REVISED FINAL SITE PLAN

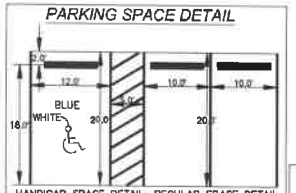
SITE DATA TABLE	
Total Site Area	4.44 AC (193,406 SF)
Zoning	COR-1
Future Land Use	COMMERCIAL OFFICE AND RESIDENTIAL
PCN	21-37-41-000-000-00244-8
Existing Use	VACANT COMMERCIAL
Proposed Use	SELF STORAGE FACILITY
OPEN SPACE	
Required Open Space	40% 77,362 SF OR, 1.78 AC.
Provided Pervious Area	23.6% (1.05 AC) 45,531 SF
Preserve Area	23.9% (1.06 AC) 46,020 SF
Wetland	N/A
Upland	23.9% (1.06 AC) 46,020 SF
Total Open Space (Pervious + Preserve Area)	47.5% (2.1 AC) 91,551 SF
IMPERVIOUS AREA	
Total Impervious Area	2.34 AC (101,855 SF)
Building A	0.8 AC (34,700 SF)
Building B	0.29 AC (12,500 SF)
Building C	0.28 AC (12,000 SF)
Total Building Coverage	1.36 AC (59,200 SF)
Pavement, Roads	0.96 AC (42,003 SF)
Sidewalks, Pads, etc.	0.01 AC (652 SF)
Surface Water	0 AC
BUILDING DATA	
Max Allowed	Provided
Max Coverage 40%	30.6%
Max Height: 30 ft	30 ft
PARKING DATA	
LAND USE	**STORAGE FACILITY**
Total Building Area	93,900 SF
*93,900 SF@ = 0.07(X)+ 4	11
Standard Parking Required	11
Standard Parking Supply	10
Required Handicap Parking	1
Handicap Parking Provided	1
Required Loading Spaces	4
Provided Loading Spaces	4
Total Parking Provided	11

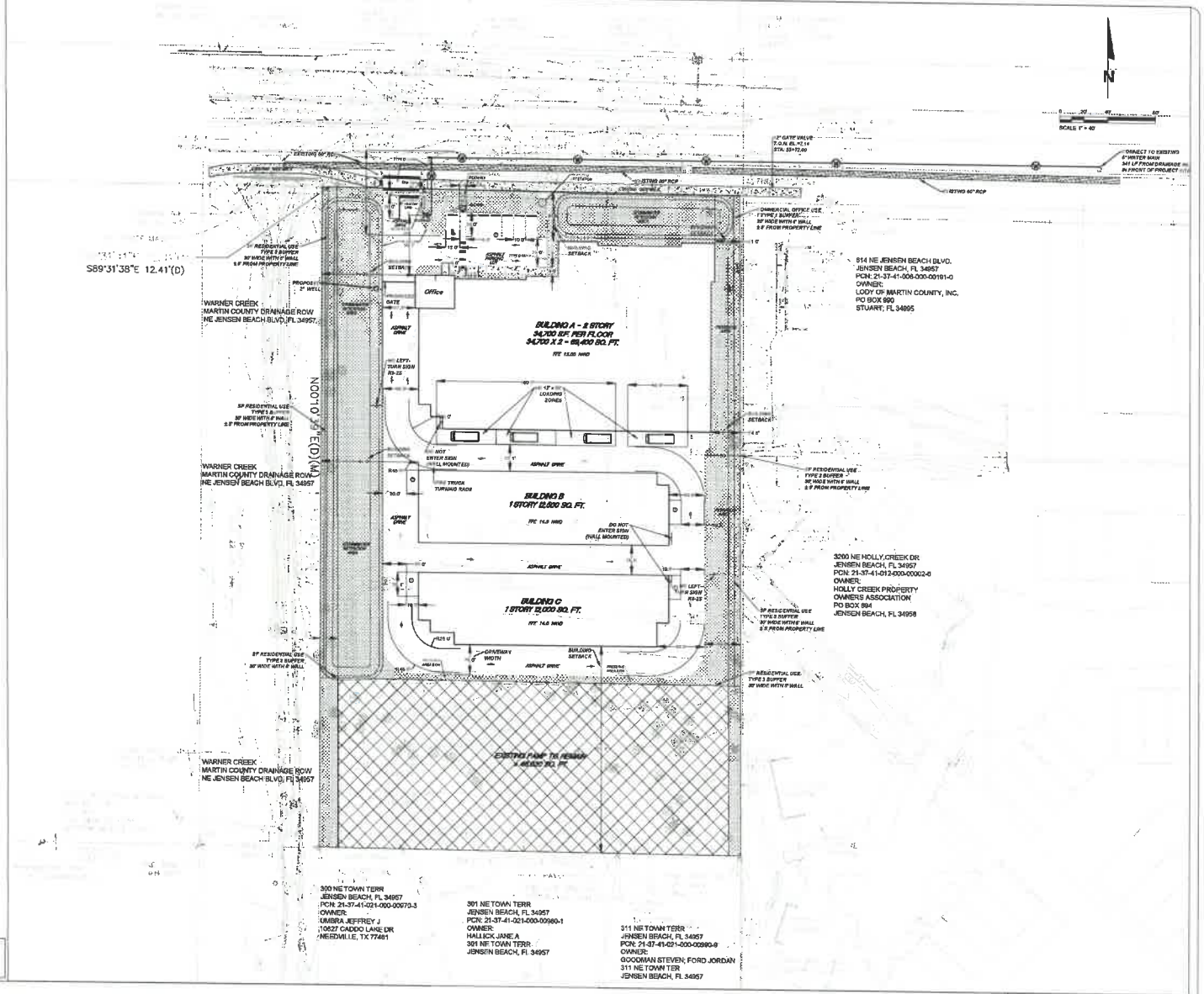
*ITE 4th Edition, Land Use 151, P = 0.07(93,900) + 4 = 10.6 Spaces

LEGEND

- Pervious Area
- Preserve Area
- Truncated Domes Mats
- (A) ADA Sign
- (B) Preserve Area Sign
- Traffic Control Device

PARKING SPACE DETAIL





DESCRIPTION

PARCEL 1–THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4, SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST. JENSEN BEACH MARTIN COUNTY, FLORIDA. LYING NORTH OF THE PLAT OF PINECREST PHASE II AND LESS ROAD RIGHT OF WAY OF JENSEN BEACH BOULEVARD. CONTAINING 185,811.7 SQUARE FEET OR 4.27 ACRES MORE OR LESS. AND TOGETHER WITH

PARCEL 2–A PARCEL LAND BEING A PORTION OF THE SOUTH 1/2 OF SECTION 21 OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT INTERSECTION OF THE WEST LINE OF THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21 WITH THE SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD, BEING A 100 FOOT RIGHT OF WAY; THENCE S00°09'39"E ALONG THE WEST LINE OF SAID EAST 337.66 FEET A DISTANCE OF 550.37 FEET TO AN INTERSECTION WITH THE NORTH LINE OF PINECREST LAKES II, AS RECORDED IN PLAT BOOK 8, PAGE 51 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N89°31'14"W ALONG SAID NORTH LINE A DISTANCE OF 15.66 FEET TO AN INTERSECTION WITH THE EAST LINE OF A DRAINAGE RIGHT OF WAY PER OFFICIAL RECORDS BOOK 221, AT PAGE 240 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N00°10'39"E ALONG SAID EAST LINE A DISTANCE OF 550.24 FEET TO AN INTERSECTION WITH SAID SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD ; THENCE S89°31'38"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 12.41 FEET TO THE POINT OF COMMENCEMENT. SAID PARCEL 2 CONTAINING 7,723 SQUARE FEET OR 0.18 ACRES MORE OR LESS.
BEING SUBJECT TO ANY/ALL EASEMENTS, RESERVATION, RESTRICTIONS OR DEDICATIONS.

MACKENZIE ENGINEERING & PLANNING, INC.
1172 SW 30th St, Suite 500
PALM CITY, FLORIDA, 34990
772-286-8030
CA29013

MacKenzie Engineering & Planning, Inc.

REVISED FINAL SITE PLAN
ADVANTAGE DEVELOPMENT GROUP, LLC
JENSEN BEACH, FLORIDA

SCALE 1" = 40'
APPROVED: SM
DRAWN: EJJ
CHECKED: SM
DATE: 01/24/2018
FIELD BOOK NO:

COUNTY PROJ #: J040 - 011
AGENT PROJ #:
DESIGNER: EJJ
PM: SM
SUBMITTAL: 01/24/2018
REVISION:

SHEET: SP-1
OF: SP-1
MEP PROJECT 124-001
COA NO. 29013

101

Mini-Warehouse
(151)

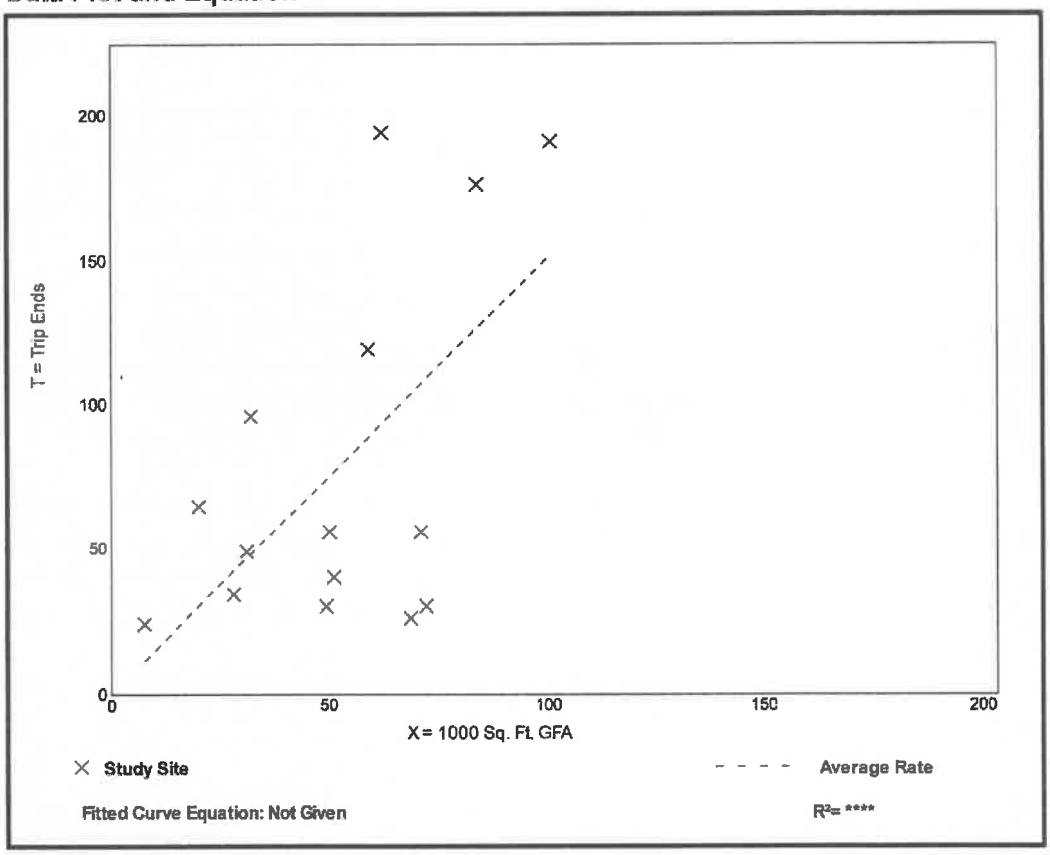
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 15
1000 Sq. Ft. GFA: 52
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.51	0.38 - 3.25	0.95

Data Plot and Equation



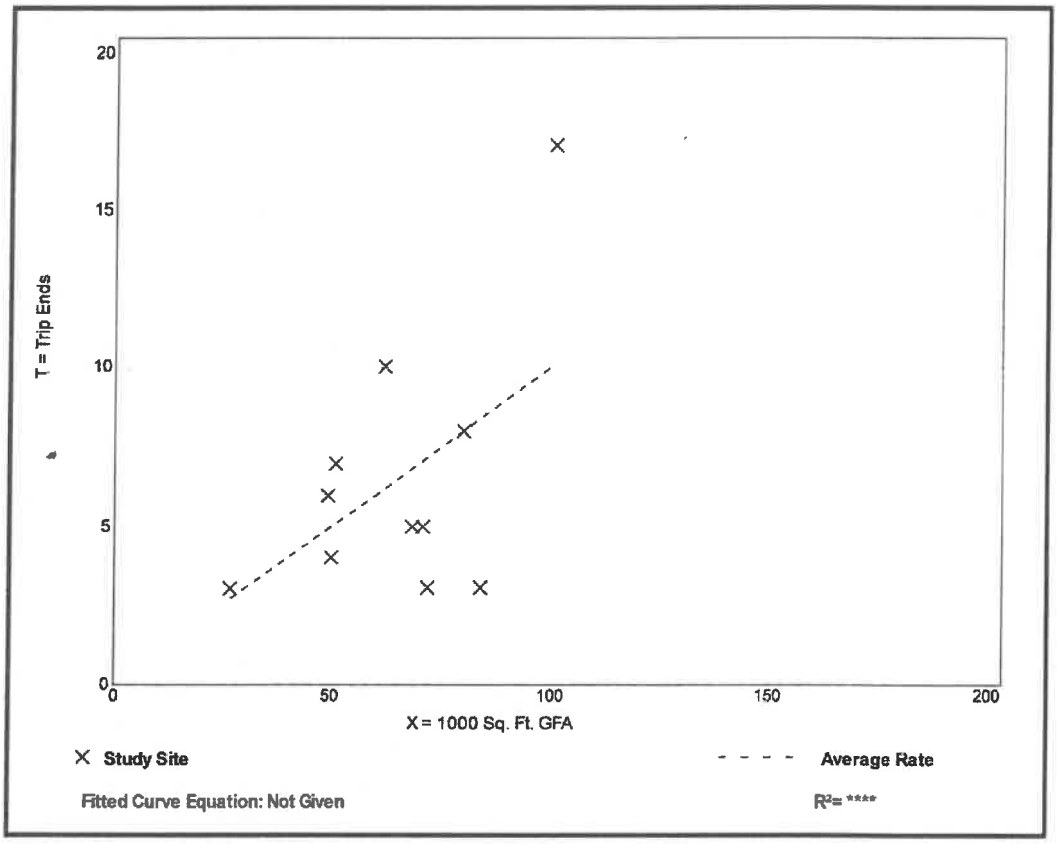
Mini-Warehouse
(151)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 11
1000 Sq. Ft. GFA: 65
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.10	0.04 - 0.17	0.05

Data Plot and Equation



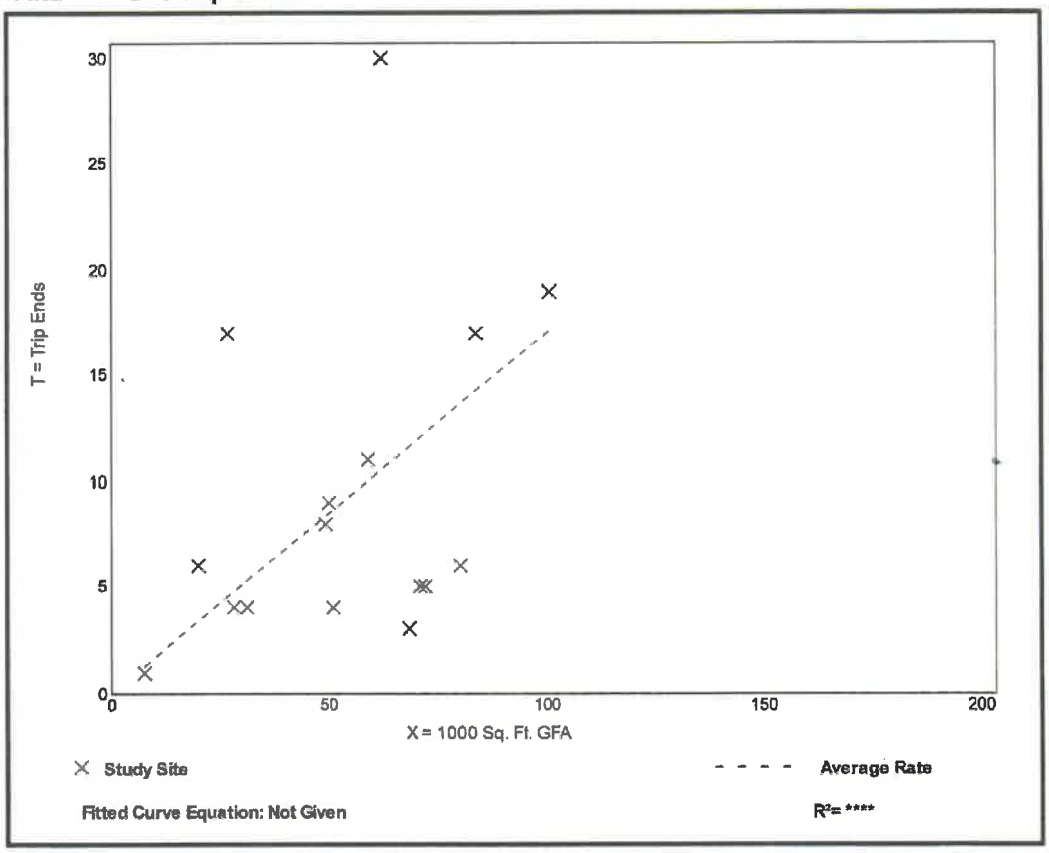
Mini-Warehouse
(151)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 16
1000 Sq. Ft. GFA: 54
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.04 - 0.64	0.14

Data Plot and Equation



MacKenzie
Engineering & Planning, Inc.
1172 SW 30th Street, Suite 500 • Palm City • Florida • 34990
(772) 286-8030 • www.mackenzieengineeringinc.com

October 31, 2017

Martin County Growth Management
2401 SE Monterey Road
Stuart, FL 34996

Re: Advantage Development Group
Advantage Self Storage - Major Final Site Plan
Evacuation Plan

To whom it may concern:

Advantage Self Storage proposes to construct a 93,900 SF storage facility at 528 NE Jensen Beach Blvd, Jensen Beach, Florida. An Evacuation Plan of the property is not required because the site is not located within an evacuation area (see attached document). However, between 48-24 hours before forecasted hurricane landfall the owner will conduct the following:

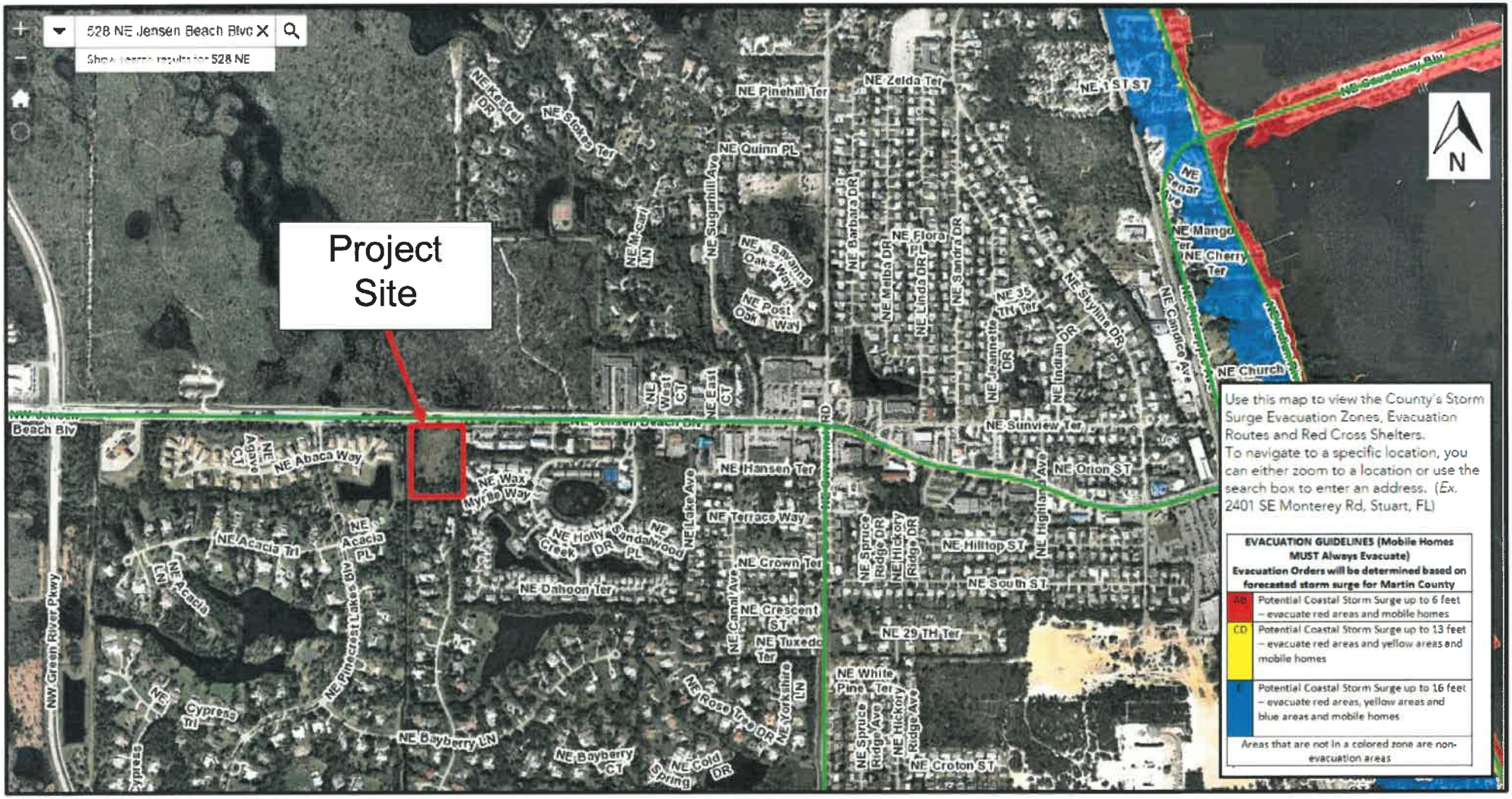
- Secure outside equipment, if any.
- Relocate emergency supplies where they can be controlled.
- Prepare rooms, outside areas, windows and guest facilities to minimize possible injury and/or damage.
- Postpone all employee shifts until further notice.
- Notify vendors to cease deliveries, if any.

If you have any questions, please do not hesitate to contact Shaun Mackenzie at (772) - 834-8909 or shaun@mackenzieengineeringinc.com.

Sincerely,

Shaun MacKenzie
Shaun G. MacKenzie, P.E.
Transportation Engineer
Florida Registration Number 61751
Engineering Business Number 29013

ADVANTAGE SELF STORAGE– EVACUATION ROUTES (IN GREEN)



Advantage Self Storage
528 NE Jensen Beach Blvd.
Jensen Beach, FL
Florida Wildfire Risk Assessment Checklist

Assessment Area:

A. Access	Points	Score
1. Ingress and Egress		
Two or more roads in/out	0	0
One road in/out (entrance and exit is the same)	0	
2. Road Width		
Road width is ≥□24 feet	0	0
Road width is ≥□20 feet and < 24 feet	0	
Road width is < 20 feet	0	
3. Road Accessibility		
Hard surface all-weather road with drivable shoulders	0	0
Hard surface road without drivable shoulders	0	
Graded dirt road	0	
Non-maintained dirt road	0	
4. Secondary Road Terminus		
Majority of dead end roads <□300 feet long	0	0
Majority of dead end roads > 300 feet long	0	
5. Cul-de-sac Turnarounds		
Outside radius >□50 feet	0	0
Outside radius < 50 feet	0	
6. Street Signs		
Present with non-combustible materials	0	0
Present with combustible materials	0	
Not present	0	
B. Vegetation		
1. Vegetation Types		
a. Low fire hazards	0	0
— grasses to 3 feet tall (except cogon grass)		
— blowy leaves		
— hardwood swamps		
— palmetto/gallberry less than 3 feet		
b. Medium fire hazard	0	
— cypress swamp		
— palmetto/gallberry 3-6 feet		
— grasses over 6 feet tall/cogon grass		
— sand pine scrub less than 6 feet tall		
dense pine 20-60 feet tall		

c. High fire hazard	0	
— palmetto/gallberry 3 to 6 feet with dense pine overstory*		
— palmetto/gallberry greater than 6 feet		
— sand pine scrub over 6 feet		
d. Extreme fire hazards	0	
— palmetto/gallberry over 6 feet with dense pine overstory*		
— sand pine scrub with dense pine overstory*		
— dense melaleuca		
* Pine canopy must have at least 75% crown closure to be considered dense pine		
2. Defensible Space (average for subdivision structures adjacent to wildland fuels)		
More than 100 feet	0	0
Between 30 and 100 feet	0	
Less than 30 feet	0	
C. Building Construction		
1. Roof Material		
75% of homes have Class A asphalt or fiberglass shingles, slate, or clay tiles, cement, concrete or metal roofing or terra-cotta tiles	0	0
50-75% of homes have Class A asphalt or fiberglass shingles, slate, or clay tiles, cement, concrete or metal roofing or terra-cotta tiles	0	
< 50% of homes have Class A asphalt or fiberglass shingles, slate, or clay tiles, cement, concrete or metal roofing or terra-cotta tiles	0	
2. Soffits/Siding		
> 75% of homes have non-combustible or fire-resistant siding and soffits	0	0
50-74% of homes have non-combustible or fire-resistant siding and soffits	0	
< 50% of homes have non-combustible or fire-resistant siding and soffits	0	
3. Skirting (skip if not applicable)		
> 75% of homes have skirting underneath raised floors/decks	0	0
50-74% of homes have skirting underneath	0	
< 50% of homes have skirting underneath	0	
D. Fire Protection		
Helicopter Dip Spots (min 4' water depth year round/45' radius obstruction clearance/75' approach clearance in at least one direction)		
Under 2 minute turnaround (< 1 mile)	0	0
Within 4 minute turnaround (1-2 miles)	0	
Within 6 minute turnaround (2-3 miles)	0	
Beyond 6 minute turnaround (greater than 3 miles) or unavailable	0	
2. Structural Fire Protection		
5 miles or less from staffed fire department	0	0
More than 5 miles from staffed fire department	0	
3. Water Supply		
a. Pressurized hydrants		
500 gallons per minute hydrants available < 1000 foot spacing (municipal)	0	0
< 500 gallons per minute hydrants available	0	
No pressurized hydrants available	0	

b. Other water sources ***NOTE: If a pressurized system is available, skip this section***		
Dry hydrants available year round within subdivision	0	
Other accessible draft sources (min. 3000 gal) exist within subdivision	0	
Draft or pressure sources available within 5 miles via all weather roads	0	
No draft or pressure sources available within 5 miles	0	
E. UTILITIES		
1. Gas (skip if not applicable)		
Underground/clearly marked	0	0
Underground/not marked	0	
Above ground/clearly marked with a 30 foot cleared perimeter	0	
Above ground/not marked	0	
2. Electric		
Underground/clearly marked	0	0
Underground/not marked	0	
Overhead with a 20 foot wide maintained right of way	0	
Overhead with right of way not maintained	0	
3. Septic Tank/Drain Field Systems (skip if not applicable)		
Present and clearly marked	0	1
Present, not clearly marked	0	
F. Additional Rating Factors *		
1. Large adjacent areas of wildlands with accumulated wildland fuels and no prescribed burning program for fuel management	0-10	0
2. Homeowner association lacks the organizational structure for a sustained fire prevention and mitigation effort.	0-5	0
3. Extensive canal or ditch system makes cross country access to fires difficult	0-10	0
4. Closeness of adjacent structures may contribute to fire spread from structure to structure.	0-5	0
5. Less than 2/3 of the lots have been developed - undeveloped lots covered with wildland fuels, making stopping spread of the fire through the subdivision difficult.	0-10	0
6. History of wildfire occurrence is higher than surrounding areas due to lightning, arson, debris burning, etc.	0-10	0
Total		6

*** Score only if applicable**

HAZARD ASSESSMENT	POINT RANGE
Low Hazard	***less than 50***
Moderate Hazard	***50-74***
High Hazard	***75-99***
Very High Hazard	***100-120***
Extreme Hazard	***more than 120***

Site Location

EW Consultants, Inc.
Natural Resource Management, Wetland, and Environmental Permitting Services

JENSEN BEACH STORAGE

ENVIRONMENTAL ASSESSMENT REPORT

Prepared for:

ADVANTAGE DEVELOPMENT

Prepared by:

EW CONSULTANTS, INC.

November 2017

1000 SE Monterey Commons Boulevard, Suite 208 • Stuart, FL 34996 772-287-8771 • Fax 772-287-2988
www.ewconsultants.com

INTRODUCTION

The 4.4+/- acres property covered by this Environmental Assessment, referred to as the Jensen Beach Storage parcel, is located in Jensen Beach, unincorporated Martin County, within Section 21, Township 37S, and Range 41E. The property is located on the south side of Jensen Beach Boulevard, 0.5 miles west of Savannah Road and 0.5 miles east of Green River Parkway. Please refer to Figure 1: Location Map in Appendix A.

The property is bounded to the north by Jensen Beach Boulevard and the Savannas Preserve State Park, to the east by a commercial office plaza (Boulevard Professional Center) and a multi-family residential townhome development (Holly Creek), to the west by a drainage canal (Warner Creek), and the south and west by a single family residential development (Pinecrest Lakes). Figure 2 in Appendix A for a 2016 aerial photo of the subject property and immediate surroundings.

PROPERTY DESCRIPTION

The subject property was a pine flatwood area that was partially cleared approximately 10 years ago subsequent to a previous site development approval and that has naturally revegetated since then. As a result, the northern portion of the property exhibits disturbed soils and a sparse vegetative cover comprised of ruderal weeds, scattered native and non-native trees, and shrubs. The southern portion of the property and a narrow fringe along the west property boundary exhibit a pine flatwoods habitat invaded to varying extent by invasive exotic vegetation. There were no areas identified on the property that meet state or Federal criteria for as wetlands.

SOILS

A soils map with the property boundary is attached in Appendix B. According to the soil survey data provided by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) for Martin County, two soil types are found on the subject property. It is important to note that the description of these soils, in their natural state, according to the NRCS, was generated in the early 1970s, and therefore predates the recent land development activities that occurred in 2008. The cursory observation of the soil surface revealed that the soil surface in the northern portion of the property (previously approved development site) is comprised of sandy fill material that does not appear to originate from the property. In particular, the southern and eastern portion of the previously approved development site exhibits a raised fill area without any signs of excavation on the subject property.

The description of these soils in their natural state and according to the soil survey is provided below:

> ***#2 Lawnwood Fine Sand*** **-** This soil is nearly level, poorly drained, in broad open areas of the flatwoods. The water table is typically at a depth of less than 10 inches for two to four months during wet seasons, and at a depth of 10 to 40 inches for six months or more receding to a greater depth during extended dry periods.

