

# ENGINEER'S DRAINAGE STATEMENT ISLA CARROLL DEVELOPMENT VILLAGE OF WELLINGTON, PALM BEACH COUNTY, FLORIDA

#### PROJECT DESCRIPTION

The site is +/-81 acres and is a proposed Planned Unit of Development (PUD) with equestrian focused amenities. The PUD generally consists of 40 single family lots of approximately ½ of an acre and country club amenities such as a polo field, clubhouse, pool, spa, fitness areas, multiple restaurants, pickleball courts, walking trails, equestrian trails, paddocks, stables, and the internal roads, parking areas, and associated utility and stormwater infrastructure.

#### PERMITTING REQUIREMENTS AND BACKGROUND

The site is situated within the South Florida Water Management District's (SFWMD) C-51 Drainage Basin (Subbasin 14) and within Basin B of the ACME improvement district. As part of the Basin C-51, the site will have to provide compensating storage below the C-51 (Subbasin 14) base flood elevation of 15.50 NAVD. A portion of the site is also within the FEMA Flood Zone AE, which has a base flood elevation of 15.00 NAVD. The analysis will provide exporter vs importer calculations to ensure that the post-development conditions provide the necessary amount of storage to accommodate the increased runoff volume. The existing site currently discharges to the ACME C-7 canal located along the east side of 120th Ave S, which is owned and maintained by ACME Improvement District. A new permit from the Village of Wellington and a modification to the existing SFWMD environmental resource permit (50-00548-S-24) will be required.

## PROPOSED STORMWATER MANAGEMENT SYSTEM

The proposed drainage improvements consist of interconnected catch basins and pipes that collect and convey runoff to the proposed lakes for treatment and attenuation prior to offsite discharge. The site is required to provide 150% of water quality treatment for the greater of 1" over the entire site area or 2.5" over the percentage of impervious area. Water quality treatment will be achieved through a combination of exfiltration trench and storage within the proposed dry and wet detention areas. A drainage analysis will be provided to demonstrate that the site can accommodate runoff and critical storm elevations will not increase in the post-development condition. The site will be graded to meet the grading assumptions and required minimum building finished floor elevations and set forth by the SFWMD master permit and the Villages stormwater criteria specified in ordinance 2010-14. As the Isla Carroll project is located within Basin B of ACME improvement district, the site grading must meet the following required elevations; 14.50 NAVD for minimum road elevation, 15.50 NAVD for minimum finished floor elevation, and high and low elevations must be within 14.00 NAVD and 17.50 NAVD.

### **LEGAL POSITIVE OUTFALL**

Once treated, the discharge will be routed be via a control structure with piped connection to the existing ACME Improvement District canal located east of 120<sup>th</sup> Avenue S.

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signed and sealed by Michael F. Schwartz, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies. Pater 05/18/2005