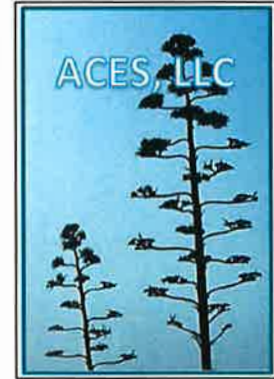


**ANDREW CONKLIN ENVIRONMENTAL SERVICES, LLC**  
INTEGRATING SUCCESSFUL DEVELOPMENT AND ENVIRONMENTAL INTEGRITY

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December 19, 2019

Mr. Andrew Gardner  
Condev Properties, LLC  
PO Box 1748  
Winter Park, Florida 32790

Re: Parcel No. 28-36-13-00-758, Norfolk Parkway, West Melbourne, Florida  
ACES File No. 1993

Dear Mr. Gardner,

Andrew Conklin Environmental Services, LLC (ACES) has completed a review of environmental issues associated with the above-referenced  $\pm 18.11$ -acre property, located in Section 13, Township 28 South, Range 36 East, Brevard County, Florida. Figure 1 depicts the location of the subject site, and Figure 2 is a recent aerial photograph of the site depicting current conditions thereon. On December 16, 2019, ACES inspected the property for the presence of wetlands, surface waters, protected species, and indications of protected species habitat. The purpose of our study was to estimate the current extent of wetlands and protected species habitat on the site. To assess the presence and extent of wetlands, we implemented the jurisdictional wetland identification methodologies of the St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (ACOE), which incorporate an analysis of on-site vegetation, soils, and hydrology to determine the presence or absence of state-jurisdictional wetlands. Where jurisdictional wetlands were found to exist, ACES identified their boundaries on a recent aerial photograph of the site. The likelihood of protected species habitation was determined by identifying the various vegetative communities, habitat types, and species indicators currently present on the site, and referencing these against standards and indicators used by the Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service (USFWS). Following is a presentation of our findings.

#### **Soil Types**

The USDA Natural Resource Conservation Service (NRCS) identifies one soil type on the property (see Figure 3). Soil maps are used by the environmental regulatory agencies as a general guideline to determine the likelihood of wetland and upland conditions on reviewed properties; soils more commonly associated with wetland conditions potentially indicate areas of lower elevation and greater surface hydrology, whereas soil types that are more commonly associated with uplands are expected to exhibit fewer or no wetland characteristics. Potentially hydric (i.e., wetland) soil types are listed in the *Hydric Soils of Florida Handbook* (Victor W. Carlisle, et al., 2000). It should be noted that the soil types listed by NRCS are based on a 1974 soil survey of Brevard County by the USDA Soil Conservation Service, and no comprehensive soil survey of the county has been completed since 1974. As such, it is not uncommon for there to be some inconsistencies between historically-mapped soil types and current on-site soil conditions. ACES sampled soil types throughout the subject property by excavating 6-inch diameter, 12-inch deep cylindrical plugs from the surface, and assessing the soil profiles and characteristics

of each plug. Following is a brief description of the soil type that is mapped on the subject site, compared to our observations of current soil conditions.

Quartzipsammments, Smoothed – NRCS Code No. 52: These are nearly level to steep sandy soils that have been reworked and shaped by earthmoving equipment. They are commonly near urban centers or along major highways on the mainland. Many areas are former sloughs, marshes, or shallow ponds that have been filled with various soil material to surrounding ground level or to elevations above natural ground level. Drainage is variable. Most excavated areas are well drained, but the water table is generally within a depth of 50 inches in filled areas. This soil type is not listed in the *Hydric Soils of Florida Handbook*.

This upland soil type is mapped over the entire site, except for a very narrow strip along the west site boundary, which consists of the open waters of a large pond. Soils on the property consist of an amalgam of materials, including sand, shell, gravel, marl, clay, crushed asphalt, and crushed concrete. In some areas (such as the dirt road that meanders through the site), soils have been so compacted that they are very difficult to penetrate with hand tools. Elsewhere, soils exhibit non-hydric characteristics, being composed of loamy sand over a gravel and sand mixture.

Soils examined within an upland-cut ditch that parallels the eastern site boundary exhibit mucky-textured sand, a hydric soil characteristic. Further north along the ditch, soils become more hydric, and are associated with a small on-site wetland (see Figure 4), where they are composed of mucky-textured sand and muck.