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#13 Placid Sand - This soil is a nearly level, and very poorly drained. Most of this soil is ponded for up to six months. Most of the areas with this soil type are found in natural vegetation. The soil has a high potential for pine trees when it is managed or experiences several periods of drought.

An USDA Custom Soil Resource Report was generated for the subject property and provided in Appendix B. This report contains additional information and description of soil resources for the subject property.

NATURAL COMMUNITIES AND LAND COVER

The natural communities and land covers on the subject property have been classified in accordance with the Florida Land Use, Cover and Forms Classification System (FLUCFCS, January 1999) published by the Florida Department of Transportation. Based on field reconnaissance, the subject property has two land cover types which include pine flatwoods and disturbed lands. There were no wetland or surface water cover types identified on the property. A description of the observed land cover types is provided below and a FLUCFCS Map is provided in the Appendix as Figure 3. All acreage figures are estimates based on aerial photo interpretation and field reconnaissance conducted on the property in March 2017 and September 2017.

#411 - Pine Flatwoods

The southern portion of the property and a narrow fringe area located along the western property boundary exhibit the typical characteristics of pine flatwoods. The vegetative composition of this land cover type is predominantly native with the canopy dominated by slash pine, occasional cabbage palm and laurel oak. The sub-canopy is generally dense and dominated by saw palmetto, wax myrtle, and Brazilian pepper shrubs. The vegetative ground cover, when present, is also comprised of invasive exotic vegetation such as sword fern, creeping ox-eye, and caesarweed. Native species including rusty staggerbush, gallberry greenbrier, blackberry, and muscadine vines are also present throughout this land cover.

#740 – Disturbed Lands -

As previously mentioned, the northern portion of the property (approximately 3.1 acres) is the dominant land cover for this property and falls into a "disturbed lands" cover type, exhibiting mostly barren or disturbed soils. The review of historic aerial photos indicates that vegetation clearing and land grading activities occurred in this area approximately 10 years ago. This portion of the property exhibits areas of barren sand interspersed by ruderal grasses, slash pine saplings, Brazilian pepper shrubs, and other non-native vegetation.

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LISTED SPECIES

During the field assessments of the property, observations were made to evaluate the presence or potential presence of listed fauna and endangered flora on the property and in particular, within the proposed development footprint.

Given the minimal amount of natural habitat that remains on the property, the property provides little foraging and/or nesting habitat for state and federally listed wildlife species. The field data collection revealed that gopher tortoise, listed as a Threatened species by the State of Florida, is the only listed species directly observed on the subject property. Several gopher tortoises and associated burrows were located within the disturbed fill areas of the property. No gopher tortoises, burrows or sign thereof were found in the pine flatwood areas of the property. No other listed wildlife species were observed on-site at the time of the field reconnaissance. Table 1 in Appendix C lists protected fauna according to the Florida Fish and Wildlife Conservation Commission, and provides an evaluation of the known presence of or potential for occurrence of such species occurring on-site.

In addition, observations were also made to evaluate the presence or potential presence of endangered flora on the subject property. No endangered flora was identified as present or potentially present on the subject property. Please refer to Table 2 in Appendix C for a list of endangered flora in Florida and a summary evaluation of the potential for occurrence of such species on-site.

NON LISTED WILDLIFE SPECIES

The site observations revealed that the following non-listed species are present on the subject property: cardinals, mockingbirds, and blue jays. Grey squirrels were also observed in the tree canopy. Signs of rabbits, foxes, and coyotes were also noted in the form of scat found throughout the property.

SUMMARY

The subject property exhibits no wetlands or other surface waters. The northern portion of the subject property was cleared and partially filled in 2008 after the issuance of a development approval for the property. These activities have created a disturbed land cover where native and non-native trees have grown back, along with ruderal plant species. The southern portion of the property and a narrow fringe area located along the western property boundary, exhibits the typical characteristics of pine flatwoods.

Nevertheless, the disturbed land cover is suitable habitat for gopher tortoises with several individual tortoises and burrows observed on site.

No other listed wildlife species were observed on site or are anticipated to utilize the property.

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APPENDIX A

Maps and Figures:

Figure 1: Location Map
Figure 2: Aerial Photograph
Figure 3: FLUCFCS Map

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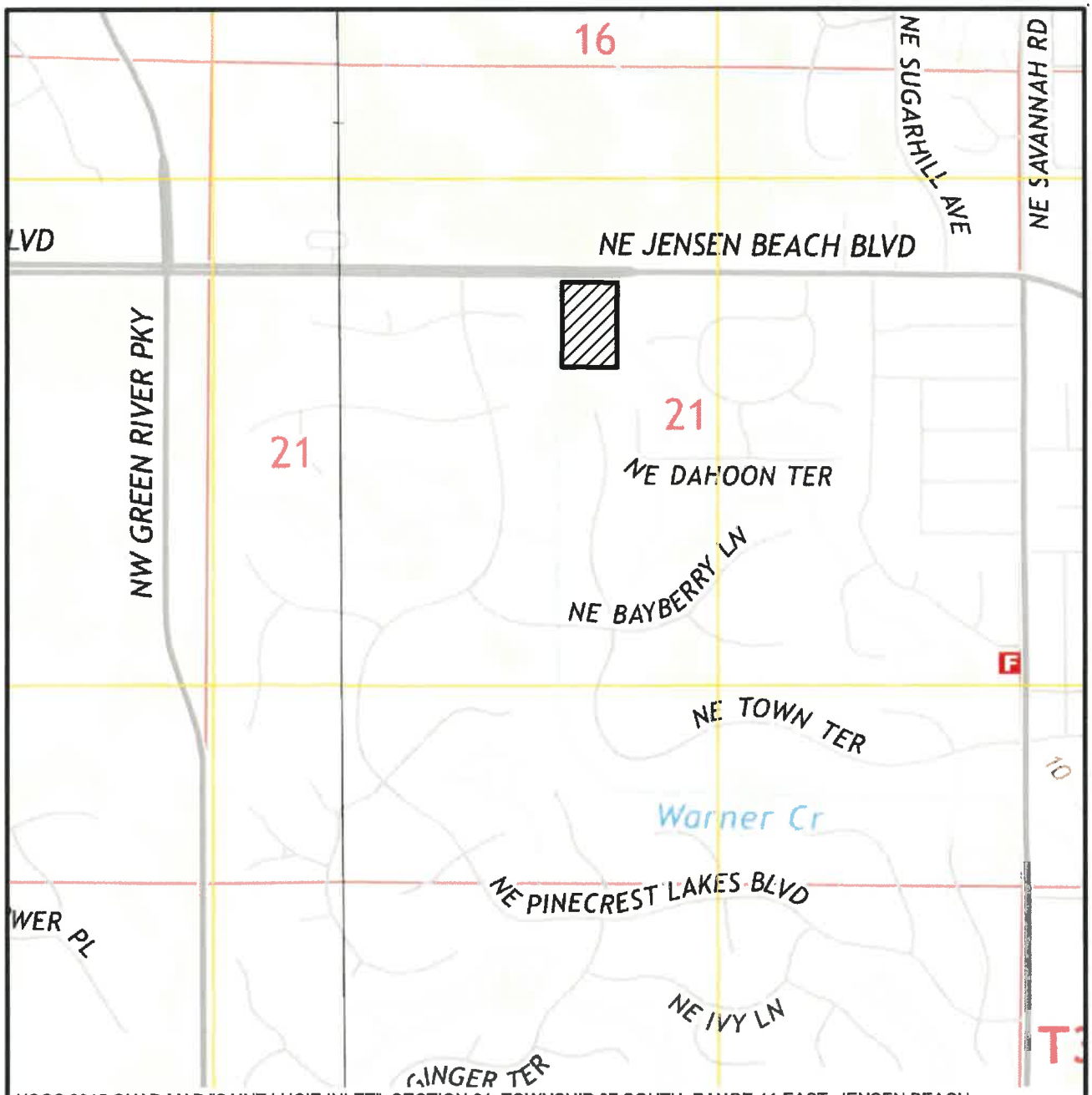

USGS 2015 QUAD MAP "SAINT LUCIE INLET", SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST, JENSEN BEACH, MARTIN COUNTY, FL, LATITUDE 27°14'39" LONGITUDE -80°14'42"

LEGEND

▨ - SITE (4.4± AC)

0 1000

SCALE IN FEET

JENSEN BEACH STORAGE

LOCATION

Jensen Beach Storage.dwg LOCATION

EW CONSULTANTS, INC.

1000 SE MONTEREY COMMONS BLVD., SUITE 208
STUART, FL 34996
772-287-8771 FAX 772-287-2988
WWW.EWCONSULTANTS.COM

NOV 2017

FIGURE 1

MARTIN COUNTY AERIALS DATED 2017

0 200
SCALE IN FEET

JENSEN BEACH STORAGE

AERIAL

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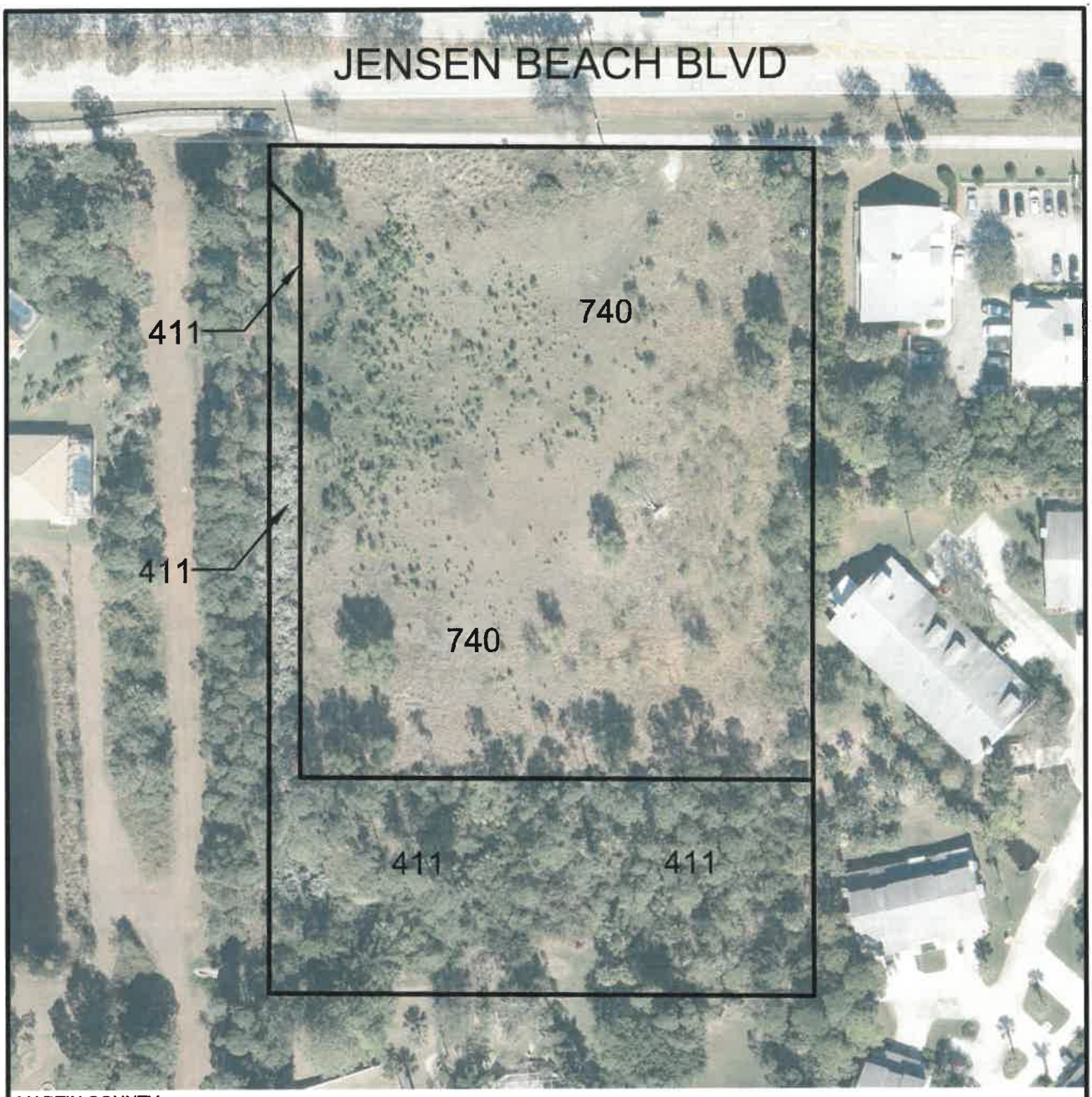
FIGURE
2

Jensen Beach Storage.dwg AERIAL



MARTIN COUNTY
AERIALS DATED 2017

LEGEND
411 - PINE FLATWOODS (1.3± AC)
740 - DISTURBED LANDS (3.1± AC)
TOTAL (4.4± AC)

0 100
SCALE IN FEET

JENSEN BEACH STORAGE

FLUCFCS

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1000 SE MONTEREY COMMONS BLVD., SUITE 208
STUART, FL 34996
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FIGURE
3

Jensen Beach Storage.dwg FLUCFCS

APPENDIX B

USDA Custom Soil Resource Report

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Soil Map—Martin County, Florida
(Jensen Beach Storage)

Map Scale: 1:989 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this 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.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Martin County, Florida
Survey Area Data: Version 15, Sep 14, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 14, 2015—May 8, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Martin County, Florida (FL085)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
2	Lawnwood and Myakka fine sands	0.7	15.5%
13	Placid and Basinger fine sands, depressional	3.8	84.5%
Totals for Area of Interest		**4.4**	**100.0%**

APPENDIX C

Table 1: List of known and potential occurrence of protected fauna

Table 2: List of known and potential occurrence of endangered flora

1000 SE Monterey Commons Boulevard, Suite 208 • Stuart, FL 34996 772-287-8771 • Fax 772-287-2988
www.ewconsultants.com

TABLE 1
POTENTIAL LISTED FAUNA

FWC JANUARY 2017 OFFICIAL LIST

VERTEBRATES

FISH

Common Name	Scientific Name	Status	Known or potential occurrence: On site	Martin	Comment
Atlantic sturgeon	*Acipenser oxyrinchus*	FE	No	No	
Blackmouth shiner	*Notropis melanostomus*	ST	No	No	
Bluenose shiner	*Pteronotropis welaka*	ST	No	No	
Crystal darter	*Crystallaria asprella*	ST	No	No	
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	FT	No	No	
Harlequin darter	*Etheostoma histrio*	SSC	No	No	
Key silverside	*Menidia conchorum*	ST	No	No	
Okaloosa darter	*Etheostoma okalossae*	FT	No	No	
Saltmarsh topminnow	*Fundulus jenkinsi*	ST	No	No	
Shortnose sturgeon	*Acipenser brevirostrum*	FE	No	No	
Smalltooth sawfish	*Pristis pectinate*	FE	No	Yes	No appropriate habitat found on-site
Southern tessellated darter	*Etheostoma olmstedi maculaticeps*	ST	No	No	

AMPHIBIANS

Common Name	Scientific Name	Status	Known or potential occurrence: On site	Martin	Comment
Florida bog frog	*Lithobates okaloosae*	ST	No	No	
Frosted flatwoods salamander	*Ambystoma cingulatum*	FT	No	No	
Georgia blind salamander	*Haideotriton wallacei*	ST	No	No	
Reticulated flatwoods salamander	*Ambystoma bishopi*	FE	No	No	

REPTILES

Common Name	Scientific Name	Status	Known or potential occurrence: On site	Martin	Comment
Alligator snapping turtle	*Macrochelys temminckii*	SSC	No	Yes	No appropriate habitat found on-site
American alligator	*Alligator mississippiensis*	FT(S/A)	No	Yes	No appropriate habitat found on-site
American crocodile	*Crocodylus acutus*	FT	No	No	
Atlantic salt marsh snake	*Nerodia clarkii taeniata*	FT	No	No	
Barbour's map turtle	*Graptemys barbouri*	ST	No	No	
Bluetail mole skink	*Eumeces egregius lividus*	FT	No	No	
Eastern indigo snake	*Drymarchon corais couperi*	FT	Minimal	Yes	Could occupy tortoise burrows
Florida brownsnake (1)	*Storeria victa*	ST	No	No	Lower Keys population only
Florida Keys mole skink	*Eumeces egregius egregius*	ST	No	No	
Florida pine snake	*Pituophis melanoleucus mugitus*	ST	Moderate	Yes	Could use flatwood areas
Gopher tortoise	*Gopherus polyphemus*	ST	Observed	Yes	Burrows observed on-site
Green sea turtle	*Chelonia mydas*	T	No	Yes	No appropriate habitat found on-site
Hawksbill sea turtle	*Eretmochelys imbricata*	FE	No	Yes	No appropriate habitat found on-site
Kemp's ridley sea turtle	*Lepidochelys kempii*	FE	No	Yes	No appropriate habitat found on-site
Key ringneck snake	*Diadophis punctatus acricus*	ST	No	No	
Leatherback sea turtle	*Dermochelys coriacea*	FT	No	Yes	No approriate habitat found on-site
Loggerhead sea turtle	*Caretta caretta*	FT	No	Yes	No approriate habitat found on-site
Rim rock crowned snake	*Tantilla oolitica*	ST	No	No	
Sand skink	*Neoseps reynoldsi*	FT	No	No	
Short-tailed snake	*Stilosoma extenuatum*	ST	No	No	

BIRDS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
American oystercatcher	*Haematopus palliatus*	ST	No	Yes	No appropriate habitat found on-site
Audubon's crested caracara	*Polyborus plancus audubonii*	FT	No	Yes	No appropriate habitat found on-site
Bachman's wood warbler	*Vermivora bachmanii*	FE	No	No	
Black skimmer	*Rynchops niger*	ST	No	Yes	No appropriate habitat found on-site
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	FE	No	No	
Eskimo curlew	*Numenius borealis*	FE	No	No	
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	FE	No	Yes	No appropriate habitat found on-site
Florida burrowing owl	*Athene cunicularia*	ST	No	Yes	No appropriate habitat found on-site
Florida grasshopper sparrow	*Ammodramus savannarum floridanus*	FE	No	Yes	No appropriate habitat found on-site
Florida sandhill crane	*Grus canadensis pratensis*	ST	No	Yes	No appropriate habitat found on-site
Florida scrub-jay	*Aphelocoma coerulescens*	FT	No	Yes	No appropriate habitat found on-site
Ivory-billed woodpecker	*Campephilus principalis*	FE	No	No	
Kirtland's wood warbler	*Dendroica kirtlandii(Setophaga kirtlandii)*	FE	No	No	
Least tern	*Sterna antillarum*	ST	No	Yes	No appropriate habitat found on-site
Little blue heron	*Egretta caerulea*	ST	No	Yes	No appropriate habitat found on-site
Marian's marsh wren	*Cistothorus palustris marianae*	ST	No	No	
Osprey (2)	*Pandion haliaetus*	SSC	No	No	Monroe County only
Piping plover	*Charadrius melodus*	FT	No	Yes	No appropriate habitat found on-site
Red-cockaded woodpecker	*Picoides borealis*	FE	No	Yes	No appropriate habitat found on-site
Reddish egret	*Egretta rufescens*	ST	No	Yes	No appropriate habitat found on-site
Roseate spoonbill	*Platalea ajaja*	ST	No	Yes	No appropriate habitat found on-site
Roseate tern	*Sterna dougallii dougallii*	FT	No	Yes	No appropriate habitat found on-site
Rufa red knot	*Calidris canutus rufa*	FT	No	Yes	No appropriate habitat found on-site
Scott's seaside sparrow	*Ammodramus maritimus peninsulae*	ST	No	No	
Snowy plover	*Charadrius nivosus(Charadrius alexandrinus)*	ST	No	Yes	No appropriate habitat found on-site
Southeastern American kestrel	*Falco sparverius paulus*	ST	No	Yes	No appropriate habitat found on-site
Tricolored heron	*Egretta tricolor*	ST	No	Yes	No appropriate habitat found on-site
Wakulla seaside sparrow	*Ammodramus maritimus juncicola*	ST	No	No	
White-crowned pigeon	*Patagioenas leucocephala*	ST	No	No	
Whooping crane	*Grus americana*	FXN	No	Yes	No appropriate habitat found on-site
Worthington's marsh wren	*Cistothorus palustris griseus*	ST	No	No	
Wood stork	*Mycteria americana*	FT	No	Yes	No appropriate habitat found on-site

MAMMALS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
Anastasia Island beach mouse	*Peromyscus polionotus phasma*	FE	No	No	
Big Cypress fox squirrel	*Sciurus niger avicennia*	ST	No	No	
Choctawhatchee beach mouse	*Peromyscus polionotus allophrys*	FE	No	No	
Everglades mink	*Neovison vison evergladensis*	ST	No	No	
Finback whale	*Balaenoptera physalus*	FE	No	Yes	No appropriate habitat found on-site
Florida bonneted (mastiff) bat	*Eumops [=glaucinus] floridanus*	FE	No	No	
Florida panther	*Puma [=Felis] concolor coryi*	FE	No	No	
Florida salt marsh vole	*Microtus pennsylvanicus dukecampbelli*	FE	No	No	
Gray bat	*Myotis grisescens*	FE	No	No	
Gray wolf	*Canis lupus*	FE	No	No	
Homosassa shrew	*Sorex longirostris eonis*	SSC	No	No	
Humpback whale	*Megaptera novaeangliae*	FE	No	Yes	No appropriate habitat found on-site
Indiana bat	*Myotis sodalis*	FE	No	No	
Key deer	*Odocoileus virginianus clavium*	FE	No	No	
Key Largo cotton mouse	*Peromyscus gossypinus allapaticola*	FE	No	No	
Key Largo woodrat	*Neotoma floridana smalli*	FE	No	No	
Lower Keys rabbit	*Sylvilagus palustris hefneri*	FE	No	No	
North Atlantic right whale	*Eubalaena glacialis*	FE	No	Yes	No appropriate habitat found on-site
Perdido Key beach mouse	*Peromyscus polionotus trissyllepsis*	FE	No	No	
Red wolf	*Canis rufus*	FE	No	No	
Rice rat	*Oryzomys palustris natator*	FE1	No	No	
Sanibel Island rice rat	*Oryzomys palustris sanibeli*	ST	No	No	
Sei whale	*Balaenoptera borealis*	FE	No	Yes	No appropriate habitat found on-site
Sherman's fox squirrel	*Sciurus niger shermani*	SSC	No	Yes	No appropriate habitat found on-site
Sherman's short-tailed shrew	*Blarina [=carolinensis] shermani*	ST	No	No	
Southeastern beach mouse	*Peromyscus polionotus niveiventris*	FT	No	Yes	No appropriate habitat found on-site
Sperm whale	*Physeter catodon [=macrocephalus]*	FE	No	Yes	No appropriate habitat found on-site
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	FE	No	No	
West Indian manatee	*Trichechus manatus(Trichechus manatus latirostris)*	FT	No	Yes	No appropriate habitat found on-site

INVERTEBRATES

CORALS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
Boulder star coral	*Orbicella franksi*	FT	No		No appropriate habitat found on-site
Elkhorn coral	*Acropora palmata*	FT	No		No appropriate habitat found on-site
Lobed star coral	*Orbicella annularis*	FT	No		No appropriate habitat found on-site
Mountainous star coral	*Orbicella faveolata*	FT	No		No appropriate habitat found on-site
Pillar coral	*Dendrogyra cylindricus*	ST	No		No appropriate habitat found on-site
Rough cactus coral	*Mycetophyllia ferox*	FT	No		No appropriate habitat found on-site
Staghorn coral	*Acropora cervicornis*	FT	No		No appropriate habitat found on-site

CRUSTACEANS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
Black Creek crayfish (Spotted royal crayfish)	*Procambarus pictus*	Status	No		No appropriate habitat found on-site
Panama City crayfish	*Procambarus econfinae*	SSC	No		No appropriate habitat found on-site
Santa Fe Cave crayfish	*Procambarus erythrops*	ST	No		No appropriate habitat found on-site
Squirrel Chimney Cave shrimp	*Palaemonetes cummingi*	FT	No		No appropriate habitat found on-site

INSECTS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
American burying beetle	*Nicrophorus americanus*	FE	No	No	
Bartram's scrub-hairstreak	*Strymon acisbartrami*	FE	No	No	
Cassius blue butterfly	*Leptotes cassius theonus*	FT(S/A)	No	No	Listed as similar to Miami blue butterfly
Ceraunus blue butterfly	*Hemiargus ceraunus antibubastus*	FT(S/A)	No	No	Listed as similar to Miami blue butterfly
Florida leafwing butterfly	*Anaea troglodyta floridalis*	FE	No	No	
Miami blue butterfly	*Cyclargus thomasi bethunebakeri*	FE	No	No	
Nickerbean blue butterfly	*Cyclargus ammon*	FT(S/A)	No	No	Listed as similar to Miami blue butterfly
Schaus' swallowtail butterfly	*Heraclides aristodemus ponceanus*	FE	No	No	

MOLLUSKS

Common Name	Scientific Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
Chipola slabshell (mussel)	*Elliptio chipolaensis*	FT	No		No appropriate habitat found on-site
Choctaw bean	*Villosa choctawensis*	FE	No		No appropriate habitat found on-site
Fat threeridge (mussel)	*Amblema neislerii*	FE	No		No appropriate habitat found on-site
Florida treesnail	*Liguus fasciatus*	FE	No		No appropriate habitat found on-site
Fuzzy pigtoe	*Pleurobema strodeanum*	FT	No		No appropriate habitat found on-site
Gulf moccasinshell (mussel)	*Medionidus penicillatus*	FE	No		No appropriate habitat found on-site
Narrow pigtoe	*Fusconai escambia*	FT	No		No appropriate habitat found on-site
Ochlockonee moccasinshell(mussel)	*Medionidus simpsonianus*	FE	No		No appropriate habitat found on-site
Oval pigtoe (mussel)	*Pleurobema pyriforme*	FE	No		No appropriate habitat found on-site
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	FT	No		No appropriate habitat found on-site
Round ebonyshell	*Fusconaia rotulata*	FE	No		No appropriate habitat found on-site
Shinyrayed pocketbook(mussel)	*Lampsilis subangulata*	FE	No		No appropriate habitat found on-site
Southern kidneyshell	*Ptychobranchus jonesi*	FE	No		No appropriate habitat found on-site
Southern sandshell	*Hamiota australis*	FT	No		No appropriate habitat found on-site
Stock Island tree snail	*Orthalicus reses [not incl. nesodryas]*	FT	No		No appropriate habitat found on-site
Suwannee moccasinshell	*Medionidus walker*	FT	No		No appropriate habitat found on-site
Tapered pigtoe	*Fusconaia burki*	FT	No		No appropriate habitat found on-site

KEY TO ABBREVIATIONS AND NOTATIONS

FWC = Florida Fish and Wildlife Conservation Commission

FE = Federally Endangered

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

SSC = Species of Special Concern

FXN = Federal Experimental Non-Essential Population

1 - Lower keys population only

2 - Monroe County population only

3 - Other than those found in Baker and Columbia Counties or in Apalachicola National Forest

TABLE 2
POTENTIAL LISTED FLORA

FL DACS 2015

Scientific Name	Common Name	Status	Known or potential occurrence:		
			On site	Martin	Comment
Amorpha crenulata	crenulated lead-plant	endangered	No	No	
Asimina tetramera	four-petal pawpaw	endangered	No	Yes	No appropriate soils/habitat on site
Bonamia grandiflora	Florida bonamia	threatened	No	No	
Campanula robinsiae	Brooksville bellflower	endangered	No	No	
Cereus eriophorus var. fragrans	fragrant prickly-apple	endangered	No	No	
Chamaesyce deltoidea ssp. deltoidea	deltoid spurge	endangered	No	No	
Chamaesyce garberi	Garber's spurge	threatened	No	No	
Chionanthus pygmaeus	pygmy fringe tree	endangered	No	No	
Chromolaena frustrata	Cape Sable thorough-wort	endangered	No	No	
Chrysopsis floridana	Florida golden aster	endangered	No	No	
Cladonia perforata	Florida perforate cladonia	endangered	No	Yes	Found in Hobe Sound and south
Clitoria fragrans	pigeon wings	threatened	No	No	
Conradina brevifolia	short-leaved rosemary	endangered	No	No	
Conradina etonia	Etonia rosemary	endangered	No	No	
Conradina glabra	Apalachicola rosemary	endangered	No	No	
Consolea corallicola	Florida semaphore cactus	endangered	No	No	
Crotalaria avonensis	Avon Park harebells	endangered	No	No	
Cucurbita okeechobeensis ssp. okeechobeensis	Okeechobee gourd	endangered	No	Yes	No appropriate habitat on-site
Deeringothamnus pulchellus	beautiful pawpaw	endangered	No	No	
Deeringothamnus rugelii	Rugel's pawpaw	endangered	No	No	
Dicerandra christmanii	Garrett's mint	endangered	No	No	
Dicerandra cornutissima	longspurred mint	endangered	No	No	
Dicerandra frutescens	scrub mint	endangered	No	No	
Dicerandra immaculata	Lakela's mint	endangered	No	No	
Eriogonum longifolium var. gnaphalifolium	scrub buckwheat	threatened	No	No	
Eryngium cuneifolium	snakeroot	endangered	No	No	
Euphorbia telephioides	Telephus spurge	threatened	No	No	
Galactia smallii	Small's milkpea	endangered	No	No	
Halophila johnsonii	Johnson's seagrass	threatened	No	Yes	No appropriate habitat on-site
Harperocallis flava	Harper's beauty	endangered	No	No	
Harrisia aboriginum	aboriginal prickly-apple	endangered	No	No	
Hypericum cumulicola	Highlands scrub hypericum	endangered	No	No	
Jacquemontia reclinata	beach jacquemontia	endangered	No	Yes	No appropriate habitat on-site
Justicia cooleyi	Cooley's water-willow	endangered	No	No	
Liatris ohlingerae	scrub blazing star	endangered	No	No	
Lindera melissifolia	pondberry	endangered	No	No	
Lupinus aridorum	scrub lupine	endangered	No	No	
Macbridea alba	white birds-in-a-nest	threatened	No	No	
Nolina brittoniana	Britton's beargrass	endangered	No	No	
Paronychia chartacea	papery whitlow-wort	threatened	No	No	
Pilosocereus robinii	Key tree-cactus	endangered	No	No	
Pinguicula ionantha	Godfrey's butterwort	threatened	No	No	
Polygala lewtonii	Lewton's polygala	endangered	No	No	
Polygala smallii	tiny polygala	endangered	No	Yes	No appropriate habitat on-site
Polygonella basiramia	wireweed	endangered	No	No	
Polygonella myriophylla	sandlace	endangered	No	No	
Prunus geniculata	scrub plum	endangered	No	No	
Rhododendron chapmanii	Chapman's rhododendron	endangered	No	No	
Ribes echinellum	Miccosukee gooseberry	threatened	No	No	
Schwalbea americana	American chaffseed	endangered	No	No	
Scutellaria floridana	Florida skullcap	threatened	No	No	
Silene polypetala	fringed campion	endangered	No	No	
Spigelia gentianoides	gentian pinkroot	endangered	No	No	
Thalictrum cooleyi	Cooley's meadowrue	endangered	No	No	
Torreya taxifolia	Florida torreya	endangered	No	No	
Warea amplexifolia	clasping warea	endangered	No	No	
Warea carteri	Carter's warea	endangered	No	No	
Ziziphus celata	scrub ziziphus	endangered	No	No	

INSTR # 2034724
OR BK 02273 PG 2802
Pgs 2802 - 2826; (25pgs)
RECORDED 08/24/2007 11:03:25 AM
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CLERK OF MARTIN COUNTY FLORIDA
RECORDED BY C Burkey

Prepared By:
Martin County Growth Management Department
2401 S.E. Monterey Road
Stuart, FL 34996

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MARTIN COUNTY, FLORIDA
STANDARD DEVELOPMENT ORDER

REGARDING FINAL SITE PLAN APPROVAL FOR THE JENSEN BEACH PROFESSIONAL CENTER DEVELOPMENT IN JENSEN BEACH WITH A CERTIFICATE OF PUBLIC FACILITIES RESERVATION

WHEREAS, Jensen Beach Holdings, LLC, submitted an application for standard development final site plan approval for a professional and medical office development, hereinafter, Jensen Beach Professional Center, on lands described in Exhibit A, attached hereto; and

WHEREAS, pursuant to Section 10.3.A LDR, Martin County Code, final action on standard development applications shall be taken by the County Administrator or his/her designee; and

WHEREAS, the County Administrator has delegated final action on standard development applications to the Growth Management Director.

