



**DONALD W. McINTOSH
ASSOCIATES, Inc.**

ENGINEER'S REPORT FOR CAPITAL IMPROVEMENTS

**STONEYBROOK WEST
COMMUNITY DEVELOPMENT DISTRICT**

CITY OF WINTER GARDEN, FLORIDA

CIVIL ENGINEERS

LAND PLANNERS

SURVEYORS

AUGUST 28, 2000



2200 Park Ave. North

Winter Park, FL

32789-2355

Fax 407-644-8318

407-644-4068

BY:

**DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FL 32789**



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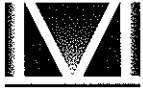
I. BACKGROUND

Stoneybrook West (The "Development") is an approximately 936-acre development. The Stoneybrook West Community Development District (the "District") is situated within the boundaries of the Development and comprises approximately 645 acres. The Developer of the project is the Stoneybrook Joint Venture (The "Developer"). The Development is generally located east and south of Avalon Road (C.R. 545), west of Black Lake, and approximately ¼ mile north of Tilden Road in the City of Winter Garden, Florida. A Vicinity Map can be found following this text as Figure "A." An overall plan of the Development is included as Figure "B." The lands within the Development currently consist of orange groves and several isolated wetlands. The Planned Development (PD) was originally approved by the Winter Garden City Council and is planned to include approximately 1,539 single family residential lots, 720 multi-family units, an 18-hole golf course, golf maintenance facility, golf clubhouse, fitness center, parks and a future elementary school site. It is important to note that the golf course, golf clubhouse, golf maintenance facility, multi-family units, commercial property, fitness center, parks and school are not included in the District. Of the approximately 936 gross acres of property, approximately 415 acres are considered developable areas. Build-out is presently expected to occur over a five (5) to ten (10) year period.

This Engineer's Report for Capital Improvements has been prepared to assist with the financing and construction of the capital improvements contemplated to be constructed, acquired and/or installed within the District or outside of the District pursuant to requirements of the City of Winter Garden, Florida.

The Capital Improvements reflected in this Report represent the current Improvement Plan for the District. Many of the necessary regulatory approvals have been obtained for the Development. The remaining permits necessary to complete the Development are expected to be obtained during the normal design and permitting processes. We are confident that the balance of the required permits are obtainable. For reference, a permit matrix for the Development follows this text as Figure "C." The implementation of any improvements discussed in this plan requires the final approval by many regulatory and permitting agencies including the City of Winter Garden. This report, therefore, may be amended from time to time.

Cost estimates contained in this report have been prepared based on the best available information at this time. The actual costs of construction, final engineering design, planning, approvals and permitting may vary from the cost estimates presented.



II. GENERAL DESCRIPTION OF BOND ISSUES

The District plans to issue two series of bonds consisting of a Series "2000" (Phases I and II) and a "Future" Series (Phases III and IV) bond issue.

Infrastructure improvements described in this report are broken into two categories, Master Infrastructure and Subdivision Infrastructure. Master Infrastructure includes the master stormwater system, the primary roadways, the main potable water system, the mainline sanitary sewer system, and undergrounding of lines for electric/lighting and landscape/irrigation (See Figure "D"). A more detailed breakdown of these items is discussed in section III. Subdivision Infrastructure for development parcels 1, 2, 4, 6, 8, 9, 11,12 and 21A include portions of their individual roadways, their potable water, sanitary sewer, storm sewer and landscape/irrigation improvements (See Figure "E"). A more detailed breakdown of these items is discussed in section IV.

"Future" Series bonds will fund the remaining infrastructure improvements to serve Phases III and IV. Master Infrastructure will include any required additions or changes to the development Master Infrastructure as depicted in the Series "2000" Master Infrastructure improvement discussed above. Subdivision Infrastructure for development parcels 3, 5, 7, 13, 15, 16, 21B and 21C will include portions of their individual roadways, their potable water, sanitary sewer, storm sewer and landscape/irrigation improvements (See Figure "F").

