDEN CONSTRUCTION / EBA AGENT*
FOR: *AMEND FLUM FROM AGRICULTURE AND
URBAN FRINGE TO ALL URBAN FRINGE*
**THE APPLICATION WILL BE
CONSIDERED BY THE
PLANNING COMMISSION AND/OR
BOARD OF COUNTY COMMISSIONERS
AT PUBLIC HEARINGS ON:**
DATES: *P&Z* SEPT 16, 2019 | *BCC* SEPT 23, 2019
TIMES: 7:00 PM | 5:00 PM
IN THE COMMISSION CHAMBERS AT
29 ARRAN ROAD, CRAWFORDVILLE, FL 32327

**FOR FURTHER INFORMATION CALL...
THE PLANNING DEPARTMENT AT:**
926-3695

09/05/2019 09:50



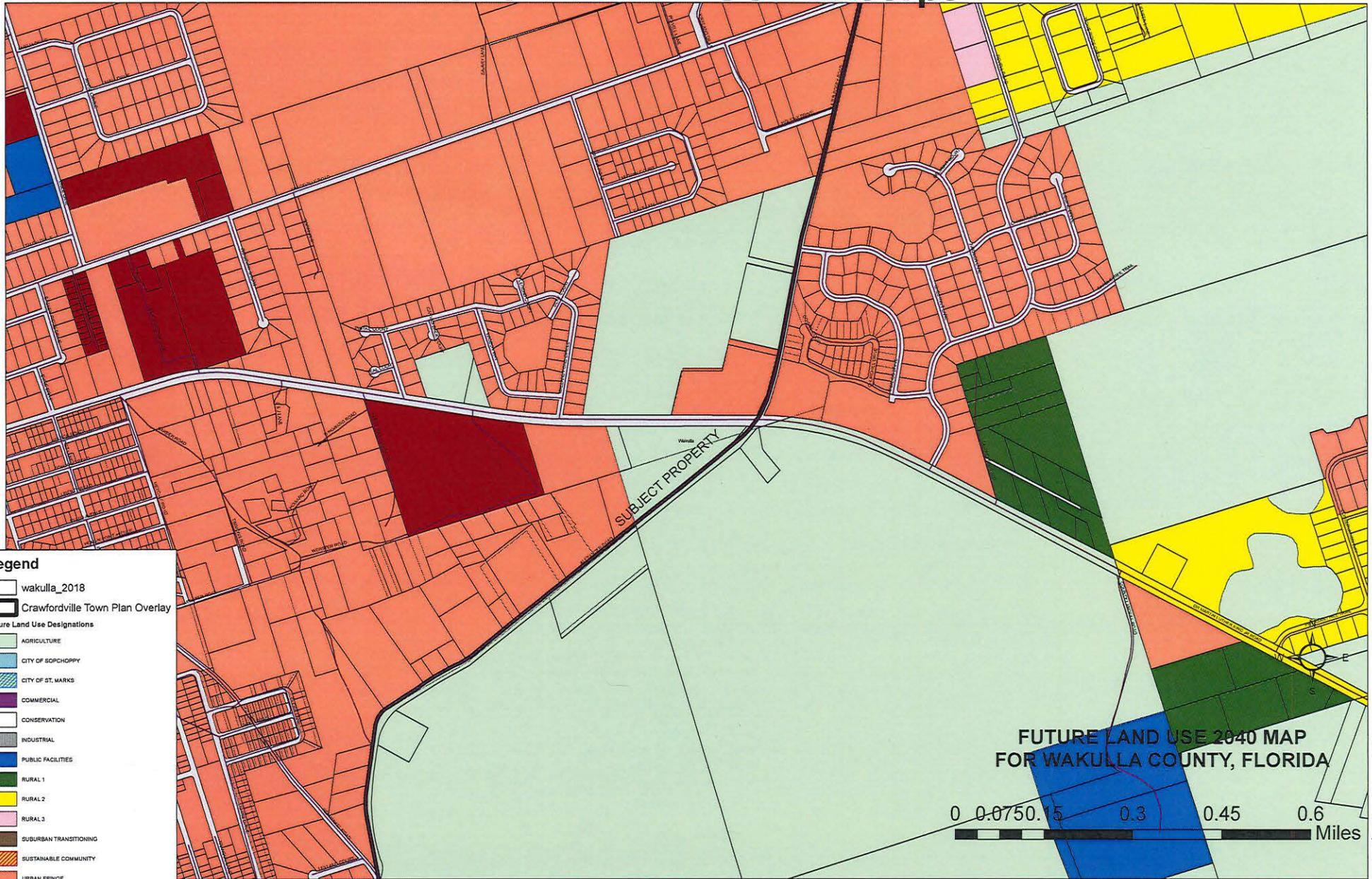
09/05/2019 09:50



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**FOR FURTHER INFORMATION CALL...
THE PLANNING DEPARTMENT AT:**
926-3695

