

**Big Creek Timber, LLC Conceptual Master Plan**  
**November 2, 2022**

The following Conceptual Master Plan written description is provided to demonstrate compliance with the nine (9) site specific criteria required in the City's Comprehensive Plan for Multi-Use conceptual master plans. Each of the site specific conditions are listed below followed by a written description of how the Conceptual Master Plan complies with the condition.

**1. The general distribution, location and densities/intensities of residential and non-residential development;**

The Conceptual Master Plan Exhibit 1.1 depicts a Multi-Use Master Plan located on approximately 6,174 acres east of major regional roadway corridors of Interstate 295, State Road 9B and US highway 1. The proposed Master Plan is adjacent to the eTown, Sweetwater, Hampton Park, and Wells Creek communities and south of the Seven Pines community.

The Conceptual Master Plan illustrates the general distribution, location and densities/intensities of residential and non-residential development by upland parcel. Up to 6,103 single family homes, 2,420 Townhomes, 2,052 multi-family homes and 915,000 square feet of commercial uses may be developed within the Property. The commercial uses are located in three separate nodes, two at the entrances from US 1 and E Town Parkway and one centrally located at the intersection of the major north-south and east-west collector roadways. The higher density multi-family uses generally surround the commercial, multi use nodes to provide a transition in density and intensity of use to the lower density single family residential neighborhoods that are defined by the major wetland and conservation systems.

The proposed Master Plan is designed utilizing smart growth design principles in order to create a socially, economically and environmentally sustainable community. Design principles will include: a mix of uses; walkable neighborhoods with a wide range of housing options; preservation of unique open space and environmentally sensitive areas that will help to define community edges, utilize landmarks and nodes to help create community identity and a strong sense of place; and the provision of a balanced, multi-modal transportation system to increase mobility choice and to help reduce vehicle miles traveled. Civic space and pocket parks will be provided within walking distance of homes. A wide range of land uses will be included, from low-density residential to traditional neighborhood developments, and from low-intensity neighborhood commercial to mixed-use villages.

**2. Acknowledgement that rezonings will be submitted where such uses, densities and intensities are inconsistent with the current zoning designations prior to development reviews and approvals for developments within the overall site.**

It is acknowledged rezonings will be required where the proposed uses and densities are inconsistent with the current zoning designation.

### **3. The general distribution and location of conservation areas and wetland buffers;**

The Conceptual Master Plan Exhibit 1.1 depicts an interconnected network of greenways and conservation lands that define the edges of residential neighborhoods and provide wildlife habitat corridors. The Majority of the Property's wetlands will ultimately be placed in conservation with upland buffers. Consistent with Conservation Element Policy 4.1.9. of the City's Comprehensive Plan, the wetlands to be conserved shall be protected by recordation of conservation easements prior to or at the time of platting of adjacent upland areas in accordance with the terms of the applicable Environmental Resource Permit ("ERP") issued by the St. Johns River Water Management District (SJRWMD). Mitigation for proposed wetland impacts shall be subject to approval by the SJRWMD and the Florida Department of Environmental Protection on behalf of the United States Army Corps of Engineers ("FDEP"). Upland buffers consistent with SJRWMD standards and the City of Jacksonville Land Development Regulations shall be provided. Wetland mitigation will include wetland and upland preservation and may include wetland restoration, enhancement, and creation and upland buffer enhancement as part of the mitigation plan under the SJRWMD and FDEP permits. The exact boundaries of wetland areas to be conserved shall be determined in connection with wetland permitting by the SJRWMD and FDEP. The limits of conserved wetlands shall be delineated on engineering plans submitted for approval by City of Jacksonville.

### **4. The strategy for providing centralized utilities for water and sewer service throughout the planning area, including a general phasing plan that identifies when development is anticipated to require the need for additional facilities, and the Water Supply Facilities Work Plan (WSFWP) must be updated prior to any development phase requiring construction of potable, treatment, and/or non-potable water supply facilities to incorporate the applicable planned facilities into the WSFWP;**

Coordination with JEA was conducted through a series of meetings and preliminary design. Through this coordination a Conceptual Utility Exhibit (Exhibit 4.1) was created that shows the major utility corridors (water, sewer, and reuse) through the property including multiple connection points to the existing and proposed JEA system. These corridors make regional utility loops supporting resiliency of the utility system. As can be seen in the Conceptual Utility Exhibit (Exhibit 4.1); the project connects to existing utilities at US 1, two locations within the e-Town Development, near gate parkway, and a planned Waste Water Treatment Plant. According to JEA; "JEA will have the capacity to serve this project with central water, sewer, and reuse." See attached October 31, 2022 letter from Robert Zammataro with JEA for additional information (Exhibit 4.2).

Susan West of JEA provided additional information via email on 9/9/2021 (Exhibit 4.3) that "The current Water Supply Facilities Work Plan already includes the SIPS water projects and the Greenland Wastewater Treatment plant which will meet the needs of the Property."

**5. Identification of the major internal transportation facilities necessary to serve the future land uses through an efficient and connected network;**

An interconnected multi-modal transportation network will be provided to serve the Master Plan and the various neighborhoods. The major roadway corridors are depicted on the Conceptual Master Plan (Exhibit 1.1). The north-south corridor extending from US 1 to eTown Parkway will provide a parallel route to the regional roadway system to the west including eTown Parkway, Interstate 295, State Road 9B and US Highway 1. This major roadway corridor will include two east-west corridors to eTown Parkway and a connection to US Highway 1. Through coordination with FDOT, the US Highway 1 intersection is proposed to be a quadrant intersection with two connections to US Highway 1. An interconnected local street network with sidewalks will be provided within the neighborhoods to provide multiple options to connect to the major north-south and east-west corridors.

**6. General identification of how the major internal transportation facilities will connect to the external transportation network with proposed future connections to any State facilities subject to review by the Florida Department of Transportation;**

Coordination with FDOT was conducted through a series of meetings and review of traffic analyses provided by the applicant. Attached as Exhibit 6.1 is a copy of a letter from FDOT stating that the proposed internal transportation facilities and connections to the external transportation network are an appropriate plan for the development and, in their opinion, the developer has met conditions 5 and 6. The north-south transportation corridor through the property provides a critical parallel path to the FDOT facilities of US 1 and SR 9B which is of regional benefit. The project and the newly proposed US 1 intersection was extensively modeled and reviewed for its effects on US 1 and the existing US 1 / Racetrack Road intersection to the south.

Additionally, coordination has occurred with City planning staff to evaluate the effects of this project on City Facilities such as E-Town Parkway. The Master Plan Traffic Assessment and travel demand model has been delivered to the City for review. The Traffic Assessment illustrates the lanage requirements, both within the master plan area and adjacent off-site facilities. We will continue to coordinate with the planning and development department and traffic engineering division as the project progresses.

**7. A basic assessment shall be conducted of the currently identified and expected roadway operating conditions of the immediately surrounding transportation network for the conceptual master plan (methodologies and assumptions used in this assessment shall be agreed upon by the Planning and Development Department, the Florida Department of Transportation, and the owner or authorized agent).**

An analysis of the future operating conditions was conducted using the NERPM-AB 1v3 travel demand model modified to include the proposed development and internal roadway network. The daily traffic predicted by the model was used to develop annual average daily traffic (AADT) volumes along with design hourly volumes (DHV) using a model output correction factor of 0.96 and a  $K_{factor}$  of 0.09. These volumes along with the FDOT Quality and Level of Service Handbook (2020) were used to establish the required lanage for the internal roadway network. Roadways may be constructed incrementally as required for project traffic (i.e. 2 lane construction of future 4 lane). Above referenced modeling has been coordinated with and provided to COJ electronically. In the event modifications are made to the PUD or MU Masterplan those modifications are subject to the review and approval of the Planning and Development Department and approvals required under the MU Masterplan policy. In the event a modification would cause the need for additional lanes in a roadway corridor, the additional lanes will be added to the PUD and MU Masterplan as the responsibility of the Masterplan, not by the City.