NOW, THEREFORE, THE GROWTH MANAGEMENT DIRECTOR HEREBY DETERMINES THAT:

A. The final site plan for Jensen Beach Professional Center, a copy of which has been reduced and attached hereto as Exhibit B, is approved. Development of Jensen Beach Professional Center, shall be in accordance with the approved final site plan and Preserve Area Management Plan as Exhibit C.

B. In accordance with Article 4, Section 4.629.A, Land Development Regulations, Martin County Code (LDR), the applicant is approved for a Parking Rate Adjustment to decrease the amount of parking spaces from the 147 required spaces, to 126 spaces to

support this development. This is a 14.5 percent decrease from the required amount, or twent-one (21) spaces, and is attached as Exhibit D.

C. No permits for construction or development activity shall be issued until all required documents, plans and fees are received and approved as required by Section 10.9, LDR, Martin County Code.

D. Failure to submit the required documents, plans and fees as required by Section 10.9, LDR, Martin County Code, shall render the final site plan approval null and void.

E. This application is hereby determined to meet the requirements for and shall serve as a Certificate of Public Facilities Reservation as set forth in Section 5.32.D., Land Development Regulations, Martin County Code. Payment of appropriate fees shall be paid at the time of building permit issuance pursuant to Section 5.32.D.4.c.(3).

F. Building permits must be obtained within one year of final site plan approval. Development of the entire project, including infrastructure and vertical construction, must be completed within two (2) years of final site plan approval. No rights to obtain development orders are herein conveyed beyond the two (2) year reservation period except as permitted in Section 5.32.D.8., LDR, Martin County Code. All remaining impact fees and capital facility charges shall be paid in full within sixty (60) days of an approval of a requested extension pursuant to Section 5.32.D.4.c.(3), LDR, Martin County Code.

G. This development order shall be recorded in the public records of Martin County. A copy shall be forwarded to the applicant by the Growth Management Department subsequent to recording.

DATED THIS 11th DAY OF APRIL, 2007.

Nicki van Vonno

NICKI van VONNO, DIRECTOR OF
GROWTH MANAGEMENT DEPARTMENT

EXHIBIT A

Project – Jensen Beach Professional Center
Owner – Jensen Beach Holdings, LLC

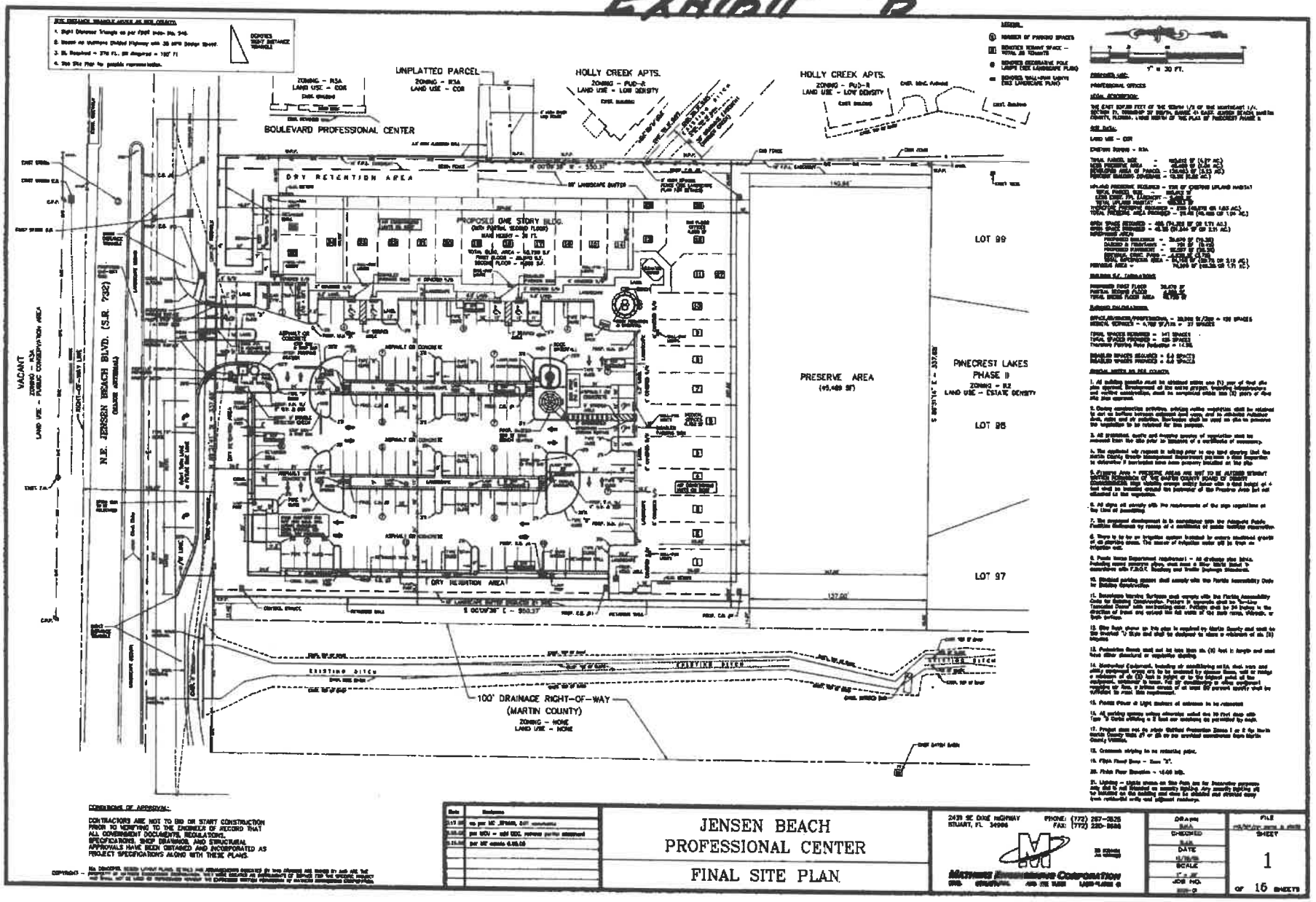
LEGAL DESCRIPTION:

THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4, SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST, JENSEN BEACH, MARTIN COUNTY, FLORIDA. LYING NORTH OF THE PLAT OF PINECREST PHASE II.

Parcel Control Number:

21-37-41-000-000-00244

EXHIBIT "B"



"EXHIBIT C"

MARTIN COUNTY, FLORIDA

PRESERVE AREA MANAGEMENT PLAN

For:

JENSEN BEACH PROFESSIONAL CENTER

JENSEN BEACH HOLDINGS, LLC

JENSEN BEACH BLVD

JENSEN BEACH, 34957

SECTION 21, TOWNSHIP 37 S, RANGE 41 E

PREPARED BY:

PHILIP R. TIMPUSTI
& ASSOCIATES, INC.
ECOLOGICAL ENGINEERS
ENVIRONMENTAL CONSULTANTS
12730 S.W. [illegible] Court
DAVIE, FL [illegible]
(954) [illegible]

Approved by/Date : _____

A Preserve Area Management Plan (PAMP) is required of all applicants for development approval on sites which contain wetland or upland preserve areas, pursuant to provisions of Section 4.36.A.1 of the Martin County Land Development Regulations, Martin County Code.

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

1.0 GENERAL

The owner(s) of the lands to be preserved/maintained by this Preserve Area Management Plan (PAMP) and the developers) of the Jensen Beach Professional Center located east of Pinecrest Lakes Boulevard and south of Jensen Beach Boulevard, Jensen Beach their successors and assigns, and their environmental consultants and contractors, will implement and comply with all portions of this PAMP.

Compliance with the terms of this PAMP includes submittal of all Monthly Monitoring Reports on PAMP compliance throughout all phases of project construction and submittal of all Annual Monitoring Reports following completion of project construction, pursuant to Section 10.17 of the Martin County Land Development Regulations. The owner(s) of the lands to be preserved/maintained shall have ultimate responsibility for the submittal of all Monthly and Annual Monitoring Reports, according to the format and schedule requirements of Section 10 of this PAMP.

As noted in Section 9 of this PAMP, the Martin County Environmental Planning Administrator shall be notified in writing within thirty (30) days of transfer of ownership of any lands to be preserved/maintained under the terms of this PAMP. Failure to notify shall be considered as non-compliance with the terms of this PAMP

This PAMP will not be altered or amended by either Martin County or the owner/developer of the Jensen Beach Professional Center, except by an alteration or amendment agreed to by both the Martin County Environmental Planning Administrator and the owner/developer of the Jensen Beach Professional Center. Such alterations and amendments shall be inserted into the PAMP and the final revised document shall be recorded by the Martin County Clerk of Courts. The revised PAMP will be labeled with the appropriate O.R. Book and Page Number. Three copies of the revised document shall be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date.

2.0 ENVIRONMENTAL ASSESSMENT

The Environmental Assessment includes maps and text which accurately depict the site's location, soils, wetlands, uplands, listed species, previous impacts, preserve area locations and boundaries, and any other significant environmental features.

2.1 Location

The Jensen Beach Professional Center is a commercial project that will be on this 4.27-acre tract of land located east of Pinecrest Lakes Boulevard and south of Jensen Beach Boulevard, Section 21, Township 37 South, Range 41 East, Jensen Beach, Martin County, Florida, (Figure 1).

Approximately 1.04 acres of forested land was set aside as a preserve to be in compliance with the Martin County Land Development Regulations (LDR), Article 4, Section 4.2. The preserve area is approximately 45,489.00 square feet and is located on the south side of the lot.

2.2 Soils

The US Department of Agriculture, Natural Resources Conservation Service Soil Survey of Martin County indicates that the substrate of the property is Lawnwood fine sand (2) and Placid sand (13). (Figure 2) Lawnwood fine sand is a nearly level, poorly drained soil in broad areas of flatwoods. Areas range from about 10 to 200 acres. Slopes are smooth and range from 0 to 2 percent. Typically, the surface layer is black and dark grayish brown fine sand. The subsurface layer is light brownish gray fine sand to a depth of about 28 inches. Placid sand is a nearly level, poorly drained soil found in wet depressions and drainage ways in the flatwoods. Slopes are smooth and concave and range from 0 to 2 percent. Typically the surface layer is sand to a depth of more than 80 inches. It is dark grayish brown, gray, and light brownish gray.

2.3 Habitats

Wetland Habitats – Wetlands do not occur on this property.

Upland Habitat – The dominant land use identified on-site include: Pine Flatwoods (FLUCFCS – 411, 8.11 acres). (Figure 3). These forests are common throughout much of Northern and Central Florida. Originally, longleaf pines were common on the drier sites while slash pines, which are less fire-resistant, were confined to moister sites; wildfire being the contributing factor in this distribution. However fire control and artificial reforestation have extended the range of slash pine into former longleaf sites. The pine flatwoods class is dominated by either slash pine, longleaf pine, or both, or less frequently, pond pine. Streams and Waterways (FLUCFCS – 510, 0.22 acres). (Figure 3). This category includes rivers, creeks, canals; and other linear bodies of water. The type of water body located on-site is a remnant of Warner Creek, which starts on the northwest side and ends in the middle of the east side.

The site can best be described as a pine/palmetto flatwoods that has been heavily disturbed with previous clearing and probable agricultural use. The canopy vegetation along the perimeter and the north end of the site consists of slash pine (Pinus eliottii), Brazilian pepper (Schinus terebenthifolis), laurel oak (Quercus laurifolia), Sable palm (Sabal palmetto), and dahoon hollies (Ilex cassine). Canopy vegetation observed at the remnant of Warner Creek includes wax myrtle (Myrica cerifera), and Carolina willow (Salix caroliniana). The understory contained saw palmetto (Serona repens) and gallberry (Ilex glabra). The groundcover observed was grape vine (vitis rotundifolia), swamp fern (Blechnum serrulatum), and various other grasses and forbs.

Exotic Vegetation – The site has a minor amount of exotic vegetation, including a small amount of Brazilian pepper (Schinus terebinthifolius) interspersed throughout the property. Because of the low percentage of exotic vegetation found at this site, these species will be treated and easily maintained. The habitat value of the preserve is excellent. With a minor amount of exotic and invasive vegetation removal, it will support and sustain a viable wildlife population.

2.4 Protected Species

The site was investigated to note the presence or absence of threatened or endangered species as listed by the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission. From the list of State and Federally protected species, no rare, threatened, endangered, or species of special concern were observed on the property. The site does not contain a scrub habitat or gopher tortoise (Gopherus polyphemus) habitat. The vegetation observed on the site is extremely dense and is unsuitable for gopher tortoise habitat. Based on previous studies of animal populations within the Pine Flatwoods communities, the following is a list of probable animal species that may inhabit the site:

Mammals
Nine banded armadillo (Dasypus novemcnctus)
Opossum (Didelphis vurginiana)
Raccoon (Procyon lotor)
Grey Squirrel (Sciurus carolinensis)

Birds
Ground dove (Columbia passerina)

Other Vertebrates
Oak toad (Bufo quercicus)
Green anole (Anolis carolinensis)
Six-lined racerunner (Cnemidophorus sexlineatus)

2.5 Previous Impacts

The immediate area surrounding the property, with the exception of isolated wooded areas, has been cleared and developed for commercial and residential purposes. The site is bounded on the west by partially developed land, on the north by paved roads, and on the south and east by single-family residences. The habitat value is rapidly diminishing and severely limited due to deterioration caused by development in the surrounding area. No portions of the property appear environmentally sensitive.

2.6 Agency Correspondence

The site was visited by South Florida Water Management District (SFWMD). A letter from SFWMD stating that no jurisdictional wetlands were found on the site will be sent under a separate cover.

3.0 IDENTIFICATION OF PRESERVE AREAS

3.1 Site Plan

All Preserve Areas, right-of-ways and easements are shown on the Jensen Beach Professional Center Site Plan, a copy of which is included in this PAMP. (Exhibit I)

3.1 Site Plan (continued)

The Site Plan includes a summary of the following: acreage of wetlands under preservation; acreage of native upland habitat under preservation; acreage of common upland habitat under preservation; penalty area; total acreage under preservation; and total acreage of the Site. The Site Plan will contain the notation: "PRESERVE AREAS ARE NOT TO BE ALTERED WITHOUT WRITTEN PERMISSION OF THE MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS."

3.2 Legal Recording

The final Jensen Beach Professional Center Site Plan will be recorded with the PAMP by the Martin County Clerk of Courts. The Site Plan and the PAMP will be labeled with the appropriate O.R. Book and Page Number and copies of each recorded document will be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date.

4.0 SURVEYING, MARKING AND BARRICADING REQUIREMENTS

All Preserve Areas shown on the Site Plan the Jensen Beach Professional Center will be surveyed and marked in the field with appropriate survey markers and signage. During the clearing and construction phases of the project, Preserve Area boundaries will be marked by physical barriers. No plant material will be removed from the Preserve Areas to facilitate surveying, fencing or soil boring/sampling without prior permission from the Martin County Environmental Planning Administrator.

4.1 Preserve Area Surveying Requirements

Each Preserve Area will be surveyed and marked with permanent monuments at each corner and at other sites necessary for locating the boundary of the Preserve Area. These permanent monuments will be constructed under the supervision of a Registered Land Surveyor and will be shown on the Site Plan. Map coordinates of each Preserve Area will be provided to the Martin County Environmental Planning Administrator, in a form compatible for use in the County's GIS mapping system.

4.2 Preserve Area Boundary Markers and Signs

Preserve Areas will be posted with permanent signs and boundary markers. Boundary Markers will be placed at the corners of residential lots abutting Preserve Areas. (Exhibit II) Signs will be at least 11 x 14 inches in size and will be posted in conspicuous locations along the Preserve Area boundary, at a frequency of no less than one (1) sign per 500 feet All boundary markers and signs will be approved by the Martin County Environmental Planning Administrator and they will be in place prior to issuance of a building permit for construction on the site. Illustrations of the signs and markers to be used for this project are included as an Appendix to this PAMP (Exhibit III).

4.3 Barricading Requirements

Prior to clearing, the developer will ensure that all Preserve Areas are protected with physical barriers during all clearing and construction activities in accordance with the following guidelines. Barricades will be inspected by County Environmental Division staff prior to work approval. Removal of the barricade materials will be done upon issuance of the final Certificate of Occupancy with authorization from appropriate County staff.

4.4 Barricading Requirements (continued)

Barricades will be high-visibility orange safety fence extending from the ground to a height of at least 4 feet Barricades will not be attached to vegetation.

All barricades and turbidity screens will be upright and maintained intact for the duration of construction.

Where areas are proposed for clearing (i.e. building envelope, utilities, drainage, road right-of-way, etc.) the bright orange barricades will be offset at least 10 feet outside the Preserve Area or placed at the dripline of the canopy trees, whichever is greater.

All native vegetation not slated for removal as part of the development plans will be retained in their undisturbed state and will be barricaded at or outside the dripline of the trees.

Cut or fill will meet existing grade without encroaching into Preserve Areas.

Wetlands will be protected from possible surface water and sediment runoff by the placement of silt screens, hay bales or other turbidity control measures, at or beyond the delineation line prior to any land clearing or construction.

It is the responsibility of the owner and developer of the Jensen Beach Professional Center to inform all contractors of these Marking and Barricading Requirements. Failure to comply with these Marking and Barricading Requirements will be considered a violation of the Site Plan approval Further work on the project may be stopped until compliance with the Marking and Barricading Requirements is achieved, and tile owner or developer may be required to appear before the Code Enforcement Board.

5.0 USE OF PRESERVE AREAS

5.1 Activities Allowed In Preserve Areas

The preserve area shall be maintained on a quarterly basis to control and remove undesirable, invasive, and exotic (as defined by the *Florida Exotic Pest Plant Council* at the time of permit issuance) vegetative species. The undesirable species shall be removed by physically uprooting and disposing of the individual specimens or by spraying with an approved herbicide and left in place. Every attempt shall be made to attain zero percent coverage of exotic / nuisance plant species during the quarterly maintenance events. At no time shall the coverage of undesirable species exceed two percent of the total vegetation.

5.2 Activities Prohibited In Preserve Areas

Activities prohibited in Preserve Areas or easements within Preserve Areas include, but are not limited to: construction or placing of building materials on or above the ground; dumping or placing soil or other substances such as garbage, trash, and cuttings; removal or destruction of native trees, shrubs or other native vegetation; excavation, dredging or removal of soil materials; diking or fencing: vehicular traffic including use by non-motorized vehicles, recreational vehicles and off-road vehicles; permanent irrigation; trimming. pruning, or fertilization; and any other activities detrimental to drainage, flood control, water conservation, erosion control or fish and wildlife conservation and preservation.

5.2 Activities Prohibited In Preserve Areas (Continued)

No hazardous material other than fuel for refueling on-site heavy equipment will be stored during the construction phases. On-site fuel tanks shall not be located within twenty-five (25) feet of any Preserve Areas and shall be removed upon completion of construction work.

Buildings proposed to be located adjacent to Preserve Areas shall be set back a minimum of ten (10) feet to allow for construction and maintenance without encroaching into the Preserve Area. All other structures (e.g. pools. sheds, decks, fences) shall be set back a minimum of five (5) feet from the Preserve Area boundary.

Development activities such as the construction of building pads for associated structures, swales, or culverts for surface water management shall not alter the hydrology of adjacent Preserve Areas. Nor shall any activities increase non-point source pollution hi Preserve Areas.

Grazing of cattle and horses or other livestock in Preserve Areas, while not prohibited, is discouraged. Over-grazing can result in destruction of habitat, loss of top soils and changes in hydrology of the area as a result of the loss of ground cover material, increased fertilization from animal droppings, and contamination of surface waters. These and other effects of over-grazing will be considered violations of this PAMP and will be addressed as any other PAMP violation.

6.0 RESTORATION AND MAINTENANCE ACTIVITIES

Except for approved maintenance activities, Preserve Areas will be left undisturbed. All maintenance of Preserve Areas will be in accordance with this PAMP the Jensen Beach Professional Center Maintenance and management activities will be performed by or under the supervision of a qualified environmental professional and must be approved by the Martin County Environmental Planning Administrator. The following restoration and maintenance activities may be allowed within Preserve Areas with prior written approval from the Environmental Planning Administrator: exotic plant removal, revegetation or planting native vegetation, and removal of dead, diseased, or safety hazard plant material.

6.1 Exotic Vegetation Removal

Exotic vegetation shall be removed from Preserve Areas by the least ecologically-damaging method available. Such methods include hand pulling, hand spading, cutting with hand or chain saws and in-situ treatment with appropriate herbicides. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. In addition, all dead plant material and exotic plant debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility.

6.2 Revegetation

Any revegetation which might be necessary as a result of exotic vegetation removal or site construction activities shall consist of native plant species representative of the existing native plant community. This will ensure that the Preserve Areas maintain indigenous plant associations. Revegetation plans shall be submitted to the Martin County Environmental Planning Administrator for approval prior to implementation.

6.3 Vegetation Removal

Dead or diseased plant material shall be removed from Preserve Areas upon approval by the Martin County Environmental Planning Administrator. Revegetation may be required for any removed plant material. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. All dead plant material and debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility.

6.4 Prescribed Burns

Martin County considers prescribed burns an acceptable habitat management tool. When approved by the Martin County Environmental Planning Administrator, they will be conducted by a certified burn manager who will be responsible for obtaining all appropriate permits from State and local agencies.

6.5 Hydrology

Previous or potential drainage impacts will be corrected to the extent technically feasible. Water quality and the rate, timing, and volume of run-off shall recreate natural conditions for the benefit of onsite wetlands and other waterbodies. Wetlands and waterbodies on adjacent properties shall be protected from adverse impacts.

7.0 PROTECTIVE MEASURES FOR LISTED SPECIES

The site was investigated to note the presence or absence of threatened or endangered species as listed by the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission. From the list of State and Federally protected species, no rare, threatened, endangered, or species of special concern were observed on the property. Attached is Exhibit II, showing walking transects for the presence of gopher tortoises (Gopherus polyphemus). The vegetation observed on the site is extremely dense and is unsuitable for gopher tortoise habitat. No gopher tortoise burrows were observed. (Figure 4).

8.0 MISCELLANEOUS PROVISIONS AND RESTRICTIONS

Except for approved maintenance activities, the preserve area will be left undisturbed.

9.0 TRANSFER OF RESPONSIBILITIES

The property owner(s) and developers of the Jensen Beach Professional Center are responsible for implementation of all requirements of this Preserve Area Management Plan until such time as the developer transfers responsibility to the owners or a successor. The Martin County Environmental Planning Administrator will be notified in writing within thirty (30) days of transfer of ownership of any lands to be preserved under this PAMP. Failure to notify will be considered as non-compliance with the terms of this PAMP. The developer will pay his share of total cost of management activities or fines on a per lot basis if he retains ownership of lots.

9.0 TRANSFER OF RESPONSIBILITIES (Continued)

At such time as the developer is ready to transfer control of the Jensen Beach Professional Center to the property owners, whether the developer retains ownership of the lots in the project or not, an environmental professional shall certify, in writing, to the Martin County Environmental Planning Administrator, that the Preserve Areas are in full compliance with this PAMP.

The developer and/or successor will be responsible for maintaining the Preserve Areas in their existing natural condition with the periodic removal of invasive exotic vegetation. After transfer of responsibilities, funding for all maintenance and management programs will be the responsibility of all successors.

10.0 MONITORING, REPORTING AND INSPECTIONS

10.1 Monthly Construction Reports

During construction of the Jensen Beach Professional Center, the developer will be responsible for submitting a monthly report on the progress of the Jensen Beach Professional Center, which will address all aspects of the site construction relative to the Preserve Areas. Information regarding construction and maintenance of the Preserve Areas, such as placement of barriers and signage, removal of exotic vegetation, revegetation, prescribed burns, etc. will be described and supported with photographs, where appropriate.

10.2 Annual Monitoring Reports

Monitoring and reporting will be conducted annually by a qualified environmental professional for a period of five years from the date of completion of the project or project phase encompassing the monitored area. Annual monitoring will be conducted at the end of the wet season (usually by November 30) and a report of the monitoring will be submitted to the Martin County Environmental Planning Administrator within 30 days of the completion of the monitoring.

The Annual Monitoring Reports will document changes in vegetation including encroachment and/or overgrowth of noxious or exotic vegetation. Fixed-point panoramic photos of all Preserve Areas will be included in each report. The reports will include recommendations for exotic vegetation removal, revegetation, and any additional enhancement activities necessary to maintain the Preserve Area. A timetable for action within 90 days of the report will be prepared and followed.

A copy of the proposed Annual Monitoring Report format is attached to this PAMP as an Appendix. This format may be modified separately from the PAMP, as necessary, upon written approval from the Martin County Environmental Planning Administrator.

Upon request, Martin County Environmental Planning staff may meet with the responsible parties to review the annual monitoring report findings and supply technical assistance and support for stewardship.

The first Annual Monitoring Report due in compliance with this PAMP will be submitted to the Martin County Environmental Planning Administrator at the end of the wet season following issuance of a Certificate of Occupancy for development described herein. Subsequent Annual Monitoring Reports will be due on the same date for the next four years.

10.2 Annual Monitoring Reports (continued)

After the initial five-year monitoring period, the Preserve Areas may be subject to periodic review and, if conditions warrant, will be subject to further monitoring and maintenance to ensure environmental integrity, consistent with the provisions of this Plan.

10.3 Inspections

Martin County is authorized to inspect any County regulated site or appurtenance. Duly authorized representatives of Martin County may, at any time, upon presenting proper identification, enter upon and shall be given access to any premises for the purpose of such inspection.

11.0 ENFORCEMENT

Martin County shall have the right to enforce the provisions of this PAMP through any available administrative or civil proceeding, which may result in penalties. Restoration of habitat and other remedies, such as fines and fees covering staff time, may be required of any person, corporation or other entity found in violation of any of the provisions of this PAMP or of Article 10 of the Martin County Land Development Regulations.

MARTIN COUNTY, FLORIDA

PRESERVE AREA MANAGEMENT PLAN ANNUAL

MONITORING REPORT FOR *(Year)*

Annual monitoring shall be conducted at the end of the wet season (usually by November 30) for five years from the date of PAMP approval. A report of the results of each monitoring event shall be submitted by the property owner to the Martin County Environmental Planning Administrator within 30 days of the completion of the monitoring. Monitoring and reporting are the responsibility of the property owner. However, a qualified environmental professional may conduct the monitoring, prepare the Annual Monitoring Reports, or submit the Reports.

All Annual Monitoring Reports shall contain the following information:

Name and address of current owner of Preserve Area;

Location of Preserve Area *(site/project location, Martin County Parcel Control Number, section/township/range, etc);*

Date PAMP approved;

Documentation of vegetation changes, including encroachment of exotic vegetation;

Fixed-point panoramic photos of all Preserve Areas;

Synopsis of maintenance activities conducted in compliance with the PAMP requirements such as exotic vegetation removal, revegetation, and additional enhancement activities necessary to maintain the Preserve Area;

A timetable for action within 90 days of the report;

A list of all violations of the PAMP; and

Recommendations for remedial actions, with a proposed schedule for the coming year.