09/05/2019 09:47

FUTURE LAND USE Excerpt



Legend

- wakulla_2018
- Crawfordville Town Plan Overlay
- Future Land Use Designations**
- AGRICULTURE
- CITY OF SOPCHOPPY
- CITY OF ST. MARKS
- COMMERCIAL
- CONSERVATION
- INDUSTRIAL
- PUBLIC FACILITIES
- RURAL 1
- RURAL 2
- RURAL 3
- SUBURBAN TRANSITIONING
- SUSTAINABLE COMMUNITY
- URBAN FRINGE
- URBAN CORE

FUTURE LAND USE 2040 MAP
FOR WAKULLA COUNTY, FLORIDA

0 0.0750.15 0.3 0.45 0.6
Miles

Both meetings will begin at 6:30 p.m. and will be held at City Hall, 105 Municipal Avenue, Sopchoppy, Florida.

A copy of the budget may be viewed at City Hall from 8:00 a.m. - 4:30 p.m. Monday thru Thursday and from 8:00 a.m. - 3:00 p.m. Friday.

If special assistance is needed to attend a meeting, please call the Clerks office at 962-4611 at least 24 hours in advance of the meeting.

September 5, 2019 AD#WVMP

NOTICE OF PUBLIC HEARINGS CONCERNING AN APPLICATION FOR CHANGE OF ZONING

The Wakulla County Planning Commission and Wakulla County Board of County Commissioners proposes to consider the following application and/or adopt the following by ordinance and has scheduled Public Hearings before the Wakulla County Planning Commission on Monday, September 16, 2019, beginning at 7:00 PM, and before the Wakulla County Board of County Commissioners on Monday, September 23, 2019, beginning at 5:00 PM, or as soon thereafter as the matter can be heard. All public hearings will be held at the County Commission Chambers located west of the County Courthouse at 29 Arran Road, Crawfordville, Florida 32327. Interested parties are invited to attend and present testimony.



AN ORDINANCE AMENDING THE WAKULLA COUNTY LAND DEVELOPMENT CODE, ORDINANCE NO. 85-4, AS AMENDED; CHANGING THE ZONING DISTRICT CLASSIFICATION AND OFFICIAL ZONING ATLAS FROM RR-1 TO C-1 FOR PROPERTY DESCRIBED AS ATTACHED EXHIBIT "A" TO THE ORDINANCE; REPEALING ALL ORDINANCES, OR PORTIONS THEREOF, IN CONFLICT HERewith; PROVIDING SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

1. Application for Change of Zoning: R19-09
Applicant: Diane M. Curlee Trustee of the Diane M. Curlee Family Trust
Proposal: rezone to neighborhood serving commercial
Tax ID Number: 29-2s-01w-000-04106-037
Existing FLU Map: Rural 2 (FLUE Policy 1.2.5)
Current Zoning: RR-1 (Section 5-27, LDC)
Proposed Zoning: C-1 (Section 5-37, LDC)
FEMA Flood Info: "X" zone on Panel 0100E
Parcel size: 2.203 +/- acres
Location: 8 San Marcos Drive
Hearings Required: Planning Commission: Monday, September 16, 2019 @ 7:00 PM
BOCC: Monday, September 23, 2019 @ 5:00 PM

If an individual wishes to submit documents or other materials related to a matter before the Planning Commission for consideration by the Planning Commission at a public meeting, they are strongly encouraged to submit copies of all such documents or other materials to the Wakulla County Office of Planning and Community Development at least 3 days prior to the date of the meeting so that they can be provided to the Commission Members. If an individual wishes to bring documents or other materials for consideration by the Planning Commission that were not previously provided to the Wakulla County Office of Planning and Community Development in accordance with the preceding sentence, they must bring at least twelve (12) copies of each such document to the meeting.