The developer shall cause the design and construction of the roadway improvements shown on the Developer Constructed Roadways Plan (Exhibit 7.1). The roadway improvements will be phased as required to appropriately serve the development parcels. The Master Plan area is subject to City of Jacksonville Mobility Fees. Responsibility for the design and construction of Off-Site transportation improvements will be assigned according to the Mobility Plan's policy. Additional on-site and off-site improvements may be designed and constructed by the developer at the developer's discretion subject to the review and approval of the City and FDOT.

See attached ETM letter dated November 16<sup>th</sup>, 2022 with model summary (Exhibit 7.2).

Conversions may be made between land uses within areas of the project based on the Land Use Conversion Table (Exhibit 7.3) that allows for the exchange of land uses based on trip generation for each land use. At the time the developer elects to convert land uses pursuant to the Land Use Conversion Table, the developer will notify the Planning and Development Department in writing of such election (the "Conversion Notice"). Such Conversion Notice shall include the uses and intensities proposed and the resulting cumulative uses, and intensities. As long as the conversion is consistent with the Land Use Conversion Table, no additional approvals will be required for the conversion.



**8. Coordination with the Florida Fish and Wildlife Conservation Commission staff in the design of the conceptual master plan.**

Coordination with FWC was conducted through discussions with their staff (Daniel Penniman) and presenting the Conceptual Master Plan. Discussions covered a wide range of topics that will ultimately need to be permitted with FWC when specific infrastructure or sites within the Master Plan are developed.

The Florida Fish and Wildlife Conservation Commission issued a letter September 28<sup>th</sup>, 2021 with comments and recommendations (Exhibit 8.1).

**9. Requirements and Limitations for submitting proposed conceptual master plan amendments.**

The conceptual site plan shall be submitted to the Planning and Development Department. The matter will be scheduled for review by the planning commission within 30 days of submittal to the Planning and Development Department. It is acknowledged that development shall not be permitted until such time as a conceptual master plan is approved by the City Council and all development within shall be consistent with the approved conceptual master plan and any additional information provided to the City as part of the conceptual master plan and Multi Use PUD approvals. Big Creek Timber, LLC or its assigned reserves the exclusive right to submit amendments to the conceptual master plan for approval of the City Council.

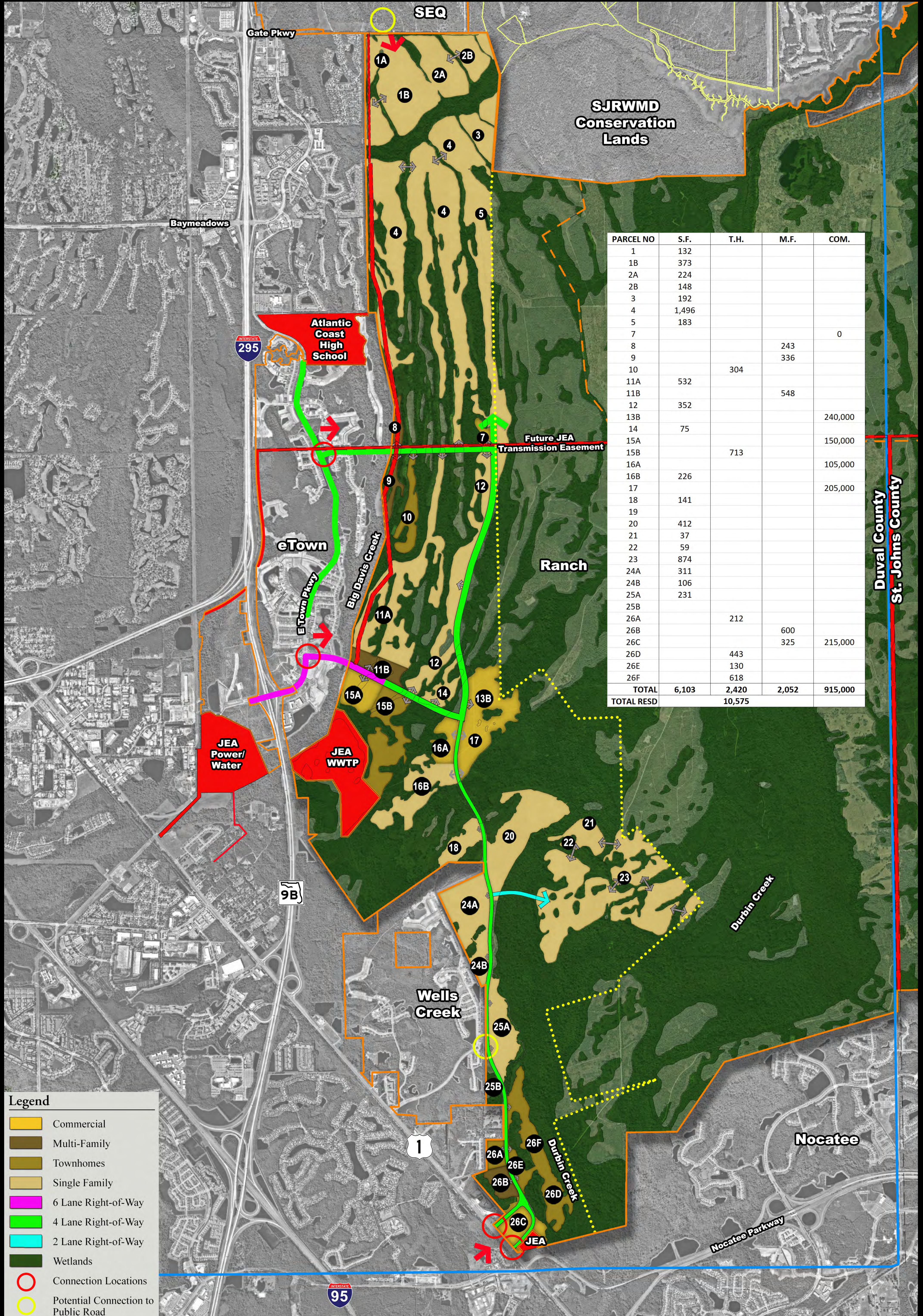
# EXHIBIT

## 1.1



# Big Creek Timber MU Conceptual Master Plan

Northeast Florida  
October 28, 2022



**Legend**

- Commercial
- Multi-Family
- Townhomes
- Single Family
- 6 Lane Right-of-Way
- 4 Lane Right-of-Way
- 2 Lane Right-of-Way
- Wetlands
- Connection Locations
- Potential Connection to Public Road

North  
Scale in Feet  
0' 800' 1600' 3200'

Note: This land plan and/or rendering is conceptual and is subject to review, change and approval by several governmental agencies to meet environmental, technical and other standards. This plan was completed based on limited information, therefore all acreage figures are unofficial and are subject to change.



