**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)*

306

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.

307

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 | Jeffrey | | |
|---|---|---|---|
| *(Last)* | *(First)* | *(Middle)* | *(Suffix)* |

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

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

| CO | United States |
|---|---|
| *(Province – if applicable)* | *(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.

Disclaimer:
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

- × 11.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- WIRING PULL BOX
- ELECTRIC METER
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER
- 1078 OAK TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- 1064 PALM TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- 10023 PINE TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- 221 HOLLY TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)

## 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.

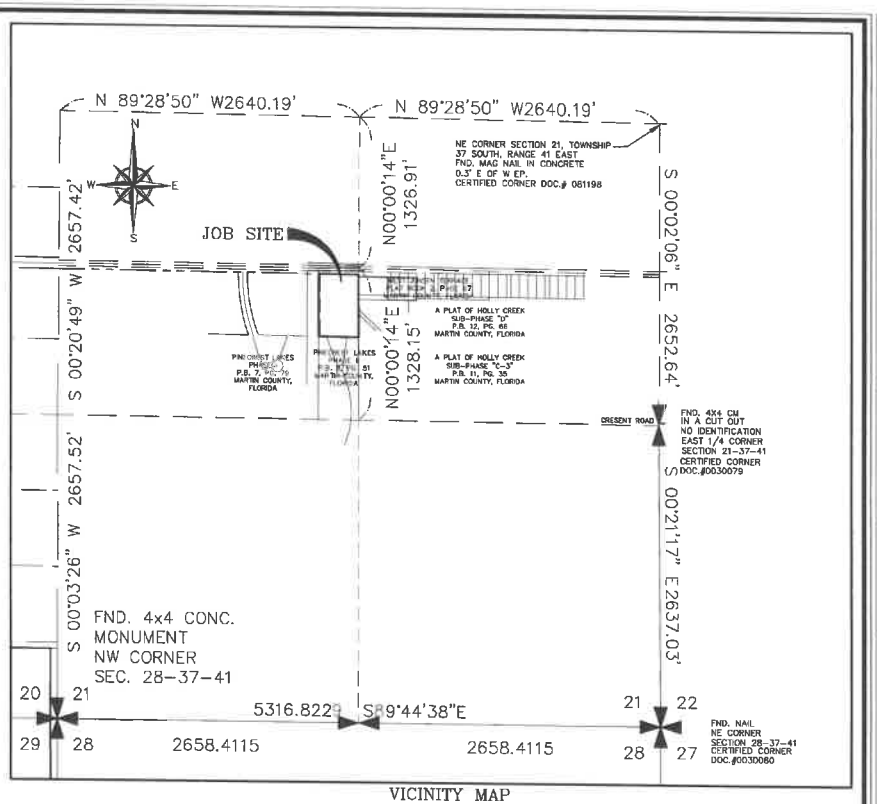
CONTAINING 185,811.7 SQUARE FEET OR 4.27 ACRES MORE OR LESS.

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°09'39"E ALONG THE WEST LINE OF SAID EAST 337.66 FEET A DISTANCE OF 566.27 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 15.88 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 = 8.00 FEET, REAR =8.00 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(O-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), FARRELL ADVANTAGE JENSEN BEACH HOLDING, LLC, FIRST HOUSING DEVELOPMENT CORPORATION OF FLORIDA, FIDELITY AMERICAN TITLE INSURANCE COMPANY, AND KENSINGTON VANGUARD NATIONAL LAND SERVICES, 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
7967 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5703 (772)286-5633 FAX
LICENSED BUSINESS NO. 6852


| DATE | REVISIONS |
|---|---|
| 7/02/2013 | REVISE CERTIFICATIONS |
| 8/06/2013 | ADD ZONING NOTE |
| 8/12/2010 | ADD EPL EASEMENT |
| 4/11/2007 | UPDATE SURVEY |
| 4/03/2017 | ADD PINECREST AREA |
| 10/26/2017 | UPDATE SURVEY |
| 6/29/2018 | REVISE CERTIFICATION |
| 8/13/2018 | REVISE PER M.G. COMMENTS |

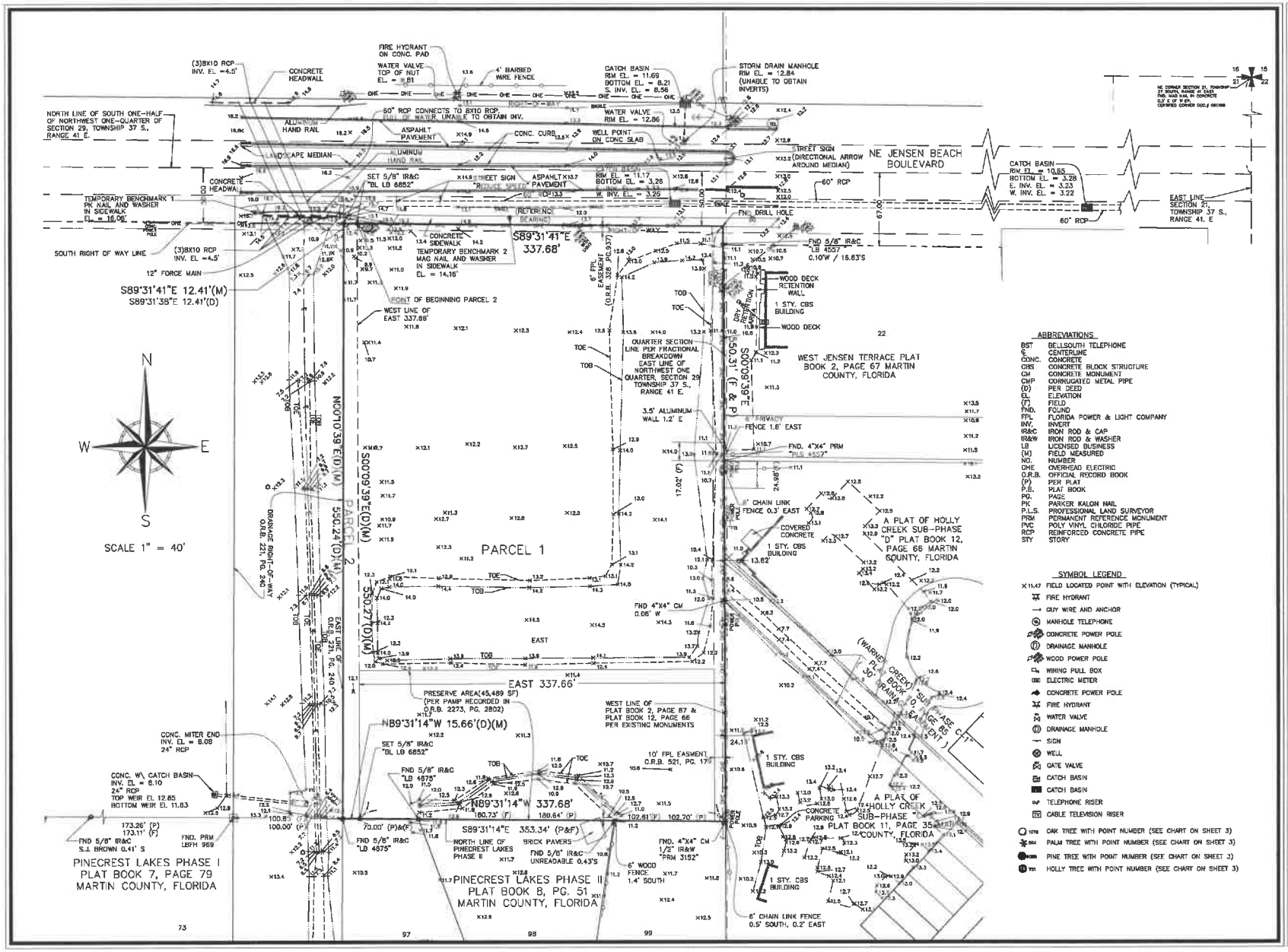
DATE 05/07/18
SCALE N/A
FIELD BK. JENSEN BEACH 3
DRAWN BY P.C.F./C.R.
CHECKED BY E.A.L.

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. 05-18 A





BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7997 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5783 (772)286-5933 FAX
LICENSED BUSINESS NO. 6852


| DATE | REVISIONS |
|---|---|
| 7/02/2019 | REVISE CERTIFICATIONS |
| 6/06/2018 | ADD ZONING NOTE |
| 5/12/2010 | ADD FPL EASEMENT |
| 4/01/2010 | UPDATE SURVEY |
| 4/24/2017 | ADD PRESERVE AREA |
| 10/26/2017 | UPDATE SURVEY |
| 6/29/2018 | REVISE CERTIFICATION |
| 6/03/2019 | REVISE PER M.C. COMMENTS |

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

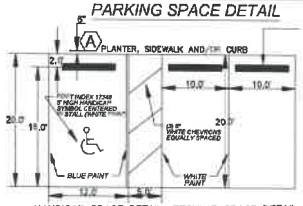
# REVISED MAJOR FINAL SITE PLAN

| 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 | [illegible] CITY |
| **OPEN SPACE** | |
| REQUIRED OPEN SP[illegible] | 40% 77,362 SF OR 1.78 AC |
| PROVIDED PERVIOUS [illegible] | 34.8% (1.55 AC) 68,029 SF |
| PRESERVE AREA | 23.4% (1.06 AC) 45,489 SF |
| WETLAND | N/A |
| UPLAND | 23.4% (1.06 AC) 45,489 SF |
| TOTAL OPEN SPACE (PERVIOUS + PRESERVE AREA) | 58.2% (2.58 AC) 113,518 SF |
| **IMPERVIOUS AREA** | |
| TOTAL IMPERVIOUS AREA | 2.39 AC (99,888 SF) |
| BUILDING A | 0.26 AC (11,350 SF) |
| BUILDING B | 0.27 AC (11,950 SF) |
| BUILDING C | 0.8 AC (34,700 SF) |
| TOTAL BUILDING COVERAGE | 1.33 AC (58,000 SF) |
| PAVEMENT, ROADS | 0.93 AC (40,685 SF) |
| SIDEWALKS, PATH, ETC. | 0.03 AC (1,203 SF) |
| SURFACE WATER | 0 AC |
| **BUILDING DATA** | |
| MAX ALLOWED | PROVIDED |
| MAX COVERAGE: 40% | 30.0% |
| MAX HEIGHT: 30 ft | 30 ft |
| NUMBER OF BUILDINGS | 3 |
| NUMBER OF STORIES | 1 (2-STORY); 2 (1-STORY) |
| WATER PROVIDER | MARTIN COUNTY UTILITIES DEPT. |
| SEWER PROVIDER | MARTIN COUNTY UTILITIES DEPT. |
| ELECTRICITY PROVIDER | FLORIDA POWER & LIGHT |
| REQUIRED BUFFERS/SETBACKS | GENERAL COMMERCIAL |
| FRONT - VIEA 10' | FRONT - +/- 41 |
| REAR - SF RESIDENTIAL TYPE 3 - 30' WITH WALL | REAR - +/- 171' |
| SIDE - COMM. OFFICE TYPE 1 - 20' WITH WALL | SIDE - +/- 21' |
| SIDE - SF RESIDENTIAL TYPE 3 - 30' WITH WALL | SIDE - +/- 78' |

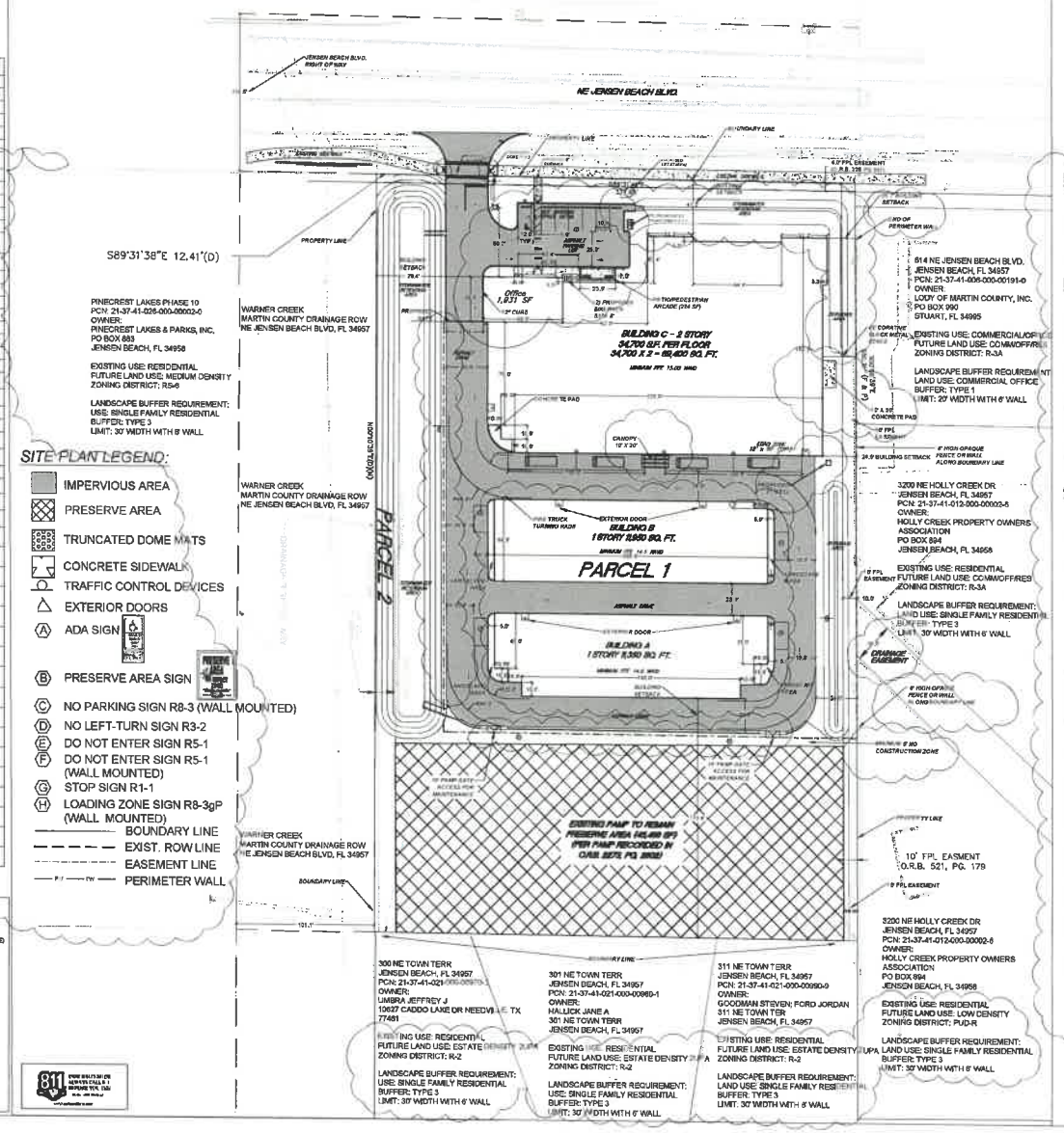
| PARKING DATA | |
|---|---|
| LAND USE | STORAGE FACILITY |
| TOTAL GROSS FLOOR AREA | 92,700 SF |
| *92,700 SF@ = 0.07 (X) = 4 | 11 |
| STANDARD PARKING REQUIRED | 11 |
| STANDARD PARKING SUPPLY | 10 |
| REQUIRED HANDICAP PARKING | 1 |
| HANDICAP PARKING PROVIDED | 1 |
| REQUIRED LOADING SPACES | 4 |
| PROVIDED LOADING SPACES | 4 |
| TOTAL PARKING PROVIDED | 11 |
| TOTAL BICYCLE RACKS PROVIDED | 2 |
| TOTAL BENCHES PROVIDED | 2 |

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

## PARKING SPACE DETAIL




HANDICAP SPACE DETAIL REGULAR SPACE DETAIL




## PRESERVE AREA NOTES:

1. NEW CONSTRUCTION (INCLUDING FILL PROPOSED ADJACENT TO WETLAND BUFFER ZONES AND UPLAND PRESERVE AREAS) SHALL BE SET BACK A MINIMUM OF 50' FROM PRIMARY STRUCTURES; SETBACKS FOR ACCESSORY STRUCTURES, SUCH AS, BUT NOT LIMITED TO, POOL DECKS, SCREEN ENCLOSURES AND DRIVEWAYS, SHALL BE 5'.
2. ALL PRESERVE AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PRESERVE AREA MANAGEMENT PLAN (PAMP).

## PARKING NOTES:

1. A PARKING VARIANCE IS BEING APPLIED FOR THIS DEVELOPMENT.
2. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), OR OTHER APPLICABLE STANDARDS.
3. EACH SUCH PARKING SPACE MUST BE STRIPED IN A MANNER THAT IS CONSISTENT WITH THE STANDARDS OF THE CONTROLLING JURISDICTION OR OTHER SPACES PROMINENTLY OUTLINED WITH BLUE PAINT, AND MUST BE REPAINTED WHEN NECESSARY, TO BE CLEARLY DISTINGUISHABLE AS A PARKING SPACE DESIGNATED FOR PERSONS WHO HAVE DISABILITIES. THE SPACE MUST BE POSTED WITH A PERMANENT ABOVE-GRADE SIGN OF A COLOR AND DESIGN APPROVED BY THE DEPARTMENT OF TRANSPORTATION, WHICH IS 60 INCHES (1525 MM) ABOVE THE FINISHED FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN AND WHICH BEARS THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND THE CAPTION "PARKING BY DISABLED PERMIT ONLY."

## GENERAL SITE PLAN NOTES:

1. THE PROPOSED DEVELOPMENT SHALL BE PERMITTED IN ONE PHASE.
2. THERE ARE NO EXISTING STRUCTURES WITHIN THE PROPOSED DEVELOPMENT SITE TO BE REMOVED.
3. ELEVATIONS SHOWN ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
4. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH MARTIN COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES SPECIFICATIONS, LATEST EDITION.
5. ALL ON-SITE WATER AND SEWER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE OWNER.
6. ALL PROHIBIT EXOTIC PLANT SPECIES SHALL BE REMOVED FROM THE SITE PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. PERPETUAL MAINTENANCE IS REQUIRED TO PROHIBIT THE REESTABLISHMENT OF INVASIVE EXOTIC SPECIES WITHIN PRESERVATION AREAS AND PLANTED LANDSCAPE OR LAKE LITTORAL AREAS AND STORMWATER MANAGEMENT AREAS AS PROVIDED ON THE PLANS APPROVED WITH THE DEVELOPMENT ORDER.
7. STORMWATER MANAGEMENT AREAS ARE TO BE MAINTAINED WITH PLANTED NATIVE VEGETATION IN PERPETUITY.
8. ANY SIGNIFICANT ALTERATIONS TO THE APPROVED PLANS WILL REQUIRE A RE-SUBMITTAL AND APPROVAL BY THE RESPECTIVE GOVERNING AGENCY(S). ANY WORK DONE PRIOR TO THE RESPECTIVE APPROVAL(S) IS AT THE RISK OF THE OWNER, DEVELOPER AND CONTRACTOR. SIGNIFICANT - WILL BE DETERMINED BY SOLELY BY THE COUNTY.
9. ANY LIGHTING USED TO ILLUMINATE ANY ON OR OFF STREET PARKING AREA SHALL BE ARRANGED TO REFLECT THE LIGHT AWAY FROM ADJACENT RESIDENTIAL PREMISES AND PUBLIC RIGHT-OF-WAY. THERE WILL BE NO LIGHT SPILLAGE OR GLARE BEYOND THE PROJECT SITE.
10. BICYCLE RACKS SHALL BE PROVIDED WITHIN 50 FEET OF ANY CUSTOMER ENTRANCE. REQUIRED BIKE RACKS SHALL BE INVERTED "U" TYPE S SHALL BE DESIGNED TO STORE A MINIMUM OF 6 6 BICYCLES EACH. BENCHES SHALL BE NOT LESS THAN 6 FEET IN LENGTH AND SHALL PROVIDE STRUCTURAL OR VEGETATIVE SHADING.
11. IF DURING CONSTRUCTION ANY EVIDENCE OF THE PRESENCE OF STATE AND/OR FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND MARTIN COUNTY SHALL BE NOTIFIED WITHIN 24-48 HOURS.

## 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, 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 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 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 15.66 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.

SHAUN MACKENZIE, P.E.
FLORIDA LICENSE NO. 61751


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


Expertise, Relationships, & Superior Client Service

MacKenzie Engineering & Planning, Inc.

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

SCALE 1" = 40'
APPROVED: SM
DRAWN: EJJ
CHECKED: SGM
DATE: 08/31/2018
FIELD BOOK NO:

COUNTY PROJ #: J040 - 011
MC RECORD #: DEV2018040004
DESIGNER: EJJ
PM: SGM
SUBMITTAL - 08/31/2018
REVISION- 1. MC 08/13/2018

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

311

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

August 31, 2018

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

Digitally signed by Shaun G MacKenzie
Date: 2018.09.07 09:11:29 -04'00'

Shaun G. MacKenzie P.E.
FL License No. 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 250 gallons per day divided by an average consumption of water at a rate of 250 GPD (considered equal to 1 ERC). As a result, 1 ERC is needed (see attached ERC Reduction Analysis).

**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
2a. ERC Reduction Analysis
2b. 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

# 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
COMMON AREA
N

# ATTACHMENT 2a:
# ERC REDUCTION ANALYSIS

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

August 29, 2018

Leo Repetti, PE
Martin County Utilities & Solid Waste
Martin County Growth Management
2401 SE Monterey Road
Stuart, FL 34996
Phone: 772-320-3065
Email: lrepetti@martin.fl.us

Re: Advantage Development Group
Advantage Self Storage – Revised Major Final Site Plan
ERC Reduction Request

MacKenzie Engineering & Planning, Inc. was retained to determine an estimated water usage for a Mini-Self Storage. The applicant proposes to construct a 92,700 SF storage facility at 528 NE Jensen Beach Blvd, Jensen Beach, Florida.

An analysis was performed of three (3) similar Self Storage Facilities owned by Advantage Development Group to determine an average water usage/ERC for such use. The projected use will have 1 restroom and no more than 2 employee's onsite. Based on our analysis, the development is projected to use 194.7 GPD (0.78 ERC's). Please see attached analysis and supporting documentation.

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 Usage Comparison for a Mini-Self Storage Facility | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) | (K) | (L) |
| **Property** | **Site Address/Location** | **Water Usage (Gal.) *** | **Billing Period** | **# of Days** | **Avg. Gal. Per Day (GPD)** | **Bldg. Size (KSF) ****| **Avg. GPD KSF** | **Avg. Water Usage (GPD/KSF)** | **Proposed Site Size (KSF)** | **Proposed GPD** | **Proposed ERC** |
| Mixed AADC 021 - Silva Corp LLC | 97 Rantoul Street, Beverly MA | 546 | 10/24/17 - 11/24/17 | 31 | 18 | 29.564 | 0.60 | 2.10 | 92.7 | 194.7 | **0.78** |
| Advantage Storage | 10 Council Drive, Woodsboro, MD | 23,069 | 09/25/17 - 12/27/17 | 93 | 248 | 117.555 | 2.11 | | | | |
| Advantage US Holdings 111 LLC | 2938 Walden Ave Depew, NY | 44,000 | 11/05/17 - 02/04/18 | 91 | 484 | 134.524 | 3.59 | | | | |

* Water Bills of Self Storage Facilities owned by Advantage Development Group; Mixed AADC 021 site provides their water usage per cubic feet therefore, 73 CF * 7.48 gal/CF = 546 gallons
** Estimate based on aerial photography
(F) = (E) / (C)
(H) = (F) / (G)
(I) = SUM(H) / 3
(K) = (I) * (J)
(L) = (K) / 250 gallons per MC Code (1 ERC = 250 GPD)

**City of Salem**
Office of the Tax Collector
93 Washington Street
Salem, MA 01970
**000005 0000905**

# City of Salem
## Water & Sewer Bill

**You can pay your water & sewer bill on-line at www.salem.com**

| Account # | Bill # |
|---|---|
| M82001 | 1108244 |

Failure to receive this bill does not relieve the customer of the responsibility to pay. Amounts not received on or before the due date are subject to interest charges.

MIXED AADC 021
SILVACOR, INC
736 MAIN AVE STE 7
DURANGO CO 81301-5479

Questions regarding billing, please contact (978) 619-5674
Questions regarding payments, please contact (978) 619-5621

**Water & Sewer FY 2018 Customer Copy**

| Account # | Bill # | Parcel ID | Bill Date | Due Date |
|---|---|---|---|---|
| M82001 | 1108244 | 250492 | 12/07/2017 | 12/28/2017 |

Service Location: 4 JEFFERSON AVENUE

| Service Type | Previous Read Date | Current Read Date | Read Code | Previous Reading | Current Reading | Usage (c.f.) | Charges |
|---|---|---|---|---|---|---|---|
| MO W 2.0 NS | 10/24/2017 | 11/24/2017 | A | 3063 | 3136 | 73 | $80.80 |
| MO S 2.0 NS | | | A | | | 73 | $6.72 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | |
|---|---|
| REPLACED METER USAGE | 0 |

| | |
|---|---|
| Past Due | $0.00 |
| Interest on Past Due | $0.00 |
| Current Total | **$87.52** |
| **Total Amount Due** | **$87.52** |
| **Discounted amount due if paid on or before 12/13/2017** | **$87.52** |

| READING / USAGE CODES | | DISTRICTS' ISSUE DATES |
|---|---|---|
| A - ACTUAL | O - ACTUAL READ, MANUAL ENTRY | DISTRICT A: BILLS ISSUED OCTOBER, JANUARY, APRIL, JULY |
| E - SYSTEM ESTIMATE | T - **TROUBLESHOOT** | DISTRICT B: BILLS ISSUED AUGUST, NOVEMBER, FEBRUARY, MAY |
| P - IN-HOUSE ESTIMATE | H - NON-RESPONSIVE - **METER REPLACEMENT** | DISTRICT C: BILLS ISSUED SEPTEMBER, DECEMBER, MARCH, JUNE |

**SEE REVERSE SIDE FOR IMPORTANT INFORMATION**

**Water & Sewer FY 2018 Remit Copy**

SILVACOR, INC
736 MAIN AVE STE 7
DURANGO CO 81301-5479-5479

| Account # | Bill # | Parcel ID |
|---|---|---|
| M82001 | 1108244 | 250492 |

Service Location: 4 JEFFERSON AVENUE

| | |
|---|---|
| Current Total | $87.52 |
| Past Due | $0.00 |
| Interest on Past Due | $0.00 |
| Total Amount Due →→ | **$87.52** |

Bill Date: 12/07/2017

DISCOUNT PAYMENT MUST BE RECEIVED IN COLLECTOR'S OFFICE ON OR BEFORE: 12/13/2017

LESS DISCOUNT AMOUNT: $0.00

REMIT THIS SECTION WITH CHECK PAYABLE TO: CITY OF SALEM

Total Discounted Amount Due: $87.52

MAIL TO:
City of Salem
P.O. Box 4125
Woburn, MA 01888-4125

☐ Check here if your address has changed and note on reverse side.