Signature/Date: _____

Typed Name/Title:

Company Name (if applicable):

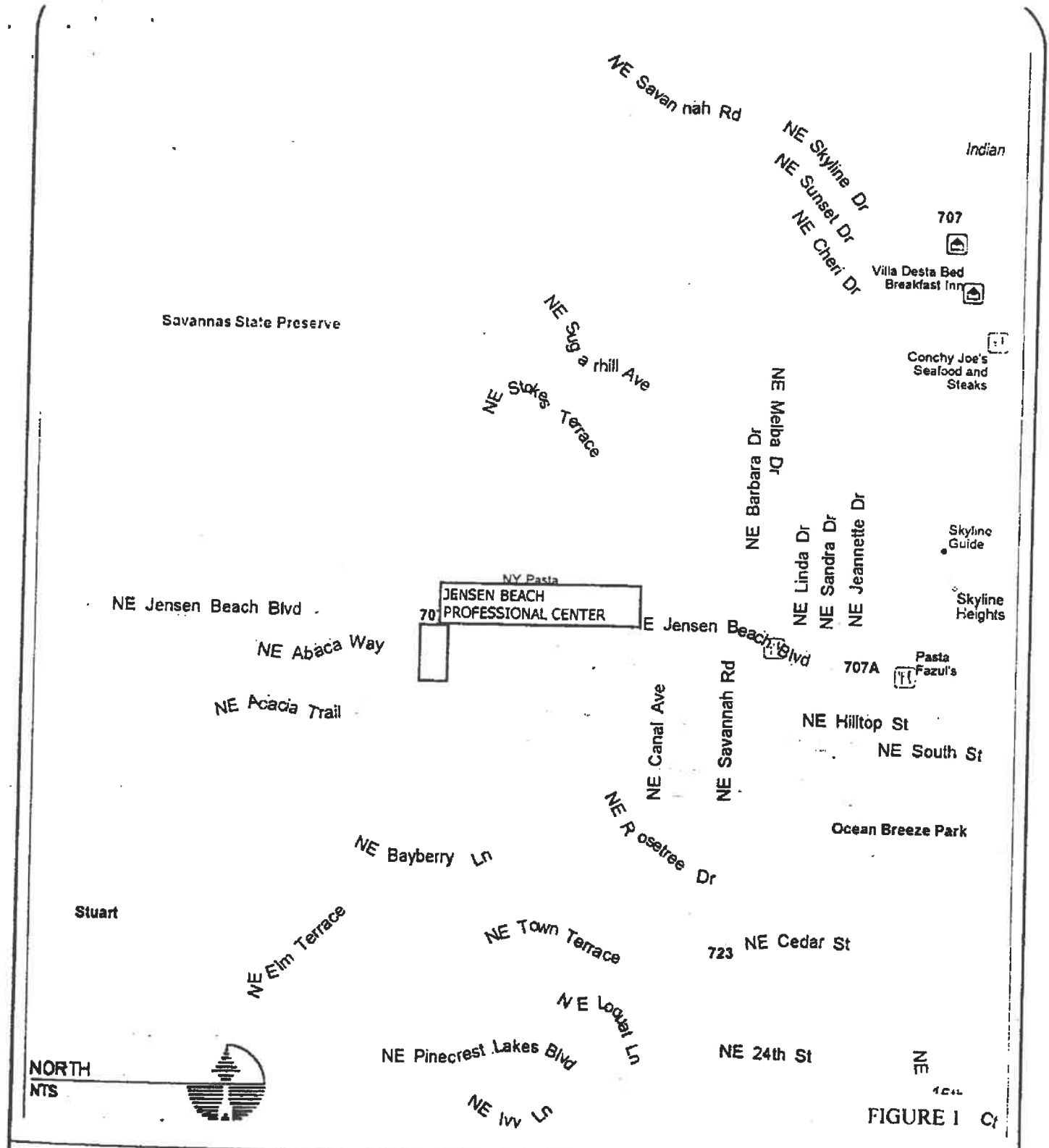


FIGURE 1

LOCATION MAP		
JENSEN BEACH PROFESSIONAL CENTER FOR: PALM CITY ASSOCIATES, LLC JENSEN BEACH, FLORIDA MARTIN COUNTY, S21 – T37 – R41	PHILLIP R. JIMRUSTI & ASSOCIATES, INC. ECOLOGICAL ENGINEERS ENVIRONMENTAL CONSULTANTS 12730 S.W. 12th Court DAVIE, FLORIDA 33325 (954) 370-8670	PROJECT No. 414–2 COMP. NAME JENSEN BEACH FILE NAME MAP LOCATION DATE 7/11/05 SHEET 1 OF 1

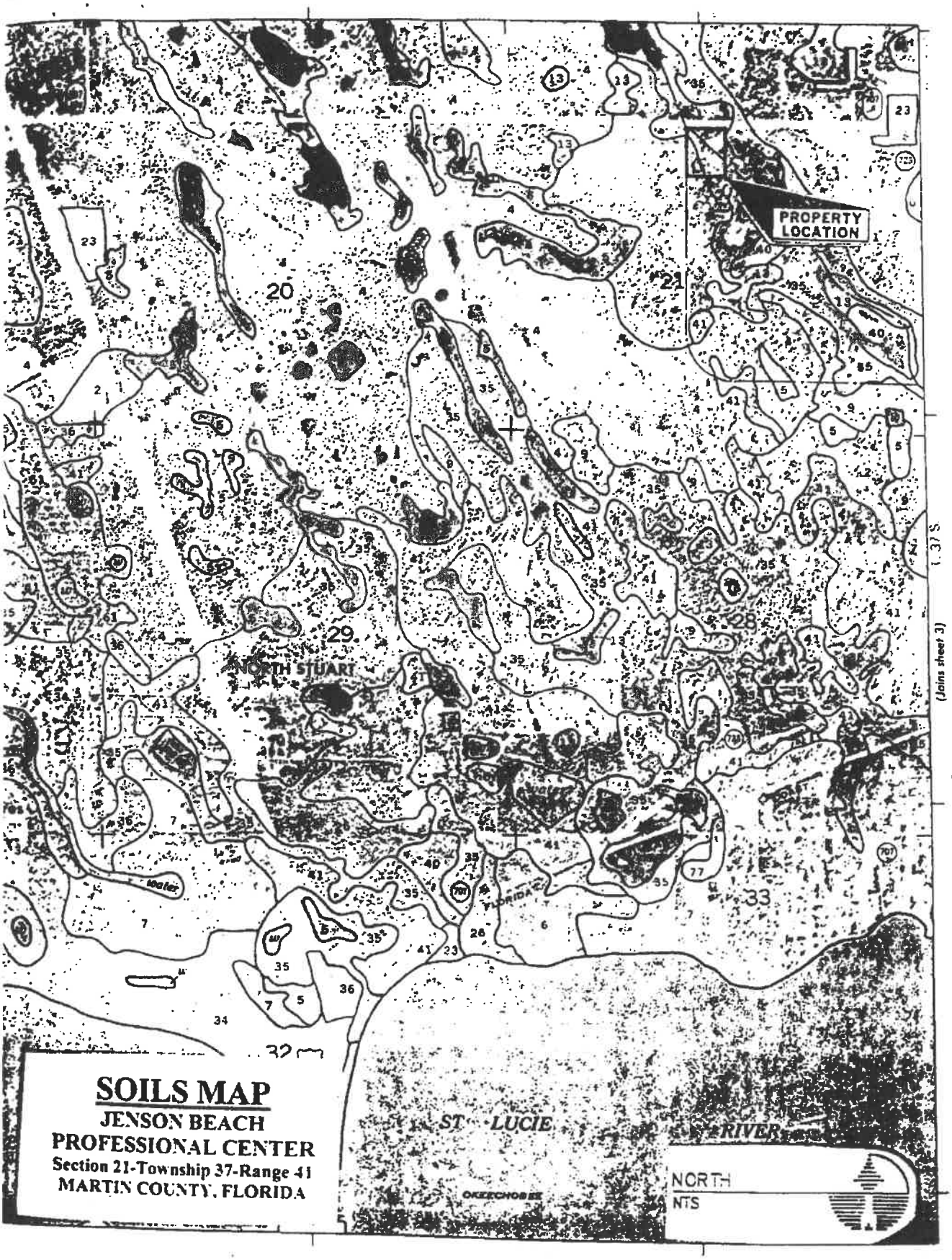
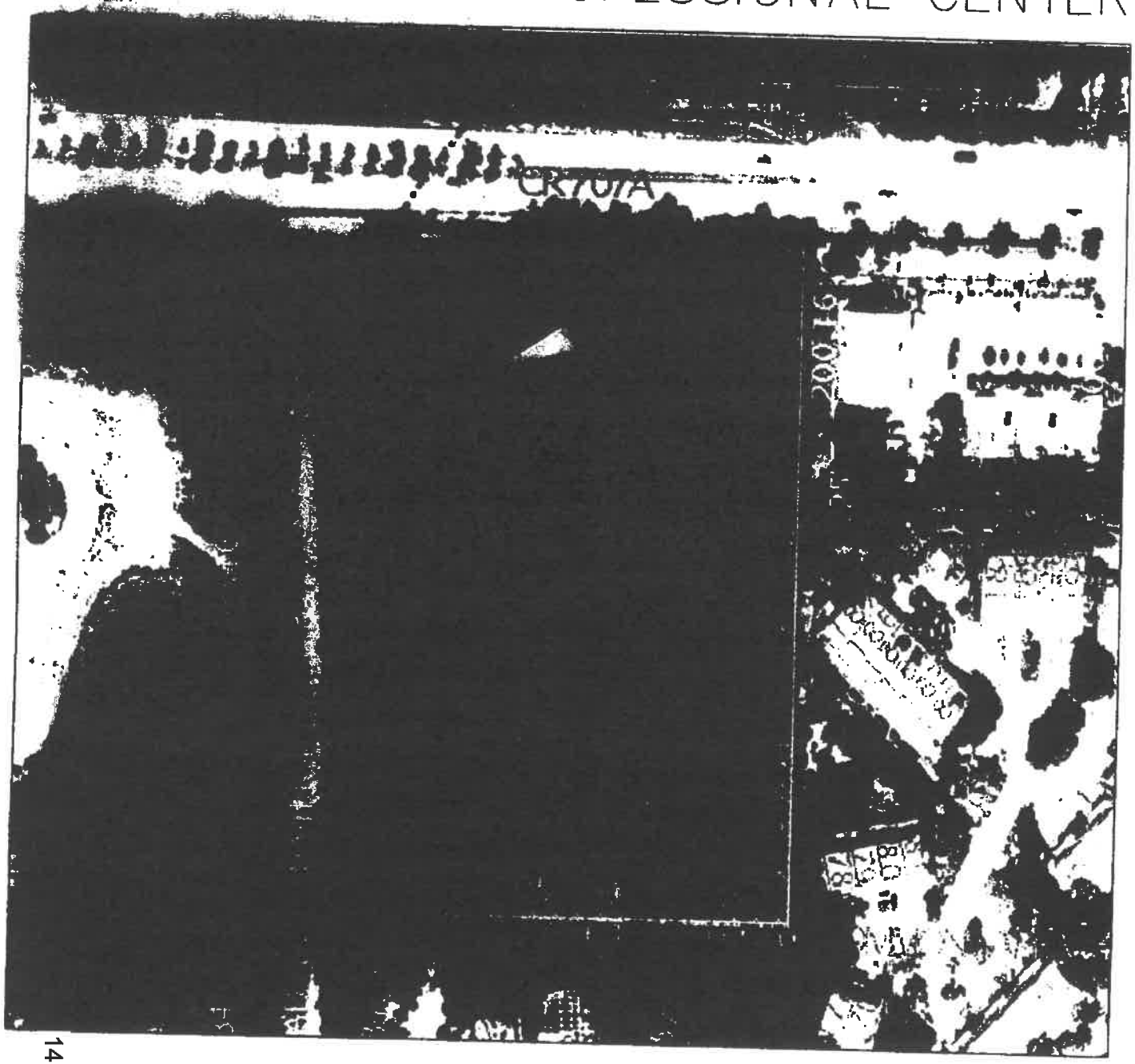

PROPERTY LOCATION
NORTH STUART
ST LUCIE RIVER
NORTH
NTS
SOILS MAP
JENSON BEACH
PROFESSIONAL CENTER
Section 21-Township 37-Range 41
MARTIN COUNTY, FLORIDA

FIGURE 2

JENSEN BEACH PROFESSIONAL CENTER



LEGEND

NUMBER	DESCRIPTION	AREA
411	PINE FLATWOODS	4.18 AC
510	REMNANT OF WARNER CREEK	0.22 AC
	TOTAL AREA	4.40 AC

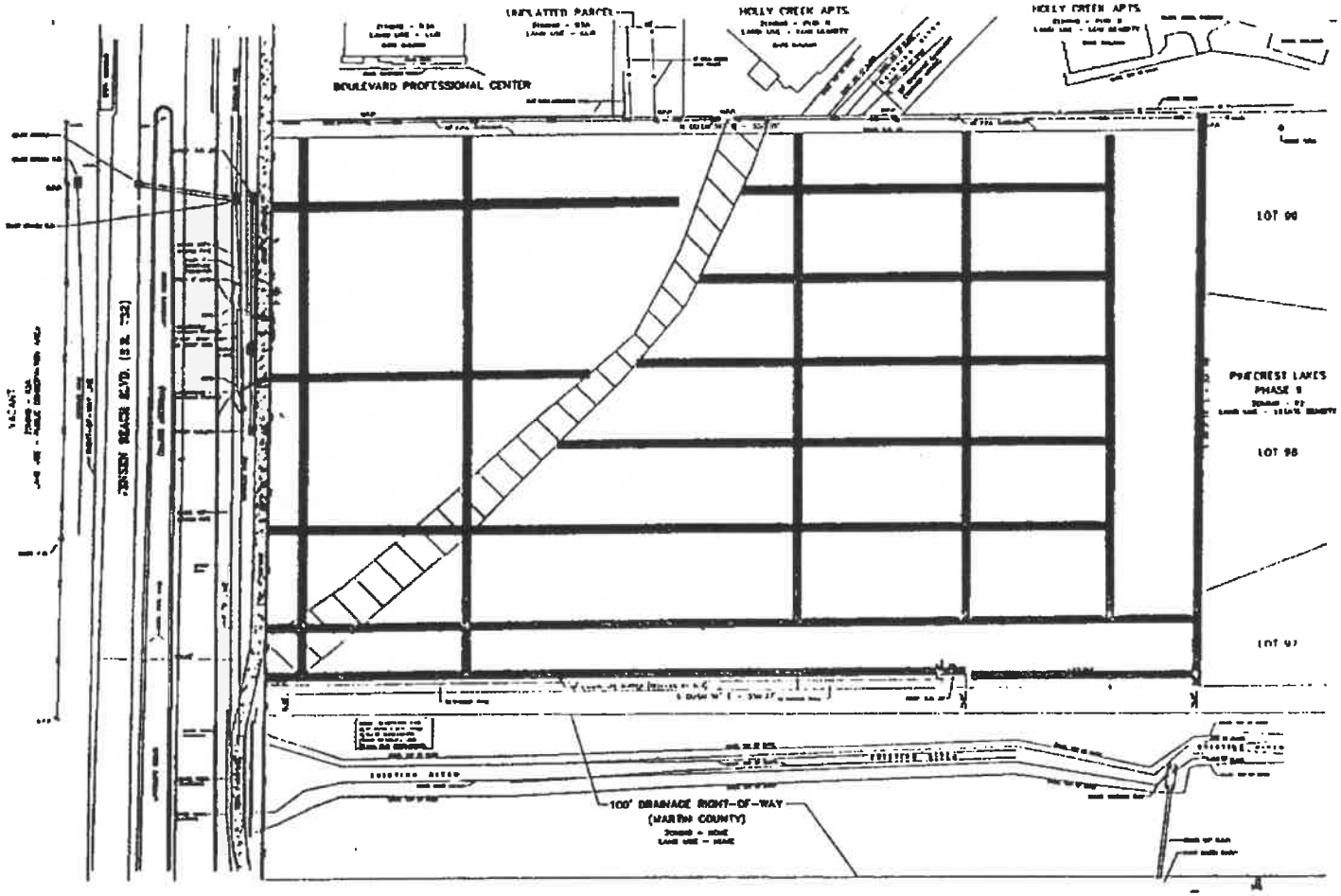
REMNANT OF WARNER CREEK

UPLAND PRESERVE 1.03 AC

UPLAND PRESERVE REQUIRED 25%
OF EXISTING UPLAND HABITAT
TOTAL PARCEL SIZE - 185,812 SF
LESS EXIST. FPL EASEMENT - 5,499 SF
TOTAL UPLAND HABITAT - 180,313 SF
THEREFORE PRESERVE REQUIRED - 25%
(45,078 OR 1.03 AC.)
TOTAL PRESERVE AREA PROVIDED 25.4%
(45,489 OR 1.04 AC.)

FIGURE 3

NORTH
SCALE - NTS



LEGEND

TRANSECTS

PROTECTED SPECIES MAP

JENSEN BEACH PROF. CENTER

FOR:

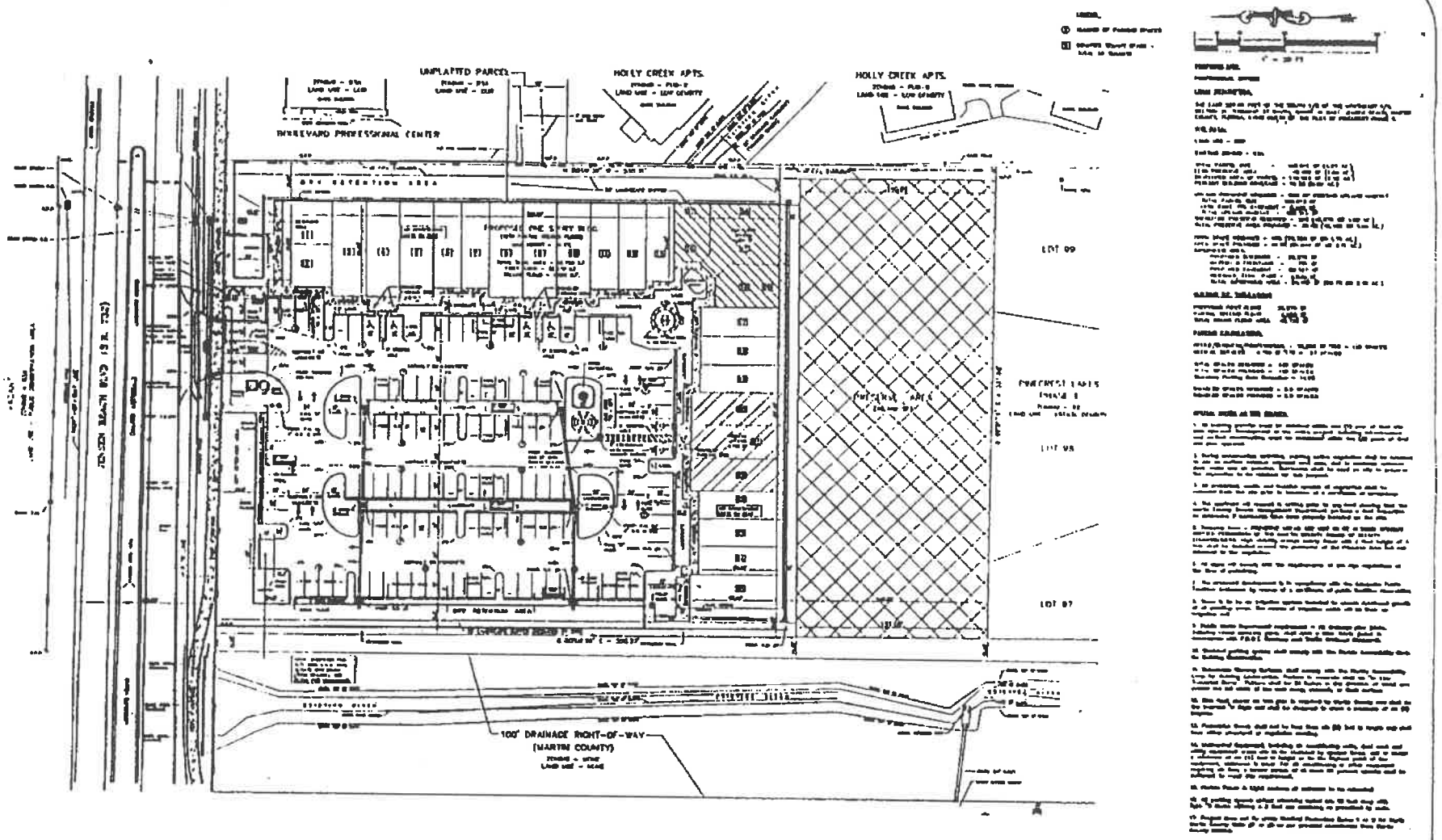
JENSEN BEACH HOLDINGS, LLC

JENSEN BEACH, FLORIDA

MARTIN CO., S21 – T37 – R41

PHILLIP R. JIMRUSTI
& ASSOCIATES, INC.
ECOLOGICAL ENGINEERS
ENVIRONMENTAL CONSULTANTS
12730 S.W. 12th Court
DAVIE, FLORIDA 33325
(954) 370-8870

PROJECT No.	414-2
COMP. NAME	JENSEN BEACH
FILE NAME	SITE PLAN
DATE	7/11/05
	FIGURE 4



SITE PLAN

JENSEN BEACH PROF. CENTER

FOR:

JENSEN BEACH HOLDINGS, LLC

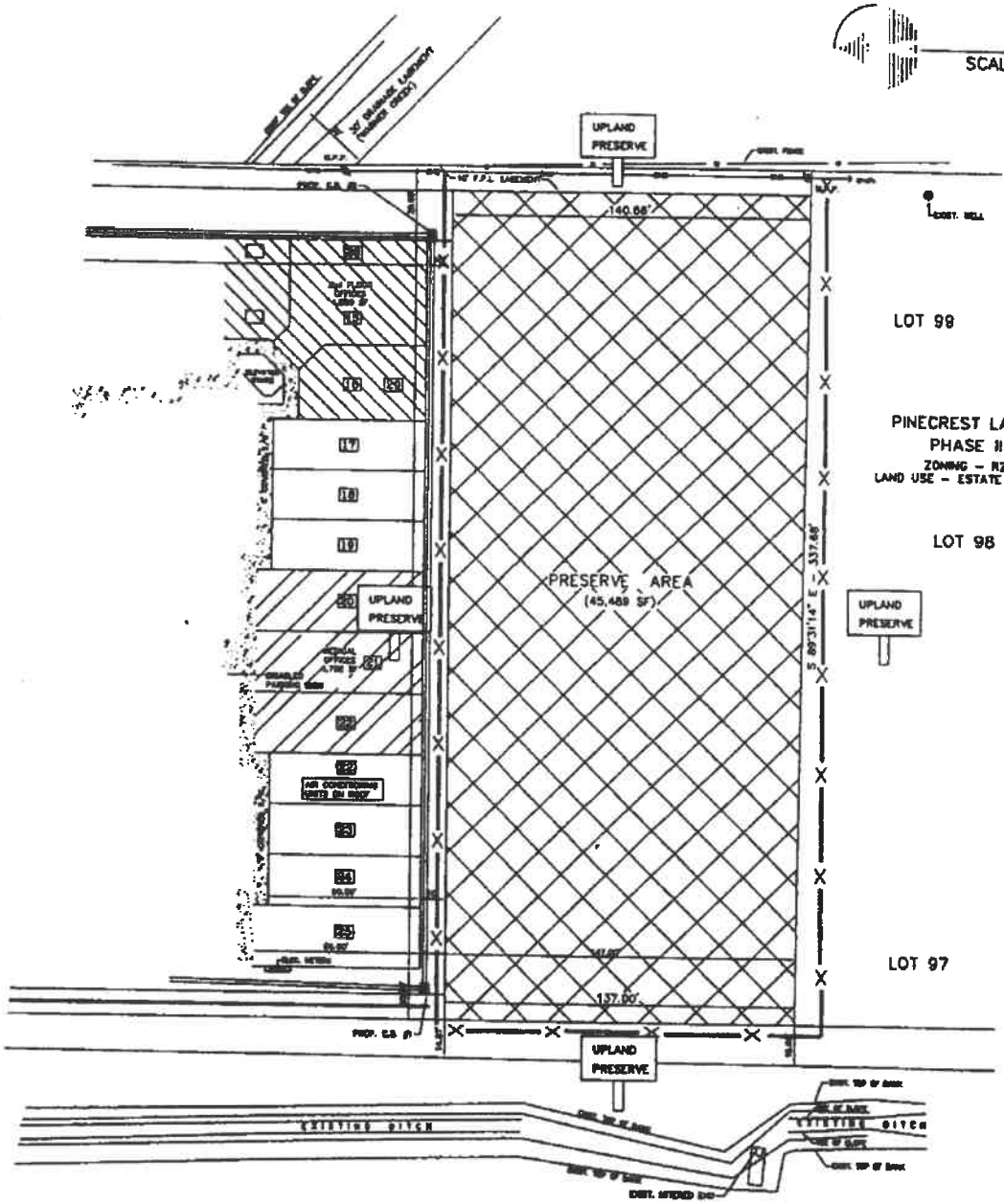
JENSEN BEACH, FLORIDA

MARTIN CO., S21 – T37 – R41

PHILLIP R. JIMRUSTI
& ASSOCIATES, INC.
ECOLOGICAL ENGINEERS
ENVIRONMENTAL CONSULTANTS
12730 S.W. 12th Court
DAVIE, FLORIDA 33325
(954) 370-8070

AS NATURE INTENDED

PROJECT No.	414-2
COMP. NAME	JENSEN BEACH
FILE NAME	SITE PLAN
DATE	7/11/05
EXHIBIT 1	



LEGEND

UPLAND PRESERVE

UPLAND PRESERVE SIGN PLACED EVERY 500'

4' ORANGE SAFETY FENCE

PRESERVE AREA BOUNDARY JENSEN BEACH PROF. CENTER FOR: JENSEN BEACH HOLDINGS, LLC JENSEN BEACH, FLORIDA MARTIN CO., S21 - T37 - R41	PHILLIP R. JIMRUSTI & ASSOCIATES, INC. ECOLOGICAL ENGINEERS ENVIRONMENTAL CONSULTANTS 12730 S.W. 12th Court DAVIE, FLORIDA 33325 (954) 370-8870	PROJECT No. 414-2 COMP. NAME JENSEN BEACH FILE NAME BOUNDARY DATE 7/11/05 EXHIBIT II

150

PRESERVE

AREA

DO NOT DISTURB

PROTECTED UNDER FEDERAL, STATE AND COUNTY STATUTES

EXHIBIT III

EXHIBIT D"

Prepared By:
Martin County Growth Management Department
2401 S.E. Monterey Road
Stuart, FL 34996

MARTIN COUNTY, FLORIDA
(REGARDING PARKING RATE ADJUSTMENT APPROVAL FOR THE JENSEN BEACH PROFESSIONAL CENTER)

WHEREAS, Jensen Beach Holdings, LLC, submitted an application for a Parking Rate Adjustment pursuant to Section 4.629.A, Land Development Regulations, Martin County Land Code (LDR).

A. Jensen Beach Holdings, LLC, has submitted an application requesting a parking rate adjustment to reduce the amount of required parking from 147 spaces to 126 spaces. The applicant requests a 14.5 % reduction, or 21 spaces.

B. In accordance with Article 4, Section 4.629.A., Land Development Regulations, Martin County Code (LDR), the applicant is requesting a 14.5 percent parking rate adjustment for this site plan. The reason behind the reduction request is related to "Alternative Mode of Transportation". This project is providing Bus Stop location, which can be used by the Martin County Community Coach. In addition, a Gazebo will be constructed at the Bus stop to provide shaded waiting area.

WHEREAS, pursuant to Section 4.629.A of the Martin County Land Development Regulations (LDR), the County Administrator may approve the reduction or increase in required parking of less than 20% for standard developments, as defined in Article 10, LDR.

NOW, THEREFORE, THE COUNTY ADMINISTRATOR HEREBY DETERMINES THAT:

A. A Parking Rate Adjustment for Jensen Beach Professional Center is hereby approved authorizing the applicant to reduce the amount of required parking from 147 spaces to 126 spaces, (a 14.5 % reduction, or 21 spaces).

B. This parking rate adjustment shall be recorded in the public records of Martin County. A copy shall be forwarded to the applicant by the Growth Management Department subsequent to recording.

DATED THIS 11th **DAY OF** April, **2006.**

Duncan Ballantyne
County Administrator

MacKenzie
Engineering & Planning, Inc.
1172 SW 30th Street • Suite 500 • Palm City • Florida • 34990
(772) 286-8030 • www.mackenzieengineeringinc.com

October 31, 2017

Martin County Growth Management
2401 SE Monterey Road
Stuart, FL 34996

Re: Advantage Development Group
Advantage Self Storage – Major Final Site Plan
Service Availability Letters

To whom it may concern:

Advantage Self Storage proposes to construct a 93,900 SF storage facility at 528 NE Jensen Beach Blvd, Jensen Beach, Florida. Below is a list of service availability:

- **Phone** – *Comcast.*
- **Cable** – *Comcast.*
- **Electric** – *Florida Power and Light (FPL).*
- **Water & Wastewater** – *Martin County Utilities.*
- **Solid Waste** – *Martin County Waste Management.*

If you have any questions, please do not hesitate to contact Shaun Mackenzie at (772) - 834-8909 or shaun@mackenzieengineeringinc.com.

Sincerely,

Shaun MacKenzie

Shaun G. MacKenzie, P.E.
Transportation Engineer
Florida Registration Number 61751
Engineering Business Number 29013

Enel Jean-Juste

From: Gilliam, Travis <Travis_Gilliam@comcast.com>
Sent: Monday, January 29, 2018 10:53 AM
To: Enel Jean-Juste
Subject: Comcast Service

Hello Enel Jean-Juste

This email is to inform you that Comcast Business has sufficient service capacity to provide phone and cable services to the address listed below once the building is ready to receive services:

- 528 NE JENSEN BEACH , JENSEN BEACH, FL 34957

There may be some construction needed to get the services to the dwelling which would be determined once the order for service is placed.

Watch these Videos:
Wifi PRO Video
Business Voice Mobility
SmartOffice Video

TravisGilliam, Solution Expert
Comcast Business
500 Enterprise Rd, Horsham, PA 19044
Office: **(610)563-2514**
Email: **travis_gilliam@comcast.com**
Customer Service & Technical Support 800-391-3000
Install Rescheduling 855-336-6983

Please Note: Due to the nature of my role, I am on calls throughout most of the day. If you do not reach me by phone, please leave a message and I will return your call as soon as I am available. If you need to reach me immediately, please e-mail me, as response times will be much faster. Thank you.

View Now

Florida Power & Light Company

December 12, 2017

Enel Jean-Juste
Project Manager
MacKenzie Engineering & Planning, Inc.
1172 SW 30th Street, Suite 500
Palm City, FL 34990

Re: Advantage Self Storage - Jensen Beach Project

Dear Mr. Juste:

Thank you for contacting FPL early in your planning process. This will help you to achieve your desired schedule for your project at the above location. FPL has sufficient capacity to provide electric service to your property as soon as your building is ready to receive service.

Service will be provided in accordance with applicable rates, rules and regulations. Please contact me during commencement of your construction so that I can plan accordingly.

I look forward to developing a good working relationship with you.

Sincerely,

Armlight Marjan
Project Manager
(772) 337-337-7025

MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS

UTILITIES & SOLID WASTE DEPARTMENT
PO Box 9000 Stuart, FL 34995-9000

John E. Polley
Director
Phone (772) 221-1442
Fax (772) 221-1447

DOUG SMITH
Commissioner, District 1

ED FIELDING
Commissioner, District 2

HAROLD E. JENKINS II
Commissioner, District 3

SARAH HEARD
Commissioner, District 4

EDWARD V. CIAMPI
Commissioner, District 5

TARYN KRYZDA, CPM
County Administrator

SARAH W. WOODS
Acting County Attorney

December 7, 2017

Mackenzie Engineering & Planning, Inc.
Enel Jean-Juste, Project Manager
1172 SW 30th Street
Suite 500
Palm City, FL 34990

RE: 528 NE Jensen Beach Boulevard
PCN: 21-37-41-000-000-00244-8
Potable Water and Wastewater Service

Dear Mr. Jean-Juste:

This will confirm that Martin County Utilities will provide potable water, wastewater service, and potable water service for irrigation to 528 NE Jensen Beach Boulevard (PCN: 21-37-41-000-000-00244-8) as described in your December 5, 2017 email correspondence. The proposed project is located on the south side of NE Jensen Beach Boulevard in between NW Green River Parkway and NE Savannah Road. The County will provide service subject to development plan approval, execution of a service agreement, and payment of appropriate fees and charges.

