BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 110200-WU

WATER MANAGEMENT SERVICES, INC

IN RE: APPLICATION FOR INCREASE IN WATER RATES IN FRANKLIN COUNTY BY WATER MANAGEMENT SERVICES, INC.

TESTIMONY & EXHIBITS OF:

LES THOMAS

COM	5
APA	1
ECR	6
GCL	1
RAD	1
SRC	
ADM	
OPC	
CLK	Ch Rep

TESTIMONY OF LES THOMAS

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN DOCKET NO. 110200-WU

REGARDING THE APPLICATION OF

WATER MANAGEMENT SERVICES, INC.

FOR AN INCREASE IN RATES AND CHARGES

AND A REVISION OF

SERVICE AVAILABILITY CHARGES

Q. Please state your name and business address.

A. My name is Leslie M. Thomas. My business address is 3460 Point View Circle, Gainesville, GA 30506.

Q. Please describe your educational background and work experience.

A. Graduate Virginia Polytechnic Institute and State University 1967 - BSCE

Lt. USNR, Aviator, 1967-1971

1971-1977 Engineer Consultant

1977-PE Florida

1977-1989 VP Director of Engineering, William M. Bishop Consulting Engineers, Inc. Consultant to the City of Tallahassee Water System, prepared Master Water Plan

1989-1990 Office Manager and Senior Engineer CDM

1991-Present - Owner Les Thomas Consulting Engineers - designed 12 prisons including Liberty CI, Franklin CI

1995-2006 Consultant to WMSI - designed system improvements and maintained a zero compliant for the St. George Island Water System

2006-2011 Value Engineer, PBS&J - via VE process, VE Teams. Saved the State of Georgia $196 million dollars on 61 projects

2011-Present - Owner Les Thomas Consulting Engineers, serving WMSI, St. George Island Water System.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony is in regards to St. George Island Water System's:

1. St. George Island Water System Capacities;
2. Compliance with the PSC requirements and the St. George Island ISO requirements, the FDEP and the NWFWMD and regulations;
3. Impacts of the State of Florida Department of Transportation on its financial soundness;
4. The "2011 Water System Improvement Program" which has been publicly bid and is ready to go to construction.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring

Exhibit A

St. George Island Water System

Capital Improvement Program

Water System Hydraulic Analysis and Capacity Study

St. George Island, Florida

Exhibit B

St. George Island 2011 Water System Improvement

Bidding Documents – Bid Advertisement, Bids Received, Plans and Specifications

Q. When did you start doing engineering work for Water Management Services, Inc.?

A. Approximately March, 1994

Q. Were you involved in the project to construct a new water line on the new bridge?

A. Yes, I was the project engineer.

Q. Please describe that involvement.

A. I was retained by WMSI to design the improvements needed to maintain an un-

interrupted supply of water to the island from the mainland while building a new water main on the new bridge. I prepared the plans, obtained the permits, coordinated the work with the State's bridge contractor through successful completion of the project. I also assisted WMSI in obtaining a SRF loan to build the project from the State of Florida, Dept. of Environmental Protection.

Q. How has that project affected the financial stability of the company?

A. First, I think it is important to note that the State of Florida Dept. of Transportation proceeded with the design of the project without including WMSI. At that time, I was WMSI's consulting engineer. My first exposure to this project was at a FDOT preliminary design meeting between the FDOT, the bridge constructor and the FDOT consulting engineer who was presenting his preliminary design for a new water main on the new bridge. This action prevented WMSI from having adequate time to seek a normal rate request and to properly manage the project. WMSI had planned on constructing a new line on the existing bridges and causeway at such future time when the island growth would demand more water. Construction on the existing bridges and causeway would have been about a fourth the cost of the building on new full span bridge as construction could have been staged over many years by sections to reduce pressures and the causeway allowed for simple direct burial. Therefore actions of the State resulted in the residents of the island paying probably 4 million dollars more for something they did not need at that time.

Q. Did the utility have any choice as to construction of the new line?

A. The FDOT dictated the timing of the project, the method of construction, the duration of the construction, the material to be used and a penalty for non-compliance equal to that of the penalty for the bridge constructor for non-compliance. WMSI's only means of avoiding a catastrophic loss if there was a problem constructing the pipeline was to contract with the bridge builder to install the line thereby putting the liability back on the bridge builder.

Q. Did it have any choice as to who was going to pay for the line?

A. The FDOT told WMSI that WMSI was responsible for the pipeline, and responsible to relocate it at the desire of FDOT. It is important to note that FDOT did not move their roadway within their right of way but actually acquired another right of way and built the bridge in it. This normally would be ground for not making a utility move its property. Also, the FDOT, when making its application to Federal Highways, the Federal Department which actually paid for the new bridge, the FDOT had the opportunity to simply check a box which would have included the "relocation" as part of the project expense and not an expense to be totally born by the residents of the island. WMSI subsequently, on the behalf of its rate payers, filed suit against FDOT to correct this wrong, but the Franklin County Court decided that the islanders should pay for the line instead of the federal government.

