

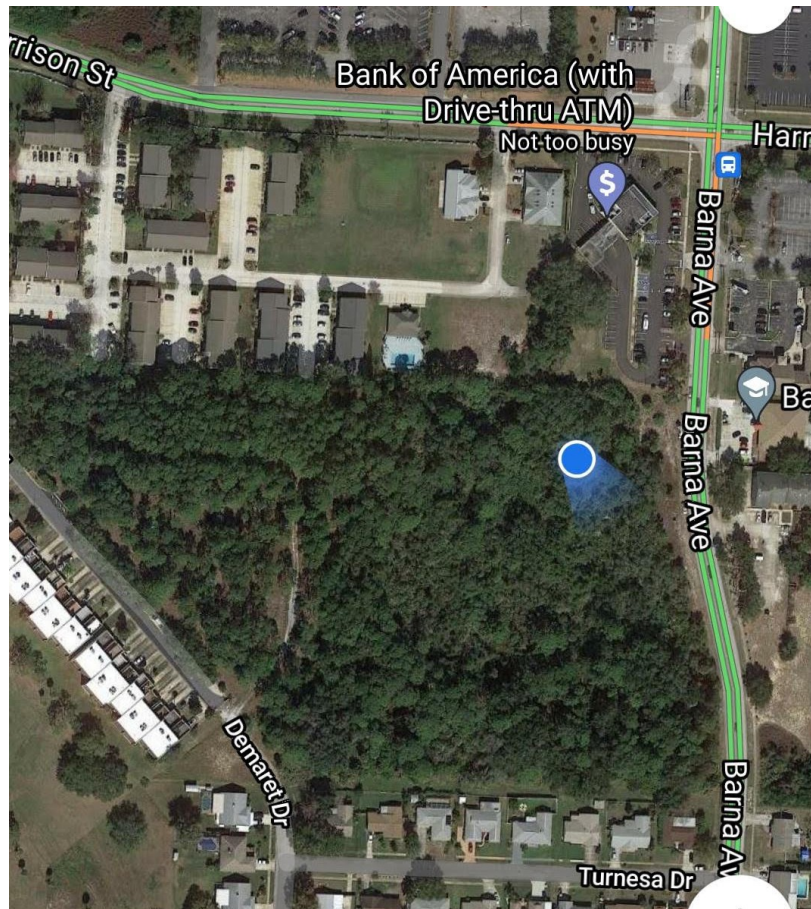
TREE MARKING AND INSPECTION REPORT

Pointe Grand, Barna Avenue, Brevard Co., Titusville, Florida
(RayEA Project FL2021-TT-09)

JUNE 2021

Prepared for the
TerraTory Development Consultants, Inc.

By
RayEA, LLC



RayEA, LLC
ECOLOGICAL APPLICATIONS

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY.....	3
2.0 INTRODUCTION.....	3
3.0 METHODS.....	3
4.0 RESULTS.....	5
5.0 DISCUSSION.....	6
6.0 REFERENCES.....	7

LIST OF ATTACHMENTS

1. **Available Government Data**
 - a. **Figure 1**-USDA/NRCS Soil Survey Map
 - b. **Figure 2**-USFWS National Wetland Inventory Map
 - c. **Figure 3**-FEMA Floodplain Map
 - d. USWS/IPaC Resource List 6-15-21
2. **Field Data Forms**
 - a. Excel Spreadsheet of all surveyed trees
3. **Site Photos**
4. **Site Specific Data Maps**
 - a. Aerial Overlay Exhibit
 - b. Preliminary Site Plan
 - c. Unit Concept Plan

***Cover Photo: General site boundaries and bounding roadways (Source Google Maps)
Cursor shows approximate location of Tree 506 with an active black vulture nest.***

1.0 EXECUTIVE SUMMARY

RayEA, LLC (RayEA) was contracted by TerraTory Development Consultants, Inc. to perform a tree assessment to assist with development of Pointe Grand, a Multi-Family Housing project proposed on 15.54-acres of thickly wooded R3 zoned land in Titusville, Florida. We understand that The City of Titusville requires a tree survey as part of development planning. A tree survey was conducted from June 6, 2021 through June 8, 2021. Per the City of Titusville Ord. No. 52-2018, Section 1, Article II (Environmental), Division 1 (Land Alterations), Sections 30-21 through Section 30-40 (hereinafter referred to as 'the ordinance'), a total of 652 trees were tagged and flagged (6-inch or greater diameter within the 20-foot buffers of the site and 12-inches or greater throughout the remainder of the site). Condition assessments were made for trees over 20-inches diameter that must be included in a Mitigation Plan if they will be disturbed. There were 70 mitigation candidate trees on-site 20 inches or more in diameter. Of these, 14 did not meet specimen tree status (mitigation status) due to being dead or of poor condition according to an ISA and TRAC certified arborist. As such, there are 56 mitigation size trees that can be located to assess the potential to design the proposed development in a way to avoid and minimize tree mitigation on-site.

2.0 INTRODUCTION

Per the client's direction relative to the City of Titusville Land Development Regulations (the ordinance), two tasks were proposed by RayEA, LLC. The first was to conduct an on-site tree survey of the proposed Pointe Grand development. The surveyed trees were to be identified, measured, categorized according to the ordinance, and the largest size class trees of 20 inches or more in Diameter at Breast Height (DBH) were to be assessed for health condition. The second task was to document the fieldwork through tables, text, and photographs to aid Professional Land Surveyors in locating and adding the tree locations to site plan drawings. This will aid in the next step which will be to produce a tree mitigation plan. The tree mitigation plan can be a combination of mitigative tree planting on site and/or paying into the Titusville Public Landscaping Trust Fund.

3.0 METHODS

Prior to the site visit, RayEA personnel collected and reviewed available government data to assist with the on-site assessment of trees while also considering other resource categories such as soils, wetlands, floodplains, and protected species that are additional considerations in City of Titusville Land Development Permits. Pertinent documents that were reviewed and included here for reference are recent aerial photography, Brevard County Soil Survey maps (U.S. Department of Agriculture, Natural Resource

Conservation Service), National Wetland Inventory maps (U.S. Department of the Interior, Fish and Wildlife Service), a Federal Emergency Management Agency (FEMA) floodplain map, and protected species information for the project vicinity per the USFWS Information for Planning and Conservation (IPaC) database (Generated 6-15-21). Resource maps and data are given in Attachment 1 (Available Government Data).

An International Society of Arboriculture (ISA) certified arborist (ISA SO-6310-A) and their assistant accessed the site, surveyed the site in a set pattern, and nailed a numbered 1-1/4 inch diameter aluminum tag at breast height on surveyed trees. The tags were pre-stamped with successive numbers. Each tag was also nailed up with a small portion of orange flagging tape streaming below. Tagged trees included each tree 6 inches or more in diameter within a 20-foot perimeter buffer around the entire site per the ordinance. All other trees in the interior of the site that were 12 inches DBH or greater were also tagged. This approach, as outlined in the ordinance, was confirmed via communication with City of Titusville personnel Jake Begley (Development Services) and Eddy Galino (Senior Planner). Those trees that were 20 inches or greater DBH and qualified as reasonably healthy specimen trees were tagged and flagged with 3-inch wide red and white striped tape. Most red and white flagging circled the trees, but some have the red and white flagging hanging with the tag. Larger trees that were dead or in poor condition were deemed to be 'Non Specimen' trees and were only flagged with the usual orange flagging. Lastly, certain trees throughout the site had the tag number painted on the opposite side of the tree to aid location for the survey crew that will come in and capture GPS coordinates for each tagged tree. Some aerial photo map screen shots of selected reference trees and their associated GPS points were taken to help orient Atwell surveyors to the locations of mapped trees on site. These GPS points are approximate because most were referenced from Google maps while in dense tree cover.

The Certified arborist is also ISA Tree Risk Assessment Certified (TRAC). This qualified them to conduct a condition assessment of all trees over 20 inches in diameter to comply with the City of Titusville Tree Preservation and Planting Requirements. Condition level and other notes about these trees were recorded on an Excel spreadsheet (Attachment 2 of this report). General condition assessment of all mitigation size trees (20 inches or more DBH) is categorized as (Good, Fair, Poor, Dead).

The Excel spreadsheet was also prepared to correlate inspection data to field tag numbers for each tree. The database includes genus and species, circumference, and diameter for each tree. Critical Root Zone is also a default calculation for each tree in the table although it will ultimately only be important for mitigation size trees that will be impacted by development. Various other descriptive and condition notes are given for some trees as well as the GPS points for selected reference trees.

4.0 RESULTS

Overall, the site is primarily wooded in somewhat uneven-age young or maturing forest sectors. The dominant species throughout the site are slash pine (*Pinus elliottii*), live oak (*Quercus virginiana*), and sabal palm (*Sabal palmetto*). Slash pine comprises 302 surveyed trees (46% of the site). Some of the pines may include some longleaf pines (*Pinus palustris*), but they are all keyed as slash pine in the spreadsheet. Live oak and sabal palm each comprise about 22% of the surveyed trees. The remaining 9.8% of surveyed trees is comprised of 17 species each with less than ten specimens each on site.

The Excel spreadsheet in Attachment 2 of this report records the pertinent data for the tree survey. There was a total of 652 trees that were larger than 6-inches DBH within the 20-foot perimeter buffers or 12 inches or greater DBH throughout the remainder of the site. That is an average of 42 surveyable trees per acre on this heavily wooded site. The site displays signs of previous development, and the secondary growth forest is still maturing. The stem count is higher in the young forest stage of succession. There is a total of 70 trees within the site boundaries that are 20 inches DBH or greater and are thus candidates for mitigation. However, the condition assessment of these trees revealed that at least 14 of these (20% of the total) were dead or in poor condition and therefore do not meet specimen tree status. The tree marking proceeded such that the southern rank of the site generally contains most trees in the number range from 1-300, the eastern sector contains trees 300-480, the northern rank contains 490s-600, and the remaining tree tags through 654 are contained in the western portion.