Thus, except for a narrow strip of open water along the west property boundary and a linear path of upland cut ditch and wetland along the eastern site boundary, the site appears to be underlain entirely by non-hydric soils.

### **Community Types**

Using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) as a guideline, ACES categorized the different natural communities and land uses on the subject site according to FLUCFCS designations and code numbers. Figure 4 depicts the different FLUCFCS communities on the property. The major FLUCFCS categories on the site are:

Industrial – FLUCFCS Code No. 150: This category refers to two buildings near the south end of the site. Their use is unclear, but their size and appearance seem consistent with light industrial use and/or storage. The area occupied by these structures is estimated at 0.17 acres.

Herbaceous – FLUCFCS Code No. 310: This non-forested upland community exists mainly as a grassy expanse extending south from near the middle of the property, then narrowing into a cleared access drive that meanders back north through the site. The total area occupied by this community on the site is estimated at 3.70 acres. It is dominated by grasses, low shrubs, and herbaceous species, including cogongrass, Johnson grass, smutgrass, Bahia grass, Bermuda grass, lantana, Mexican clover, Spanish needles, and rattlebox. Underlying soils are composed of non-hydric loamy sand; along the access drive, soils also contain compacted gravel, crushed concrete, crushed asphalt, shell, and other foreign materials. No wetland hydrologic indicators are present in this community.

Brazilian Pepper – FLUCFCS Code No. 422: This forested upland community dominates the site, covering approximately 13.47 acres. It consists of a dense cover of Brazilian pepper, and invasive exotic species. A few slash pines, cabbage palm, Chinese tallow, strangler fig, and air potato vines are scattered throughout. Underlying soils are composed of non-hydric loamy sand mixed with gravel, shell, and marl. No wetland hydrologic indicators were observed in this community.

Water – FLUCFCS Code No. 500: This category refers to the man-made pond (surface waters, not wetlands) that extends westward from the site. The eastern  $\pm 0.42$  acres of the pond extends slightly onto the western boundary of the site. The pond has no littoral shelf, but falls off into deep water almost immediately; as such, no wetland plants are present, and no wetland fringe exists along the edge of the pond.

Streams and Waterways – FLUCFCS Code No 510: This category refers to the north/south drainage ditch that runs along the eastern property boundary. Like the pond, the ditch is considered surface waters, not wetlands, where it is cut through uplands. The area occupied by the ditch is estimated at 0.12 acres.

Exotic Wetland Hardwoods – FLUCFCS Code No. 619: This degraded wetland community is covered with a monoculture of dense Brazilian pepper growing over mucky-textured sand. Although once just a northern extension of the ditch, this area appears to have broadened over time and now is perennially hydrologically connected to the Wetland Shrub community (see below). The presence of hydric soils and wetland hydrology (high water marks, saturated soil) allows this small area ( $\pm 0.10$  acre) to be claimed as degraded low-quality wetlands.

Wetland Shrub – FLUCFCS Code No. 631: This wetland community is present in the northeast corner of the site, where it occupies approximately 0.12 acre of the property. It contains a fringe of Carolina willow, saltbush, creeping oxeye and cattails around a deep-water depression. Soils are composed of mucky-textured sand and muck, and hydrologic indicators show that this area is inundated virtually year-round.

Thus, the entire site contains a total of approximately 17.34 acres of uplands, 0.55 acres of surface waters (the pond and ditch), and 0.22 acres of low-quality wetlands. The surface waters and wetlands fall under the jurisdiction of SJRWMD and ACOE. If impacts are proposed to any of the hydrologic resources (wetlands and/or surface waters), the appropriate permits must be obtained from the applicable regulatory agencies. Following is a discussion of potential wetland permitting and mitigation issues for this site.

### **Wetland Considerations**

SJRWMD and ACOE have jurisdiction over the small wetland area. Both agencies require that all proposed wetland impacts be justified by the permittee, who is responsible for demonstrating that all reasonable efforts have been made to design the site development project in a way that avoids or minimizes wetland impacts. Simply put, the onus is on the applicant to show that proposed wetland impacts are essentially unavoidable. Although SJRWMD's rules have a caveat that allows applicants to impact any wetlands if mitigation is provided that is "regionally significant" (i.e., the purchasing of mitigation bank credits), ACOE does not provide that flexibility. Furthermore, ACOE does not accept any mitigation that does not meet the very strict standards of a wetland mitigation bank, essentially

obligating all applicants to purchase credit at a federally approved mitigation bank for any wetland impacts the Corps deems acceptable.