Q. What is the current condition of the utility's water system?

A. The utility's water system is in need of expansion to meet it current needs. In 1995 I prepared a "Water System Analysis and Future System Requirements" study. That report suggested that the water system would need to be expanded between 2000 and 2005. Another impact of the new bridge was that it distracted the planning process and also absorbed all funds that would have been used to construct the improvements needed now.

Q. Did you work for Post, Buckley, Shu & Jernigan when they did the St. George Island water system evaluation filed in the case last year?

A. Yes, I was assigned to the State of Georgia, Department of Transportation to perform Value Engineering Studies of their projects.

Q. Do you agree with the PBS&J conclusion that the electrical system has reached the end of its life cycle and that it is dangerous?

A. In my opinion, yes.

Q. Do you agree with the PBS&J conclusion that the ground storage tank is structurally unsound and needs to be replaced?

A. The ground storage tank has numerous deficiencies. I believe it must be replaced.

Q. How would you describe the other components of the system?

A. The system is functioning. It appears to be in need of maintenance, improvements and expansions. The system exists in an extreme environment – salt water, salt air, 18 miles of shifting sand and periodic hurricanes and tornados. A portion of the raw water supply main which was constructed where directed by the FDOT is now exposed in the bay as the last major storm washed the land in which the pipe was lain.

Q. Is there a risk of catastrophic failure of the system if nothing is done?

A. If the existing ground storage tank failed, then yes. There is also the risk to the existing plant as it is subject to flooding and the raw water line is a single line with no alternate backup and a portion.

Q. Would that cause a prolonged water outage on St. George Island?

A. The ground storage tank and the raw water line could cause a prolonged outage.

Q. What, if anything, have you done to help prevent this?

A. In the " 2011 Water System Improvement" project, we will be constructing a new ground storage tank in a new location. This will eliminate the potential for a catastrophic failure of the existing ground storage tank without interrupting service.

Regarding the raw transmission line, I was the design engineer. My design included stainless steel quadruple connections which were embedded in the bridge during its construction by the bridge builder. The pipe is ductile iron and all joints are bolted yet offer flexible connections which will resist erosion, movement and or failure. I believe my design of the 5 miles of water main attached to the bridge will remain attached to the bridge for the life of the bridge. Its only vulnerability is where we were directed by FDOT to install the line once the bridge ended in the sands. Therefore, included in the proposed "2011 Water System Improvement" project is a parallel line installed adjacent to the existing bridge approach walls which should provide the appropriate level of protection to prevent a future catastrophic failure of the portion. Therefore, once completed I believe the risk for a catastrophic failure will be significantly reduced.

Q. In addition to reviewing the PBS&J evaluation, did you do a hydraulic analysis and capacity study?

A. Yes, I did a complete capacity study and hydraulic analysis of the system as it is now constructed and with the 2011 Water System Improvements as well as for its build-out conditions.

Q. Could you please describe those and explain why they were necessary before proceeding with the work recommended by the PBS&J evaluation?

A. The PBS& J evaluation was a detailed investigation of the condition of the water system. My efforts were to perform a capacity study to define a program with phasing to implement the necessary improvements as needed. The capacity study was necessary to ensure that an adequate supply of water would be available, that proper storage would be provided, that pumps would provide the quantity of water needed at the pressures required. The hydraulic analysis of the distribution system which was not included in the PBS&J report, was necessary to determine what improvements to the distribution system would be needed and when, to continue to provide peak hour flow demands and fire flow demands through design capacity. That analysis is essential to ensuring that improvements to the plant and system are appropriate such that upon project completion the system will perform as desired. The capacity study and hydraulic analysis revealed that additional elements were necessary to meet the system demands.

Q. Please describe what you have done, if anything, with regard to the design and construction of improvements necessary to solve the problems outlined in the PBS&J evaluation as well as your own studies?

A. I have prepared the construction plans and specifications for the 2011 Water System Improvements project as recommended by these studies and analysis.

Q. Please describe the bidding process?

A. The construction documents were publicly advertised in the Franklin County paper, the Tallahassee Democrat as well as being given to the "plans rooms", where most all contractors have access, for bids (there were over 24 entities that requested the documents). Three complete bids were received, opened and read aloud at 2 PM on August 18, 2011. I have reviewed those bids and find them to be appropriate.

Q. Do you have a copy of the bid plans and specs to offer as an exhibit?

A. Yes, they are included as Exhibit B.

Q. What were the results of the bidding process?

A. Three bids were received from three General contractors.

Q. Can you provide a copy of the three bids?

A. Yes, they are included with Exhibit B.

Q. I notice that a 5th well has been added to the PBS&J recommendations. Can you explain the need for that at this time?

A. The capacity study revealed that a 5th well is required by the NWFWMD and the FDEP to provide the required water supply redundancy.

Q. I also notice that improvements to the distribution system have been added.

Can you explain the need for these?

A. The hydraulic analysis revealed that the existing distribution system would not deliver the water system demands and fire flow demands to the west end of the water system as presently constructed. Therefore, using the hydraulic analysis program, the improvements necessary were determined.