Sincerely,

Leo Repetti, PE
Project Engineer

LR/hr

c: File

TELEPHONE
772-288-5400

WEB ADDRESS
http://www.martin.fl.us

usd2018L121

MacKenzie
Engineering & Planning, Inc.
1172 SW 30th Street • Suite 500 • Palm City • Florida • 34990
(772) 286-8030 • www.mackenzieengineeringinc.com

December 15, 2017

Martin County Growth Management
2401 SE Monterey Road
Stuart, FL 34996

Re: Advantage Development Group
Advantage Self Storage – Major Final Site Plan
Proposed Water Sources

To whom it may concern:

Advantage Self Storage proposes to construct a 93,900 SF storage facility at 528 NE Jensen Beach Blvd, Jensen Beach, Florida. The proposed utilities and irrigation water sources are as follows:

- Water Service Line:
  - Construct approximately +/- 641 LF of water line from an existing water main east of the site. At the proposed hydrant location (see site plan) multiple service lines will be constructed to supply the fire hydrant, building water line and for the lift station.
- Wastewater Service Line:
  - Construct +/- 98 LF of 6" gravity sanitary service from the building to the lift station at 1% slope. An additional 10 feet of force main will be constructed from the lift station to the existing 12" force main.
- Irrigation Service Line:
  - A well is proposed for the project site. The well is located inside the gate in the landscape area opposite of the office.

If you have any questions, please do not hesitate to contact Shaun Mackenzie at (772) - 834-8909 or shaun@mackenzieengineeringinc.com.

Sincerely,

Shaun MacKenzie

Shaun G. MacKenzie, P.E.
Transportation Engineer
Florida Registration Number 61751
Engineering Business Number 29013

Water & Wastewater Service Agreement
Information Form

Please complete the requested information below and return to the Martin County Utilities and Solid Waste Department. This information will be inserted into the standard "Water & Wastewater Service Agreement". The draft agreement will then be returned for your review. Note: Upon final Martin County approval of the project the owner/developer must execute the agreement and submit all applicable fees within 60 days of said approval.

Date:_____

Project Name:

_____

Of Water ERCs Proposed:_____
Of Previously Purchased or Assessed Water ERC's (If Known):_____
Of Irrigation Water ERCs Proposed:_____
Of Wastewater ERCs Proposed:_____
Of Previously Purchased or Assessed Wastewater ERC's (If Known):_____

Justification of ERC calculations (i.e. flow calculations):_____
_____
_____
_____
_____

Indicate whether "DEVELOPER" as referred to in the agreement is either a(n) (please check one):

_____ Corporation - Please Provide Federal Tax ID #_____
_____ Individual(s) - Please Provide Driver's License #_____
_____ Partnership - Please Provide Federal Tax ID #_____

Name/Title, Address, and Telephone No. of Individual(s)/Corporation/Partnership executing agreement (MUST BE THE CURRENT PROPERTY OWNER):

_____
_____
_____
_____
email address:_____

Name/Title of person(s) executing on behalf of Corporation/Partnership:

_____
_____
_____
_____
email address:_____

Engineer/Agent Name, Address & Telephone No.:

_____

_____

_____

_____

email address:_____

Name, Address & Telephone No. of Individual/Organization to receive notices, updated correspondence, etc. if different from the developer:

_____

_____

_____

_____

email address:_____

If "DEVELOPER" is a Corporation or Partnership, an original or certified copy of the appropriate corporate resolution or proof of the general partner's authority is required.

Attach a copy of the Legal Description and the Warranty Deed of the property to be serviced.

If you have any questions please contact Leo Repetti, P.E at (772) 320-3065.

EXHIBIT A

Advantage Self Storage – Jensen Beach
528 NE Jensen Beach Boulevard 5, Jensen Beach, FL
Parcel ID: 21-37-41-000-000-00244-8 (4.4 acres)

Legal Description

PARCEL A:

THE EAST 337.66 FEET OF THE SOUTH ONE-HALF OF THE NORTHWEST ONE-QUARTER OF SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST, LYING AND BEING IN MARTIN COUNTY, FLORIDA. LESS AND EXCEPT ALL OF PINECREST LAKES PHASE II AND LESS AND EXCEPT ROAD RIGHT OF WAY FOR JENSEN BEACH BOULEVARD.

PARCEL B:

A PARCEL LAND BEING A PORTION OF THE SOUTH 1/2 OF SECTION 21 OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT INTERSECTION OF THE WEST LINE OF THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21 WITH THE SOUTH RIGHT OF LINE OF JENSEN BEACH BOULEVARD, BEING A 100 FOOT RIGHT OF WAY; THENCE S00°09'39"E ALONG THE WEST LINE OF SAID EAST 337.66 FEET A DISTANCE OF 550.27 FEET TO AN INTERSECTION WITH THE NORTH LINE OF PINE CREST LAKES II, AS RECORDED IN PLAT BOOK 8, PAGE 51 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N89°31'14"W ALONG SAID NORTH LINE A DISTANCE OF 15.66 FEET TO AN INTERSECTION WITH THE EAST LINE OF A DRAINAGE RIGHT OF WAY PER OFFICIAL RECORDS BOOK 221, AT PAGE 240 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N00°10'39"E ALONG SAID EAST LINE A DISTANCE OF 550.24 FEET TO AN INTERSECTION WITH SAID SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD; THENCE S89°31'38"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 12.41 FEET TO THE POINT OF COMMENCEMENT. SAID PARCEL CONTAINING 0.18 ACRES MORE OR LESS.

Prepared By:

MacKenzie
Engineering & Planning, Inc.

Dated: February 13, 2018

INSTR # 1893549
OR BK 02089 PG 0332
Pg 0332; (1pg)
RECORDED 12/05/2005 04:38:34 PM
MARSHA EWING
CLERK OF MARTIN COUNTY FLORIDA
DEED DOC TAX 7,700.00
RECORDED BY T Copus (asst mgr)

Prepared by and return to:
Robert S. Kramer, Esq.
.
Kramer, Sopko & Levenstein, P.A.
853 SE Monterey Commons Boulev
Stuart, FL 34996

File Number: **2335.26**
Will Call No.: **80**

Parcel Identification No. **21-37-41-000-000-00244-80000**

[Space Above This Line For Recording Data]

Warranty Deed

(STATUTORY FORM - SECTION 689.02, F.S.)

This Indenture made this **30th** day of **November, 2005** between **Thomas J. Thomson, a married man** whose post office address is **12760 W. North Avenue, Brookfield, WI 53005** of the County of **Waukesha**, State of **Wisconsin**, grantor*, and **Jensen Beach Holdings, LLC, a Florida limited liability company** whose post office address is **12212 Riverbend Court, Port Saint Lucie, FL 34984** of the County of **Saint Lucie**, State of **Florida**, grantee*,

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Martin County, Florida**, to-wit:

The East 337.66 feet of the South one-half of the Northwest one-quarter of Section 21, Township 37 South, Range 41 East, lying and being in Martin County, Florida. Less and except all of Pinecrest Lakes Phase II and less and except road right of way for Jensen Beach Boulevard.

Subject to taxes for 2006 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

THIS PROPERTY IS UNDEVELOPED COMMERCIAL PROPERTY AND IS NOT THE HOMESTEAD OF GRANTOR.

and said grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

* "Grantor" and "Grantee" are used for singular or plural, as context requires.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Stephanie A. Schwall
Witness Name: Stephanie A. Schwall

R S Kramer
Witness Name: R S Kramer

Thomas J. Thomson (Seal)

State of Florida
County of Martin

The foregoing instrument was acknowledged before me this 30th day of November, 2005 by Thomas J. Thomson, who [X] is personally known or [ ] has produced a driver's license as identification.

[Notary Seal]

Robert S Kramer
My Commission DD156970
Expires November 13, 2008

Notary Public

Printed Name: R S Kramer

My Commission Expires: _____

161

DoubleTimee

DEPARTMENTAL POLICY

To: USD Staff

From: John Polley
Director

Subject: Calculation of Equivalent Residential Connection (ERC) for Reservation of Water and/or Wastewater Capacity for Developments connecting to the Martin County Water and Wasewater Systems

Revised by: Phil Keathley
Project Manager

Effective Date: 1/26/12

Created by: Deborah Oblaczynski,
Environmental Compliance Manager

PURPOSE

To establish a consistent procedure for calculating Equivalent Residential Connections (ERC's) to be used for reservation of water and/or wastewater capacity for developments connecting to the Martin County Water and Wastewater Systems.

POLICY

To obtain a reservation of water and/or wastewater capacity from Martin County for the provision of water and/or wastewater service, the developer must calculate the needed reservation in the form of ERCs. Consumption of water at the rate of 250 gallons per day (gpd) on an average daily flow basis shall be considered equal to one ERC.

For non-residential development, the developer's representative must base the calculation for ERCs on FAC 64E-6.008 "System Size Determination" for water and/or wastewater capacity only. Except, the section regarding "Food Operations", lines (a.) through (d.) are eliminated and shall be calculated at 16 gallons per seat per day with a minimum of 1 E.R.C. Proposed irrigation by potable water will be calculated separately. The calculation must be prepared, signed and sealed, by a Florida licensed professional engineer or landscape architect.

For residential development, the reservation of capacity will be based on one (1) single-family unit equal to one (1) ERC for water and/or wastewater capacity only. Three or more dwelling units within one building shall be considered multi-family units. Multi-family units shall be equal to ½ an ERC. Any proposed irrigation by potable water shall be calculated at one (1) ERC of water capacity per unit. However, each non-residential activity within a residential development shall be calculated separately in accordance with the non-residential development criteria described above.

DEFINITIONS:

Capital Facility Charges:

A charge for capital costs of water and/or wastewater supply, treatment and transmission facilities, which shall consist of construction and associated costs. Construction costs include the cost of installation of the plants, pipelines, special fittings, valves, pumps and appurtenances and

the cost of acquiring permanent and construction easements. Associated costs include engineering, legal and fiscal services. The CFC does not include the cost of constructing water distribution or wastewater collection systems.

Development:

Development has the meaning given it in F.S. 380.04.

Developer:

The owner of a parcel of land within the County's water and wastewater consolidated system service area and is desirous of purchasing water and wastewater treatment service from the County.

Equivalent Residential Connections (ERCs):

A factor used to convert a given annual daily flow (AADF) to the equivalent number of units required for connection to the County system. For residential purposes, all single family units, shall constitute one ERC. For non-residential use one ERC shall equal two hundred and fifty (250) gallons per day (AADF).

PROCEDURE

Developer shall submit a request for reservation of capacity in the form requested by Martin County Utilities and Solid Waste Department. The reservation of capacity request must include the calculation of ERCs needed to adequately supply the proposed existing Development with water and/or wastewater service. The Utilities and Solid Waste Department Staff shall review and either approve the request or submit comments to the developer concerning the request and/or calculations.

Once the Technical Services Administrator or his designee has approved the calculation, the developer will be able to reserve water and wastewater capacity either through execution of a water and wastewater service agreement or payment of Capital Facility Charges (CFCs).

Once the reservation of capacity has been determined by the calculation of ERC's and the execution of the water and wastewater service agreement, the reservation of capacity will be recorded in the official records as part of the water and wastewater service agreement. The Developer, property owner(s) or subsequent assignees to the water and wastewater service agreement shall not recalculate the reservaiton of capacity (ERC's).

John Polley, Utilities & Solid Waste Director

Suppression History:

Created 12/20/05
Revised 7/06
Revised 1/26/12

64E-6.008 System Size Determinations.

(1) Minimum design flows for systems serving any structure, building or group of buildings shall be based on the estimated daily sewage flow as determined from Table I or the following:

(a) The DOH county health department shall accept, for other than residences and food operations, metered water use data in lieu of the estimated sewage flows set forth in Table I. For metered flow consideration, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 12 month period for at least six similar establishments. Similar establishments are those like size operations engaged in the same type of business or service, which are located in the same type of geographic environment, and which have approximately the same operating hours. Metered flow values will not be considered to be a reliable indicator of typical water use where one or more of the establishments utilized in the sample has exceeded the monthly flow average for all six establishments by more than 25 percent or where the different establishments demonstrate wide variations in monthly flow totals. When metered flow data is accepted in lieu of estimated flows found in Table I, the highest flow which occurred in any month for any of the six similar establishments shall be used for system sizing purposes. Except for food operations which exceed domestic sewage waste quality parameters as defined in subsection 64E-6.002(15), F.A.C., where an existing establishment which has been in continuous operation for the previous 24 months seeks to utilize its own metered flows, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 24 month period. The highest monthly metered flow value for an existing establishment shall be used for system sizing purposes.

(b) When onsite systems use multiple strategies to reduce the total estimated sewage flow or the drainfield size, only one reduction method shall be credited.

TABLE I
For System Design
ESTIMATED SEWAGE FLOWS

TYPE OF ESTABLISHMENT COMMERCIAL:	GALLONS PER DAY
Airports, bus terminals, train stations, port & dock facilities, Bathroom waste only	
(a) Per passenger	4
(b) Add per employee per 8 hour shift	15
Barber & beauty shops per service chair	75
Bowling alley bathroom waste only per lane	50
Country club	
(a) Per resident	100
(b) Add per member or patron	25
(c) Add per employee per 8 hour shift	15
Doctor and Dentist offices	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
Factories, exclusive of industrial wastes gallons per employee per 8 hour shift	
(a) No showers provided	15
(b) Showers provided	25
Flea Market open 3 or less days per week	
(a) Per non-food service vendor space	15
(b) Add per food service establishment using single service articles only per 100 Square feet of floor space	50
(c) Per limited food service establishment	25
(d) For flea markets open more than 3 days per week estimated flows shall be doubled	
Food operations	
(a) Restaurant operating 16 hours or less per day per seat	40
(b) Restaurant operating more than 16 hours per day per seat	60
(c) Restaurant using single service articles only and operating 16 hours or less per day per seat	20
(d) Restaurant using single service articles only and operating more than 16 hours per day per seat	35
(e) Bar and cocktail lounge per seat	20

add per pool table or video game	15
(f) Drive-in restaurant per car space	50
(g) Carry out only, including caterers	
1. Per 100 square feet of floor space	50
2. Add per employee per 8 hour shift	15
(h) Institutions per meal	5
(i) Food Outlets excluding deli's, bakery, or meat department per 100 square feet of floor space	10
1. Add for deli per 100 square feet of deli floor space	40
2. Add for bakery per 100 square feet of bakery floor space	40
3. Add for meat department per 100 square feet of meat department floor space	75
4. Add per water closet	200
Hotels & motels	
(a) Regular per room	100
(b) Resort hotels, camps, cottages per room	200
(c) Add for establishments with self service laundry facilities per machine	750
Mobile Home Park	
(a) Per single wide mobile home space, less than 4 single wide spaces connected to a shared onsite system	250
(b) Per single wide mobile home space, 4 or more single wide spaces are connected to a shared onsite system	225
(c) Per double wide mobile home space, less than 4 double wide mobile home spaces connected to a shared onsite system	300
(d) Per double wide mobile home space, 4 or more double wide mobile home spaces connected to a shared onsite system	275
Office building	
per employee per 8 hour shift, or	15
per 100 square feet of floor space, whichever is greater	15
Transient Recreational Vehicle Park	
(a) Recreational vehicle space for overnight stay, without water and sewer hookup per vehicle space	50
(b) Recreational vehicle space for overnight stay, with water and sewer hookup per vehicle space	75
Service stations per water closet	
(a) Open 16 hours per day or less	250
(b) Open more than 16 hours per day	325
Shopping centers without food or laundry per square foot of floor space	0.1
Stadiums, race tracks, ball parks per seat	4
Stores per bathroom	200
Swimming and bathing facilities, public per person	10
Theatres and Auditoriums, per seat	4
Veterinary Clinic	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
(c) Add per kennel, stall or cage	20
Warehouse	
(a) Add per employee per 8 hour shift	15
(b) Add per loading bay	100
(c) Self-storage, per unit (up to 200 units)	1

add 1 gallon for each 2 units or fraction thereof, for over 200 units, and shall be in addition to employees, offices or living quarters flow rates.

INSTITUTIONAL:	
Churches per seat which includes kitchen wastewater flows unless meals prepared on a routine basis	3
If meals served on a regular basis add per meal prepared	5
Hospitals per bed which does not include kitchen wastewater flows	200
add per meal prepared	5
Nursing, rest homes, adult congregate living facilities per bed which does not include kitchen wastewater flows	100
add per meal prepared	5
Parks, public picnic	
(a) With toilets only per person	4
(b) With bathhouse, showers & toilets per person	10
Public institutions other than schools and hospitals per person which does not include kitchen wastewater flows	100
add per meal prepared	5
Schools per student	
(a) Day-type	10
(b) Add for showers	4
(c) Add for cafeteria	4
(d) Add for day school workers	15
(e) Boarding-type	75
Work/construction camps, semi-permanent per worker	50
RESIDENTIAL:	
Residences	
(a) Single or multiple family per dwelling Unit	
1 Bedroom with 750 sq. ft. or less of building area	100
2 Bedrooms with 751-1,200 sq. ft. of building area	200
3 Bedrooms with 1,201-2,250 sq. ft. of building area	300
4 Bedrooms with 2,251-3,300 sq. ft. of building area	400
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 60 gallons per dwelling unit.	
(b) Other per occupant	50

Footnotes to Table I:

1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment wastewater flow.

2. Systems serving high volume establishments, such as restaurants, convenience stores and service stations located near interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average sewage volume. Minimum estimated flows for these facilities shall be 3.0 times the volumes determined from the Table I figures.

3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.

4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in Table I do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.

5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as appropriate to the products and services offered.

6. Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential care facilities will house more than two persons in any bedroom, estimated flows shall be increased by 50 gallons per each additional occupant.

(2) Minimum effective septic tank capacity and total dosing tank capacity shall be determined from Table II. However, where

multiple family dwelling units are jointly connected to a septic tank system, minimum effective septic tank capacities specified in the table shall be increased 75 gallons for each dwelling unit connected to the system. With the exception noted in paragraph 64E-6.013(2)(a), F.A.C., all septic tanks shall be multiple chambered or shall be placed in series to achieve the required effective capacity. The use of an approved outlet filter device shall be required. Outlet filters shall be installed within or following the last septic tank or septic tank compartment before distribution to the drainfield. The outlet filter device requirement includes blackwater tanks, but does not include graywater tanks or grease interceptors or laundry tanks. Outlet filter devices shall be placed to allow accessibility for routine maintenance. Utilization and sizing of outlet filter devices shall be in accordance with the manufacturers' recommendations. The approved outlet filter device shall be installed in accordance with the manufacturers' recommendations. The Bureau of Onsite Sewage Programs shall approve outlet filter devices per the department's Policy on Approval Standards For Onsite Sewage Treatment And Disposal Systems Outlet Filter Devices, November 2008, which is herein incorporated by reference.

TABLE II
SEPTIC TANK AND PUMP TANK CAPACITY

AVERAGE SEWAGE FLOW GALLONS/DAY	SEPTIC TANK MINIMUM EFFECTIVE CAPACITY GALLONS	PUMP TANK MINIMUM TOTAL CAPACITY GALLONS	
		Residential	Commercial
0-200	900	150	225
201-300	900	225	375
301-400	1,050	300	450
401-500	1,200	375	600
501-600	1,350	450	600
601-700	1,500	525	750
701-800	1,650	600	900
801-1,000	1,900	750	1,050
1,001-1,250	2,200	900	1,200
1,251-1,750	2,700	1,350	1,900
1,751-2,500	3,200	1,650	2,700
2,501-3,000	3,700	1,900	3,000
3,001-3,500	4,300	2,200	3,000
3,501-4,000	4,800	2,700	3,000
4,001-4,500	5,300	2,700	3,000
4,501-5,000	5,800	3,000	3,000

(3) Where a separate graywater tank and drainfield system is used, the minimum effective capacity of the graywater tank shall be 250 gallons with such system receiving not more than 75 gallons of flow per day. For graywater systems receiving flows greater than 75 gallons per day, minimum effective tank capacity shall be based on the average daily sewage flow plus 200 gallons for sludge storage. Design requirements for graywater tanks are described in subsection 64E-6.013(2), F.A.C. Where separate graywater and blackwater systems are utilized, the size of the blackwater system can be reduced, but in no case shall the blackwater system be reduced by more than 25 percent. However, the minimum capacity for septic tanks disposing of blackwater shall be 900 gallons.

(4) Where building codes allow separation of discharge pipes of the residence to separate stubouts and where lot sizes and setbacks allow system construction, the applicant may request a separate laundry waste tank and drainfield system. Where an aerobic treatment unit is used, all blackwater, graywater and laundry waste flows shall be consolidated and treated by the aerobic treatment unit. Where a residential laundry waste tank and drainfield system is used:

(a) The minimum laundry waste trench drainfield absorption area for slightly limited soil shall be 75 square feet for a one or two bedroom residence with an additional 25 square feet for each additional bedroom. If an absorption bed drainfield is used the minimum drainfield area shall be 100 square feet with an additional 50 square feet for each additional bedroom over two bedrooms. The DOH county health department shall require additional drainfield area based on moderately limited soils and other site specific conditions, which shall not exceed twice the required amount of drainfield for a slightly limited soil.

(b) The laundry waste interceptor shall meet requirements of subsections 64E-6.013(2) and (8), F.A.C.

(c) The drainfield absorption area serving the remaining wastewater fixtures in the residence shall be reduced by 25 percent.

(5) The minimum absorption area for standard subsurface drainfield systems, graywater drainfield systems, and filled systems

Document must be filed electronically.
Paper documents are not accepted.
Fees & forms are subject to change.
For more information or to print copies
of filed documents, visit www.sos.state.co.us.

E-Filed

Colorado Secretary of State
Date and Time: 09/21/2015 05:39 PM
ID Number: 20151603485

Document number: 20151603485
Amount Paid: $50.00

ABOVE SPACE FOR OFFICE USE ONLY

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

Advantage Development Group LLC

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "ltd. liability company", "limited liability co.", "ltd. liability co.", "limited", "l.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

2. The principal office address of the limited liability company's initial principal office is

Street address: 34628 Lyttle Dowdle Dr *(Street number and name)*

Golden *(City)* CO *(State)* 80403 *(ZIP/Postal Code)*

CO *(Province – if applicable)* United States *(Country)*

Mailing address
(leave blank if same as street address): P.O. Box 7324 *(Street number and name or Post Office Box information)*

Golden *(City)* CO *(State)* 80403 *(ZIP/Postal Code)*

CO *(Province – if applicable)* United States *(Country)*

3. The registered agent name and registered agent address of the limited liability company's initial registered agent are

Name
(if an individual) _____ *(Last)* _____ *(First)* _____ *(Middle)* _____ *(Suffix)*

or

(if an entity) Advantage Advisors, LLC

(Caution: Do not provide both an individual and an entity name.)

Street address: 34628 Lyttle Dowdle *(Street number and name)*

Golden *(City)* CO *(State)* 80403 *(ZIP Code)*

Mailing address
(leave blank if same as street address): P.O. Box 7324 *(Street number and name or Post Office Box information)*

Golden (City) CO (State) 80403 (ZIP Code).

(The following statement is adopted by marking the box.)

☑ The person appointed as registered agent has consented to being so appointed.

4. The true name and mailing address of the person forming the limited liability company are

Name
(if an individual) _____ (Last) _____ (First) _____ (Middle) _____ (Suffix)

or

(if an entity) Advantage Advisors, LLC

(Caution: Do not provide both an individual and an entity name.)

Mailing address P.O. Box 7324
(Street number and name or Post Office Box information)

Golden (City) CO (State) 80403 (ZIP/Postal Code)

CO (Province – if applicable) United States (Country).

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

☐ The limited liability company has one or more additional persons forming the limited liability company and the name and mailing address of each such person are stated in an attachment.

5. The management of the limited liability company is vested in
(Mark the applicable box.)

☐ one or more managers.

or

☑ the members.

6. *(The following statement is adopted by marking the box.)*

☑ There is at least one member of the limited liability company.

7. *(If the following statement applies, adopt the statement by marking the box and include an attachment.)*

☐ This document contains additional information as provided by law.

8. *(Caution: Leave blank if the document does not have a delayed effective date. Stating a delayed effective date has significant legal consequences. Read instructions before entering a date.)*

(If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are _____.
(mm/dd/yyyy hour:minute am/pm)

Notice:
Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is named in the document as one who has caused it to be delivered.

9. The true name and mailing address of the individual causing the document to be delivered for filing are

Kinder (Last) Jeffrey (First) (Middle) (Suffix)

34628 Lyttle Dowdle Dr
(Street number and name or Post Office Box information)

Golden (City) CO (State) 80403 (ZIP/Postal Code)

CO *(Province – if applicable)* United States *(Country)*.

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

☐ This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

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This form/cover sheet, and any related instructions, are not intended to provide legal, business or tax advice, and are furnished without representation or warranty. While this form/cover sheet is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, remains the responsibility of the user of this form/cover sheet. Questions should be addressed to the user's legal, business or tax advisor(s).

ABBREVIATIONS

BST	BELLSOUTH TELEPHONE
℄	CENTERLINE
CONC.	CONCRETE
CBS	CONCRETE BLOCK STRUCTURE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
(D)	PER DEED
EL.	ELEVATION
(F)	FIELD
FND.	FOUND
FPL	FLORIDA POWER & LIGHT COMPANY
INV.	INVERT
IR&C	IRON ROD & CAP
IR&W	IRON ROD & WASHER
LB	LICENSED BUSINESS
(M)	FIELD MEASURED
NO.	NUMBER
OHE	OVERHEAD ELECTRIC
O.R.B.	OFFICIAL RECORD BOOK
(P)	PER PLAT
P.B.	PLAT BOOK
PG.	PAGE
PK	PARKER KALON NAIL
P.L.S.	PROFESSIONAL LAND SURVEYOR
PRM	PERMANENT REFERENCE MONUMENT
PVC	POLY VINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STY	STORY

SYMBOL LEGEND

- X 11.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- PINE TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- HOLLY TREE WITH WIDTH AT BREAST HEIGHT
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- WIRING PULL BOX
- PALM TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- ELECTRIC METER
- OAK TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER

LEGAL DESCRIPTION

PARCEL 1
THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4, SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST, JENSEN BEACH, MARTIN COUNTY, FLORIDA. LYING NORTH OF THE PLAT OF PINECREST PHASE II AND LESS ROAD RIGHT OF WAY OF JENSEN BEACH BOULEVARD.

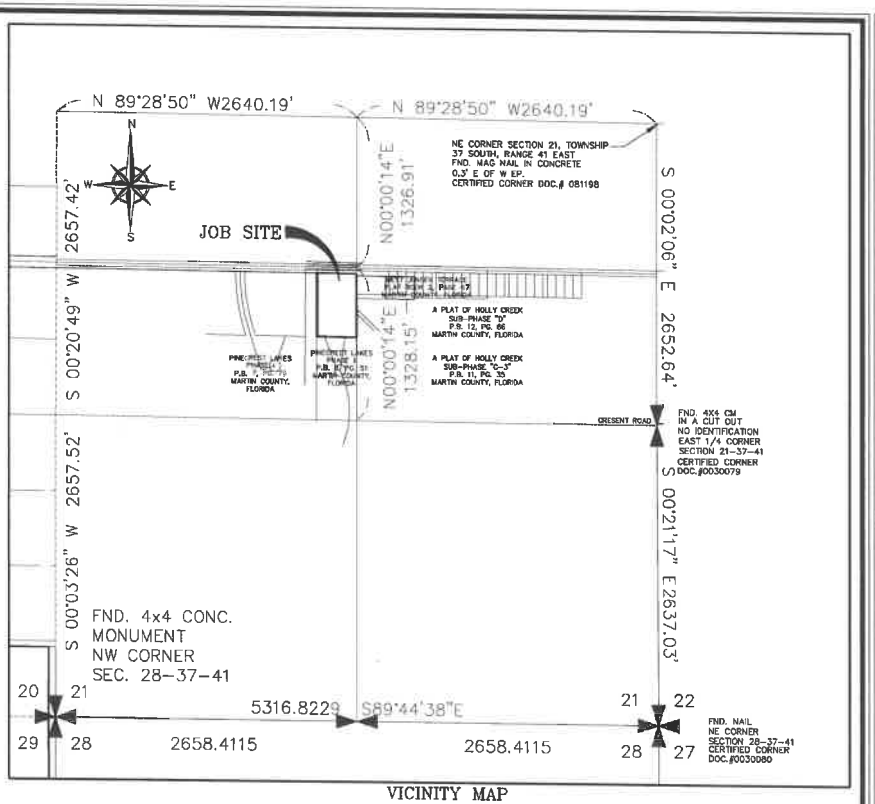
CONTAINING 185,811.7 SQUARE FEET OR 4.27 ACRES MORE OR LESS.

AND TOGETHER WITH
PARCEL 2
A PARCEL LAND BEING A PORTION OF THE SOUTH 1/2 OF SECTION 21 OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT INTERSECTION OF THE WEST LINE OF THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21 WITH THE SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD, BEING A 100 FOOT RIGHT OF WAY; THENCE S00°09'38"E ALONG THE WEST LINE OF SAID EAST 337.66 FEET A DISTANCE OF 550.27 FEET TO AN INTERSECTION WITH THE NORTH LINE OF PINECREST LAKES II, AS RECORDED IN PLAT BOOK 8, PAGE 51 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N89°31'14"W ALONG SAID NORTH LINE A DISTANCE OF 15.66 FEET TO AN INTERSECTION WITH THE EAST LINE OF A DRAINAGE RIGHT OF WAY PER OFFICIAL RECORDS BOOK 221, AT PAGE 240 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N00°10'38"E ALONG SAID EAST LINE A DISTANCE OF 550.24 FEET TO AN INTERSECTION WITH SAID SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD; THENCE S89°31'38"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 12.41 FEET TO THE POINT OF COMMENCEMENT.
SAID PARCEL 2 CONTAINING 7,723 SQUARE FEET OR 0.18 ACRES MORE OR LESS.

BEING SUBJECT TO ANY/ALL EASEMENTS, RESERVATION, RESTRICTIONS OR DEDICATIONS.