It is important to note that portions of the Stoneybrook West PD are intended to be gated communities. Portions of the master infrastructure system being constructed with the District funds will serve both the Master Infrastructure and the gated facilities. Specifically, as designed, the master stormwater management system utilizes an intricate series of interconnected pipes and a control structure system lying within the subdivision development pods and the roadway rights of way to interconnect the subdivision development parcels, the roadway networks, the stormwater management facilities, and the master stormwater outfall systems. As such, portions of the subdivision roadways which are part of the stormwater management system (subgrade, base, curb and initial asphalt lift) intended to be operated and maintained behind the gated access, are included in the public infrastructure improvements included within the District. The Developer will fund the balance of the roadway systems (final lift of asphalt, striping, and signage) and has committed approximately \$946,850 to do so. None of the balance of the roadway systems in the gated communities is intended to be funded with District bonds.

III. MASTER INFRASTRUCTURE

- **Primary Roadways:** The primary roadway improvements include approximately seventeen thousand one hundred forty (17,140) linear feet of road and will define the major ingress and egress points throughout the



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Development as well as serve as the collector roads to support future residential and commercial development. The roadways will also serve as the locations for the placement of utility infrastructure needed to serve the development of the project. The roadways included in the master infrastructure include: the entry boulevard from Avalon Road (C.R. 545); the extension of Marsh Road from C.R. 545 southeast to the proposed western beltway; the north frontage road of the future western beltway from Marsh Road extension to the East boundary of the Development; and a boulevard running north-south, connecting the entry boulevard from C.R. 545 to Marsh Road extension. A graphic depicting the general location of all primary roadway improvements can be found following this text. All roads are proposed to be constructed utilizing an asphalt concrete surface course, a base course and subgrade, most with a bicycle path included therein, and completed with curb and gutter sections and sidewalks, all designed in accordance with City of Winter Garden standards. The Developer is also constructing the extension of the frontage road from the East property boundary to C.R. 535 utilizing private funding.

- **Potable Water:** The potable water distribution system will include a series of interconnected and looped water mains that run through all of the primary roadway corridors, herein before described, and connecting to the extreme boundaries of the property in several directions. The initial connection point to the City system is at C.R. 535, approximately 3,360 feet east of the southeast corner of the property. The City of Winter Garden is providing funds to up-size this facility in order to accommodate their future growth and therefore, the estimates included herein have been adjusted to reflect only the costs attributable to the Development and the cost to the District. An additional connection point will be provided upon the completion of a new City of Winter Garden water plant at the south portion of the property. The potable water distribution system will serve as a source for distributing potable water and fire protection water to all of the development parcels within the Development.
- **Main Sanitary Sewer System:** The Development's sanitary sewer system includes a network of gravity collection systems and a wastewater lift station. The City of Winter Garden is providing a sanitary force main to connect to facilities located on C.R. 535 approximately 13,280 feet from the Development's southeast boundary. These sanitary sewer facilities will act as the collection and transmission system for the development parcels within the Development. These sanitary sewer facilities will be constructed within the primary roadway infrastructure.
- **Master Stormwater Management System:** The Master Infrastructure components will include a series of interconnected stormwater management ponds constructed mainly within the proposed golf course, and will connect the individual development parcel roadway systems and other surrounding developments to the master stormwater management system. The use of



ponds within the golf course area to provide master stormwater facilities is common practice in the Central Florida area. Generally, it allows the master stormwater system to be constructed cost effectively while also providing for above average maintenance of the facilities due to their aesthetic appeal to the golf course use. The stormwater management system will also include a series of control structures, pipes, inlets, manholes and weirs. Additionally, this system will include the grassing and irrigation of the golf course to provide erosion control for the interconnected master stormwater management ponds in accordance with sound engineering practice.

- **Electric/Lighting:** Most, if not all, District constructed Master Infrastructure will include underground electric and street lighting. The street lighting system will be constructed in cooperation with the City of Winter Garden, Florida Power Corporation and the Developer. The City requires that all utilities for new infrastructure be placed underground. As such, funding for the additional cost of burying the electrical service for the street lighting system is included. Street lighting is to become an integral part of the primary streetscape and has been coordinated with the Developer and landscape architect and will not be financed by the District.
- **Landscape and Irrigation:** The landscaping and irrigation of the primary roadways will provide the "first impression" of the Development. The landscaping will include hardscaping such as walls, common entry signs and entry features. Street landscaping has been estimated by the landscape architect and included herein.