Q. Are all these improvements, which will cost almost $4,000,000, necessary and prudent at this time?

A. The system requires that these improvements be made at this time. Each element of the project is to either reduce the high risk of catastrophic failure or to comply with the NWFWMD and or the FDEP regulations. A construction permit would not be issued without these improvements.

Q. Can you describe those projected improvements in some detail with the incremental costs?

A. Yes, please see St. George Island Capacity Study – Exhibit A

Q. How will it be possible to finance and build the necessary capital improvements?

A. A long term debt service must be obtained. This will require a rate structure which is based totally on just the actual number of active connections with a reasonable

quantity of water usage – i.e., the rates must be adjusted. This is especially true now as all users on the island may get their other water needs by simply drilling their own well and only using the utility water for drinking, bathing and toilets.

Q. Is it possible to finance and build capital improvements if all operating costs are not covered first, including a margin over and above the debt service?

A. No. To qualify for a loan to construct these required improvements, the utility will have to demonstrate that it has the income with margin to pay its operating and maintenance costs, a reserve fund for future replacement costs and to repay the loan for the required facilities.

Q. How would you compare this water utility company on St. George Island with other water utility companies?

A. It is very unique utility unlike any other. Its environment is extremely harsh on all components. The system is very spread out, being an island with its water supply on the mainland. The customers are typically vacationers or semi-retired. The water usage varies from 0 in the winter months to very high such as the 4th of July weekend when all the houses, condos, etc are full, the state park is full and daytime visitors are enjoying the beach.

Q. Do you have an opinion as to whether the utility's facilities and plant are 100%

used and useful, including the distribution lines in the Plantation which are less than 8" in diameter?

A. Yes

Q. Would you please explain?

A. The utility's plant is operating at capacity and therefore should be considered 100% used and useful. The distribution lines in the Plantation consist of 2", 6" and 8" lines. The 6" and 8" lines in this application are transmission, fire protection and service lines. At this time as additional lines are necessary to comply with the minimum water system requirements of FDEP, it is my opinion that all lines 6" or greater are 100% used and useful. The 2" lines presently serve more than 1 resident per every 100', are approximately 36 years old, and it is my opinion that they too are 100% used and useful.

Q. In addition to the design and construction engineering and the hydraulic analysis and capacity study, are you doing any other engineering work for the utility?

A. Yes

Q. Please describe that other work in some detail.

A. I am presently working on a new permit from the Northwest Florida Water

Management District for a new Consumptive Use Permit including a new well # 5; assisting in this rate case application; assisting with the FDEP SRF program; providing oversight and direction for compliance with our current NWFWMD consumptive use permit; assisting with a leak control program; assisting with a metering quality control program; assisting with the disinfection program and system flushing program; noting potential situations that need corrective actions; reviewing reports, data collection and billings; and general consulting to the utility.

Q. Is all of that ongoing engineering work necessary on a year-to-year basis?

A. Yes

Q. Is the Water Management District's permitting period ongoing on a periodic basis, or is it random?

A. The NWFWMD consumptive use permit is for a 5 year period. The permit requires numerous reports throughout the year, each are quite comprehensive and requiring month.

Q. What is a reasonable cost for those ongoing engineering services, based upon your knowledge and experience?

A. Annual Engineering Support Task Budget

Tasks	No. Hours per Month

Consumptive Use Permit Management		8
Leak Detection Program		4
System Chlorination		4
Bridge Pipeline maintenance management		2
Compliance with FDEP permit requirements		4
Quarterly Operation and maintenance on-site review and inspection		2
On-call services (see below)		4
		28
	Cost at $ 125.00/hr	$3500.00

On-call services

Review and recommendations for our flushing program

Elevated Tank recirculation

Elevated Tank maintenance contract management

Compliance with Franklin County permit requirements

Gorrie Drive water main improvements for fire flow and 4th floor pressure

Service Area upgrade from water modeling

Incorporate GIS into system mapping

System security analysis

Analysis of smart meters

Public appearances

Advice Hot Line – call anytime regarding any problems

Q. What are you charging?

A. My charge rate is $125.00 per hour plus direct expenses

Q. We have a copy of your hydraulic analysis with all the technical lingo, but can you explain it briefly in layman's terms?

A. In simple terms, the analysis shows that:

1. Somewhere in the western portion of the system we need to either: replace existing piping with bigger pipe, or parallel existing pipe, and or interconnect series of pipe, or a combination of any of these to meet our fire flow demands, now;

2. We need to increase our pumping rate at the water plant.

I use a program written by the University of Kentucky called KY Pipe. It is an industry standard to calculate flows in conduits as result of pressure changes, flow demands, frictions, variations, etc. In other words I tell it how much I need where and how much I have and where it is and how the two are connected and it tells me how much power I need to get it there.

So, I created a computer model of the St. George Island water system, showing where every line is, how long it is, what size it is, what material it is, what it probable friction is, and what it is connected to. This gives me a very accurate map of the system and I overlay a real map of the system over it to make sure it is correct.

I then tell the program how many users are connected to each pipe of the system. I then tell the program how much the water demand is for each user. I can vary the demand globally to see what happens at peak hours etc. by simply applying a multiplier to all at once.

