

**ENGINEER'S REPORT
FOR
THE HARMONY COMMUNITY
DEVELOPMENT DISTRICT**

Prepared for:

**Board of Supervisors
The Harmony Community Development District**

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1. Introduction

1.1 Description of the Harmony DRI Community

Harmony is an 11,030-acre master planned Development of Regional Impact project designed as a mixed-use community. It is located along U.S. 192 in Eastern Osceola County. The location of the community is shown on Exhibit 1. The Harmony Community will be designed as a Traditional Neighborhood Development featuring 70% open space, including nearly 1,000 acres of natural lakes known as Buck Lake and Cat Lake. The development program consists of 7,200 residential units; 350,000 gsf of commercial; 500,000 gsf of office; 1,000,000 gsf of light industrial, and an 18-hole golf course. The community also includes numerous community and village parks; an interconnected bikeway and pedestrian path system; a Town Center providing a mix of uses for the entire community; institutional uses including fire, police, EMS, public schools, library, Harmony Institute, and places of worship; on-site water and wastewater facilities; large wetland preserves; upland preservation areas for gopher tortoises, sandhill cranes, and rare plant species; an interconnected water management system; and a wastewater reuse system to minimize water consumption.

1.2 Description of the Harmony Community Development District

The Harmony Community Development District is a portion of the Harmony Community originally consisting of 992.6 acres. This revised Engineer's Report includes an additional 27.60 acres; which is being added to the original Harmony Community Development District. New total land area of the Harmony Community Development District is 1,020.2 acres.

The Harmony CDD lies in the center of the overall Harmony DRI project, featuring the Town Center, a number of parks, and the golf course (See Exhibit 4). The District will construct three (3) phases of major infrastructure. Construction of the first phase was completed in 2002. Construction of Phase II is scheduled to begin in 2004 followed by a third phase in 2005/2006. The Phase I infrastructure will serve approximately half of the development program (See Table 1) including the 18-hole golf course. See Exhibit 2 for a depiction of these phases of development.

Table 1 below presents the development program for the Harmony Community Development District.

TABLE 1			
LAND USE SUMMARY WITHIN THE DISTRICT BOUNDARIES			
LAND USE	ACRES	DENSITY	% OF TOTAL
Residential ⁽³⁾	336	2146 D.U.	33%
Village Commercial	6	40,000 GSF	1%
Commercial	21.2	399,000 GSF	2%
Office	26.6	385,000 GSF	3%
Institutional	13.5	13.5 AC	1%
Open Space/Parks	60.5	See Note ⁽²⁾	6%
Golf Course/Clubhouse	288.7	18 Holes	28%
Town Center	29.2		3%
Retention/Detention Ponds ⁽¹⁾	60.3		6%
Road ROW	47.9		5%
Conservation/Preservation Areas	130.3		13%
TOTAL	1020.2		100%

- (1). Only ponds located outside golf course. Ponds within golf course are included in golf course acreage.
- (2). Town Center consists of residential, commercial, office, institutional, open space and parks. Density for the development uses are included in the density D.U. / GSF figures designated in this table. For example, the residential D.U.'s to be located within the Town Center will be par of the 2146 D.U.'s allocated to the Harmon CDD.
- (3) Revised July 2004 to include additional 27.60-acre parcel at Cat Lake an additional 86 residential units.

2. **District Boundary and Properties Served**

2.1 **District Boundaries**

Exhibit 2 delineates the proposed boundaries of the District. The district is surrounded by the balance of the Harmony DRI including the Harmony High School of which is part of the Harmony DRI but is not included within the CDD Boundary. US 192 runs along the Southern Boundary of the District. Buck and Cat Lake serve as the Northern Boundary of the District, and their contributory wetlands define the Eastern and Western Boundaries of the District.

2.2 **Description of Properties Served**

Exhibit 3 provides the legal description of the District. The existing land within the District consists of the existing Phase I Infrastructure, golf course, and Neighborhoods B-1, C-1, C-2 and D-1. Future development slated for the balance of the developable uplands within the CDD includes Neighborhoods, E, F, G, and I. Also included are the remaining commercial and office tracts within the District.

2.3 **Existing Infrastructure**

The Harmony CDD completed construction of the Phase I Water and Wastewater Treatment Plants in 2002. The Phase I roadway and utility infrastructure were also completed in 2002.

3. **Proposed District Infrastructure**

3.1 **Summary of the Proposed District Infrastructure**

The District infrastructure will generally consist of the following:

- Roadways
- Water, Wastewater and Electrical Infrastructure
- Stormwater Management Facilities
- Landscaping/Hardscape
- Recreation and Parks
- Off-site Water and Wastewater Plants/Infrastructure Connections

3.2 **Roadways**

The roadways within the District will consist of 4-lane divided, 2 lane divided and 2 lane individual sections. These roadways will be designed as collector roadways serving the individual development tracts within the District. The District will construct these roadways and convey the

improvements to Osceola County from back of curb to back of curb. Sidewalks and bikeways will be constructed adjacent to the roadways, these will be owned by the District. Roadways will consist of a subgrade, limerock base, curbing, striping and signage in conformance with the Land Development Regulations of Osceola County. Approximately 5 miles of collector roadway will be constructed in the District.

3.3 Water, Wastewater & Electrical Infrastructure

This infrastructure consists of potable water mains, wastewater gravity mains and forcemains, lift stations, effluent reuse/irrigation mains and underground electrical cable. These facilities will be constructed in accordance with the Land Development Regulations of Osceola County, the Florida Department of Environmental Protection, the South Florida Water Management District and the Applicable DRI Development Order in effect at the time of construction.