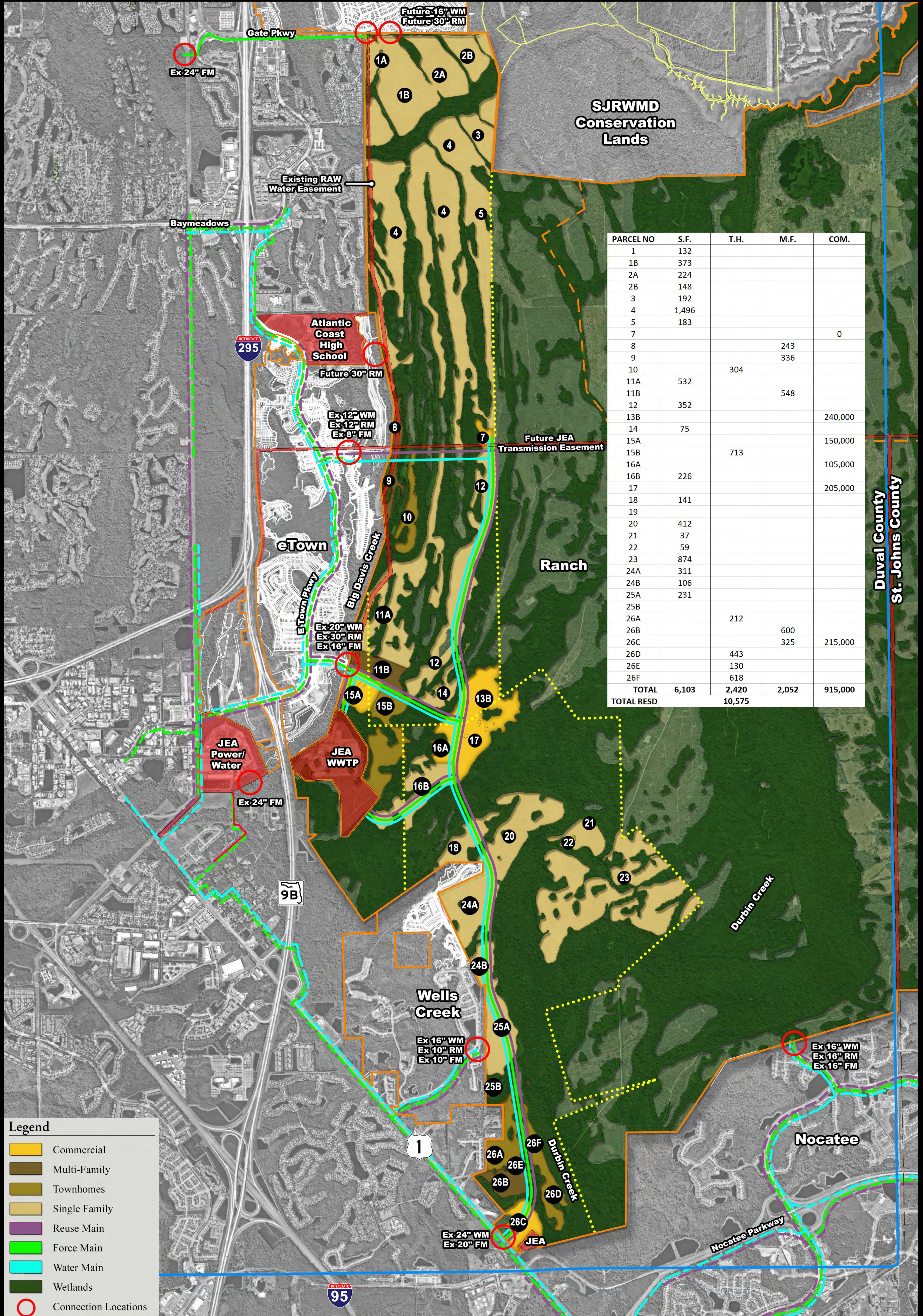
# EXHIBIT

## 4.1



# Big Creek Timber Utility Exhibit

Northeast Florida  
October 28, 2022



**Legend**

- Commercial
- Multi-Family
- Townhomes
- Single Family
- Reuse Main
- Force Main
- Water Main
- Wetlands
- Connection Locations

North

Scale in Feet

T:\2020\20-088\Concept\20-088\_UTILITY Exhibit 10-28-22.psd

Note: This land plan and/or rendering is conceptual and is subject to review, change and approval by several governmental agencies to meet environmental, technical and other standards. This plan was completed based on limited information, therefore all acreage figures are unofficial and are subject to change.



# EXHIBIT

## 4.2



21 West Church Street  
Jacksonville, Florida 32202-3139

William Killingsworth  
Director of Planning and Development  
City of Jacksonville  
214 N. Hogan Street, Suite 300  
Jacksonville, FL 32202

October 31, 2022

Dear Mr. Killingsworth:

Following the City's policy for Multi Use land, Big Creek Timber, LLC has developed a conceptual long-term master plan addressing their property to be designated MU. Requirement #4 of that conceptual master plan is to address; "The strategy for providing centralized utilities for water and sewer service throughout the planning area."

JEA staff has had multiple meetings and discussions with the Parc Group and their consultant England-Thims and Miller, Inc. During these discussions we have identified major utility corridors within the 6,174 acre property and multiple connection points to the existing and proposed JEA utility system for water, sewer, and reuse. These corridors and connection points can be seen on the attached Conceptual Utility Exhibit. Onsite facility locations and offsite treatment facility expansions may be required in the future. These items will be addressed as needed or coordinated as the development progresses.

Subject to further project coordination, meeting JEA standards and final engineering; JEA will have the capacity to serve this project with central water, sewer, and reuse. Should you need any further documentation, please do not hesitate in calling.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Zammataro', is written over a light blue circular stamp.

Robert Zammataro  
Director Water System Planning & Development  
JEA

# EXHIBIT

## 4.3



## Bradley Weeber

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**From:** West, Susan R. - Consulting Engineer <westsr@jea.com>  
**Sent:** Thursday, September 9, 2021 8:59 AM  
**To:** Nicole Bolatete; Zammataro, Robert J. (Rob) - Dir W/WW Planning & Development  
**Cc:** Bradley Weeber; Doug Miller  
**Subject:** RE: Estuary Property - COJ Water Supply Facilities Work Plan

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

The current Water Supply Facilities Work Plan already includes the SIPS water projects and the Greenland Wastewater Treatment plant which will meet the needs of the Estuary Property. I will reach out to Kristen Reed to see what else she needs.

Susan R. West, PE  
Consulting Engineer  
Direct: (904) 665-7980  
Mobile: (904) 477-2391

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**From:** Nicole Bolatete <BolateteN@etminc.com>  
**Sent:** Thursday, September 9, 2021 8:56 AM  
**To:** Zammataro, Robert J. (Rob) - Dir W/WW Planning & Development <zammrj2@jea.com>  
**Cc:** West, Susan R. - Consulting Engineer <westsr@jea.com>; Bradley Weeber <WeeberB@etminc.com>; Doug Miller <MillerD@etminc.com>  
**Subject:** RE: Estuary Property - COJ Water Supply Facilities Work Plan

[External Email - Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.]

Good morning Rob,

I am following up on my email below. Is this document something that you can provide?

Thank you,

**Nicole Bolatete, P.E.**  
Project Engineer  
England-Thims & Miller, Inc.  
d: 904.265.3162  
m: 904.451.0374

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**From:** Nicole Bolatete

**Sent:** Monday, August 23, 2021 12:50 PM

**To:** Zammataro, Robert J. (Rob) - Dir W/WW Planning & Development <[zammrj2@jea.com](mailto:zammrj2@jea.com)>

**Cc:** West, Susan R. <[westsr@jea.com](mailto:westsr@jea.com)>; Bradley Weeber <[WeeberB@etminc.com](mailto:WeeberB@etminc.com)>; Doug Miller <[MillerD@etminc.com](mailto:MillerD@etminc.com)>

**Subject:** Estuary Property - COJ Water Supply Facilities Work Plan

Good afternoon Rob,

As you know, we are working on the Estuary Property, east of Apex Trail and the proposed Greenland WRF. We are currently in review with the City of Jacksonville's Community Planning Division and they are requesting an updated Water Supply Facilities Work Plan. The City supplied the following link: <http://cityclts.coj.net/docs/2019-0036/Original%20Text/Exhibit%202.pdf>

Do you have an updated copy of this that includes the improvements needed to serve the Estuary property?

Thank you,

**Nicole Bolatete, P.E.**

Project Engineer



d: 904.265.3162 | m: 904.451.0374

[bolateten@etminc.com](mailto:bolateten@etminc.com)

[www.etminc.com](http://www.etminc.com)

# EXHIBIT

## 6.1



*Florida Department of Transportation*

RON DESANTIS  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.  
SECRETARY

William Killingsworth  
Director of Planning and Development  
City of Jacksonville  
214 N. Hogan Street, Suite 300  
Jacksonville, FL 32202

October 10, 2022

Dear Mr. Killingsworth:

FDOT has had multiple meetings and discussions with the Parc Group and their consultant England-Thims and Miller, Inc. During these discussions we have reviewed the major transportation corridors within the 6,174 Acre property and the multiple connection points to the existing transportation network. These corridors and connection points can be seen on the attached Exhibit.

The north/south transportation corridor through the property provides a critical parallel path to the FOOT facilities of US 1 and SR 9B which is of regional benefit. The project and the newly proposed US 1 intersection was extensively modeled and reviewed for its effects on US 1 and the existing US 1 / Racetrack Road intersection.

Subject to meeting FOOT standards, final engineering, permitting, and approvals; FOOT believes the proposed internal transportation facilities and connections to the external transportation network are an appropriate plan for the development.