IV. SUBDIVISION INFRASTRUCTURE

- **Roadways:** As previously stated, the subsurface and some surface subdivision infrastructure will be utilized to manage and convey stormwater for the Development. The subdivision roadway improvements include approximately (69,280) linear feet of subgrade, base, curb and initial asphalt lift and will define the ingress and egress points to the individual development parcels. These areas will also serve as the locations for the placement of utility infrastructure needed to serve the development of the project. All improvements are proposed to be constructed utilizing an asphalt concrete surface course, base course, subgrade and completed with curb and gutter sections, all designed in accordance with City of Winter Garden standards which standards are, in some cases, in excess of the standards applicable to Orange County.
- **Potable Water:** The potable water distribution system will include a series of interconnected and looped water mains that run through roadway corridors herein before described, and connecting to the main potable water system. The potable water distribution system will serve as a source for distributing potable water and fire protection water to all of the development parcels.



- **Sanitary Sewer System:** The Development's sanitary sewer system includes a network of gravity collection systems connecting to the main sanitary sewer system. These sanitary sewer facilities will act as the collection and transmission system for the development parcels. These sanitary sewer facilities will be constructed within the roadway infrastructure.
- **Stormwater Management System:** This system includes the use of inlets, manholes and pipes to convey stormwater runoff to the master stormwater management ponds.
- **Landscape and Irrigation:** The landscaping and irrigation of the roadways will be provided at all parcel entrances. The landscaping will include hardscaping such as walls and entry signs. Street landscaping has been estimated by the landscape architect and included herein.

V. DESIGN AND PERMITTING AND CONTINGENCY

Design costs associated with each of the improvements herein before described, have been estimated and included in the estimates that follow. Other soft costs include portions of the wetland/permit surveying, design and engineering for all of the described work, regulatory permitting, and materials testing. Last, a project contingency estimate has been included utilizing rounding factors.

VI. COST ESTIMATES FOR DEVELOPMENT IMPROVEMENTS

A summary of the estimated construction costs by project series is included in Table 1.



**TABLE 1
STONEBROOK WEST CDD ESTIMATE**

DESCRIPTION OF WORK	PHASES I and II		PHASES III and IV		TOTAL
	MASTER INFRASTRUCTURE	SUBDIVISION INFRASTRUCTURE	MASTER INFRASTRUCTURE	SUBDIVISION INFRASTRUCTURE	
Roadway	\$ 940,000.00	\$ 1,092,000.00	\$ 300,000.00	\$ 696,150.00	\$ 3,028,150.00
Stormwater	\$ 5,722,000.00	\$ 1,453,000.00	\$ -	\$ 630,950.00	\$ 7,805,950.00
Potable Water	\$ 386,800.00	\$ 766,000.00	\$ -	\$ 512,800.00	\$ 1,665,600.00
Sanitary Sewer	\$ 623,300.00	\$ 951,000.00	\$ 200,000.00	\$ 484,700.00	\$ 2,259,000.00
Electrical/Lighting	\$ 416,600.00	\$ -	\$ -	\$ -	\$ 416,600.00
Landscape and Irrigation	\$ 1,152,600.00	\$ 450,000.00	\$ 400,000.00	\$ 328,150.00	\$ 2,330,750.00
Sub-Total:	\$ 9,241,300.00	\$ 4,712,000.00	\$ 900,000.00	\$ 2,662,750.00	\$ 17,506,050.00
Design and Permit @ 15%	\$ 1,386,195.00	\$ 706,800.00	\$ 135,000.00	\$ 397,912.50	\$ 2,625,907.50
Contingency @ +/- 15%	\$ 1,572,505.00	\$ 781,200.00	\$ 165,000.00	\$ 449,337.50	\$ 2,968,042.50
GRAND TOTAL:	\$ 12,200,000.00	\$ 6,200,000.00	\$ 1,200,000.00	\$ 3,500,000.00	\$ 23,100,000.00

NOTE: Any opinion of the construction cost prepared by DWMA represents its judgement as a design professional and is supplied for the general guidance of the client since DWMA has no control over the cost of labor and material or over competitive bidding or market conditions. DWMA does not guarantee the accuracy of such opinions as compared to contractor bids or actual cost to the client.