In addition to direct wetland impacts (dredging or filling within wetlands), an applicant must also consider the extent of secondary wetland impacts, which are assessed by SJRWMD. Secondary wetland impacts are those potentially adverse effects to wetlands that occur due to the proximity of human activities (i.e., noise, traffic, pollution, lighting, human intrusion, pets, yard waste, etc.). To protect against secondary impacts, SJRWMD encourages applicants to preserve a naturally-vegetated upland buffer around all portions of wetlands that are to remain undisturbed. The buffer must be at least 15 feet wide, with a minimum average width of at least 25 feet. In all areas where the minimum buffer cannot be provided, SJRWMD will assess secondary impacts extending into the adjacent wetlands. The extent of secondary impacts is determined on a case-by-case basis, but is typically determined by extending a 100 to 200-foot radius into the affected wetland from each point where an adequate upland buffer cannot be provided. Secondary impacts are considered to be significantly less adverse than direct impacts. Thus, although secondary wetland impacts (if assessed) add to the amount of mitigation that an applicant must provide to satisfy SJRWMD, they are typically only a small percentage of the whole. Since SJRWMD (unlike ACOE) recognizes the long-term value of on-site wetland preservation and enhancement, the secondary wetland impact issue can frequently be addressed by the placement of a conservation easement over remaining on-site wetlands and their adjacent upland buffers. If all on-site wetlands are proposed for direct impacts (dredging and/or filling), then secondary wetland impact issues will not apply.

For this site, as long as development plans do not encroach within 25 feet of the small wetland area, no wetland permitting or mitigation will be required by SJRWMD or ACOE. It seems reasonable to assume that most site planning will be able to accomplish this. However, in the event that wetland impacts are proposed, some form of wetland mitigation must be provided to offset those impacts.

As mentioned, due to the restrictions of ACOE wetland mitigation standards, the purchase of wetland mitigation bank credits will be the only means of addressing direct wetland impacts for this site. Currently, the subject site falls into the service areas of two wetland mitigation banks: Mary A Mitigation Bank and Lake Washington Mitigation Bank. Both have herbaceous wetland mitigation credits available, and both are within the same SJRWMD drainage basin as the subject site. The two banks use different methods of assessing how many mitigation credits are necessary to offset proposed impacts; currently, the most affordable option is Lake Washington Mitigation Bank, which calculates mitigation credits according to the Uniform Mitigation Assessment Method (UMAM).

UMAM is a method of assessing and calculating environmental losses (Functional Loss, or FL) and environmental gains (Functional Gain, or FG). Wetlands proposed for impact are assigned a specific FL via a set of standardized evaluations and calculations; whatever the total FL is for a particular project, the proposed mitigation (assessed in units of FG) must be equal or greater than the FL. In general, the calculated FL is a measure of the current quality (value and function) of the wetlands that are proposed for impact. As stated previously, the quality of wetlands on the subject site is low; we do not expect that on-site wetlands will rate an FL of more than 0.5 per acre of impact. Therefore, if all  $\pm 0.22$  acres of wetlands on this site are proposed for impact, the total calculated FL is expected to be no more than 0.11 ( $0.22 \times 0.50 = 0.11$ ). To offset this, at least 0.11 units of FG would need to be provided. Lake Washington Mitigation Bank charges \$99,000 for each unit of FG. Therefore, the maximum anticipated wetland mitigation cost if this project (assuming all on-site wetlands are proposed for impact) would be about \$10,890 ( $0.11 \times 99,000 = 10,890$ ).

If wetland permitting is necessary, the time associated with it is expected to be between two and three months for SJRWMD. Permitting through ACOE occurs concurrently, but typically takes a bit longer to complete than state permitting, since ACOE requires more documentation and is not subject to minimum time frames in their review process.

### **Surface Waters**

A SJRWMD permit is required for any impacts to surface waters, to ensure that such impacts do not adversely affect the existing hydrologic regime of the site, or any properties that are upstream or downstream from the site. Surface waters that are greater than 1.0 acres in size are assumed by SJRWMD to provide aquatic habitat that is beneficial to fish and wildlife; as such, if impacts are proposed to surface waters that are greater than 1.0 acre in size, such impacts must be offset by mitigation, which is typically accomplished on a 1:1 basis on-site. For example, if 0.25 acres along the eastern shore of the pond were proposed to be filled to accommodate the size and configuration of a proposed project, an acceptable form of mitigation would be to excavate 0.50 acres of the Brazilian Pepper community on the western boundary of the site down to the pond elevation, thereby resulting in no net decrease in the size, volume, and habitat potential of the pond.