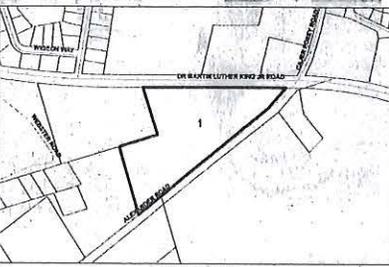
Copies of applications, draft ordinances, and any related public record files may be viewed at the County Planning Department located at 11 Bream Fountain Road, Crawfordville, FL 32327, 8 AM to 4:30 PM M/F; Phone (850) 926-3695. Any person desiring to appeal a decision of a County Board must ensure a verbatim transcript or copy is made of the testimony and exhibits presented at said hearings. Persons with a disability needing a special accommodation should contact the Wakulla County Board of County Commissioners Administration Office at least two (2) days prior to the meeting at (850) 926-0919; Hearing and Voice Impaired at 1-800-955-8771; or email at ADARequest@mywakulla.com

September 5, 2019 AD#WVXZR

Commissioners Administration Office at least two (2) days prior to the meeting at (850) 926-0919; Hearing and Voice Impaired at 1-800-955-8771; or email at ADARequest@mywakulla.com
September 5, 2019 AD#WVXZM

NOTICE OF PUBLIC HEARINGS CONCERNING TRANSMITTAL OF LARGE SCALE MAP AMENDMENT TO THE COMPREHENSIVE PLAN FUTURE LAND USE MAP

The Wakulla County Planning Commission and Wakulla County Board of County Commissioners proposes to consider the following application and/or adopt the following by ordinance and has scheduled Public Hearings before the Wakulla County Planning Commission on Monday, September 16, 2019, beginning at 7:00 PM, and before the Wakulla County Board of County Commissioners on Monday, September 23, 2019, beginning at 5:00 PM, or as soon thereafter as the matter can be heard. All public hearings will be held at the County Commission Chambers located west of the County Courthouse at 29 Arran Road, Crawfordville, Florida 32327. Interested parties are invited to attend and present testimony.



AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF WAKULLA COUNTY, FLORIDA, AMENDING, REVISING, AND REPLACING IDENTIFIED PORTIONS OF THE FUTURE LAND USE MAP AS ADOPTED BY ORDINANCE NUMBER 2018-23, AS ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS ON JUNE 18, 2018, AS AMENDED; PROVIDING SEVERABILITY AND FOR FILING; AND PROVIDING AN EFFECTIVE DATE.

1. Application for Comprehensive Plan Map Amendment: CP19-02
Applicant: Golden Construction Company, Inc.
Agent: Edwin Brown & Associates
Proposal: transmittal of amendment to Future Land Use Map
Tax ID Number: 00-00-059-000-10047-000
Existing FLU Map: Agriculture and Urban Fringe (FLUE Policies 1.2.3 and 1.2.7)
Proposed FLU Map: Urban Fringe (FLUE Policy 1.2.7)
Current Zoning: AG, RR-5, and RR-1 (Sections 5-25, 5-26, and 5-27 LDC)
FEMA Flood Info: "X" & "A" zones on Panel 0250E
Parcel size: 14.35 +/- acres
Location: southwest side of the intersection of Dr. Martin Luther King Jr. Memorial Road and Alexander Road
Hearings Required: Planning Commission: Monday, September 16, 2019 @ 7:00 PM
BOCC: Monday, September 23, 2019 @ 5:00 PM

If an individual wishes to submit documents or other materials related to a matter before the Planning Commission for consideration by the Planning Commission at a public meeting, they are strongly encouraged to submit copies of all such documents or other materials to the Wakulla County Office of Planning and Community Development at least 3 days prior to the date of the meeting so that they can be provided to the Commission Members. If an individual wishes to bring documents or other materials for consideration by the Planning Commission that were not previously provided to the Wakulla County Office of Planning and Community Development in accordance with the preceding sentence, they must bring at least twelve (12) copies of each such document to the meeting.

Copies of applications, draft ordinances, and any related public record files may be viewed at the County Planning Department located at 11 Bream Fountain Road, Crawfordville, FL 32327, 8 AM to 4:30 PM M/F; Phone (850) 926-3695. Any person desiring to appeal a decision of a County Board must ensure a verbatim transcript or copy is made of the testimony and exhibits presented at said hearings. Persons with a disability needing a special accommodation should contact the Wakulla County Board of County Commissioners Administration Office at least two (2) days prior to the meeting at (850) 926-0919; Hearing and Voice Impaired at 1-800-955-8771; or email at ADARequest@mywakulla.com

NO FINAL ACTION ADOPTING THE PROPOSED AMENDMENT WILL BE TAKEN AT THESE MEETINGS.

September 5, 2019 AD#WVXZS



ATTACHMENT PAGE 1 OF 1

EMPLOYMENT OPPORTUNITIES GRANTS COORDINATOR

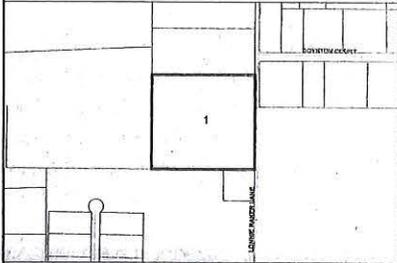
The Wakulla County Board of County Commissioners is seeking qualified applicants for a full-time Grants Coordinator located in the Intergovernmental Affairs & RESTORE Act Office. See www.mywakulla.com for qualifications.

