



## COMMUNITY IMPROVEMENT DISTRICT

# CAPITAL IMPROVEMENT PLAN AUGUST 2021



## SECTION NO. 1 – INTRODUCTION

The Port of the Islands Community Improvement District (CID) was established by Chapter 190, Florida Statutes in 1986. The CID was established to provide for ownership, operation, maintenance, and provision of various capital facilities and services within its jurisdiction. The CID is governed by a five person Board of Supervisors. Day to day operations are provided by Premier District Management, Woodward, Pires & Lombardo, PA for legal issues, Florida Utility Solutions for utility operations and Hole Montes for engineering services.

The Port of the Islands CID is located east of Marco Island and west of Everglades City on US41/Tamiami Trail East and serves an area of 300 acres (+/-). See attached Exhibit No. 1 for a General Location Map and Exhibit No. 2 for the CID Map. It includes single and multi-family housing, a marina, hotel and restaurant, gun club, Collier County Boat Park, and Ochopee/Greater Naples Fire Department site. There remains several undeveloped parcels. The CID provides utility services (water, wastewater, and fire/irrigation) and maintenance of roadways and drainage, except to a few privately maintained areas.

To provide the necessary level of service to the community, the CID must keep the various capital facilities well maintained and in operational condition. Ongoing maintenance and repair occurs on an annual basis. However, other major repairs and renewal and replacement should be planned for as best as possible. Unforeseen repairs and replacement can occur; however, planning will allow budgets to be prepared and reserve funds established for the improvements with high costs.

In the following sections the various assets of the CID have been identified and listing of projects identified. The assets are based on existing development plans and other available information. From site investigation and meetings with CID staff, a list of capital improvement projects has been developed. The CID has been broken into two components based on how annual assessments are established. A separate component is provided for utilities and another for roads and drainage.

## SECTION NO. 2 – EXISTING CID ASSETS

### A. GENERAL

The assets have been identified by major components and subsequent subcomponents. It is important, as in any dynamic plans, that this information be updated annually to reflect rehabilitation completed and new assets added.

Based on the data contained in the Annual Financial Report (Year Ending September 30, 2020) dated May 20, 2021, the CID has total assets of \$10,634,686.00. The Water and Sewer (Utility) account for \$8,320,226.00 of the assets. These assets include Land and Improvement, Improvements Other Buildings, Infrastructure, Equipment and Accumulated Depreciation. It should be noted the numbers do not reflect current replacement costs.

Table No. 1 provides a summary of current development areas with the operations and maintenance responsibilities.

## B. UTILITIES COMPONENT

The utilities component consists of three major areas. These are then further broken out by subgroups by specific type. The three major components are potable water, fire/irrigation, and wastewater services. Exhibit Nos. 3A and 3B identifies the existing portable water and fire/irrigation systems. Exhibit Nos. 3C and 3D identify the existing irrigation zone and overall connections to the fire/irrigation system. At this time, no detailed summary of the irrigation facilities are included in the asset list. Exhibit Nos. 4A and 4B identifies the existing wastewater system.

The following tables, found in the Appendices, provide details on the utility assets.

- Table No. 2 Potable Water Assets
- Table No. 3 Fire/Irrigation Assets
- Table No. 4 Wastewater Assets

## C. ROADWAY AND DRAINAGE COMPONENT

The roadway and drainage component consists of two major areas. These are further broken out by subgroup by locale. The two major components are roadways and drainage. The following tables, found in the Appendices, provide details on the roadway and drainage assets.

- Table No. 5 Roadway Assets
- Table No. 6 Drainage Assets

## SECTION NO. 3 – CAPITAL IMPROVEMENT PLANS

### A. GENERAL

To assist in planning and budgeting, a Capital Improvement Plan (CIP) has been developed. Separate components of the plan has been developed for the utility and for roads and drainage in assisting in establishing annual assessment and reserve funds for major projects. The plan is broken into three time windows, those projects anticipated in the first five year window, five to ten year window, and those in the ten to twenty year time window. Annual review and update of the projects is critical to reflect completed projects, projects that need to be completed sooner in the schedule, those that can be delayed, and those further identified. Cost for these projects are budgetary in nature as further refinement is needed as the implementation approaches.

### B. UTILITIES CAPITAL IMPROVEMENTS

A listing of CIP projects for the utilities can be found on Table No. 7 in the Appendices.

#### 1. WATER FACILITIES

##### WELLFIELD

- a. The Wellfield consists of the following.

Well No. 1 – Approximately 50 years old with 20 HP constant speed submersible pump which is approximately 6 years old. Pump set at 25 feet (+/-). Capacity is approximately 200 GPM.

Well No. 2 – Approximately 50 years old with 20 HP constant speed submersible pump which is approximately 6 years old. Pump set at 25 feet (+/-). Capacity is approximately 200 GPM.

Well No. 3 – Approximately 12 years old with 20 HP above grade constant speed turbine pump. Pump set at 25 feet (+/-). Capacity is approximately 200 GPM.

Emergency Generator – A generator serves Wells 1 and 2 and is located at Well 1 site. (Middle of three wells with Well 2 to the east and Well 3 to the west.) Generator is approximately 20 years old but, per operator, has no apparent issues. Well 3 has connection for portable generator.

LCEC Power – Power is overhead with vegetation below.

Access Road – Access road typically in fair condition. It is subject to being flooded and washed out during major storm events. State is supposed to maintain, but CID has done maintenance in the past.

Wellfield Transmission Main – Approximately 50 years old. Pipe is 8-inch asbestos cement (AC). Length is approximately 11,000 lineal feet.

b. Potential Projects

- Annual access road regrading as needed.
- Annual clearing of undergrowth at power line and well heads.
- Emergency generator replacement should be planned in the next five to ten year period.
- Well Reconditioning – Well pumps should be pulled and inspected. Reconditioning, if needed, should be completed at that time. Initial inspection and reconditioning should be considered within five to ten year window in conjunction with possible well pump replacement. This can then be planned at ten year cycle.
- Well Pumps – Well pump replacement should be planned on five to ten year cycle (staggered). Well No. 3 should be converted to a submersible type of pump at time of well replacement.
- Wellfield Transmission Main – Wellfield transmission main should be replaced within the first five year window. Pipe replacement should be 10-inch HDPE utilizing a horizontal directional drill for installation.