I can then tell the program that I need say 500 gpm at the west end for a fire, and the program tells me what the pressure will be throughout the system as a result. I can then adjust the water available or change the piping network to meet the objectives.

But briefly, the hydraulic analysis tells you what you should expect to see in terms of water flow and water pressure at any place on the system when it is being operated at specific conditions – annual average flow rates to peak hour flow rates, with or without a fire demand.

Q. Can you briefly explain the correlation between a customer and an "ERC" as referenced in your report?

A. The State of Florida, Department of Environmental Protection established by rule, for consistency, that an equivalent residential connection or "ERC" by definition uses 350 gpd of water. At St. George Island, when you divide the volume of water used by the system on an annual average daily basis by the number of actual connections you consistently get approximately 350 gpd. Therefore, for planning purposes, I consider that each connection on the island is on ERC. Yes, I realize

that each user is different and used different amounts, but since our planning is for the total island, it really does not seem to make a difference in the projected demands whether you break it down further or not, the total is always the same.

Q. Where did you say you live?

A. 3460 Point View Circle, Gainesville, GA 30506

Q. What is your monthly water bill?

A. About $ 140.00

Q. In your experience, are water bills typically based on some type of average, or are they based on the cost of providing service within a specific or unique area?

A. It has been my experience that they are solely dependent on the cost to provide the service specific to the area lived in.

Q. Is there anything typical or average about a water system 5 miles out in the Gulf of Mexico that has had to construct two water supply mains across 2 bridges to the same system in an extremely harsh environment?

A. St. George Island does not appear to be representative of your typical water system.

Q. How would you describe the physical environment on St. George Island as it relates to maintenance and actual, real-world depreciation of facilities and plant?

A. The system exists in an extreme environment – salt water, salt air, 18 miles of shifting sand and periodic hurricanes and tornados. I would estimate that the service life of the system components to be one-half of that for similar components say in Tallahassee.

Q. What is your opinion of the quality of service the utility provides to its customers?

A. From my experience with the system since 1994, I do not know of any adverse comments from the users. Since we begun operating the system with constant pressure sustaining pumps, it appears that the system has functioned quite well, and has been fully reliable.

Q. What is your opinion as to the quality of the management of the utility which has been able to meet a high level of service and regulatory compliance despite the financial problems that you describe?

A. It has been my experience that the Utility has consistently provided more than adequate water service to its customers. The Utility has gone to court on the behalf of its customers regarding the new bridge. The Utility has never "gold plated" the

resources nor wasted them. The Utility has always taken the lead in trying to provide better service for its customers such as trying to make an interconnect with the East Point System and working with the Fire Dept. to provide fire protection even when not required by law. Yes, I would say the management is very good.

LES THOMAS CONSULTING ENGINEERS

Mr. Gene Brown
Water Management Services, Inc.
245 John Knox Road
Tallahassee, Fl. 32303

July 13, 2011

Re: St. George Island Water System
Capital Improvement Program
Water System Hydraulic Analysis and Capacity Study
St. George Island, Florida

Dear Mr. Brown,

Presented herein is our Water System Hydraulic Analysis and Capacity Study of the St. George Island Water System. The study presents the historic consumption trends and estimates the future water demands and needs of the St. George Island Water System. The hydraulic analysis reveals the system's capabilities and substantiates the improvements necessary for the system to meet the current and future water demands.

This study recommends that the utility proceed immediately with a Capital Improvement Program ("2011 Water System Improvements") to construct specific improvements to modify the system such that it may reasonably continue to provide the highest quality and most reliable supply of potable drinking water to the users of St. George Island through the year 2021.

Also, it is recommended that during the next five years, the actual system's growth and demands be compared to those estimated in this report to determine when a future CIP should be undertaken.

If you have any questions, or if we may be of further assistance, please feel free to call.

Sincerely,

Les M. Thomas

Les M. Thomas, P.E.,C.V.S.
President

EXHIBIT A

TABLE OF CONTENTS

1.0 SUMMARY and CONCLUSIONS

This *Water System Hydraulic Analysis and Capacity Study* of the St. George Island Water System presents the current and estimated future user water demands of the system. Additionally, this study identifies and recommends the additional facilities necessary to meet those demands and a Capital Improvement Program for implementing the recommended improvements.

1.1 Background

The Water System serving St. George Island was begun in 1974. It has grown to now serve the entire Island. The system presently has four water supply wells located in East Point on the mainland. The wells pump directly to the island water plant via 12" water main crossing the bay on the St. George Island Bridge. (This 12" water main was constructed at the expense of the utility and its 1,980 customers, at a cost in excess of $7 million as a direct result of FDOT building a new bridge in a new location and removing the existing bridge which had supported the island water supply.) The Island Water Plant performs hydrogen sulfide removal utilizing aeration and chlorination. The Plant also disinfects the water using gaseous chlorine. From the Plant, using High Service Pumps (high flow rate at high pressure), the water is delivered to the easterly end and the State Park and also to the westerly portion of the island bounded by the "Bob Sikes Cut". Numerous fire hydrants have been provided at the request of the island fire department.