Representations of the marking methods, location of an on-site manhole that was found, and aerial photo map screen shots of 8 representative tree locations are shown in Attachment 3 (Site Photos).

A search of available mapping for soils and wetlands indicated no hydric soils (USDA, 2021) and no mapped wetlands (USFWS, 2021). Although it was not a scoped portion of our work, the on-site survey work did not reveal any suspected hydric soils or wetlands.

The site is not located within a mapped 100-year floodplain (FEMA Flood Panel 12009C0205H, effective 1-29-21, in Attachment 1). The nearest mapped floodplain is at the intersection of Harrison Street and Demaret Drive, approximately 600 feet to the northwest (See Figure 3 in Appendix 1).

The USFWS IPaC database was generated on 6-15-21. None of the listed animal species in this list of potential protected species within the vicinity of the project had suitable habitat on-site. Two listed plant species do have suitable habitat on-site. Each of these species is listed as both state and federally endangered. Lewton's polygala (*Polygala lewtonii*) is best surveyed during its flowering season of February to April. Carter's

mustard (*Polygala lewtonii*) is best surveyed during its flowering season of September to October.

5.0 DISCUSSION

Development of this site will inevitably remove many acres of wooded area and total avoidance of mitigation size trees 20 inches or greater DBH will likely not be possible. Attachment 4 provides current development concept plans. Even the 228-unit Revised New Urbanism Concept will likely not be able to avoid all mitigation size trees.

Per the tree ordinance items related to land development permits in Brevard County (See Executive Summary above), building permits for new construction must provide a site plan that includes a tree survey and tree protection plan.

Please see Section 30-40(e) below:

(e) For subdivisions, and individual lots greater than five (5) acres, the developer shall provide the following:

- (1) An aerial photograph of the subject property which indicates where the streets and utilities are planned and which trees are proposed to be removed.
- (2) Written evaluation of the number of trees to be removed and any reasons for the proposed layout. All trees twelve (12) inches dbh and greater, proposed to be removed shall be flagged or painted in the field.
- (3) The location of all mitigation size trees as located by a registered land surveyor, landscape architect or certified nursery professional.
- (4) The location of trees six (6) inches or greater in buffer areas or twenty (20) feet from property lines.
- (5) An explanation of how trees are to be protected during site clearing activities.
- (6) Whenever possible, shredding, chipping and/or off-site wood logging is desirable alternative to burning. In electing this option, a twenty-five (25) percent credit will be given towards required tree mitigation and/or contribution to the City's Public Landscaping Trust Fund.
- (7) The developer agrees to work with staff and adjust the proposed layout to preserve more trees and specifically to preserve mitigation size trees.

Note especially that Section 40(e)(6) above provides a significant opportunity to discount mitigation liability by 25 percent.

The purpose of this report is to provide a comprehensive record of the required tree survey data per the ordinance: documentation of trees within the proposed or potential construction zone, an analysis of potential permitting requirements, and a support tool for the engineering design process to avoid and minimize impact to jurisdictional trees and critical root zones.

RayEA, LLC can assist in permitting construction activities on this site as needed. If the client desires a tree mitigation plan, a RayEA landscape architect could work with TerraTory Development Consultants to prepare any necessary design tasks related to tree preservation and protection. Should you desire assistance with those efforts, RayEA could help with avoidance engineering suggestions and/or the development on-site/off-site mitigation plans per a separate agreement. As an option to developing mitigation plans, payment to the City Public Landscaping Trust Fund may be an available alternative or supplement to minimize on-site mitigation plans.

Ray EA, LLC can also provide additional services to assist with design efforts and the Land Development Permit within the City of Titusville per the ordinance. This could include water resource screening, stormwater planning, endangered species survey, or cultural resource survey if required by City of Titusville Planning Department officials.

6.0 REFERENCES

City of Titusville Ordinance No. 52-2018, Section 1, Article II-Environmental, Division 1-Land Alteration, Sections 30-21 through Section 30-40.

Florida Natural Areas Inventory. 2000. Species profile sheets (*Polygala lewtonii*, *Warea carteri*)

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<https://florida.plantatlas.usf.edu/>. Accessed June 2020.

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<http://www.bonap.org/>. Accessed June 2020.

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U.S. Department of Agriculture, Natural Resources Conservation Service. Plants Database (version 3). <https://plants.sc.egov.usda.gov/home> Accessed June 2020

U.S. Department of Agriculture, Natural Resources Conservation Service. Undated. Web Soil Survey, National Cooperative Soil Survey, Brevard County.
<http://websoilsurvey.nrcs.usda.gov/>

U.S. Department of Homeland Security, Federal Emergency Management Agency, Floodplain Map Service Center, <https://msc.fema.gov/portal>

U.S. Fish and Wildlife Service. 2021. National Wetland Inventory, City of Titusville, FL.
<https://www.fws.gov/wetlands/>

U.S. Fish and Wildlife Service. 2021. Information for Planning and Conservation.
<https://ecos.fws.gov/ipac>

ATTACHMENT 1
Available Government Data

TREE MARKING AND INSPECTION REPORT

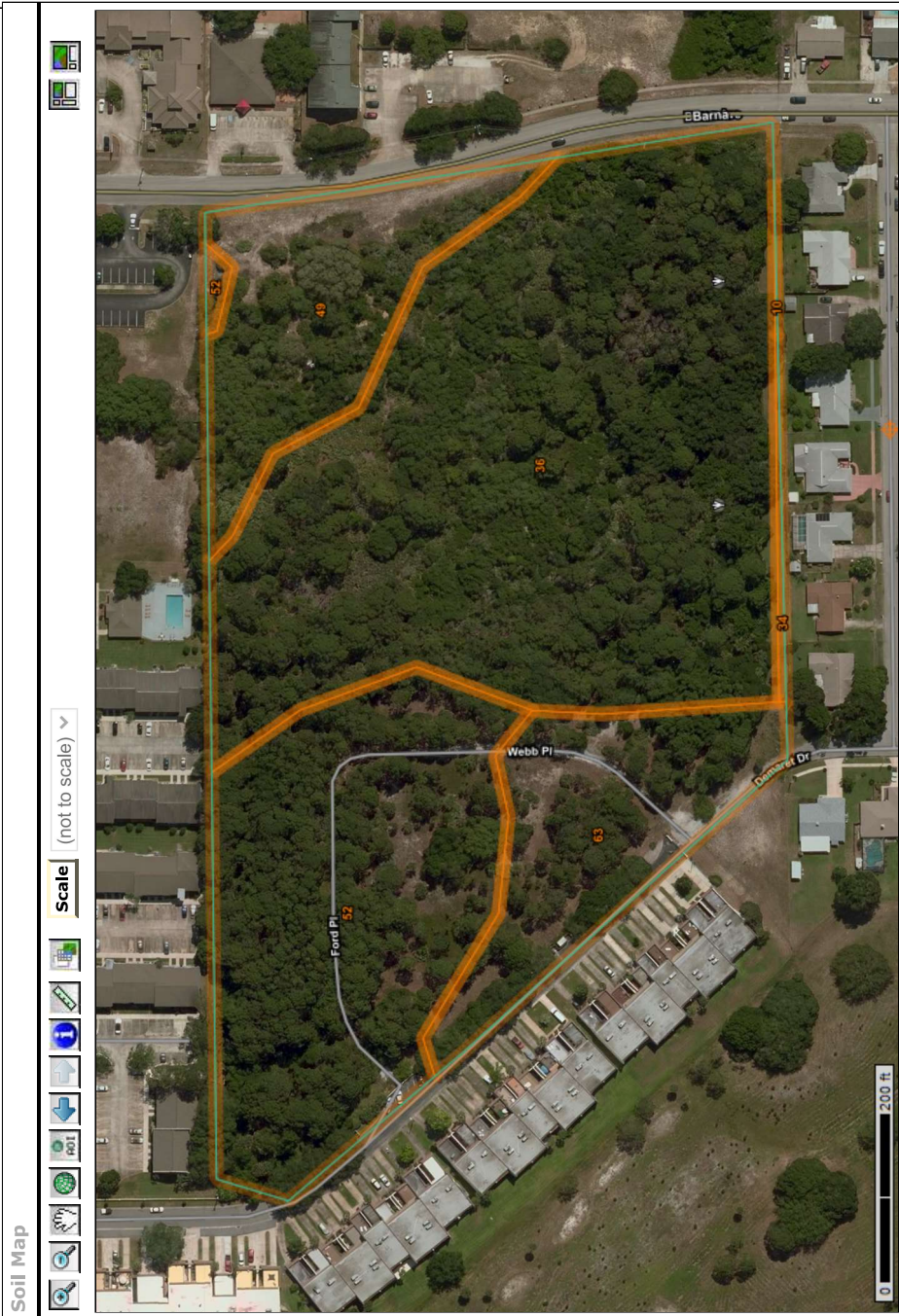
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Search			
Map Unit Legend			
Brevard County, Florida (FL009)			
Brevard County, Florida (FL009)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10	Canaveral-Urban land complex	0.0	0.0%
34	Everglades mucky peat, drained	0.1	0.4%
36	Myakka sand, 0 to 2 percent slopes	8.1	51.6%
49	Pomello sand, 0 to 5 percent slopes	1.8	11.5%
52	Quartzipsammments, smoothed	3.9	24.8%
63	Tavares fine sand, 0 to 5 percent slopes	1.8	11.7%
Totals for Area of Interest		15.6	100.0%



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.