Sincerely,

A handwritten signature in blue ink, appearing to read "jmk", is written over a light blue circular stamp.

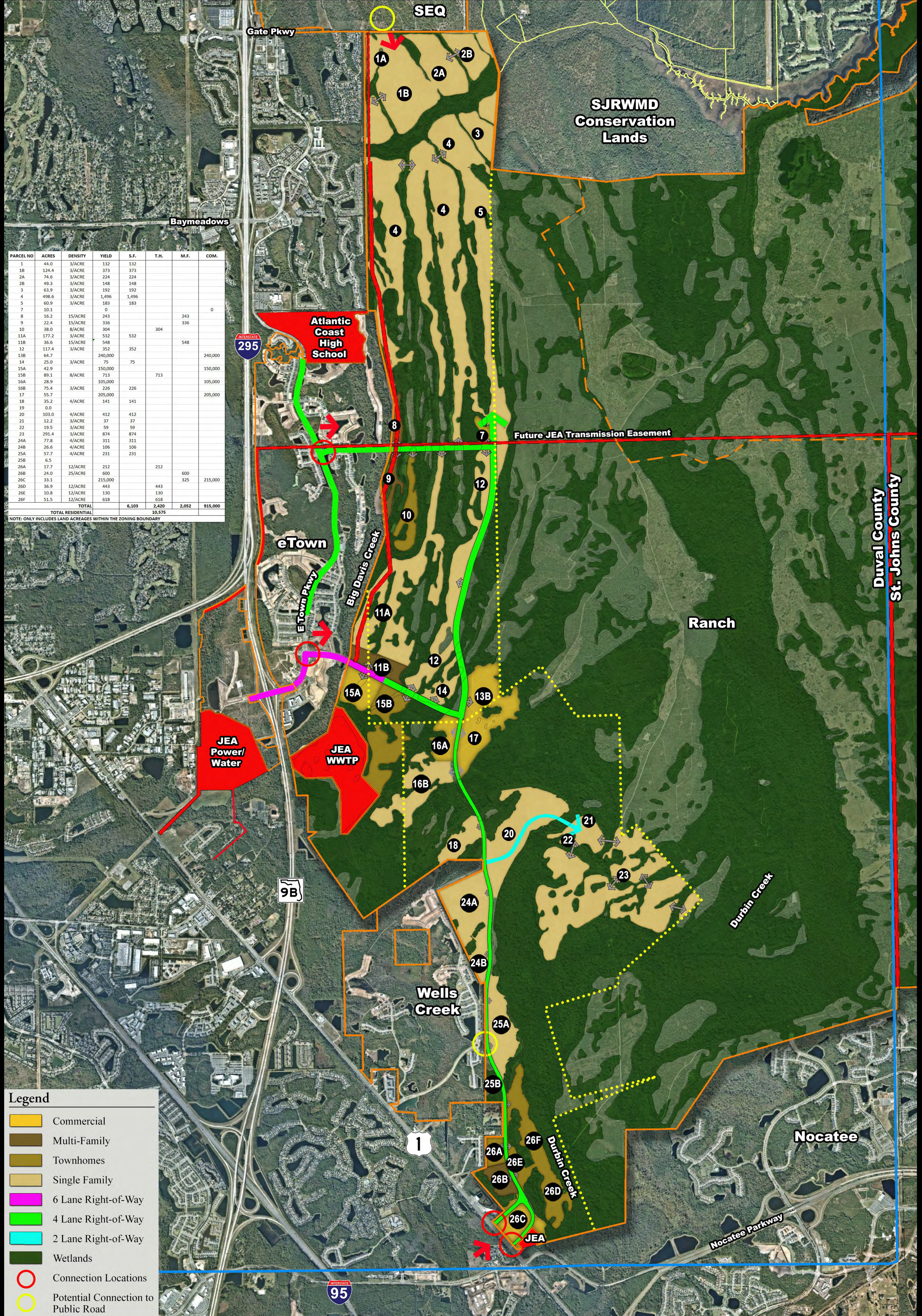
James M. Knight, P.E.  
Urban Planning and Modal Administrator



# Estuary Property Conceptual Master Plan

Northeast Florida

April 25, 2022

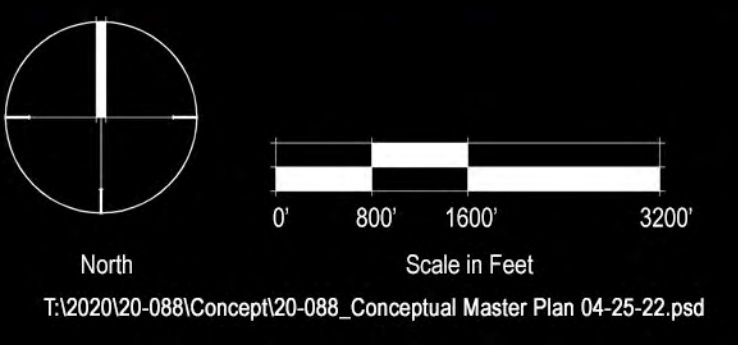


PARCEL NO	ACRES	DENSITY	YIELD	S.F.	T.H.	M.F.	COM.
1	44.2	3/ACRE	132	132			
18	124.4	3/ACRE	373	373			
2A	74.6	3/ACRE	224	224			
2B	49.3	3/ACRE	148	148			
3	63.9	3/ACRE	192	192			
4	498.6	3/ACRE	1,496	1,496			
5	60.9	3/ACRE	183	183			
7	10.1		0				0
8	16.2	15/ACRE	243			243	
9	22.4	15/ACRE	336			336	
10	38.0	8/ACRE	304		304		
11A	177.2	3/ACRE	532	532			
11B	36.6	15/ACRE	548			548	
12	117.4	3/ACRE	352	352			
13B	64.7		240,000				240,000
14	25.0	3/ACRE	75	75			
15A	42.9		150,000				150,000
15B	89.1	8/ACRE	713		713		
16A	28.9		105,000				105,000
16B	75.4	3/ACRE	226	226			
17	55.7		205,000				205,000
18	35.2	4/ACRE	141	141			
19	0.0						
20	103.0	4/ACRE	412	412			
21	12.2	3/ACRE	37	37			
22	19.5	3/ACRE	59	59			
23	291.4	3/ACRE	874	874			
24A	77.8	4/ACRE	311	311			
24B	26.6	4/ACRE	106	106			
25A	57.7	4/ACRE	231	231			
25B	6.5						
26A	17.7	12/ACRE	212		212		
26B	24.0	25/ACRE	600			600	
26C	33.1		215,000			325	215,000
26D	36.9	12/ACRE	443		443		
26E	10.8	12/ACRE	130		130		
26F	51.5	12/ACRE	618		618		
<b>TOTAL</b>			<b>2,420</b>				
<b>TOTAL RESIDENTIAL</b>			<b>6,103</b>		<b>2,052</b>		<b>915,000</b>
<b>TOTAL</b>			<b>10,575</b>				

NOTE: ONLY INCLUDES LAND ACRES WITHIN THE ZONING BOUNDARY

**Legend**

- Commercial
- Multi-Family
- Townhomes
- Single Family
- 6 Lane Right-of-Way
- 4 Lane Right-of-Way
- 2 Lane Right-of-Way
- Wetlands
- Connection Locations
- Potential Connection to Public Road



Note: This land plan and/or rendering is conceptual and is subject to review, change and approval by several governmental agencies to meet environmental, technical and other standards. This plan was completed based on limited information, therefore all acreage figures are unofficial and are subject to change.