Total Enclosed: $ _____

319

037260420180011082443000000087528

**Corporation of Woodsboro**
2 S. Third Street
PO Box 88
Woodsboro, MD 21798

# Utility Bill

31062

ADVANTAGE STORAGE
PO BOX 663
ELGIN IL 60121-0663

| Account Number | Service Address | Previous Balance | Payments/Credits |
|---|---|---|---|
| 032254 | 10 COUNCIL DRIVE | $313.31 | $313.31 |

| Charge | From | To | Previous | Current | Type | Consumption | Amount |
|---|---|---|---|---|---|---|---|
| Water | 09/25/17 | 12/27/17 | 637094 | 660163 | Actual | 23069 | $111.50 |
| Flush Fee | 09/29/17 | 12/27/17 | | | | | $7.50 |
| Sewer | 09/25/17 | 12/27/17 | | | | | $193.72 |
| | | | | | | | $312.72 |

HAPPY NEW YEAR!!!!

Christmas tree pick-up will be on January 10, 2018 and January 17, 2018.
Have trees at the curb by 6:00 AM.

Spring Bulk Trash pick up will be on April 18, 2018.

Yard waste pick up will begin April 4, 2018 and end November 28, 2018

| | | |
|---|---|---|
| Total Due: | | $312.72 |
| If Paid After | 1/31/2018 | $317.41 |

DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

| Account Number | Customer | Service Address | Total Due |
|---|---|---|---|
| 032254 | ADVANTAGE STORAGE | 10 COUNCIL DRIVE | $312.72 |

Total Amount Enclosed:

Bill Date: 12/27/2017

Due Date: 1/31/2018

## QUARTERLY STATEMENT



| | |
|---|---|
| **Account Number** | 24445033-6 |
| ~~Billing Date~~ | ~~2/04/2018~~ |
| **Billing Period** | 11/05/2017 TO 2/04/2018 (91 Days) |
| ~~Meter Number~~ | ~~51577778~~ |
| For Service at | 2938 WALDEN AVE DEPEW NY |
| **Amount Due** | $160.15 |
| **Due Date** | Mar 8, 2018 |

**Meter Read Information**

| | | |
|---|---|---|
| Present | 1,046,000 | ECWA Rding |
| ~~Previous~~ | ~~1,002,000~~ | ~~ECWA Rding~~ |
| Gallon Usage | 44,000 | |

~~SUMMARY~~

| | |
|---|---|
| **Amount of Last Bill** | $98.90 |
| **Payments Received, Thank You!** | $98.90 |
| **Previous Balance Due** | $.00 |
| **Current Water Charges** | |
| 27,000 @ 3.17/thous | $85.59 |
| 17,000 @ 3.23/thous | $54.91 |
| **Other Charges** | |
| Infrastructure Invest Charge | $19.65 |
| **Total Current Charges** | $160.15 |
| **Previous Balance Due** | $.00 |
| **Total Amount Due** | $160.15 |

**To avoid a 10% late charge on the current bill, payment must be received by Mar 18, 2018.**

**Contacting ECWA**
*Office Hours: M-F 8am to 5pm*
*Office (716) 849-8444*
*Fax (716) 849-8467*
*Emergency Phone (716) 684-0900*
*www.ecwa.org*

**This account is enrolled in ECWA online under**
**AFREDRICKSEN@ADVANTAGESTORAGE.COM**

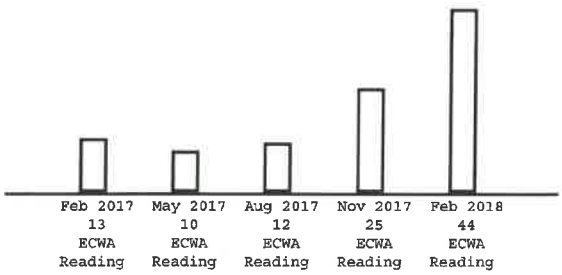
**Messages**

Your account is currently enrolled for automatic payments

If you change your bank or your account number at the bank, please be sure to update your on-line profile to ensure your payment is made on time and from the correct account

ECWA's 2016 Annual Water Quality Report is available on our website at www.ecwa.org

**Quarterly Usage (in thousands)**




OTHER QUARTERS HAD SIGINIFANCTLY LOWER WATER USE THAN FEB 2018

**Erie County Water Authority**
PO Box 5148
Buffalo, NY 14240-5148
Phone (716) 849-8444 Office Hours: M-F 8am to 5pm

PARTNERSHIP FOR SAFE WATER

| ACCOUNT NUMBER | |
|---|---|
| 24445033-6 | |
| **Amount Due** | $160.15 |
| **Due Date** | Mar 8, 2018 |

Amount Enclosed $ _____

For Service at 2938 WALDEN AVE
DEPEW NY

ADVANTAGE US HOLDINGS III LLC
PO BOX 663
ELGIN IL 60121

ERIE COUNTY WATER AUTHORITY
PO BOX 5148
BUFFALO NY 14240-5148

321

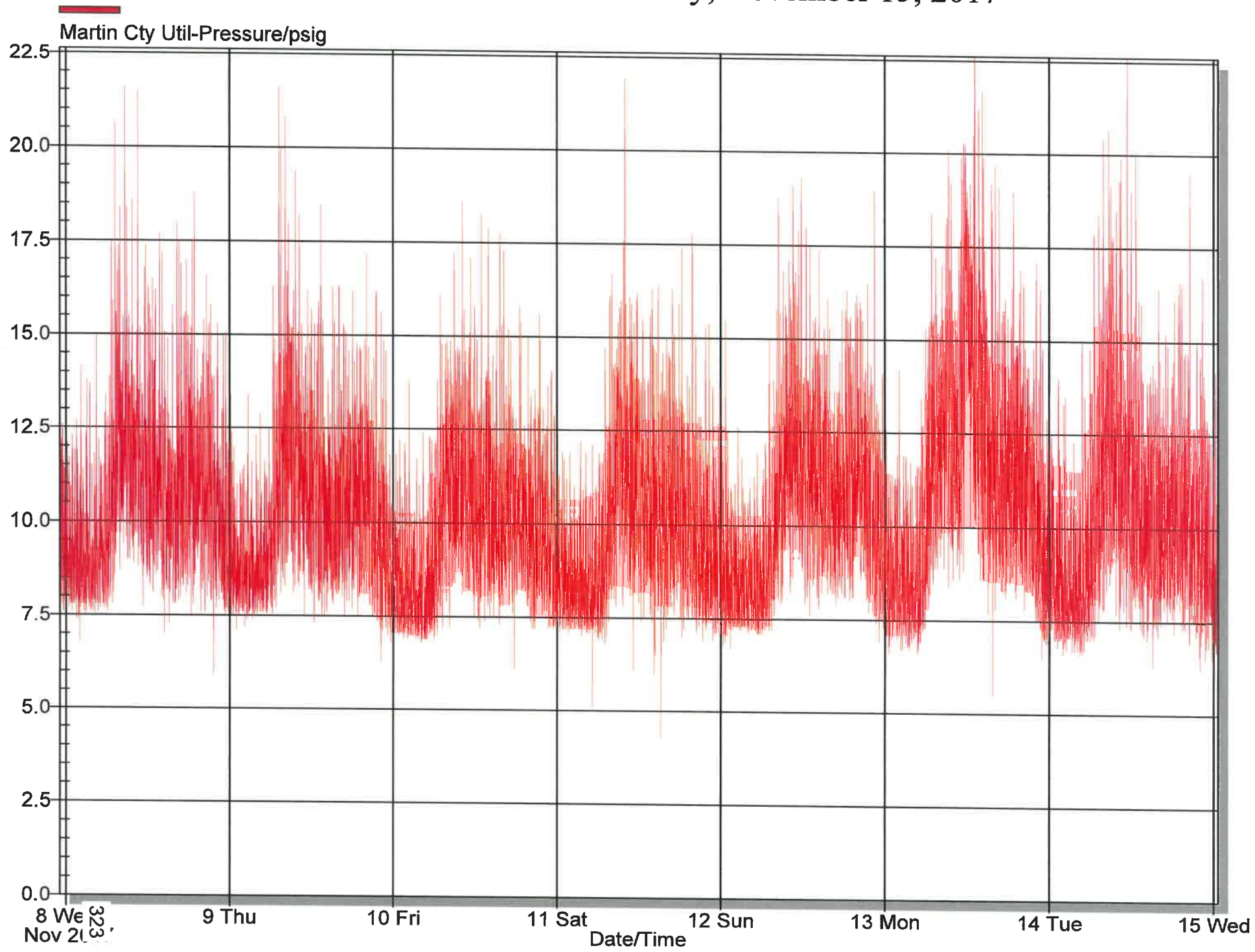
244450336000016015

# ATTACHMENT 2b:

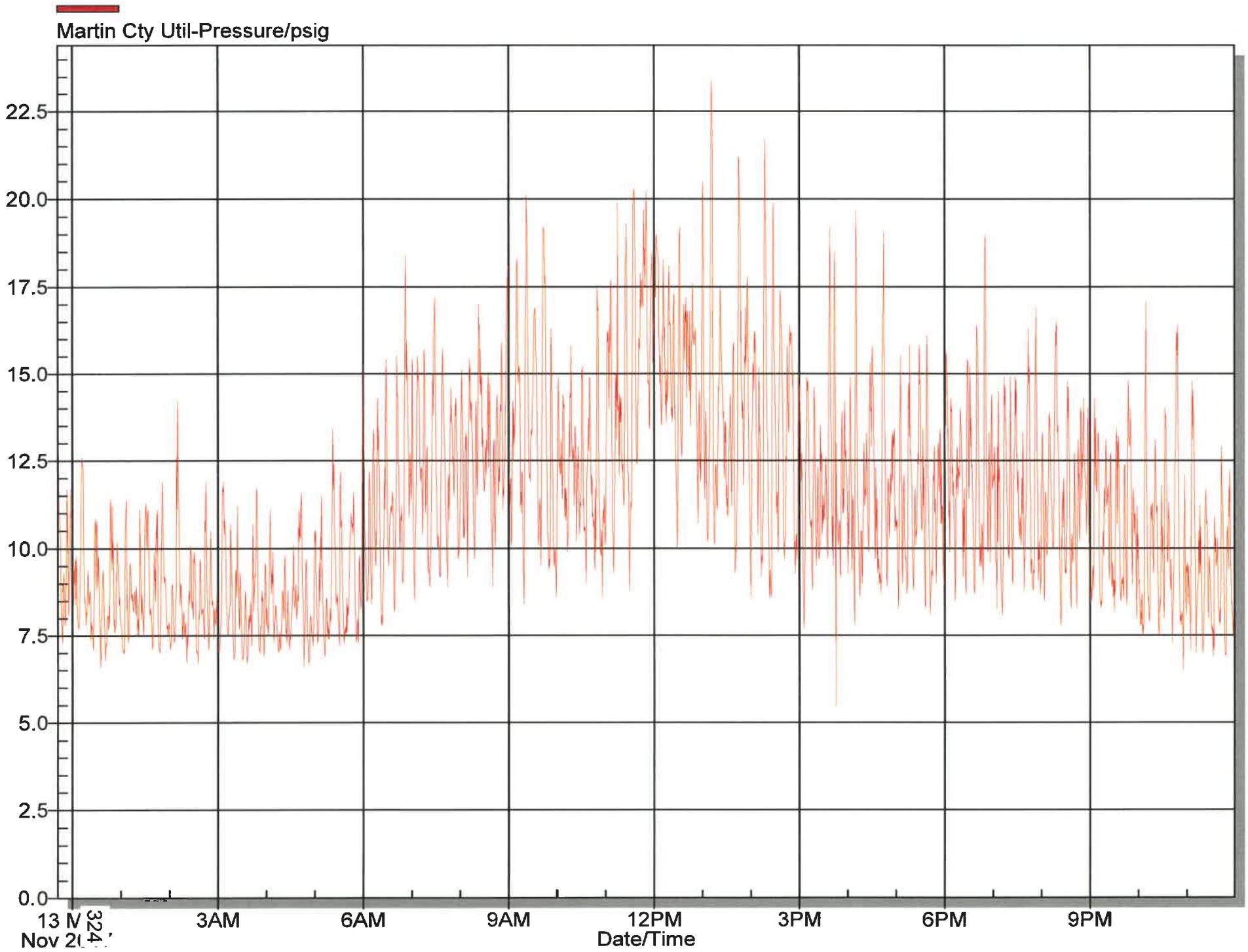
# LIFT STATION

# (PRESSURE TEST IN EXISTING FORCE MAIN)

# Downloaded Data - Wednesday, November 15, 2017



# Downloaded Data - Wednesday, November 15, 2017



# ATTACHMENT 2b:
# LIFT STATION
# (LIFT STATION SUMMARY)

## PART II – PROJECT DOCUMENTATION

(1) Collection/Transmission System Permittee

Name _____ Title Project Engineer
Company Name Martin County Utilities & Solid Waste
Address 2378 SE Ocean Blvd.
City Stuart State FL Zip 34996
Telephone 772-320-3065 Fax _____ Email lrepetti@martin.fl.us

(2) General Project Information

Project Name _____
Location: County Martin City Stuart Section 21 Township 37S Range 41E
Project Description and Purpose (including pipe length, range of pipe diameter, total number of manholes, and total number of pump stations):

Advantage Development Group proposes a 92,700 SF self-storage facility with approximately 850 units. The site proposes +/- 108 LF, 4" PVC Gravity Sanitary Service, 0 manholes, and 1 pump station.

Estimated date for: Start of construction January 2019 Completion of construction December 2020
Connections to existing system or treatment plant Yes, connection to existing 12" FM

(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* | | | | | 250 | 89 |
| Total | | | | | 250 | 89 |

* 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)

| Location | Type | Estimated Flow to the Station (GPD) Maximum | Average | Minimum | Operating Conditions [GPM @ FT (TDH)] |
|---|---|---|---|---|---|
| On-Site | Duplex Submersible | 1,063 | 250 | 0 | 13 GPM @ 82' TDH |
| | Sewage Grinder | | | | 23 GPM @ 39' TDH |
| | Pump Station | | | | |
| | | | | | |
| | | | | | |

(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.

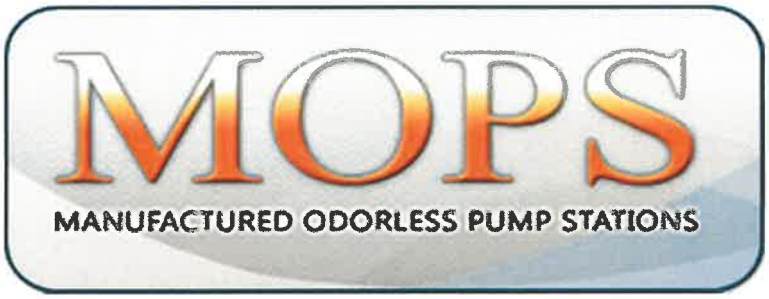
If this project has been designed to comply with the standards and criteria listed below, the engineer shall initial in ink before the standards or criteria. If any of the standards or criteria do not apply to this project or if this project has not been designed to comply with the standards or criteria,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

# ATTACHMENT 2b:

# LIFT STATION

# (MOPS ENGINEERING REPORT)

# ENGINEERING REPORT




**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:** August 30, 2018

**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


| PAGE: | DESCRIPTION: |
|---|---|
| 1155-1 | Engineering Report Cover Sheet |
| 1155-2 | Table of Contents |
| 1155-3 | Project Description and Application |
| 1155-4 - 4.4 | Design Compliance |
| 1155-5 | Calculation Report Page 1 Primary Design Pressure |
| 1155-6 | Calculation Report Page 2 Primary Design Pressure |
| 1155-7 | Calculation Report Page 1 Secondary Design Pressure |
| 1155-8 | Calculation Report Page 2 Secondary Design Pressure |
| 1155-9 | Equivalent Pipe Lengths |
| 1155-10 | Buoyancy Calculation Test |
| 1155-11 | MOPS Pump Station Schedule |
| No Page # | Pump Data Sheets / Design Notes / Misc. Attachments |

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: August 30, 2018
AES Project #: 1155

Notes: Advantage Storage is a proposed self-storage facility with one restroom.

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** |
|---|---|---|
| **One Restroom @ 250 GPD/Restroom** | = | **250** |
| **Total Gallons Per Day** | = | **250** |

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).

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

## 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 160 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 160 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) | 0.3 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 | 1.3 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 | 160.3 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 | 1.28 GPM |

**Run Times:**

| | | | |
|---|---|---|---|
| $T_{avg}$ | $=\{V_{stor}/(Q_{pump}-Q_{inavg})\}+(V_{stor}/Q_{inavg})$ | (<30) | 160.3 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 |
| $H_{fric1}$ | $=(3.022 \times V^{1.85} \times L_{pipe1})/(d^{1.185} \times C^{1.852})$ | 1.8 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 |
| $H_{tdh}$ | $= H_{elev} + H_{stat} + H_{fric1} + H_{fric2} + H_{fric3} + H_v^* + H_{ps}^* + H_{vv}^* + wf$ | 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 = 250 GPD
250/(60x12) = 0.3 (12 HOUR DAY)
0.3 GPM = Avg. Influent rate X 425% Peak Factor = 1.28 GPM
1.28 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 - 0.3)
Vstor > 25.4 gal.
Vstor Min. = (Qpump - Qinavg) x 2 = (13 - 0.3) X 2 = 25.4 gal

T avg = (Vstor / Qpump - Qinavg) + Vstor / Qinavg
T avg < 30 minutes
Max Vstor = ((Qpump - Qinavg) x 30 x Qinavg) / Qpump
Max Vstor = ((13 - 0.3) x 30 x 0.3) / 13
Max Vstor = 8.8

25.4 < Vstor < 8.8
Choose 47 gal Vstor = 0.5' depth in 4' dia. wetwell

E) T avg =(47 / (13 - 0.3) + 47 / 0.3
= 3.70 + 156.59
= 160.29 minutes
T min = 4 x (47 / 13) = 14.45 > 5 minutes
T run = 47 / (13 - 0.3)
= 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) | 0.3 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 | 1.3 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 | 158.7 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 | 1.28 GPM |

**Run Times:**

| | | | |
|---|---|---|---|
| $T_{avg}$ | $=\{V_{stor}/(Q_{pump}-Q_{inavg})\}+(V_{stor}/Q_{inavg})$ | (<30) | 158.7 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 = 250 GPD
250/(60x12) = 0.3 (12 HOUR DAY)
0.3 GPM = Avg. Influent rate X 425% Peak Factor = 1.28 GPM
1.28 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 - 0.3)
Vstor > 45.4 gal.
Vstor Min. = (Qpump - Qinavg) x 2 = (23 - 0.3) X 2 = 45.4 gal

T avg = (Vstor / Qpump - Qinavg) + Vstor / Qinavg
T avg < 30 minutes
Max Vstor = ((Qpump - Qinavg) x 30 x Qinavg) / Qpump
Max Vstor = ((23 - 0.3) x 30 x 0.3) / 23
Max Vstor = 8.9

45.4 < Vstor < 8.9
Choose 47 gal Vstor = 0.5' depth in 4' dia. wetwell

E) T avg =(47.0 / (23 - 0.3) + 47.0 / 0.3
= 2.07 + 156.59
= 158.66 minutes
T min = 4 x (47.0 / 23) = 8.17 > 5 minutes
T run = 47.0 / (23 - 0.3)
= 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

| | | | | | | | | | | | | | | | FORCE MAIN RUN #1 | | FORCE MAIN RUN #2 | | FORCE MAIN RUN #3 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PIPE SIZE IN INCHES | | | | | | | | | | | | | 1 1/2 | | | | | |
| FITTING | MATERIAL | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | QTY | TOTALS | QTY | TOTALS | 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)<br>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 | |

1155-9

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%.

ATLANTIC ENVIRONMENTAL SYSTEMS, INC

MOPS

# MOPS PUMP STATION SCHEDULE

| MOPS SERIES | | ITEM DESCRIPTION | |
|---|---|---|---|
| PRIMARY DESIGN FLOW (G.P.M.) | 13 | 100 YEAR FLOOD ELEVATION | 14.00' |
| PRIMARY DESIGN HEAD (T.D.H.) | 82 | 25 YEAR FLOOD ELEVATION | 12.17' |
| SECONDARY DESIGN FLOW (G.P.M.) | 23 | A GRADE ELEVATION | 15.00' |
| SECONDARY DESIGN HEAD (T.D.H.) | 39 | B TOP ELEVATION OF WET WELL | 15.00' |
| RATED PERFORMANCE SPEED | 3450 | C BOTTOM ELEVATION OF WET WELL | 1.00' |
| RATED MOTOR HORSEPOWER | 3 | D ALL PUMPS OFF ELEVATION | 3.25' |
| SUBMERSIBLE PUMP TYPE (P-1,P-2) | GRINDER | E LEAD PUMP ON ELEVATION | 3.75' |
| PUMP MODEL NUMBER | MOPS | F LAG PUMP ON ELEVATION | 4.25' |
| SERVICE ENTRANCE VOLTAGE | 230 | G HIGH ALARM ELEVATION | 4.75' |
| SERVICE ENTRANCE PHASE | 3 | H INSIDE DIAMETER OF WET-WELL | 48" |
| CONTROL CENTER FULL LOAD AMPS | 29 | I OUTSIDE DIAMETER OF WET WELL'S ANTI-FLOTATION FLANGE | 84" |
| NEMA 3R PAINTED STEEL DISCONNECT SWITCH, RATED AMPS | 30 | J MINIMUM CUBIC FEET OF CONCRETE BALLAST COLLAR (CU YDS) | 0/(0) |
| WET-WELL SCOURER SYSTEM | N/A | K INVERT PIPE DIAMETER | 4" |
| REMOTE STATION MONITOR (TELEMETRY) | W/SA | L FORCE MAIN DIAMETER | 1.50" |
| ON-SITE GENERATOR SYSTEM | N/A | M INVERT ELEVATION | 5.25' |
| | | N SECONDARY INVERT ELEVATION | N/A |

| MOPS EQUIPMENT IDENTIFICATION | QTY. | MODEL DESIGNATION |
|---|---|---|
| MOPS PUMP STATION | 1 | B21.5-48168-C-3.0 |
| MOPS VALVE BOX ASSEMBLY ( VBA) | 1 | VBA-21.5 |
| MOPS ODOR/GAS SCRUBBER (OGS) | 1 | OGS-B |
| MOPS R.P.Z. ASSEMBLY | 1 | 75 |
| MOPS CONTROL CENTER | 1 | PSC-222-3.0 |
| MOPS DISCONNECT SWITCH | 1 | FDS-30-3-2-PS |
| MOPS CONTROL CENTER MOUNTING ASSEMBLY | 1 | CCMA-32AL |
| MOPS WET WELL SCOURER SYSTEM | 0 | N/A |
| MOPS REMOTE STATION MONITOR | 1 | PROVIDED WITH SERVICE AGREEMENT |
| 1ST YEAR SERVICE / MAINTENANCE CONTRACT | 1 | LEVEL 1 WITH REMOTE MONITOR |

*All Design Parameters are job specific (See Drawing)*

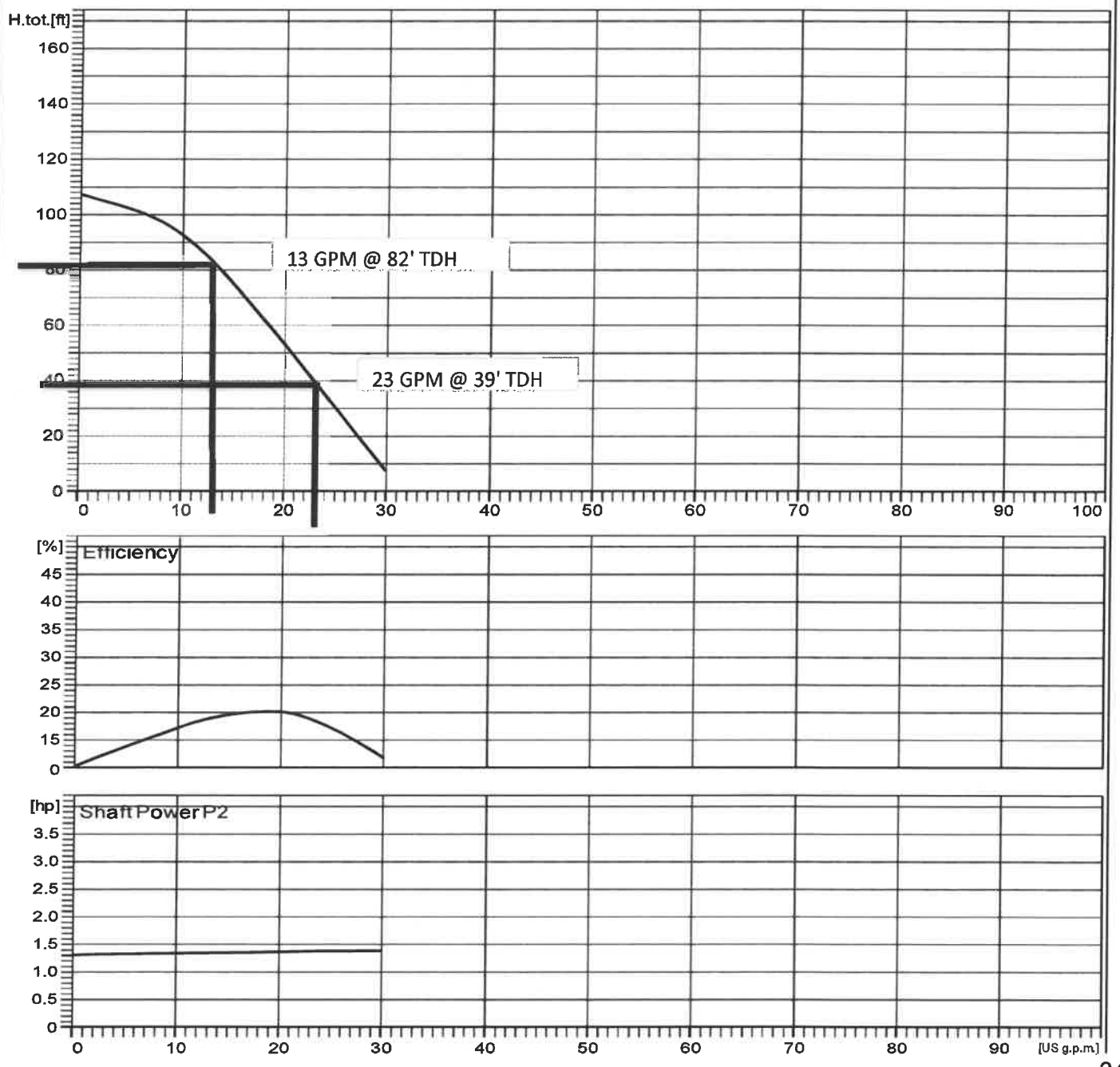
# Performance Curve

GN132XN & GN332/4XN

**MOPS**

| Impeller | | | | | |
|---|---|---|---|---|---|
| Impeller type: | Solid Size Ø: | Max. Ø: | Min. Ø: | Sel. Ø: | Phase: |
| **Recessed vortex vane impeller with grinder sys.** | **Grinder** | **6 ½"** | **4 ½"** | **6 ½"** | **1 / 3** |

| Operating data | | | | |
|---|---|---|---|---|
| Speed: | Frequency: | | Pump Station: | Discharge Port: |
| **3450 rpm** | **60 Hz** | **13 GPM @ 82' TDH; 23 GPM @ 39' TDH** | **Duplex / Simplex** | **2" Male NPT** |
| Power data referred to: | | | Test Standard: | Max. Motor HP: |
| **(STP) Water [100%] ; 68°F; 62.4 lbs/cu.ft.; 31 SSU; 1.0 S.G.** | | | **ISO9906** | **3.0 HP** |






| Project: | Project no.: | Created by: | Page: | Date: |
|---|---|---|---|---|
| **Advantage Self Storage - Jensen Beach** | **1155** | **BSM** | **1** | **November 16, 2017** |