1.2 Current Situation

The water system presently serves 1,980 customers, which based on their usage, also equates to 1,980 ERCs. The historical demand characteristics of these users provided the basis for estimating future demands and the system's additional needs.

The St. George Island Water System is comprised of six (6) major elements whose existing, current required* and future requirements are summarized below:

Table 1.0

Summary of the St. George Island's Capacities and Demands Expressed in ERCs - Existing, Current and Future Demands

	System Element	Exist. Capacity	Exist. Conn.	2021 Conn.
1.	Well Field - NWFWMD	2,024	1,980	2,388
	- FDEP	2,155	1,980	2,388
2.	Raw Water Transmission Main	3,565	1,980	2,388
3.	Water Treatment Plant	1,779	1,980	2,388
4.	Finish Water Storage	1,763	1,980	2,388
5.	High Service Pumping	1,351	1,980	2,388
6.	Potable Water Distribution System		1,980	2,388

2.0 RECOMMENDATIONS

2.1 "2011 Water System Improvements"

Based on the findings of this study, it is recommended that the following improvements be made to the St. George Island Water System to meet the island demands through 2021. The period 2021 was selected with a 2016 preliminary review of the operating statistics at that time in comparison to the demands projected herein. The major factor affecting the water system appears to be our economy. The island, as it is presently developed could literally overnight double its water demand with no new construction. The St. George Island Water System must balance its resources with the probability of this occurrence. Another significant factor, beyond the control of WMSI, is the NWFWMD and its policies. The district recently removed all restrictions and permitting requirements for any and all individual users on the island. This new policy now allows anyone to construct their own water supply using the existing surficial aquifer of the Island without even a permit, with no oversight. It is important to note that this aquifer's sole source of water is anticipated to only be rainfall. However, with nearly all users on the Island now having only septic tank drain fields to dispose of their wastewater, the opportunity for degradation of the ground water exists. This action on the surface may appear to offer a good use of the resource, however; as it was predicated on the basis of an overall withdrawal at a constant rate of less than 1 gpm over the gross area of the island. There is significant danger of point source over pumping bringing in salt water intrusion all over the Island which could overnight result in dead grass, dead trees, no drinking water and hundreds of former users wanting service again from WMSI. Accordingly, it is recommended that WMSI should proceed with a CIP - "2011 Water System Improvements" to implement the additions listed for each of the following elements:

Table 2.0.1

Recommended Improvements for the "2011 Water System Improvements				
	System Element	Exist. Capacity	Exist. Conn.	2021 Conn.
1.	Well Field - NWFWMD	2,024	1,980	2,388
	- FDEP	2,155	1,980	2,388
	CONSTRUCT ONE NEW 500 GPM WATER WELL (#5)			
2.	Raw Water Transmission Main	3,565	1,980	2,388
	CONSRUCT 2,300 LF OF PARALLEL 12" RAW WATER MAIN			
3.	Water Treatment Plant	1,779	1,980	2,388
	CONSTRUCT A NEW WATER TREATMENT PLANT			
4.	Finish Water Storage	1,763	1,980	2,388
	CONSTRUCT A NEW 600,000 GALLON GROUND STORAGE TANK			
5.	High Service Pumping	1,351	1,980	2,388
	CONSTRUCT FOUR (4) NEW HIGH SERVICE PUMPS			
6.	Potable Water Distribution System		1,980	2,388
	CONSTRUCT 11,171 FEET OF NEW 8", 10" AND 12" WATER MAIN			

3.0 ST. GEORGE ISLAND WATER SYSTEM CAPACITY ANALYSIS

3.1 Analysis Parameters, Definitions and Calculations

The capacity of a water system is based upon its ability to obtain, treat, and deliver water to its users. The factors and regulations which dictate the capacity/requirements of the St. George Island Water System are:

Annual Average Day Flow (AADF) or Demand -

The total quantity of water used during a year divided by 365. The norm is 100 gallons per day per person or 350 gallons per day per single family residence. This quantity is also the definition of the Florida Department of Environmental Protection **E**quivalent **R**esidential **C**onnection **ERC** = 350 gpd.

Maximum Month Demand -

The total water used expressed in gallons per day (GPD) during the maximum month of the year. The maximum month is typically 150% of the annual average day consumption.

Maximum Day Demand -

The total water used on the day of highest usage. This has been typically 175% of the annual average day consumption. This is the quantity of water that a system's supply (well field and treatment plant) must be capable of providing.

Peak Demand or Peak Hourly Demand -

The average water used expressed in terms of gallons per minute during the peak hour. This has been typically 350% of the annual average day consumption.

Storage Demand or volume required -

The Florida Department of Environmental Protection requires that the total useful finished-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25 percent of the system's maximum-day water demand.

Fire Demands - storage volume and delivery rate requirements -

The Florida Department of Environmental Protection requires that when fire protection is being provided, the system shall be sufficient to meet the water system's design fire-flow rate plus a background water demand equivalent to the maximum-day demand other than fire-flow demand for the design fire-flow duration. It must also provide storage for the total volume of water required for the fire rate and its duration plus the system's consumption demand volume.