National Flood Hazard Layer FIRMette

80°49'34"W 28°35'12"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth
Zone AE, AO, AH, VE, AR

Regulatory Floodway

SPECIAL FLOOD HAZARD AREAS

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile
Zone X

Future Conditions 1% Annual Chance Flood Hazard
Zone X

Area with Reduced Flood Risk due to Levee. See Notes.
Zone X

Area with Flood Risk due to Levee
Zone D

OTHER AREAS OF FLOOD HAZARD

NO SCREEN

Area of Minimal Flood Hazard
Zone X

Effective LOMRs

Area of Undetermined Flood Hazard
Zone D

OTHER AREAS

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/15/2021 at 12:34 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Brevard County, Florida



Local office

North Florida Ecological Services Field Office

☎ (904) 731-3336

📠 (904) 731-3045

7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

West Indian Manatee *Trichechus manatus*

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/4469>

Threatened

Marine mammal

Birds

NAME

STATUS

Audubon's Crested Caracara *Polyborus plancus audubonii*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8250>

Threatened

Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/10477>

Threatened

Everglade Snail Kite *Rostrhamus sociabilis plumbeus*

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7713>

Endangered

Florida Scrub-jay *Aphelocoma coerulescens*

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6174>

Threatened

Wood Stork *Mycteria americana*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8477>

Threatened

Reptiles

NAME

STATUS

Atlantic Salt Marsh Snake *Nerodia clarkii taeniata*

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7729>

Threatened

Gopher Tortoise *Gopherus polyphemus*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6994>

Candidate

Green Sea Turtle *Chelonia mydas*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/6199>

Hawksbill Sea Turtle *Eretmochelys imbricata*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3656>

Leatherback Sea Turtle *Dermochelys coriacea*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/1493>

Loggerhead Sea Turtle *Caretta caretta*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/1110>

Flowering Plants

NAME

STATUS

Carter's Mustard *Warea carteri*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5583>

Lewton's Polygala *Polygala lewtonii*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6688>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS
ACROSS ITS ENTIRE RANGE.
"BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY
BREED IN YOUR PROJECT AREA.)

American Kestrel *Falco sparverius paulus*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9587>

Breeds Apr 1 to Aug 31

American Oystercatcher *Haematopus palliatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8935>

Breeds Apr 15 to Aug 31

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Sep 1 to Jul 31

Black Skimmer *Rynchops niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5234>

Breeds May 20 to Sep 15

Common Ground-dove *Columbina passerina exigua*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Feb 1 to Dec 31

Dunlin *Calidris alpina arctica*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

Least Tern *Sterna antillarum*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Apr 20 to Sep 10

Lesser Yellowlegs *Tringa flavipes*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Breeds elsewhere

Limpkin *Aramus guarauna*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 15 to Aug 31

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Reddish Egret *Egretta rufescens*

Breeds Mar 1 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/7617>

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Semipalmated Sandpiper *Calidris pusilla*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Swallow-tailed Kite *Elanoides forficatus*

Breeds Mar 10 to Jun 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8938>

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow Warbler *Dendroica petechia gundlachi*

Breeds May 20 to Aug 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be

used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

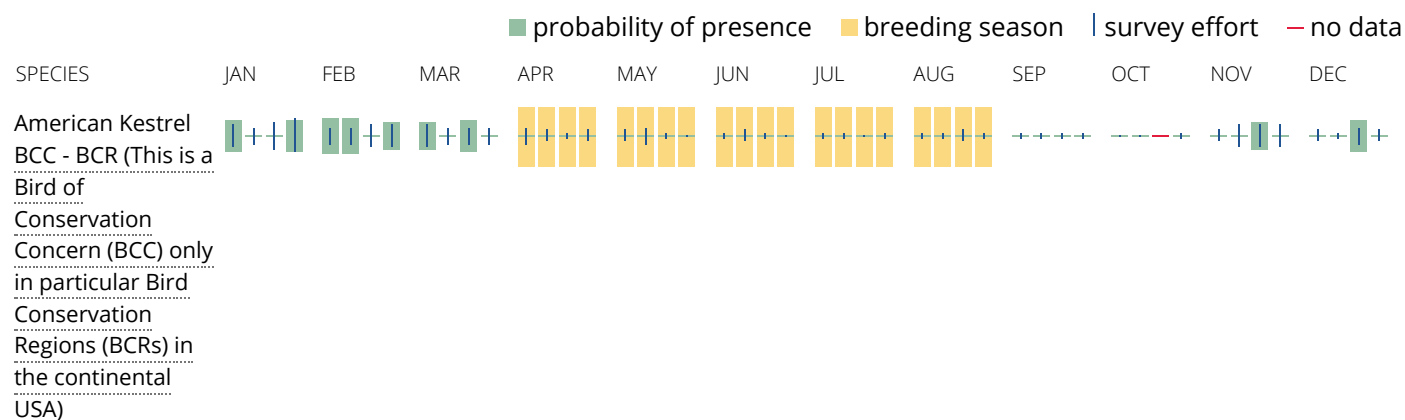
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

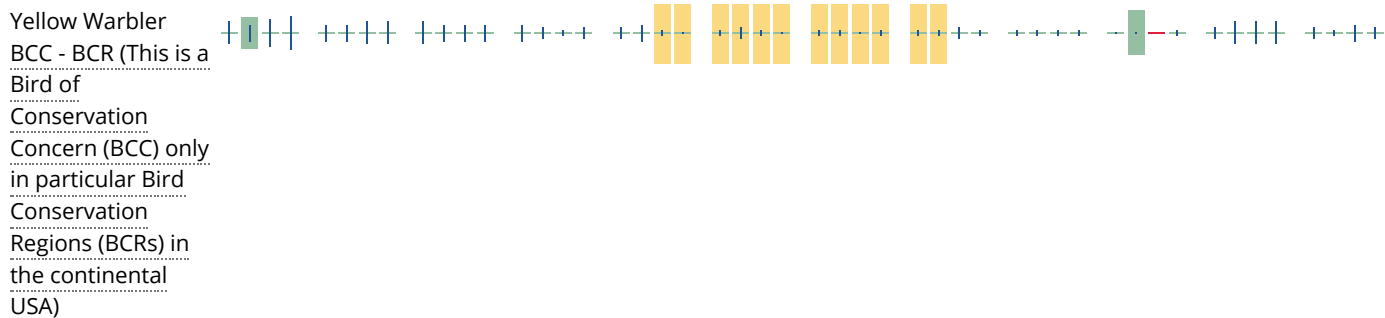
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.











Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Marine mammals

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The [Endangered Species Act](#) (ESA) of 1973.
2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee *Trichechus manatus*
<https://ecos.fws.gov/ecp/species/4469>

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT 2
Field Data Forms

TREE MARKING AND INSPECTION REPORT

Pointe Grand, Barna Avenue, Brevard Co., Titusville, Florida
(RayEA Project FL2021-TT-09)

JUNE 2021

Prepared for the
TerraTory Development Consultants, Inc.