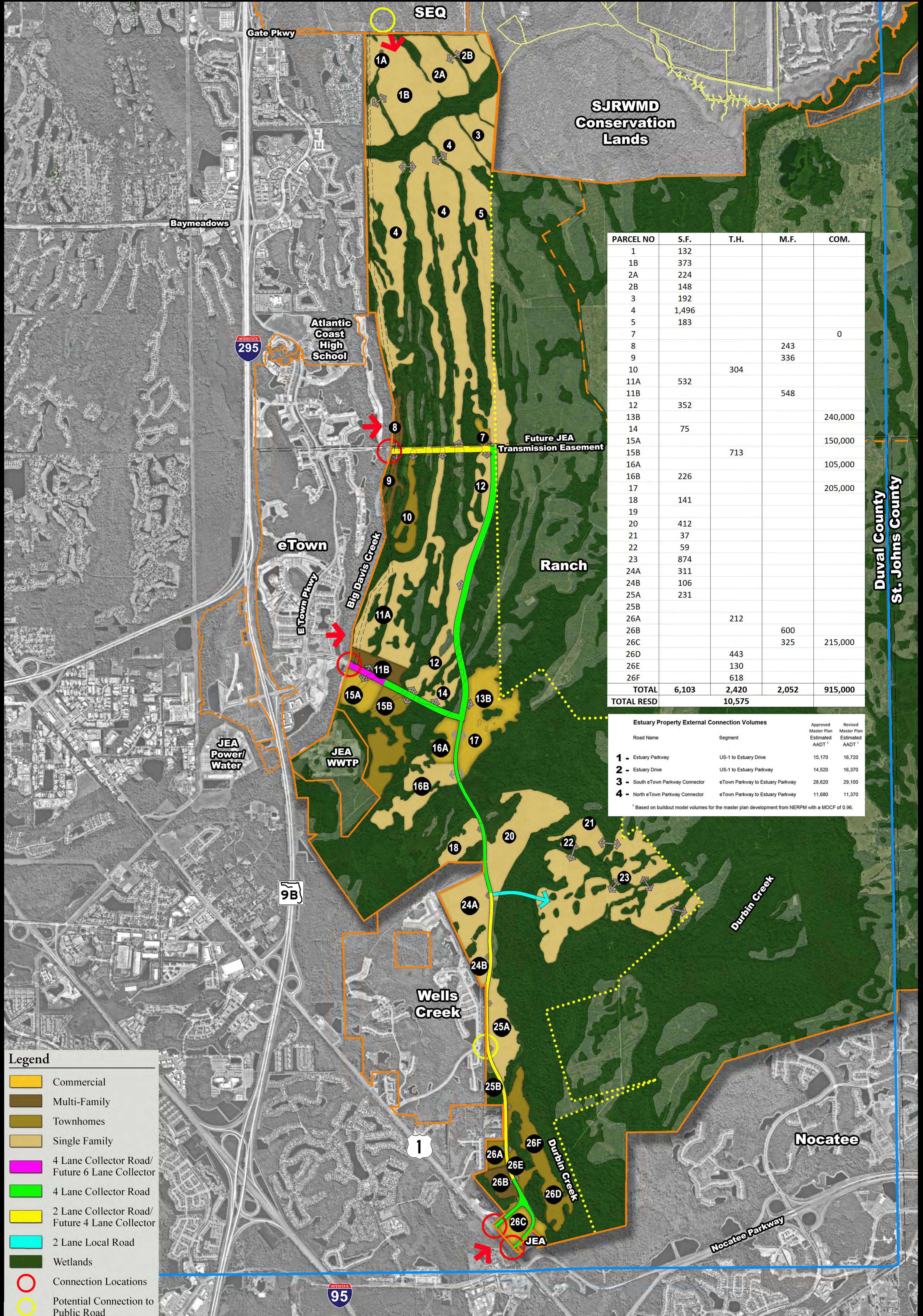
# EXHIBIT

## 7.1



# Big Creek Timber Developer Constructed Roadway Plan

Northeast Florida  
October 28, 2022



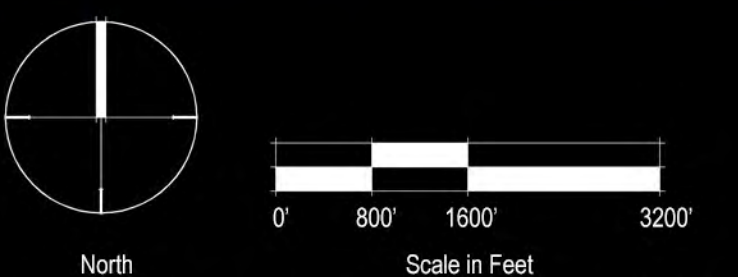
PARCEL NO	S.F.	T.H.	M.F.	COM.
1	132			
1B	373			
2A	224			
2B	148			
3	192			
4	1,496			
5	183			
7				0
8			243	
9			336	
10		304		
11A	532			
11B			548	
12	352			
13B				240,000
14	75			
15A				150,000
15B		713		
16A				105,000
16B	226			
17				205,000
18	141			
19				
20	412			
21	37			
22	59			
23	874			
24A	311			
24B	106			
25A	231			
25B				
26A		212		
26B			600	
26C			325	215,000
26D		443		
26E		130		
26F		618		
<b>TOTAL</b>	<b>6,103</b>	<b>2,420</b>	<b>2,052</b>	<b>915,000</b>
<b>TOTAL RESD</b>		<b>10,575</b>		

Estuary Property External Connection Volumes		Approved Master Plan Estimated AADT <sup>1</sup>	Revised Master Plan Estimated AADT <sup>1</sup>
Road Name	Segment		
1 - Estuary Parkway	US-1 to Estuary Drive	15,170	16,720
2 - Estuary Drive	US-1 to Estuary Parkway	14,520	16,370
3 - South eTown Parkway Connector	eTown Parkway to Estuary Parkway	28,620	29,100
4 - North eTown Parkway Connector	eTown Parkway to Estuary Parkway	11,680	11,370

<sup>1</sup> Based on buildout model volumes for the master plan development from NERPM with a MOCF of 0.96.

**Legend**

- Commercial
- Multi-Family
- Townhomes
- Single Family
- 4 Lane Collector Road/  
Future 6 Lane Collector
- 4 Lane Collector Road
- 2 Lane Collector Road/  
Future 4 Lane Collector
- 2 Lane Local Road
- Wetlands
- Connection Locations
- Potential Connection to Public Road



Note: This land plan and/or rendering is conceptual and is subject to review, change and approval by several governmental agencies to meet environmental, technical and other standards. This plan was completed based on limited information, therefore all acreage figures are unofficial and are subject to change.



# EXHIBIT

## 7.2



**November 16, 2022**

Ms. Laurie Santana, Chief  
Transportation Planning Division  
Ed Ball Building  
214 N. Hogan Steet, Suite 300  
Jacksonville, FL 32202

Reference: Big Creek Timber MU Conceptual Master Plan – Traffic Assessment

Ms. Santana,

On behalf of Big Creek Timber LLC, England, Thims & Miller, Inc. has estimated the average daily traffic on the internal roadways by running the Northeast Regional Planning Model developed for the Big Creek Timber's MU Conceptual Master Plan using the updated land uses and units. The model run, submitted for your review following out August 24, 2022 meeting, was the updated the same roadway network as the previously approved LDR conceptual master plan traffic study.

We have corresponded with your department on numerous technical questions relating this modeling submission. Attached are most current results for this model, incorporating all issues coordinated with your department since the August 24<sup>th</sup> submittal, in the form of model plots from the NERPM-AB model as well as tables illustrating the AADT for each segment of the major roadways.

As can be seen in the attached result summaries and models, the AADT for the section of road between parcel 26A access and parcel 21 access remains below the 2-lane capacity for this scenario. As previously discussed with COJ staff, this section of road does not require 4-lanes for this MU Conceptual Master Plan. The proposed plan commits to providing R/W for 4-lanes and that the road between parcel 26E and 24A will be designed as 2-lanes of future 4-lane section so that a future expansion could be done if required in the future by off-site development or by an amendment made to the MU Master Plan. If an amendment to the MU Master Plan results in the need to widen to 4-lanes from Area 26E to 24A, the widening will be constructed as a requirement of the Master Plan, not by the City.

On File  
Page 21 of 35

Ms. Laurie Santana, Chief  
Transportation Planning Division  
City of Jacksonville

October 31, 2022  
Page 2 of 2

Reference: Estuary Property – Traffic Assessment

Please confirm your approval of the traffic modeling and the conclusion, by signing below and returning a copy to me.

If you have any questions, please feel free to call.