3.1.1.1 Well Field - NWFWMD Permitted Aquifer Capacity -

The quantity of water which can be taken from the aquifer without creating adverse effects to either the aquifer, such as salt water intrusion; or to existing users, such as lowering the water table below their wells or well pumps. The Northwest Florida Water

Management District is the agency which establishes these quantities and permits the quantity to be withdrawn. It is expressed in terms relating to the annual average day, the maximum month, and the maximum day demands.

3.1.1.2. Well Field - FDEP Permitted Withdrawal Capacity -
The quantity of water which can be physically pumped from the aquifer. This is the 24 hour quantity of water which the pumps can deliver to the water plant with the largest pump out of service. Its capacity is rated in terms of annual average day and maximum day demand.

3.1.2. Raw Water Transmission Main Capacity -
The quantity of water expressed in gallons per minute, which can be transferred from the well field to the ground storage tank aerator on the Island.

3.1.3. Water Treatment Plant Capacity -
The quantity of water which can be treated in 24 hours. Its capacity is expressed in gallons per minute.

3.1.4 Finish Water Storage
The volume of potable water that must be available to the system at all times.

3.1.5 High Service Pumping
The quantity of water in gallons per minute which the water plant's high service pumps must be capable of delivering to the distribution system with the largest pump out of service.

3.1.6.1 Potable Water Distribution System Capacity
The quantity of water in gallons per minute which can be delivered throughout the system without allowing the pressure to drop below 20 psi anywhere in the system. It is rated in terms of gallons per minute and relates to the peak and fire flow demands.

3.1.6.2 Fire Flow
Currently, there is no agency, or county or state or federal governmental body, or "Standard" that requires the St. George Island Water System to provide fire protection.

However, during the St. George Island Water System Improvement project of 2002, (which was promulgated by the State of Florida Department of Transportation's removal of the SGI raw water transmission line over the Apalachicola Bay thereby disconnecting the island from the mainland) the St. George Island Fire Department requested that the PSC allow/require the SGI Water System to add improvements to their system which would result in the system having the capacity and capability to provide fire flow at either end of the island. The PSC approved and enforced this new requirement on the SGI Utility.

Accordingly, the SGI Water System must now comply with all rules and regulations for a water system providing fire flow.

3.2 CURRENT AND FUTURE DEMANDS AND SYSTEM IMPROVEMENT REQUIREMENTS

The St. George Island Water system is currently reflecting the negative effects of the country's economic condition. The system's growth rate - number of new connections, has slowed since 2005 and is now estimated 15 new connections for next year. The projections for the future demands are predicated on the growth rate slowly returning over the next 5 years to its previous norm of 56 new connections per year.

The following table presents the system demands estimated to occur between the present time and the end of this design capacity period - 2021.

Planning Year	Number of Customers (based on Usage)		Population @ 100 gpcd @3.5/conn.	AADF GPD	Max Month Avg Day 150% x AADF	Max Day @ AADF x GPD 175% Max.	Finish Water Storage Volume Gallons	Storage Finish & FF 25% 1,000 2 Hrs Gallons	Well Field Capacity Max Day with largest well out of service	HS GPM
	# Customers = #ERCs	Usage gpd		350 gpd/ERC						GPM
2011	1,980	350	6,930	693,000	1,039,500	1,212,750	303,188	423,188	1,212,750	1,842
2012	1,995	350	6,983	698,250	1,047,375	1,221,938	305,484	425,484	1,221,938	1,849
2013	2,020	350	7,070	707,000	1,060,500	1,237,250	309,313	429,313	1,237,250	1,859
2014	2,050	350	7,175	717,500	1,076,250	1,255,625	313,906	433,906	1,255,625	1,872
2015	2,085	350	7,298	729,750	1,094,625	1,277,063	319,266	439,266	1,277,063	1,887
2016	2,125	350	7,438	743,750	1,115,625	1,301,563	325,391	445,391	1,301,563	1,904
2017	2,170	350	7,595	759,500	1,139,250	1,329,125	332,281	452,281	1,329,125	1,923
2018	2,220	350	7,770	777,000	1,165,500	1,359,750	339,938	459,938	1,359,750	1,944
2019	2,276	350	7,966	796,600	1,194,900	1,394,050	348,513	468,513	1,394,050	1,968
2020	2,332	350	8,162	816,200	1,224,300	1,428,350	357,088	477,088	1,428,350	1,992
2021	2,388	350	8,358	835,800	1,253,700	1,462,650	365,663	485,663	1,462,650	2,016

Table 3.2 Current and Future Demand and Capacities

The system demands and requirements are calculated as follows:

3.2.1.1. Well Field - NWFWMD Permitted Aquifer Capacity

The St. George Island Water System is presently permitted by the Northwest Florida Water Management District to withdraw water from its well field. It can produce more water than the permitted amount, therefore the permitted amounts are the limiting factors as follows:

Average Annual Daily Rate of Withdrawal	714,000 gpd
Maximum Daily Rate of Withdrawal	1,240,000 gpd
Monthly Withdrawal Daily Rate	1,054,838 gpd.

therefore, the Aquifer ERC capacity is: $\frac{1{,}240{,}000 \text{ gallons}}{350 \text{ gallons per ERC x } 175\%}$ = **2,024 ERCs**

3.2.1.2 Well Field permitted capacity by the FDEP

There are four (4) wells operating on the mainland.