Send a Wakulla County application to: Human Resources, P.O. Box 1263, Crawfordville, FL 32326. Applications may be obtained by visiting our website at www.mywakulla.com. Minimum starting salary will be \$33,434 annually but may be negotiable depending on qualifications. Applications must be received by 5:00 p.m. on Friday, September 13, 2019. Wakulla County is an BOE/AA employer.

September 5, 2019 AD#WV0S

NOTICE OF PUBLIC HEARING CONCERNING AN APPLICATION FOR PRELIMINARY PLAT

The Wakulla County Planning Commission proposes to consider the following application and has scheduled a Public Hearing before the Wakulla County Planning Commission on Monday, September 16, 2019, beginning at 7:00 PM, or as soon thereafter as the matter can be heard. All public hearings will be held at the County Commission Chambers located west of the County Courthouse at 29 Arran Road, Crawfordville, Florida 32327. Interested parties are invited to attend and present testimony.



1. Application for Preliminary Plat: PP19-05
Applicant: Steven & Jacqueline Byrd and Zell & Sara Robinson
Proposal: create 2 lot residential subdivision
Tax ID Number: 05-3s-01w-000-04292-000
Existing FLU Map: Rural 1 (FLUE Policy 1.2.4)
Current Zoning: AG (Section 5-25, LDC)
FEMA Flood Info: "X" zone on Panel 0250E
Parcel size: 10 +/- acres
Location: 788 Lonnie Raker Lane
Hearings Required: Planning Commission: Monday, September 16, 2019 @ 7:00 PM

If an individual wishes to submit documents or other materials related to a matter before the Planning Commission for consideration by the Planning Commission at a public meeting, they are strongly encouraged to submit copies of all such documents or other materials to the Wakulla County Office of Planning and Community Development at least 3 days prior to the date of the meeting so that they can be provided to the Commission Members. If an individual wishes to bring documents or other materials for consideration by the Planning Commission that were not previously provided to the Wakulla County Office of Planning and Community Development in accordance with the preceding sentence, they must bring at least twelve (12) copies of each such document to the meeting.

Copies of applications, draft ordinances, and any related public record files may be viewed at the County Planning Department located at 11 Bream Fountain Road, Crawfordville, FL 32327, 8 AM to 4:30 PM M/F; Phone (850) 926-3695. Any person desiring to appeal a decision of a County Board must ensure a verbatim transcript or copy is made of the testimony and exhibits presented at said hearings. Persons with a disability needing a special accommodation should contact the Wakulla County Board of County Commissioners Administration Office at least two (2) days prior to the meeting at (850) 926-0919; Hearing and Voice Impaired at 1-800-955-8771; or email at ADARequest@mywakulla.com

September 5, 2019 AD#WVXZJ

ORDINANCE NUMBER 2019-__

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF WAKULLA COUNTY, FLORIDA, AMENDING, REVISING, AND REPLACING IDENTIFIED PORTIONS OF THE FUTURE LAND USE MAP AS ADOPTED BY ORDINANCE NUMBER 2018-23, AS ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS ON JUNE 18, 2018, AS AMENDED; PROVIDING SEVERABILITY AND FOR FILING; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Wakulla County Board of County Commissioners is empowered to adopt Ordinances pursuant to Chapter 125.66, Florida Statutes; and

WHEREAS, Chapter 163, Part II, Florida Statutes, the Community Planning Act (the "Act"), empowers and requires the Wakulla County Board of County Commissioners to: (a) plan for the County's future development and growth; (b) adopt and amend comprehensive plans or elements or portions thereof, to guide the future growth and development of the County; (c) implement adopted or amended comprehensive plans by the adoption of appropriate land development regulations or elements thereof; and (d) establish, support, and maintain administrative instruments and procedures to carry out the provisions and purposes of the Act; and

WHEREAS, the Wakulla County Planning Commission has been established and designated as the Local Planning Agency (LPA) for unincorporated Wakulla County, Florida, pursuant to section 163.3174, Florida Statutes; and

WHEREAS, the LPA and the Board have in the preparation of the Map Amendment to the Comprehensive Growth Management Plan performed or caused to be performed the necessary studies and surveys, the collection of appropriate data, the holding of such public hearings, workshops and meetings as necessary, and have effectively provided for public participation, notice, broad dissemination of proposals and alternatives, opportunity for written comments, open discussion, communication programs, information services, considerations of, and response to, public and official comments; and