By
RayEA, LLC

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
1	Pinus elliottii	25.1	8.0		8.0
2	Pinus elliottii	25.1	8.0		8.0
3	Pinus elliottii	65.9	21.0	Two leaders, 11" & 10" (Not Specimen), Poor	21.0
4	Pinus elliottii	31.4	10.0		10.0
5	Pinus elliottii	47.1	15.0		15.0
6	Pinus elliottii	34.5	11.0		11.0
7	Quercus laurifolia	34.5	11.0		11.0
8	Pinus elliottii	62.8	20.0	Good	20.0
9	Pinus elliottii	37.7	12.0		12.0
10	Pinus elliottii	128.7	41.0	Two leaders 18.5" & 22.5" (Good)	41.0
11	Quercus virginiana	51.8	16.5		16.5
12	Quercus virginiana	40.8	13.0		13.0
13	Pinus elliottii	28.3	9.0		9.0
14	Melia azedarach	34.5	11.0		11.0
15	Sabal palmetto	37.7	12.0		12.0
16	Quercus virginiana	37.7	12.0		12.0
17	Quercus virginiana	100.5	32.0	Two leaders, 21" & 12" (PC, 12" is dead) (Not Specimen)	32.0
18	Quercus virginiana	122.5	39.0	39" below split, Fair, lost leaders, vines	39.0
19	Sabal palmetto	31.4	10.0		10.0
20	Quercus virginiana	47.1	15.0		15.0
21	Quercus virginiana	37.7	12.0		12.0
22	Quercus virginiana	25.1	8.0		8.0
23	Quercus virginiana	37.7	12.0		12.0
24	Quercus nigra	25.1	8.0		8.0
25	Quercus virginiana	50.2	16.0		16.0
26	Quercus virginiana	59.7	19.0		19.0
27	Quercus virginiana	34.5	11.0		11.0
28	Quercus virginiana	50.2	16.0		16.0
29	Quercus virginiana	28.3	9.0		9.0
30	Quercus virginiana	28.3	9.0		9.0
31	Quercus virginiana	28.3	9.0		9.0
32	Quercus virginiana	40.8	13.0		13.0
33	Quercus virginiana	50.2	16.0		16.0
34	Quercus virginiana	62.8	20.0	Good	20.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
35	Prunus caroliniana	22.0	7.0		7.0
36	Quercus nigra	25.1	8.0		8.0
37	Pinus elliotii	34.5	11.0		11.0
38	Pinus elliotii	28.3	9.0		9.0
39	Sabal palmetto	53.4	17.0		17.0
40	Sabal palmetto	47.1	15.0		15.0
41	Sabal palmetto	40.8	13.0		13.0
42	Sabal palmetto	34.5	11.0		11.0
43	Roystonea regia	37.7	12.0		12.0
44	Sabal palmetto	53.4	17.0		17.0
45	Sabal palmetto	44.0	14.0		14.0
46	Magnolia grandiflora	25.1	8.0		8.0
47	Pinus elliotii	53.4	17.0		17.0
48	Prunus caroliniana	18.8	6.0		6.0
49	Quercus nigra	28.3	9.0		9.0
50	Quercus nigra	34.5	11.0		11.0
51	Pinus elliotii	34.5	11.0		11.0
52	Pinus elliotii	47.1	15.0		15.0
53	Sabal palmetto	47.1	15.0	+/-15"	15.0
54	Quercus virginiana	56.5	18.0		18.0
55	Quercus virginiana	22.0	7.0		7.0
56	Quercus virginiana	84.8	27.0	(Not Specimen) Two leaders, 13" lead Dead	27.0
57	Quercus virginiana	56.5	18.0		18.0
58	Magnolia grandiflora	22.0	7.0		7.0
59	Pinus elliotii	44.0	14.0		14.0
60	Sabal palmetto	31.4	10.0	+/- 10"	10.0
61	Pinus elliotii	47.1	15.0		15.0
62	Pinus elliotii	28.3	9.0		9.0
63	Pinus elliotii	62.8	20.0	Good	20.0
64	Pinus elliotii	50.2	16.0		16.0
65	Pinus elliotii	47.1	15.0		15.0
66	Laurus nobilis	18.8	6.0	28.583112, -80.820472	6.0
67	Magnolia grandiflora	25.1	8.0		8.0
68	Pinus elliotii	53.4	17.0		17.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
69	Sabal palmetto	37.7	12.0		12.0
70	Sabal palmetto	31.4	10.0		10.0
71	Sabal palmetto	47.1	15.0		15.0
72	Sabal palmetto	31.4	10.0		10.0
73	Sabal palmetto	31.4	10.0		10.0
74	Sabal palmetto	37.7	12.0		12.0
75	Sabal palmetto	31.4	10.0		10.0
76	Sabal palmetto	37.7	12.0		12.0
77	Sabal palmetto	31.4	10.0		10.0
78	Laurus nobilis	31.4	10.0		10.0
79	Sabal palmetto	31.4	10.0		10.0
80	Laurus nobilis	34.5	11.0		11.0
81	Pinus elliottii	37.7	12.0		12.0
82	Sabal palmetto	37.7	12.0		12.0
83	Sabal palmetto	31.4	10.0		10.0
84	Pinus elliottii	72.2	23.0	Good	23.0
85	Pinus elliottii	50.2	16.0		16.0
86	Sabal palmetto	31.4	10.0		10.0
87	Laurus nobilis	25.1	8.0		8.0
88	Roystonea regia	37.7	12.0		12.0
89	Pinus elliottii	84.8	27.0	Good	27.0
90	Sabal palmetto	31.4	10.0		10.0
91	Sabal palmetto	37.7	12.0		12.0
92	Sabal palmetto	56.5	18.0		18.0
93	Acer floridanum	103.6	33.0	Poor condition, two leaders	33.0
94	Sabal palmetto	31.4	10.0		10.0
95	Sabal palmetto	31.4	10.0		10.0
96	Sabal palmetto	37.7	12.0		12.0
97	Triadica sebifera	25.1	8.0		8.0
98	Sabal palmetto	31.4	10.0		10.0
99	Sabal palmetto	31.4	10.0		10.0
100	Sabal palmetto	31.4	10.0		10.0
101	Sabal palmetto	37.7	12.0		12.0
102	Sabal palmetto	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
103	Quercus laurifolia	91.1	29.0	Good	29.0
104	Sabal palmetto	31.4	10.0		10.0
105	Sabal palmetto	37.7	12.0		12.0
106	Celtis laevigata	53.4	17.0		17.0
107	Celtis laevigata	25.1	8.0		8.0
108	Carya illinoensis	40.8	13.0		13.0
109	Triadica sebifera	25.1	8.0		8.0
110	Sabal palmetto	37.7	12.0		12.0
111	Celtis laevigata	22.0	7.0		7.0
112	Sabal palmetto	37.7	12.0		12.0
113	Sabal palmetto	31.4	10.0		10.0
114	Celtis laevigata	53.4	17.0		17.0
115	Sabal palmetto	37.7	12.0		12.0
116	Celtis laevigata	34.5	11.0		11.0
117	Sabal palmetto	37.7	12.0		12.0
118	Quercus laurifolia	100.5	32.0	Poor	32.0
119	Sabal palmetto	31.4	10.0		10.0
120	Sabal palmetto	25.1	8.0		8.0
121	Sabal palmetto	31.4	10.0		10.0
122	Sabal palmetto	31.4	10.0		10.0
123	Sabal palmetto	31.4	10.0		10.0
124	Sabal palmetto	31.4	10.0		10.0
125	Sabal palmetto	31.4	10.0		10.0
126	Pinus elliotii	62.8	20.0	Good 28.582911, -80.820103	20.0
127	Pinus elliotii	62.8	20.0		20.0
128	Pinus elliotii	69.1	22.0	Good	22.0
129	Sabal palmetto	31.4	10.0		10.0
130	Quercus nigra	18.8	6.0		6.0
131	Sabal palmetto	34.5	11.0		11.0
132	Pinus elliotii	53.4	17.0		17.0
133	Pinus elliotii	37.7	12.0		12.0
134	Quercus virginiana	18.8	6.0		6.0
135	Sabal palmetto	40.8	13.0		13.0
136	Sabal palmetto	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
138	Quercus virginiana	37.7	12.0		12.0
139	Quercus virginiana	56.5	18.0		18.0
140	Sabal palmetto	44.0	14.0		14.0
141	Quercus virginiana	22.0	7.0		7.0
142	Quercus virginiana	22.0	7.0		7.0
143	Sabal palmetto	31.4	10.0		10.0
144	Sabal palmetto	40.8	13.0		13.0
145	Zanthoxylum clava-herculis	22.0	7.0		7.0
146	Pinus elliotii	37.7	12.0		12.0
147	Pinus elliotii	53.4	17.0		17.0
148	Pinus elliotii	28.3	9.0		9.0
149	Pinus elliotii	31.4	10.0		10.0
150	Quercus nigra	22.0	7.0		7.0
151	Sabal palmetto	37.7	12.0		12.0
152	Pinus elliotii	40.8	13.0		13.0
153	Quercus myrtifolia	22.0	7.0		7.0
154	Quercus myrtifolia	22.0	7.0		7.0
155	Pinus elliotii	34.5	11.0		11.0
156	Quercus myrtifolia	31.4	10.0		10.0
157	Pinus elliotii	25.1	8.0		8.0
158	Sabal palmetto	34.5	11.0		11.0
159	Quercus myrtifolia	28.3	9.0		9.0
160	Quercus myrtifolia	28.3	9.0		9.0
161	Sabal palmetto	37.7	12.0		12.0
162	Quercus virginiana	50.2	16.0		16.0
163	Quercus virginiana	59.7	19.0	Multi stem	19.0
164	Sabal palmetto	37.7	12.0		12.0
165	Sabal palmetto	37.7	12.0		12.0
166	Pinus elliotii	53.4	17.0		17.0
167	Quercus myrtifolia	44.0	14.0		14.0
168	Quercus virginiana	34.5	11.0		11.0
169	Quercus virginiana	25.1	8.0		8.0
170	Quercus virginiana	37.7	12.0		12.0
171	Quercus virginiana	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
172	Sabal palmetto	34.5	11.0		11.0
173	Sabal palmetto	37.7	12.0		12.0
174	Quercus myrtifolia	40.8	13.0		13.0
175	Sabal palmetto	31.4	10.0		10.0
176	Quercus myrtifolia	22.0	7.0		7.0
177	Sabal palmetto	18.8	6.0		6.0
178	Sabal palmetto	44.0	14.0		14.0
179	Quercus virginiana	40.8	13.0		13.0
180	Sabal palmetto	34.5	11.0		11.0
181	Sabal palmetto	34.5	11.0		11.0
182	Quercus virginiana	56.5	18.0		18.0
183	Pinus elliottii	40.8	13.0		13.0
184	Sabal palmetto	37.7	12.0		12.0
185	Pinus elliottii	69.1	22.0	Good	22.0
186	Quercus virginiana	25.1	8.0		8.0
187	Pinus elliottii	62.8	20.0	Good	20.0
188	Quercus virginiana	28.3	9.0		9.0
189	Pinus elliottii	59.7	19.0		19.0
190	Pinus elliottii	40.8	13.0		13.0
191	Pinus elliottii	31.4	10.0		10.0
192	Pinus elliottii	31.4	10.0		10.0
193	Magnolia grandiflora	31.4	10.0		10.0
194	Pinus elliottii	78.5	25.0	Good	25.0
195	Quercus virginiana	50.2	16.0	28.583159,-80.820246	16.0
196	Pinus elliottii	44.0	14.0		14.0
197	Sabal palmetto	40.8	13.0		13.0
198	Pinus elliottii	31.4	10.0		10.0
199	Pinus elliottii	31.4	10.0		10.0
200	Pinus elliottii	34.5	11.0		11.0
201	Pinus elliottii	56.5	18.0		18.0
202	Pinus elliottii	50.2	16.0		16.0
203	Pinus elliottii	87.9	28.0	Not Specimen, split, Poor	28.0
204	Sabal palmetto	34.5	11.0		11.0
205	Pinus elliottii	56.5	18.0		18.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
206	Sabal palmetto	31.4	10.0		10.0
207	Pinus elliottii	37.7	12.0		12.0
208	Pinus elliottii	40.8	13.0		13.0
209	Pinus elliottii	44.0	14.0		14.0
210	Pinus elliottii	44.0	14.0		14.0
211	Pinus elliottii	44.0	14.0		14.0
212	Sabal palmetto	31.4	10.0		10.0
213	Pinus elliottii	44.0	14.0		14.0
214	Sabal palmetto	31.4	10.0		10.0
215	Pinus elliottii	44.0	14.0		14.0
216	Pinus elliottii	75.4	24.0	Good	24.0
217	Sabal palmetto	28.3	9.0		9.0
218	Pinus elliottii	53.4	17.0		17.0
219	Pinus elliottii	53.4	17.0		17.0
220	Pinus elliottii	56.5	18.0		18.0
221	Pinus elliottii	37.7	12.0		12.0
222	Sabal palmetto	31.4	10.0		10.0
223	Sabal palmetto	34.5	11.0		11.0
224	Sabal palmetto	34.5	11.0		11.0
225	Sabal palmetto	40.8	13.0		13.0
226	Quercus virginiana	28.3	9.0		9.0
227	Pinus elliottii	87.9	28.0	Not Specimen, included bark, Poor	28.0
228	Sabal palmetto	31.4	10.0		10.0
229	Sabal palmetto	28.3	9.0		9.0
230	Sabal palmetto	40.8	13.0		13.0
231	Sabal palmetto	31.4	10.0		10.0
232	Sabal palmetto	37.7	12.0		12.0
233	Sabal palmetto	34.5	11.0		11.0
234	Pinus elliottii	72.2	23.0	Good	23.0
235	Quercus virginiana	116.2	37.0	Good	37.0
236	Quercus virginiana	56.5	18.0		18.0
237	Quercus virginiana	163.3	52.0	Good	52.0
238	Pinus elliottii	56.5	18.0		18.0
239	Pinus elliottii	56.5	18.0		18.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
240	Sabal palmetto	31.4	10.0		10.0
241	Quercus virginiana	106.8	34.0	Good	34.0
242	Sabal palmetto	37.7	12.0		12.0
243	Quercus virginiana	94.2	30.0	Good	30.0
244	Sabal palmetto	47.1	15.0		15.0
245	Sabal palmetto	44.0	14.0		14.0
246	Roystonea regia	25.1	8.0		8.0
247	Pinus elliotii	56.5	18.0		18.0
248	Sabal palmetto	31.4	10.0		10.0
249	Quercus virginiana	125.6	40.0	Fair, heavy vines	40.0
250	Sabal palmetto	31.4	10.0		10.0
251	Sabal palmetto	44.0	14.0		14.0
252	Sabal palmetto	31.4	10.0		10.0
253	Sabal palmetto	37.7	12.0		12.0
254	Quercus virginiana	31.4	10.0		10.0
255	Quercus virginiana	97.3	31.0	Not Specimen, vines, three leaders, Poor	31.0
256	Quercus virginiana	31.4	10.0		10.0
257	Quercus virginiana	94.2	30.0	Could not condition- completely vine covered	30.0
258	Quercus virginiana	22.0	7.0		7.0
259	Sabal palmetto	#VALUE!	UK	Could not assess. Heavy Brush. May have been too small to inventory anyway.	UK
260	Sabal palmetto	#VALUE!	UK	Could not assess. Heavy Brush. May have been too small to inventory anyway.	UK
261	Sabal palmetto	#VALUE!	UK	Could not assess. Heavy Brush. May have been too small to inventory anyway.	UK
262	Sabal palmetto	31.4	10.0		10.0
263	Quercus virginiana	31.4	10.0		10.0
264	Roystonea regia	25.1	8.0		8.0
265	Sabal palmetto	25.1	8.0		8.0
266	Quercus virginiana	65.9	21.0	Could not assess because of heavy vines, size approximate	21.0
267	Sabal palmetto	31.4	10.0		10.0
268	Pinus elliotii	56.5	18.0		18.0
269	Pinus elliotii	25.1	8.0		8.0
270	Sabal palmetto	37.7	12.0		12.0
271	Sabal palmetto	31.4	10.0		10.0
272	Pinus elliotii	37.7	12.0		12.0
273	Sabal palmetto	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
274	Pinus elliottii	37.7	12.0		12.0
275	Pinus elliottii	37.7	12.0		12.0
276	Pinus elliottii	25.1	8.0		8.0
277	Pinus elliottii	40.8	13.0		13.0
278	Pinus elliottii	53.4	17.0		17.0
279	Pinus elliottii	81.6	26.0	Fair, vines	26.0
280	Pinus elliottii	50.2	16.0		16.0
281	Melia azedarach	31.4	10.0		10.0
282	Pinus elliottii	25.1	8.0		8.0
283	Quercus virginiana	40.8	13.0		13.0
284	Pinus elliottii	47.1	15.0		15.0
285	Melia azedarach	31.4	10.0		10.0
286	Pinus elliottii	47.1	15.0		15.0
287	Pinus elliottii	56.5	18.0		18.0
288	Pinus elliottii	72.2	23.0	Split, Not Specimen, Poor	23.0
289	Quercus virginiana	97.3	31.0	Good	31.0
290	Pinus elliottii	34.5	11.0		11.0
291	Sabal palmetto	37.7	12.0		12.0
292	Pinus elliottii	34.5	11.0		11.0
293	Pinus elliottii	44.0	14.0		14.0
294	Quercus virginiana	34.5	11.0		11.0
295	Pinus elliottii	18.8	6.0		6.0
296	Pinus elliottii	28.3	9.0		9.0
297	Pinus elliottii	44.0	14.0		14.0
298	Pinus elliottii	94.2	30.0	Split, Not Specimen, Poor	30.0
299	Pinus elliottii	25.1	8.0	28.583298, -80.820243	8.0
300	missing tag	0.0			0.0
301	Pinus elliottii	40.8	13.0		13.0
302	Pinus elliottii	44.0	14.0		14.0
303	Pinus elliottii	34.5	11.0		11.0
304	Pinus elliottii	40.8	13.0		13.0