SURVEYOR'S NOTES

1. BEARINGS AS SHOWN HEREON ARE BASED ON STATE PLANE COORDINATES, REFERENCE THE NORTH AMERICAN DATUM OF 1983/1990 ADJUSTED (NAD 83/90), FLORIDA EAST ZONE, REFERENCE A BEARING OF N89°31'41"W ALONG THE SOUTHERLY RIGHT-OF-WAY OF STATE ROAD 707A (JENSEN BEACH BLVD.).
2. THE ELEVATIONS AS SHOWN HEREON REFERENCE (NAVD 88 DATUM), REFERENCE A MARTIN COUNTY BENCH MARK "JB-PCL" ELEVATION 15.50' NAVD 88. CONVERSION (NAVD 88 DATUM) TO (NGVD 29 DATUM =PLUS 1.47').
3. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR.
4. THIS SURVEY IS BASED ON A CLOSED GEOMETRIC FIGURE EXCEEDING A HORIZONTAL CLOSURE OF 1:10,000.
5. THERE WAS NO ATTEMPT TO LOCATE ANY SUBSURFACE FOUNDATIONS.
6. ABOVE GROUND EVIDENCE OF UNDERGROUND UTILITIES WERE LOCATED AND SHOWN HEREON.
7. THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE AE ELEVATION 14(NAVD 88), REFERENCE FEMA MAP COMMUNITY NO. 120161, PANEL, NO. 0151, SUFFIX G, EFFECTIVE DATE MARCH 16, 2015. THERE HAS BEEN NO RESEARCH INTO ANY MAP AMMENDMENTS.
8. THIS SURVEY WAS PERFORMED IN THE FIELD ON APRIL 11, 2017.
9. THE BUILDING SETBACKS FOR THIS PROPERTY ARE AS FOLLOWS:
   - FOR A SINGLE STORY BUILDING
     FRONT = 20.00 FEET, SIDE = 5.00 FEET, REAR =5.00 FEET.
   - FOR A TWO/MULTI STORY BUILDING
     FRONT = 25.00 FEET, SIDE = 10.00 FEET, REAR = 10.00 FEET.
10. THIS SURVEY WAS DONE IN THE FIELD UTILIZING GLOBAL POSITIONING SYSTEM(G.P.S.) WITH REAL TIME KINEMATIC(R.T.K.). ALL DISTANCES GIVEN ARE GRID DISTANCES. THE SCALE FACTOR = 1.000009947.
11. THIS SURVEY WAS DONE WITH THE BENEFIT OF A TITLE COMMITMENT PERFORMED BY FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NUMBER A 032679(0-FL-CP-HL), EFFECTIVE DATE JANUARY 10, 2017 AT 8:00 A.M.
12. THE SITE IS CURRENTLY ZONED R-3A CORD (COMMERCIAL OFFICE & RESIDENTIAL DWELLING).



VICINITY MAP
(NOT TO SCALE)

SURVEYOR'S CERTIFICATE

"I HEREBY CERTIFY TO THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD), ADVANTAGE DEVELOPEMENT, LLC (BORROWER), FIRST HOUSING DEVELOPMENT CORPORATION OF FLORIDA (LENDER), FIDELITY NATIONAL TITLE INSURANCE COMPANY (TITLE INSURANCE COMPANY), SQUIRE, SANDERS & DEMPSEY, L.L.P. (LENDER ATTORNEY), AND TO THEIR SUCCESSORS AND ASSIGNS, THAT:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-5, OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON OCTOBER 26, 2017. DATE OF PLAT OR MAP: OCTOBER 30, 2017

BY: BETSY LINDSAY, INC.
SURVEYING AND MAPPING

(SEAL)

ELIZABETH A. LINDSAY, P.L.S.
FLORIDA REGISTRATION NO. 4724

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

DATE: _____

BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7987 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5753 (772)286-6833 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS
1/02/2018	REVISE CERTIFICATIONS
8/06/2018	ADD ZONING NOTE
8/17/2018	ADD FPL EASEMENT
4/11/2017	UPDATE SURVEY
4/25/2017	ADD PRESERVE AREA
10/30/2017	UPDATE SURVEY

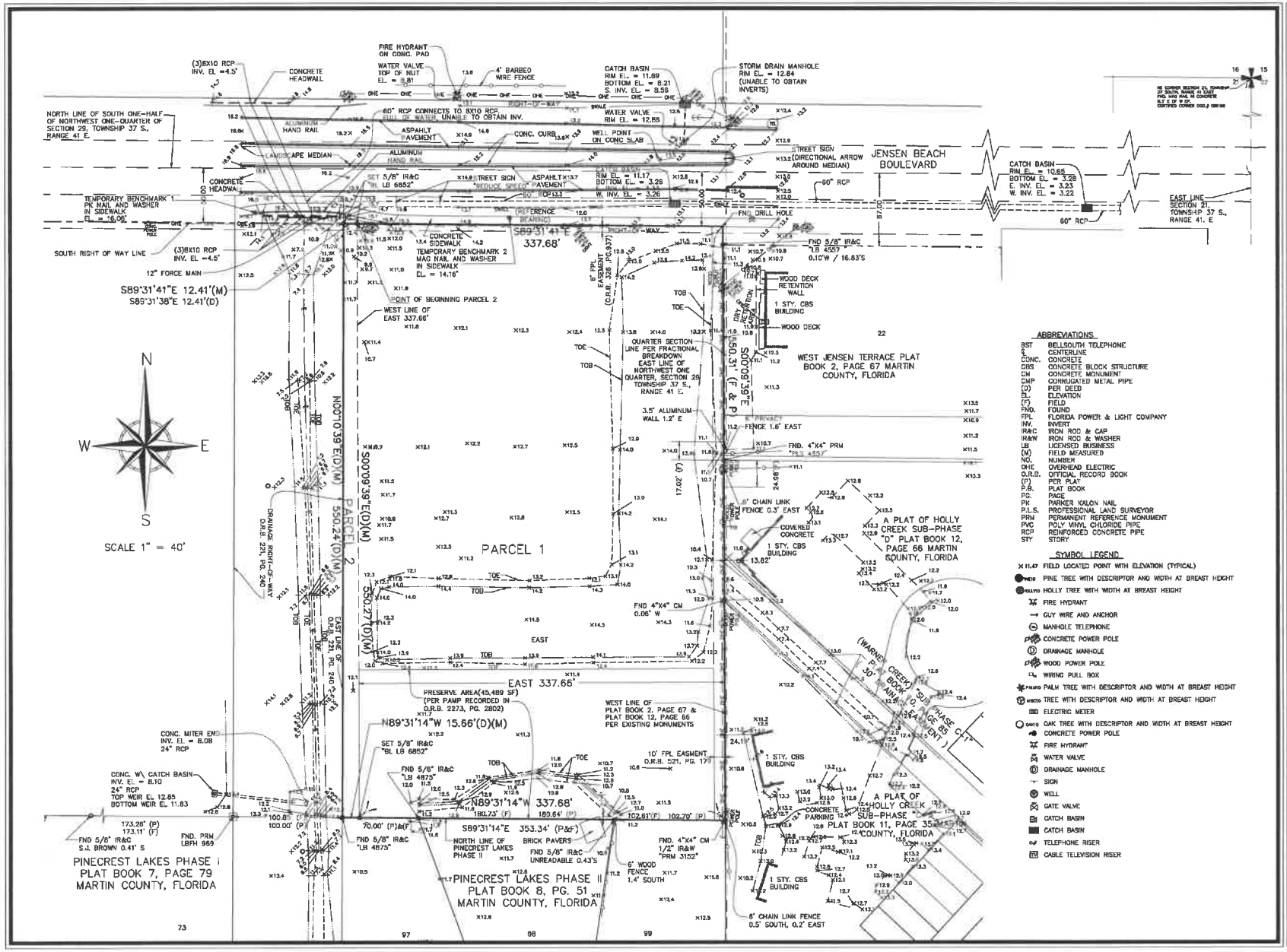
DATE 05/07/18
SCALE N/A
FIELD BK. JENSEN BEACH 3
DRAWN BY P.C.F./C.R.
CHECKED BY E.A.L.

A PORTION OF THE S. 1/2 OF THE NW 1/4, SECTION 21, TOWNSHIP 37 S., RANGE 41 E., JENSEN BEACH, MARTIN COUNTY, FLORIDA

ALTA BOUNDARY SURVEY

ADVANTAGE DEVELOPMENT GROUP, LLC

SHEET NO. 1
OF 3 SHEETS
PROJECT NO. 05-19 A



ABBREVIATIONS

BST	BELLSOUTH TELEPHONE
℄	CENTERLINE
CONC.	CONCRETE
CBS	CONCRETE BLOCK STRUCTURE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
(D)	PER DEED
EL.	ELEVATION
(F)	FIELD
FND.	FOUND
FPL	FLORIDA POWER & LIGHT COMPANY
INV.	INVERT
IR&C	IRON ROD & CAP
IR&W	IRON ROD & WASHER
LB	LICENSED BUSINESS
(M)	FIELD MEASURED
NO.	NUMBER
OHE	OVERHEAD ELECTRIC
O.R.B.	OFFICIAL RECORD BOOK
(P)	PER PLAT
P.B.	PLAT BOOK
PG.	PAGE
PK	PARKER KALON NAIL
P.L.S.	PROFESSIONAL LAND SURVEYOR
PRM	PERMANENT REFERENCE MONUMENT
PVC	POLY VINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STY	STORY

SYMBOL LEGEND

- X 11.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- PINE10 PINE TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- HOLLY10 HOLLY TREE WITH WIDTH AT BREAST HEIGHT
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- CL_{10} WIRING PULL BOX
- PALM10 PALM TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- MISC10 TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- ELECTRIC METER
- OAK10 OAK TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER

BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7907 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5753 (772)286-5933 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS
7/02/2010	REVISE CERTIFICATIONS
8/06/2010	ADD ZONING NOTE
8/11/2010	ADD FPL EASEMENT
4/11/2017	UPDATE SURVEY
9/25/2017	ADD PRESERVE AREA
10/26/2017	UPDATE SURVEY

DATE 05/07/10
SCALE 1"=40'
FIELD BK JENSEN BEACH 3
DRAWN BY CR/BCF
CHECKED BY EAL

A PORTION OF THE S. 1/2 OF THE NW 1/4, SECTION 21, TOWNSHIP 37 S., RANGE 41 E., JENSEN BEACH, MARTIN COUNTY, FLORIDA

ALTA BOUNDARY SURVEY

ADVANTAGE DEVELOPMENT GROUP, LLC

SHEET NO. 2
OF 3 SHEETS
PROJECT NO. 05-19 A

ABBREVIATIONS

BST	BELLSOUTH TELEPHONE
℄	CENTERLINE
CONC.	CONCRETE
CBS	CONCRETE BLOCK STRUCTURE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
(D)	PER DEED
EL.	ELEVATION
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FND.	FOUND
FPL.	FLORIDA POWER & LIGHT COMPANY
INV.	INVERT
IR&C	IRON ROD & CAP
IR&W	IRON ROD & WASHER
LB	LICENSED BUSINESS
(M)	FIELD MEASURED
NO.	NUMBER
OHE	OVERHEAD ELECTRIC
O.R.B.	OFFICIAL RECORD BOOK
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PK	PARKER KALON NAIL
P.L.S.	PROFESSIONAL LAND SURVEYOR
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PVC	POLY VINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STY	STORY

SYMBOL LEGEND

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- PINE TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
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- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- WIRING PULL BOX
- PALM TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- ELECTRIC METER
- OAK TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER

LEGAL DESCRIPTION

PARCEL 1
THE EAST 337.68 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4, SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST, JENSEN BEACH, MARTIN COUNTY, FLORIDA. LYING NORTH OF THE PLAT OF PINECREST PHASE II AND LESS ROAD RIGHT OF WAY OF JENSEN BEACH BOULEVARD.

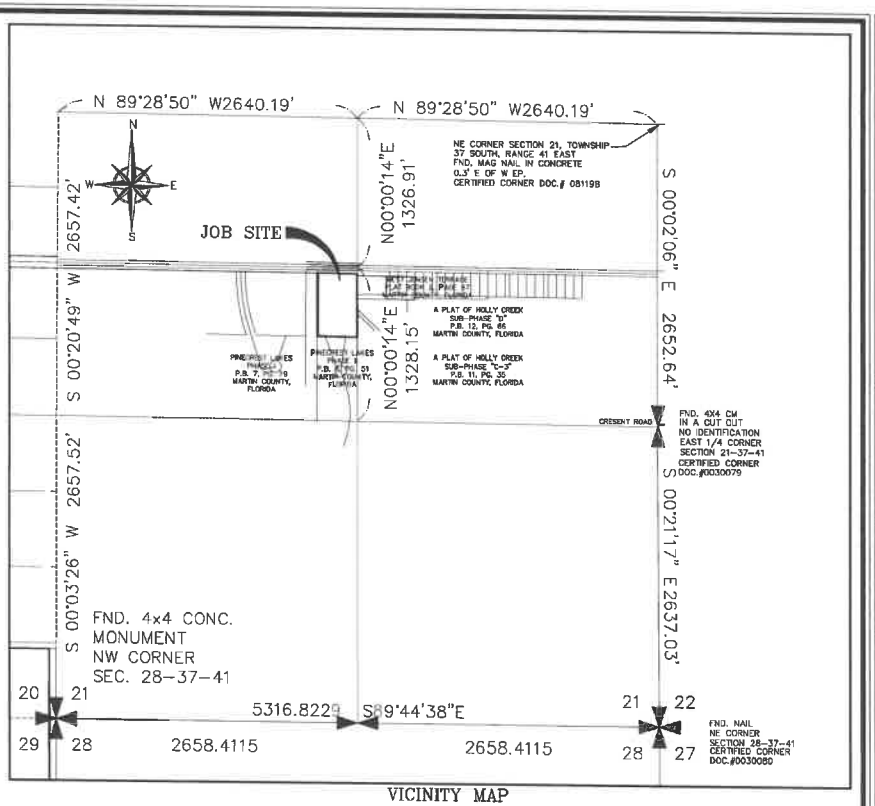
CONTAINING 185,811.7 SQUARE FEET OR 4.27 ACRES MORE OR LESS.

AND TOGETHER WITH
PARCEL 2
A PARCEL LAND BEING A PORTION OF THE SOUTH 1/2 OF SECTION 21 OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT INTERSECTION OF THE WEST LINE OF THE EAST 337.68 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21 WITH THE SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD, BEING A 100 FOOT RIGHT OF WAY; THENCE S00°09'39"E ALONG THE WEST LINE OF SAID EAST 337.68 FEET A DISTANCE OF 550.27 FEET TO AN INTERSECTION WITH THE NORTH LINE OF PINECREST LAKES II, AS RECORDED IN PLAT BOOK 8, PAGE 51 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N89°31'14"W ALONG SAID NORTH LINE A DISTANCE OF 15.66 FEET TO AN INTERSECTION WITH THE EAST LINE OF A DRAINAGE RIGHT OF WAY PER OFFICIAL RECORDS BOOK 221, AT PAGE 240 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N00°10'39"E ALONG SAID EAST LINE A DISTANCE OF 550.24 FEET TO AN INTERSECTION WITH SAID SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD; THENCE S89°31'38"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 12.41 FEET TO THE POINT OF COMMENCEMENT.
SAID PARCEL 2 CONTAINING 7,723 SQUARE FEET OR 0.18 ACRES MORE OR LESS.

BEING SUBJECT TO ANY/ALL EASEMENTS, RESERVATION, RESTRICTIONS OR DEDICATIONS.

SURVEYOR'S NOTES

1. BEARINGS AS SHOWN HEREON ARE BASED ON STATE PLANE COORDINATES, REFERENCE THE NORTH AMERICAN DATUM OF 1983/1990 ADJUSTED (NAD 83/90), FLORIDA EAST ZONE, REFERENCE A BEARING OF N89°31'41"W ALONG THE SOUTHERLY RIGHT-OF-WAY OF STATE ROAD 707A (JENSEN BEACH BLVD.).
2. THE ELEVATIONS AS SHOWN HEREON REFERENCE (NAVD 88 DATUM). REFERENCE A MARTIN COUNTY BENCH MARK "JB-POL" ELEVATION 15.50' NAVD 88. CONVERSION (NAVD 88 DATUM) TO (NGVD 29 DATUM =PLUS 1.47').
3. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR.
4. THIS SURVEY IS BASED ON A CLOSED GEOMETRIC FIGURE EXCEEDING A HORIZONTAL CLOSURE OF 1:10,000.
5. THERE WAS NO ATTEMPT TO LOCATE ANY SUBSURFACE FOUNDATIONS.
6. ABOVE GROUND EVIDENCE OF UNDERGROUND UTILITIES WERE LOCATED AND SHOWN HEREON.
7. THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE AE ELEVATION 14(NAVD 88), REFERENCE FEMA MAP COMMUNITY NO. 120161, PANEL NO. 0151, SUFFIX G, EFFECTIVE DATE MARCH 18, 2015. THERE HAS BEEN NO RESEARCH INTO ANY MAP AMMENDMENTS.
8. THIS SURVEY WAS PERFORMED IN THE FIELD ON APRIL 11, 2017.
9. THE BUILDING SETBACKS FOR THIS PROPERTY ARE AS FOLLOWS:
   - FOR A SINGLE STORY BUILDING
     FRONT = 20.00 FEET, SIDE = 5.00 FEET, REAR =6.00 FEET.
   - FOR A TWO/MULTI STORY BUILDING
     FRONT = 25.00 FEET, SIDE = 10.00 FEET, REAR = 10.00 FEET.
10. THIS SURVEY WAS DONE IN THE FIELD UTILIZING GLOBAL POSITIONING SYSTEM(G.P.S.) WITH REAL TIME KINEMATIC(R.T.K.). ALL DISTANCES GIVEN ARE GRID DISTANCES. THE SCALE FACTOR = 1.000009947.
11. THIS SURVEY WAS DONE WITH THE BENEFIT OF A TITLE COMMITMENT PERFORMED BY FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NUMBER A 032679(D-FL-CP-ML), EFFECTIVE DATE JANUARY 10, 2017 AT 8:00 A.M.
12. THE SITE IS CURRENTLY ZONED R-3A CORD (COMMERCIAL OFFICE & RESIDENTIAL DWELLING).



VICINITY MAP
(NOT TO SCALE)

SURVEYOR'S CERTIFICATE

"I HEREBY CERTIFY TO THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD), ADVANTAGE DEVELOPEMENT, LLC (BORROWER), FIRST HOUSING DEVELOPMENT CORPORATION OF FLORIDA (LENDER), FIDELITY NATIONAL TITLE INSURANCE COMPANY (TITLE INSURANCE COMPANY), SQUIRE, SANDERS & DEMPSEY, L.L.P. (LENDER ATTORNEY), AND TO THEIR SUCCESSORS AND ASSIGNS, THAT:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-5, OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON OCTOBER 26, 2017. DATE OF PLAT OR MAP: OCTOBER 30, 2017

BY: BETSY LINDSAY, INC.
SURVEYING AND MAPPING

(SEAL)

ELIZABETH A. LINDSAY, P.L.S.
FLORIDA REGISTRATION NO. 4724

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

DATE:_____

BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7997 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5763 (772)286-5933 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS
7/02/2010	REVISE CERTIFICATIONS
8/06/2010	ADD ZONING NOTE
8/17/2010	ADD FPL EASEMENT
4/11/2011	UPDATE SURVEY
4/25/2011	ADD PRESERVE AREA
10/06/2011	UPDATE SURVEY

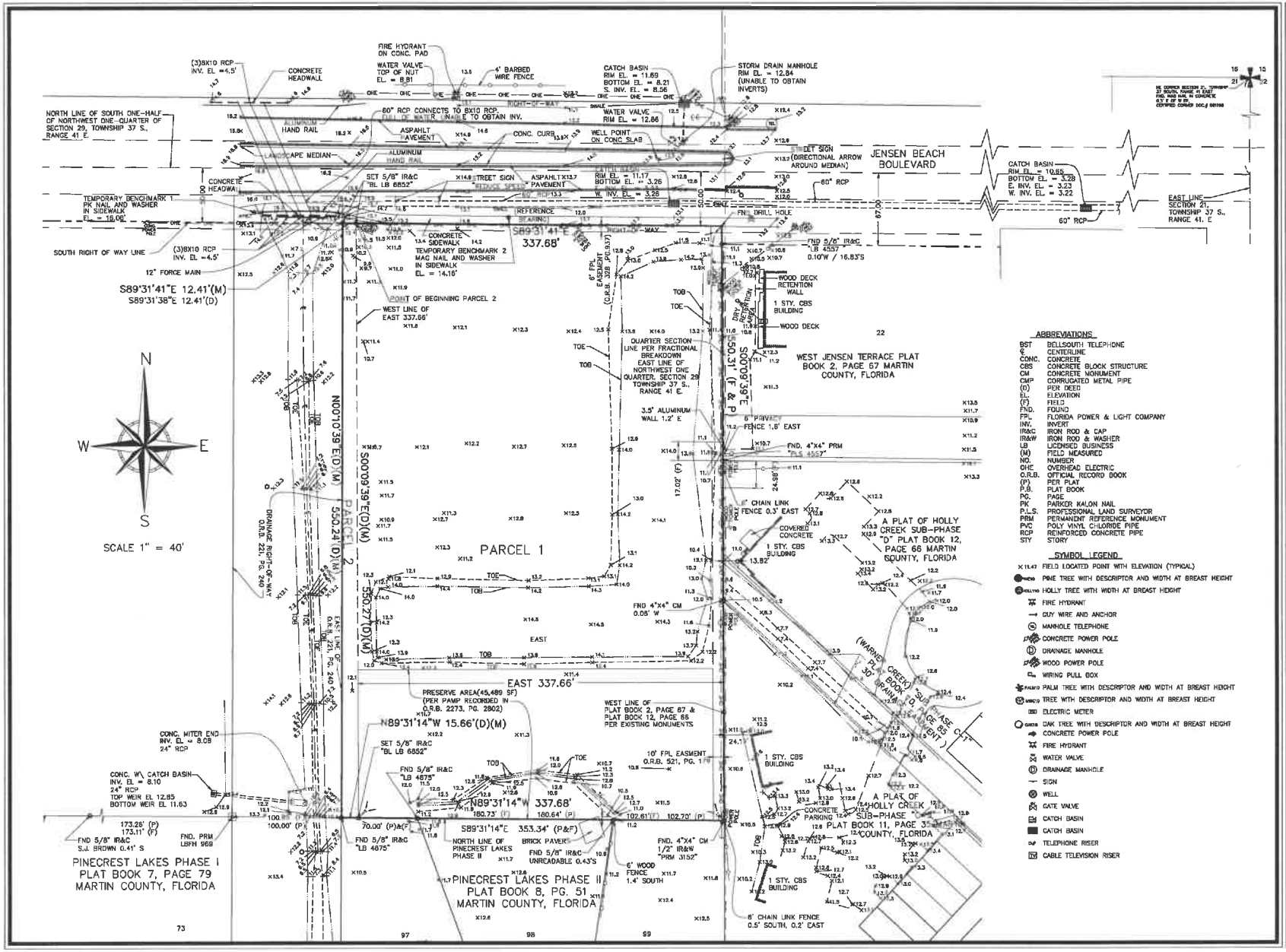
DATE 05/07/10
SCALE N/A
FIELD BK. JENSEN BEACH 3
DRAWN BY P.C.F./C.R.
CHECKED BY E.A.L.

A PORTION OF THE S. 1/2 OF THE NW 1/4, SECTION 21, TOWNSHIP 37 S., RANGE 41 E., JENSEN BEACH, MARTIN COUNTY, FLORIDA

ALTA BOUNDARY SURVEY

ADVANTAGE DEVELOPMENT GROUP, LLC

SHEET NO. 1
OF 3 SHEETS
PROJECT NO. 05-10 A



ABBREVIATIONS

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IR&C	IRON ROD & CAP
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LB	LICENSED BUSINESS
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OHC	OVERHEAD ELECTRIC
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PK	PARKER KALON NAIL
P.L.S.	PROFESSIONAL LAND SURVEYOR
PRM	PERMANENT REFERENCE MONUMENT
PVC	POLY VINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STY	STORY

SYMBOL LEGEND

- X 14.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- PINE TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- HOLLY TREE WITH WIDTH AT BREAST HEIGHT
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
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BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7997 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5783 (772)286-5833 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS
7/02/2010	REVISE CERTIFICATIONS
6/08/2010	ADD ZONING NOTE
8/11/2010	ADD FPL EASEMENT
4/11/2017	UPDATE SURVEY
4/25/2017	ADD PRESERVE AREA
10/26/2017	UPDATE SURVEY

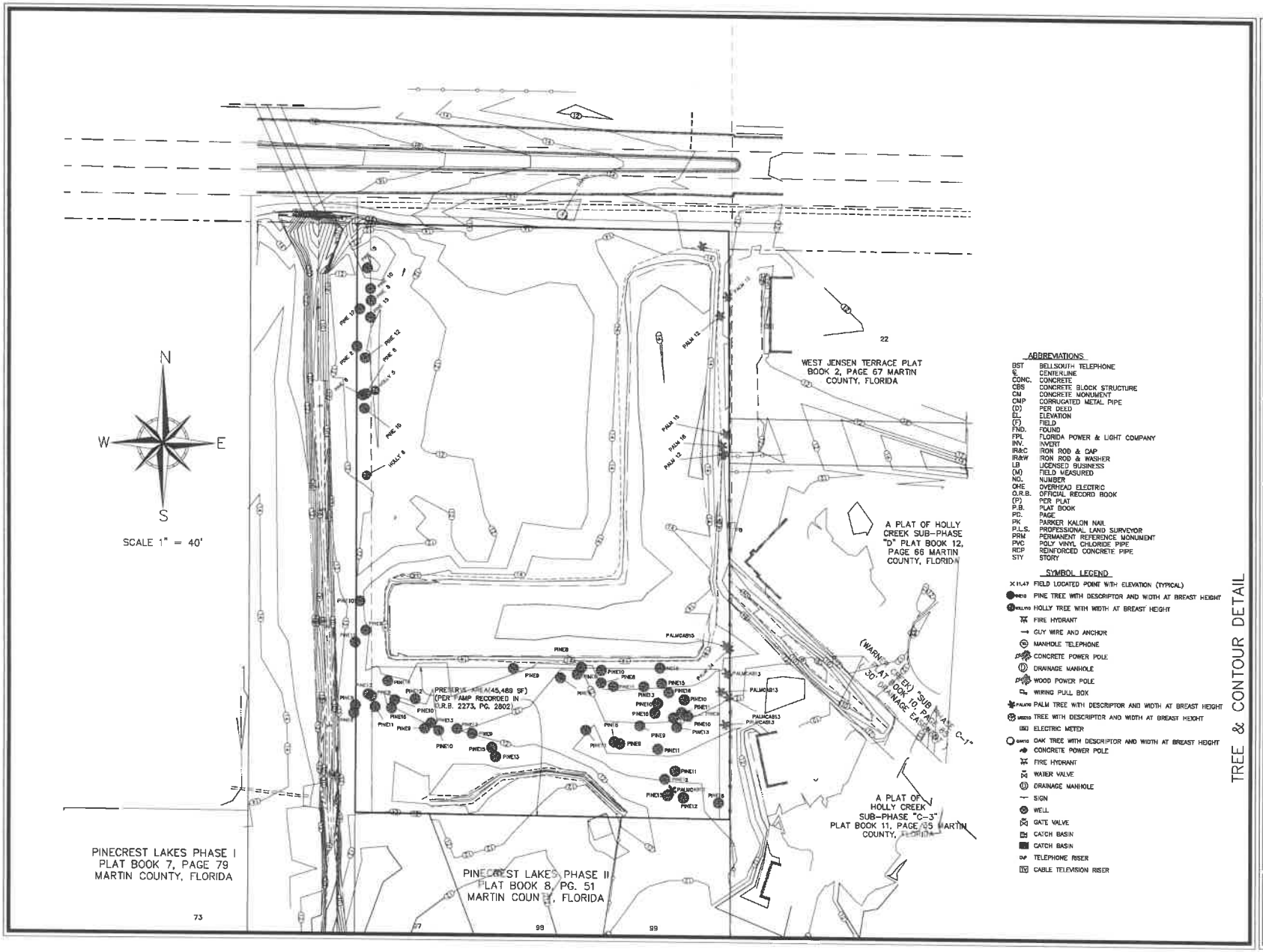
DATE 05/07/10
SCALE 1"=40'
FIELD BK. JENSEN BEACH 3
DRAWN BY C.R./P.C.F.
CHECKED BY E.A.L.

A PORTION OF THE S. 1/2 OF THE NW 1/4, SECTION 21, TOWNSHIP 37 S., RANGE 41 E., JENSEN BEACH, MARTIN COUNTY, FLORIDA

ALTA BOUNDARY SURVEY

ADVANTAGE DEVELOPMENT GROUP, LLC

SHEET NO. 2
OF 3 SHEETS
PROJECT NO. 05-19 A



TREE & CONTOUR DETAIL

ABBREVIATIONS

BST	BELLSOUTH TELEPHONE
℄	CENTERLINE
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INV.	INVERT
IR&C	IRON ROD & CAP
IR&W	IRON ROD & WASHER
LB	LICENSED BUSINESS
(M)	FIELD MEASURED
NO.	NUMBER
OHE	OVERHEAD ELECTRIC
O.R.B.	OFFICIAL RECORD BOOK
(P)	PER PLAT
P.B.	PLAT BOOK
PG.	PAGE
PK	PARKER KALON NAIL
P.L.S.	PROFESSIONAL LAND SURVEYOR
PRM	PERMANENT REFERENCE MONUMENT
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RCP	REINFORCED CONCRETE PIPE
STY	STORY

SYMBOL LEGEND

- X 11.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- PINE10 PINE TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- HOLLY10 HOLLY TREE WITH WIDTH AT BREAST HEIGHT
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- WIRING PULL BOX
- PALM10 PALM TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- MISC10 TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- ELECTRIC METER
- OAK10 OAK TREE WITH DESCRIPTOR AND WIDTH AT BREAST HEIGHT
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER

BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7987 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5753 (772)286-5933 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS
7/02/2010	REVISE CERTIFICATIONS
8/05/2010	ADD ZONING NOTE
8/17/2010	ADD FPL EASEMENT
4/11/2017	UPDATE SURVEY
4/25/2017	ADD PRESERVE AREA
11/28/2017	UPDATE SURVEY

DATE 05/07/10
SCALE 1"=40'
FIELD BK. JENSEN BEACH 3
DRAWN BY C.R./P.C.F.
CHECKED BY C.A.L.