## WATER TREATMENT FACILITY

- a. The water treatment is a 460,000 gallon per day (320 GPM) reverse osmosis treatment plant. It was constructed in approximately 2012.

b. Potential Projects

Currently, there are no identified immediate projects at the water treatment facility. In the ten to twenty year window, planning should be made for replacement of the reverse osmosis membranes.

## WATER STORAGE FACILITIES

- a. A 120,000 gallon tank is provided for water storage. It is a glass lined covered steel tank. The exact age of this tank is no known, but it is believed to have been constructed in 1990. It is in fair condition.

b. Potential Projects

Currently, there are no identified immediate projects for the water storage facility. Annually, a visual inspection should be made on the tank and on a five year schedule a detailed inspection of both the exterior and interior should be made. Any deficiencies should be identified and included for routine maintenance or inclusion in the CIP.

## HIGH SERVICE WATER PUMPING FACILITIES

- a. The high service pump system consists of one 5 HP and two 20 HP variable frequency drive vertical turbine pumps. These are approximately ten years old. These facilities are located outside.
- b. Potential Projects  
Currently, there are no identified issues with the high service pumping facilities. Pump replacement should be included in the ten to twenty year CIP window. As funds are available, consideration may be given to covering these facilities with a canopy to better protect from weather and potentially extend life.

## WATER TRANSMISSION AND DISTRIBUTION FACILITIES

- a. An 8-inch water transmission pipeline is provided on Union Road from the plant to US41, then along the south side of US41 to Newport Drive (bridge crossing is ductile iron pipe), and then south to the entrance drive of the hotel. The main also crosses US41 to serve the development on Cays Drive. The main from the north side of Orchid Cove to US41 is original with the initial development and is asbestos cement and has reached the end of its useful life. The remaining transmission main to the individual communities is PVC pipe. The water transmission and distribution mains are provided with valves to assist in isolating the system in case of a main failure.
- b. Potential Projects  
The existing 8-inch asbestos cement mains have reached the end of their useful life and need replacement. Replacement of the 8-inch AC mains should be included in the five to ten year CIP window. It is also recommended that an additional connection be made to the existing Orchid Cove system. Currently it is served by a single 4-inch main with 3-inch distribution mains within the community. This will strengthen that system and improve system reliability. This connection should be considered in the five year time window.

The operator has also identified that many of the existing isolation valves are non-operational. The valves must be replaced, or new valves (insertion type) installed to provide isolation. The operator estimates approximately fifty percent of the valves are non-operational. It is recommended that the valve replacement begin in the five year CIP window and continue in the five to ten year window.

## WATER SERVICES

- a. There are individual services for the residential units (single and multi-family). Master meters are provided for the hotel/restaurant and the marina. The individual services consists of a tap on the distribution main, a service line, and meter and backflow preventer prior to connection to the unit.

b. Potential Projects

Currently, the CID is in the process of replacing the existing meters. This should be completed within the next year. At the time of any future water main replacement, the existing taps and service should be replaced. Backflow preventer should be monitored for any leakage and failure on a regular basis (new smart meter will assist with this). No further projects have been identified at this time.

2. FIRE/IRRIGATION FACILITIES

FIRE/IRRIGATION

a. The high service pump station is located at the wastewater treatment facility and utilizes a blended water consisting of treated wastewater effluent, concentrate water from the reverse osmosis treatment facility, and raw water. The high service pump station withdraws water from the two onsite storage tanks. The station includes one 40 HP and one 75 HP VFD pump. These facilities are approximately twenty years old.

b. Potential Projects

At this time, no potential projects have been identified with the high service pumping facilities. Pump replacement should be included in the five to ten CIP window. As funds are available, consideration may be given to covering these facilities with a canopy to help protect from weather and potentially extend the life of these facilities.

CANAL FIRE/IRRIGATION PUMP STATION

a. A fire/irrigation pump station has been provided on the Faka Union Canal to supplement fire/irrigation water needs. Although the use of this facility is limited, it is a necessary facility in case of failure of the high service pump station or major fire. The facility was originally constructed in 1989 with pumps replaced in 2006 (+/-). It is provided with an emergency generator.

b. Potential Projects

The existing canal pump station electrical and emergency generator is nearing the end of its useful life. It is recommended that the entire station be replaced with new electrical and controls, new VFD driven pumps (3-70HP and 1-40 HP), new valves and piping, and a downstream filter in the discharge main.

FIRE/IRRIGATION TRANSMISSION AND DISTRIBUTION MAINS

a. A 10-inch fire/irrigation main extends from the high service pump station at the treatment facilities along Union Road to US41. At US41 it crosses south to Cay Drive and continues west to Newport Drive as a 10-inch main. A connection is made on the west side of the Faka Union Canal to the canal pump station. An 8-inch distribution on Cays Drive and Newport Drive provides fire/irrigation service to the individual developments. The main is provided with isolation valves and fire hydrants.

b. Potential Projects

The operator has identified that many of the isolation valves are non-operational. The valves must be replaced, or new valves (insertion type) installed to provide isolation. (Insertion type valves may be considered on transmission main to minimize outages.)

The operator estimates fifty percent of the valves are non-operational. It is recommended that the valve replacement begin in the five year CIP window and continue in the five to ten year window.

To improve system reliability, it is recommended that a connection be made to the Orchid Cove fire/irrigation system at the north side. The current system has a connection at the south side of the development only. This should be completed in the five to ten year CIP window.

A final project for the fire/irrigation system is the removal of the existing fire hydrants from the potable water system at the now removed north hotel site. This should be completed within the five year CIP window.

### FIRE/IRRIGATION STORAGE FACILITIES

- a. The fire/irrigation storage facilities consist of two storage tanks at the treatment facilities. The wastewater, concentrate water, and raw water are blended in these tanks. One tank is an open concrete tank (200,000 gallons) constructed in the early 1990s. The second tank (250,000 gallons) is a glass lined steel facility with a roof. This tank was constructed in 2010.

- b. Potential Projects

Currently, there are no identified issues with the storage facilities. Annually, a visual inspection of the interior and exterior of the tanks should be made. Any deficiencies should be identified to be included for routine maintenance for inclusion in the CIP.

### 3. WASTEWATER FACILITIES

#### WASTEWATER TREATMENT FACILITIES

- a. The wastewater treatment facility is permitted for a 200,000 gallon per day (maximum monthly average daily flow). The existing facility was placed in service in 1993 as an advanced wastewater treatment facility with wetland discharge. In 1998, the facility included a reclaimed water reuse spray irrigation and distribution system. Throughout the years, other various improvements were made to allow the fire/irrigation system to utilize plant effluent and discontinue use of the wetland discharge.