# MOPS Grinder Pump Data Sheet

**MOPS**

**2" Nominal Discharge**
**0.25" Max. Solid Size Output**
**2-poles; 3450 RPM**

Open Multi-Vane Vortex
Impeller With Grinder System

**Model**
**GN13 1-Phase**
**GN33 3-Phase**

## Electrical Data 1-Phase

| Model Number | Voltage | Phase | Nominal Rated H.P. | AMPS F.L. | AMPS L.R. | Power Factor | Motor Eff.(%) | Cable Size | Cable O.D. (in) |
|---|---|---|---|---|---|---|---|---|---|
| GN132XO | 200 | 1 | 3.0 | 21.6 | 54.0 | 0.95 | 85 | 10GA | 0.75 |
| GN132XO | 208 | 1 | 3.0 | 20.8 | 52.0 | 0.95 | 85 | 10GA | 0.75 |
| GN132XO | 230 | 1 | 3.0 | 18.8 | 47.0 | 0.95 | 85 | 10GA | 0.75 |

## Electrical Data 3-Phase

| Model Number | Voltage | Phase | Nominal Rated H.P. | AMPS F.L. | AMPS L.R. | Power Factor | Motor Eff.(%) | Cable Size | Cable O.D. (in) |
|---|---|---|---|---|---|---|---|---|---|
| GN332XO | 200 | 3 | 3.0 | 11.4 | 68.0 | 0.85 | 85 | 10GA | 0.75 |
| GN332XO | 208 | 3 | 3.0 | 10.9 | 65.0 | 0.85 | 85 | 10GA | 0.75 |
| GN332XO | 230 | 3 | 3.0 | 9.9 | 59.0 | 0.85 | 85 | 10GA | 0.75 |
| GN332XO | 460 | 3 | 3.0 | 5.0 | 30.0 | 0.85 | 85 | 10GA | 0.75 |

## Motor Construction

| | |
|---|---|
| Motor Type | Enclosed Submersible |
| NEMA Insulation Code | Class F |
| Service Factor | 1.15 |
| NEMA Design Letter | B |
| Standard Cable Length | 30 ft |
| Available Motor Voltages | 1-Phase: 200-230 / 3-Phase: 200-460 |
| Thermal Sensors embedded in Windings | Included in all Pumps.<br>Must be Wired into Control Panel to Validate Warranty. |
| Explosion Proof Construction | Class I, Div 1, Groups C & D - Explosion Proof Rated |
| Single Phase Units Require Drives in Control Center. | |

## Standard Material of Construction

| | |
|---|---|
| Motor Housing | Cast Iron ASTM A48; Class 40B |
| Volute | Cast Iron ASTM A48; Class 40B |
| Impeller | Cast Iron ASTM A48; Class 40B |
| Grinder Assembly | Hardened Stainless Steel 55 Rockwell C |
| Shaft | AISI 430F Stainless Steel |
| Mechanical Seal - Impeller Side | Silicon Carbide vs Silicon Carbide |
| Mechanical Seal - Motor Side | Silicon Carbide vs Silicon Carbide |
| Fasteners | AISI 304 Stainless Steel |
| O-Rings | Nitrile Rubber |
| Upper Bearing | Deep Groove Ball Bearing |
| Lower Bearing | Double Row Angular Ball Bearing |
| Power Cable Sheathing | Nitrile Rubber |

# ATTACHMENT 2b:

# LIFT STATION

# (Lift Station Design)

# MOPS

## PRIVATE SERIES

MANUFACTURED ODORLESS PUMP STATION
ATLANTIC ENVIRONMENTAL SYSTEMS, INC.
LAKE WORTH, FL 33461
PH: (561) 547-8080 FAX: (561) 547-3999



| REVISION | DATE |
|---|---|
| -- | --/--/-- |
| -- | --/--/-- |
| -- | --/--/-- |
| -- | --/--/-- |

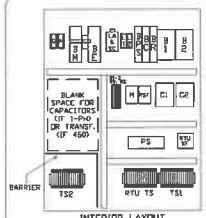
Project: ADVANTAGE SELF STORAGE - JENSEN BEACH
Proposed For: MACKENZIE ENGINEERING AND PLANNING, INC.
1172 SW 30TH ST., SUITE 500, PALM CITY, FL 34990

AES Project No: 1155
Date: 11/16/17

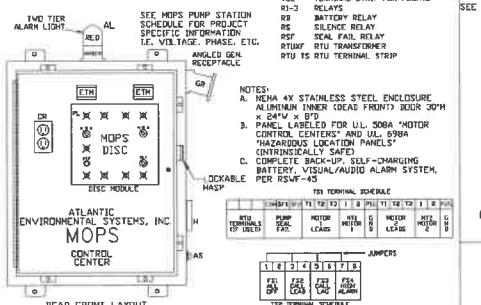
Page No. LS-1

## PANEL COMPONENTS

| | |
|---|---|
| ALT | ALTERNATOR (ON DISC) |
| AS | ALARM SILENCE SWITCH |
| B1-2 | MOTOR BREAKERS |
| BC | CONTROL BREAKER |
| BE | EMERGENCY BREAKER |
| BM | MAIN BREAKER |
| BPS | POWER SUPPLY BREAKER |
| BR | RECEPTACLE BREAKER |
| C1-2 | CONTACTOR, MOTOR START |
| CR | CONVENIENCE RECEPTACLE |
| DISC | DUPLEX INTRINSICALLY SAFE CONTROLLER |
| ETM | ELAPSED TIME METER |
| GR | GENERATOR RECEPTACLE |
| H | HORN |
| HOA | HAND-OFF-AUTO SWITCH (ON DISC) |
| LA | LIGHTNING ARRESTOR |
| M | MONITOR: 1PH,+VOLT, 3PH,+PHASE |
| PL | PILOT LIGHT (ON DISC) |
| PS | POWER SUPPLY |
| SC | SURGE CAPACITOR |
| TS1 | TERMINAL STRIP FOR PUMPS |
| TS2 | TERMINAL STRIP FOR FLOATS |
| R1-3 | RELAYS |
| RB | BATTERY RELAY |
| RS | SILENCE RELAY |
| RSF | SEAL FAIL RELAY |
| RTUXF | RTU TRANSFORMER |
| RTU TS | RTU TERMINAL STRIP |




INTERIOR LAYOUT




SEE MOPS PUMP STATION SCHEDULE FOR PROJECT SPECIFIC INFORMATION I.E. VOLTAGE, PHASE, ETC.

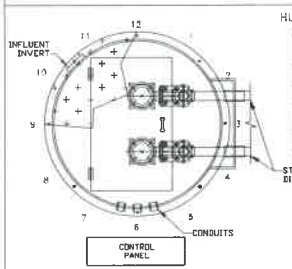
NOTES:
A. NEMA 4X STAINLESS STEEL ENCLOSURE ALUMINUM INNER LOCAD PANEL) DOOR 30"H x 24"W x 8"D
B. PANEL LABELED FOR UL. 508A "MOTOR CONTROL CENTERS" AND UL. 698A "HAZARDOUS LOCATION PANELS" (INTRINSICALLY SAFE)
C. COMPLETE BACK-UP, SELF-CHARGING BATTERY, VISUAL/AUDIO ALARM SYSTEM, PER RSWF-43

DEAD FRONT LAYOUT (DOOR NOT SHOWN FOR CLARITY)

## MOPS CONTROL CENTER

CONTROL CENTER DESIGNED AND MANUFACTURED TO MEET ALL D.E.P. REQUIREMENTS. SEE SCHEDULE FOR ELECTRICAL SERVICE REQUIREMENTS.

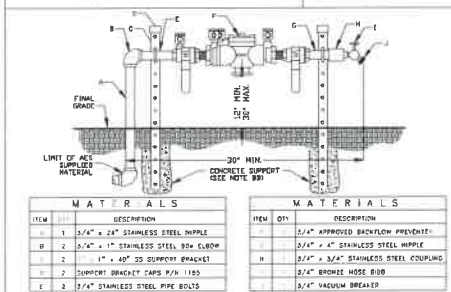
HUB AND INVERT LOCATION




| ITEMS | CLOCK POSITION |
|---|---|
| DISCHARGE LINES | 3:00 |
| PRIMARY INVERT | 10:30 |
| SECONDARY INVERT | N/A |
| LOCATION OF CONTROL PANEL | 6:00 |

SCHEMATIC BASED ON THE STATION'S DISCHARGE BEING LOCATED AT THE #3 CLOCK POSITION. SEE SCHEDULE FOR LOCATION OF INVERTS AND CONTROL PANEL. LOCATIONS SUBJECT TO CHANGE.

NOTE: BACKFILL AROUND LIFT STATION FROM ANTI-FLOTATION RING UP TO FINISHED GRADE SHALL BE COMMON FILL COMPACTED IN 12-INCH MAX. LIFTS TO 98% DENSITY PER AASHTO T-180. CONTRACTOR SHALL EXERCISE CARE NOT TO DAMAGE WETWELL DURING COMPACTION.




MATERIALS

| ITEM | QTY | DESCRIPTION |
|---|---|---|
| A | 1 | 3/4" x 24" STAINLESS STEEL NIPPLE |
| B | 2 | 3/4" x 1" STAINLESS STEEL 90° ELBOW |
| C | 2 | 1" x 40" SS SUPPORT BRACKET |
| D | 2 | SUPPORT BRACKET CAPS P/N 1165 |
| E | 2 | 3/4" STAINLESS STEEL PIPE BOLTS |

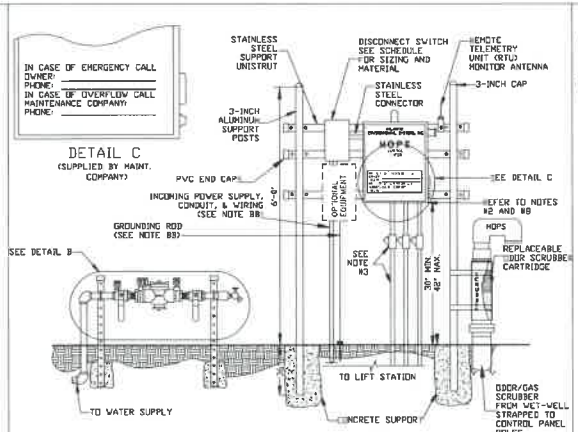
MATERIALS

| ITEM | QTY | DESCRIPTION |
|---|---|---|
| F | 1 | 3/4" APPROVED BACKFLOW PREVENTER |
| G | 1 | 3/4" x 4" STAINLESS STEEL NIPPLE |
| H | 1 | 3/4" x 3/4" STAINLESS STEEL COUPLING |
| I | 1 | 3/4" BRONZE HOSE BIBB |
| J | 1 | 3/4" VACUUM BREAKER |

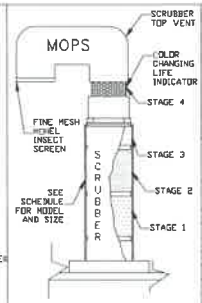
## DETAIL B

R.P.Z. BACKFLOW PREVENTER ASSEMBLY DETAIL

U.S.C. AND A.S.S.E. APPROVED N.T.S.



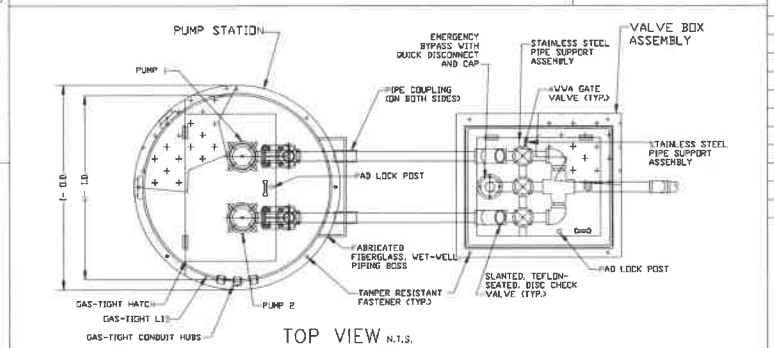

CONTROL CENTER ASSEMBLY AND INSTALLATION N.T.S.



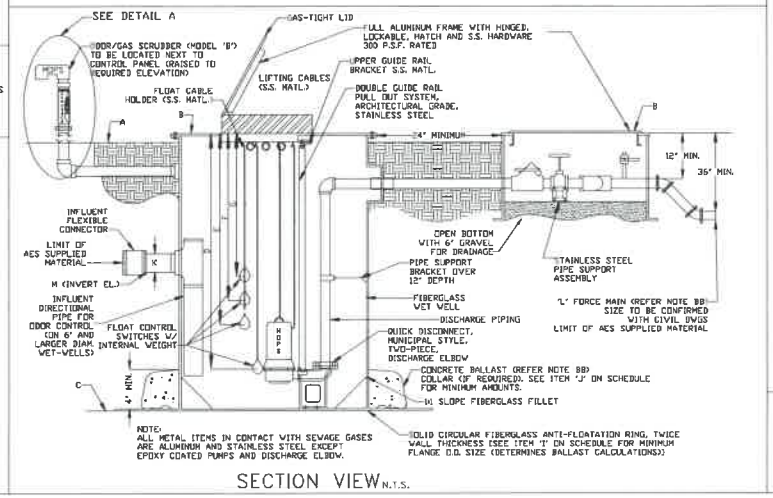

## DETAIL A

MOPS ODOR/GAS SCRUBBER

NOTES:
1. SCRUBBER DESIGNED TO REMOVE TOXIC SEWAGE GASES, H2S, AND OFFENSIVE ODORS SUCH AS SKATOLES AND MERCAPTANS.
2. SCRUBBER'S LIFE EXPECTANCY CALCULATIONS ARE INCLUDED IN SHOP DRAWING SUBMITTALS.
3. SCRUBBER UNIT CAN BE MOUNTED INSIDE WET-WELL OR TOP MOUNTED.
4. MODEL 'B' SHOWN.




TOP VIEW N.T.S.




SECTION VIEW N.T.S.

## MOPS PUMP STATION SCHEDULE

| MOPS SERIES | | ITEM | DESCRIPTION | |
|---|---|---|---|---|
| INITIAL DESIGN FLOW (G.P.M.) | 13 | | 100 YEAR FLOOD ELEVATION | 14.00' |
| INITIAL DESIGN HEAD (T.D.H.) | 82' | | 25 YEAR FLOOD ELEVATION | 12.17' |
| SECONDARY DESIGN FLOW (G.P.M.) | 23 | A | GRADE ELEVATION | 15.00' |
| SECONDARY DESIGN HEAD (T.D.H.) | 30' | B | TOP ELEVATION OF WET WELL | 15.00' |
| RATED PERFORMANCE SPEED | 3450 RPM | C | BOTTOM ELEVATION OF WET WELL | 1.00' |
| RATED MOTOR HORSEPOWER | 3.0 | D | ALL PUMPS OFF ELEVATION | 3.25' |
| SUBMERSIBLE PUMP TYPE (P-1,P-2) | GRINDER | E | LEAD PUMP ON ELEVATION | 3.75' |
| PUMP MODEL NUMBER | MOPS | F | LAG PUMP ON ELEVATION | 4.25' |
| SERVICE ENTRANCE VOLTAGE | 230 | G | HIGH ALARM ELEVATION | 4.75' |
| SERVICE ENTRANCE PHASE | 3 | H | INSIDE DIAMETER OF WET-WELL | 48" |
| CONTROL CENTER FULL LOAD AMPS | 29 | I | OUTSIDE DIAMETER OF ANTI-FLOATATION RING | 84" |
| NEMA 3R PAINTED STEEL DISCONNECT SWITCH, RATED AMPS | 30 | J | MINIMUM CUBIC FEET OF CONCRETE BALLAST (CU YDS) | 000/(D) |
| WET WELL SCOUPER SYSTEM | N/A | K | INVERT PIPE DIAMETER | 4" |
| REMOTE STATION MONITOR (TELEMETRY) | W/SA | L | FORCE MAIN DIAMETER | 1.50" |
| ON-SITE GENERATOR SYSTEM | N/A | M | PRIMARY INVERT ELEVATION | 5.25' |
| | | N | SECONDARY INVERT ELEVATION | N/A |

| MOPS EQUIPMENT IDENTIFICATION | QTY. | MODEL DESIGNATION |
|---|---|---|
| MOPS PUMP STATION | 1 | B21.5-48168-C-3.0 |
| MOPS VALVE BOX ASSEMBLY (VBA) | 1 | VBA-21.5 |
| MOPS ODOR/GAS SCRUBBER (OGS) | 1 | OGS-B |
| MOPS R.P.Z. ASSEMBLY | 1 | 75 |
| MOPS CONTROL CENTER | 1 | PSC-222-3.0 |
| MOPS DISCONNECT SWITCH | 1 | FDS-30-3-2-PS |
| MOPS CONTROL CENTER MOUNTING ASSEMBLY | 1 | CCMA-32AL |
| MOPS WET WELL SCOURER SYSTEM | 0 | N/A |
| MOPS REMOTE STATION MONITOR | 1 | PROVIDED WITH SERVICE AGREEMENT |
| 1st YEAR SERVICE/MAINTENANCE CONTRACT | 1 | LEVEL 1 WITH REMOTE MONITOR |
| MOPS ON-SITE GENERATOR SYSTEM | 0 | N/A |
| MOPS FIELD SERVICE WORK | 1 | CONTROL INSTALLATION & START-UP |

## MOPS PUMP STATION COMPLIANCE NOTES

THIS PUMP STATION DESIGN COMPLIES WITH THE FOLLOWING REQUIRED STANDARDS:
- STATE OF FLORIDA ENVIRONMENTAL PROTECTION STANDARDS
- FLORIDA ADMINISTRATIVE CODE (F.A.C.): 62-640.400- COLLECTION AND TRANSMISSION SYSTEMS
- NATIONAL ELECTRIC CODE (NEC) CLASS 1, DIVISION 1, GROUP D- HAZARDOUS LOCATIONS
- UNDERWRITER'S LABORATORIES (U.L.) 508A-MOTOR CONTROL CENTERS AND U.L. 698A-INSTRINSICALLY SAFE CONTROL CENTERS
- RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (1997 EDITION).

1. PUMPS ARE RATED BY FACTORY MUTUAL FOR CLASS 1, DIVISION 1, GROUP D ATMOSPHERES AS REQUIRED BY NEC.
2. THE CONTROL CENTER INCORPORATES INTRINSICALLY SAFE RELAYS AND IS LISTED TO UL 698A INTRINSICALLY SAFE FOR CLASS 1, DIVISION 1 ATMOSPHERES.
3. THE CONDUIT PROVIDED, ALONG WITH CONDUIT GAS-SEAL-OFFS, ARE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.
4. THE WASTEWATER PUMPS AND THE CONTROL CENTER INCORPORATE A MECHANICAL SEAL FAILURE DETECTION AND NOTIFICATION SYSTEM.
5. THE CONTROL CENTER INCLUDES EITHER A REMOTE TELEMETRY UNIT (RTU) OR A SELF-CHARGING, BACK-UP ALARM SYSTEM TO OPERATE ON POWER FAILURE.
6. THE PUMP STATION INCORPORATES AN ODORLESS DESIGN WITH A SCRUBBER SYSTEM TO CONTROL TOXIC GASES AND ODORS FOR COMPLIANCE TO F.A.C. 62-604.400.
7. THE BOTTOM OF THE TOP RIM ELEVATION OF PUMP STATION MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 25 YEAR FLOOD ELEVATION. THE LISTED 25 YEAR FLOOD ELEVATION PROVIDED BY SITE CIVIL ENGINEER.
8. THE BOTTOM ELEVATION OF THE MOPS CONTROL CENTER MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 100 YEAR FLOOD ELEVATION. THE LISTED 100 YEAR FLOOD ELEVATION PROVIDED BY THE SITE CIVIL ENGINEER.

## MOPS ENGINEERING NOTES

AA. THE HORSEPOWER SHOWN ON THE SCHEDULE IS A MINIMUM HORSEPOWER REQUIREMENT BASED ON THE STATION'S DESIGN CRITERIA AND THE REQUIRE TORQUE. (LOWER RATED HORSEPOWER EQUIPMENT WILL NOT BE ACCEPTABLE.)
BB. THESE ITEMS ARE NOT SUPPLIED BY A.E.S. WITH THE MOPS STATION.
CC. INVERT ELEVATIONS BASED ON INSIDE BOTTOM OF PIPE.
DD. THE MOPS CONTROL ASSEMBLY CONSISTS OF THE FOLLOWING: CONTROL CENTER DISCONNECT SWITCH, MOUNTING ASSEMBLY, ELECTRICAL CONDUITS, AND SEAL-OFF. THESE ITEMS MUST BE SUPPLIED AND INSTALLED BY THE MOPS PUMP STATION MANUFACTURER TO VALIDATE MOPS WARRANTY PROGRAM.

THE MOPS WASTEWATER PUMP STATION DESIGN AND EQUIPMENT SHOWN ON THIS DRAWING HAS BEEN REVIEWED, PERMITTED, AND CERTIFIED AS COMPLYING WITH ALL THE STATE OF FLORIDA D.E.P. AND LOCAL REQUIREMENTS. ANY SUBSTITUTION FROM THIS DESIGN MAY REQUIRE NEW PERMITS, APPLICATION FEES, AND ENGINEERING SERVICES FOR RE-CERTIFICATION AND DESIGN REVIEW.

P.E. CERTIFICATION:

Bonnie S. McLeod, P.E. License # 70797
V.P. of Engineering
Atlantic Environmental Systems, Inc., C A # 26398
2244 4th Ave. North, Lake Worth, Florida 33461
PH: 561-547-8080 / Fax: 561-547-3999

PRIVATE PUMP STATION

# ATTACHMENT 3:

# IRRIGATION

# (SUMMARY OF GROUNDWATER – WELL FACILITY)

## SECTION IV – SOURCES OF WATER

### SUMMARY OF GROUNDWATER (WELL) FACILITES

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Name or Number** | 1 of 1 | | | | | |
| **Map Designation** | | | | | | |
| **Existing or Proposed** | Proposed | | | | | |
| **Date of Proposed Construction** | N/A | | | | | |
| **Date Installed if Existing** | N/A | | | | | |
| **Diameter (in)** | 2" | | | | | |
| **Total Depth (ft)** | 130' | | | | | |
| **Cased Depth (ft)** | 105' | | | | | |
| **Screened Interval (ft)** | 105'-130' | | | | | |
| **Pumped or Flowing** | Pumped | | | | | |
| **Pump Type (see Instructions)** | 1 1/2 HP Centrifugal | | | | | |
| **Pump Intake Depth (ft bls)** | Surface | | | | | |
| **Pump or Flow Capacity (GPM)** | 50 GPM | | | | | |
| **Working Valve if Artesian (yes, no or not applicable)** | N/A | | | | | |
| **Status (see Instructions)** | Primary | | | | | |
| **Purpose (see Instructions)** | Irrigation | | | | | |
| **Elevation of the Wellhead (ft NGVD - see Instructions)** | N/A | | | | | |
| **Water Use Accounting Method (see Instructions)** | N/A | | | | | |
| **Date Last Calibrated (ATTACH calibration report)** | N/A | | | | | |
| **Planar Coordinates (if known - see instructions)** | N/A | | | | | |
| **Section / Township / Range** | 21/37S/41E | | | | | |

## Instruction for Completing Groundwater (Wells) Section

**Well Name or Number:** The Applicant's designation of the well. How do you refer to it?

**Map Designation:** This is how the well is labeled on the map submitted with the application. This may be the same as Well Name or Number, but does not necessarily have to be.

**Existing or Proposed:** If the well is proposed, enter the date of expected operation. If it is an existing well, enter the date it was installed if you know it.

**Diameter:** Outside diameter of the well casing.

**Total Depth:** Total length in feet between the land surface and the bottom of the well.

**Cased Depth:** The length in feet from the land surface to the bottom of the well casing.

**Screened Interval:** The distance in feet below land surface to the top and bottom of the well screen, if the well is so equipped.

**Pumped or Flowing:** Does the well produce water as a result of natural artesian flow, or is it pumped?

**Pump Type:** This is the type of pump that has been installed for the well (typical choices are as follows):

| | | | |
|---|---|---|---|
| Centrifugal | Diesel turbine | Axial flow | Windmill |
| Submersible | Jet | Suction | Other (specify) |
| Electric turbine | Hydraulic | Portable | |

**Pump Intake Depth:** Location of the pump depth in feet below land surface. The pump may be on the surface or down inside the well.