A PORTION OF THE S. 1/2 OF THE NW 1/4, SECTION 21, TOWNSHIP 37 S., RANGE 41 E., JENSEN BEACH, MARTIN COUNTY, FLORIDA

ALTA BOUNDARY SURVEY

ADVANTAGE DEVELOPMENT GROUP, LLC

SHEET NO. 3
OF 3 SHEETS
PROJECT NO. 05-19 A

REVISED FINAL SITE PLAN

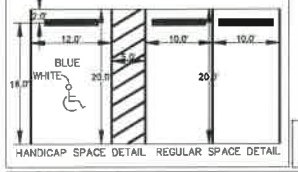
SITE DATA TABLE	
Total Site Area	4.44 AC (193,406 SF)
Zoning	COR-1
Future Land Use	COMMERCIAL OFFICE AND RESIDENTIAL
PCN	21-37-41-000-000-00044-8
Existing Use	VACANT COMMERCIAL
Proposed Use	SELF STORAGE FACILITY
OPEN SPACE	
Required Open Space	40% 77,362 SF OR 1.78 AC
Provided Pervious Area	23.6% (1.05 AC) 45,531 SF
Preserve Area	23.9% (1.06 AC) 46,020 SF
Wetland	N/A
Upland	23.9% (1.06 AC) 46,020 SF
Total Open Space (Pervious + Preserve Area)	47.3% (2.1 AC) 91,551 SF
IMPERVIOUS AREA	
Total Impervious Area	2.34 AC (101,855 SF)
Building A	0.8 AC (34,700 SF)
Building B	0.29 AC (12,500 SF)
Building C	0.28 AC (12,000 SF)
Total Building Coverage	1.36 AC (59,200 SF)
Pavement, Roads	0.96 AC (42,003 SF)
Sidewalks, Pads, etc	0.01 AC (652 SF)
Surface Water	0 AC
BUILDING DATA	
Max Allowed	Provided
Max Coverage 40%	30.6%
Max Height: 30 ft	30 ft
PARKING DATA	
LAND USE	**STORAGE FACILITY**
Total Building Area	93,900 SF
*93,900 SF/@= 0.07 (X) ÷ 4	11
Standard Parking Required	11
Standard Parking Supply	10
Required Handicap Parking	1
Handicap Parking Provided	1
Required Loading Spaces	4
Provided Loading Spaces	4
Total Parking Provided	11

*ITE 4th Edition, Land Use 151, P = 0.07(93,900) ÷ 4 = 10.6 Spaces

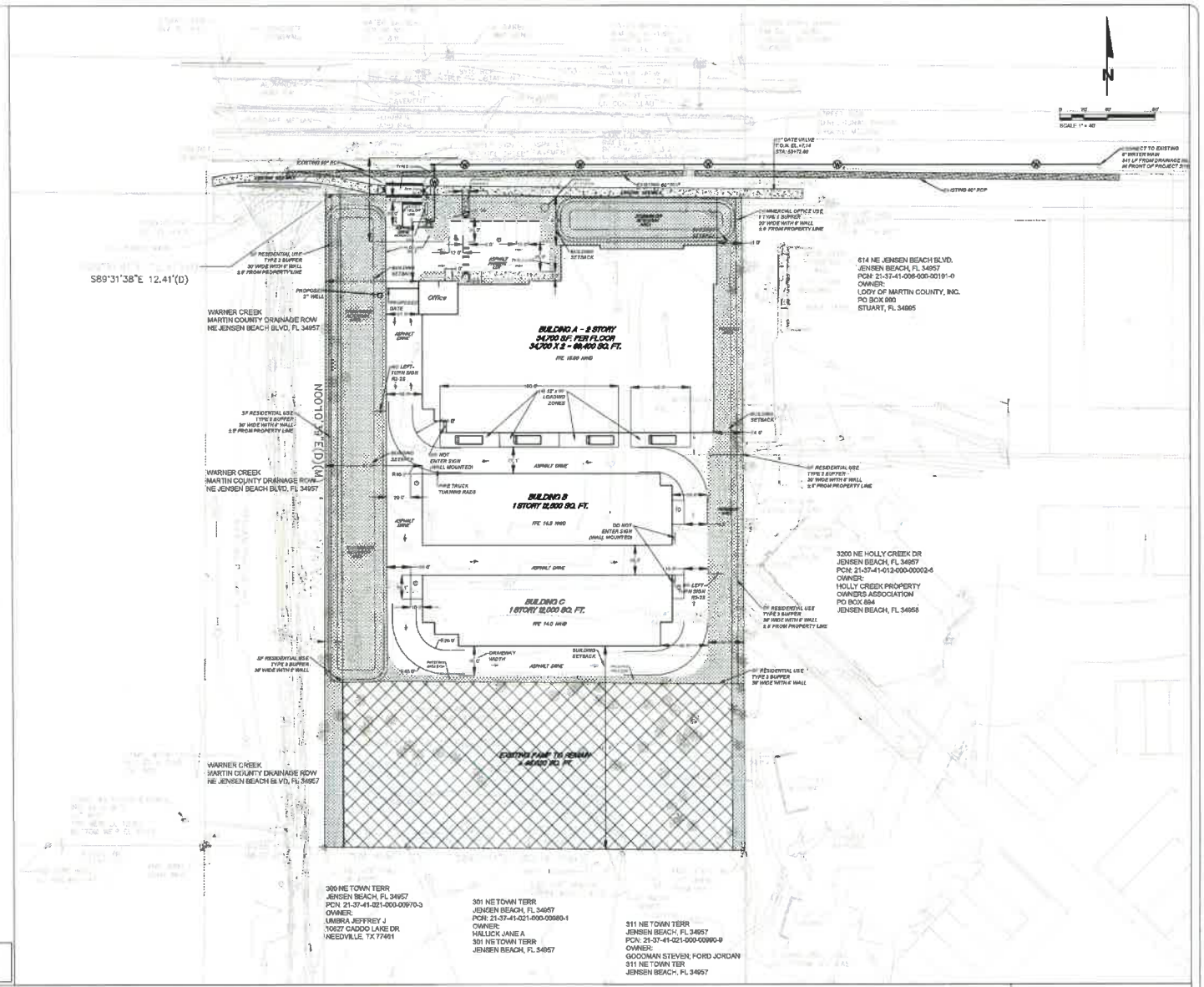
LEGEND

- Pervious Area
- Preserve Area
- Truncated Domes Mats
- (A) ADA Sign
- (B) Preserve Area Sign
- Traffic Control Device

PARKING SPACE DETAIL



HANDICAP SPACE DETAIL REGULAR SPACE DETAIL



DESCRIPTION

PARCEL 1–THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4, SECTION 21, TOWNSHIP 37 SOUTH, RANGE 41 EAST. JENSEN BEACH MARTIN COUNTY, FLORIDA. LYING NORTH OF THE PLAT OF PINECREST PHASE II AND LESS ROAD RIGHT OF WAY OF JENSEN BEACH BOULEVARD. CONTAINING 185,811.7 SQUARE FEET OR 4.27 ACRES MORE OR LESS. AND TOGETHER WITH

PARCEL 2–A PARCEL LAND BEING A PORTION OF THE SOUTH 1/2 OF SECTION 21 OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT INTERSECTION OF THE WEST LINE OF THE EAST 337.66 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21 WITH THE SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD, BEING A 100 FOOT RIGHT OF WAY; THENCE S00°09'39"E ALONG THE WEST LINE OF SAID EAST 337.66 FEET A DISTANCE OF 550.27 FEET TO AN INTERSECTION WITH THE NORTH LINE OF PINECREST LAKES II, AS RECORDED IN PLAT BOOK 8, PAGE 51 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N89°31'14"W ALONG SAID NORTH LINE A DISTANCE OF 15.65 FEET TO AN INTERSECTION WITH THE EAST LINE OF A DRAINAGE RIGHT OF WAY PER OFFICIAL RECORDS BOOK 221, AT PAGE 240 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA; THENCE N00°10'39"E ALONG SAID EAST LINE A DISTANCE OF 550.24 FEET TO AN INTERSECTION WITH SAID SOUTH RIGHT OF WAY LINE OF JENSEN BEACH BOULEVARD ; THENCE S89°31'38"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 12.41 FEET TO THE POINT OF COMMENCEMENT. SAID PARCEL 2 CONTAINING 7,723 SQUARE FEET OR 0.18 ACRES MORE OR LESS.
BEING SUBJECT TO ANY/ALL EASEMENTS, RESERVATION, RESTRICTIONS OR DEDICATIONS.

MACKENZIE ENGINEERING & PLANNING, INC.
1172 SW 30th St, Suite 500
PALM CITY, FLORIDA, 34990
772-286-8030
CA29013

MacKenzie Engineering & Planning, Inc.

REVISED FINAL SITE PLAN
ADVANTAGE DEVELOPMENT GROUP, LLC
JENSEN BEACH, FLORIDA

SCALE 1" = 40'
APPROVED: SM
DRAWN: EJJ
CHECKED: SM
DATE: 01/24/2018
FIELD BOOK NO:

COUNTY PROJ #: J040 - 011
AGENT PROJ #:
DESIGNER: EJJ
PM: SM
SUBMITTAL: 01/24/2018
REVISION:

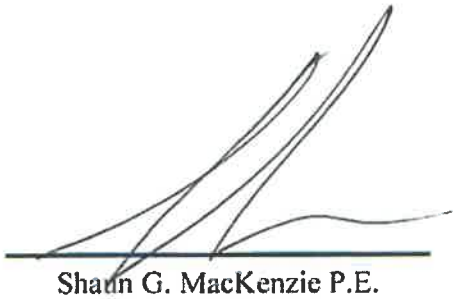
SHEET: SP-1
OF: SP-1
MEP PROJECT 124-001
CDA NO. 29013

MacKenzie
Engineering & Planning, Inc.
1172 SW 30th Street • Suite 500 • Palm City • Florida • 34990
(772) 286-8030 • www.MackenzieEngineeringInc.com

December 8, 2017

Mr. Paul Schilling
Martin County Growth Management
2401 SE Monterey Road
Stuart FL, 34996

Re: Advantage Development Group
Advantage Self Storage – Final Site Plan
Utilities-Related Calculations



Shawn G. MacKenzie P.E.
PE Number 61751

Dear Mr. Schilling:

INTRODUCTION

This document provides a summary of the proposed utilities-related calculation associated with the Advantage Self Storage – Final Site Plan project ("Project") located in Jensen Beach, Florida. The site will consist of a lift station, irrigation system, fire sprinkler system and a fire hydrant.

LIFT STATION

A 4' x 14' with 3 HP grinder pump is proposed for the site to connect to the Martin County force main adjacent to the site. The lift station capacity is designed to have a minimum capacity of 600 gallons per day (GPD) based on the Martin County Water & Wastewater Systems Calculation (using the Florida Administrative Code). The existing force main has recorded pressure of 10 psi. We propose to use 30 psi at buildout in order to provide a conservative analysis. The water/wastewater use is 525 gallons per day (200 gallons – 1 gal. per unit up to 200 units and 325 gal. – 1 gal. per 2 units over 200 units; an additional 650 units – totaling in 850 units) divided by an average consumption of water at a rate of 250 GPD (considered equal to 1 ERC). As a result, 2.1 ERC's are needed (see attached documents).

IRRIGATION

A two-inch well is proposed for irrigation purposes. Please see attached summary of groundwater (well) facilities. The site is adjacent to an 8" re-use (reclaimed) water line. However, per Martin County Utility, reclaimed water is not available for this project.

GREASE INTERCEPTOR SIZING

Not Applicable.

FIRE FLOW (NON-RESIDENTIAL)

The fire hydrant will be constructed per Martin County design requirements. The Fire Flow calculation is based on the design criteria for

- Ordinary hazard group 2
  - Density of .20 GPM per SF for all areas over 1500 SF; and
  - 130 SF maximum spacing per sprinkler in the storage areas.
- Light Hazard
  - Density of .10 GPM per SF for all over 1500 SF; and
  - 225 SF maximum spacing per sprinkler in the office areas.

The fire sprinklers will be fed by a 6" fire line with a single 6" backflow preventer.

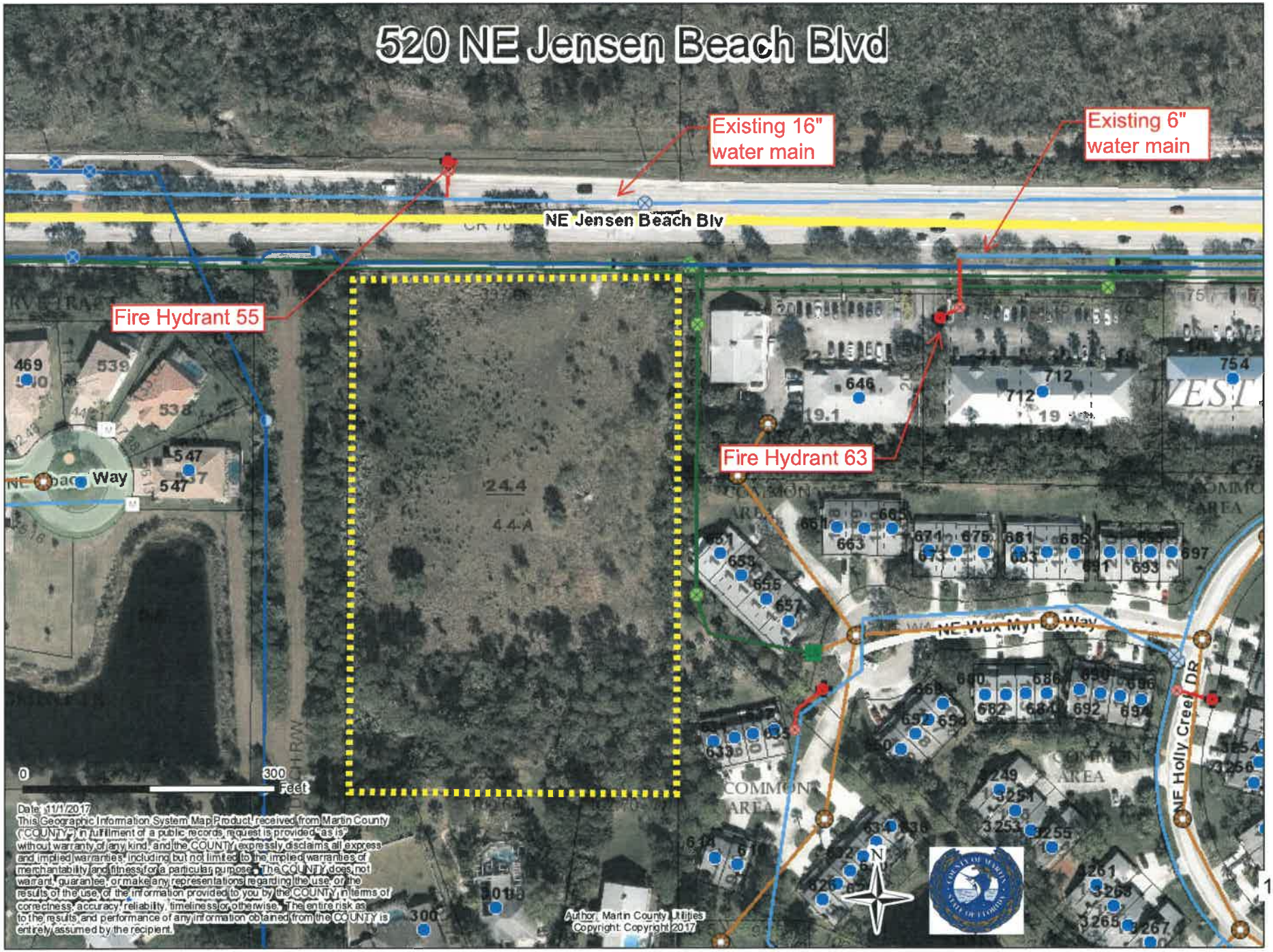
ATTACHMENTS:

1. Existing Utilities
2. Lift Station
   - Pressure Test on Existing Force Main
   - Lift Station Summary
   - MOPS Engineering Report
   - Lift Station Design
3. Irrigation
   - Summary of Groundwater (Well) Facility
4. Fire Flow
   - Existing Fire Hydrant Flow
   - Fire Flow Calculation

124001
December 2017

CA 29013

ATTACHMENT 1:
EXISTING UTILITIES

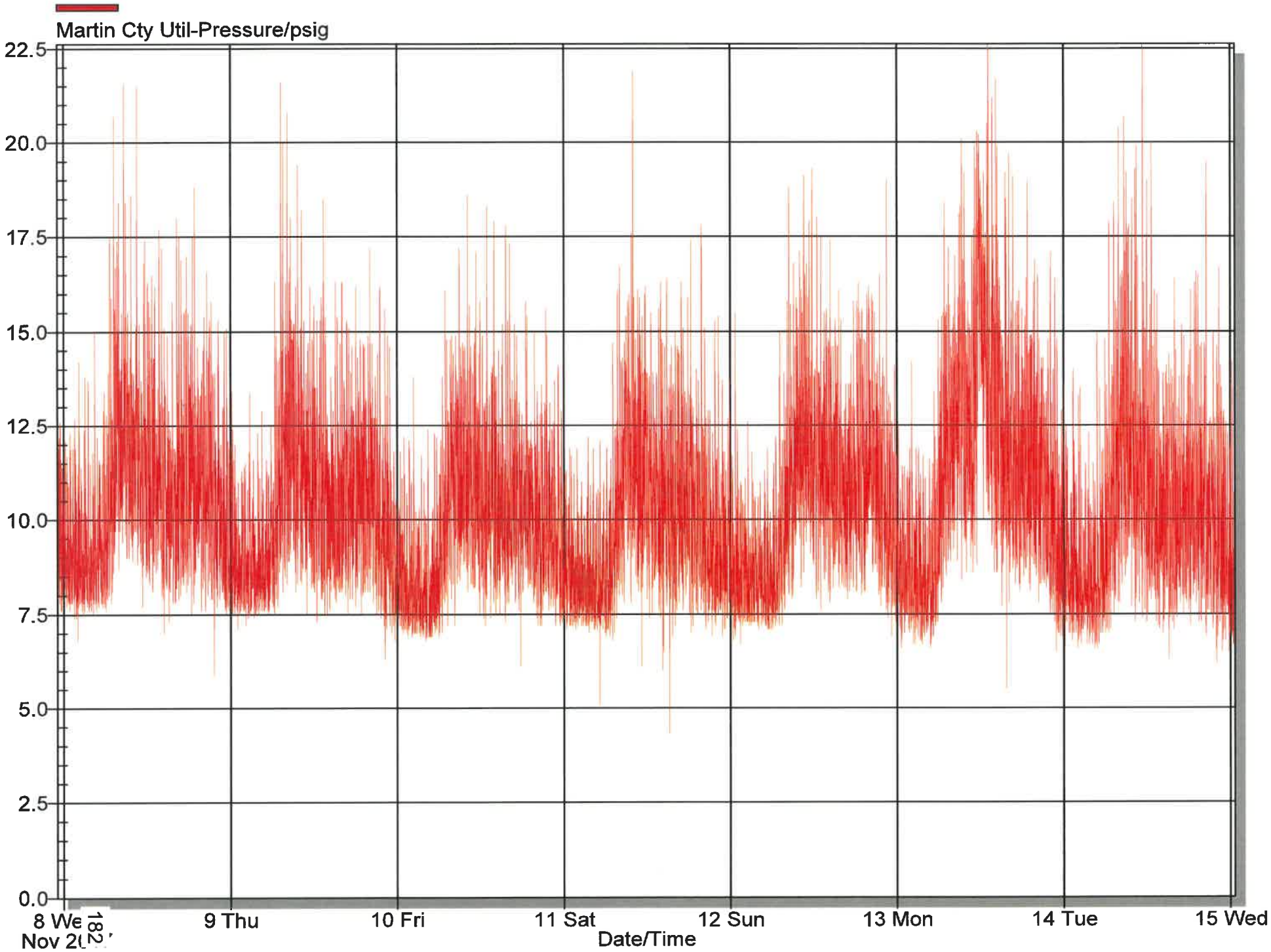

520 NE Jensen Beach Blvd
Existing 16" water main
Existing 6" water main
NE Jensen Beach Blv
Fire Hydrant 55
Fire Hydrant 63
NE Wax Myrtle Way
NE Holly Creek DR
0
300
Feet
Date: 11/1/2017
This Geographic Information System Map Product, received from Martin County ("COUNTY") in fulfillment of a public records request is provided "as is" without warranty of any kind, and the COUNTY expressly disclaims all express and implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. The COUNTY does not warrant, guarantee, or make any representations regarding the use, or the results of the use, of the information provided to you by the COUNTY in terms of correctness, accuracy, reliability, timeliness or otherwise. The entire risk as to the results and performance of any information obtained from the COUNTY is entirely assumed by the recipient.
Author: Martin County Utilities
Copyright: Copyright 2017
N

ATTACHMENT 2:

LIFT STATION

(PRESSURE TEST IN EXISTING FORCE MAIN)

Downloaded Data - Wednesday, November 15, 2017



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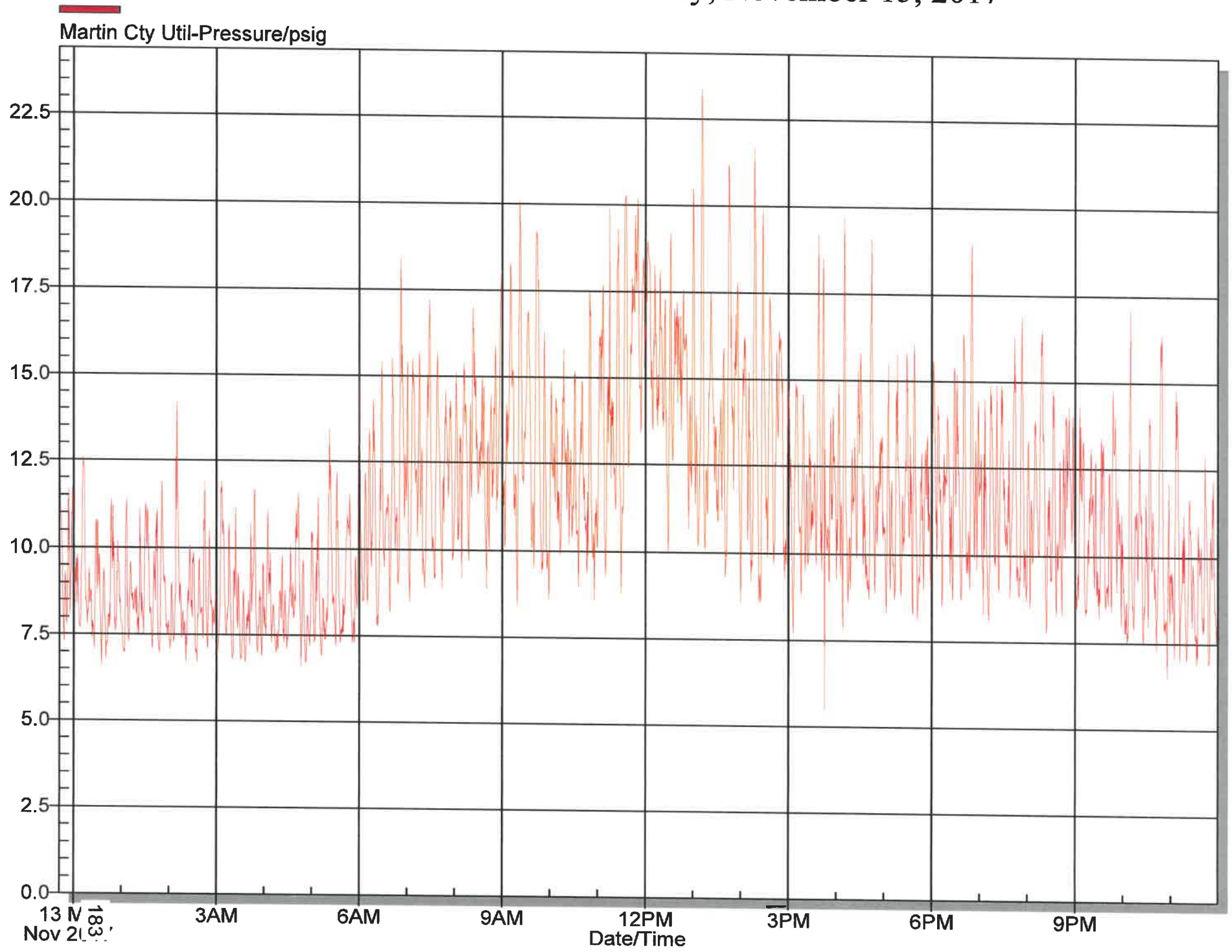

ATTACHMENT 2:
LIFT STATION
(LIFT STATION SUMMARY)

PART II – PROJECT DOCUMENTATION

(1) Collection/Transmission System Permittee

Name _____ Title _____
Company Name _____
Address _____
City _____ State _____ Zip _____
Telephone _____ Fax _____ Email _____

(2) General Project Information

Project Name _____
Location: County _____ City _____ Section _____ Township _____ Range _____
Project Description and Purpose (including pipe length, range of pipe diameter, total number of manholes, and total number of pump stations):

Estimated date for: Start of construction _____ Completion of construction _____
Connections to existing system or treatment plant _____

(3) Project Capacity

A = Type of Unit	B = Number of Units	C = Population Per Unit	D = Total Population (Columns B x C)	E = Per Capita Flow	F = Total Average Daily Flow (Columns D x E)	G = Peak hour flow
Single-Family Home						
Mobile Home						
Apartment						
Commercial, Institutional, or Industrial Facility*						
Total						

* Description of commercial, institutional, and industrial facilities and explanation of method used to estimate per capita flow for these facilities:

(4) Pump Station Data (attached additional sheets as necessary)

		Estimated Flow to the Station (GPD)			
Location	Type	Maximum	Average	Minimum	Operating Conditions [GPM @ FT (TDH)]

(5) Collection/Transmission System Design Information

A. This information must be completed for all projects by the applicant's professional engineer, and if applicable, those professional engineers in other disciplines who assisted with the design of the project.

If this project has been designed to comply with the standards and criteria listed below, the engineer shall initial in ink before the standards or criteria. If any of the standards or criteria do not apply to this project or if this project has not been designed to comply with the standards or criteria, mark "X" before the appropriate standard or criteria and provide an explanation, including any applicable rule references, in (5)B. below.

ATTACHMENT 2:

LIFT STATION

(MOPS ENGINEERING REPORT)

ENGINEERING REPORT

MOPS
MANUFACTURED ODORLESS PUMP STATIONS

PREPARED FOR: MacKenzie Engineering, Inc.
1172 SW 30th Street, Suite 500
Palm City, FL 34990

PROJECT: Advantage Self Storage- Jensen Beach

LOCATION: Jensen Beach (Martin County), FL

DATE: November 17, 2017

AES NO: 1155

Report prepared by:
Bonnie S. McLeod, P.E., Lic # 70797 V.P. of Engineering
Atlantic Environmental Systems, Inc., Certificate # 26398
2244 4th Avenue North, Lake Worth, Florida 33461
Ph: 561-547-8080 Fax: 561-547-3999

ATLANTIC
ENVIRONMENTAL
SYSTEMS, INC
2244 4th Avenue North, Lake Worth, Florida 33461
Ph: 561-547-8080 Fax: 561-547-3999

MOPS

ENGINEERING REPORT

TABLE OF CONTENTS

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

ENGINEERING REPORT

MANUFACTURED ODORLESS PUMP STATION

Project: Advantage Self Storage- Jensen Beach

Location: Jensen Beach (Martin County), FL

Prepared For: **MacKenzie Engineering, Inc.**
1172 SW 30th Street, Suite 500
Palm City, FL 34990

Date: November 17, 2017
AES Project #: 1155

Notes: Advantage Storage is a proposed 93,900 SF self-storage facility with approximately 850 units.

Table One, titled; "For System Design, Estimated Sewage Flows", from sub-chapter 64E6.008, of chapter 64E-6 Titled; "Standards for Onsite Sewage Treatment and Disposal Systems", of the Florida Administrative Code, was used in determining the wastewater flows.

The pump station's total dynamic pump head was based on approximately 75 equivalent feet of 1.5-inch diameter force main. The station discharges into a municipally owned force main with 30 PSI maximum and 10 PSI minimum operating pressure.

SERVICE		**GALLONS PER DAY**
850 Self-Storage Units @		
1 GPD/Unit for 200 Units	**=**	**200**
0.5 GPD/Unit for 650 Units	**=**	**325**
Total Gallons Per Day	**=**	**525**

The following pages show the design and sizing parameters considered in the sizing of the wastewater pump stations. In the sizing and design criteria, all minimum required standards for the Florida Department of Environmental Protection Standards were incorporated into the pump station design, including all the requirements outlined in the DEP application form 62-604.300(8)(a).

DESIGN COMPLIANCE CERTIFICATION BASED ON THE FOLLOWING STANDARDS:

"RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES"
(RSWF), (1997 EDITION)
AND
FLORIDA ADMINISTRATIVE CODE (F.A.C.) RULE 62-604.400
(REVISED 2003)

Listed below are all the certifications for compliance with the pump station design as it relates to this project.

Certification items 34 through 77 inclusive plus items 78 and 82.

DEP FORM NO: 62-604.300(8)(a) Item Number	F.A.C. (or) RSWF Rule Number	
34	[62-604.400(2)(e) F.A.C.]	The MOPS Engineering Report will show the station's rim is above the 25-year flood level and the control center is above the 100-year flood level. This is in compliance with this rule. This will allow personnel to have access at the 25-year flood level and will not damage any part of the station at the 100-year flood level.
35	[RSWF 41.2]	The MOPS Pump Station is set up to allow easy access to all parts of the system and their components.
36	[RSWF 41.3]	The MOPS Station is designed with round wet well fillet to discourage the accumulation of grit and any piping problems that may be associated with grit build-up.
37	*N/A	This item is not applicable for this pump station design.
38	[RSWF 42.22]	The MOPS Pump Station is designed with submersible pumps with easy guide-out slide rails for the pumps and with "din" rail mounted electrical components for easy maintenance.
39	*N/A	This item is not applicable for this pump station design.
40	[RSWF 42.25]	The MOPS Pump Station utilizes wet well material that is rated for exposure to hydrogen sulfide, corrosive gases, greases, oils, and other products found in wastewater.

41	[RSWF 42.31] [RSWF 42.36]	The MOPS Pump Station is designed with two pumps. Each pump is sized to pump the full capacity of the application including the application's peak factors.
42	*N/A	This item is not applicable for this pump station design.
43	[RSWF 42.33]	The MOPS Pump Station only utilizes pumps that can pass a minimum of 3" solid, or grinder/shredder pumps that will grind the wastewater solids into small factional particles before transmission into the force main.
44	[RSWF 42.34]	The MOPS Pump Station, utilizing submersible pumps, always operates under a positive suction head.
45	[62-604.400(2)(b) F.A.C.]	The MOPS Pump Station design incorporates a lightning arrestor and surge capacitor as standard equipment.
46	[RSWF 42.35]	The MOPS Pump Station, in compliance to the NEC code for hazardous location, utilizes pumps rated for either F.M. (Factory Mutual), or Explosion-Proof rated for Class 1, Group "D", Division 1 locations. MOPS Control Centers and control circuits are rated and listed to UL 508A and UL 698A for intrinsically safe use. All the pump station equipment located in the wet well is rated for corrosive type duty service. All MOPS power cables are watertight and sealed in gas tight seal-offs with strain relief. Each MOPS Pump Station is supplied with a fused electrical disconnect switch. All MOPS Pump Station electrical equipment is housed in a N.E.M.A. 4, weatherproof enclosure. Each MOPS Control Center is equipped with a 110-volt power receptacle and ground fault protection.
47	*N/A	This item is not applicable for this pump station design.
48	[RSWF 42.38]	The MOPS Engineering Report specifies the station's operating design at peak hourly flows and with a minimum of 2 feet per second flow velocities through the force main.
49	[RSWF 42.4]	Each MOPS Pump Station Control Center is designed with an alternator to automatically alternate the pumps.
50	[RSWF 42.5]	MOPS Pump Stations comply with the pertinent requirements for valve type and placement for this rule.
51	[RSWF 42.62]	MOPS Pump Stations have 30 minutes or less filling volume time, and the pump cycle starts are designed at or below the manufacturer's published maximum.
52	[RSWF 42.63]	MOPS Pump Stations are designed with a fillet around the bottom of the wet well without interfering with the station's inlet.