VICINITY MAP

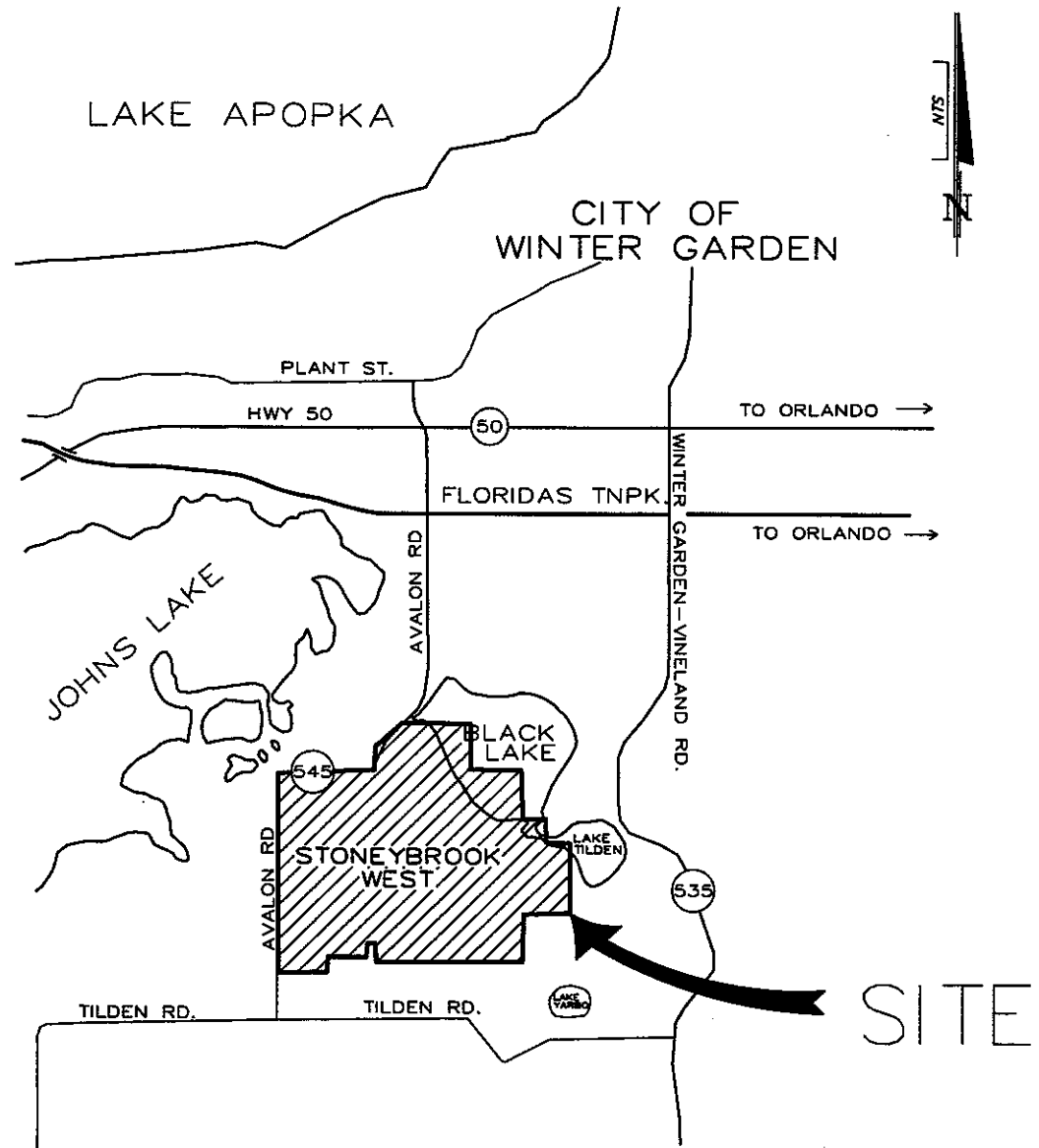


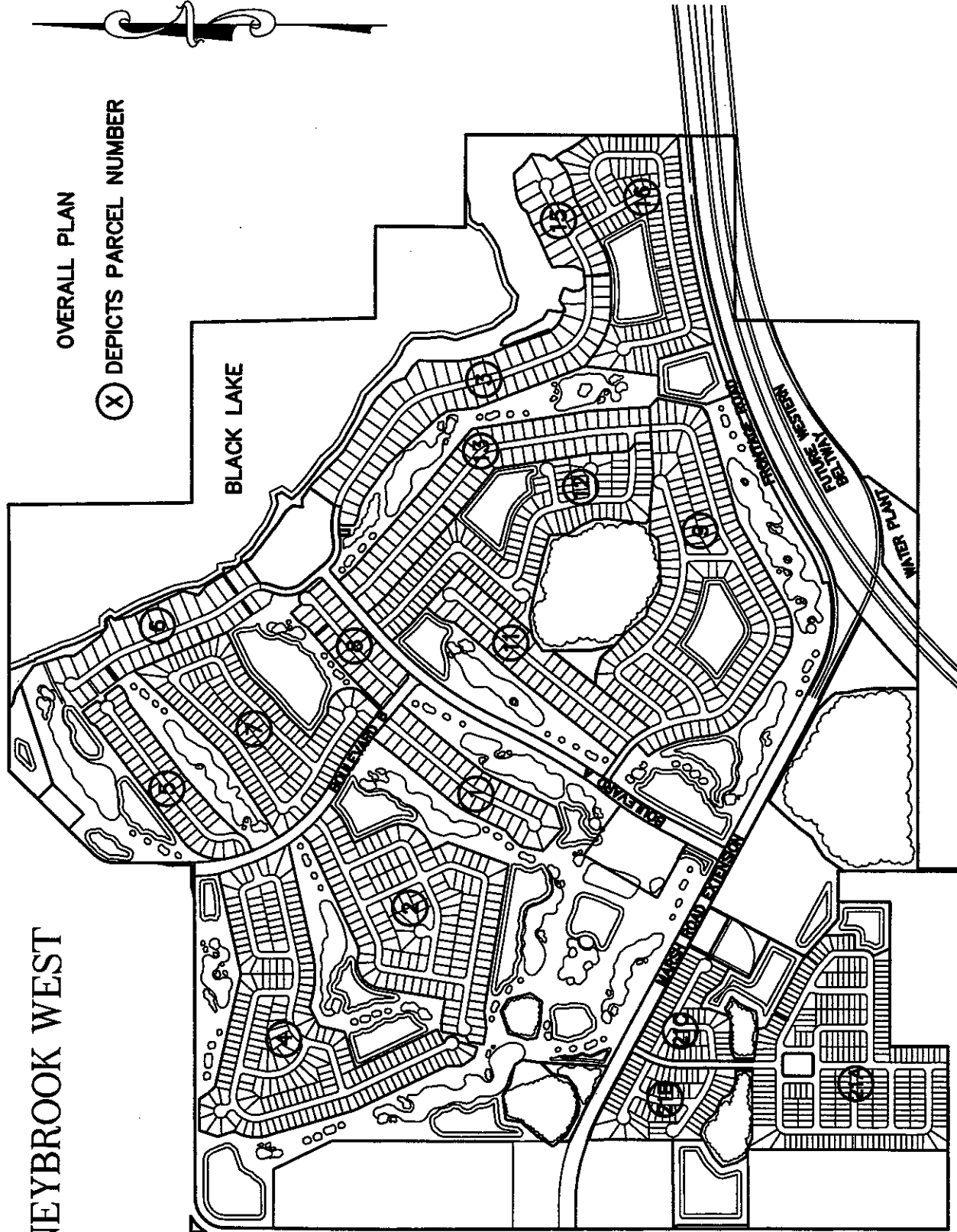
FIGURE A

STONEBROOK WEST

OVERALL PLAN

(X) DEPICTS PARCEL NUMBER

BLACK LAKE



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2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

FIGURE B

**STONEBROOK WEST
PLANNED DEVELOPMENT
PARCEL PERMIT MATRIX**

PERMIT PARCEL	1	2	3	4	5	6	7	8	9	11	12	13	15	16	21A	21B
City of Winter Garden																
PD Zoning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PSP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Development Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Construction Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SJRWMD																
Concept ERP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Construction Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
USACOE																
Individual	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FDEP																
Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sewer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NOTES:

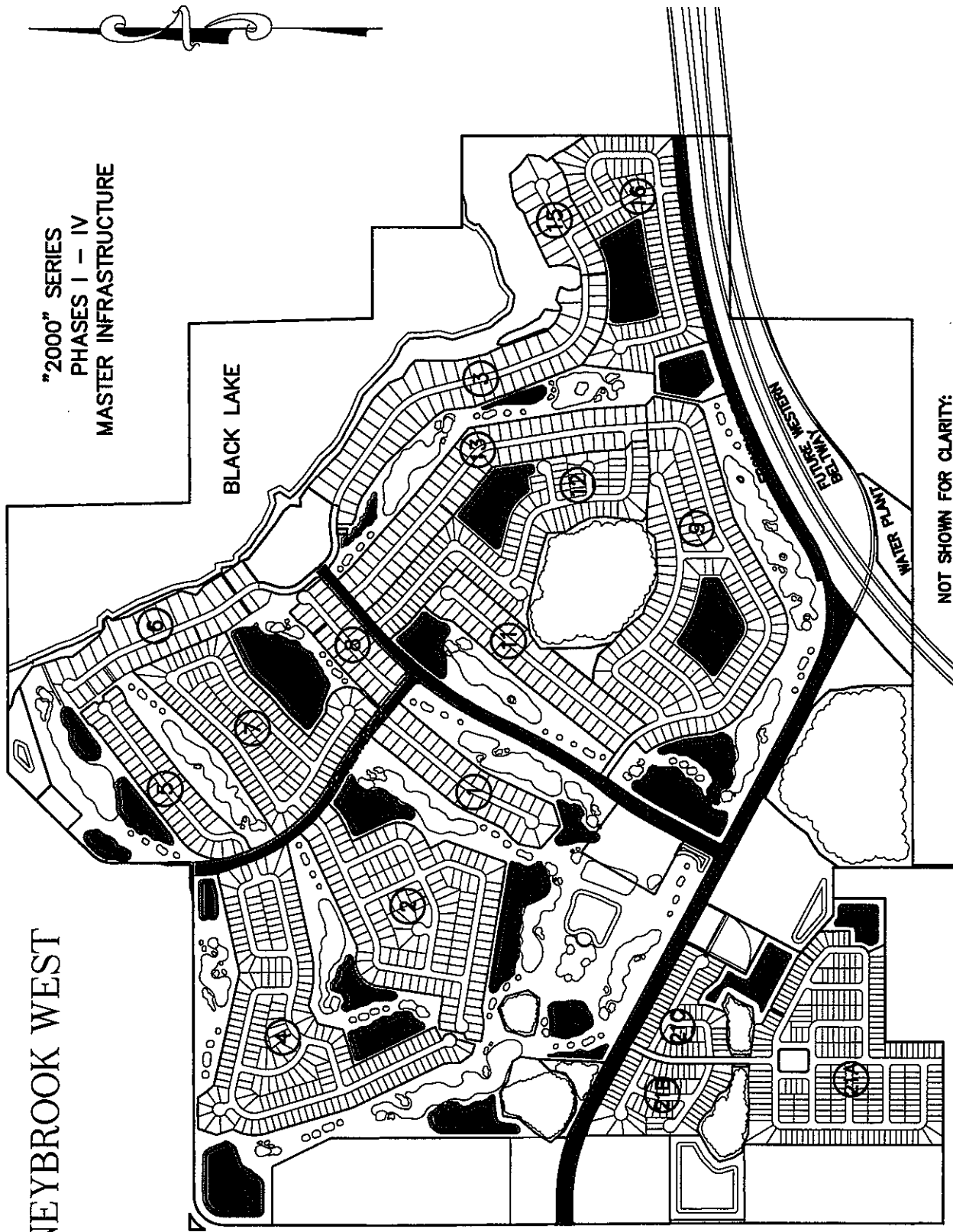
- X depicts permit/approval in place.
- PD = Planned Development
- PSP = Preliminary Subdivision Plan
- SJRWMD = St. John's River Water Management District
- ERP = Environmental Resource Permit
- USACOE = United States Army Corps of Engineers
- FDEP = Florida Department of Environmental Protection

FIGURE C

STONEBROOK WEST

"2000" SERIES
PHASES I - IV
MASTER INFRASTRUCTURE

BLACK LAKE



NOT SHOWN FOR CLARITY:
GOLF COURSE GRASSING/IRRIGATION (FOR
STORMWATER) AND MASTER LIFT STATION.