**Pump or Flow Capacity:** The amount of water the pump can produce in gallons per minute (GPM).

**Working Valve:** If the well is artesian, does it have a working valve to control the flow?

**Status:**
Primary
Secondary (i.e. a production well that is rotated)
Standby (i.e. used for freeze protection or emergency)
Monitor
Injection (i.e. A/C, pool heat exchange, etc.; sometimes used only periodically)
Recharge (i.e. same as above)

**Purpose:** What will the water be used for (typical choices are as follows):

| | | | |
|---|---|---|---|
| Dairy | Irrigation | Air Conditioning | Swimming Pool Heating |
| Monitor | Aquaculture | Freeze Protection | Irrigation/Lake Recharge |
| Livestock | Bottled Water | Mining/Dewatering | Aquifer Storage and Recovery |
| Industrial | Other (specify) | Public Water Supply | Aquifer Remediation and Recovery |

**Elevation of the Wellhead:** This is the elevation of the top of the finished well at the ground surface.

**Planar coordinates:** The Florida State Plane System (Planar Coordinates) should be submitted if you have a land survey which identifies the location of the well in terms of those measurements. If you do not know what these are, it is not necessary to include them.

**Section / Township / Range:** The section, township and range in which the pump is located.

# ATTACHMENT 4:

# FIRE FLOW

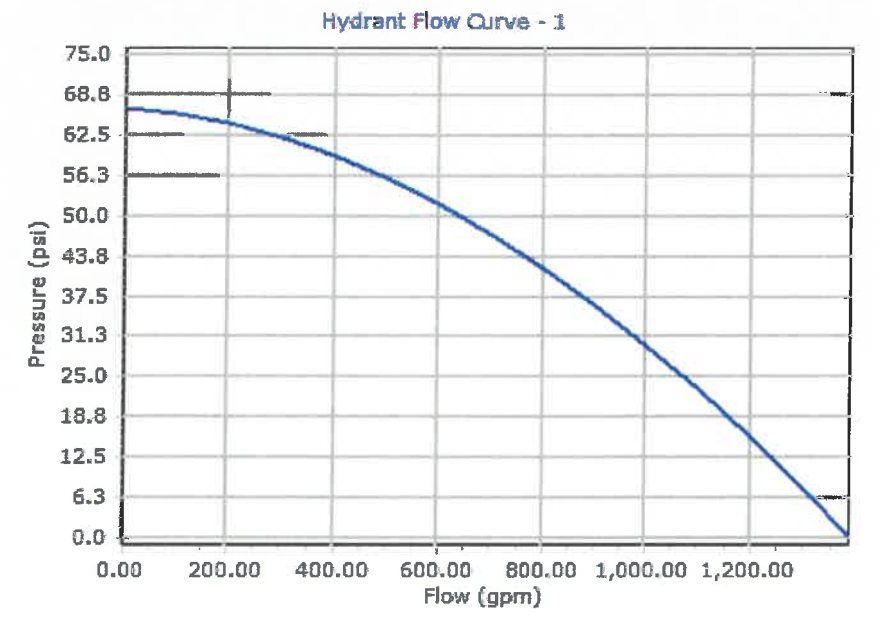
# (EXISTING FIRE HYDRANT FLOW)

# Hydrant Flow Curve Detailed Report - Hydrant Flow Curve - 1

| Element Details | | | |
|---|---|---|---|
| Label | Hydrant Flow Curve - 1 | Nominal Hydrant Flow | 1,000.00 gpm |
| Hydrant/Junction | FH63 | Number of Intervals | 10 |

| Time (hours) |
|---|
| 0.000 |

| 0.000 hours Flow (gpm) | 0.000 hours Pressure (psi) |
|---|---|
| 0.00 | 66.7 |
| 100.00 | 65.9 |
| 200.00 | 64.4 |
| 300.00 | 62.2 |
| 400.00 | 59.3 |
| 500.00 | 55.9 |
| 600.00 | 51.8 |
| 700.00 | 47.2 |
| 800.00 | 41.9 |
| 900.00 | 36.2 |
| 1,000.00 | 29.9 |
| 1,100.00 | 23.0 |
| 1,200.00 | 15.6 |
| 1,300.00 | 7.7 |
| 1,391.62 | 0.0 |



# ATTACHMENT 4:

# FIRE FLOW

# (FIRE FLOW CALCULATION)

RED HAWK
Fire & Security

RED HAWK FIRE & SECURITY
3150 SW 42ND AVE
PALM CITY, FL. 34990
(772)232-2001

| | | |
|---|---|---|
| Job Name | : | Estimate Test |
| Building | : | |
| Location | : | |
| System | : | |
| Contract | : | |
| Data File | : | ADVANTAGE.WX1 |

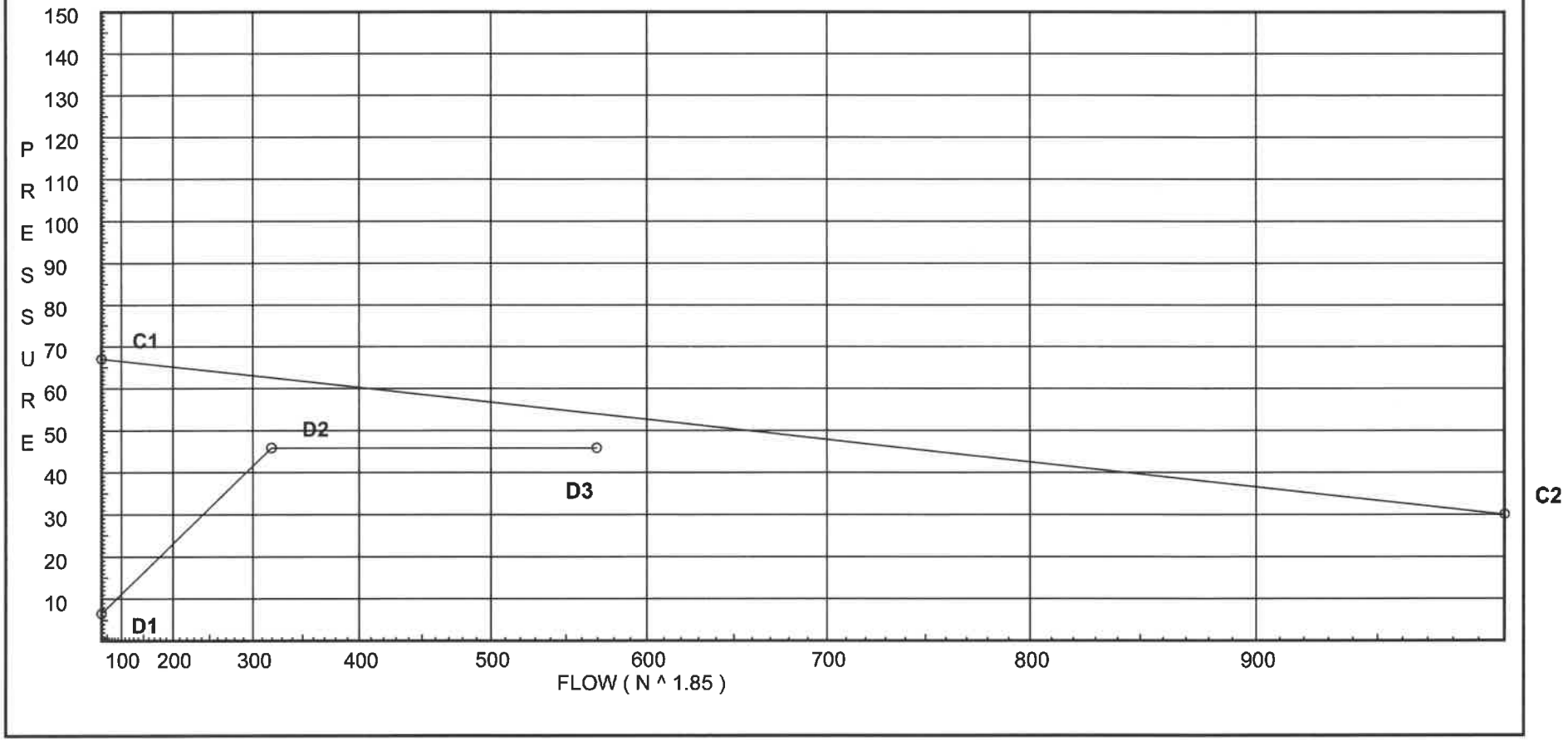
# Water Supply Curve C

RED HAWK FIRE & SECURITY
Estimate Test



City Water Supply:
- C1 - Static Pressure : 67
- C2 - Residual Pressure: 30
- C2 - Residual Flow : 1000

Demand:
- D1 - Elevation : 6.496
- D2 - System Flow : 319.409
- D2 - System Pressure : 45.866
- Hose ( Demand ) : 250
- D3 - System Demand : 569.409
- Safety Margin : 8.081



Fitting Legend

| Abbrev. | Name | ½ | ¾ | 1 | 1¼ | 1½ | 2 | 2½ | 3 | 3½ | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | Roll Groove Coupling | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| E | NFPA 13 90' Standard Elbow | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 14 | 18 | 22 | 27 | 35 | 40 | 45 | 50 | 61 |
| G | NFPA 13 Gate Valve | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 11 | 13 |
| T | NFPA 13 90' Flow thru Tee | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 17 | 20 | 25 | 30 | 35 | 50 | 60 | 71 | 81 | 91 | 101 | 121 |
| Zab | Ames 2000SE | Fitting generates a Fixed Loss Based on Flow | | | | | | | | | | | | | | | | | | | |

Unit Summary

| | |
|---|---|
| Diameter Units | Inches |
| Length Units | Feet |
| Flow Units | US Gallons per Minute |
| Pressure Units | Pounds per Square Inch |

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

# Pressure / Flow Summary - STANDARD

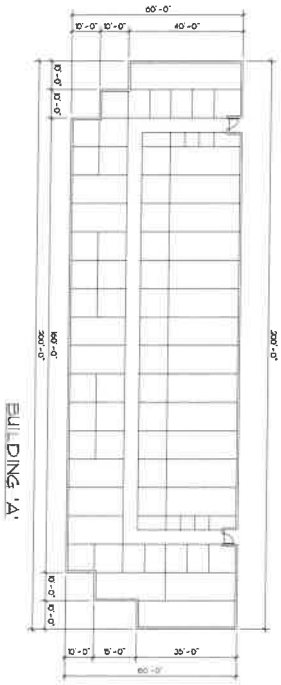


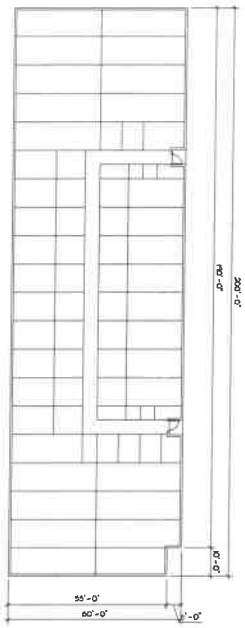
| Node No. | Elevation | K-Fact | Pt Actual | Pn | Flow Actual | Density | Area | Press Req. |
|---|---|---|---|---|---|---|---|---|
| 1 | 15.0 | 5.6 | 21.56 | na | 26.0 | 0.2 | 130 | 7.0 |
| 2 | 15.0 | 5.6 | 21.62 | na | 26.04 | 0.2 | 130 | 7.0 |
| 3 | 15.0 | 5.6 | 21.85 | na | 26.18 | 0.2 | 130 | 7.0 |
| 5 | 15.0 | 5.6 | 22.22 | na | 26.39 | 0.2 | 130 | 7.0 |
| 6 | 15.0 | 5.6 | 22.28 | na | 26.43 | 0.2 | 130 | 7.0 |
| 7 | 15.0 | 5.6 | 21.6 | na | 26.03 | 0.2 | 130 | 7.0 |
| 8 | 15.0 | 5.6 | 21.67 | na | 26.07 | 0.2 | 130 | 7.0 |
| 9 | 15.0 | 5.6 | 21.9 | na | 26.2 | 0.2 | 130 | 7.0 |
| 11 | 15.0 | 5.6 | 22.26 | na | 26.42 | 0.2 | 130 | 7.0 |
| 12 | 15.0 | 5.6 | 22.33 | na | 26.46 | 0.2 | 130 | 7.0 |
| 15 | 15.0 | 5.6 | 26.03 | na | 28.57 | 0.2 | 130 | 7.0 |
| 16 | 15.0 | 5.6 | 26.1 | na | 28.61 | 0.2 | 130 | 7.0 |
| 4 | 15.0 | | 22.69 | na | | | | |
| 10 | 15.0 | | 22.74 | na | | | | |
| 14 | 15.0 | | 26.57 | na | | | | |
| 17 | 15.0 | | 27.29 | na | | | | |
| 18 | 15.0 | | 27.35 | na | | | | |
| 19 | 15.0 | | 27.57 | na | | | | |
| 20 | 15.0 | | 31.93 | na | | | | |
| 21 | 15.0 | | 34.37 | na | | | | |
| 22 | 0.0 | | 41.12 | na | | | | |
| 23 | 0.0 | | 45.87 | na | 250.0 | | | |

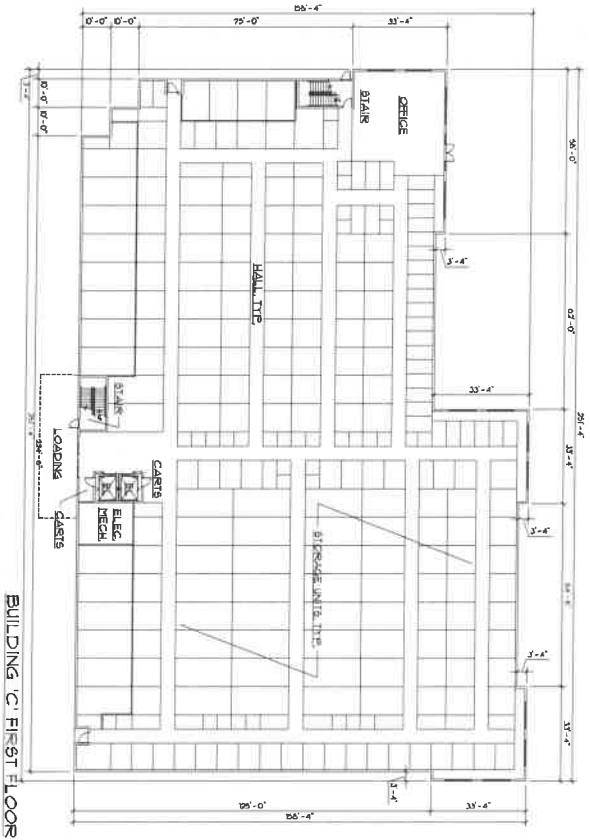
The maximum velocity is 18.94 and it occurs in the pipe between nodes 10 and 18

| Hyd. Ref. Point | Qa Qt | Dia. "C" Pf/Ft | Fitting or Eqv. | Ln. | Pipe Ftng's Total | Pt Pe Pf | Pt Pv Pn | ******* Notes ****** |
|---|---|---|---|---|---|---|---|---|
| 1 | 26.00 | 2.157 | | 0.0 | 10.000 | 21.556 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 2 | 26.0 | 0.0063 | | 0.0 | 10.000 | 0.063 | | Vel = 2.28 |
| 2 | 26.04 | 2.157 | | 0.0 | 10.000 | 21.619 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 3 | 52.04 | 0.0228 | | 0.0 | 10.000 | 0.228 | | Vel = 4.57 |
| 3 | 26.17 | 2.157 | T | 12.307 | 5.000 | 21.847 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 12.307 | 0.0 | | |
| 4 | 78.21 | 0.0485 | | 0.0 | 17.307 | 0.839 | | Vel = 6.87 |
| | 0.0 | | | | | | | |
| | 78.21 | | | | | 22.686 | | K Factor = 16.42 |
| 5 | 26.39 | 2.157 | | 0.0 | 10.000 | 22.215 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 6 | 26.39 | 0.0065 | | 0.0 | 10.000 | 0.065 | | Vel = 2.32 |
| 6 | 26.44 | 2.157 | T | 12.307 | 5.000 | 22.280 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 12.307 | 0.0 | | |
| 4 | 52.83 | 0.0235 | | 0.0 | 17.307 | 0.406 | | Vel = 4.64 |
| | 0.0 | | | | | | | |
| | 52.83 | | | | | 22.686 | | K Factor = 11.09 |
| 7 | 26.03 | 2.157 | | 0.0 | 10.000 | 21.604 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 8 | 26.03 | 0.0063 | | 0.0 | 10.000 | 0.063 | | Vel = 2.29 |
| 8 | 26.07 | 2.157 | | 0.0 | 10.000 | 21.667 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 9 | 52.1 | 0.0229 | | 0.0 | 10.000 | 0.229 | | Vel = 4.57 |
| 9 | 26.20 | 2.157 | T | 12.307 | 5.000 | 21.896 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 12.307 | 0.0 | | |
| 10 | 78.3 | 0.0485 | | 0.0 | 17.307 | 0.840 | | Vel = 6.87 |
| | 0.0 | | | | | | | |
| | 78.30 | | | | | 22.736 | | K Factor = 16.42 |
| 11 | 26.42 | 2.157 | | 0.0 | 10.000 | 22.264 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 12 | 26.42 | 0.0065 | | 0.0 | 10.000 | 0.065 | | Vel = 2.32 |
| 12 | 26.47 | 2.157 | T | 12.307 | 5.000 | 22.329 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 12.307 | 0.0 | | |
| 10 | 52.89 | 0.0235 | | 0.0 | 17.307 | 0.407 | | Vel = 4.64 |
| | 0.0 | | | | | | | |
| | 52.89 | | | | | 22.736 | | K Factor = 11.09 |
| 15 | 28.57 | 2.157 | | 0.0 | 10.000 | 26.030 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 16 | 28.57 | 0.0075 | | 0.0 | 10.000 | 0.075 | | Vel = 2.51 |
| 16 | 28.61 | 2.157 | T | 12.307 | 5.000 | 26.105 | | K Factor = 5.60 |
| to | | 120.0 | | 0.0 | 12.307 | 0.0 | | |
| 14 | 57.18 | 0.0271 | | 0.0 | 17.307 | 0.469 | | Vel = 5.02 |
| | 0.0 | | | | | | | |
| | 57.18 | | | | | 26.574 | | K Factor = 11.09 |
| 4 | 131.04 | 1.682 | T | 9.9 | 1.000 | 22.686 | | |
| to | | 120.0 | | 0.0 | 9.900 | 0.0 | | |
| 17 | 131.04 | 0.4228 | | 0.0 | 10.900 | 4.608 | | Vel = 18.92 |

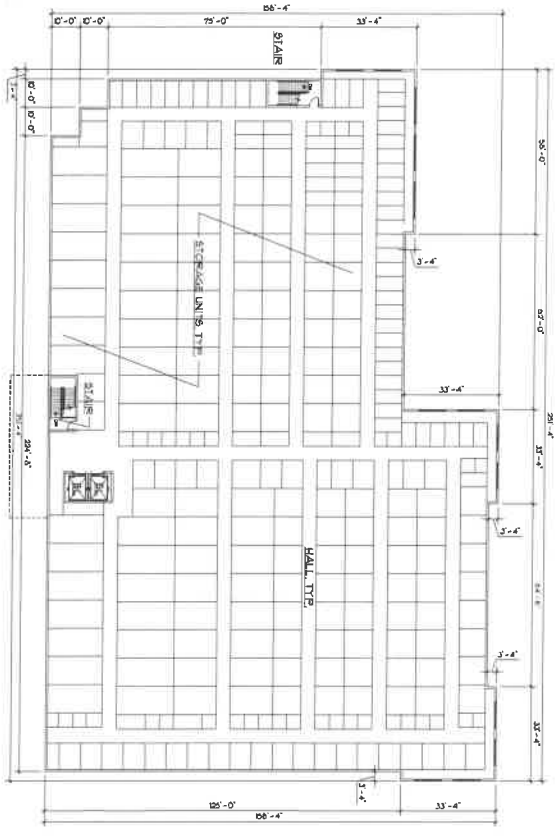
| Hyd. Ref. Point | Qa Qt | Dia. "C" Pf/Ft | Fitting or Eqv. | Ln. | Pipe Ftng's Total | Pt Pe Pf | Pt Pv Pn | ******* Notes ****** |
|---|---|---|---|---|---|---|---|---|
| | 0.0 | | | | | | | |
| | 131.04 | | | | | 27.294 | | K Factor = 25.08 |
| 10 | 131.19 | 1.682 | T | 9.9 | 1.000 | 22.736 | | |
| to | | 120.0 | | 0.0 | 9.900 | 0.0 | | |
| 18 | 131.19 | 0.4237 | | 0.0 | 10.900 | 4.618 | | Vel = 18.94 |
| | 0.0 | | | | | | | |
| | 131.19 | | | | | 27.354 | | K Factor = 25.08 |
| 14 | 57.18 | 1.682 | T | 9.9 | 1.000 | 26.574 | | |
| to | | 120.0 | | 0.0 | 9.900 | 0.0 | | |
| 19 | 57.18 | 0.0912 | | 0.0 | 10.900 | 0.994 | | Vel = 8.26 |
| | 0.0 | | | | | | | |
| | 57.18 | | | | | 27.568 | | K Factor = 10.89 |
| 17 | 131.04 | 4.26 | | 0.0 | 13.000 | 27.294 | | |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 18 | 131.04 | 0.0046 | | 0.0 | 13.000 | 0.060 | | Vel = 2.95 |
| 18 | 131.19 | 4.26 | | 0.0 | 13.000 | 27.354 | | |
| to | | 120.0 | | 0.0 | 0.0 | 0.0 | | |
| 19 | 262.23 | 0.0165 | | 0.0 | 13.000 | 0.214 | | Vel = 5.90 |
| 19 | 57.18 | 4.26 | T | 26.334 | 157.000 | 27.568 | | |
| to | | 120.0 | | 0.0 | 26.334 | 0.0 | | |
| 20 | 319.41 | 0.0238 | | 0.0 | 183.334 | 4.362 | | Vel = 7.19 |
| | 0.0 | | | | | | | |
| | 319.41 | | | | | 31.930 | | K Factor = 56.53 |
| 20 | 319.41 | 4.26 | 4E | 52.668 | 50.000 | 31.930 | | |
| to | | 120.0 | | 0.0 | 52.668 | 0.0 | | |
| 21 | 319.41 | 0.0238 | | 0.0 | 102.668 | 2.443 | | Vel = 7.19 |
| 21 | 0.0 | 6.357 | G | 3.772 | 15.000 | 34.373 | | |
| to | | 120.0 | C | 1.257 | 57.837 | 6.496 | | |
| 22 | 319.41 | 0.0034 | 3E | 52.808 | 72.837 | 0.248 | | Vel = 3.23 |
| 22 | 0.0 | 6.16 | 2T | 86.075 | 360.000 | 41.117 | | |
| to | | 140.0 | Zab | 0.0 | 186.495 | 3.127 | | * Fixed Loss = 3.127 |
| 23 | 319.41 | 0.0030 | 5E | 100.42 | 546.495 | 1.622 | | Vel = 3.44 |
| | 250.00 | | | | | | | Qa = 250.00 |
| | 569.41 | | | | | 45.866 | | K Factor = 84.08 |




UNIT MIX FLOOR PLANS
SCALE: 1" = 30'




A PROPOSED SELF STORAGE FACILITY

ADVANTAGE DEVELOPMENT GROUP, LLC

JENSEN BEACH, FLORIDA

DATE: AUG. 8, 2018

JOB NO.

FILE NO.