### **Protected Species**

On the date of our site assessment, ACES examined the property for any indications of habitation by protected wildlife species. This included inspecting the property for direct visual and auditory evidence of protected species themselves, as well as assessing the site for the presence of secondary indicators, such as burrows, nests, nesting cavities, scat, tracks, trails, rookeries, etc. We also used on-line mapping resources from Brevard County, USFWS, and FWC to identify the known location of certain protected species populations, such as bald eagles. Following is a discussion identifying the extent to which protected species are thought to be using the site, and the procedures by which such concerns can be addressed during the project permitting process.

Gopher Tortoises: Gopher tortoises are protected as a Threatened species by the Florida Fish and Wildlife Conservation Commission (FWC). Gopher tortoises require habitat that includes well-drained sandy soils for burrowing, open sunlit areas for nesting, and adequate herbaceous forage. Although adequate herbaceous cover, open sunlit areas, and sufficiently drained soil appear to be present within the Herbaceous community, we found no evidence of gopher tortoises (no burrows, scat, tracks, trails, etc.). The disturbances associated with the historical land uses on the site are likely to have precluded its habitation by this species. It is our professional opinion that gopher tortoises are not present on the property, and no gopher tortoise permitting or mitigation will be required prior to site development.

American Alligator: Alligators are protected by USFWS due to their similarity in appearance to the American crocodile. It is illegal to kill, harm, or feed alligators, or to destroy their nests. Nuisance alligators can only be relocated or killed by licensed and permitted professionals. Mature alligators may be present in the pond. However, due to the lack of littoral zones or lateral upland banks adjacent to the pond, no alligator nesting habitat is expected to exist on the site. As such, no nest surveys are expected to be required during nesting season (June through September), and site development is not expected to have any adverse impacts to this species.

Wading Birds: A variety of protected wading birds may occasionally be present within the Wetland Shrub community and the edge of the pond for foraging purposes. These include the tricolored heron, great egret, white ibis, snowy egret, sandhill crane, and greenback heron. There is no rookery habitat on the site to support nesting of any of these species, and none of these species were observed on the site during our inspection. Although it is possible that some or all of these species may be present from time to time in the wetland areas on a transitory foraging basis, such behavior is opportunistic, and not indicative of critical reliance on any on-site natural resources. Therefore, no special permits for potential impacts to these species are expected to be required.

Wood Stork (*Mycteria americana*): Wood stork nesting habitat is not present on the site. However, the Wetland Shrub community does provide foraging habitat for this federally listed endangered species. Federal rules require that when a project falls under federal jurisdiction, the potential for federally-endangered species must be assessed. In the case of the wood stork, the mere potential of wood stork foraging behavior within affected wetlands is enough to impose regulatory oversight, as long as: a) the affected wetland contains Suitable Foraging Habitat (SFH) for wood storks (the on-site Wetland Shrub community does); b) the affected wetland falls within the Core Foraging Area (CFA) of at least one known wood stork rookery (on-site wetlands fall within the CFA of several wood stork rookeries); and c) more than 0.5 acres of CFA are proposed for impact (this is not the case for the site). Since wetlands are less than 0.50 acres, no adverse impacts to wood storks are expected to be assessed for this site.

Bald Eagle (*Haliaeetus leucocephalus*): No recorded bald eagle nests exist within at least 1.0 miles of the subject site, and no eagle nests, eagle activity, or potential nest trees were observed on the site. Therefore, it is not expected that potential impacts to this species will need to be addressed prior to site development.