Sincerely,

**ENGLAND, THIMS & MILLER, INC.**

Jeffrey A. Crammond, PE, PTOE, PTP  
Vice President – Traffic Engineering/Transportation Planning

Enclosures:

Date:

\_\_\_\_\_  
Ms. Laurie Santana, Chief  
Transportation Planning Division

**Estuary Property Internal Roadway Requirements**

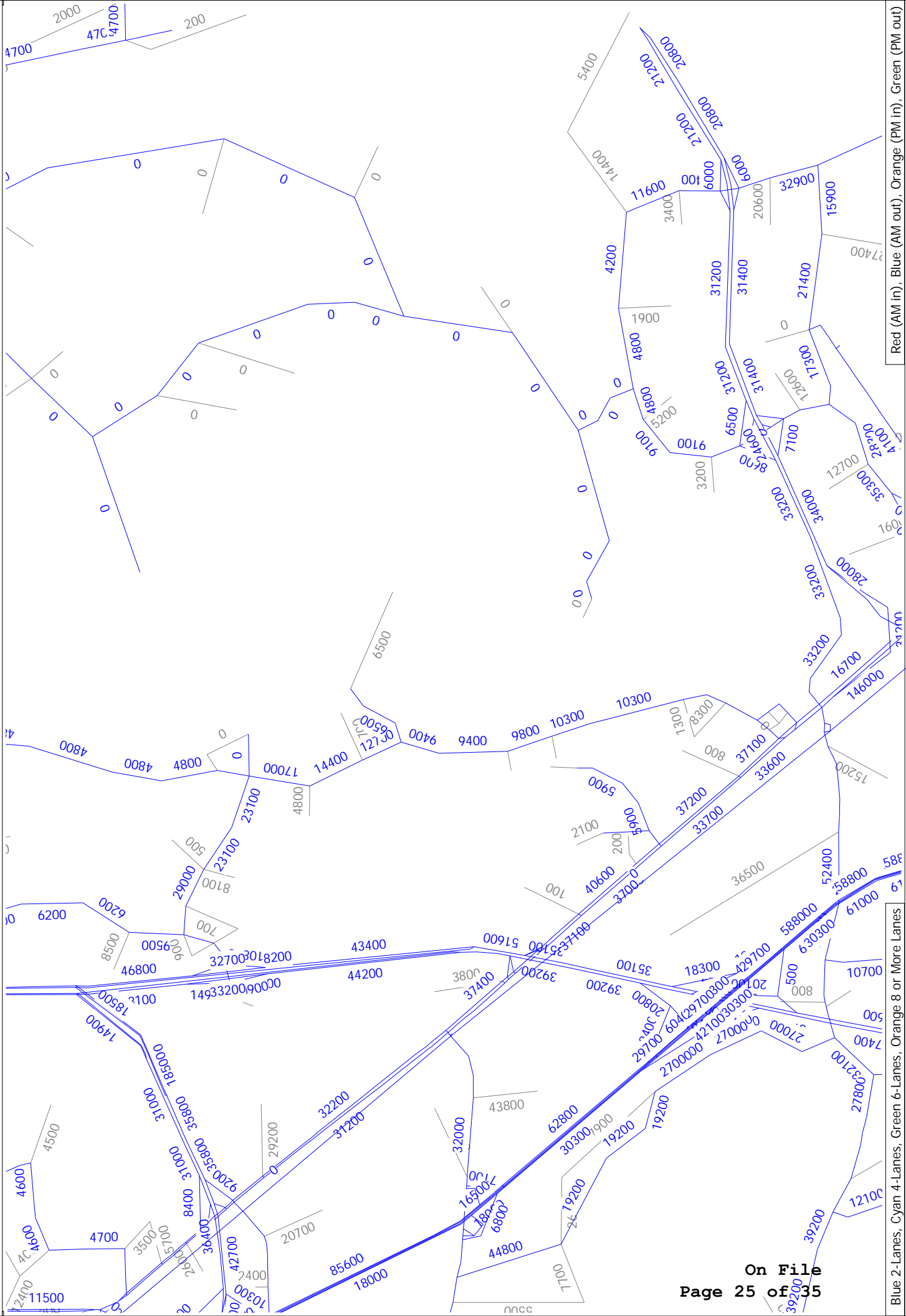
Road Name	Segment	Estimated AADT <sup>1</sup>		Recommended Typical Section	Speed		Class	Level of Service Standard	Maximum Service Volume			Volume to Capacity Ratio (v/c)
		Model	ITE		Design	Posted			Table 1 Volume <sup>2</sup>	Local Road Adjustment	Turn Lanes Credit Adjustment	
Estuary Parkway	US-1 to Estuary Drive	15,300	18,752	4-Lane Divided	45 mph	45 mph	Class 1	E	39,800	35820	37,610	0.41
	Estuary Drive to Parcel 26A Entrance	17,400		4-Lane divided	45 mph	45 mph	Class 1	E	39,800	35820	37,610	0.46
	Parcel 26A Entrance to Parcel 25 Entrance	10,300		2-Lanes of a Future 4-Lane Divided	45 mph	35 mph	Class 2	E	15,600	14040	14,740	0.70
	Parcel 25 Entrance to Parcel 24 Entrance	9,800		2-Lanes of a Future 4-Lane Divided	45 mph	35 mph	Class 2	E	15,600	14040	14,740	0.66
	Parcel 24 Entrance to Parcel 21 Access Road	9,400		2-Lanes of a Future 4-Lane Divided	45 mph	35 mph	Class 2	E	15,600	14040	14,740	0.64
	Parcel 21 Access Road to Parcel 16B Entrance	14,400		4-Lane Divided	45 mph	45 mph	Class 1	E	39,800	35820	37,610	0.38
	Parcel 16B Entrance to S. eTown Pkwy Connector	17,000		4-Lane Divided	45 mph	45 mph	Class 1	E	39,800	35820	37,610	0.45
	S. eTown Pkwy Connector to N. eTown Pkwy Connector	11,000		2-Lanes of a Future 4-Lane Divided	45 mph	45 mph	Class 1	E	17,700	15930	16,730	0.66
	North of N. eTown Pkwy Connector	12,200		2-Lanes of a Future 4-Lane Divided	45 mph	45 mph	Class 1	E	17,700	15930	16,730	0.73
	Estuary Drive	US-1 to Estuary Parkway	14,700	11,117	4-Lane Divided	35 mph	30 mph	Class 2	E	32,400	29160	30,620
South eTown Parkway Connector	eTown Parkway to Estuary Parkway	29,000	32,359	4-Lanes of a Future 6-Lane Divided	45 mph	45 mph	Class 1	E	39,800	35820	37,610	0.77
North eTown Parkway Connector	eTown Parkway to Estuary Parkway	11,800	13,010	2-Lanes of a Future 4-Lane Divided	40 mph	35 mph	Class 2	E	15,600	14040	14,740	0.80

<sup>1</sup> Based on buildout model volumes for the master plan development from NERPM with a MOCF of 0.96.

<sup>2</sup> 2020 Quality and Level of Service Handbook published by the Florida Department of Transportation.