SHEET

OF

PATRICK M. PILLOT
ARCHITECT, INC.
1267 SECOND STREET SARASOTA, FLORIDA 34236
(941) 955-7378 FAX (941) 953-2281
FLORIDA #AR0011654 - EMAIL PAT@PILLOTARCH.COM

# FARRELL STORAGE

CONCEPTUAL DESIGN AUGUST 23, 2018

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

**AERIAL** | VIEW FROM NORTH


**PATRICK M. PILLOT ARCHITECT, INC.**
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554


FARRELL STORAGE

**AUGUST 23, 2018**

**AERIAL** | VIEW FROM SOUTHWEST


PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554


FARRELL STORAGE

**AUGUST 23, 2018**


## BUILDING C | NORTH ELEVATION

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

**Design features from LDC Section 4.872.C covering 50% of ground floor façade length (four required):**

1. Awnings
2. Windows
3. Decorative light fixtures
4. Peaked roof forms
5. Architectural details other than those listed: trellis structures


## BUILDING C | NORTHWEST CORNER

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

**AUGUST 23, 2018**


**BUILDING C** | NORTHEAST CORNER

**PATRICK M. PILLOT ARCHITECT, INC.**
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

**AUGUST 23, 2018**

224 SF PATIO WITH TRELLIS COVERING

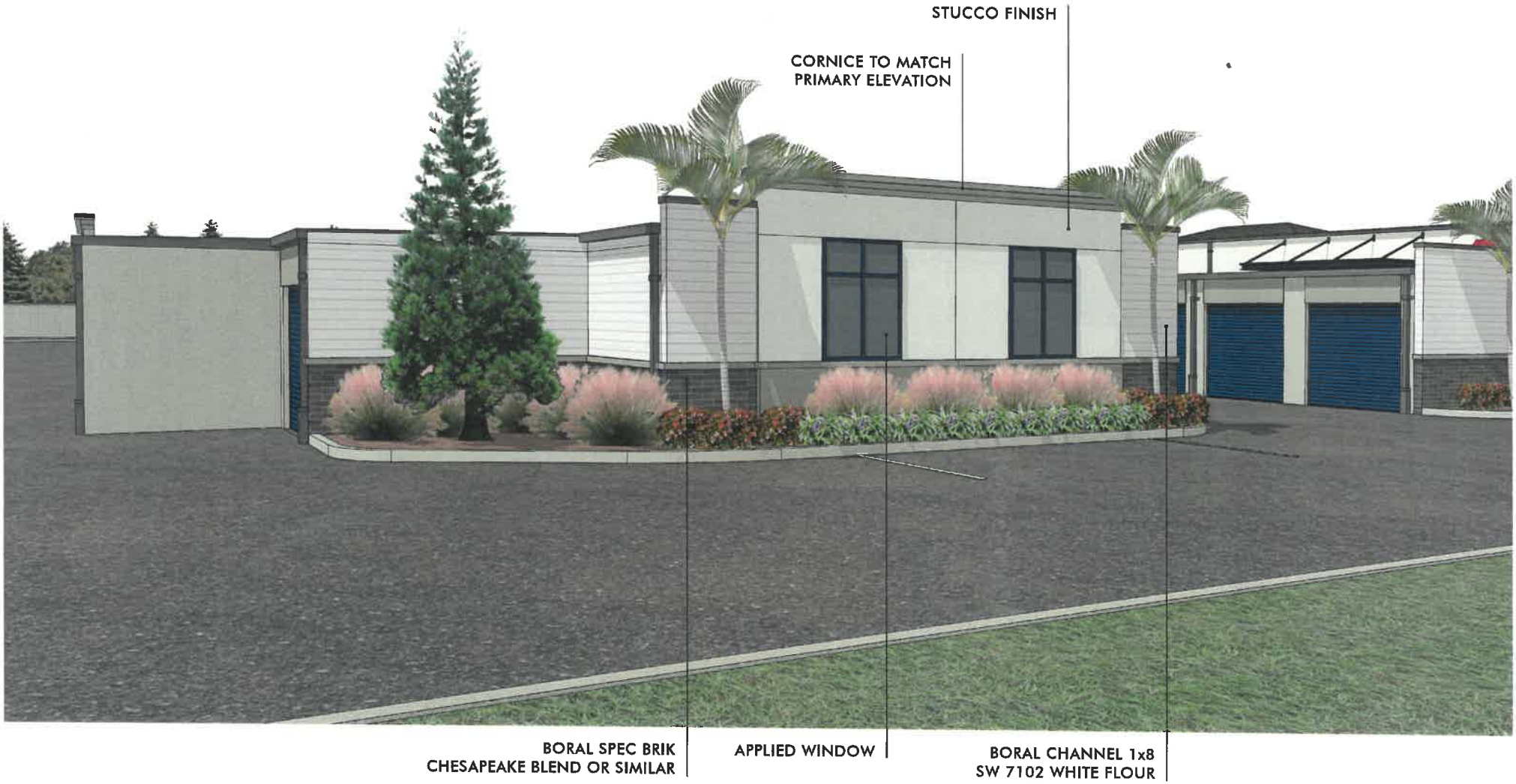
GREEN SCREEN TRELLIS
OFFSET FROM WALL

## BUILDING C | PEDESTRIAN PATIO DETAIL

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

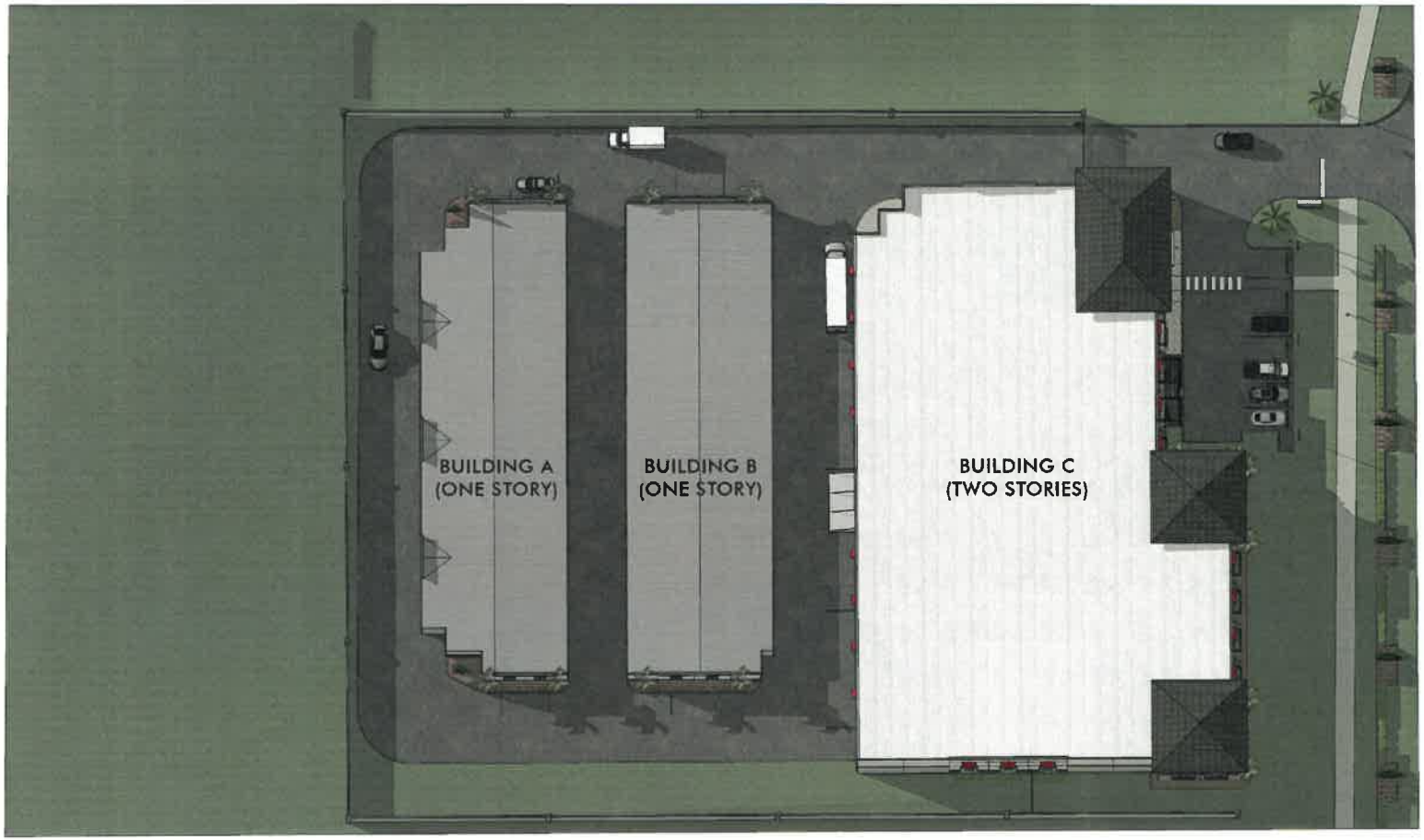



**BUILDING A** | EAST WALL DETAIL (BUILDING A WEST WALL, BUILDING B EAST WALL, AND BUILDING B WEST WALLS SIMILAR)

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

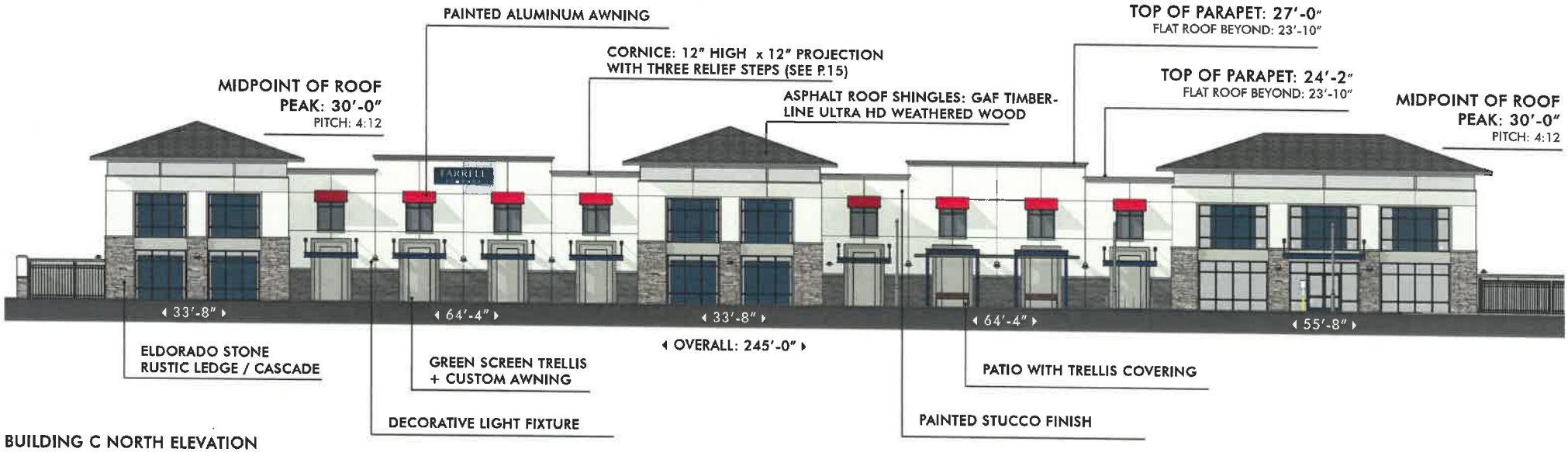



## SITE PLAN

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018




BUILDING C NORTH ELEVATION


BUILDING C SOUTH ELEVATION

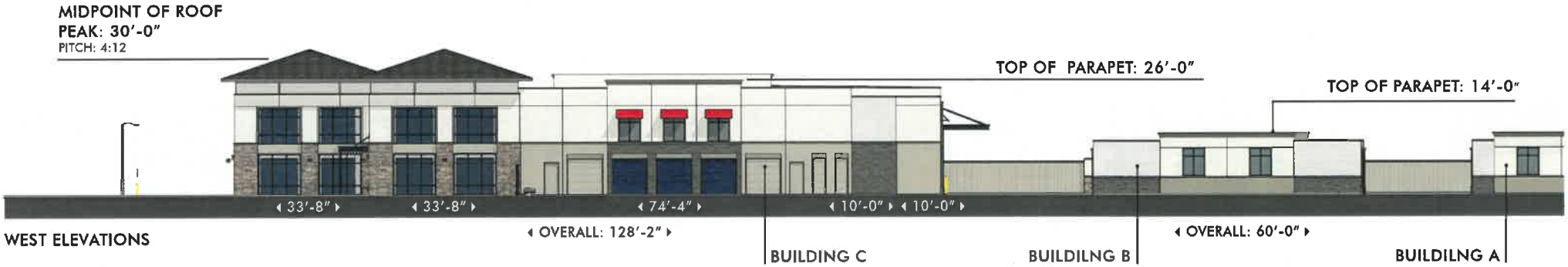
## ARCHITECTURAL ELEVATIONS

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018


EAST ELEVATIONS




EAST + WEST ELEVATIONS OF BUILDINGS A + B ARE SIMILAR

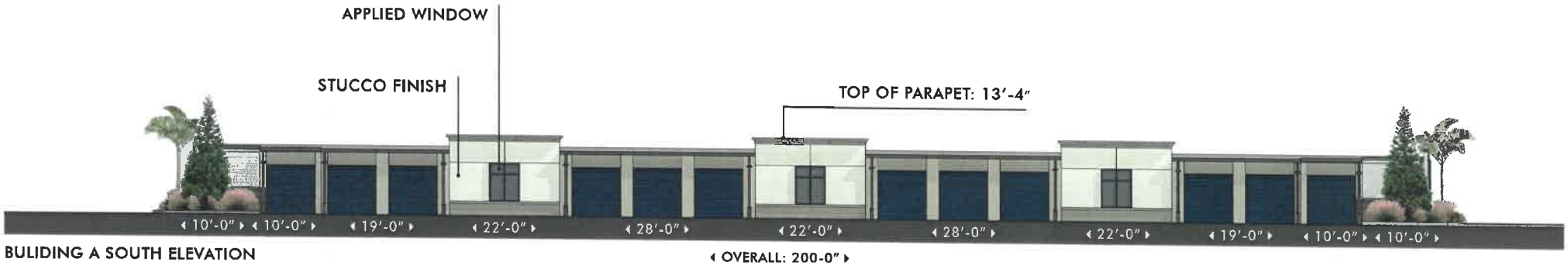
WEST ELEVATIONS

# ARCHITECTURAL ELEVATIONS

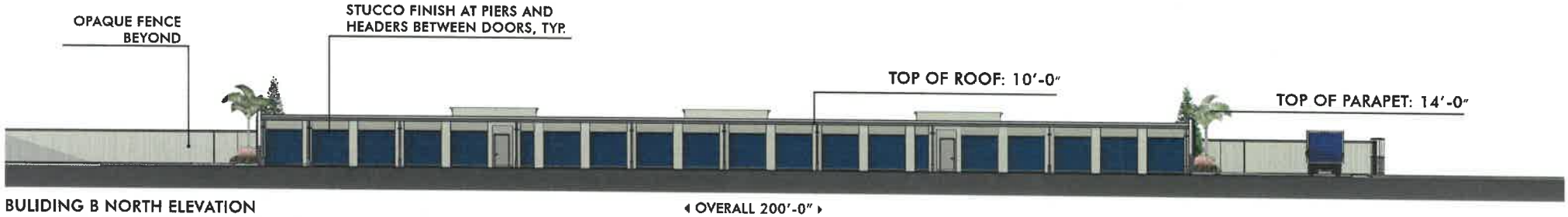
PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018




BULIDING A SOUTH ELEVATION




BULIDING B NORTH ELEVATION
BUILDING B SOUTH ELEVATION SIMILAR
BUILDING A NORTH ELEVATION SIMILAR

## ARCHITECTURAL ELEVATIONS

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

A

WALL COLOR 1:
SW 7012 CREAMY

B

WALL COLOR 2:
SW 7739 HERBAL WASH

C

TRIM COLOR 3:
SW 7737 MEADOW TRAIL

D

METAL FABRICATIONS:
SW 7505 MANOR HOUSE

E

FIXED ALUM. AWNING:
SW 6864 CHERRY TOMATO

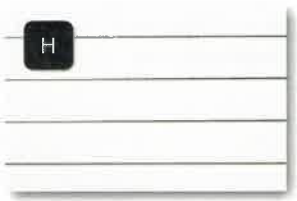
F

STOREFRONT FRAMES +
ROLL-UP DOORS:
KAWNEER PERMACOAT "DEEP BLUE"; MATCH FOR ROLL-UP DOORS + AWNINGS

G

STONE CLADDING:
ELDORADO STONE
RUSTIC LEDGE / CASCADE

H



SIDING:
BORAL CHANNEL 1x8
SW 7102 WHITE FLOUR

I

ASPHALT ROOF SHINGLES:
GAF TIMBERLINE ULTRA HD
WEATHERED WOOD
320 POUND 30 YEAR ARCHITECTURAL SHINGLE
MIAMI-DADE NOA 18-0123.07

J

BRICK CLADDING:
BORAL SPEC BRIK
CHESAPEAKE BLEND

K

TRELLIS:
GREEN SCREEN WALL MOUNTED TRELLIS PANEL OR SIMILAR


COLOR & MATERIALS KEY

## COLOR & MATERIALS PALETTE

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

A

WALL COLOR 1:
SW 7012 CREAMY

B

WALL COLOR 2:
SW 7739 HERBAL WASH

C

TRIM COLOR 3:
SW 7737 MEADOW TRAIL

D

METAL FABRICATIONS:
SW 7505 MANOR HOUSE

E

FIXED ALUM. AWNING:
SW 6864 CHERRY TOMATO

F

STOREFRONT FRAMES +
ROLL-UP DOORS:
KAWNEER PERMACOAT "DEEP BLUE"; MATCH FOR ROLL-UP DOORS + AWNINGS

G

STONE CLADDING:
ELDORADO STONE
RUSTIC LEDGE / CASCADE

H

SIDING:
BORAL CHANNEL 1x8
SW 7102 WHITE FLOUR

I

ASPHALT ROOF SHINGLES:
GAF TIMBERLINE ULTRA HD
WEATHERED WOOD
320 POUND 30 YEAR ARCHITECTURAL SHINGLE
MIAMI-DADE NOA 18-0123.07

J

BRICK CLADDING:
BORAL SPEC BRIK
CHESAPEAKE BLEND

K

TRELLIS:
GREEN SCREEN WALL MOUNTED TRELLIS PANEL OR SIMILAR

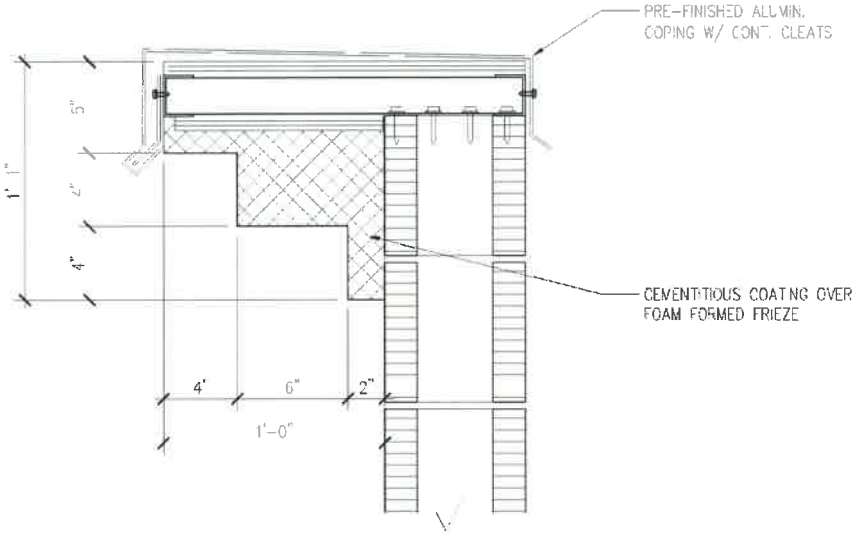
## COLOR & MATERIALS PALETTE


COLOR & MATERIALS KEY

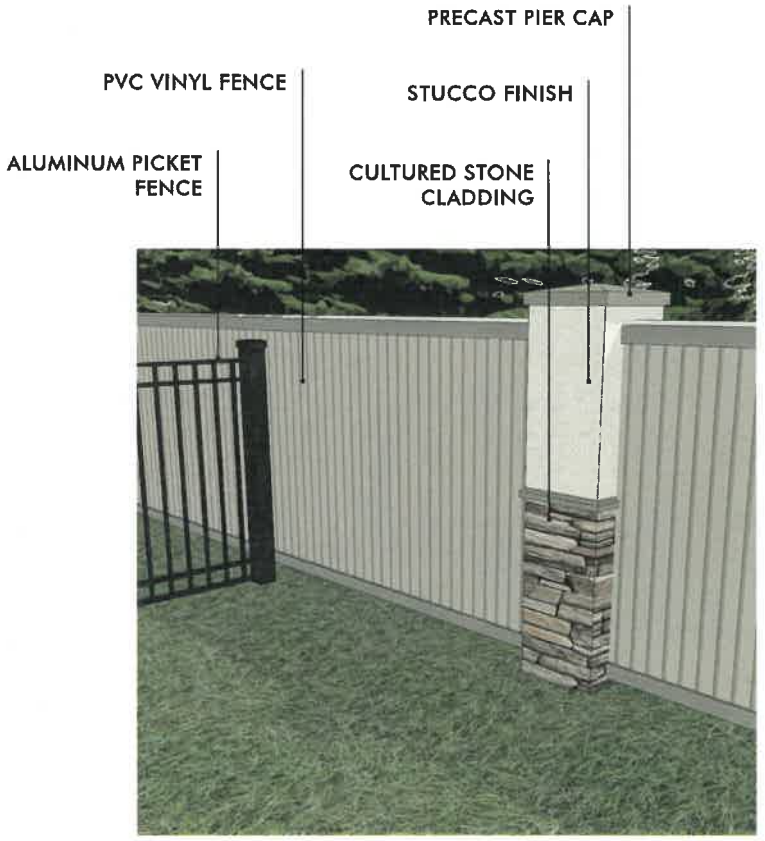
PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018




CORNICE DETAIL




PERIMETER OPAQUE FENCE DETAIL

# DETAILS

PATRICK M. PILLOT ARCHITECT, INC.
941.955.7375
1267 Second Street
Sarasota, FL 34236
pat@pillotarch.com
FL license no. AR0011554

FARRELL STORAGE

AUGUST 23, 2018

## Landscape Data

| | S.F. | Acres | % of Site |
|---|---|---|---|
| Total Site Area | 193,406 | 4.44 | 100.00% |
| Upland Preserve Provided | 45,489 | 1.04 | 23.5% |
| Total Development Area | 147,917 | 3.4 | 76.5% |
| Landscape Area Requirement: 20% x Dev. Area (147,917 x 20%) | 29,583 | .68 | 20% |
| Development Area Trees Required (1 Tree/2,500 s.f.) | | | 59 trees |
| Existing Palms To Remain (16 Palms/3 = 5 Trees) | | | 5 trees |
| Trees Provided | | | 95 trees |
| Palms Provided (69 Palms/3 = 23 Trees) | | | 23 trees |
| Total Trees Provided | | | 123 trees |

| Landscape Area Provided | S.F. | Acres | % of Net Site |
|---|---|---|---|
| Perimeter Buffer Areas | 30,655 | 0.7 | 20.7% |
| Interior Areas | 17,374 | 0.4 | 11.8% |
| Sub-Total | 48,029 | 1.1 | 32.5% |

| Impervious Area | S.F. | Acres | % of Net Site |
|---|---|---|---|
| Vehicular Use Area | 40,685 | 0.93 | 27.5% |
| Building Area | 58,000 | 1.33 | 39.2% |
| Sidewalks & Concrete, Pads, Etc. | 1,203 | 0.03 | 0.8% |
| Sub-Total | 99,888 | 2.29 | 67.5% |

Vehicular Use Area Buffer: 10' depth w/1 tree/30 l.f. + Hedge

V.U.A. Landscape
- Area Required (500 s.f. / 5,000 s.f. paved area) 4,069 s.f.
- Area Provided 4,069 s.f.

V.U.A. Trees Required
- 2 (3") Trees or 3 (2") Trees/500 s.f. of Required VUA Landscape Area
- V.U.A. Trees Provided 15 Sabals, 12 (2") trees, 6 (3") trees

Perimeter Landscape Buffer Requirements

North (10' Adjacent to R.O.W.) 318 LF
- Trees Required (1 tree/30 LF) 11 trees
- Trees Provided (12 Sabals, 9 trees) 13 trees
- Shrubs Required (1 Shrub/3') 106 shrubs
- Shrubs Provided 170 shrubs

East (Adjacent to Commercial)
Type 1 Buffer Yard (20' Wide): 202 LF
- Trees Required (1/300 SF of buffer) 14 trees
- Trees Provided (9 Sabals, 11 trees) 14 trees
- 10 Shrubs/300 s.f. of Required Landscape Area 135 shrubs
- Shrubs Provided 159 shrubs

East (Adjacent to Residential)
Type 3 Buffer Yard (30' Wide): 197 LF
- Trees Required (1/300 SF of buffer) 20 trees
- Trees Provided (16 Sabals, 16 trees) 21 trees
- 34 Shrubs/300 s.f. of Required Landscape Area 670 shrubs
- Shrubs Provided 670 shrubs

West (Adjacent to Drainage Canal)
Type 3 Buffer Yard (30' Wide): 399 LF
- Trees Required (1/300 SF of buffer) 40 trees
- Trees Provided (15 Sabals, 37 trees) 42 trees
- 34 Shrubs/300 s.f. of Required Landscape Area 1,357 shrubs
- Shrubs Provided 1,357 shrubs

South (Adjacent to Residential)
Type 3 Buffer Yard (30' Wide): 353 LF
- Trees Required (1/300 SF of buffer) 34 trees
- Trees Provided Existing Preserve Area to Remain

Native Vegetation Requirements

Trees
- Required 75%
- Provided 100%

Palms
- Required 75%
- Provided 97%

Accents, Shrubs & Groundcovers
- Required 75%
- Provided 88%

## Xeriscape Table

(A total of 50 pts. are required)

| | |
|---|---|
| 1. Utilization of a moisture sensing controller other than a rain-sensor override device. | 5 pts. |
| 2. 25%-50% of the grass areas are made up of drought tolerant species from the list. | 5 pts. |
| 3. 51% or more of the required shrubs are made up of drought tolerant species from the list. | 10 pts. |
| 4. 51% or more of the required trees are made up of drought tolerant species from the list. | 10 pts. |
| 5. Utilization of compacted mulch beds at least three inches deep in all planted areas except ground cover. | 10 pts. |
| 6. Utilization of mulch other than cypress mulch. | 5 pts. |
| 7. Low, moderate and high usage zones indicated on Landscape Plan. | 5 pts. |
| Total Provided Points | 50 pts. |



## Landscape Notes

1. Plant and landscape materials shall conform to the standards for Florida No. 1, as given in the Grades and Standards for Nursery Plants, Parts I & II, as prepared by the Florida Dept. of Agriculture and Consumer Services.
2. A 3" thick layer of organic non-cypress mulch shall be applied to all landscape and planting areas.
3. All prohibited exotic vegetation to be removed from development area.
4. An automatic irrigation system shall be installed that is capable of providing 100% coverage to all landscape and planting areas.
5. Irrigation source to be potable water. Irrigation plans shall be provided prior to issuance of building permit.
6. Existing trees that are to remain shall be barricaded according to Martin County Ordinances.
7. This plan has been designed to meet with the tree planting requirements contained within the FPL document entitled "Plant the Right Tree in the Right Place."
6. For existing or proposed utilities, no tree shall be planted where it could, at mature height, conflict with overhead power lines. Large trees [ height at maturity of more than thirty (30) feet ] shall be planted no closer than a horizontal distance of thirty (30) feet from the nearest overhead power line. Medium height trees [height at maturity between twenty (20) and thirty (30) feet] shall be offset at least twenty (20) feet and small trees [ height at maturity of less than (20) feet ] require no offset.
9. No tree, shrubs, hedges or vines shall be planted within five (5) feet of any existing or proposed utility pole, guy wire or-pad mounted transformer. Palms should be planted at a distance equal to or greater than the average front length plus two (2) feet from power lines.
10. The use of cypress mulch is prohibited in all landscape areas.
11. No use shall be made of, and no development activity shall be permitted in, land use buffers and perimeter landscape areas, except for:
    a. Planting material approved as part of the landscape plan.
    b. Completely underground utilities and essential, specifically approved, overhead or above ground utilities which cross these areas and do not interfere with the mature growth of required plant material.
    c. Grass ditches, with back slopes no steeper than 3V:1H, which can support the required landscaping materials.
12. Encroachment into required bufferyards and landscaped areas by vehicles, boats, mobile homes, or trailers shall not be permitted, and required landscaped areas shall not be used for the storage or sale of materials or products or the parking of vehicles and equipment.
13. Required landscaping shall be maintained so as to at all times present a healthy, neat and orderly appearance, free of refuse and debris. If vegetation which is required to be planted dies it shall be replaced with equivalent vegetation. All trees for which credit was awarded and which subsequently die, shall be replaced by the requisite number of living trees according to the standards established in the Martin County Landscape Code.
14. All Landscaping shall be maintained free from disease, pests, weeds and litter. Maintenance shall include weeding, watering, fertilizing, pruning, mowing, edging, mulching or other maintenance as needed and in accordance with acceptable horticultural practices. Perpetual maintenance shall be provided to prohibit the reestablishment of harmful exotic species within landscaping and preservation areas.
15. Regular landscape maintenance shall be provided for repair or replacement, where necessary, of any screening or buffering required as shown on this plan. Regular landscape maintenance shall be provided for the repair or replacement of required walls, fences, or structures to a structurally sound condition as shown on this plan.
16. Stormwater management areas are to be maintained with planted native vegetation, in perpetuity.