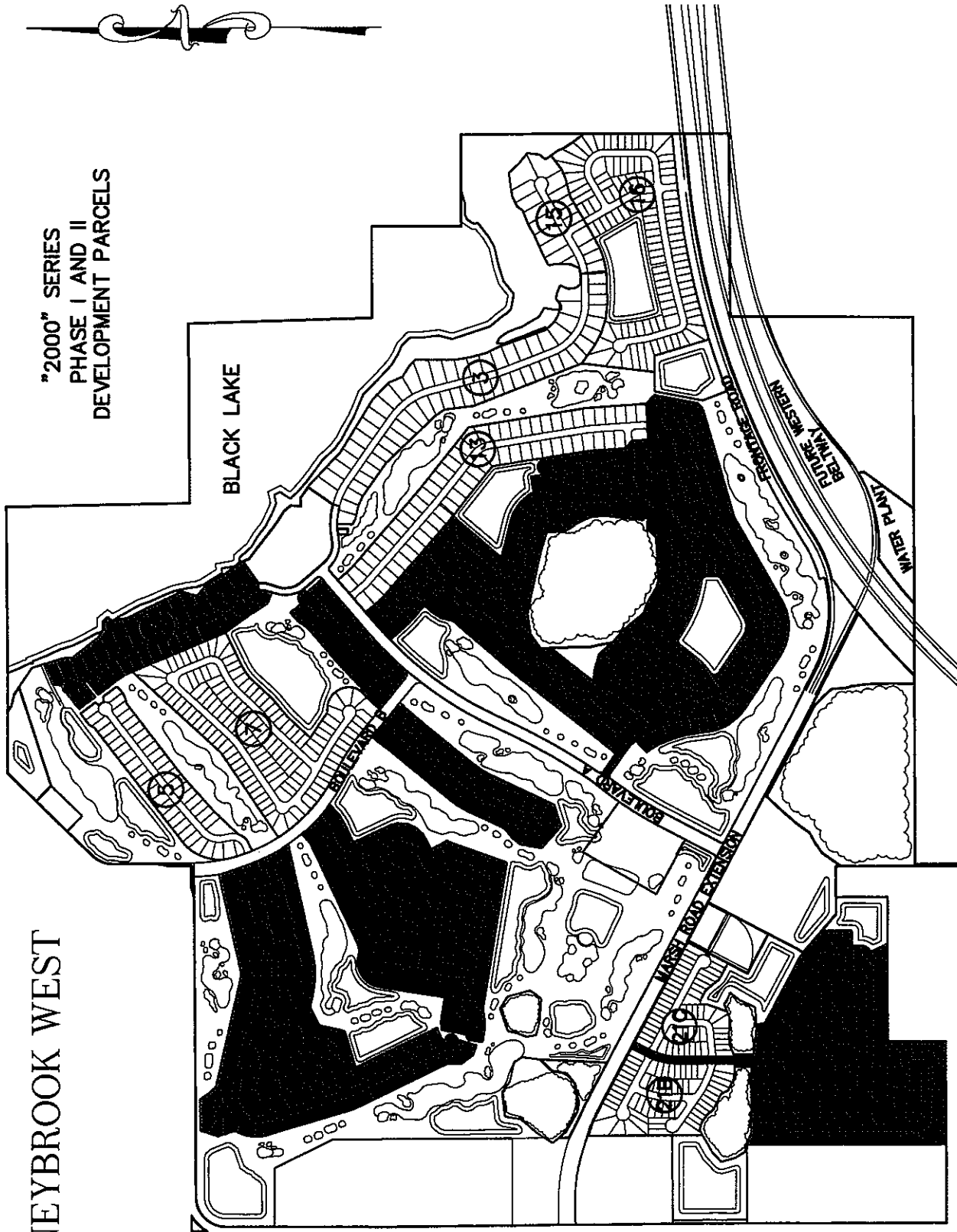


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FIGURE D

STONEBROOK WEST

"2000" SERIES
PHASE I AND II
DEVELOPMENT PARCELS



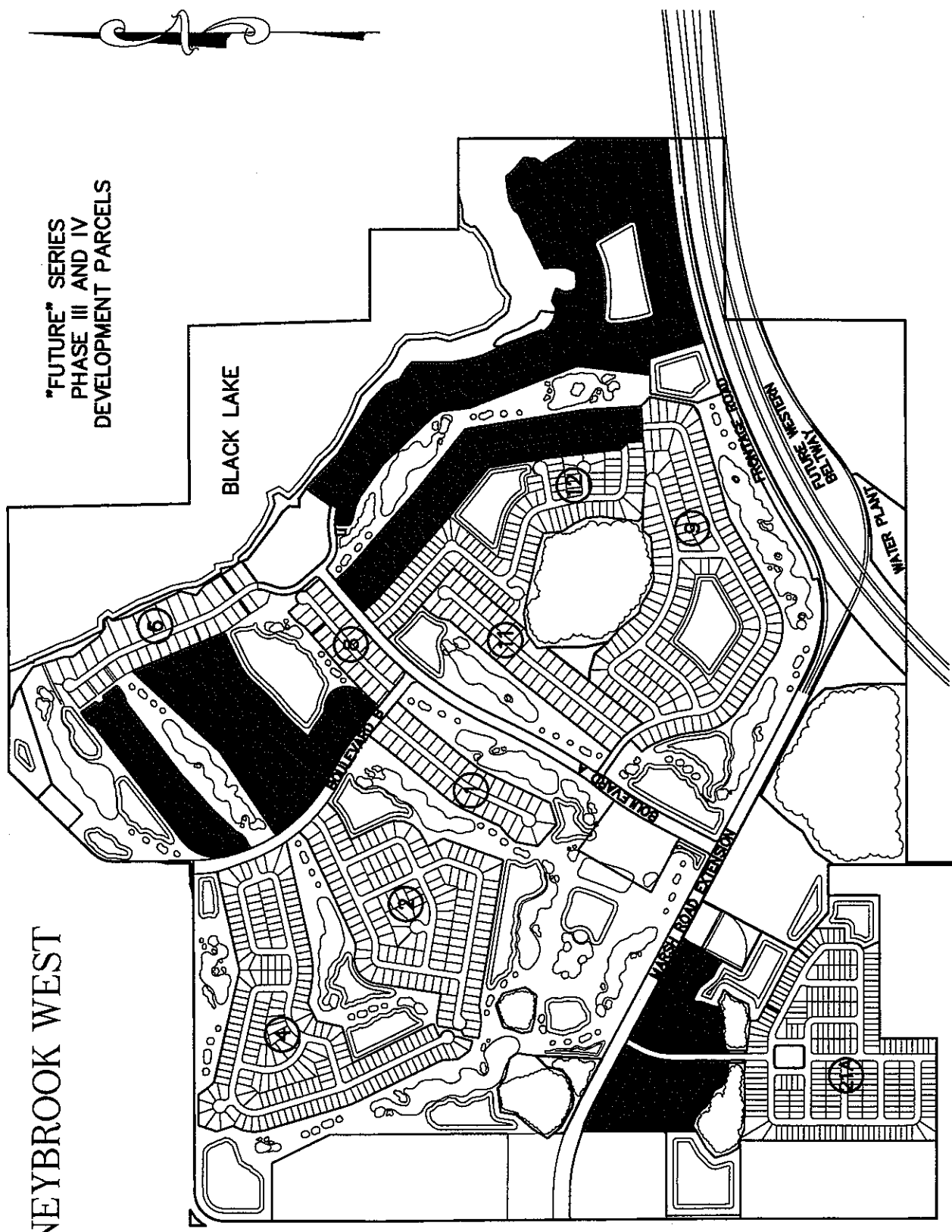
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2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 544-4068

FIGURE E

STONEBROOK WEST

"FUTURE" SERIES
PHASE III AND IV
DEVELOPMENT PARCELS

BLACK LAKE



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ENGINEERS ▼ PLANNERS ▼ SURVEYORS
2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4086



FIGURE F