The potable water system will include the necessary valving, fire hydrants and individual services to serve individual lots and development parcels. The system design provides for domestic demand plus a fire flow. Approximately 5 miles of water mains will be constructed.

The wastewater infrastructure will include gravity lines, foremain, lift station, and individual lot services sufficient to serve all individual lots and development parcels in the District. Approximately 3.7 miles of gravity lines, 3.2 miles of forcemain and 3 lift stations will be constructed by the District.

An effluent reuse system will be constructed to serve as the primary irrigation system for the project. Highly treated effluent will be discharged from the wastewater plant into hydropneumatic tank. Effluent reuse mains consisting of approximately 5 miles including valving and individual services to individual lots and development parcels will be constructed. Treated effluent will be supplemented with stormwater and groundwater to satisfy the irrigation demands throughout the District.

Electrical cable will be constructed adjacent to all collector roadways sufficient to serve all individual lots and development parcels. Street lighting will also be included along the collector roadways.

Areas north of US 192 are located within the Orlando Utilities Commission service area. Areas south of US 192 are located within the service area of Progress Energy Corporation. (f.k.a. Florida Power Corp.)

3.4 Stormwater Management Facilities

A master stormwater system will be constructed in accordance with the requirements of the South Florida Water Management District, Osceola County and the Birchwood Development Order. This system will consist of interconnected wet retention/detention ponds; which will be designed as unfenced project amenities. Stormwater runoff from development parcels will be routed via a secondary drainage system into the retention/detention ponds. These ponds will ultimately discharge into adjacent and nearby wetlands through the District. Design criteria include meeting water quality and quantity criteria, and providing compensating storage for any development within the 100-year floodplain areas.

3.5 Landscaping/Hardscape

Landscaping/hardscape will be provided along the project collector roadways, the project entrance on US 192, throughout the Town Center, and within parks and recreation areas. Xeriscape landscaping will be emphasized throughout to minimize irrigation water demands and to maintain a natural look within the community. Existing native vegetation will be used where possible.

3.6 Recreation and Parks

Phase I of a 19 acre Community Park adjacent to Buck Lake has been completed. The Park provides picnic facilities, passive recreation and a children's playground. This community park also includes a fishing pier and boat dock on Buck Lake. Also completed with the Phase I infrastructure is the Town Center Park and Swim Club areas.

3.7 Off-site Water and Wastewater Facilities/Interconnection Infrastructure

The District Utility Engineer, Boyd Environmental Engineering, Inc. has prepared a separate report documenting these facilities.

4. **Opinion of Probable Construction Costs**

Table 2 below represents a summary of the costs for the District Infrastructure.

TABLE 2
OPINION OF PROBABLE COSTS
FOR THE DISTRICT INFRASTRUCTURE ^{(1), (4)}

Infrastructure	Phase 1	Phase 2	Phase 3	Total
Master Infrastructure ⁽²⁾	\$ 3,000,000	\$3,342,100	\$3,650,900	\$9,993,000
Mass Grading / Stormwater Facilities	\$ 1,800,000	\$ 150,000	\$150,000	\$2,100,000
Landscaping / Hardscape	\$ 2,450,000	\$1,200,000	\$1,000,000	\$4,650,000
Recreation / Parks	\$ 1,750,000	\$2,000,000	\$1,000,000	\$4,750,000
Land Acquisition ⁽³⁾	\$ 4,700,000	\$	\$	\$4,700,000
Total	\$ 13,700,000	\$6,692,100	\$5,800,900	\$ 26,193,000

⁽¹⁾ The costs are derived from the expected quantities of infrastructure multiplied by unit costs typical of the industry in Central Florida. All costs were based on master plans for each infrastructure item. Provision for professional fees are included. These costs do not include legal, administrative operation or maintenance services.

⁽²⁾ Includes roadways and drainage, water, sewer, reuse and underground electrical conduit.

⁽³⁾ Community Lake along Buck Lake

⁽⁴⁾ Revised July 2004

5. 2000/2001 Project – Phase 1

5.1 Description of the Project

Construction is projected to commence in late 2000 and continue through most of 2001 for the initial phase of master infrastructure. Once completed, this first phase infrastructure will allow the sale and use of the marketable properties within the first phase of the District.

5.2 Permits

Permits for construction are required prior to the start of the infrastructure construction. Permits from the following agencies will be required:

- Osceola County (All Site Improvements)
- Florida Department of Environmental Protection (Waste and Wastewater)
- Florida Department of Transportation (ROW/Drainage)
- U.S. Army Corps of Engineers (Dredge and Fill)
- South Florida Water Management District (Water Use/Phase I ERP)
- ECFRPC/DCA (Compliance with Development Order)

5.3 Status Update

The Phase 1 infrastructure improvements have been completed and are operational.

6. 2004/2005 Project – Phase 2 & 3

6.1 Description of the Project

Construction is projected to commence in late 2004 and continue through most of 2005 for the final phases of master infrastructure. Once completed, the Phase 2 and Phase 3 infrastructure will allow the sale and use of the marketable properties within the remaining areas of the District.

- Osceola County (All Site Improvements)
- Florida Department of Environmental Protection (Waste and Wastewater)
- Florida Department of Transportation (ROW/Driveways)
- South Florida Water Management District (Water Use/Phase I ERP)
- ECFRPC/DCA (Compliance with Development Order)