Well No. 1 has a permitted capacity of 250 gpm, or 360,000 gpd
Well No. 2 has a permitted capacity of 250 gpm, or 360,000 gpd
Well No. 3 has a permitted capacity of 500 gpm, or 720,000 gpd
Well No. 4 has a permitted capacity of 500 gpm, or 720,000 gpd
Total Capacity = 1,500 gpm or 2,160,000 gpd

However, the FDEP rates the capacity of the well field to be the total less its largest well out of service.

Therefore the rated capacity of the well field is = **1,000 gpm, or 1,440,000 gpd**

The FDEP ERC capacity is: $\frac{1{,}440{,}000 \text{ gallons}}{350 \text{ gallons per ERC x } 175\%}$ = **2,351 ERCs**

3.2.2 Raw Water Transmission Main Capacity

There is a twelve (12) inch water main connecting the wells to the water plant on the island. The existing line will transport up to 1,600 gpm, or 2,304,000 gallons per day to the island.

$$\frac{2{,}304{,}000 - 120{,}000 \text{ (for fire) gallons}}{175\% \text{ x } 350 \text{ gpd/ERC}} = \textbf{3,565 ERCs}$$

3.2.3. Water Treatment Plant

The water treatment plant provides for the removal of Hydrogen Sulfide and adds chlorine to the system. The plant's aerator is capable of handling raw water at a rate of 1,000 gallons per minute. Therefore,

Water Treatment Capacity = $\frac{\{840 \text{ gpm} - 83 \text{ gpm (fire)}\} \text{ x } 1440 \text{ min/day}}{175\% \text{ x } 350 \text{ gpd/ERC}}$ = **1779 ERCs**

3.2.4. Finish Water Storage

The Finish Water Storage is the volume required to assure an adequate quantity of water during peak pumping periods and also to have a set aside volume always available for fire protection. Finish Water Storage Capacity = 25% of the Max Day Quantity plus the fire flow demand

Existing = 290,000 (ground Storage) + 150,000 (elevated Storage)
Existing = 440,000 gallons

Finish Water Storage Capacity = $\frac{440{,}000 \text{ gal} - 120{,}000 \text{ (fire demand)}}{25\% \times 175\% \times 350 \text{ gpd/ERC}}$ = **2,089 ERCs**

3.2.5. High Service Pumping

The capacity of the existing high service pumps are:

#1	650 gpm
#2	800 gpm
#3	500 gpm

Total HS Pumps = 1,950 gpm; however, DEP rates the plant with the largest pump off line or 1,150 gpm, therefore the HS Pump Capacity is:

Peak Hour = $\frac{1{,}150 \text{ gpm} \times 1440 \text{ min/day}}{350\% \times 350 \text{ gpd/ERC}}$ = **1,351 ERCs**

Fire Flow = $\frac{1{,}150 - 500 \text{ gpm (for fire)} \times 1440 \text{ min/day}}{175\% \times 350 \text{ gpd/ERC}}$ = **1,528 ERCs**

= $\frac{1{,}150 - 1{,}000 \text{ gpm (for fire)}}{175\% \times 350 \text{ gpd/ERC}}$ = **352 ERCs**

3.2.6. Potable Water Distribution Capacity - Domestic and Fire Flow Demand

During 2010, the State of Florida Department of Environmental Protection modified its water system rules requiring that a water system now provide the fire demands and 100% of the maximum day demand. (The previous rule required fire demand and 50% of the maximum day demand).

Additionally, the utility is working with the St. George Island Fire to provide 500 gpm from two fire hydrants for a total of 1,000 gpm in the commercial area between 3rd Street East and 3rd Street West.

To determine the water distribution system's improvements required in response to these new requirements, a hydraulic analysis was performed. The analysis performed are included in the appendix of this report. There is one analysis for each condition - fire at the west end, fire at the east end, fire downtown and maximum day peak hourly demand.

To enable the distribution system to comply with these demands for the design capacity, it is necessary that 11,171 feet of new 8", 10" and 12" Water Main be constructed.

4.0 ST. GEORGE ISLAND WATER SYSTEM HYDRAULIC ANALYSIS

4.1 Analysis Parameters and Calculations

The Hydraulic Analysis was prepared by creating a computerized map of the of the existing water system, identifying all piping, sizes, materials and approximate elevations. Additionally, all of the users and their demands were located on the map. This information was then entered into the Kentucky Pipe Hydraulics program which enabled various analysis to be performed. An analysis was performed for each design condition - peak hourly flow, maximum day demand with 500 gpm fire demand at either end, and maximum day demand with a 1,000 gpm fire in the commercial area. A portion of the results demonstrating the capacity of the system follows: (Full data is available at the offices of WMSI)