53	[RSWF 42.64]	MOPS Pump Stations are designed to be odorless and provide for air displacement to atmosphere via the scrubber.
54	*N/A	This item is not applicable for this pump station design.
55	*N/A	This item is not applicable for this pump station design.
56	*N/A	This item is not applicable for this pump station design.
57	*N/A	This item is not applicable for this pump station design.
58	*N/A	This item is not applicable for this pump station design.
59	[62-604.400(2)(c) F.A.C.]	MOPS Pump Stations are designed without outside lighting, and they do not create any noises since they use submersible pumps. Included with the station is an exclusive odor scrubber to prevent elimination of odors from the station.
60	[62-604.400(2)(d) F.A.C.]	All MOPS Pump Stations are supplied with keyed-alike padlocks for securing the pump station wet well, valve box, control center and any fencing that is supplied with the project (by others). Each MOPS station is equipped with a maintenance sign to be placed in a visible location for notification of alarms.
61	[RSWF 42.8]	All MOPS Pump Stations are equipped with elapsed time meters.
62	[62-555.30(4) F.A.C. and RSWF 42.9]	The MOPS Pump Stations do not have any connections with potable water supplies. Each MOPS Pump Station is supplied with a U.S.C. and A.S.S.E. approved backflow prevention
63	*N/A	This item is not applicable for this pump station design.
64	*N/A	This item is not applicable for this pump station design.
65	[RSWF 44.1]	MOPS Pump Stations incorporate pumps that are totally submersible, operate within the pump's cycle time, and are in compliance with the NEC code for their use. Each MOPS Pump Station is equipped with mechanical seal fail sensors for each pump to detect shaft mechanical seal failure and potential failure.
66	[RSWF 44.2]	MOPS Pump Stations use submersible pumps that auto-connect to the wet well discharge elbows and slide in and out of the wet well without any dewatering. Pumps are removed without removing any piping.
67	[RSWF 44.31]	MOPS Pump Stations' controls and circuits have strain relief, and are sealed and protected through water and gas tight seals. All equipment can be disconnected from outside the wet well.

68	[RSWF 44.32]	MOPS Pump Stations' controls are enclosed in a weatherproof NEMA 4 enclosure. All conduits associated with application are supplied and installed with appropriate seals and according to the NEC code for Class 1, Group "D", Division 1 Hazardous locations.
69	[RSWF 44.33]	All MOPS Pump Stations are equipped with flexible cords in compliance to the requirement of the NEC. Ground-fault interruption is included. All power terminal fittings and cables are protected and corrosion-resistant.
70	[RSWF 44.4]	MOPS Pump Stations are supplied with valve box assemblies, separate from the wet well. Valve box assemblies either have a piped drain back to the wet well, or have a rock bed bottom for draining water from the box.
71	[RSWF 45]	MOPS Pump Stations are designed with alarms for power failure, pump failure, unauthorized entry, and other pump station malfunctions. The MOPS Pump Station conforms to this rule via two methods: 1) Some stations include a 24 hour monitored telemetered system with instant notification of failure, or, 2) Stations incorporate an audio-visual alarm system with a self contained power back-up source for alarms during power failure.
73	[62-604.40(2)(a) F.A.C. and RSWF 46.431]	MOPS Pump Stations incorporate a riser from the force main for quick connection to portable pumping equipment. The MOPS control center is designed to be compatible with temporary power generation equipment.
74	[RSWF 46.411] [RSWF 46.417] [RSWF 46.432]	MOPS control centers have power protection to protect temporary power equipment once regular power is restored.
75	*N/A	This item is not applicable for this pump station design.
76	*N/A	This item is not applicable for this pump station design.
77	*N/A	This item is not applicable for this pump station design.
78	[RSWF 48.1]	MOPS Pump Stations are designed for a minimum of 2 feet per second force main velocities. All stations have a minimum of 4" force mains (unless a grinder/shredder is specified).
82	[RSWF 48.61]	MOPS Pump Station Engineering Reports utilize 120 for the "C" factor, for pipe friction losses, along with utilizing PVC piping.

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

DESIGN DEVIATION WITH VARIANCE REQUEST

This engineering report and the pump station design contained herein, based on compliance to all the requirements as outlined in Chapter 62-604 of the Florida Administrative Code with the request for a variance of design as outlined in Rule 62-604.110 Titled: Applicability.

It is the desire of this design to be approved with the following deviations of the standard requirements of the rule, outlined below is the deviation and reason for this deviation:

*See attachment to DEP application for explanation.

Deviation Request:

No. 51: Change (t-avg) maximum pump cycle, from less than 30 minutes to less than 121 minutes:
Rule 62-604.300 Titled "General Technical Guidance" ask for designing cycle in 4.A, Titled "Manual of Practice No: 9". This manual recommends a pump cycle period every 30 minutes or less. This recommendation is based on the assumption that the wastewater entering a pump station starts to become septic and creates H2S gases and odors in about 20-30 minutes in our Florida climate. This septic wastewater would create an odor problem outside the pump station, through the vent, should the pump cycle time not be met in less than 30 minutes. This pump station will incorporate the M.O.P.S. (Manufactured Odorless Pump Station) designed pump station. This design addresses odor problems from pump stations and is equipped with an odor and gas scrubber; the M.O.P.S. scrubber completely eliminates all mercaptan and gas odor from the pump station, and with the M.O.P.S. scrubber the station would not experience any odor or gas odor problems with a 121 minute cycle time. The scrubber is designed and sized to provide complete odor control for a period of 2 to 3 years, at which time it can be replaced with a replacement odor control scrubber.

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

PRIMARY CALCULATION SHEET FOR M.O.P.S. WASTEWATER PUMP STATION

Advantage Self Storage- Jensen Beach

LEGEND

WHERE:		DESIGN:
Q_{inavg}	= Sewage Flow Rate (influent)	0.4 GPM
d_w	= Inside diameter of wetwell	4.00 FT
D_w	= Outside diameter of wetwell	4.10 FT
D_b	= Outside diameter of base	7.00 FT
H_b	= Height of base	0.10 FT
H_w	= Depth of wetwell	14.00 FT
h_{on}	= Lead pump on	3.75 FT
h_{off}	= Both pumps off	3.25 FT
V_{stor}	= Volume of storage	47.0 GAL
V_w	= Volume of wetwell	184.7 CU FT
V_b	= Volume of base	3.9 CU FT
V_{wall}	= Volume of wall	8.9 CU FT
V_{earth}	= Volume of earth	353.8 CU FT
Q_{inpeak}	= Peak flow to well	1.7 GPM
Q_{pump}	= Pump flow (minimum)	13.0 GPM
	Wetwell basin top elevation	15.0 FT.
	Wetwell basin bottom elevation	1.0 FT.
Q_{pump}	= Design point used	13.0 GPM
	Wear factor	0.0%
T_{avg}	= Max. pump cycle	121.2 MIN
T_{min}	= Min. pump cycle	14.5 MIN
T_{run}	= Min. pump run time	3.7 MIN
V_1	= Velocity FM 1	2.4 FPS
V_2	= Velocity FM 2	0.0 FPS
V_3	= Velocity FM 3	0.0 FPS

WHERE:		DESIGN:
F_{up}	= Weight of up force	11,766 LBS
F_{down}	= Weight of down force	13,302 LBS
AFC_{down}	= Weight of anti-float collar	0 LBS
AFC_{vol}	= Volume of concrete (min)	0 CU YDS
H_{elev}	= Elevation differential	10.8 FT
H_{stat}	= Head in force main	69.3 FT
H_{fric1}	= Friction head FM 1	1.8 FT
H_{fric2}	= Friction head FM 2	0.0 FT
H_{fric3}	= Friction head FM 3	0.0 FT
h_{hi}	= Highest discharge elev.	14.0 FT
L_{pipe1}	= Equiv Length of pipe FM 1	75.0 FT EQUIV
L_{pipe2}	= Equiv Length of pipe FM 2	0.0 FT EQUIV
L_{pipe3}	= Equiv Length of pipe FM 3	0.0 FT EQUIV
d_1	= Foot diameter of pipe FM 1	0.13 FT
d_2	= Foot diameter of pipe FM 2	0.00 FT
d_3	= Foot diameter of pipe FM 3	0.00 FT
C_1	= Pipe roughness factor FM 1	120.0
C_2	= Pipe roughness factor FM 2	0.0
C_3	= Pipe roughness factor FM 3	0.0
P_{fm}	= Pressure in force main	30 PSI
H_v	= Velocity head	0.0 FT (in L_{pipe1})
H_{ps}	= Pump station head loss	0.0 FT (in L_{pipe1})
H_{vv}	= Valve vault head Loss	0.0 FT (in L_{pipe1})
H_{tdh}	= Total dynamic head (calc)	81.9 FT
H_{tdh}	= Design point used	82.0 FT

FORMULAS

Volumes:

V_{stor}	$= 5.872\ (d_w)^2\ (h_{on}-h_{off})$	47.0 GAL
V_w	$= .785\ (D_w)^2\ (H_w)$	184.7 CU FT
V_b	$= .785\ (D_b)^2\ H_b$	3.9 CU FT
V_{wall}	$= .785\ \{(D_w)^2-(d_w)^2\}\ (H_w)$	8.9 CU FT
V_{earth}	$= .785\ \{(D_b)^2-(D_w)^2\}\ (H_w)$	353.8 CU FT

Flows:

Q_{inpeak}	Influent x 425% Peak Factor	1.7 GPM

Run Times:

T_{avg}	$=\{V_{stor}/(Q_{pump}-Q_{inavg})\}+(V_{stor}/Q_{inavg})$	(<30)	121.2 MIN
T_{min}	$= 4(V_{stor}/Q_{pump})$	(>05)	14.5 MIN
T_{run}	$= V_{stor}/(Q_{pump}-Q_{inavg})$	(>02)	3.7 MIN

Velocity:

V_1	$= (2 \times Q_{pump})/(705 \times d_1^2)$ (>2)	2.36 FPS
V_2	$= (2 \times Q_{pump})/(705 \times d_2^2)$ (>2)	0.00 FPS
V_3	$= (2 \times Q_{pump})/(705 \times d_3^2)$ (>2)	0.00 FPS

Flotation:

F_{up}	$= (V_b + V_w) \times 62.4$	11766 LBS
AFC_{down}	$= (F_{up} \times 1.1) - (V_{earth} \times 37.6)$	0 LBS
F_{down}	$=(V_{earth} \times 37.6) + AFC_{down}$	13302 LBS
	$F_{down}/F_{up} > 1.1$ (minimum)	Pass Pass/Fail
AFC_{vol}	$((AFC_{down}/87.6) / 27)$	0.0 Cu. Yds.

Head:

H_{elev}	$= h_{hi} - h_{off}$	10.8 FT
H_{stat}	$= P_{fm} \times 2.31$	69.3 FT
H_{fric1}	$=(3.022xV^{1.85}xL_{pipe1})/(d^{1.185}xC^{1.852})$	1.8 FT
H_{fric2}	$=(3.022xV^{1.85}xL_{pipe2})/(d^{1.185}xC^{1.852})$	0.0 FT
H_{fric3}	$=(3.022xV^{1.85}xL_{pipe3})/(d^{1.185}xC^{1.852})$	0.0 FT
H_{tdh}	$= H_{elev} + H_{slat} + H_{fric1} + H_{fric2} + H_{fric3} + H_v^* + H_{ps}^* + H_{vv}^* + wf$	81.9 FT

*These are included in L_{pipe1}

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

PRIMARY CALCULATION SHEET FOR M.O.P.S. WASTEWATER PUMP STATION

Advantage Self Storage- Jensen Beach

PRIMARY DESIGN PT. = 13 GPM @ 82' TDH (Grinder)

A) Influent Flow Rate = 525 GPD
525/(60x24) = 0.4 (24 HOUR DAY)
0.4 GPM = Avg. Influent rate X 425% Peak Factor = 1.7 GPM
1.7 GPM = Peak influent RATE
Pump Design Point Used 13 GPM

B1) Force Main Size #1 = 2"
2 FPS = Approx. 12 GPM
H fric1 = see step C
V1 @ 13 GPM = (2 X 13) / (705 x 0.0156) = 2.36 FPS

B2) Force Main Size #2 = 0"
2 FPS = Approx. 0 GPM
H fric2 = see step C
V2 @ 13 GPM = (2 X 13) / (705 x 0) = 0 FPS

B3) Force Main Size #3 = 0"
2 FPS = Approx. 0 GPM
H fric3 = see step C
V3 @ 13 GPM = (2 X 13) / (705 x 0) = 0 FPS

C) Total Head = $H_{elev}+H_{stat}+H_{fric1}+H_{fric2}+H_{fric3}+H_v+H_{ps}+H_{vv}+wf$
H elev = 10.75'
H stat = 69.3'
H velocity = 0' (velocity head)
H station = 69.3' (misc. station + valve losses)
H fric1 = (3.022 x 2.36^1.85 x 75)/(0.125^1.185 x 120^1.852)
= 1.8' LOSS
H fric2 = (3.022 x 0^1.85 x 0)/(0^1.185 x 0^1.852)
= 0' LOSS
H fric3 = (3.022 x 0^1.85 x 0)/(0^1.185 x 0^1.852)
= 0' LOSS
F.M.1 length with misc. fittings = 75' equiv. length
F.M.2 length with misc. fittings = 0' equiv. length
F.M.3 length with misc. fittings = 0' equiv. length
Actual TDH = 81.85' + 0% wear factor = 81.85' TDH
Use 82' TDH

D) T run = Vstor / (Qpump - Qinavg)
T run = 2 minutes minimum
2 < Vstor / (13 - 0.4)
Vstor > 25.2 gal.
Vstor Min. = (Qpump - Qinavg) x 2 = (13 - 0.4) X 2 = 25.2 gal

T avg = (Vstor / Qpump - Qinavg) + Vstor / Qinavg
T avg < 30 minutes
Max Vstor = ((Qpump - Qinavg) x 30 x Qinavg) / Qpump
Max Vstor = ((13 - 0.4) x 30 x 0.4) / 13
Max Vstor = 11.6

25.2 < Vstor < 11.6
Choose 47 gal Vstor = 0.5' depth in 4' dia. wetwell

E) T avg =(47 / (13 - 0.4) + 47 / 0.4
= 3.73 + 117.44
= 121.17 minutes
T min = 4 x (47 / 13) = 14.45 > 5 minutes
T run = 47 / (13 - 0.4)
= 3.7 > 2 minutes

F) Vstor = 5.872 x 16 x 0.5
= 47 gal
Vw = .785 x 17 x 14
= 184.7 cu.ft.
Vb = .785 x 49 x 0.1
= 3.85 cu.ft.
Vwall = .785 x (16.81 - 16) x 14
= 8.9 cu.ft
Vearth = .785 x (49 - 16.81) x 14
= 353.8 cu.ft.
= 13,302 lbs weight

G) Fup = (Vb + Vw) x 62.4
= (3.85 + 184.7) x 62.4
= 11,766 lbs. MAX.

Anti-float collar:
= ((Fup x 1.1) - (Vearth x 37.6)) / 87.6
= (12942 - 13302) / 87.6
= -4.1051 cu. Ft.
= 0 cu.ft. Concrete (use 0 yds)

Fdown = (Vearth x 37.6) + antifloat collar
= 13,302 + 0
= 13,302 lbs. Min.

Note: Fup x 1.1 is less than or equal to Fdown
= 12942 <= 13302

NOTES: A) Net buoyancy of concrete
= 150 LBS/CU.FT. - 62.4 LBS/CU. FT.
(WATER) = 87.6 LBS/CU. FT.
B) Weight of interior equipment not considered
Fdown ignores the benefit of the weight of:
pumps, guide systems, water, basin, etc.

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

SECONDARY CALCULATION SHEET FOR M.O.P.S. WASTEWATER PUMP STATION

Advantage Self Storage- Jensen Beach

LEGEND

WHERE:		DESIGN:
Q_{inavg}	= Sewage Flow Rate (influent)	0.4 GPM
d_w	= Inside diameter of wetwell	4.00 FT
D_w	= Outside diameter of wetwell	4.10 FT
D_b	= Outside diameter of base	7.00 FT
H_b	= Height of base	0.10 FT
H_w	= Depth of wetwell	14.00 FT
h_{on}	= Lead pump on	3.75 FT
h_{off}	= Both pumps off	3.25 FT
V_{stor}	= Volume of storage	47.0 GAL
V_w	= Volume of wetwell	184.7 CU FT
V_b	= Volume of base	3.9 CU FT
V_{wall}	= Volume of wall	8.9 CU FT
V_{earth}	= Volume of earth	353.8 CU FT
Q_{inpeak}	= Peak flow to well	1.7 GPM
Q_{pump}	= Pump flow (minimum)	23.0 GPM
	Wetwell basin top elevation	15.0 FT.
	Wetwell basin bottom elevation	1.0 FT.
Q_{pump}	= Design point used	23.0 GPM
	Wear factor	0.0%
T_{avg}	= Max. pump cycle	119.5 MIN
T_{min}	= Min. pump cycle	8.2 MIN
T_{run}	= Min. pump run time	2.1 MIN
V_1	= Velocity FM 1	4.2 FPS
V_2	= Velocity FM 2	0.0 FPS
V_3	= Velocity FM 3	0.0 FPS

WHERE:		DESIGN:
F_{up}	= Weight of up force	11,766 LBS
F_{down}	= Weight of down force	13,302 LBS
AFC_{down}	= Weight of anti-float collar	0 LBS
AFC_{vol}	= Volume of concrete (min)	0 CU YDS
H_{elev}	= Elevation differential	10.8 FT
H_{stat}	= Head in force main	23.1 FT
H_{fric1}	= Friction head FM 1	5.1 FT
H_{fric2}	= Friction head FM 2	0.0 FT
H_{fric3}	= Friction head FM 3	0.0 FT
h_{hi}	= Highest discharge elev.	14.0 FT
L_{pipe1}	= Equiv Length of pipe FM 1	75.0 FT EQUIV
L_{pipe2}	= Equiv Length of pipe FM 2	0.0 FT EQUIV
L_{pipe3}	= Equiv Length of pipe FM 3	0.0 FT EQUIV
d_1	= Foot diameter of pipe FM 1	0.13 FT
d_2	= Foot diameter of pipe FM 2	0.00 FT
d_3	= Foot diameter of pipe FM 3	0.00 FT
C_1	= Pipe roughness factor FM 1	120.0
C_2	= Pipe roughness factor FM 2	0.0
C_3	= Pipe roughness factor FM 3	0.0
P_{fm}	= Pressure in force main	10 PSI
H_v	= Velocity head	0.0 FT (in L_{pipe1})
H_{ps}	= Pump station head loss	0.0 FT (in L_{pipe1})
H_{vv}	= Valve vault head Loss	0.0 FT (in L_{pipe1})
H_{tdh}	= Total dynamic head (calc)	39.0 FT
H_{tdh}	= Design point used	39.0 FT

FORMULAS

Volumes:

V_{stor}	$= 5.872\ (d_w)^2\ (h_{on}-h_{off})$	47.0 GAL
V_w	$= .785\ (D_w)^2\ (H_w)$	184.7 CU FT
V_b	$= .785\ (D_b)^2\ H_b$	3.9 CU FT
V_{wall}	$= .785\ \{(D_w)^2-(d_w)^2\}\ (H_w)$	8.9 CU FT
V_{earth}	$= .785\ \{(D_b)^2-(D_w)^2\}\ (H_w)$	353.8 CU FT

Flows:

Q_{in}	Influent x 425% Peak Factor	1.7 GPM

Run Times:

T_{avg}	$=\{V_{stor}/(Q_{pump}-Q_{inavg})\}+(V_{stor}/Q_{inavg})$	(<30)	119.5 MIN
T_{min}	$= 4(V_{stor}/Q_{pump})$	(>05)	8.2 MIN
T_{run}	$= V_{stor}/(Q_{pump}-Q_{inavg})$	(>02)	2.1 MIN

Velocity:

V_1	$= (2 \times Q_{pump})/(705 \times d_1^2)$ (>2)	4.18 FPS
V_2	$= (2 \times Q_{pump})/(705 \times d_2^2)$ (>2)	0.00 FPS
V_3	$= (2 \times Q_{pump})/(705 \times d_3^2)$ (>2)	0.00 FPS

Flotation:

F_{up}	$= (V_b + V_w) \times 62.4$	11766 LBS
AFC_{down}	$= (F_{up} \times 1.1) - (V_{earth} \times 37.6)$	0 LBS
F_{down}	$= (V_{earth} \times 37.6) + AFC_{down}$	13302 LBS
	$F_{down}/F_{up} > 1.1$ (minimum)	Pass Pass/Fail
AFC_{vol}	$((AFC_{down}/87.6) / 27)$	0.0 Cu. Yds.

Head:

H_{elev}	$= h_{hi} - h_{off}$	10.8 FT
H_{stat}	$= P_{fm} \times 2.31$	23.1 FT
H_{fric1}	$=(3.022 \times V^{1.85} \times L_{pipe1})/(d^{1.185} \times C^{1.852})$	5.1 FT
H_{fric2}	$=(3.022 \times V^{1.85} \times L_{pipe2})/(d^{1.185} \times C^{1.852})$	0.0 FT
H_{fric3}	$=(3.022 \times V^{1.85} \times L_{pipe3})/(d^{1.185} \times C^{1.852})$	0.0 FT
H_{tdh}	$= H_{elev} + H_{stat} + H_{fric1} + H_{fric2} + H_{fric3} + H_v^* + H_{ps}^* + H_{vv}^* + wf$	39.0 FT

*These are included in L_{pipe1}

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

SECONDARY CALCULATION SHEET FOR M.O.P.S. WASTEWATER PUMP STATION

Advantage Self Storage- Jensen Beach

SECONDARY DESIGN PT. = 23 GPM @ 39' TDH (Grinder)

A) Influent Flow Rate = 525 GPD
525/(60x24) = 0.4 (24 HOUR DAY)
0.4 GPM = Avg. Influent rate X 425% Peak Factor = 1.7 GPM
1.7 GPM = Peak influent RATE
Pump Design Point Used 23 GPM

B1) Force Main Size #1 = 2"
2 FPS = Approx. 12 GPM
H fric1 = see step C
V1 @ 23 GPM = (2 X 23) / (705 x 0.0156) = 4.18 FPS

B2) Force Main Size #2 = 0"
2 FPS = Approx. 0 GPM
H fric2 = see step C
V2 @ 23 GPM = (2 X 23) / (705 x 0) = 0 FPS

B3) Force Main Size #3 = 0"
2 FPS = Approx. 0 GPM
H fric3 = see step C
V3 @ 23 GPM = (2 X 23) / (705 x 0) = 0 FPS

C) Total Head = $H_{elev}+H_{stat}+H_{fric1}+H_{fric2}+H_{fric3}+H_v+H_{ps}+H_{vv}+wf$
H elev = 10.75'
H stat = 23.1'
H velocity = 0' (velocity head)
H station = 23.1' (misc. station + valve losses)
H fric1 = (3.022 x 4.176^1.85 x 75)/(0.125^1.185 x 120^1.852)
= 5.1' LOSS
H fric2 = (3.022 x 0^1.85 x 0)/(0^1.185 x 0^1.852)
= 0' LOSS
H fric3 = (3.022 x 0^1.85 x 0)/(0^1.185 x 0^1.852)
= 0' LOSS
F.M.1 length with misc. fittings = 75' equiv. length
F.M.2 length with misc. fittings = 0' equiv. length
F.M.3 length with misc. fittings = 0' equiv. length
Actual TDH = 38.95' + 0% wear factor = 38.95' TDH
Use 39' TDH

D) T run = Vstor / (Qpump - Qinavg)
T run = 2 minutes minimum
2 < Vstor / (23 - 0.4)
Vstor > 45.2 gal.
Vstor Min. = (Qpump - Qinavg) x 2 = (23 - 0.4) X 2 = 45.2 gal

T avg = (Vstor / Qpump - Qinavg) + Vstor / Qinavg
T avg < 30 minutes
Max Vstor = ((Qpump - Qinavg) x 30 x Qinavg) / Qpump
Max Vstor = ((23 - 0.4) x 30 x 0.4) / 23
Max Vstor = 11.8

45.2 < Vstor < 11.8
Choose 47 gal Vstor = 0.5' depth in 4' dia. wetwell

E) T avg =(47.0 / (23 - 0.4) + 47.0 / 0.4
= 2.08 + 117.44
= 119.52 minutes
T min = 4 x (47.0 / 23) = 8.17 > 5 minutes
T run = 47.0 / (23 - 0.4)
= 2.1 > 2 minutes

F) Vstor = 5.872 x 16 x 0.5
= 47.0 gal
Vw = .785 x 17 x 14
= 184.7 cu.ft.
Vb = .785 x 49 x 0.1
= 3.85 cu.ft.
Vwall = .785 x (16.81 - 16) x 14
= 8.9 cu.ft
Vearth = .785 x (49 - 16.81) x 14
= 353.8 cu.ft.
= 13,302 lbs weight

G) Fup = (Vb + Vw) x 62.4
= (3.85 + 184.7) x 62.4
= 11,766 lbs. MAX.

Anti-float collar:
= ((Fup x 1.1) - (Vearth x 37.6)) / 87.6
= (12942 - 13302) / 87.6
= -4.1051 cu. Ft.
= 0 cu.ft. Concrete (use 0 yds)

Fdown = (Vearth x 37.6) + antifloat collar
= 13,302 + 0
= 13,302 lbs. Min.

Note: Fup x 1.1 is less than or equal to Fdown
= 12942 <= 13302

NOTES: A) Net buoyancy of concrete
= 150 LBS/CU.FT. - 62.4 LBS/CU. FT.
(WATER) = 87.6 LBS/CU. FT.
B) Weight of interior equipment not considered
Fdown ignores the benefit of the weight of:
pumps, guide systems, water, basin, etc.

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

EQUIVALENT PIPE LENGTHS

Advantage Self Storage- Jensen Beach

MOPS

FITTING	MATERIAL	PIPE SIZE IN INCHES 1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	FORCE MAIN RUN #1 1 1/2 QTY	TOTALS	FORCE MAIN RUN #2 QTY	TOTALS	FORCE MAIN RUN #3 QTY	TOTALS
90° Elbow	PVC	4	4	4	6	7	8	11	16	21	26	32	37	43		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	4	5	8	10	12	15	17	19		0 ft		0 ft		0 ft
45° Elbow	PVC	2	2	3	4	4	4	5	8	11	14	16	18	20		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	3	4	5	7	8	10	12	13		0 ft		0 ft		0 ft
22 ½° Elbow	PVC	2	2	3	3	4	4	5	5	6	7	10	12	14		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	3	4	4	5	6	7	8	9		0 ft		0 ft		0 ft
11 ¼° Elbow	PVC	2	2	3	3	4	4	5	5	6	7	9	11	12		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	2	3	3	4	4	5	6	7		0 ft		0 ft		0 ft
Run Tee	PVC	3	3	3	4	5	6	8	12	14	18	20	25	27		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	2	3	4	4	5	6	7	8		0 ft		0 ft		0 ft
Branch Tee	PVC	8	8	9	12	15	16	22	33	49	57	67	78	88		0 ft		0 ft		0 ft
	HDPE ID	0	0	0	0	0	0	0	0	0	0	0	0	0		0 ft		0 ft		0 ft
	Ductile Iron	0	0	0	0	0	8	10	15	20	25	30	35	39		0 ft		0 ft		0 ft
Ball/Gate Valve	PVC or Bronze	2	2	3	3	3	3	3	4	4	4	4	4	4		0 ft		0 ft		0 ft
	Ductile Iron	2	2	3	3	3	3	3	4	4	4	4	4	4		0 ft		0 ft		0 ft
Check Valve (Swing or Ball)	PVC or Bronze	13	13	15	19	22	27	38	52	74	98	120	0	0	1	15 ft		0 ft		0 ft
	Ductile Iron	13	13	15	19	22	27	38	52	74	98	120	0	0		0 ft		0 ft		0 ft
RUNNING LENGTH OF FORCE MAIN																10 ft		ft		ft
MOPS Valve Vault Losses	PVC Bronze Ductile Iron	30	30	34	43	50	57	77	107	151	156	189	213	245		34 ft				
MOPS Wetwell Losses	PVC Bronze Ductile Iron	Valve Vault Losses = 1 G/BV, 1CV, 1 90° Elbow, 1 Branch Tee, + 3ft Pipe (All PVC) Wet Well Losses = 2 90° Elbows, Depth -2ft Vertical Pipe, + 4ft Horiz. Pipe (All PVC)														16 ft				
L_{pipe1}, L_{pipe2}, and L_{pipe3} =																75 ft		0 ft		0 ft

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

BUOYANCY CALCULATIONS - FIBERGLASS WET WELL

GOAL: Downward force Fdown, from weight of earth > Upward force Fup, from water buoyancy, by at least 10% (that is Fdown >Fup * 1.1).

Assumptions:

1. Water weight = 62.4 lbs./ cu.ft.
2. Fiberglass weight = Not Considered
3. Soil Weight, when submerged in water = 37.6 lbs./ cu ft.
4. Fiberglass weight when submerged in water = 0
5. The hatch cover area is not used in calculating Fup or Fdown.
6. The weight of any equipment or piping is not used in figuring Fdown.
7. Vearth (the weight of the volume of compacted soil, submerged in water, above the outside diam. of the wet well base) is used in calculating Fdown.
8. No shear / friction forces or 'cone effects' are considered for Fdown.
9. Fdown calculation may include any required concrete anti-flotation collar.
10. Calculations are based on the wet well being fully empty and the water table being at ground elevation level.

All Calculations are based on Current figures in report.

Please check the "Formulas & Constants" sheet for reference.

Fup =	11,766 LBS
Fdown =	13,302 LBS
Safety Factor	1.1
Is Fdown > Fup * 1.1	PASS

CONCLUSION:

VrequiredConcrete = 0 cu.ft. Concrete (use 0 yds)

If VrequiredConcrete = 0 then no anti-flotation collar is required. If VrequiredConcrete is > 0 then a concrete collar in the amount of VrequiredConcrete must be used for the anti-flotation collar.

Based on the conclusions above, the fiberglass wet well, as designed, will not experience any flotation problems, even under the worst cases. The Buoyancy safety factor is in excess of 10%.