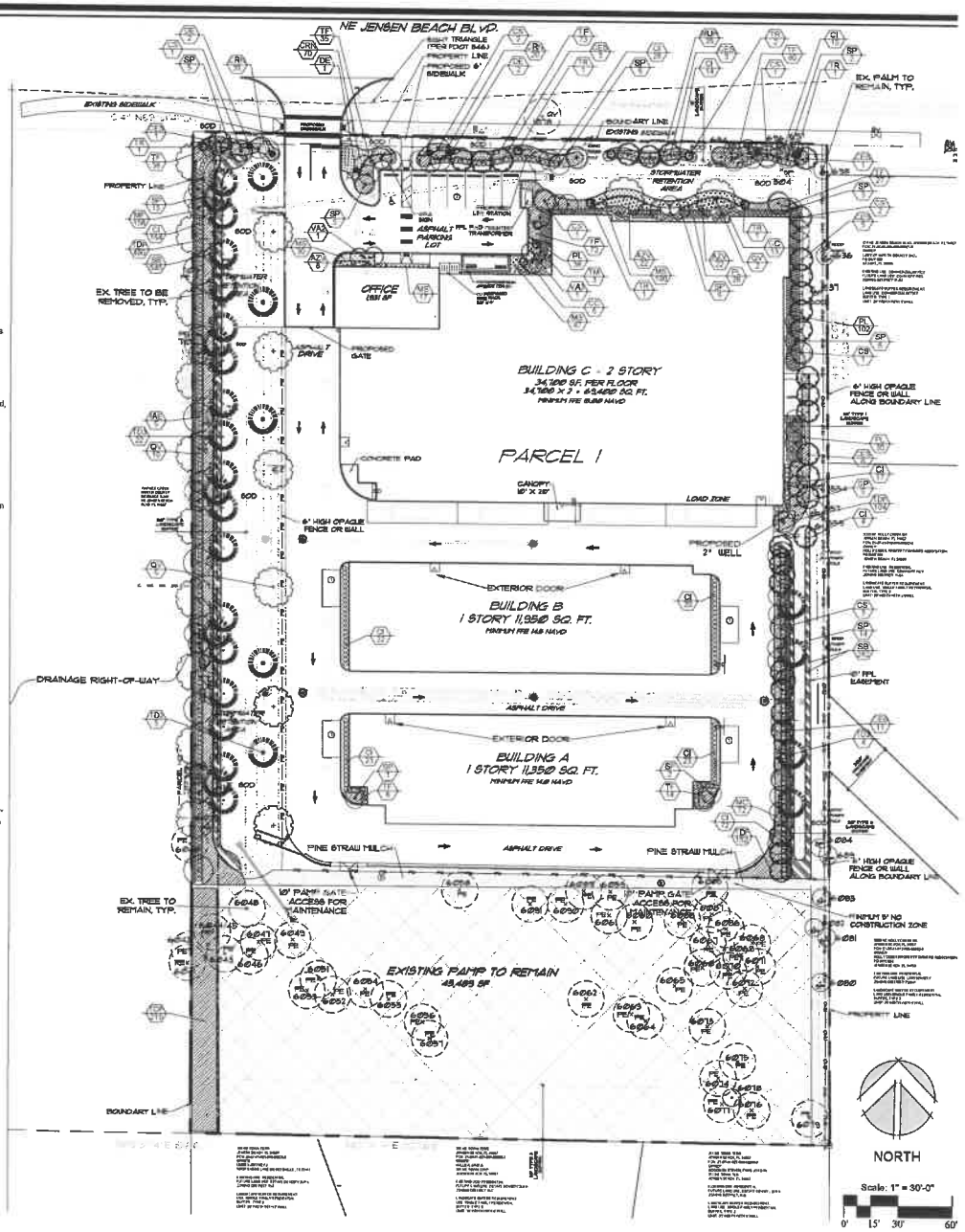
## Existing Plant Symbols

- EXISTING PALM TO REMAIN
- EXISTING TREE TO REMAIN
- EXISTING TREE / PALM TO BE REMOVED

## Existing Tree Key

IC = Ilex cassine / Dahoon Holly
PE = Pinus elliottii / Slash Pine
QV = Quercus virginiana / Live Oak
SP = Sabal palmetto / Sabal Palm

CALL 48 HOURS BEFORE YOU DIG IN FLORIDA
1-800-432-4770
IT'S THE LAW!
SUNSHINE STATE ONE CALL OF FLORIDA, INC.





McCarty & Associates
LAND PLANNING AND DESIGN
STUART • FT. PIERCE
772.341.9322
www.McCartyLandPlanning.com
Mike@McCartyLandPlanning.com


# Advantage Storage
Martin County, Florida
# Landscape Plan

LA 6667190

| | |
|---|---|
| Drawn By | DMS |
| Checked By | MM |
| Scale | 1" = 30' |
| Drawing Date | 08/30/2018 |

L1

## Plant Specifications

SPECIES AND SIZE shall conform to those indicated on the drawings. Nomenclature shall conform to STANDARDIZED PLANT NAMES, current edition. All nursery stock shall be in accordance with Grades and Standards for Nursery Plants Parts I & II, latest edition published by the Florida Department of Agriculture and Consumer Services. All plants not otherwise specified as being Florida Fancy or Specimen, shall be Florida Grade Number 1 or better as determined by the Florida Division of Plant Industry. Specimen means an exceptionally heavy, symmetrical, tightly knit plant, so trained or formed in its development that first appearance is unquestionable and outstandingly superior in form, number of branches, compactness and symmetry.

GENERAL REQUIREMENTS

All plants shall be freshly dug, sound, healthy, vigorous, well branched, and free of diseases and insect eggs and larvae, and shall have adequate root systems. Trees for planting rows shall be uniform in size and shape. All materials shall be subject to approval by the Landscape Architect. Where any requirements are omitted from the plant list, the plants furnished shall be normal for the variety. Plants shall be pruned prior to delivery only upon the approval of the Landscape Architect.

CONTAINER GROWN STOCK

All container grown material shall be healthy, vigorous, well rooted plants, and established in the container in which they are sold. The plants shall have tops which are good quality and be a healthy growing condition. An established container grown plant shall be grown in that container sufficiently long enough for the new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container. Plant root bound in containers are unacceptable.

MEASUREMENTS

Trees: Height shall be measured from ground to the average height of canopy. Spread shall be measured to the end of branching equally around the crown from the center of the trunk. Measurements are not to include any terminal growth. Single trunk trees shall be free of "V" crotches that could be points of weak limb structure or disease infestation.

Shrubs: Heights shall be measured from the ground to the average points where nature plant growth stops. Spread shall be measured to the end of branching equally around the shrub base. Measurements are not to include any terminal growth.

Palms: Clear Trunk (CT) shall be measured from the ground at the line of installation to the point where the nature aged trunk joins the treetuft or green portion of the trunk or the head.

Overall height (OAH) shall be measured from the ground at the time of installation to a point three quarters the length of the unopened bud. Palms with harmed or burned trunks will not be accepted.

SOIL

Planting soil for use in preparing backfill for plant pits shall be added at a rate of seventy-five (75%) percent to twenty-five (25%) percent existing soil. The soil mix shall be used in all plant pits except Silver palms which shall be backfilled with clean sand. Planting soil shall be a fertile, friable natural topsoil or loamy character. It shall contain forty (40) to fifty (50) percent decomposed organic matter and shall be free from heavy clay, stones, lime, plants, roots or other foreign materials or noxious grasses (such as Bermuda or nut grass) and noxious seeds. It shall not contain toxic substances which may be harmful to plant growth.

COMMERCIAL FERTILIZER

Tree fertilizer shall be used in all types of plantings, except palms. Granular fertilizer shall be uniform in composition, dry and free flowing. This fertilizer shall be delivered to the site in the original unopened bags, each bearing the Manufacturer's statement of analysis, and shall meet the following requirements: sixteen (16%) percent nitrogen, eleven (11%) percent phosphorus, twelve (12%) percent potassium, plus iron. Tablet fertilizer ("Agriform" or equal) in 21 gram size shall meet the following requirements: twenty (20%) percent nitrogen, ten (10%) percent phosphorous, five (5%) percent potassium.

The two fertilizers will be applied at the following rates:

| PLANT SIZE | lbs-1-12 | "AGRIFORM" TABLET (21 Grams) |
|---|---|---|
| 1 gal. | 1/4 lb. | 1 |
| 3 gal. | 1/2 lb. | 2 |
| 7-9 gal. | 1/2 lb. | 4 |
| 7'-8" caliper | 2 lbs./1" caliper | 2/1" caliper |
| 8" and larger | 3 lbs./1" caliper | 2/1" caliper |

*Florida East Coast Palm Special will be applied to all palms at installation at a rate of 1/2 lb. per inch of trunk caliper unless otherwise specified.

MULCH

Mulch material shall be three (3) inches of shredded melaleuca mulch (sterilized and free of seeds) or approved equal, measured at the time of application to prevent wind displacement.

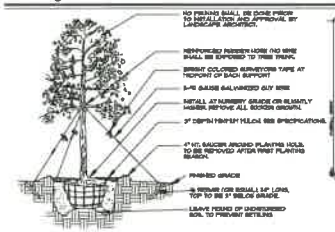
SUBSTITUTIONS

No substitutions of plant material types or size will be allowed without written consent of the Landscape Architect. B&B material will not be accepted as substitute for container grown material unless previously approved. Alternate substitutions shall be indicated in bid.

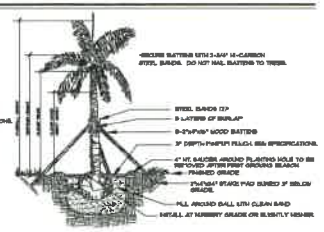
## Notes

- Prior to the installation of any plant material all existing and imported soils shall be tested and amended to meet the soil specifications and specific plant needs as shown on this plan.
- All plant material unless specified as being Florida Fancy or Specimen, shall be Florida Grade Number 1 or better as determined by the Florida Division of Plant Industry.
- All plant materials and sod shall have an automatic irrigation system providing 100% coverage.
- Maintain positive drainage away from residences.
- All plant material shall be planted, fertilized and mulched as per the Plant Details and Plant Specifications noted on this plan.
- Landscape Contractor shall research plans and contact appropriate agencies to determine location of utilities and obstructions prior to commencing work. Any utilities or underground obstructions shall be reported immediately to the Landscape Architect.
- Landscape Contractor will be responsible for obtaining all necessary permits, licenses, inspections, and insurance as required by the State and local agencies.
- Invasive species, including Brazilian Pepper, Australian Pine, Melaleuca, Snake Plant, Basswood and Earleaf Acacia shall be eradicated in the development area and removed from the site.

## Planting Details

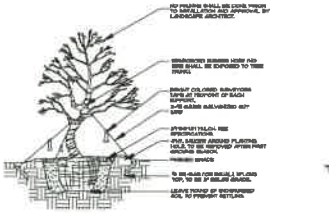



### Tree Planting

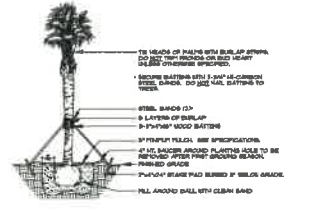



### Palm Planting

- APPLIES TO: ROYAL PALMS, QUEEN PALMS, ALEXANDER PALMS, MANILA PALMS
- SEE SPECIFICATIONS FOR BACKFILL MIXTURE AND FERTILIZATION
- BRACING: SPECIAL SITE CONDITIONS MAY REQUIRE MODIFICATION TO BRACING TECHNIQUE. LANDSCAPE CONTRACTOR WILL ADEQUATELY BRACE ALL PALMS TO PREVENT EXCESSIVE MOVEMENT AND MAINTAIN A VERTICAL POSITION.




### Irregular & Multi-Stem Tree Planting




### Palm Planting

APPLIES TO: BABAL PALMS, WASHINGTON PALMS, CANARY ISLAND DATE PALMS, SENEGAL DATE PALMS

- SEE SPECIFICATIONS FOR BACKFILL MIXTURE AND FERTILIZATION


Section


Plan

### Shrub Planting

- SEE SPECIFICATIONS FOR BACKFILL MIXTURE AND FERTILIZATION

### Groundcover Planting

- SEE SPECIFICATIONS FOR BACKFILL MIXTURE AND FERTILIZATION

## Plant List

| Key | Qty | Scientific Name | Common Name | Size | Spacing |
|---|---|---|---|---|---|
| **PALMS** | | | | | |
| SP** | 70 | Sabal palmetto | Sabal Palm | 10', 14', 18' CT, staggered heights | AS |
| VA2 | 1 | Veitchia arecina montgomeryana | Montgomery Palm | 18' OA, double stem, full head | AS |
| VA3 | 1 | Veitchia arecina montgomeryana | Montgomery Palm | 16' OA, triple stem, full head | AS |
| **TREES** | | | | | |
| CES** | 30 | Conocarpus erectus 'Sericeus' | Silver Buttonwood | 12'x 5', 2.5" DBH min. | AS |
| CS** | 11 | Corida sebestena | Orange Geiger | 12'x 5', 2" DBH min. | AS |
| IAT** | 5 | Ilex x attenuata 'Fosteri' | Fosteri Holly | 14'x 6', 3" DBH min. | AS |
| QV** | 18 | Quercus virginiana | Live Oak | 14'x 6', 3" DBH min. | AS |
| TDI** | 9 | Taxodium distichum | Bald Cypress | 12'x 4', 2" DBH min. | AS |
| TDI** | 22 | Taxodium distichum | Bald Cypress | 14'x 5', 3" DBH min. | AS |
| **ACCENTS, SHRUBS & GROUNDCOVERS** | | | | | |
| ACV | 52 | Aloes arborescent 'Variegata' | Variegated Snail Aloe | 7g, 30"x 30" | 30" OC |
| CC | 19 | Chamaedorea cataractarum | Cat Palm | 4'x 4', full | AS |
| CH** | 401 | Chrysobalanus icaco | Green Cocoplum | 3g, 30"x 24" | 30" OC |
| CBN* | 125 | Clusia flammensis aka Clusia rosea 'Nana' | Dwarf Pitch Apple | 3g, 12"x 16" | 24" OC |
| DE** | 5 | Dioon edule | Mexican Fern Palm | 15g, 36" | AS |
| HE** | 72 | Hamelia patens | Southern Wax Hamlia | 7g, 30"x 24" | 30" OC |
| NP** | 158 | Muhlenbergia capillaris | Simpson's Stopper | 7g, 30"x 24" | 30" OC |
| NE* | 194 | Nephrolepis cordifolia | Wild Fern | 3g, 9"x 14", full | 24" OC |
| MUP** | 35 | Muhlenbergia capillaris | Pink Hurly Grass | 3g, 24"x 24" | 30" OC |
| PU** | 198 | Psychotria ligustrifolia | Bahama Wild Coffee | 7g, 30"x 24", full | 30" OC |
| SP** | 817 | Spartina bakeri | Sand Cordgrass | 1g, 24"x 18", full | 24" OC |
| TDR** | 981 | Tripsacum dactyloides | Fakahatchee Grass | 3g, 30"x 24" | 30" OC |
| TF** | 377 | Tripsacum floridana | Dwarf Fakahatchee Grass | 7g, 30"x 24" | 30" OC |
| TM** | 3 | Thrinax morrisii | Keys Thatch Palm | 5' OA, multi trunk, full | AS |
| TR** | 7 | Thrinax radiata | Florida Thatch Palm | 5' OA, multi trunk, full | AS |

*DENOTES FLORIDA NATIVE PLANT MATERIAL
**DENOTES DROUGHT TOLERANT SPECIES
ALL PLANT MATERIAL SHALL BE MINIMUM FLORIDA #1 GRADE PER THE FLORIDA GRADES & STANDARDS FOR NURSERY PLANTS 2016 EDITION

| Misc. | |
|---|---|
| SOD1 - Stenotaphrum secundatum 'Floratam' - St. Augustine Floratam - solid sod, laid tight | 3,886 sf |
| SOD - Paspalum notatum - Bahia Sod - solid sod, laid tight | 20,422 sf |
| Pine Straw Mulch | 3,886 sf |

## Existing Tree & Mitigation Chart

| Tree # | Species | DBH (per survey) | Status | Mitigation | Tree # | Species | DBH (per survey) | Status | Mitigation | Tree # | Species | DBH (per survey) | Status | Mitigation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 504 | PALM | 15" | remove | | 6040 | PINE | 55" (off property) | remain | | 6059 | PINE | 11" | remain | |
| 506 | PALM | 12" | remain | | 6041 | PINE | 8" (off property) | remain | | 6070 | PINE | 10" | remain | |
| 507 | PALM | 12" | remove | | 6042 | PINE | 8" (off property) | remain | | 6071 | PINE | 9" | remain | |
| 554 | PALM | 15" | remain | | 6043 | PINE | 12" | remain | | 6072 | PINE | 13" | remain | |
| 557 | PALM | 18" | remain | | 6044 | PINE | 13" | remain | | 6073 | PINE | 11" | remain | |
| 559 | PALM | 12" | remain | | 6045 | PINE | 8" | remain | | 6074 | PINE | 12" | remain | |
| 688 | PALM | 24" | remain | | 6046 | PINE | 16" | remain | | 6075 | PINE | 11" | remain | |
| 693 | PALM | 8" | remain | | 6047 | PINE | 10" | remain | | 6076 | PINE | 12" | remain | |
| 694 | PALM | 8" | remain | | 6048 | PINE | 16" | remain | | 6077 | PINE | 11" | remain | |
| 695 | PALM | 8" | remain | | 6049 | PINE | 12" | remain | | 6078 | PALM | 13" | remain | |
| 696 | PALM | 8" | remain | | 6051 | PINE | 13" | remain | | 6079 | PINE | 16" | remain | |
| 697 | PALM | 8" | remain | | 6052 | PINE | 10" | remain | | 6080 | PALM | 15" | remain | |
| 698 | PALM | 8" | remain | | 6053 | PINE | 9" | remain | | 6081 | PALM | 15" | remain | |
| 704 | PINE | 15" | remove | 4 | 6054 | PINE | 12" | remain | | 6082 | PALM | 13" | remain | |
| 705 | PINE | 10" | remove | 3 | 6055 | PINE | 9" | remain | | 6083 | PALM | 13" | remain | |
| 706 | PINE | 8" | remove | 3 | 6056 | PINE | 15" | remain | | 6084 | PALM | 15" | remain | |
| 707 | PINE | 12" | remove | 3 | 6057 | PINE | 13" | remain | | 6085 | PINE | 15" | remain | |
| 708 | PINE | 15" | remove | 4 | 6058 | PINE | 9" | remain | | 6086 | PINE | 16" | remain | |
| 710 | PINE | 8" | remove | 3 | 6059 | PINE | 10" | remain | | 6087 | PINE | 15" | remain | |
| 712 | PINE | 12" | remove | 3 | 6060 | PINE | 11" | remain | | 6088 | PINE | 13" | remain | |
| 714 | HOLLY | 5" | remove | 2 | 6061 | PINE | 8" | remain | | 6089 | PINE | 8" | remain | |
| 715 | PINE | 8" | remove | 3 | 6062 | PINE | 13" | remain | | 6090 | PINE | 8" | remain | |
| 717 | PINE | 8" | remove | 3 | 6063 | PINE | 8" | remain | | 6091 | PINE | 9" | remain | |
| 719 | PINE | 10" | remove | 3 | 6064 | PINE | 9" | remain | | | | | | |
| 721 | HOLLY | 8" | remove | 3 | 6065 | PINE | 9" | remain | | | | | | |
| 2576 | OAK | 30" (in ROW) | remain | | 6066 | PINE | 10" | remain | | | | | | |
| 6038 | PINE | 10" | remove | 3 | 6067 | PINE | 10" | remain | | | | | | |
| 6039 | PINE | 9" | remove | 3 | 6068 | PINE | 10" | remain | | | | | | |

| | |
|---|---|
| Total Minimum Replacement Tree Credits Required | 43 |
| 543 Min. Replacement Tree Credits @ 2" DBH | |
| Total Proposed 2" DBH Trees | 50 |

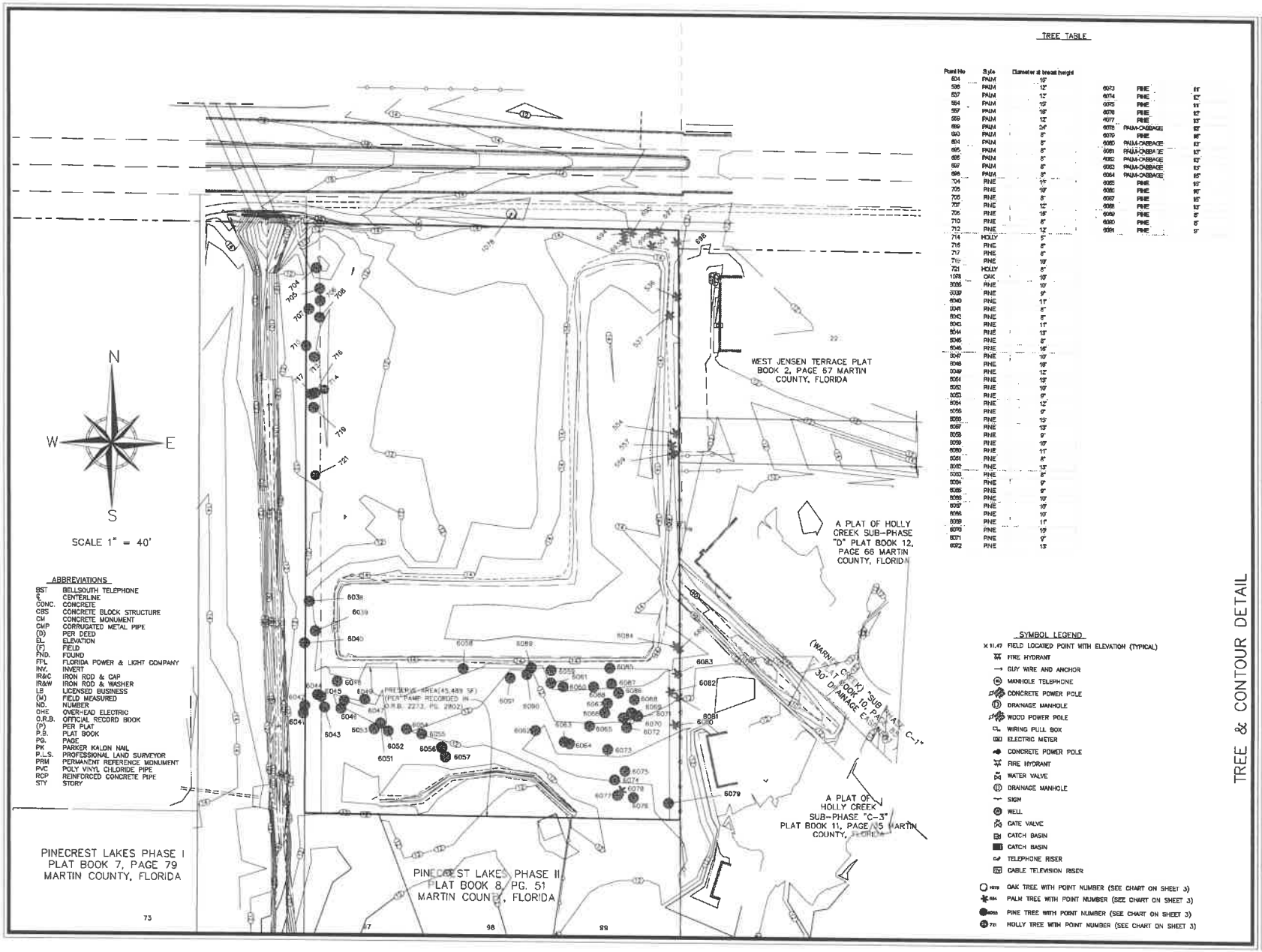

McCARTY & ASSOCIATES
LAND PLANNING AND DESIGN
STUART • FT. PIERCE
772.341.9322
www.McCartyLandPlanning.com
Mike@McCartyLandPlanning.com


**Advantage Storage**
Martin County, Florida
**Landscape Plan**

DANIEL MCRAE SURVEYOR LA 6667100 STATE OF FLORIDA

Drawn By DMS
Checked By MM
Scale
Drawing Date 08/30/2018

L-2




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 | OVER-HEAD 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 |

TREE TABLE

| Point No | Style | Diameter at breast height |
|---|---|---|
| 504 | PALM | 18" |
| 536 | PALM | 12" |
| 537 | PALM | 12" |
| 554 | PALM | 12" |
| 557 | PALM | 18" |
| 558 | PALM | 12" |
| 559 | PALM | 14" |
| 560 | PALM | 9" |
| 561 | PALM | 9" |
| 565 | PALM | 9" |
| 596 | PALM | 9" |
| 597 | PALM | 9" |
| 598 | PALM | 9" |
| 704 | PINE | 12" |
| 705 | PINE | 18" |
| 706 | PINE | 8" |
| 707 | PINE | 12" |
| 708 | PINE | 8" |
| 710 | PINE | 8" |
| 712 | PINE | 12" |
| 714 | HOLLY | 9" |
| 716 | PINE | 8" |
| 717 | PINE | 8" |
| 719 | PINE | 18" |
| 721 | HOLLY | 8" |
| 1078 | OAK | 18" |
| 3035 | PINE | 18" |
| 3039 | PINE | 9" |
| 3040 | PINE | 11" |
| 3041 | PINE | 8" |
| 3042 | PINE | 11" |
| 3043 | PINE | 11" |
| 3044 | PINE | 18" |
| 3045 | PINE | 18" |
| 3046 | PINE | 18" |
| 3047 | PINE | 18" |
| 3048 | PINE | 18" |
| 3049 | PINE | 12" |
| 3051 | PINE | 18" |
| 3052 | PINE | 18" |
| 3053 | PINE | 9" |
| 3054 | PINE | 12" |
| 3055 | PINE | 9" |
| 3056 | PINE | 18" |
| 3057 | PINE | 18" |
| 3058 | PINE | 9" |
| 3059 | PINE | 18" |
| 3060 | PINE | 11" |
| 3061 | PINE | 8" |
| 3062 | PINE | 12" |
| 3063 | PINE | 9" |
| 3064 | PINE | 9" |
| 3065 | PINE | 8" |
| 3066 | PINE | 18" |
| 3067 | PINE | 18" |
| 3068 | PINE | 11" |
| 3069 | PINE | 11" |
| 3070 | PINE | 12" |
| 3071 | PINE | 9" |
| 6072 | PINE | 12" |
| 6073 | PINE | 12" |
| 6074 | PINE | 12" |
| 6075 | PINE | 12" |
| 6076 | PINE | 12" |
| 6077 | PINE | 12" |
| 6078 | PALM-CABBAGE | 18" |
| 6079 | PINE | 12" |
| 6080 | PALM-CABBAGE | 18" |
| 6081 | PALM-CABBAGE | 18" |
| 6082 | PALM-CABBAGE | 18" |
| 6083 | PALM-CABBAGE | 18" |
| 6084 | PALM-CABBAGE | 18" |
| 6085 | PINE | 12" |
| 6086 | PINE | 18" |
| 6087 | PINE | 18" |
| 6088 | PINE | 18" |
| 6089 | PINE | 18" |
| 6090 | PINE | 18" |
| 6091 | PINE | 18" |