- b. Potential Projects

Generally, the facility is in good operating condition. The operator has identified several projects to be included in the CIP. These projects include the following.

- Replacement of the non-functioning Parkson rotary fine bar screen with a new manual bar screen to match the existing screen. (Other options should also be considered.) A review of filter options should be completed in the five CIP window with replacement in the five year window.
- Replacement of the existing steel aeration piping (showing deterioration) with stainless steel piping. Should be replaced in the five year CIP window.
- Replacement of the existing upflow filters with disk filters or others. An initial review and replacement should be included in the five year CIP window.

- Removal of the existing (not in use) MBR equipment. This should be completed in the five to ten year CIP window.

## WASTEWATER COLLECTION FACILITIES

- The wastewater collection facilities consist of six active subsystems. There is one inactive system located west of the now removed north hotel. It previously served the hotel and an RV park that had been in the area. As development of Port of the Islands occurred, new gravity wastewater systems were constructed with pumping facilities. The oldest systems include those served by the northern Newport Drive station (45 years old) and the Cays pump station (35 years old), located on the south end of Cays Drive. The collection facilities consist of 8-inch gravity mains and manholes. It is believed that all the gravity mains are constructed with PVC pipe.
- Potential Projects**  
At this time, based on cursory review of the treatment plants monthly reports and discussion with the operator, there is minimal infiltration and inflow in the system. During large stormwater events, there are spikes in the plant flow. It is recommended that the collection facilities be inspected and evaluated (both manholes and selected older gravity mains). Following inspection and evaluation, a determination can be made if there are repairs needed to the gravity mains and if repairs and recoating of manholes are needed. The inspection and evaluation should be included in the five year CIP window and any further action included in future CIP updates.

Similarly, a detailed inspection and evaluation should be made at the wastewater pump station. Based on this inspection and evaluation, further action can be determined and included in future CIP updates. The evaluation should include review of possible upgrades and enhancements. The review and evaluation should be completed in the five year CIP window.

## 4. ADDITIONAL UTILITY FACILITIES

### PLANT FACILITIES

- The water and wastewater facilities are housed at a common site located on Union Road. The facilities on this site share a generator for emergency power outage. The site previously housed the original water and wastewater facilities. Much of these facilities have been removed but there are several remaining buildings in varying condition.
- Potential Projects**  
There are several potential projects at the facilities. These include the following.
  - Replacement of the existing swing gates and actuators with possible replacement of slide type gates with actuators. To be included in five year CIP window.
  - Review and evaluation of several older buildings at the site. This would include the original water treatment plant/building and the original wastewater office/plant facility. This study would review existing electrical and other equipment housed in the buildings for possible consolidation/relocation and



possible repurposing of the water plant building for other CID uses. This should be included in the five to ten year CID window.

- Removal of the existing metal container storage unit from the site with relocation of CID material to the original water plant building. This should be completed as soon as possible.

Table No. 7 provides a summary of the anticipated capital improvement projects for the next twenty years. This list should be reviewed annually and updated to reflect changes in existing conditions that could add or move projects on the list. Also budget costs should be reviewed and updated.

The projects within the one to five year time frame should be budgeted for in the annual assessment. For planning purposes, the projects in the five year CID window are detailed in Table No. 8 and have been broken down by year. Dependent of the CID desired level of Capital Improvement Project funding, it may be necessary to reserve funds in prior years for higher cost projects.

### C. ROADWAY AND DRAINAGE CAPITAL IMPROVEMENT

A listing of CIP projects for the roadway and drainage can be found on Table 8 in the Appendices.

#### 1. ROADWAY FACILITIES

- a. The roadway facilities have been constructed at different times of the development of Port of the Islands. The CID is bisected by US41/Tamiami Trail which is the jurisdiction of the Florida Department of Transportation. On the north side of US41, Union Road serves as the primary roadway. At the south side, Newport Drive and Cays Drive serve as the primary roadways. The cross section of the roadways vary with Newport Drive, northern portion of Cays Drive, and the southern part of Union Road having a divided median. The streets developed with the initial Cays Drive utilizes a valley gutter system to collect stormwater. Other roadways utilize other cross sections.

In 2006, the public roadways on the south side of US41 were resurfaced except for Stella Maris South and Stella Maris North. It is currently planned to complete roadway rehabilitation in Stella Maris North in the near future. No work has been done north of US41. (Union Road and Orchid Cove) It is recommended that the pavement rehabilitation of Union Road be placed on hold pending a possible developer agreement on the 50 acre parcel, north hotel site, and the dormitory.

Generally, the roadways are in good condition except for a portion of Newport Drive. Newport Drive is experiencing edge failure on the median side of the travel lanes where roots from landscaping are undermining the pavement. Typically, pavements have a useful life of 20 to 30 years prior to the need for resurfacing.

- b. Potential Projects

Currently, the CID is planning on the rehabilitation of Stella Maris North in the near future. As development plans are known on the vacant parcels on the north

side of US41, Union Road will need improvement and rehabilitation. This work may be funded totally or in some portion by the developers.

It is recommended that funds be budgeted in the five to ten year CIP window for improvements on Newport Drive. The improvements on Newport Drive should include root barriers along the median to prevent root intrusion. Funds should be budgeted in the five to ten year CIP window for additional roadway resurfacing. These funds, if not immediately used, can be held in reserve for future pavement rehabilitation.

## 2. DRAINAGE FACILITIES

- a. The stormwater facilities have been constructed with the development of Port of the Islands. The CID is responsible for maintenance of the drainage facilities on Newport Drive, Morning Star Cay, Cays Drive, Wilderness Cay, Windward Cay, Venus Cay, Sunset Cay, and Evening Star Cay. The remaining areas are the responsibility of the various condominium associations.

The drainage along Newport Drive and Morning Star Cay is open swales along with roadways to several uncontrolled discharges to the canals. Over time, these swales have naturally filled with sediment causing high points and ponding water in the swales.

Along Cays Drive, stormwater is collected in roadside gutters and inlets with discharge to stormwater lakes. Discharge is then to the wetlands through water control structures.