305	Pinus elliottii	53.4	17.0		17.0
306	Pinus elliottii	34.5	11.0		11.0
307	Pinus elliottii	25.1	8.0		8.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
308	Pinus elliottii	34.5	11.0		11.0
309	Pinus elliottii	28.3	9.0		9.0
310	Quercus virginiana	150.7	48.0	Split, multi stem, Poor	48.0
311	Pinus elliottii	47.1	15.0		15.0
312	Pinus elliottii	31.4	10.0		10.0
313	Pinus elliottii	31.4	10.0		10.0
314	Pinus elliottii	22.0	7.0		7.0
315	Pinus elliottii	22.0	7.0		7.0
316	Sabal palmetto	40.8	13.0		13.0
317	Quercus virginiana	59.7	19.0		19.0
318	Pinus elliottii	59.7	19.0		19.0
319	Pinus elliottii	44.0	14.0	28.583471, -80.820002	14.0
320	Pinus elliottii	59.7	19.0		19.0
321	Pinus elliottii	69.1	22.0	Good	22.0
322	Pinus elliottii	56.5	18.0		18.0
323	Pinus elliottii	50.2	16.0		16.0
324	Pinus elliottii	56.5	18.0		18.0
325	Sabal palmetto	37.7	12.0		12.0
326	Quercus virginiana	31.4	10.0		10.0
327	Pinus elliottii	59.7	19.0		19.0
328	Pinus elliottii	59.7	19.0		19.0
329	Pinus elliottii	25.1	8.0		8.0
330	Pinus elliottii	31.4	10.0		10.0
331	Pinus elliottii	53.4	17.0		17.0
332	Pinus elliottii	34.5	11.0		11.0
333	Quercus virginiana	22.0	7.0		7.0
334	Sabal palmetto	28.3	9.0		9.0
335	Sabal palmetto	40.8	13.0		13.0
336	Quercus virginiana	84.8	27.0	Good	27.0
337	Quercus virginiana	213.5	68.0	Good (3-boles equalling 68)	68.0
338	Sabal palmetto	37.7	12.0		12.0
339	Pinus elliottii	69.1	22.0	Good	22.0
340	Pinus elliottii	28.3	9.0		9.0
341	Koeleruteria paniculata	97.3	31.0	Multi lead, Not Specimen, Poor	31.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
342	Quercus laurifolia	31.4	10.0		10.0
343	Prunus caroliniana	28.3	9.0		9.0
344	Pinus elliottii	37.7	12.0		12.0
345	Pinus elliottii	31.4	10.0		10.0
346	Pinus elliottii	37.7	12.0		12.0
347	Pinus elliottii	28.3	9.0		9.0
348	Pinus elliottii	25.1	8.0		8.0
349	Pinus elliottii	31.4	10.0		10.0
350	Carya illinoensis	28.3	9.0		9.0
351	Pinus elliottii	31.4	10.0		10.0
352	Pinus elliottii	28.3	9.0		9.0
353	Pinus elliottii	28.3	9.0		9.0
354	Prunus caroliniana	18.8	6.0		6.0
355	Pinus elliottii	31.4	10.0		10.0
356	Sabal palmetto	31.4	10.0		10.0
357	Sabal palmetto	31.4	10.0		10.0
358	Pinus elliottii	37.7	12.0		12.0
359	Pinus elliottii	37.7	12.0		12.0
360	Pinus elliottii	65.9	21.0	Good	21.0
361	Sabal palmetto	34.5	11.0		11.0
362	Quercus laurifolia	22.0	7.0		7.0
363	Quercus virginiana	75.4	24.0	Good	24.0
364	Sabal palmetto	31.4	10.0		10.0
365	Sabal palmetto	40.8	13.0		13.0
366	Quercus virginiana	53.4	17.0		17.0
367	Sabal palmetto	40.8	13.0		13.0
368	Quercus virginiana	125.6	40.0	Good	40.0
369	Quercus virginiana	40.8	13.0		13.0
370	Pinus elliottii	50.2	16.0		16.0
371	Pinus elliottii	69.1	22.0	Good	22.0
372	Sabal palmetto	31.4	10.0		10.0
373	Pinus elliottii	75.4	24.0	Good	24.0
374	Sabal palmetto	22.0	7.0		7.0
375	Sabal palmetto	25.1	8.0		8.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
376	Sabal palmetto	25.1	8.0		8.0
377	Quercus virginiana	28.3	9.0		9.0
378	Pinus elliottii	59.7	19.0		19.0
379	Quercus virginiana	75.4	24.0	Good	24.0
380	Pinus elliottii	59.7	19.0		19.0
381	Pinus elliottii	37.7	12.0		12.0
382	Sabal palmetto	28.3	9.0		9.0
383	Sabal palmetto	25.1	8.0		8.0
384	Quercus virginiana	59.7	19.0		19.0
385	Quercus virginiana	31.4	10.0		10.0
386	Pinus elliottii	40.8	13.0		13.0
387	Pinus elliottii	37.7	12.0		12.0
388	Pinus elliottii	59.7	19.0		19.0
389	Sabal palmetto	25.1	8.0		8.0
390	Sabal palmetto	28.3	9.0		9.0
391	Quercus virginiana	106.8	34.0	Good	34.0
392	Quercus virginiana	84.8	27.0	Good	27.0
393	Quercus nigra	28.3	9.0		9.0
394	Pinus elliottii	59.7	19.0		19.0
395	Pinus elliottii	47.1	15.0		15.0
396	Quercus virginiana	50.2	16.0		16.0
397	Quercus virginiana	47.1	15.0		15.0
398	Quercus virginiana	62.8	20.0	Good	20.0
399	Quercus virginiana	28.3	9.0		9.0
400	Quercus virginiana	31.4	10.0		10.0
401	Quercus virginiana	47.1	15.0		15.0
402	Quercus virginiana	40.8	13.0		13.0
403	Quercus virginiana	47.1	15.0		15.0
404	Quercus virginiana	50.2	16.0		16.0
405	Quercus virginiana	18.8	6.0		6.0
406	Quercus virginiana	25.1	8.0		8.0
407	Quercus virginiana	28.3	9.0		9.0
408	Quercus virginiana	31.4	10.0		10.0
409	Quercus virginiana	22.0	7.0		7.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
410	Quercus virginiana	34.5	11.0		11.0
411	Quercus virginiana	31.4	10.0		10.0
412	Quercus virginiana	22.0	7.0		7.0
413	Quercus virginiana	22.0	7.0		7.0
414	Quercus virginiana	22.0	7.0		7.0
415	Quercus virginiana	28.3	9.0		9.0
416	Pinus elliottii	37.7	12.0		12.0
417	Quercus virginiana	22.0	7.0		7.0
418	Quercus virginiana	25.1	8.0		8.0
419	Quercus virginiana	22.0	7.0		7.0
420	Quercus virginiana	22.0	7.0		7.0
421	Quercus virginiana	25.1	8.0		8.0
422	Pinus elliottii	25.1	8.0		8.0
423	Pinus elliottii	40.8	13.0		13.0
424	Quercus virginiana	44.0	14.0		14.0
425	Quercus virginiana	25.1	8.0		8.0
426	Quercus virginiana	28.3	9.0		9.0
427	Quercus virginiana	28.3	9.0		9.0
428	Quercus virginiana	28.3	9.0		9.0
429	Quercus virginiana	28.3	9.0		9.0
430	Quercus virginiana	28.3	9.0		9.0
431	Quercus virginiana	37.7	12.0		12.0
432	Quercus virginiana	22.0	7.0		7.0
433	Quercus virginiana	47.1	15.0		15.0
434	Quercus virginiana	22.0	7.0		7.0
435	Quercus virginiana	37.7	12.0		12.0
436	Quercus virginiana	25.1	8.0		8.0
437	Quercus virginiana	28.3	9.0		9.0
438	Quercus virginiana	28.3	9.0		9.0
439	Pinus elliottii	28.3	9.0		9.0
440	Pinus elliottii	53.4	17.0		17.0
441	Quercus virginiana	28.3	9.0		9.0
442	Pinus elliottii	22.0	7.0		7.0
443	Quercus virginiana	28.3	9.0		9.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
444	Pinus elliottii	37.7	12.0		12.0
445	Quercus virginiana	31.4	10.0		10.0
446	Quercus virginiana	34.5	11.0		11.0
447	Quercus virginiana	22.0	7.0		7.0
448	Quercus virginiana	28.3	9.0		9.0
449	Quercus virginiana	37.7	12.0		12.0
450	Quercus virginiana	37.7	12.0		12.0
451	Quercus virginiana	59.7	19.0	Beside apartment road	19.0
452	Quercus virginiana	37.7	12.0		12.0
453	Pinus elliottii	44.0	14.0		14.0
454	Pinus elliottii	44.0	14.0		14.0
455	Pinus elliottii	40.8	13.0		13.0
456	Pinus elliottii	40.8	13.0		13.0
457	Pinus elliottii	47.1	15.0		15.0
458	Pinus elliottii	56.5	18.0		18.0
459	Pinus elliottii	50.2	16.0		16.0
460	Pinus elliottii	40.8	13.0		13.0
461	Pinus elliottii	40.8	13.0		13.0
462	Pinus elliottii	44.0	14.0		14.0
463	Pinus elliottii	47.1	15.0		15.0
464	Pinus elliottii	47.1	15.0		15.0
465	Quercus virginiana	59.7	19.0		19.0
466	Pinus elliottii	44.0	14.0		14.0
467	Pinus elliottii	50.2	16.0		16.0
468	Pinus elliottii	40.8	13.0		13.0
469	Pinus elliottii	44.0	14.0		14.0
470	Sabal palmetto	40.8	13.0		13.0
471	Pinus elliottii	40.8	13.0		13.0
472	Pinus elliottii	40.8	13.0		13.0
473	Pinus elliottii	47.1	15.0		15.0
474	Sabal palmetto	44.0	14.0		14.0
475	Quercus laurifolia	25.1	8.0		8.0
476	Sabal palmetto	44.0	14.0		14.0
477	Pinus elliottii	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
478	Pinus elliottii	69.1	22.0	Good	22.0
479	Pinus elliottii	65.9	21.0	Good	21.0
480	Pinus elliottii	62.8	20.0	Good	20.0
481	Pinus elliottii	59.7	19.0		19.0
482	Sabal palmetto	44.0	14.0		14.0
483	Sabal palmetto	47.1	15.0		15.0
484	Sabal palmetto	47.1	15.0		15.0
485	Laurus nobilis	59.7	19.0		19.0
486	Quercus laurifolia	59.7	19.0		19.0
487	Quercus nigra	37.7	12.0		12.0
488	Sabal palmetto	40.8	13.0		13.0
489	Sabal palmetto	40.8	13.0		13.0
490	Pinus elliottii	40.8	13.0		13.0
491	Quercus virginiana	50.2	16.0		16.0
492	Pinus elliottii	40.8	13.0		13.0
493	Sabal palmetto	37.7	12.0		12.0
494	Pinus elliottii	37.7	12.0		12.0
495	Pinus elliottii	44.0	14.0		14.0
496	Pinus elliottii	47.1	15.0		15.0
497	Pinus elliottii	47.1	15.0		15.0
498	Sabal palmetto	37.7	12.0		12.0
499	Magnolia grandiflora	22.0	7.0		7.0
500	Magnolia grandiflora	37.7	12.0		12.0
501	Pinus elliottii	44.0	14.0		14.0
502	Pinus elliottii	37.7	12.0		12.0
503	Pinus elliottii	47.1	15.0		15.0
504	Pinus elliottii	44.0	14.0		14.0
505	Sabal palmetto	50.2	16.0		16.0
506	Pinus elliottii	44.0	14.0	black vulture nest	14.0
507	Pinus elliottii	44.0	14.0		14.0
508	Pinus elliottii	31.4	10.0		10.0
509	Pinus elliottii	34.5	11.0		11.0
510	Quercus virginiana	44.0	14.0		14.0
511	Quercus virginiana	37.7	12.0		12.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
511	Quercus virginiana	37.7	12.0		12.0
512	Quercus virginiana	62.8	20.0	Good, two leads 12/8	20.0
513	Quercus virginiana	81.6	26.0	Good, two leads 13/13	26.0
514	Quercus virginiana	37.7	12.0		12.0
515	Quercus virginiana	44.0	14.0		14.0
516	Quercus virginiana	44.0	14.0		14.0
517	Quercus virginiana	87.9	28.0	Good 13/6/9 28.584254, -80.819804	28.0
518	Quercus virginiana	72.2	23.0	Good 13/10	23.0
519	Quercus virginiana	37.7	12.0		12.0
520	Pinus elliotii	56.5	18.0		18.0
521	Pinus elliotii	56.5	18.0		18.0
522	Pinus elliotii	50.2	16.0		16.0
523	Quercus virginiana	47.1	15.0		15.0
524	Pinus elliotii	34.5	11.0		11.0
525	Pinus elliotii	40.8	13.0		13.0
526	Pinus elliotii	25.1	8.0		8.0
527	Quercus virginiana	25.1	8.0		8.0
528	Quercus virginiana	12.6	4.0		4.0
529	Pinus elliotii	75.4	24.0	Good	24.0
530	Pinus elliotii	56.5	18.0		18.0
531	Pinus elliotii	50.2	16.0		16.0
532	Quercus virginiana	141.3	45.0	Good 15/21/9	45.0
533	Pinus elliotii	37.7	12.0		12.0
534	Pinus elliotii	37.7	12.0		12.0
535	Pinus elliotii	37.7	12.0		12.0
536	Pinus elliotii	37.7	12.0		12.0
537	Pinus elliotii	37.7	12.0		12.0
538	Pinus elliotii	56.5	18.0		18.0
539	Pinus elliotii	40.8	13.0	28.584216, -80.819776	13.0
540	Pinus elliotii	50.2	16.0		16.0
541	Pinus elliotii	37.7	12.0		12.0
542	Pinus elliotii	47.1	15.0		15.0
543	Quercus virginiana	44.0	14.0		14.0
544	Pinus elliotii	59.7	19.0		19.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
545	Pinus elliottii	44.0	14.0		14.0
546	Pinus elliottii	44.0	14.0		14.0
547	Quercus virginiana	40.8	13.0		13.0
548	Quercus virginiana	47.1	15.0		15.0
549	Pinus elliottii	59.7	19.0		19.0
550	Pinus elliottii	47.1	15.0		15.0
551	Pinus elliottii	47.1	15.0		15.0
552	Pinus elliottii	56.5	18.0		18.0
553	Pinus elliottii	56.5	18.0		18.0
554	Pinus elliottii	59.7	19.0		19.0
555	Pinus elliottii	56.5	18.0		18.0
556	Pinus elliottii	44.0	14.0		14.0
557	Pinus elliottii	47.1	15.0	28.583286, -80.819926	15.0
558	Pinus elliottii	44.0	14.0		14.0
559	Pinus elliottii	37.7	12.0		12.0
560	Pinus elliottii	37.7	12.0		12.0
561	Pinus elliottii	59.7	19.0		19.0
562	Pinus elliottii	56.5	18.0		18.0
563	Pinus elliottii	44.0	14.0		14.0
564	Pinus elliottii	40.8	13.0		13.0
565	Pinus elliottii	44.0	14.0		14.0
566	Pinus elliottii	44.0	14.0		14.0
567	Pinus elliottii	44.0	14.0		14.0
568	Pinus elliottii	25.1	8.0		8.0
569	Pinus elliottii	31.4	10.0	Along North Wooded Boundary	10.0
570	Pinus elliottii	31.4	10.0		10.0
571	Pinus elliottii	37.7	12.0		12.0
572	Pinus elliottii	37.7	12.0		12.0
573	Sabal palmetto	25.1	8.0		8.0
574	Sabal palmetto	25.1	8.0		8.0
575	Sabal palmetto	22.0	7.0		7.0
576	Pinus elliottii	44.0	14.0		14.0
577	Pinus elliottii	50.2	16.0		16.0
578	Pinus elliottii	59.7	19.0		19.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
579	Pinus elliottii	44.0	14.0		14.0
580	Pinus elliottii	44.0	14.0		14.0
581	Pinus elliottii	44.0	14.0		14.0
582	Pinus elliottii	44.0	14.0		14.0
583	Pinus elliottii	75.4	24.0	Good, 12/12	24.0
584	Sabal palmetto	25.1	8.0		8.0
585	Pinus elliottii	37.7	12.0		12.0
586	Pinus elliottii	47.1	15.0		15.0
587	Pinus elliottii	40.8	13.0		13.0
588	Pinus elliottii	31.4	10.0		10.0
589	Pinus elliottii	34.5	11.0		11.0
590	Pinus elliottii	28.3	9.0		9.0
591	Pinus elliottii	22.0	7.0		7.0
592	Pinus elliottii	34.5	11.0		11.0
593	Pinus elliottii	31.4	10.0		10.0
594	Pinus elliottii	34.5	11.0		11.0
595	Pinus elliottii	53.4	17.0		17.0
596	Pinus elliottii	50.2	16.0		16.0
597	Pinus elliottii	75.4	24.0	Poor	24.0
598	Pinus elliottii	44.0	14.0		14.0
599	Pinus elliottii	37.7	12.0		12.0
600	Quercus virginiana	106.8	34.0	Good	34.0
601	Pinus elliottii	50.2	16.0		16.0
602	Pinus elliottii	69.1	22.0	Good	22.0
603	Sabal palmetto	25.1	8.0		8.0
604	Sabal palmetto	37.7	12.0		12.0
605	Pinus elliottii	44.0	14.0		14.0
606	Pinus elliottii	37.7	12.0		12.0
607	Pinus elliottii	37.7	12.0		12.0
608	Pinus elliottii	62.8	20.0	Good	20.0
609	Pinus elliottii	62.8	20.0	Good	20.0
610	Pinus elliottii	44.0	14.0		14.0
611	Pinus elliottii	47.1	15.0		15.0
612	Pinus elliottii	47.1	15.0		15.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