SYMBOL LEGEND

- X 11.47 FIELD LOCATED POINT WITH ELEVATION (TYPICAL)
- FIRE HYDRANT
- GUY WIRE AND ANCHOR
- MANHOLE TELEPHONE
- CONCRETE POWER POLE
- DRAINAGE MANHOLE
- WOOD POWER POLE
- WIRING PULL BOX
- ELECTRIC METER
- CONCRETE POWER POLE
- FIRE HYDRANT
- WATER VALVE
- DRAINAGE MANHOLE
- SIGN
- WELL
- GATE VALVE
- CATCH BASIN
- CATCH BASIN
- TELEPHONE RISER
- CABLE TELEVISION RISER
- OAK TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- PALM TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- PINE TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)
- HOLLY TREE WITH POINT NUMBER (SEE CHART ON SHEET 3)

TREE & CONTOUR DETAIL


BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7997 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)288-5733 (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 |
| 4/11/2017 | UPDATE SURVEY |
| 4/25/2017 | ADD PRESERVE AREA |
| 10/26/2017 | UPDATE SURVEY |
| 5/29/2018 | REVISE CERTIFICATION |
| 8/15/2018 | REVISE PER M.C. COMMENTS |

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

## DISCLOSURE OF INTEREST AFFIDAVIT

BEFORE ME, the undersigned authority, duly authorized to take acknowledgments and administer oaths, personally appeared the undersigned person on the date set forth below, who, first being duly sworn, deposes and says under penalties of perjury:

1. That the record property owner(s) of the Real Property described in **Exhibit "A"** to this Affidavit is (are) as follows:

| **Name** | **Address** |
|---|---|
| Jensen Beach Holdings, LLC. | 2049 SW Poma Drive,<br>Palm City,FL. 34990 |
| | |
| | |
| | |

(If more space is needed attach separate sheet)

2. That the following is a list of every natural person and entity with any legal or equitable interest in the property (as defined in Section 10.2.B.3. Land Development Regulations, Martin County Code):

| **Name** | **Address** | **Interest** |
|---|---|---|
| Frank Poma | 12212 Riverbend Court<br>Port St. Lucie, FL. 34984 | Partner |
| Kimberly D. Poma | 12212 Riverbend Court<br>Port St. Lucie, FL. 34984 | Partner |
| Jason F. Poma | 4537 SW Long Bay Drive<br>Palm City, FL. 34990 | Partner |
| | | |

(If more space is needed attach separate sheet)

3. That the following is a list of those, who have any interest in a contract for sale of the property, or a conveyance of any interest in the property, including but not limited to, real estate brokers and salespersons; and any and all mortgagees of the property:

| Name | Address | Interest |
|---|---|---|
| Advantage Development Group, LLC. | P.O. Box 7324<br>Golden, CO 80403 | See Attached<br>Purchaser<br>Applicant |
| Jensen Beach Holdings, LLC. | 2049 SW Poma Drive, Palm City, FL. 34990 | Owner<br>Seller<br>See Attached |
| | | |

(If more space is needed attach separate sheet)

4. That the following is a list of all other applications for which the applicant has an interest as defined in subsection b. and c. of Section 10.2.B.3. Land Development Regulations, Martin County Code currently pending before Martin County. The list shall include any development applications, waiver applications, road opening applications, and lien reduction requests.

| Application Name and/or Project Number | Names & Addresses of Parties involved | Date | Type of Application | Status of Application* |
|---|---|---|---|---|
| None | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

(If more space is needed attach separate sheet)



- Status defined as:
  A = Approved

P = Pending
D = Denied
W = Withdrawn

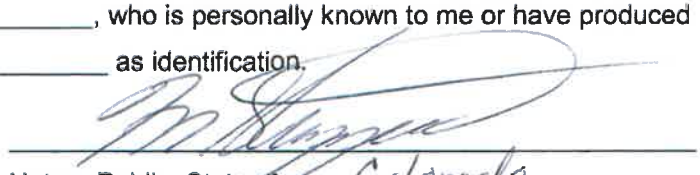
This Affidavit is given for the purpose of establishing compliance with the provisions of Section 10.2.B.3 Land Development Regulations; Martin County Code.

FURTHER AFFIANT SAYETH NOT.

AFFIANT

STATE OF Colorado
COUNTY OF Jefferson

The foregoing Disclosure of Interest Affidavit was sworn to, affirmed and subscribed before me this 19 day of January 2018, by Jeffrey S. Kinder, who is personally known to me or have produced Colorado Driver License as identification.



Notary Public, State of Colorado
Print Name: Mark Stazzone
My Commission Expires: 6/7/2021

(Notary Seal)

MARK STAZZONE
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20174024040
MY COMMISSION EXPIRES JUNE 7, 2021

Attachment
To
Disclosure of Interest Affidavit

Advantage Development Group, LLC
P.O. Box 7324
Golden, CO 80403

Parties of Interest

Advantage Advisors, LLC, Member
34628 Lyttle Dowdle Dr.
Golden, CO 80403

James C. Wojcik Living Trust, Member
87 Laurel Hill Rd.
Northport, NY 11768

Stephen H. Zagoren, Member
9 Woodpath Dr.
Northport, NY 11768

**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 – Parcel 1 - 4.26 acres; Parcel 2 – 0.18 acres)

## Legal Description

PARCEL 1:

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 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 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: August 24, 2018

## Appendix
## Article 10.2.B.3. Article 10, Development Review Procedures; Land Development Regulations; Martin County Code

10.2.B. Application submittal for development approval. Applications for development approval shall comply with the following described procedures:

1. Initiation. A development application shall be filed with the County Administrator by the owner or other person having a power of attorney from the owner to make the application.

2. Acceptance of the application. A development application will be received for processing on any working day.

3. Verification of property ownership. The documents required below are required prior to an application being determined complete. After the application is determined to be complete, the applicant has a continuing obligation to provide revised documents to reflect any changes to the information provided that may occur before and as of the date of the final public hearing or final action on the application.

a. Proof of ownership must be provided for any application for any type of development order. The applicant shall provide a copy of the recorded deed for the subject property, and shall certify any subsequent transfers of interests in the property. If the applicant is not the owner of record, the applicant is required to report its interest in the subject property.

b. The applicant must disclose the names and addresses of each and every natural person or entity with any legal or equitable interest in the property of the proposed development, including all individuals, children, firms, associations, joint adventures, partnerships, estates, trusts, business trusts, syndicates, fiduciaries, corporations, limited liability company, professional associations and all other groups or combinations.

c. For those entities that are a firm, association, joint adventure, partnership, estate, trust, business trust, syndicate, fiduciary, corporation, limited liability company, professional associations and all other groups or combinations thereof, every natural person or entity that enjoys a legal or equitable interest in property of the proposed development shall be disclosed including but not limited to any partners, members, shareholders, trustees, and stockholders.

d. The disclosure required in b. and c. above shall not apply to companies that are publicly traded and to consultants and contractors who may perform professional services or work related to the property.

e. In addition, the disclosure must include those having any interest in a contract for sale of the property, or a conveyance of any interest in the property, including but not limited to, real estate brokers and salespersons; and any and all mortgagees of the property.

f. The applicant must list all other applications for which they have an interest as defined in subsection b. and c. above that is currently pending before Martin County. The list shall include any development applications, waiver applications, road opening applications, and lien reduction requests.

g. Any development order, including applications for Planned Unit Developments which was granted or approved based on false or incomplete disclosure will be presumed to have been fraudulently induced and will be deemed by the Martin County Board of County Commissioners to be void ab initio and set aside, repealed, or vacated.

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

August 24, 2018

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

Re: Advantage Development Group
Advantage Self Storage – Revised Major Final Site Plan
Parking Rate Adjustment Analysis

Shaun G. MacKenzie P.E.
Florida License No. 61751
Transportation Engineer
Engineering Business No. 29013

Dear Mr. Schilling,

MacKenzie Engineering and Planning, Inc. prepared this Parking Rate Adjustment analysis for the proposed project, Advantage Self Storage. The proposed project is located at 528 NE Jensen Beach Blvd, between SE Green River Parkway and NE Savannah Road, Jensen Beach, FL 34957 (Parcel ID: 21-37-41-000-000-00244-8). The proposed project is for the construction of a 92,700 SF storage facility.

***Parking Generation***

The proposed project utilized the trip generation rates published by the *Institute of Transportation Engineers' (ITE) Report, Parking Generation (4th Edition)*. The proposed site was evaluated using the trip generation rate for Mini Warehouse/SS (Land Use 151) as shown in the Appendix. Table 1 presents the proposed project's parking generation.

Table 1. Parking Generation

| ITE Parking Rate | Proposed SF (X) per 1,000 GFA | Required Parking per ITE Parking Rate | Provided Parking |
|---|---|---|---|
| P = 0.07(X) + 4 | 92.700 | 10.5 | 11 |

***Parking Use & Access***

The proposed development of this use typically requires four to six parking spaces in front of the building. The rear buildings are all accessed from the exterior, where tenants typically access the units by parking in front of their unit for a short period of time. The 24' driveway aisles between the buildings support this activity. Additionally, the site provides four (4) loading spaces along the rear of Building 3 per Martin County Code (see attached Site Plan).

***Parking Supply***

The site consists of 10 standard parking, 1 handicap parking, and 4 loading spaces (see attached Site Plan).

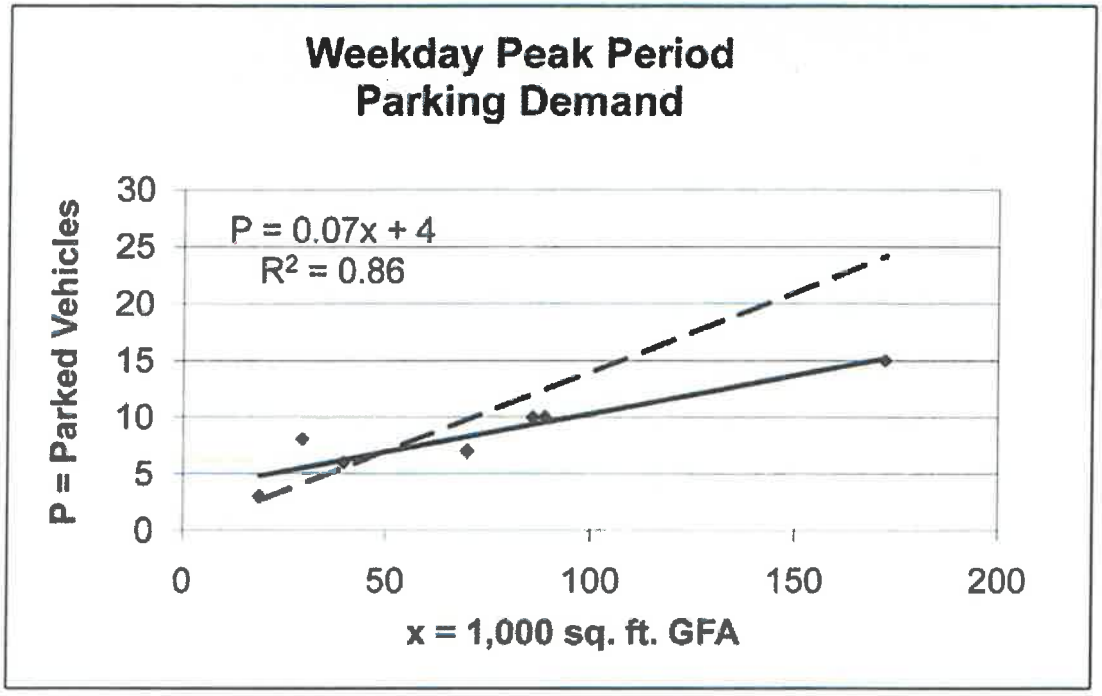
***Recommendation***

Based on ITE's Report, Parking Generation (4th Edition), the site has a required parking of 11 spaces. The site has a supply of 11 parking spaces. The proposed rate adjustment will not result in undesirable overflow parking, nor otherwise adversely impact the character and integrity of the surrounding area. Therefore, the site is projected to have an adequate supply of parking based on ITE's Report, Parking Generation (4th Edition).

# Land Use: 151
# Mini-Warehouse

## Average Peak Period Parking Demand vs. 1,000 sq. ft. GFA
## On a: Weekday

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 10:00 a.m.–12:00 p.m.; 4:00–5:00 p.m. |
| Number of Study Sites | 7 |
| Average Size of Study Sites | 72,000 sq. ft. GFA |
| Average Peak Period Parking Demand | 0.14 vehicles per 1,000 sq. ft. GFA |
| Standard Deviation | 0.06 |
| Coefficient of Variation | 44% |
| Range | 0.09–0.27 vehicles per 1,000 sq. ft. GFA |
| 85th Percentile | 0.17 vehicles per 1,000 sq. ft. GFA |
| 33rd Percentile | 0.11 vehicles per 1,000 sq. ft. GFA |

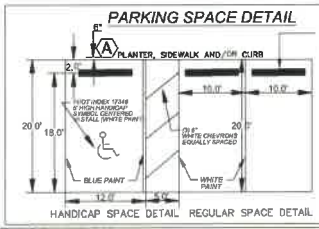


# REVISED MAJOR FINAL SITE PLAN

| 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 SPACE | 34 9% (1 10 AC) 68,029 SF |
| PRESERVE AREA | 23 4% (1 06 AC) 45,489 SF |
| WETLAND | N/A |
| UPLAND | 23 4% (1 06 AC) 45,489 SF |
| TOTAL OPEN SPACE (PERVIOUS + PRESERVE AREA) | 48 2% (2 14 AC) 93,518 SF |
| **IMPERVIOUS AREA** | |
| TOTAL IMPERVIOUS AREA | 2 29 AC (99,888 SF) |
| BUILDING A | 0 26 AC (11,350 SF) |
| BUILDING B | 0 27 AC (11,950 SF) |
| BUILDING C | 0 8 AC (34,700 SF) |
| TOTAL BUILDING COVERAGE | 1 33 AC (58,000 SF) |
| PAVEMENT, ROADS | 0 93 AC (40,483 SF) |
| SIDEWALKS, PADS, ETC | 0 03 AC (1,205 SF) |
| SURFACE WATER | 0 AC |
| **BUILDING DATA** | |
| MAX ALLOWED | PROVIDED |
| MAX COVERAGE 40% | 30 0% |
| MAX HEIGHT 30 ft | 30 ft |
| NUMBER OF BUILDINGS | 3 |
| NUMBER OF STORIES | 1 (2-STORY), 2 (1-STORY) |
| WATER PROVIDER | MARTIN COUNTY UTILITIES DEPT |
| SEWER PROVIDER | MARTIN COUNTY UTILITIES DEPT. |
| ELECTRICITY PROVIDER | FLORIDA POWER & LIGHT |
| REQUIRED BUFFER/SETBACKS | GENERAL COMMERCIAL |
| FRONT - VUA 10' | FRONT - +/- 41 |
| REAR - SF RESIDENTIAL TYPE 3 - 30' WITH WALL | REAR - +/- 171' |
| SIDE - COMM OFFICE TYPE I - 20' WITH WALL | SIDE - +/- 24' |
| SIDE - SF RESIDENTIAL TYPE 3 - 30' WITH WALL | SIDE - +/- 78' |
| **PARKING DATA** | |
| LAND USE | STORAGE FACILITY |
| TOTAL GROSS FLOOR AREA | 92,700 SF |
| *92,700 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** |
| **TOTAL BICYCLE RACKS PROVIDED** | **2** |
| **TOTAL BENCHES PROVIDED** | **2** |

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

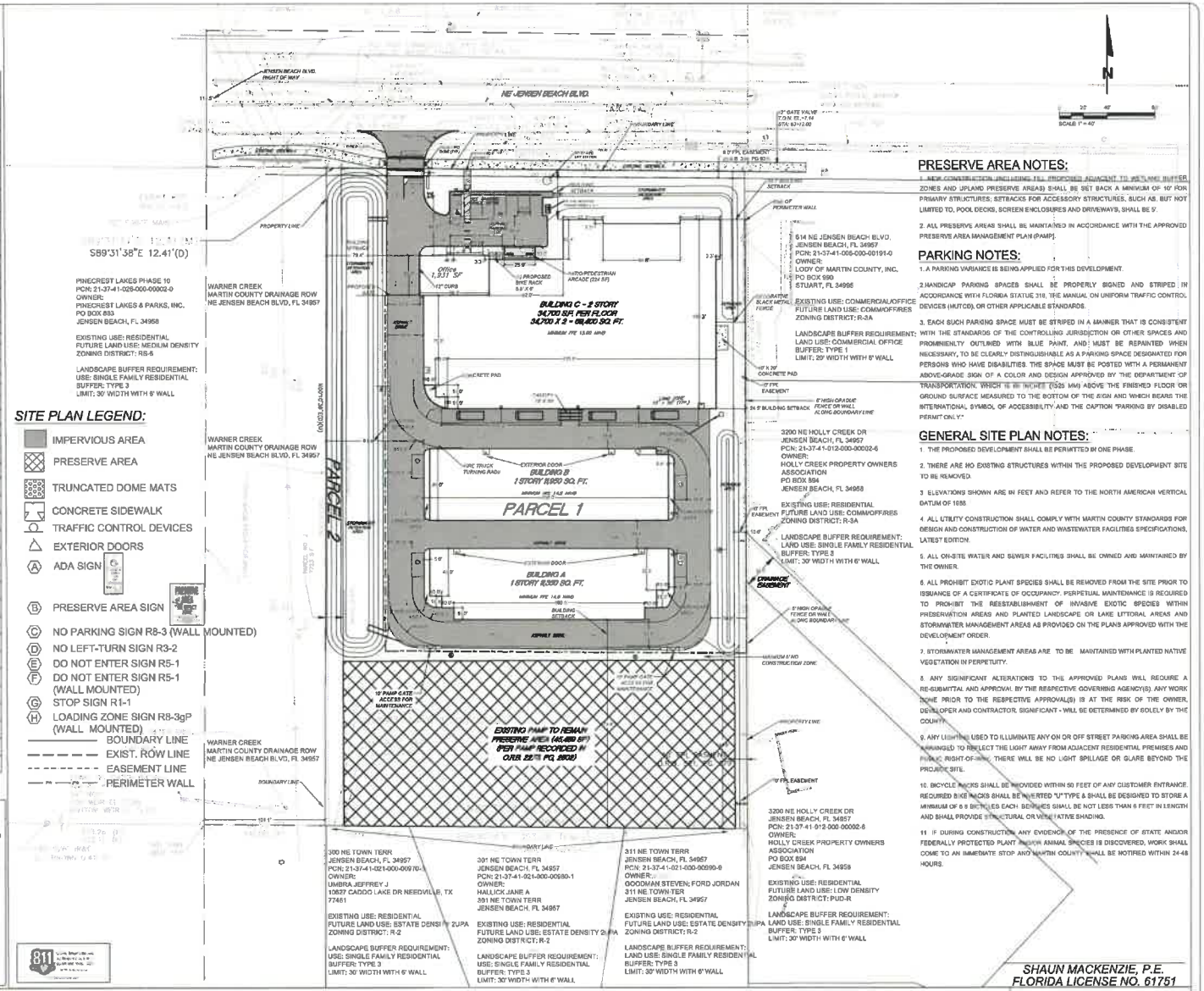
## PARKING SPACE DETAIL




HANDICAP SPACE DETAIL REGULAR SPACE DETAIL

## SITE PLAN LEGEND:

- IMPERVIOUS AREA
- PRESERVE AREA
- TRUNCATED DOME MATS
- CONCRETE SIDEWALK
- TRAFFIC CONTROL DEVICES
- EXTERIOR DOORS
- (A) ADA SIGN
- (B) PRESERVE AREA SIGN
- (C) NO PARKING SIGN R8-3 (WALL MOUNTED)
- (D) NO LEFT-TURN SIGN R3-2
- (E) DO NOT ENTER SIGN R5-1
- (F) DO NOT ENTER SIGN R5-1 (WALL MOUNTED)
- (G) STOP SIGN R1-1
- (H) LOADING ZONE SIGN R8-3gP (WALL MOUNTED)
- BOUNDARY LINE
- EXIST. ROW LINE
- EASEMENT LINE
- PERIMETER WALL




## PRESERVE AREA NOTES:

1. NEW CONSTRUCTION (INCLUDING FILL PROPOSED) ADJACENT TO WETLAND BUFFER ZONES AND UPLAND PRESERVE AREAS) SHALL BE SET BACK A MINIMUM OF 10' FOR PRIMARY STRUCTURES; SETBACKS FOR ACCESSORY STRUCTURES, SUCH AS, BUT NOT LIMITED TO, POOL DECKS, SCREEN ENCLOSURES AND DRIVEWAYS, SHALL BE 5'.

2. ALL PRESERVE AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PRESERVE AREA MANAGEMENT PLAN (PAMP).

## PARKING NOTES:

1. A PARKING VARIANCE IS BEING APPLIED FOR THIS DEVELOPMENT.

2. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), OR OTHER APPLICABLE STANDARDS.

3. EACH SUCH PARKING SPACE MUST BE STRIPED IN A MANNER THAT IS CONSISTENT WITH THE STANDARDS OF THE CONTROLLING JURISDICTION OR OTHER SPACES AND PROMINENTLY OUTLINED WITH BLUE PAINT, AND MUST BE REPAINTED WHEN NECESSARY, TO BE CLEARLY DISTINGUISHABLE AS A PARKING SPACE DESIGNATED FOR PERSONS WHO HAVE DISABILITIES. THE SPACE MUST BE POSTED WITH A PERMANENT ABOVE-GRADE SIGN OF A COLOR AND DESIGN APPROVED BY THE DEPARTMENT OF TRANSPORTATION, WHICH IS 60 INCHES (1525 MM) ABOVE THE FINISHED FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN AND WHICH BEARS THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND THE CAPTION "PARKING BY DISABLED PERMIT ONLY."

## GENERAL SITE PLAN NOTES:

1. THE PROPOSED DEVELOPMENT SHALL BE PERMITTED IN ONE PHASE.

2. THERE ARE NO EXISTING STRUCTURES WITHIN THE PROPOSED DEVELOPMENT SITE TO BE REMOVED.

3. ELEVATIONS SHOWN ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

4. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH MARTIN COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES SPECIFICATIONS, LATEST EDITION.

5. ALL ON-SITE WATER AND SEWER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE OWNER.

6. ALL PROHIBIT EXOTIC PLANT SPECIES SHALL BE REMOVED FROM THE SITE PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. PERPETUAL MAINTENANCE IS REQUIRED TO PROHIBIT THE REESTABLISHMENT OF INVASIVE EXOTIC SPECIES WITHIN PRESERVATION AREAS AND PLANTED LANDSCAPE OR LAKE LITTORAL AREAS AND STORMWATER MANAGEMENT AREAS AS PROVIDED ON THE PLANS APPROVED WITH THE DEVELOPMENT ORDER.

7. STORMWATER MANAGEMENT AREAS ARE TO BE MAINTAINED WITH PLANTED NATIVE VEGETATION IN PERPETUITY.

8. ANY SIGNIFICANT ALTERATIONS TO THE APPROVED PLANS WILL REQUIRE A RE-SUBMITTAL AND APPROVAL BY THE RESPECTIVE GOVERNING AGENCY(S). ANY WORK DONE PRIOR TO THE RESPECTIVE APPROVAL(S) IS AT THE RISK OF THE OWNER, DEVELOPER AND CONTRACTOR. SIGNIFICANT - WILL BE DETERMINED BY SOLELY BY THE COUNTY.

9. ANY LIGHTING USED TO ILLUMINATE ANY ON OR OFF STREET PARKING AREA SHALL BE ARRANGED TO REFLECT THE LIGHT AWAY FROM ADJACENT RESIDENTIAL PREMISES AND PUBLIC RIGHT-OF-WAY. THERE WILL BE NO LIGHT SPILLAGE OR GLARE BEYOND THE PROJECT SITE.

10. BICYCLE RACKS SHALL BE PROVIDED WITHIN 50 FEET OF ANY CUSTOMER ENTRANCE. REQUIRED BIKE RACKS SHALL BE INVERTED "U" TYPE & SHALL BE DESIGNED TO STORE A MINIMUM OF 6 BICYCLES EACH. RACKS SHALL BE NOT LESS THAN 6 FEET IN LENGTH AND SHALL PROVIDE STRUCTURAL OR VEGETATIVE SHADING.

11. IF DURING CONSTRUCTION, ANY EVIDENCE OF THE PRESENCE OF STATE AND/OR FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND MARTIN COUNTY SHALL BE NOTIFIED WITHIN 24-48 HOURS.

SHAUN MACKENZIE, P.E.
FLORIDA LICENSE NO. 61751

## 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, 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 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 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°31'47"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 0.16 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


*Expertise, Relationships, & Superior Client Service*

MacKenzie Engineering & Planning, Inc

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

SCALE 1" = 40'
APPROVED: SM
DRAWN: EJJ
CHECKED: SGM
DATE: 08/24/2018
FIELD BOOK NO:

COUNTY PROJ #: J040 - 011
MC RECORD #: DEV2018040004
DESIGNER: EJJ
PM: SGM
SUBMITTAL: 08/24/2018
REVISION: 1. MC 08/13/2018

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

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

August 24, 2018

Mr. Doug Killane, Bureau Chief Fire Prevention
Fire Rescue
Martin County Growth Management Department
2401 SE Monterey Road
Stuart FL, 34996

Re: Advantage Development Group
Advantage Self Storage – Revised Major Final Site Plan
Project Number: J040-011
Fire Prevention Compliance Letter

Dear Mr. Killane:

On behalf of Advantage Development Group, I certify that the proposed project will be in compliance with Fire Prevention Code Regulations. The site is currently an undeveloped commercial property located at 528 NE Jensen Beach Blvd, between SE Green River Parkway and NE Savannah Road, Jensen Beach, FL 34957 (Parcel ID: 21-37-41-000-000-00244-80000, 4.44 Acres). The proposed project is for the construction of a 92,700 SF storage facility.