Stormwater at Wilderness Cay, Windward Cay, Venus Cay and Sunset Cay is collected in roadside drainage with valley gutters that have discharges to rear lot swales. These rear lot swales provide for stormwater treatment prior to discharge to the canal at water control structures located at the west end of the individual streets. Over time, many of the swales have had improvements places in them and naturally filled with sediment in reducing capacity.

Evening Star Cay roadways drain over land to existing retention areas and have lot drain to rear yard swales. Stormwater is eventually collected in a retention area located at the southwest side of the development for discharge to the canal through a water control structure.

- b. Potential Projects

The roadside swales along Newport Dive and Morning Star Cay need to be re-established at their original grades and configuration and culverts cleaned. This will eliminate high spots and ponding. Typically, roadside swales need to be re-established every fifteen to twenty years. Newport Drive and Morning Star Cay drainage work should be scheduled in the five year CIP window.

The rear yard swales at Wilderness Cay, Windward Cay, Venus Cay and Sunset Cay need to be re-established to their original grade and configuration as best as possible based on site conditions. Any encroachments hindering the swales should

be removed or modified to allow the stormwater system to operate correctly. This work should be scheduled in the five year CIP window.

Currently, there are no reported issues with the Evening Star Cay drainage. Drainage should be monitored to determine when action may be required.

The stormwater system along Cays Drive should be regularly inspected to determine where action may be needed.

Table No. 9 provides a summary of the anticipated capital improvement projects for the next twenty years. This list should be reviewed annually and updated to reflect changes in existing conditions that could add or move projects on the list. Budget costs should also be reviewed and updated.

To provide a uniform funding for projects, it is recommended that \$65,000.00 annually be reserved for drainage capital improvements. Those funds not utilized should be held in reserve for future projects.

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## APPENDIX A



DRAWING NOT TO SCALE

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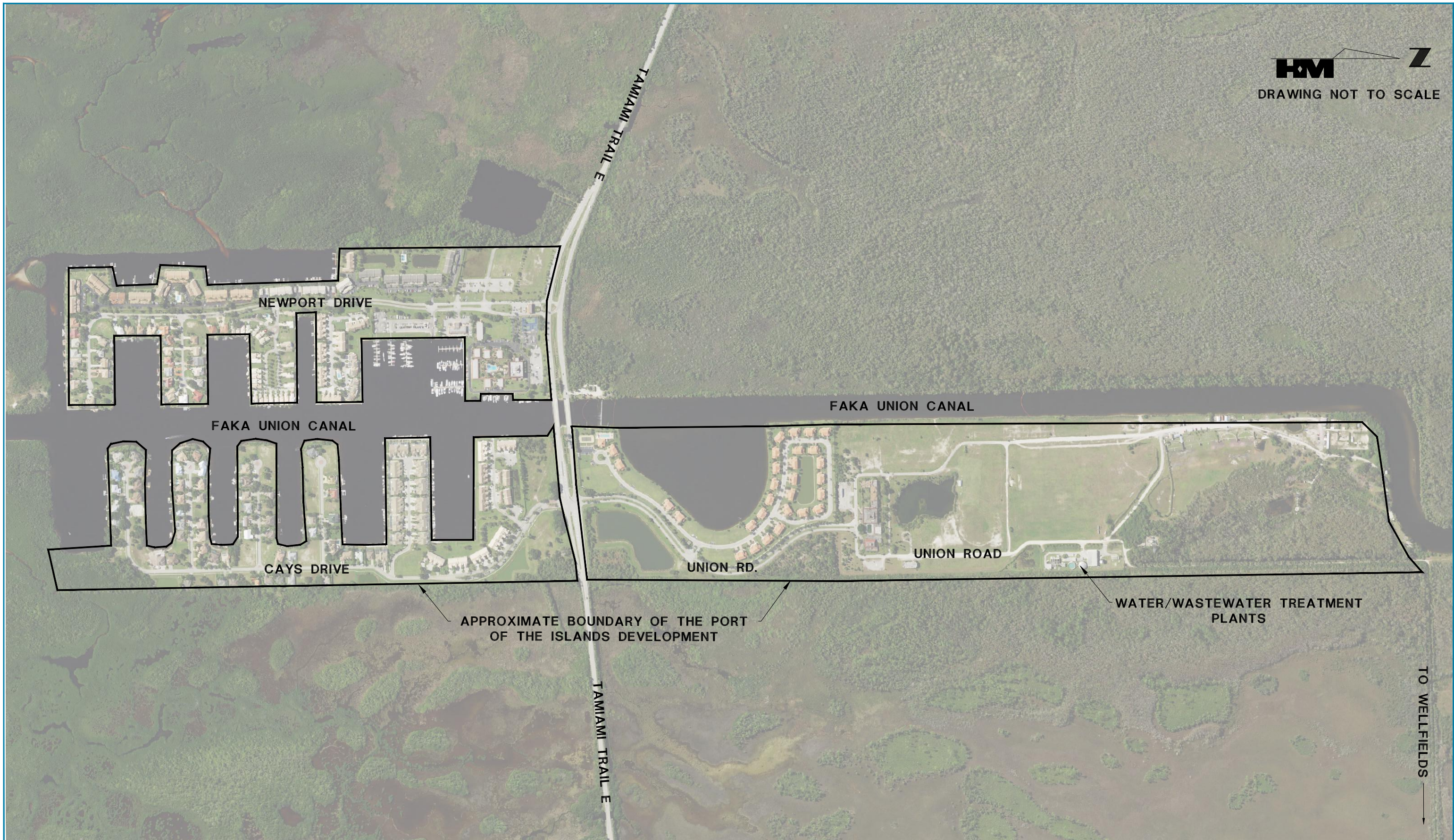
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Naples, FL. 34110  
Phone: (239) 254-2000  
Florida Certificate of  
Authorization No.1772

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EXHIBIT NO. 1  
PORT OF THE ISLANDS  
GENERAL LOCATION MAP

PROJECT NO. :	1990.154
DATE :	05/21
SHEET NO. :	1 OF 8





NO.	DATE	REVISIONS	BY



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EXHIBIT NO. 2  
PORT OF THE ISLANDS  
COMMUNITY IMPROVEMENT DISTRICT MAP