TAG NUMBER	GENUS AND SPECIES	CIRCUMFERENCE	DIAMETER (DBH) inches	CONDITON *, GPS, AND OTHER NOTES	CRITICAL ROOT ZONE (feet)
613	Pinus elliottii	50.2	16.0		16.0
614	Pinus elliottii	50.2	16.0		16.0
615	Pinus elliottii	50.2	16.0		16.0
616	Pinus elliottii	37.7	12.0		12.0
617	Pinus elliottii	59.7	19.0		19.0
618	Pinus elliottii	40.8	13.0		13.0
619	Pinus elliottii	44.0	14.0		14.0
620	Pinus elliottii	44.0	14.0		14.0
621	Pinus elliottii	37.7	12.0		12.0
622	Pinus elliottii	37.7	12.0		12.0
623	Pinus elliottii	40.8	13.0		13.0
624	Shrub	18.8	6.0		6.0
625	Sabal palmetto	37.7	12.0		12.0
626	Sabal palmetto	37.7	12.0		12.0
627	Pinus elliottii	40.8	13.0		13.0
628	Sabal palmetto	37.7	12.0		12.0
629	Pinus elliottii	31.4	10.0		10.0
630	Pinus elliottii	34.5	11.0		11.0
631	Pinus elliottii	40.8	13.0		13.0
632	Sabal palmetto	40.8	13.0		13.0
633	Fraxinus caroliniana	72.2	23.0	Poor	23.0
634	Fraxinus caroliniana	31.4	10.0		10.0
635	Fraxinus caroliniana	34.5	11.0		11.0
636	Pinus elliottii	34.5	11.0		11.0
637	Pinus elliottii	50.2	16.0		16.0
638	Pinus elliottii	50.2	16.0		16.0
639	Prunus caroliniana	18.8	6.0		6.0
640	Sabal palmetto	25.1	8.0		8.0
641	Pinus elliottii	37.7	12.0		12.0
642	Pinus elliottii	37.7	12.0		12.0
643	Pinus elliottii	37.7	12.0		12.0
644	Pinus elliottii	37.7	12.0		12.0
645	Pinus elliottii	47.1	15.0		15.0
646	Pinus elliottii	44.0	14.0		14.0