Estuary Property - Master Plan Buildout  
Annual Average Daily Traffic  
(AADTs)



Red (AM in), Blue (AM out), Orange (PM in), Green (PM out)  
(Licensed to England Thims and Miller Inc)

Blue 2-Lanes, Cyan 4-Lanes, Green 6-Lanes, Orange 8 or More Lanes  
On File  
Page 25 of 35  
GUMBE



# EXHIBIT

## 7.3

**Table A - Big Creek Timber MU - Conversion Matrix**

LUC	Description	Converting To										Trip Rates
		210	220	221	251	252	310	710	820	Commercial	1000 sf	
210	Single Family Detached	DU	1.91340	2.30990	3.00600	3.60720	1.52850	0.62630	0.20040	0.9018		
220	Multi Family (Low Rise)	0.52260	1.20720	1.57100	1.88520	0.79880	0.32730	0.10470	0.4713			
221	Multi Family (Mid Rise)	0.43290	0.82830	1.30130	1.56160	0.66170	0.27110	0.08680	0.3904			
251	Active Adult - Single Family	0.33270	0.63650	0.76840	1.20000	0.50850	0.20830	0.06670	0.30			
252	Active Adult - Multi Family	0.27720	0.53040	0.64040	0.83330	0.42370	0.17360	0.05560	0.25			
310	Hotel	0.65420	1.25190	1.51130	1.96670	0.40970	0.13110	0.59				
710	Office	0.00160	0.00310	0.00370	0.00480	0.00240	0.32000	0.00144				
820	Commercial	0.00500	0.00950	0.01150	0.01500	0.00760	3.12500	0.0045				
	Trip Rates	0.9018	0.4713	0.3904	0.3	0.25	0.59	0.00144	0.0045			

LUC	Land Use Type	Proposed	Units	Min	Max
210	Single Family Detached	6,000	DUs	4,000	6,500
220	Multi Family (Low Rise)	2,900	DUs	2,000	3,000
221	Multi Family (Mid Rise)	1,800	DUs	1,000	2,000
251	Active Adult - Single Family	0	DUs	0	2,000
252	Active Adult - Multi Family	0	DUs	0	1,000
310	Hotel	0	Rooms	0	500
710	Office	0	Square Feet	0	500,000
820	Retail	915,000	Square Feet	300,000	925,000

**Examples:**

To convert 50 Single Family Residential Dwelling Units to Commercial, multiply 50 \* 0.20040 = 10,020 SF  
 Check: (50 \* .9018) = 45 PHT  
 (10,020 \* 0.0045) = 45 PHT

To convert 10,000 sf of Commercial to Multi Family Low Rise, multiply 10,000 \* 0.0095 = 95 DUs  
 Check: (10,000 \* 0.0045) = 45 PHT  
 (95 \* 0.4713) = 45 PHT

**Source: PM Peak Hour Rates and Equations, "Trip Generation", 11th Edition, ITE.**  
 Based on no pass-by or internal capture reduction.

*Note: After conversion, revise the Trip Generation calculation using ITE pass-by and internal capture reduction for the entire development.*



**Table B - Big Creek Timber MU - Trip Rate Calculations**

Created 12/14/2022

Buildout Land Use	Description	Size	Units	PM Peak Hour Equation*	Gross Trip Generation	PM Peak Hr Trip Rate
210	Single Family Residential	6,444	DU	$\ln(T) = 0.94 * \ln(X) + 0.27$	5,811	0.90180
220	Multi-Family (Low Rise)	1,971	DU	$(T) = .43 (X) + 20.55$	929	0.47130
221	Multi-Family (Mid Rise)	2,185	DU	$(T) = .39 (X) + 0.34$	853	0.39040
251	Senior Adult Housing - Single Family	NA	DU	$(T) = .30 (X)$	NA	0.300
252	Senior Adult Housing - Multi Family	NA	DU	$(T) = .25 (X)$	NA	0.250
310	Hotel	NA	Room	$(T) = .59 (X)$	NA	0.590
710	General Office	NA	SF GFA	$(T) = .00144 (X)$	NA	0.00144
820	Shopping Center	1,225,000	SF GLA	$\ln(T) = 0.72 * \ln(X) + 3.02$	5,526	0.00450

\*Source: PM Peak Hour Rates and Equations, "Trip Generation Manual", 11th Edition, ITE.

- 1) Trip rates for the Master Plan Uses are the total trips generated by that use divided by the development quantity.
- 2) Trip rates shown in *italics* are the average trip rate from the 11th edition of the Ite "Trip Generation Manual"

# EXHIBIT

## 8.1



September 28, 2021

## Florida Fish and Wildlife Conservation Commission

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MyFWC.com

Brian Spahr  
LG2 Environmental Solutions, Inc  
424 Peregrine Court  
Jacksonville, FL 32225  
[brianspahr@yahoo.com](mailto:brianspahr@yahoo.com)

Re: Estuary Property Master Plan, Technical Assistance Request, Duval County

Dear Mr. Spahr:

Florida Fish and Wildlife Conservation Commission (FWC) staff received a request for technical assistance for the above-referenced project. The following comments and recommendations are provided as technical assistance to assist with future project planning and in accordance with FWC's authorities under Chapter 379, Florida Statutes.

### Project Description

Brian Spahr, the environmental consultant for the Estuary Property, requested technical assistance for the creation of a conceptual master plan for the approximately 5,206-acre project site in southeastern Duval County in a letter dated June 6, 2021. The City of Jacksonville is requiring that the applicant coordinate with FWC staff during the design of the plan.

The property is located to the east of I-295 and State Road 9B, between SR-202 and Philips Highway. Dominant land covers on the site include coniferous plantations (1,666.4 acres), mixed wetland hardwoods (1,238.4 acres), hydric pine flatwoods (663.4 acres), mixed hardwood coniferous swamps (543.2 acres), upland coniferous (304.4), mesic flatwoods (266.7 acres), sandhill (160.4 acres), mixed scrub-shrub wetland (110.8 acres), cypress (56.9 acres), wet flatwoods (49.2 acres), bay swamp (36.3 acres), field crops (29.6 acres), mixed hardwood-coniferous (31 acres), unimproved woodland/pasture (13.5 acres), residential (7.4 acres), rural open (6.5 acres), floating/emergent aquatic vegetation (5.2 acres), wet coniferous plantation (5 acres), artificial impoundment/reservoir (3.5 acres), upland hardwood forest (2.5 acres), riverine (2.4 acres), and smaller areas of rural structures, improved pasture, wet prairie, and marshes.

### Potentially Affected Resources

At this early stage in project planning, the environmental consultant has not yet completed a wildlife survey for this property. FWC staff conducted a geographic information system (GIS) analysis of the project area and found that the site is located near, within, or adjacent to:

- U.S. Fish and Wildlife Service (USFWS) Consultation Area for the red-cockaded woodpecker (*Picoides borealis*, Federally Endangered)
- Two wood stork (*Mycteria americana*, Federally Threatened) nesting colony core foraging areas (CFA). The CFA consists of a 13-mile radius around the nesting colony.
- Potential habitat for the following state-listed species:
  - Black Creek crayfish (*Procambarus pictus*, State Threatened [ST])
  - Florida sandhill crane (*Antigone canadensis pratensis*, ST)
  - Gopher tortoise (*Gopherus polyphemus*, ST)

- Little blue heron (*Egretta caerulea*, ST)
- Southeastern American kestrel (*Falco sparverius paulus*, ST)
- Tricolored heron (*Egretta tricolor*, ST)

## **Comments and Recommendations**

### Wildlife Surveys and Habitat Management

To better identify potential project impacts to listed species of fish and wildlife, FWC staff recommends that species-specific surveys be conducted prior to any clearing or construction. Species-specific surveys are time sensitive and are best conducted by wildlife biologists with recent documented experience for that species. Species-specific survey protocols approved by the USFWS and the FWC are provided in the Florida Wildlife Conservation Guide at <https://myfwc.com/conservation/value/fwcg/> or in the FWC Species Conservation Measures and Permitting Guidelines available at <https://myfwc.com/wildlifehabitats/wildlife/species-guidelines/>.

The Estuary Property may also benefit from a Wildlife and Habitat Management Plan (WHMP). Developments of this size with large conservation areas or ecological corridors can provide a framework for habitat management activities that will ensure these areas continue to provide habitat for fish and wildlife resources. A WHMP can include a list of federally and state-listed species which may occur on the site and actions to minimize, avoid, and mitigate impacts to those species. Similar plans also include information on proposed maintenance activities such as prescribed fire, invasive plant management, or methods to address nuisance and exotic animal species. FWC staff is available to assist in the development of a management plan that includes these details so that conservation areas and open space may continue to provide habitat for fish and wildlife resources.