PROJECT NO. :	1990.154
DATE :	05/21
SHEET NO. :	2 OF 8





**LEGEND**

EXISTING FIRE/IRRIGATION WATER SYSTEM ———

EXISTING POTABLE WATER SYSTEM ———

NO.	DATE	REVISIONS	BY



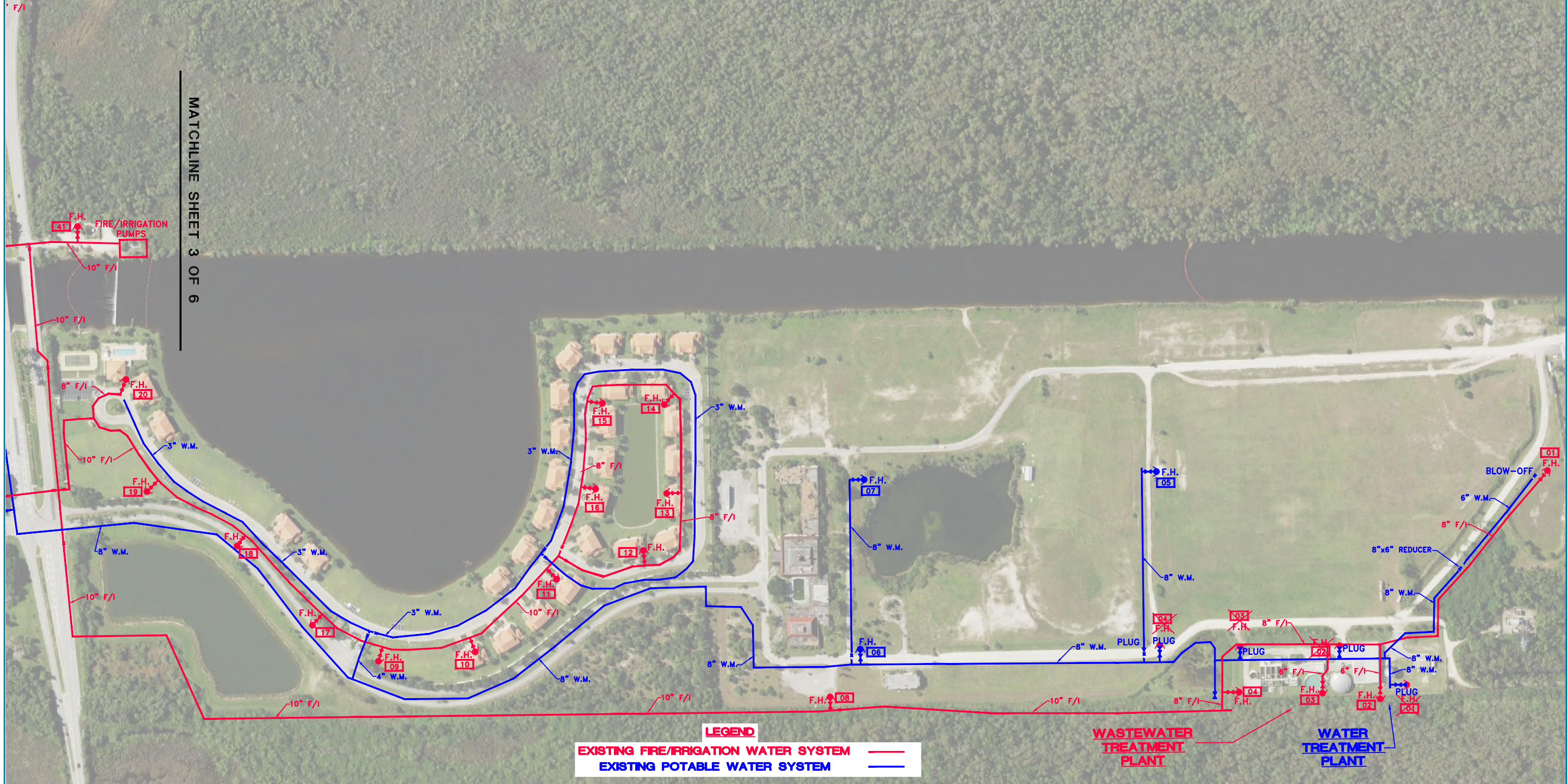
950 Encore Way  
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EXHIBIT NO. 3A  
EXISTING POTABLE WATER  
AND FIRE/IRRIGATION SYSTEMS  
SOUTH

PROJECT NO.:	1990.154
DATE:	05/21
SHEET NO.:	3 OF 8





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EXHIBIT NO. 3B  
EXISTING POTABLE WATER  
AND FIRE/IRRIGATION SYSTEMS  
NORTH

PROJECT NO. :	1990.154
DATE :	05/21
SHEET NO. :	4 OF 6





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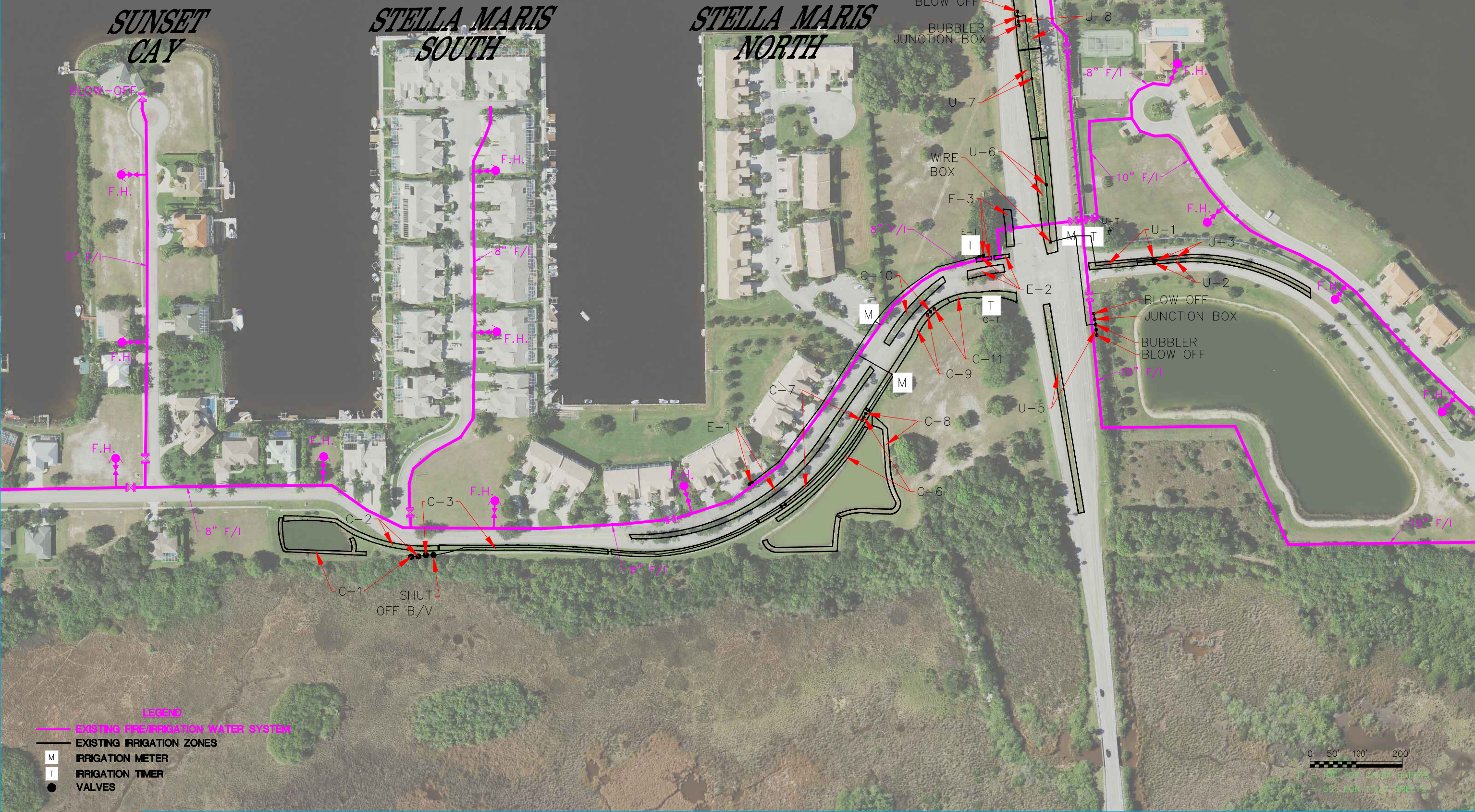
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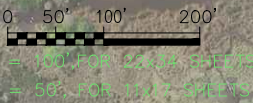
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DATE : 05/21  
SHEET NO. : 5 OF 8