* Condition- (Good, Fair, Poor, Dead)

POINTE GRAND TREE INVENTORY-- TITUSVILLE, FLORIDA (JUNE 6-8, 2021)

[illegible]

* Condition- (Good, Fair, Poor, Dead)

ATTACHMENT 3

Site Photos

June 7-9, 2021

TREE MARKING AND INSPECTION REPORT

**Pointe Grand, Barna Avenue, Brevard Co., Titusville, Florida
(RayEA Project FL2021-TT-09)**

JUNE 2021

**Prepared for the
TerraTory Development Consultants, Inc.**

**By
RayEA, LLC**



Photo 1. Each tree was tagged with a numbered metal tag marked with an orange streamer.



Photo 2. Each tree of mitigation size was also flagged around the circumference at breast height with wide red and white striped flagging.



Photo 3. Approximate location of an open manhole cover found on-site



Photo 4. Photo of open manhole in the northcentral portion of the site

RayEA,LLC
ECOLOGICAL APPLICATIONS

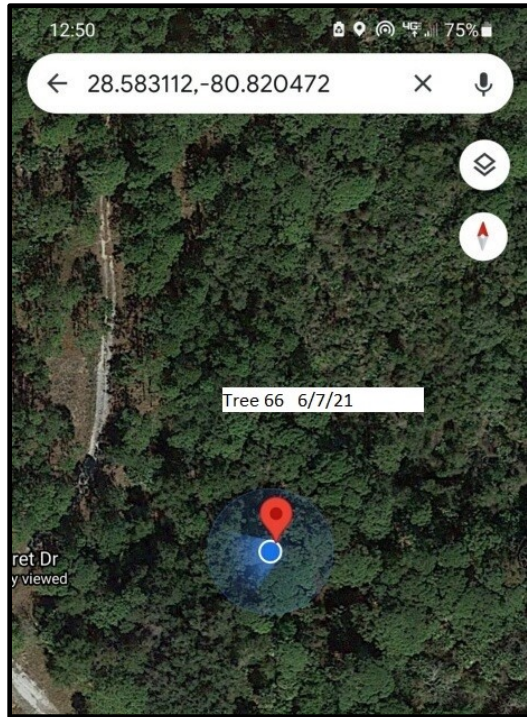


Photo 5. Tree 66 Approx. GPS location.

