# GGB Engineering, Inc.

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# MARSH HARBOR COMMUNITY DEVELOPMENT DISTRICT RIVIERA BEACH, FLORIDA

# ENGINEERING REVIEW REPORT SEPTEMBER 2014



CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS • CONSTRUCTION MANAGERS



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August 11, 2014

Mr. Richard Ellington, District Manager Marsh Harbor Community Development District Special District Sevices The Oaks Center 2501A Burns Road Palm Beach Gardens, Florida 33410

Subject: Year 2014 Marsh Harbor CDD Engineering Report GGB Engineering Inc. Project Number 04-0510

Dear Mr. Ellington:

This engineering report is filed with the District on an annual basis as required by the District's charter and as required by the state of Florida. This report reviews the status of ownership of the infrastructure that was financed or constructed by the District, the state, condition, and working order of the infrastructure that is still owned by the District and our recommendations of the necessary funds that will be required to repair and operate the District's infrastructure system.

#### 1. Infrastructure Ownership

a. Roads

i. All of the streets, avenues, places, terraces, courts, and lanes within the Marsh Harbor Community Development District are functioning as designed and permitted. The roads within the community are owned and maintained by Marsh Harbor Associates, LTD

b Storm water management system

i. The roadway storm drainage system and community storm drainage system along with all of the six (6) on site lakes has been dedicated to and are owned by the Marsh Harbor Community Development District

c. Water Distribution Systems

i. The water distribution system has been conveyed to The City of Riviera Utility District for ownership and maintenance via the Bill of Sale from the CDD to the Utility District as recorded in OR Book 22082 Page 0183 dated 9/05/07.

d. Sanitary Sewer Systems

i. The sanitary sewer system has been conveyed to The City of Riviera Utility District for ownership and maintenance via the Bill of Sale from the CDD to the Utility District as recorded in OR Book 22082 Page 0183 dated 9/05/07.

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## The Marsh Harbor Community Development District



#### 2. State and Condition of the Infrastructure

#### a. <u>Roads</u>

1. The roads have been maintained and are in good working order and condition. See photos below of their present condition





Mr. Richard Ellington, District Manager Marsh Harbor Community Development District Special District Services August 11, 2014 September 13, 2013 Page 4













b. Stormwater Management System

1. The storm drain lines, culverts, inlets and interconnecting drainage piping which are owned by the District are in good condition and in need of continued maintenance. The complete storm drainage network requires vacuum cleaning and all headwalls and discharge culverts require removal of debris around headwalls and the removal of excess deposits at the culvert inverts. The lake systems are also in need of additional maintenance with special attention needed along lake edges, which are in need of debris and weed growth removal as well as deposit removals. Some dredging to clear out silt deposits and restore lake edges and depths may also be required.

See the photos following depicting the lake areas which are in need of continued maintenance, cleaning and excavation of deposits and debris along shorelines and edges. Note the growth, deposits and debris within the lake and along the shorelines and at culvert headwalls and discharges.



















2. Some lake Bank erosion is occurring which also requires maintenance and correction. See examples of lake ban erosion in the following photographs:





3. Stable lake banks, however exist and conform to permit and State criteria. See photo's as follows:





#### c. Water Distribution System

The water distribution system was conveyed to the City of Riviera Beach Utility District in excellent condition and is presently owned and maintained By the City of Riviera Beach

#### d. Sanitary Sewer System

The sanitary sewer system was conveyed to the City of Riviera Beach Utility District in excellent condition and is presently owned and maintained By the City of Riviera Beach

### 3. Estimated Maintenance Cost for District Owned Infrastructure

a. Roads

No maintenance costs are estimated for the internal roads which are owned and Maintained by Marsh Harbor Associates LTD.

#### b. Storm water Management Systems, Lakes and Dry retention Areas.

. The estimated 2014 maintenance costs for the storm water and lake tract systems maintenance requirements inclusive of the debris and weed removal efforts and siltation dredging are as follows

1. Lake Headwall clearing and removal of deposits,	
Weed removal, edge clearing and slope corrections	\$27,500.00/YR
2. vacuuming of major lake interconnect storm water culverts	
Estimated by Linear Feet 1,750 LF @ \$6.50 per Linear FT. =	\$11,375.00/YR
3. Water surface cleansing/testing: 7.30 Acres x \$500/AC/YR =	\$3,650.00/YR
4. Lake chemical treatments/edging and clearing: 7.30x\$500/AC/YR=	\$3,650.00/YR
5. Miscellaneous maintenance and clean-up =	\$2,500.00/YR
6. Total estimated maintenance cost for Year 2010 is	\$48,675.00/YR

b. <u>Water Distribution System</u>

No maintenance costs are estimated since the complete water distribution system has been transferred and dedicated to the City of Riviera Beach Utility District for ownership and yearly maintenance.

c. Sanitary Sewer System

No maintenance costs are estimated since the complete sanitary sewer system has been transferred and dedicated to the City of Riviera Beach Utility District for ownership and yearly maintenance.

This report is prepared to the best of my knowledge and belief and is based upon recent visual field inspections conducted by our office personnel, our original district engineering report and the review of recorded public documents.

If you have any questions regarding this report, please feel free to contact the undersigned.

Sincerely Yours: 2 Gary G. Bloom PE

President GGB Engineering, Inc. District Engineers Florida Engineering License No. 19832. Dated: September 13, 2013