FAHKA UNION CANAL



- LEGEND**
- EXISTING FIRE IRRIGATION WATER SYSTEM
  - EXISTING IRRIGATION ZONES
  - M IRRIGATION METER
  - T IRRIGATION TIMER
  - VALVES



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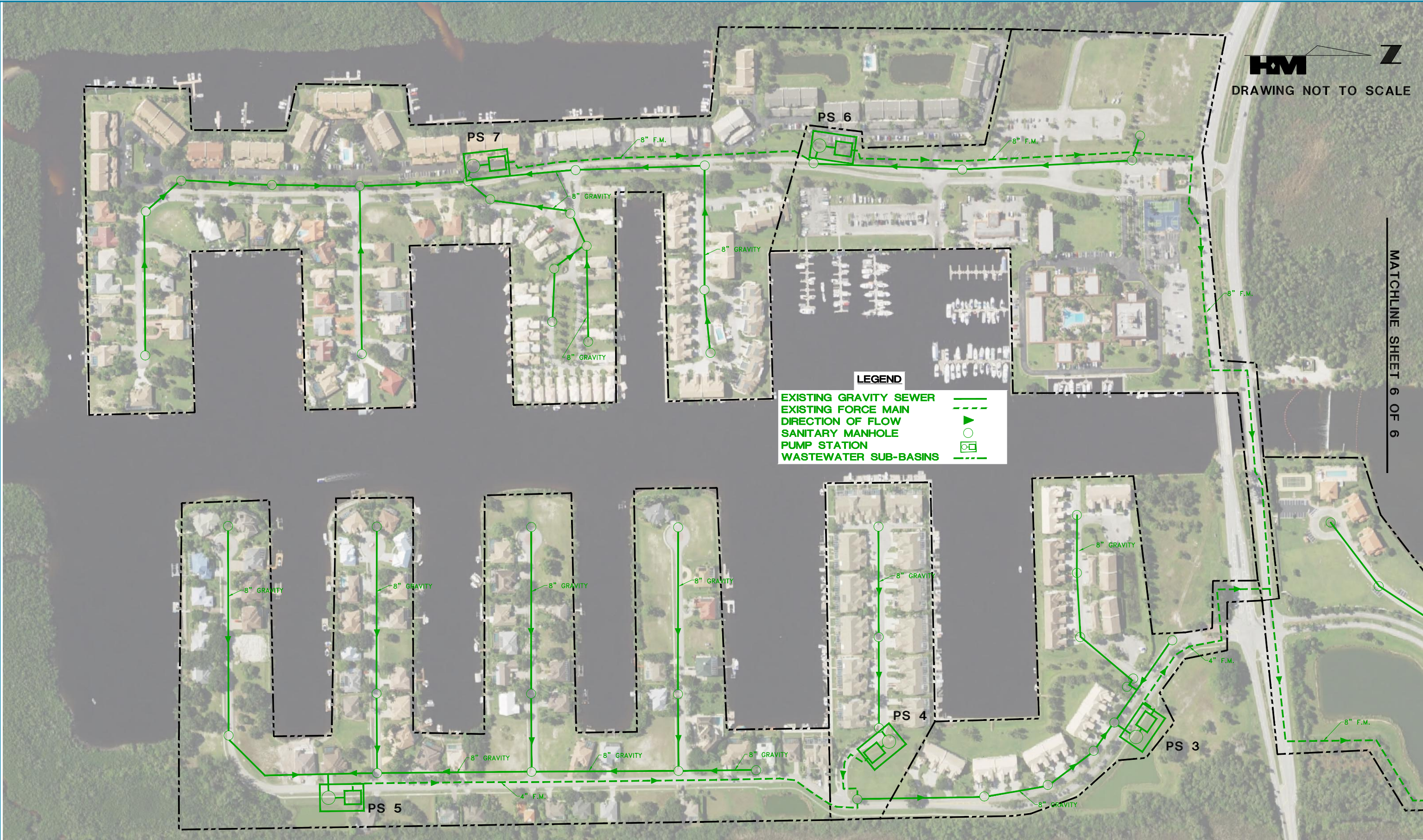
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EXHIBIT NO. 3D  
EXISTING IRRIGATION ZONES – NORTH

PROJECT NO. : 1990.154  
DATE : 05/21  
SHEET NO. : 6 OF 8

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**LEGEND**

EXISTING GRAVITY SEWER	—
EXISTING FORCE MAIN	- - -
DIRECTION OF FLOW	▶
SANITARY MANHOLE	○
PUMP STATION	□
WASTEWATER SUB-BASINS	▭