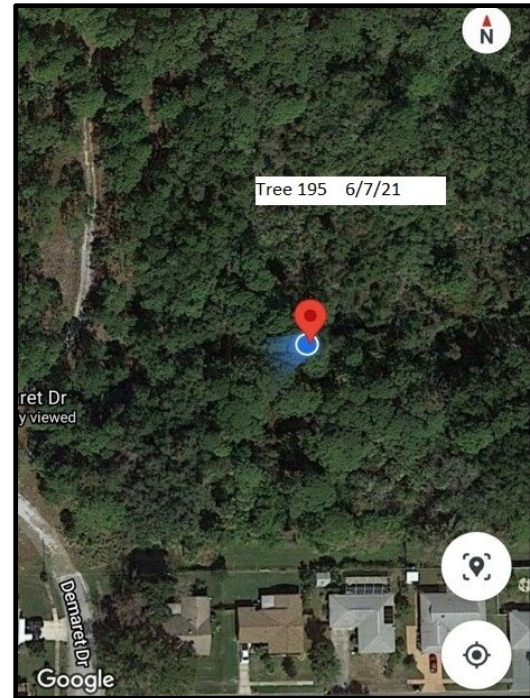


Photo 7. Tree 195 Approx. GPS location
(28.583215, -80.820246)

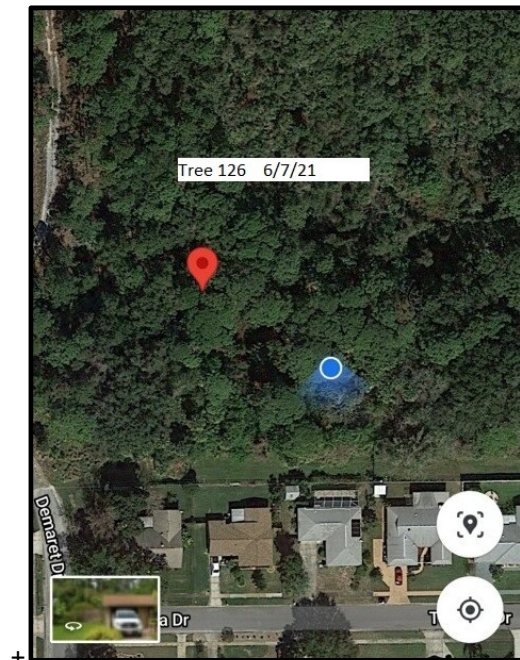


Photo 6. Tree 126 Approx. GPS location
(28.582911, -80.820103)

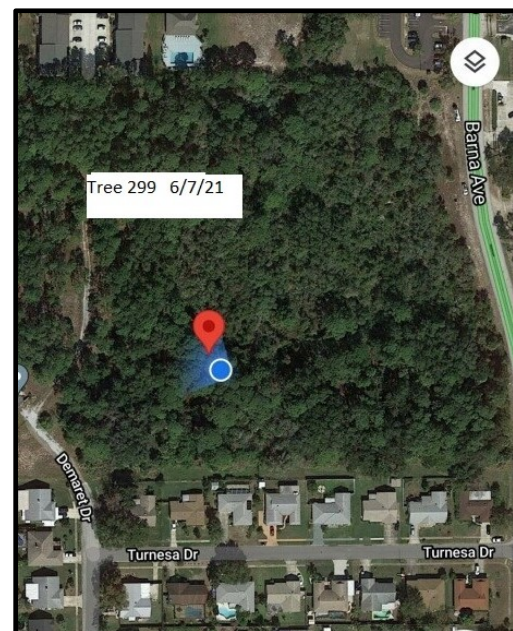


Photo 8. Tree 299 Approx. GPS location
(28.583298, -80.820243)

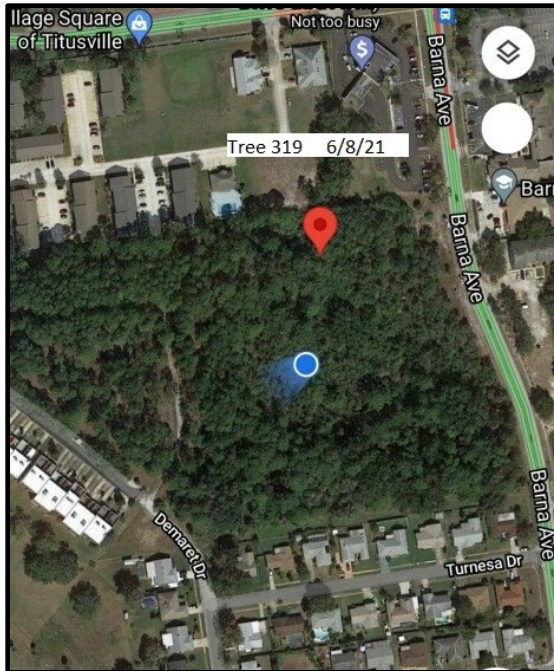


Photo 9. Tree 319 Approx. GPS location
(28.583471, -80.820002)

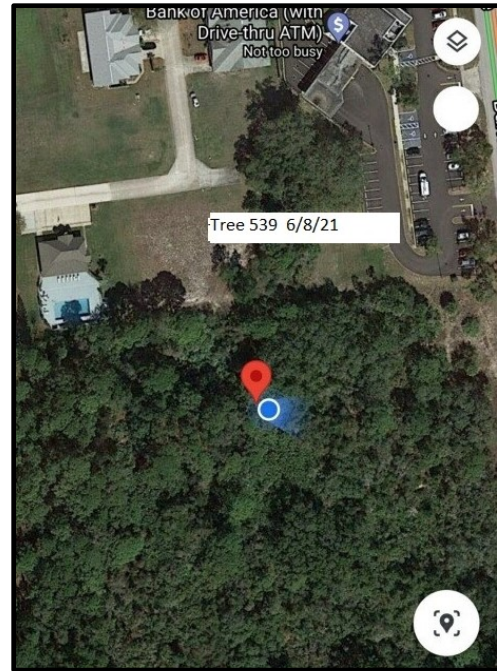


Photo 11. Tree 539 Approx. GPS location
(28.584216, -80.819776)

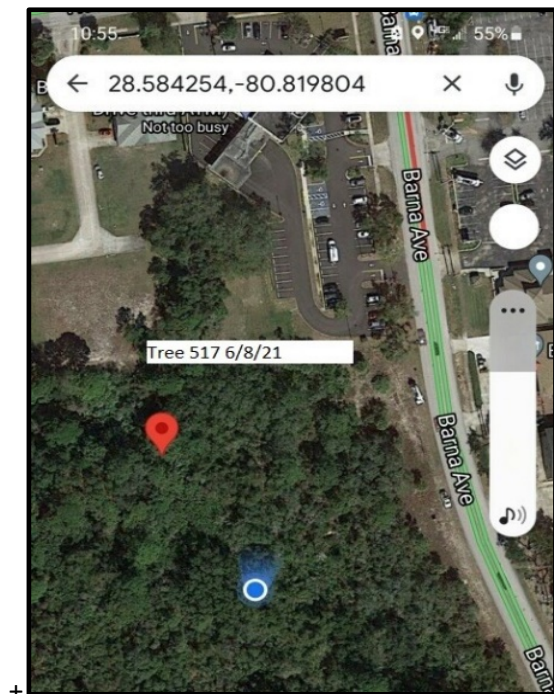


Photo 10. Tree 517 Approx. GPS location

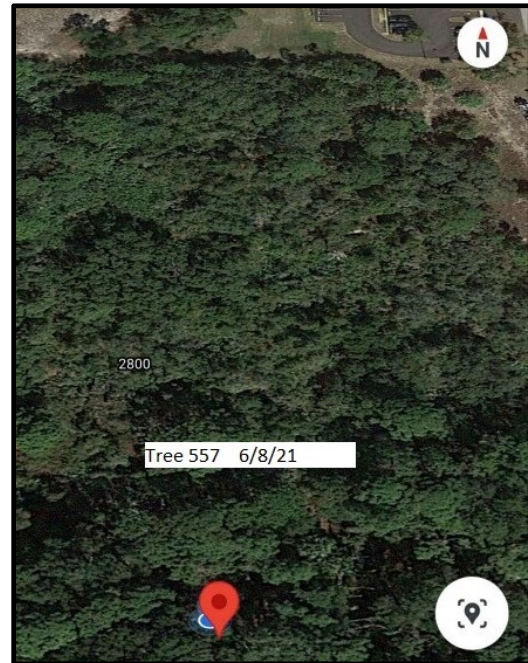


Photo 12. Tree 557 Approx. GPS location
(28.583286, -80.819926)



Photo 13. 3-leader live oak (*Quercus virginiana*)
Tree 337, NW quad of Barna and Turnesa,
6-8-21

ATTACHMENT 4
Site Specific Data Maps

TREE MARKING AND INSPECTION REPORT

Pointe Grand, Barna Avenue, Brevard Co., Titusville, Florida
(RayEA Project FL2021-TT-09)

JUNE 2021

Prepared for the
TerraTory Development Consultants, Inc.

By
RayEA, LLC

TERRATORY

Development Consultants

A SUBSIDIARY COMPANY OF HILLPOINTE, LLC

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24-HOUR CONTACT:

Jud Hall

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Email: jhall@hillpointe.com

PROJECT:

POINTE GRAND

TITUSVILLE

SHEET TITLE:

AERIAL

OVERLAY

EXHIBIT

DRAWING SCALES:

HORIZONTAL: 1" = 100'

0 100 200 300

VERTICAL SCALE: N/A

0 100 200 300

DRAWING DATE:

5/7/2021

SHEET REVISIONS

NO. DESCRIPTION DATE

SHEET 1 OF 1