The storage facility will consists of the following:

- Fire hydrant located in front of Building C (located within 500 LF of the furthest building).
- Fire sprinklers will be fed by a 6" fire line with a single 6" backflow preventer.
- Fire Alarm Installation.
- Fire Retardant construction material.

If you have any questions, please do not hesitate to contact Shaun MacKenzie @ (772) – 286-8030 or shaun@mackenzieengineeringinc.com.

Shaun G. MacKenzie P.E.
Florida License No. 61751

124001
August 2018

CA 29013

MacKenzie
Engineering & Planning, Inc.

1172 SW 30th Street, Suite 500 • Palm City • Florida • 34990

(772) 286-8030 • www.mackenzieengineeringinc.com

December 14, 2018

Catherine Riiska, MSM PWS, Principal Planner
Martin County Growth Management Department
2401 SE Monterey Road
Stuart, FL 34996
Phone: 772-288-5667
Email: criiska@martin.fl.us

Re: **Advantage Self Storage – Jensen Beach, FL**
**Revised Major Final Site Plan**
**MC Project No.: J040-011**
**MC Record No.: DEV2018040004**

Dear Catherine:

We offer the following responses to comments dated **October 31, 2018** regarding the Martin County Growth Management Department (MCGMD) staff's review of the Major Final Site Plan Application.

The response to comments were provided by the following:

- MacKenzie Engineering & Planning, Inc. **(MEP)** – Civil Engineer
- Thomas Engineering Group, Inc. **(TEG)** – Drainage Engineer

Per request, we've included the following documents in our submittal package:

A.0. Parking Rate Adjustment Analysis
A.1. Pinecrest Phase 1 Permit
A.2. Pinecrest Phase 2 Permit
A.3. Pinecrest Phase 10 Calculations
A.4. Holly Creek Permit
A.5. Geotechnical Report

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

# MARTIN COUNTY, FLORIDA
# DEVELOPMENT REVIEW

# STAFF REPORT

## *A. Application Information*

# ADVANTAGE SELF STORAGE JENSEN BEACH
## Revised Major Final Site Plan

| | |
|---|---|
| Applicant: | Jensen Beach Holdings, LLC |
| Property Owner: | Jensen Beach Holdings, LLC |
| Agent for the Applicant: | McCarthy Summers Bobko et al PA, Terence P. McCarthy |
| County Project Coordinator: | Catherine Riiska, MS, PWS, Principal Planner |
| Growth Management Director: | Nicki van Vonno, AICP |
| Project Number: | J040-011 |
| Record Number: | DEV2018040004 |
| Report Number: | 2018_1031_J040-011_DRT_Staff_FINAL.docx |
| Application Received: | 04/10/2018 |
| Transmitted: | 04/11/2018 |
| Staff Report: | 06/13/2018 |
| Workshop Meeting: | 07/05/2018 |
| Resubmittal Received: | 09/10/2018 |
| Transmitted: | 09/12/2018 |
| Staff Report: | 10/31/2018 |
| Workshop Meeting: | 11/15/2018 |

## *B. Project description and analysis*

This application is a request by 5051, LLC, for approval of a revised major final site plan for a residential storage facility project on two parcels totaling approximately 4.4 acres located at 528 NE Jensen Beach Boulevard in Jensen Beach, on the south side of NE Jensen Beach Boulevard approximately 700 feet east of NE Pinecrest Lakes Boulevard. This site was originally approved for a commercial project known as the Jensen Beach Professional Center, which did not proceed. The currently proposed project consists of one (1) two-story climate controlled building adjacent to Jensen Beach Boulevard and two (2) one-story buildings in the rear of the property for a total of 93,900 square feet of rentable space containing approximately 850 residential storage units. Included in this application is a request for a Certificate of Public Facilities Reservation.

The subject site consists of two parcels and has a future land use designation of Commercial Office/Residential (COR) and is zoned COR-1, Commercial Office/Residential District. In addition to the zoning standards, the application will be required to comply with the commercial design standards, landscape buffering requirements for commercial development adjacent to residential uses, and applicable Comprehensive Plan requirements for the COR future land use designation. Access is proposed via NE Jensen Beach Boulevard and the applicant has proposed a reduced parking rate and shall provide a parking rate adjustment analysis for consideration. The project is located within the

Primary Urban Services District and will be serviced by Martin County Utilities for water and wastewater services.

## *C. Staffrecommendation*

The specific findings and conclusion of each review agency related to this request are identified in Sections F through T of this report. The current review status for each agency is as follows:

| Section | Division or Department | Reviewer | Phone | Assessment |
|---|---|---|---|---|
| F | Comprehensive Plan | Catherine Riiska | 288-5667 | Non-Comply |
| F | ARDP | Samantha Lovelady | 288-5664 | N/A |
| G | Development Review | Catherine Riiska | 288-5667 | Non-Comply |
| H | Urban Design | Santiago Abasolo | 288-5485 | Comply |
| H | Community Redevelopment | Santiago Abasolo | 288-5485 | N/A |
| I | Property Management | Colleen Holmes | 288-5794 | N/A |
| J | Environmental | Shawn McCarthy | 288-5508 | Comply |
| J | Landscaping | Karen Sjoholm | 288-5909 | Comply |
| K | Transportation | Lukas Lambert | 221-2300 | Comply |
| L | County Surveyor | Tom Walker | 288-5928 | N/A |
| M | Engineering | David Moore | 320-3057 | Non-Comply |
| N | Addressing | Emily Kohler | 288-5692 | Comply |
| N | Electronic File Submission | Emily Kohler | 288-5692 | Comply |
| O | Water and Wastewater | James Christ | 320-3034 | Comply |
| O | Wellfields | James Christ | 320-3034 | Comply |
| P | Fire Prevention | Doug Killane | 288-5633 | Comply |
| P | Emergency Management | Dan Wouters | 219-4942 | N/A |
| Q | ADA | Kevin Landry | 320-3046 | Comply |
| R | Health Department | Todd Reinhold | 221-4090 | N/A |
| R | School Board | Kimberly Everman | 223-3105 | N/A |
| S | County Attorney | Krista Storey | 288-5443 | Review Ongoing |
| T | Adequate Public Facilities | Catherine Riiska | 288-5667 | Review Pending |

## *D. Review Board action*

This application meets the threshold criteria for a major development, pursuant to Section 10.11.B., LDR, Martin County, Fla. (2016), and requires two public hearings. The two hearings will provide the public an opportunity to participate in the review and decision making process.

The first public hearing shall be before the Local Planning Agency, who will make a recommendation on the request, pursuant to Section 10.4., LDR, Martin County, Fla. (2016).

The second public hearing shall be before the Board of County Commissioners, who will take final action on the request, pursuant to Section 10.5., LDR, Martin County, Fla. (2016).

Pursuant to Section 10.1.F, LDR, Martin County, Fla. (2016), it shall at all times be the applicant's responsibility to demonstrate compliance with the Comprehensive Growth Management Plan (CGMP), LDR, and the Code.

## *E. Location and site information*

Parcel number(s) and address:

| | |
|---|---|
| 21-37-41-000-000-0024.4-8 | 528 NE Jensen Beach Blvd |
| Existing Zoning: | COR-1, Commercial Office/Residential |
| Future land use: | FLU-COR, Future Land Use Commercial Office-Res |
| Gross area of site: | 4.4 acres |

**Figure 1: Location Map**


**Figure 2: Subject Site 2017 Aerial with Project Linework**

391

Adjacent existing or proposed development:

| | |
|---|---|
| To the north: | Savannas State Park (across NE Jensen Beach Blvd) |
| To the south: | Single Family Residential |
| To the east: | Commercial, Retail, and Multifamily Residential |
| To the west: | Single Family Residential (across Drainage ROW) |

**Figure 3: Local Area 2017 Aerial with Preserve Areas**


Zoning district designations of abutting properties:

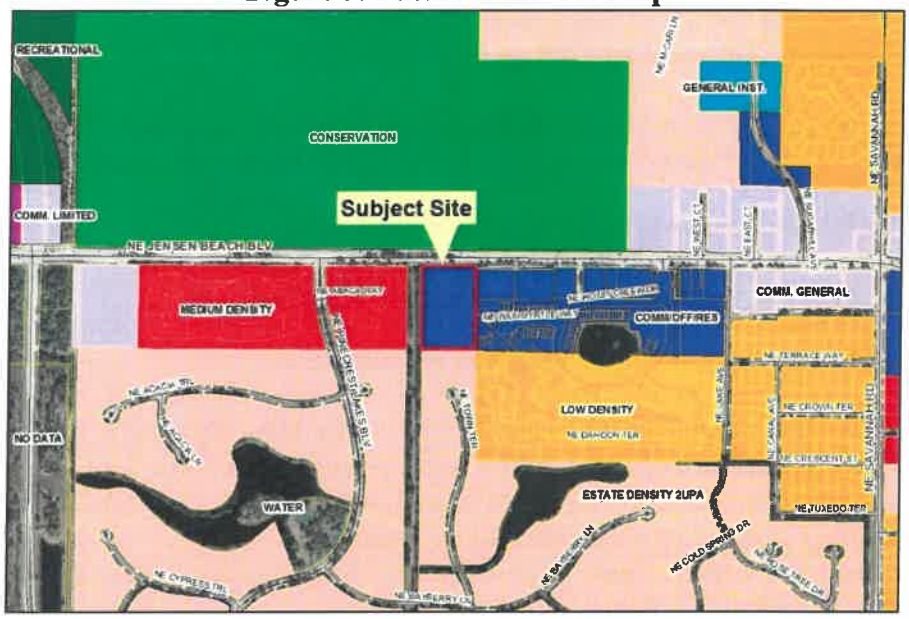
| | |
|---|---|
| To the north: | R-3A, Liberal Multiple Family (across NE Jensen Beach Blvd) |
| To the south: | R-2, Single Family Residential |
| To the east: | R-3A, Liberal Multiple Family, and PUD-R |
| To the west: | RS-6, Single Family Residential (across Drainage ROW) |

**Figure 4: Zoning Map**

Future land use designations of abutting properties:

| | |
|---|---|
| To the north: | Conservation (across NE Jensen Beach Blvd) |
| To the south: | Estate Density 2 UPA |
| To the east: | COR, Commercial Office/Residential |
| To the west: | Medium Density Residential (across Drainage ROW) |

**Figure 5: Future Land Use Map**




***F. Determination of compliance with Comprehensive Growth Management Plan requirements - Growth Management Department***

**Unresolved Issues:**

**Item #1:**
This application cannot be deemed to be in compliance with the Martin County Comprehensive Growth Management Plan (CGMP) until the issues identified in this report have been satisfactorily resolved. MARTIN COUNTY, FLA., CGMP POLICY 4.1A.1. (2016)

**MEP RESPONSE: Acknowledged.**

***G. Determination of compliance with land use, site design standards, zoning, and procedural requirements - Growth Management Department***

**Unresolved Issues:**

**Item #1:**
Site Plan
A site plan that demonstrates consistency with the Comprehensive Plan, the LDR, and the Code is required. MARTIN COUNTY, FLA., LDR SECTION 10.2.B. (2017)

**Remedy/Suggestion/Clarification:**
Please submit a revised final site plan that addresses the following:

1. Thank you for showing the existing use, future land use designation, and zoning labels for adjacent properties. Please remove all references to landscape buffer requirements from these labels for clarity.

393

**MEP RESPONSE: Acknowledged.**

2. As previously requested, please clarify the limits of required landscape buffers by graphically showing them on the project site with dimensions and labels. Staff cannot distinguish between the proposed landscape buffers that are required by code and pervious areas adjacent to existing commercial and residential development that are not proposed to meet the requirements of a landscape buffer on the site plan.

   **MEP RESPONSE: Acknowledged. Please see revised plans.**

3. As previously requested, please revise the legend to include only those items that are shown on the site plan (e.g. truncated dome mats are in the legend but not shown on the site plan).

   **MEP RESPONSE: Acknowledged. Please see revised plans.**

4. Please revise the parking data as requested in Item #2 below.

   **MEP RESPONSE: Acknowledged. Please see revised plans.**

5. Please revise the structure setback data within the Building Data table to reflect the minimum required structure setbacks per the COR-1 zoning standards in Table 3.12.2., Section 3.12., LDR, Martin County, Fla. (2013). This table should only include codified zoning standards and a demonstration of compliance with the Article 3 standards.
   a. Revise the header from "Max Allowed" to "Required" since standards include both maximum and minimum values.
   b. Remove all references to land uses, landscaping buffers, VUA, and walls from the site data table.
   c. Remove references to water, sewer and electricity providers from the site data table.
   d. Structure setback values must be listed as "Min" (minimum) and consist of linear feet only. Required structure setbacks should be labeled as follows in the table:
      i. Front (North) 25' Min.
      ii. Side (East and West) 10' Min.
      iii. Rear (South) 20' Min.

**MEP RESPONSE: Acknowledged. Please see revised plans.**

**Item #2:**
Parking Rate Adjustment
Pursuant to Section 4.624., LDR, Martin County, Fla. (2009), the parking rate for Warehouse, mini, residential storage facility is 1 space per 1,500 s.f. gross floor area. The applicant has provided an alternative rate on the site plan that is inconsistent with the established parking rates for the proposed use.

**Remedy/Suggestion/Clarification:**

1. Please revise the parking calculations to identify the number of parking and loading spaces "Required" by the Martin County code pursuant to Table 4.14.1, Section 4.624., LDR, Martin County, Fla. (2009), which identifies the required rate for residential storage facilities to be 1 space per 1,500 square feet of gross floor area. The "Provided" number would then be footnoted as "per parking rate adjustment."



2. The provided parking rate adjustment does not appear to be accurate in its depiction of reliance upon the Fourth Edition ITE to result in 11 spaces for this project and appears to be under-

parked. The Fourth Edition ITE calculations table indicates that for a 92,700 square-foot mini-warehouse facility, the average weekday demand is 13 spaces, and the 85th percentile demand would be 16 spaces.

Please submit a revised parking rate adjustment analysis and revised site plan, if applicable based upon the analysis, to ensure adequate parking is provided. For additional guidance, please see Exhibit 1 to this staff report which is provided as an example of a parking rate adjustment analysis for a similar usage that was recently accepted and recommended for approval by planning staff.

**MEP RESPONSE: Acknowledged. Please see revised parking study and plans.**

**Item #3:**
Elective Resubmittal Fee
An additional fee is required for the review of the elective resubmittal of documents for this development application. Please remit the $2,282.00 elective resubmittal review fee with the resubmittal package. MARTIN COUNTY, FLA., LDR, §10.2.D.4

**MEP RESPONSE: Acknowledged. Please see attached check.**

**Additional Information:**

**Information #1:**
Notice Of A Public Hearing
The notice of a public hearing regarding development applications shall be mailed at least 14 calendar days (seven calendar days if the application is being expedited pursuant to section 10.12) prior to the public hearing by the applicant to all owners of real property located within a distance of 500 feet of the boundaries of the affected property. For development parcels which lie outside of or border the primary urban service district, the notification distance shall be increased to 1000 feet. In addition, notice shall be mailed to all homeowner associations, condominium associations and the owners of each condominium unit within the notice area. MARTIN COUNTY, FLA., LDR, SECTION 10.6.E.1. (2016)

**MEP RESPONSE: Acknowledged.**

**Information #2:**
Notice(s) of public hearings regarding development applications shall be published at least 14 days prior to the date of the public hearing (seven calendar days if the application is being expedited pursuant to section 10.12) in the legal advertisement section of a newspaper of general circulation in Martin County. The applicant shall reimburse the County for the cost(s) of the newspaper ad(s) as a post approval requirement for the application. MARTIN COUNTY, FLA., LDR SECTION 10.6.D. (2016)

**MEP RESPONSE: Acknowledged.**

**Information #3:**
Once everyone has signed off with a comply, the project will be scheduled for the next LPA meeting dependent upon the County's scheduling policy. Following the LPA meeting, the project will be scheduled for the next BCC meeting dependent upon the County's scheduling policy. MARTIN COUNTY, FLA., LDR SECTIONS 10.4. AND 10.5. (2016)

**MEP RESPONSE: Acknowledged.**

**Information #4:**
Required Permits

The applicant has elected 'Option 2' regarding Agency permit submittal for a consistency review after project approval. Prior to scheduling the mandatory pre-construction meeting for construction commencement authorization, all applicable local, state, and federal approved permits are to be submitted for review by the County Administrator with remittance of a $600.00 review fee. If an application is made to any permitting agency for a modification to a permit that was required to be issued prior to final site plan approval, the application for the permit modification must be submitted concurrently to Martin County. MARTIN COUNTY, FLA., LDR, SECTION 10.9.A. (2012)

**MEP RESPONSE: Acknowledged.**

***H. Determination of compliance with the urban design and community redevelopment requirements – Community Development Department***

**Commercial Design**

**Findings of Compliance:**
The proposed development complies with the requirements of Article 4, DIVISION 20 - Commercial Design - of the Martin County, Florida, Land Development Regulations.

**Community Redevelopment Area**

The proposed project is not located within a Community Redevelopment Area. Therefore, the Community Redevelopment Area reviewer was not required to review this application. MARTIN COUNTY, FLA., LDR ARTICLE 3, DIVISION 6 (2016)

***I. Determination of compliance with the property management requirements – Engineering Department***

No dedication of additional right of way is required or proposed by the Applicant pursuant to the Roadway Classifications set forth in Section 4.843.B, Land Development Regulations, Martin County, Fla. (2001) which includes Table 4.19.1 that lists the minimum right-of-way requirements. Therefore, the Applicant is not required to submit due diligence materials for review by Real Property Management.

***J. Determination of compliance with environmental and landscaping requirements - Growth Management Department***

**Environmental**

**Findings of Compliance:**
The Growth Management Department Environmental Division staff has reviewed the application and finds it in compliance with the applicable land development regulations. The existing upland preserve area will remain in its original configuration and protected during construction. In accordance with the approved PAMP, all exotic vegetation shall be removed prior to issuance of a Certificate of Occupancy on the first building permit.

## Landscaping

**Findings of Compliance:**
The Growth Management Department staff has reviewed the application and finds it in compliance with the applicable Land Development Regulations regarding landscaping. The applicant has proposed construction of a residential storage facility. The applicant has submitted landscape plans that provide 48,029 s.f. of landscape area which equates to 32.5% of the 147,917 s.f. development area to document compliance with Section 4.663.A.1., Land Development Regulations, Martin County, Fla. (2013). Pursuant to this regulation a minimum of 20% of the total development area shall be landscaped.

Section 4.663.A.3.b. Land Development Regulations, Martin County, Fla. (2013) requires that all nonresidential development provide at least one tree per 2,500 sq. ft. of site area; a total of 59 trees for this project. To demonstrate compliance the applicant has proposed the planting of 95 trees,72 palms, and preservation of 1 existing pine and 11 palms (3:1 tree credits) for this 147,917 sq. ft. site.

Landscaped bufferyards are required between differing land uses and along certain transportation corridors. Martin County, Fla Section 4.663.B.1.a, (2013). Surrounding land use on the west and part of the east is residential which requires a Type 3 Buffer. A Type 1 buffer is required on the east adjacent to a commercial project. The buffers have been provided and planted with 90 trees and 2,357 shrubs.

Section 4.666.E.Land Development Regulations, Martin County, Fla. (2013) requires that development activity preserve at least ten percent of the total number of protected trees on the site unless it can be shown that the property would be precluded of reasonable use if the trees are not removed. Due to substantial grade changes necessary, to meet this requirement the applicant has submitted Landscape and Construction Plans to provide for removal of 14 existing trees and preservation of 1 large slash pine and 16 sabal palm within the proposed perimeter landscape areas. To demonstrate compliance with Section 4.666.D., Land Development Regulations, Martin County, Fla. (2013) the applicant has proposed installation of #50 2-inch caliper native trees equal to mitigate for the necessary tree removal.

Section 4.663.A.4.b.1, 2, , and 3., Land Development Regulations, Martin County, Fla. (2013) requires one 500 s.f. landscape area with 3 – 2" caliper or 2 – 3" caliper trees for each 5000 s.f. of interior vehicular use area. This project has 40,685 s.f. of paving and the applicant is proposing the installation of 12 – 2", 6 – 3" caliper native trees and 15 sabals within the vehicular use area of the site.

Alterations cannot be made to the plans after final site plan approval. Any alteration may require an application to amend the affected approved plans.

The applicant is cautioned to consider the placement of utilities and any underground or above ground site improvement that could cause a conflict with the landscaping and possibly cause a change or amendment.

As-built landscape plans submitted prior to the release of a certificate of occupancy will be checked against the approved drawings. Inconsistencies may block the issuance of the certificate of occupancy and cause the applicant to begin the application process for a change or an amendment to the development order.

### *K. Determination of compliance with transportation requirements - Engineering Department*

**Findings of Compliance:**
The Traffic Division of the Engineering Department finds this application in compliance.

**Compliance with Adequate Public Facilities Ordinance:**
Staff has reviewed the Traffic Statement prepared by MacKenzie Engineering & Planning, dated December 2017. MacKenzie Engineering & Planning stated that the site's maximum impact was assumed to be 8 directional trips during the PM peak hour. Staff finds that Jensen Beach Boulevard is the recipient of a majority of the generated trips. The generalized service capacity of Jensen Beach Boulevard is 2000. The project impact is 0.4% of the maximum volume of that roadway. Jensen Beach Boulevard is currently operating at a level of service C; it is anticipated to operate at level of service C at buildout (year 2020).

This application satisfies the Adequate Public Facilities Standard; it has a De Minimis impact (an impact that would not affect more than one percent of the maximum volume at the adopted level of service of the accepted road facility) (Article 5, Division 1, Section 5.3).

***L. Determination of compliance with county surveyor - Engineering Department***

The applicant has provided a certified boundary and topographic survey for the proposed development, pursuant to Section 10.1.F., LDR, Martin County, Fla. (2016). Therefore, the Engineering Department was not required to review this application for consistency with the Martin County Codes for survey requirements contained in Article 4, LDR, Martin County, Fla.

***M. Determination of compliance with engineering, storm water and flood management requirements - Engineering Department***

**Unresolved Issues:**

**Item #1:**
CONSTRUCTION PLANS

1. As previously requested, label the 6' FPL Easement at the north property line on all sheets of the Construction Plans.

   **MEP RESPONSE: Acknowledged. Please see revised construction plans on all sheets.**

2. As previously requested, clearly identify and label all proposed curbs and gutter types on the Revised Final Site Plan (SP-1) and the Paving, Grading and Drainage Plan (C-01)

   **MEP RESPONSE: Acknowledged. Please see revised Site and PGD Plans, sheets SP-1 and C-01.**

3. As previously requested, remove proposed curbing from the entrance radii and transition the site curb to form the accessible ramp curbing at the existing sidewalk. Match existing Jensen Beach Blvd edge of pavement and slope the entrance driveway, within the right of way, for storm drainage flow to the existing swale. Revise line work on the Revised Final Site Plan and sheet C-01 accordingly.

   **MEP RESPONSE: Acknowledged. The Radii matches edge of pavement with the addition of bike lane by FDOT.**

4. As previously requested, label the accessible ramp locations and FDOT index numbers to all ADA ramps on the Paving, Grading and Drainage Plan, sheet C-01.

   **MEP RESPONSE: Acknowledged. Please see revised PGD Plan, sheet C-01.**

5. As previously requested, provide a catch basin temporary erosion and sediment control detail (FDOT Index 102).

   **MEP RESPONSE: Acknowledged. Please see revised PGD Plan, sheet C-02.**

6. Provide a gate access within the perimeter wall to provide direct access to the proposed control structure for maintenance; revise accordingly [MARTIN COUNTY FLA LDR SECTION 4.348.H.].

   **MEP RESPONSE: Acknowledged. Please see revised construction plans on all sheets.**

7. As previously requested, provide details showing how the concrete flume (located at the south end of the west stormwater retention area) interacts with the proposed perimeter wall.

   **MEP RESPONSE: Acknowledged. This flume will be installed 6 inches below the proposed Opaque PVC fence, please refer to detail on sheet C-02.**

Item #2:
STORMWATER MANAGEMENT REPORT

1. Provide the necessary documentation supporting the wet season water table elevation. The wet season water table shall be the highest water table described in either the "Detailed Soil Map Units" section or Table 17 "Water Features" of the USDA Soil Survey of Martin County Area, Florida. A different water table elevation may be used if competent evidence prepared by a professional engineer licensed in the State of Florida demonstrates, to the satisfaction of the County Engineer, that the water table is different from that shown in the soil survey. [MARTIN COUNTY FLA LDR SECTION 4.384.A.3.a.4 (2001)]

   **TEG RESPONSE: Acknowledged. Please see additional documentation. These include surrounding SFWMD permit documentation demonstrating the control elevation around this site is at or below 8.50NAVD.**

2. Demonstrate how the minimum perimeter berm elevation is met along the southern property line within the preserve area [MARTIN COUNTY FLA LDR SECTION 4.384].

   **TEG RESPONSE: Acknowledged. This is now specified on sheet C-03 of the plans.**

3. Revise the Final Site Plan finished floor elevations to be consistent with the Construction Plans. [MARTIN COUNTY FLA LDR SECTION 4.385.B.15].

   **TEG RESPONSE: Acknowledged. Please see revised site plan, sheet SP-1.**

4. Martin County prohibits the use of infiltration when designing a site for stormwater attenuation and flood protection purposes. Therefore, the proposed exfiltration trench must only be used for the purposes of water quality design. The storage volume provided within the trench must be excluded ICPR modeling, and the 100-year 3-day zero discharge calculation. Revise the stormwater calculations accordingly.

   **TEG RESPONSE: Acknowledged. We removed the exfiltration trench from the construction drawings as full water quality is accommodated by the dry-detention area.**

5. Revise the water quality calculation to provide for 3-inches of rainfall over the percent of impervious project area (4.386.I) (total impervious area less lakes, preserves, and wetlands; roof areas (roof areas are not included in the Stormwater Report) are included); [% imperv = (Roof + Pavt) /(Total - Lakes - Preserves - Wetlands)]; a 50% treatment credit is not applicable to Martin County water quality requirements. [MARTIN COUNTY FLA LDR SECTION 4.385.F.4 (2015)].

   **TEG RESPONSE: Please see Stormwater Report revised November 2018. Area of buildings and impervious surface totals 2.29ac. This area is utilized in the calculation. Please note, the 50% credit has been removed and replaced with 125% of the volume due to dry detention being utilized.**