### Black Creek Crayfish

Black Creek crayfish inhabit freshwater streams nearby in Duval County. Specifically, the species has been documented in Cowhead Creek, Corklan Branch, and Big Davis Creek, and the species might also be found in the creeks crossing the northern portion of the project site, such as Buckhead Branch and Boggy Branch. The Black Creek crayfish requires perennial streams that have cool, highly oxygenated water, sufficient streamside vegetation for cover and food, and canopy to regulate water temperature. The presence of vegetation within and along creek banks as well as tree roots and submerged detritus are important shelter and food sources for the crayfish. This species is particularly susceptible to pollution, changes in water temperature, siltation, and other changes in water quality. FWC staff recommends surveying for Black Creek crayfish if construction activities have the potential to impact areas of suitable habitat. If streams or tributaries within the project area are found to have the Black Creek crayfish or suitable habitat, FWC staff recommends the applicant refer to additional species information and guidelines in the 2018 Species Conservation Measures and Permitting Guidelines for the Black Creek Crayfish (<https://myfwc.com/media/11560/black-creek-crayfish-guidelines.pdf>).

### Florida Sandhill Crane

The site may provide foraging habitat for Florida sandhill crane, and the shorelines of the wetlands and marshes onsite may provide potential nesting habitat for this species. FWC staff recommends that surveys for nesting Florida sandhill cranes be conducted prior to construction activities and during the December through August breeding season. If construction occurs over several years, it may be necessary to conduct surveys each year as Florida sandhill cranes do not nest in the same location every year. If active nests are identified onsite, the Florida Sandhill

Crane Species Conservation Measures and Permitting Guidelines recommend that the nest site be buffered by 122 meters (400 feet) to avoid disturbance by human activities. If nesting is discovered after construction has begun or if maintaining the recommended buffer is not possible, the applicant can contact FWC staff identified below to discuss potential permitting needs. Additional information and guidance for conducting Florida sandhill crane surveys can be found in the Florida Sandhill Crane Species Conservation Measures and Permitting Guidelines (<https://myfwc.com/media/11565/final-florida-sandhill-crane-species-guidelines-2016.pdf>).

#### Gopher Tortoise

The project area may have potential habitat for the gopher tortoise. The applicant should refer to the FWC's Gopher Tortoise Permitting Guidelines (Revised July 2020) (<http://www.myfwc.com/license/wildlife/gopher-tortoise-permits/>) for survey methodology and permitting guidance prior to any development activity. Specifically, the permitting guidelines include methods for avoiding impacts as well as options and state requirements for minimizing, mitigating, and permitting potential impacts of the proposed activities. If you have any questions regarding gopher tortoise permitting, please contact Eric Seckinger by phone at (850) 921-1029 or at [Eric.Seckinger@MyFWC.com](mailto:Eric.Seckinger@MyFWC.com).

#### Southeastern American Kestrel

Suitable habitat for southeastern American kestrels may be found within the proposed project area. FWC staff recommends that kestrel surveys be conducted from April to August within kestrel suitable foraging habitat according to the methodology outlined in FWC's Species Conservation Measures and Permitting Guidelines for Southeastern American Kestrel: <https://myfwc.com/wildlifehabitats/wildlife/species-guidelines/>. Surveys from May to July are ideal to avoid confusion with the migratory subspecies of American kestrel (*Falco sparverius sparverius*). Surveys may be completed outside of the April to August survey season, when necessary, with any kestrels observed assumed to be southeastern American kestrels. Surveys are valid until the beginning of the following breeding season (March). If surveys encounter active nest cavities, FWC staff recommends avoiding project activities within 150 meters (490 feet) of the nest during the breeding season (March through July) to avoid disturbance. If nesting is discovered after construction has begun, or if maintaining the recommended buffer is not possible, the applicant may contact FWC staff identified below to discuss potential permitting needs. In areas of suitable kestrel habitat, the Species Conservation Measures and Permitting Guidelines also recommend retaining snags whenever possible.

#### Wading Birds

The potential exists for wading bird nesting activity in the numerous wetlands onsite. FWC staff recommends that specific surveys be conducted for wading birds in these wetland areas prior to the commencement of any clearing, grading, or filling activities. Surveys should be conducted during their breeding season, which extends from March through August. Additional information and guidance for conducting surveys can be found in the Species Conservation Measures and Permitting Guidelines for state-threatened wading birds (<https://myfwc.com/media/18634/threatenedwadingbirds-guidelines.pdf>). If there is evidence of nesting during this period, FWC staff recommends that any wading bird nest sites be buffered by 100 meters (330 feet) to avoid disturbance by human activities. If nesting is discovered after site activities have begun, if the removal or trimming of trees with active nests is unavoidable, or if maintaining the recommended buffer is not possible, the applicant may contact the FWC staff identified below to discuss potential permitting alternatives.

### Florida Black Bear

The FWC has received 83 reports of human-bear conflicts within a 5-mile radius of the project site since 2000. Florida black bears are common in this area which is within the overlap of the North and Central BMU's identified in the 2019 Bear Management Plan. While black bears tend to shy away from people, they are adaptable and will take advantage of human-provided food sources. This includes sources that are currently available near this site, sources that may be available during construction, and sources available after construction including unsecured garbage, pet food, and bird seed. Once bears become accustomed to finding food around people, their natural wariness is reduced to the point that there can be an increased risk to public safety or private property.

Proactive planning may help prevent or reduce future conflicts with bears. Site designs for larger developments should locate conservation areas along the borders of developed areas, to avoid encouraging bears to forage within developed areas (<http://myfwc.com/wildlifehabitats/managed/bear/crossings/>). If a homeowners' association or community covenants are planned, by-laws that would require residents to take measures to prevent attracting bears into the neighborhood are recommended. Sample by-law language used by other Florida communities is available at (<http://myfwc.com/wildlifehabitats/managed/bear/living/community-group/bylaw/>).

During construction, construction sites should be kept clean, with refuse that might attract bears kept separate from construction debris and stored securely in bear-resistant containers or removed daily from the construction site before dark. Refuse that might attract bears includes all food and drink-related materials, as well as any items with strong scents like cleaning agents. Once the development is completed, residents should be provided with bear-resistant garbage cans as part of their regular waste service and any larger waste storage containers should also be bear-resistant. Providing residents with information on how to avoid human-bear conflicts is also recommended. This information can include:

- Options for keeping garbage secure which can include using bear-resistant garbage containers, modifying regular containers to be bear-resistant, or keeping containers secure in a garage or sturdy shed and then placing garbage on the curb the morning of pick-up rather than the night before (<http://myfwc.com/wildlifehabitats/managed/bear/living/attractants/>);
- Removing bird and wildlife feeders, or modifying them to exclude bears (<http://myfwc.com/wildlifehabitats/managed/bear/wildlife-feeders/>);
- Using electric fencing to secure outdoor attractants like fruiting trees/shrubs, gardens, compost, and small livestock (<https://myfwc.com/media/1886/electricfence.pdf>);
- Proper composting in bear range (<https://myfwc.com/media/1888/howtocompostinbearcountry.pdf>);
- Keeping pets safe (<https://myfwc.com/wildlifehabitats/wildlife/bear/living/protect-pets/>); and
- Cleaning and securing barbeque grills.

Information should also include guidelines for how residents should respond to bears in the area, such as

- What to do if they encounter a bear, whether from a distance or at close range,
- How to keep pets and livestock safe in bear range, and
- When and how to contact the FWC regarding a bear issue.

FWC staff is available to assist with residential planning to incorporate the above features. Additional information about Florida black bears can be found on FWC's website at <http://www.myfwc.com/wildlifehabitats/managed/bear>.

#### Federal Species

This site may also contain habitat suitable for the federally listed species identified above. FWC staff recommends coordination with USFWS North Florida Ecological Services Office (ESO) as necessary for information regarding potential impacts to these species. The USFWS North Florida ESO can be contacted at (904) 731-3336.

FWC staff appreciates the opportunity to provide input on this project and looks forward to working with the City of Jacksonville and other interested parties throughout the planning and permitting processes. For specific technical questions regarding the content of this letter, please contact Jennifer Paredes at (850) 617-9408 or by email at [Jennifer.Paredes@MyFWC.com](mailto:Jennifer.Paredes@MyFWC.com). All other inquiries may be sent to [ConservationPlanningServices@MyFWC.com](mailto:ConservationPlanningServices@MyFWC.com).

Sincerely,



Jason Hight, Acting Director  
Office of Conservation Planning Services

jh/jp  
Estuary Property Master Plan\_44849\_09282021

CC: Kristen Reed, COJ [KReed@coj.net](mailto:KReed@coj.net)