WHEREAS, the Wakulla County Board of County Commissioners (Board) held its transmittal hearing to consider the recommendation of the Local Planning Agency on September 23, 2019, and transmitted the proposed Map Amendment to the Department of Economic Opportunity ("DEO"), in its role as the State land planning agency, and to other State review agencies; and

WHEREAS, the DEO, by letter dated _____, notified the County of receipt of the Amendment; and

WHEREAS, comments were/were not received from State review agencies within 30 days of receipt of the Amendment in said timeframe; and the applicant did/did not have to prepare a response to comments; and

WHEREAS, on or about _____, the County scheduled and advertised the adoption hearing for the Map Amendment to the Comprehensive Growth Management Plan in The Wakulla News, a local newspaper of general circulation, for _____; and

WHEREAS, on or about _____, the Board held a duly advertised public hearing in accordance with Section 163.3184, Florida Statutes, to consider and receive all oral and written comments relating to the proposed Map Amendment, including the data collection and analyses package, the Wakulla County Planning Commission recommendations; and

WHEREAS, in exercise of its statutory authority, the Wakulla County Board of County Commissioners has determined it necessary and desirable to adopt the amended version of the Comprehensive Growth Management Plan's Future Land Use Map to further preserve and enhance present advantages; encourage the most appropriate use of land, water, and natural resources consistent with public interest; overcome present handicaps; and deal effectively and efficiently with future growth and problems that may result from the use and development of land within Wakulla County, Florida.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF WAKULLA COUNTY FLORIDA, AS FOLLOWS:

Section 1. Purpose and Intent.

This Ordinance is enacted to carry out the purpose and intent of, and exercise the authority set out in, the Community Planning Act, Chapter 163, Part II, Florida Statutes, Chapter 125, Florida Statutes, and the Wakulla County Home Rule Charter.

Section 2. Amendment to Comprehensive Growth Management Plan.

(A) The Board of County Commissioners of Wakulla County, Florida, hereby amends and revises the Future Land Use ("FLU") Map of the Wakulla County Comprehensive Growth Management Plan as adopted by Ordinance Number 2018-23, as amended. The FLU Map shall be revised as shown on the FLU Map dated _____, which is attached hereto as Attachment A to designate the lands described in application CP19-02 as being amended from Agriculture and Urban Fringe to Urban Fringe.

(B) The amendment was fully considered after a public hearing pursuant to legal notice duly published as required by law.

(C) To make the Wakulla County Comprehensive Growth Management Plan available to the general public, a certified copy of this Ordinance, the Comprehensive Growth Management Plan, and any Amendments thereto, shall be located in the Wakulla County Planning and Community Development Department, located at 11 Bream Fountain Road, mailing address 3093 Crawfordville Highway, Crawfordville, Florida, 32327. The Planning and Community Development Department, through its Director, shall make copies available for public inspection, and provide duplication for a reasonable publication and copy charge.

Section 3. Applicability and Effect.

The applicability and effect of the Wakulla County Comprehensive Growth Management Plan shall be as provided by the Community Planning Act, Chapter 163, Part II, Florida Statutes, and this Ordinance. Except to the extent amended herein, the Comprehensive Growth Management Plan is hereby ratified, confirmed, and remains in full force and effect.

Section 4. Severability.

If any provision or portion of this Ordinance is declared by a court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all the remaining provisions and portions of this Ordinance shall remain in full force and effect.

Section 5. Filing.

A Certified Copy of this Ordinance, as well as Certified Copies of the Wakulla County Comprehensive Growth Management Plan, and subsequent Amendments thereto, shall be filed with the Wakulla County Clerk of the Circuit Court.

Section 6. Effective Dates.

(A) The effective date of this plan amendment, if the amendment is not timely challenged, shall be 31 days after the state land planning agency notifies Wakulla County that the plan amendment package is complete. If timely challenged, this amendment shall become effective on the date the state land planning agency or the Administration Commission enters a final order determining this adopted amendment to be in compliance. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before it has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the state land planning agency.

(B) A certified copy of this Ordinance shall be filed in the Department of State within ten (10) days after enactment by the Board and the Ordinance shall take effect as provided by law.

PASSED AND DULY ADOPTED this ___ day of _____, 2019.

BOARD OF COUNTY COMMISSIONERS
OF WAKULLA COUNTY, FLORIDA

By: _____
Charles Hess, Ph.D., Chair

ATTEST:

APPROVED AS TO CONTENT AND FORM:

BRENT X. THURMOND, Ex Officio
Clerk to the Board

Heather Encinosa, Esq.
County Attorney

ATTACHMENT A