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EXHIBIT NO. 4A  
EXISTING WASTEWATER COLLECTION  
AND DISTRIBUTION SYSTEMS  
SOUTH

PROJECT NO. :	1990.154
DATE :	05/21
SHEET NO. :	7 OF 8





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EXHIBIT NO. 4B  
EXISTING WASTEWATER COLLECTION  
AND DISTRIBUTION SYSTEMS  
NORTH

PROJECT NO. :	1990.154
DATE :	05/21
SHEET NO. :	8 OF 8



## APPENDIX B

TABLE NO. 1

SUMMARY OF DEVELOPMENT AREA  
AND  
OPERATION & MAINTENANCE RESPONSIBILITY

DEVELOPMENT	APPROXIMATE YEAR DEVELOPMENT	OPERATION & MAINTENANCE RESPONSIBILITY		
		ROADWAY	DRAINAGE	UTILITIES
POI PHASE 1 (NEWPORT)	1985	CID	CID	CID
POI PHASE 2 (CAYS)	1992	CID	CID	CID
STELLA MARIS PHASE 1 (SOUTH)	1995	CID	MASTER	CID
STELLA MARIS PHASE 2 (ALONG CAYS DRIVE)	2000	CID	MASTER	CID
STELLA MARIS PHASE 3 (NORTH)	2006	CID	MASTER	CID
SUNRISE CAY	1991	CID	MASTER	CID
SUNSET CAY	2001	MASTER	MASTER	CID
EVENING STAR CAY	1991	CID	CID	CID
ORCHID COVE	2004	CID	MASTER	CID
SOUTH HOTEL		MASTER	MASTER	CID TO PROPERTY
MARINA		MASTER	MASTER	CID TO PROPERTY

Table 2: Summary of CID Potable Water Assets

Community		Purpose	Material	Diameter (in.)	Length (ft.)	8" Valves	6" Valves	4" Valves
Port of the Islands Phase 1	Union Rd. Newport Dr.	Main	PVC	8	8,500	13	2	N/A
		Main	AC	8	3,500			
		Main	PVC	6	1,600			
Port of the Islands Phase 2	Cays Dr.	Main	PVC	8	1,800	2	2	6
		Main	PVC	6	1,800			
		Main	PVC	4	200			
	Sunset Cay Road	Main	PVC	4	850			
	Venus Cay Road	Main	PVC	4	850			
	Windward Cay Road	Main	PVC	4	850			
	Wilderness Cay Road	Main	PVC	4	900			
Stella Maris Phase I (South)		Main	PVC	6	1,000	N/A	1	N/A
Stella Maris Phase III (North)		Main	PVC	4	1,150	8	N/A	N/A
Sunrise Cay		Main	PVC	6	1,100	N/A	5	N/A
Eveningstar Cay		Main	PVC	6	1,600	N/A	4	N/A
Sunset Cay		Main	PVC	4	3,400	N/A	N/A	6
Orchid Cove		Main	PVC	4	200	N/A	N/A	3
		Main	PVC	3	4,000			
Totals		Main	PVC	8	10,300	23	14	15
		Main	PVC	6	7,100			
		Main	PVC	4	8,400			
		Main	PVC	3	4,000			
		Main	AC	8	3,500			

Table 3: Summary of CID Fire and Irrigation Assets

Community		Purpose	Material	Diameter (in.)	Length (ft.)	10" Valves	8" Valves	6" Valves	Fire Hydrants
Port of the Islands Phase 1	Newport Dr. Union Rd	Main	PVC	10	6,200	3	4	N/A	25
		Main	PVC	8	6,500				
		Main	PVC	6	300				
Port of the Islands Phase 2	Cays Dr.	Main	PVC	8	3,700	N/A	9	N/A	15
	Sunset Cay Road	Main	PVC	8	750				
		Main	PVC	4	150				
	Venus Cay Road	Main	PVC	8	750				
		Main	PVC	4	150				
	Windward Cay Road	Main	PVC	8	750				
		Main	PVC	4	150				
	Wilderness Cay Road	Main	PVC	8	750				
		Main	PVC	4	150				
Stella Maris Phase I		Main	PVC	8	1,100	N/A	N/A	N/A	2
Stella Maris Phase III		Main	PVC	8	650	N/A	N/A	N/A	3
Sunrise Cay		Main	PVC	8	750	N/A	1	N/A	3
Eveningstar Cay		Main	PVC	8	1,700	N/A	2	N/A	2
Sunset Cay		Main	PVC	8	1,300	N/A	2	1	9
Orchid Cove		Main	PVC	10	1,900	N/A	2	N/A	12
		Main	PVC	8	1,800				
Totals		Main	PVC	10	8,100	3	20	1	71
		Main	PVC	8	20,500				
		Main	PVC	6	300				
		Main	PVC	4	600				



Table 4: Summary of CID Wastewater Assets

Community		Purpose	Material	Diameter (in.)	Length (ft.)	Manholes	Valves	Lift Stations
Port of the Islands Phase 1	Newport Dr. Union Rd.	Gravity Main	PVC	8	4,100	23	8	2
		Force Main	PVC	8	8,100			
		Force Main	PVC	4	1,000			
Port of the Islands Phase 2	Cays Dr.	Gravity Main	PVC	8	3,000	14	1	2
		Laterals	PVC	6	1,200			
		Force Main	PVC	4	2,400			
	Sunset Cay Road	Gravity Main	PVC	8	850	3	N/A	N/A
		Laterals	PVC	6	600			
	Venus Cay Road	Gravity Main	PVC	8	850	3	N/A	N/A
		Laterals	PVC	6	600			
	Windward Cay Road	Gravity Main	PVC	8	850	3	N/A	N/A
		Laterals	PVC	6	600			
	Wilderness Cay Road	Gravity Main	PVC	8	850	3	N/A	N/A
		Laterals	PVC	6	600			
Stella Maris Phase I (South)		Gravity Main	PVC	8	750	3	1	1
		Gravity Main	PVC	6	500			
		Laterals	PVC	6	1,500			
Stella Maris Phase II		Laterals	PVC	6	1,000	N/A	N/A	N/A
Stella Maris Phase III (North)		Gravity Main	PVC	8	700	5	N/A	N/A
		Laterals	PVC	6	350			
Sunrise Cay		Gravity Main	PVC	8	650	5	N/A	N/A
		Laterals	PVC	4	2,300			
Eveningstar Cay		Gravity Main	PVC	8	1,200	8	N/A	N/A
		Laterals	PVC	6	1,600			
Sunset Cay		Gravity Main	PVC	8	2,200	21	N/A	N/A
		Laterals	PVC	6	3,500			
Orchid Cove		Gravity Main	PVC	8	3,700	16	N/A	1
		Laterals	PVC	6	2,300			
Totals		Gravity Main	PVC	8	19,700	107	10	6
				6	500			
		Force Main	PVC	8	8,100			
				4	3,400			
		Laterals	PVC	6	13,850			
				4	2,300			