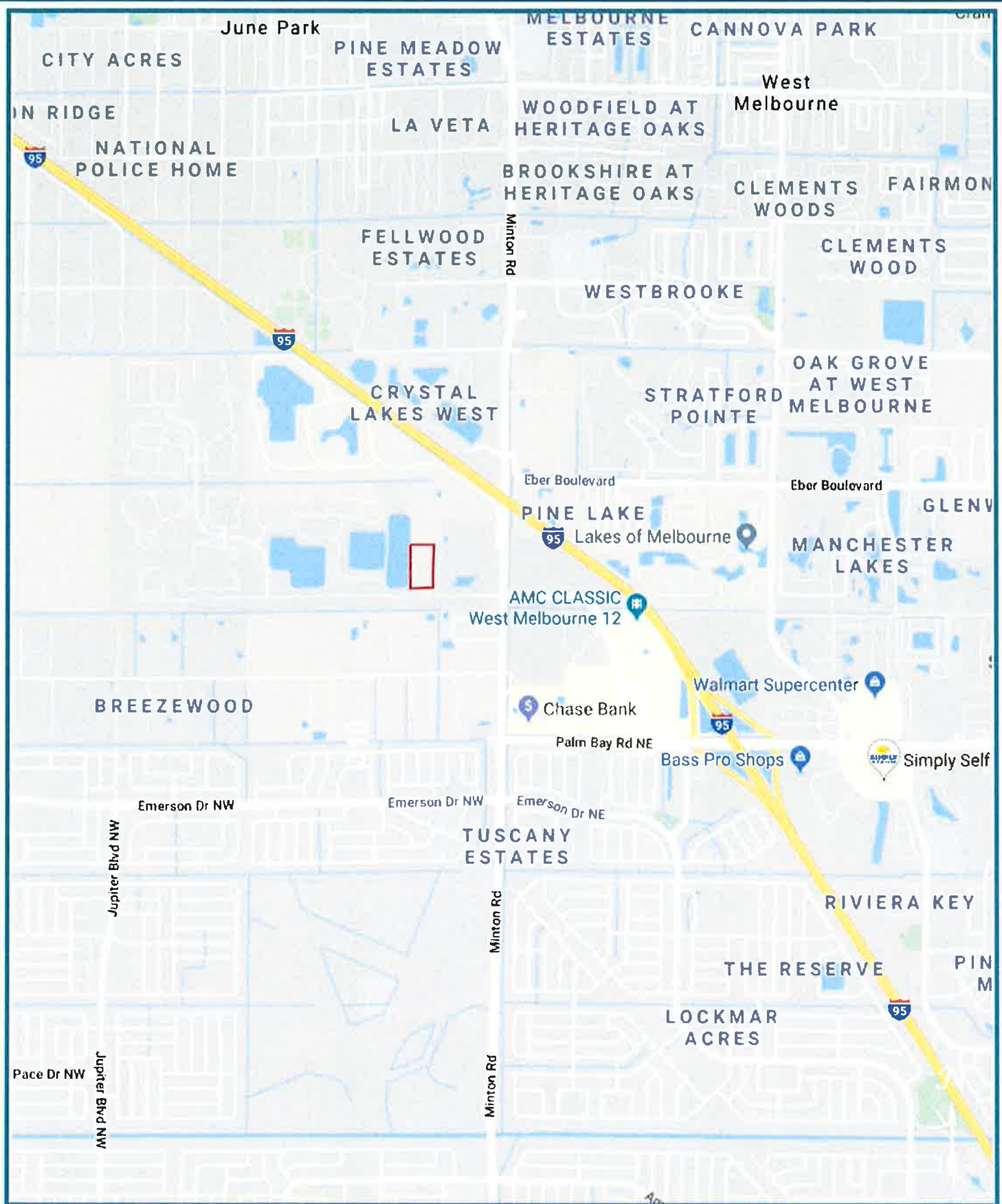
### Summary and Conclusion

ACES has completed an environmental assessment of Parcel No. 28-36-13-00-758, Norfolk Parkway, West Melbourne, Florida. It is our determination that approximately 17.34 acres of uplands, 0.55 acres of surface waters (the pond and ditch), and 0.22 acres of low-quality wetlands are present on the site. If impacts are proposed to wetlands, then permits will be needed from SJRWMD and ACOE, and mitigation will be required. If impacts are proposed to the ditch, a permit will be needed from SJRWMD, and the project design must show that the current volume and rate of flow within the ditch will be sustained in the post-development condition. If impacts are proposed to the pond, a permit will be needed from SJRWMD, and 1:1 compensation will be required. No evidence of listed species occupation of the site was found during our inspection; as such, no permits or mitigation for potential impacts to listed species are expected to be required prior to site development. Upon your review of this report, should you have any questions or need any additional information, please do not hesitate to contact us.