Table 5: Summary of CID Roadway Assets

Community	Road Name	Width (ft)	Length (ft)	Area (SY)	Cul de Sac Area (SY)	Total Pavement Area (SY)	Sidewalks		
							Width (ft)	Length (ft)	Area (SY)
Port of the Islands Phase 1	Newport Drive	40	2,210	9,900	N/A	23,300	N/A		
	Morning Star Cay	20	530	1,200	370				
	Newport Cay	20	410	1,000	370				
	Union Rd.	40	2,500	11,200	N/A				
Port of the Islands Phase 2	Cays Drive (North)	48	1,200	6,400	N/A	22,100	3	3,500	1,200
	Cays Drive (South)	24	2,300	6,200					
	Sunset Cay	20	800	1,750	560		3	800	300
	Venus Cay	20	800	1,750	560		3	800	300
	Windward Cay	20	800	1,750	560		3	800	300
	Wilderness Cay	20	900	2,000	560		3	900	350
Stella Maris Phase I (South)	Stella Maris Dr. S	22	900	2,200	500	3,400	N/A		
	Stella Maris Dr. S	20	300	700					
Stella Maris Phase 3 (North)	Stella Maris Dr. N	25	950	2,700	900	3,600	N/A		
Sunrise Cay	Sunrise Cay	24	1,300	3,500	300	3,800	N/A		
Eveningstar Cay	Eveningstar Cay	20	1,500	3,400	110	3,500	N/A		
Orchid Cove	Peacock Ln	26	3,700	10,700	1,100	11,800	3	3,700	1,250
Totals	Roadway		21,100			71,500			
	Sidewalk						10,500	3,700	

Table 6: Summary of CID Drainage Assets

Community		Item	Description	Measure	Unit
Port of the Islands Phase 1	Newport Dr.	Conveyance Swale		5,500	LF
		12" CMP		950	LF
		12 " PVC		150	LF
		12" ADS		50	LF
		24" x 38" RCP		150	LF
		38" x 60" RCP		200	LF
		Inlet/Catch Basin		7	EA
Port of the Islands Phase 2	Cays Dr.	Spreader Swale	Near Lake #1	50	LF
		Conveyance Swale	between lakes 2 and 3	1,400	LF
		Control Structures	1,4,5,6A-D	7	EA
		15" RCP		1,770	LF
		18" RCP		210	LF
		Inlet/Catch Basin		24	EA
	Sunset Cay	Retention Swale		2,300	LF
	Venus Cay	Retention Swale		2,100	LF
	Windward Cay	Retention Swale		2,000	LF
	Wilderness Cay	Retention Swale		2,000	LF
Eveningstar Cay		Roadside Swale		2,000	LF
				20,000	SF
				10	Avg Width
		Spreader Swale	12' width	1,600	LF
				19,200	SF
		12" CMP Driveway Culverts	17 TOTAL	500	LF
		Dry Detention		27,000	SF
		North Drainage Easement	20' easement	1,200	SF

TABLE NO. 7

CAPITAL IMPROVEMENT PLAN  
UTILITY COMPONENT

PROJECT NO.	DESCRIPTION	YEAR	BUDGET
1	Fire/Irrigation Canal Pump Station Replacement	1-5	\$350,000
2	Wastewater Filter Evaluation	1-5	\$10,000
3	Fire Hydrant Removal – North Hotel	1-5	\$2,500
4	Plant Facility Gate Replacement	1-5	\$10,000
5	Wastewater Filter Replacement/Modification	1-5	\$150,000
6	Wastewater Collection System Evaluation	1-5	\$27,500
7	Wastewater Pump Station Evaluation	1-5	\$10,000
8	Water System Isolation Valve Replacement Phase 1	1-5	\$150,000
9	Fire/Irrigation System Isolation Valve Replacement Phase 1	1-5	\$100,000
10	Wastewater Pump Station Rehabilitation	1-5	\$150,000
11	Wastewater Plant Aeration Piping Replacement	1-5	\$65,000
12	Wastewater Plant Bar Screen Replacement	1-5	\$80,000
13	Wastewater Transmission System Isolation Valve Replacement Phase 1	1-5	\$6,000
14	Wellfield AC Transmission Main Replacement	5-10	\$1,210,000
15	Well Reconditioning/Pump Replacement (Wells 1-3)	5-10	\$150,000
16	Wellfield Emergency Generator Replacement	5-10	\$70,000
17	Wastewater Collection System Rehabilitation	5-10	\$10,000
18	Plant Facility Existing Building Evaluation	5-10	\$20,000
19	Wastewater MBR Equipment Removal	5-10	\$50,000
20	Fire/Irrigation High Service Pump Replacement	5-10	\$60,000
21	Union Road AC Water Main Replacement	5-10	\$490,000
22	Orchid Cove Water Main Interconnect	5-10	\$20,000
23	Orchid Cove Fire/Irrigation Main Interconnect	5-10	\$35,000
24	Plant Facility Existing Building Demolition/Renovation	5-10	\$350,000
25	Water System Isolation Valve Replacement Phase 2	5-10	\$150,000
26	Wastewater Transmission System Isolation Valve Replacement Phase 2	5-10	\$6,000
27	Fire/Irrigation System Isolation Valve Replacement Phase 2	5-10	\$100,000
28	Water System High Service Pump Replacement	10-20	\$120,000
29	Water RO Membrane Replacement	10-20	\$60,000
30	Well Reconditioning/Pump Replacement (Wells 1-3)	10-20	\$150,000

# CAPITAL IMPROVEMENT PLAN UTILITY COMPONENT FIVE YEAR PROJECTS

[illegible]

## CAPITAL IMPROVEMENT PLAN ROADWAY & DRAINAGE COMPONENT

**1**