Sincerely,



Andrew Conklin – President, ACES, LLC



Source -Google Maps



## Figure 1 - Location Map

**ACES File No. 1993 - Parcel 758, Norfolk Parkway**

- Property Boundary

PO Box 500407, Malabar, FL 32950 Phone: (321) 848-1143 Email: [acesllc7@gmail.com](mailto:acesllc7@gmail.com)





Source -Brevard County Property Appraiser



**Figure 2 - Aerial Site Photograph**  
**ACES File No. 1993 - Parcel 758, Norfolk Parkway**

 - Property Boundary

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Source -USDA Natural Resources Conservation Service (NRCS)



**Figure 3 - NRCS Soils Map**  
**ACES File No. 1993 - Parcel 758, Norfolk Parkway**

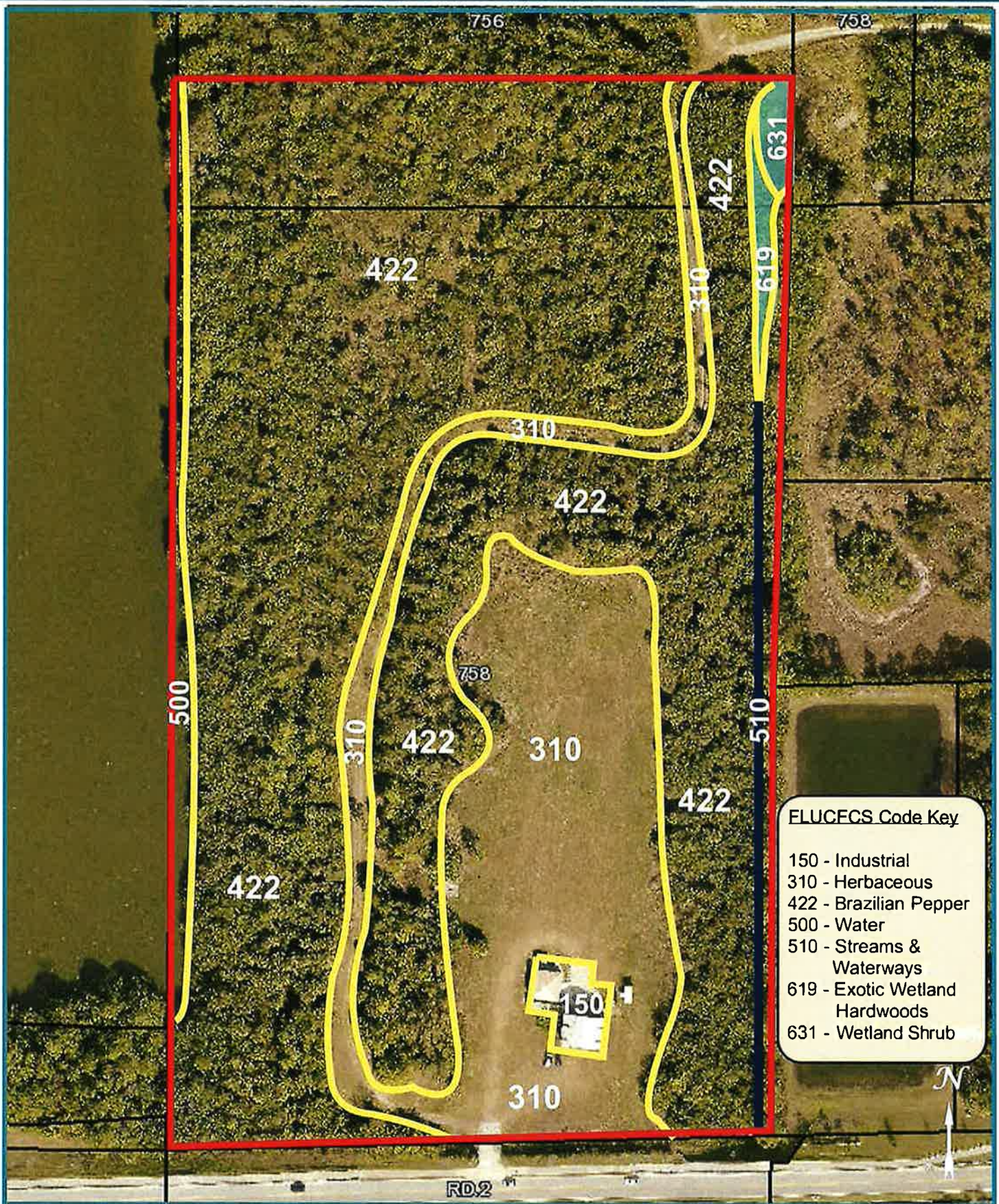
 - Property Boundary

 - NRCS Soil Type Boundaries

52 - Quartzipsamments, Smoothed  
 99 - Water

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Source - Brevard County Property Appraiser

Codes referenced to the Florida Land Use Cover and Forms Classification System (FLUCFCS)