Water Management Services, INC. St. George Island Water System Capacity Analysis - 2021 Max Day w/ 500 gpm fire at Bob Sikes Cut						
Planning Year	Customers Usage based # Customers = #ERCs	AADF GPD 350 gpd/ERC	Max Month Avg Day 150% x AADF	Max Day @ AADF x GPD 175%	HS GPM PEAK HR AADF X GPM	H.S. 500 fire HS GPM Max Day GPM
2021	2,388	835,800	1,253,700	1,462,650	2,031	1,516

Fire Demand is at Node number J-459

N O D E R E S U L T S West End Fire Flow 2021 Node J-459

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
J- 1		0.00	200.13	10.00	190.13	82.39
J- 2		0.63	200.11	10.00	190.11	82.38
J- 3		1.26	196.94	10.00	186.94	81.01
J- 4		11.13	199.30	10.00	189.30	82.03
J- 5		21.42	196.98	10.00	186.98	81.03
J- 6		0.84	193.09	10.00	183.09	79.34
J- 7		3.36	193.08	10.00	183.08	79.33
J- 8		3.36	197.09	10.00	187.09	81.07
J- 9		10.50	67.74	10.00	57.74	25.02
J- 10		2.52	193.69	10.00	183.69	79.60
J- 11		2.10	199.70	10.00	189.70	82.21
J- 12		4.83	178.09	10.00	168.09	72.84
J- 13		3.57	193.23	10.00	183.23	79.40
J- 14		9.87	188.94	10.00	178.94	77.54
J- 15		5.88	178.10	10.00	168.10	72.84
J- 16		5.67	188.94	10.00	178.94	77.54
J- 17		5.25	188.29	10.00	178.29	77.26
J- 18		1.47	191.48	10.00	181.48	78.64
J- 19		2.31	190.20	10.00	180.20	78.09
J- 20		3.78	190.20	10.00	180.20	78.09
J- 21		0.84	190.13	10.00	180.13	78.05
J- 22		2.73	189.66	10.00	179.66	77.85
J- 23		9.24	188.46	10.00	178.46	77.33
J- 24		0.63	187.39	10.00	177.39	76.87
J- 25		9.24	186.98	10.00	176.98	76.69
J- 26		3.99	184.96	10.00	174.96	75.82
J- 27		3.15	184.58	10.00	174.58	75.65
J- 28		1.47	186.25	10.00	176.25	76.38

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J- 29		2.52	185.21	10.00	175.21	75.92
J- 30		1.05	186.47	10.00	176.47	76.47
J- 31		5.88	178.10	10.00	168.10	72.84
J- 32		6.09	187.19	10.00	177.19	76.78
J- 33		7.77	168.92	10.00	158.92	68.87
J- 34		0.00	200.39	10.00	190.39	82.50
J- 35		3.15	169.85	10.00	159.85	69.27
J- 36		1.68	180.90	10.00	170.90	74.06
J- 37		0.00	178.10	10.00	168.10	72.84
J- 38		6.93	165.04	10.00	155.04	67.19
J- 39		11.55	168.02	10.00	158.02	68.48
J- 40		11.13	157.68	10.00	147.68	63.99
J- 41		2.73	157.67	10.00	147.67	63.99
J- 42		1.47	154.21	10.00	144.21	62.49
J- 43		3.36	161.01	10.00	151.01	65.44
J- 44		5.46	161.01	10.00	151.01	65.44
J- 45		2.94	161.00	10.00	151.00	65.43
J- 46		6.09	157.83	10.00	147.83	64.06
J- 47		8.19	160.95	10.00	150.95	65.41
J- 48		2.94	160.98	10.00	150.98	65.43
J- 49		3.57	155.11	10.00	145.11	62.88
J- 50		3.15	156.85	10.00	146.85	63.63
J- 51		7.35	155.54	10.00	145.54	63.07
J- 52		1.26	150.71	10.00	140.71	60.98
J- 53		0.00	155.54	10.00	145.54	63.07
J- 54		6.30	155.19	10.00	145.19	62.92
J- 55		3.15	151.40	10.00	141.40	61.27
J- 56		2.31	151.40	10.00	141.40	61.27
J- 57		0.00	200.31	10.00	190.31	82.47
J- 58		2.73	149.08	10.00	139.08	60.27
J- 60		2.10	145.23	10.00	135.23	58.60
J- 61		0.00	200.40	10.00	190.40	82.50
J- 62		4.62	145.23	10.00	135.23	58.60
J- 63		2.73	145.23	10.00	135.23	58.60
J- 64		0.84	145.23	10.00	135.23	58.60
J- 65		0.00	200.39	10.00	190.39	82.50
J- 66		1.26	145.25	10.00	135.25	58.61
J- 67		1.89	140.27	10.00	130.27	56.45
J- 68		1.05	140.27	10.00	130.27	56.45
J- 69		2.52	139.63	10.00	129.63	56.17
J- 71		0.00	199.19	10.00	189.19	81.98
J- 72		3.36	139.63	10.00	129.63	56.17
J- 73		0.84	138.80	10.00	128.80	55.81
J- 74		2.10	138.80	10.00	128.80	55.81
J- 75		0.00	198.10	10.00	188.10	81.51
J- 76		2.94	138.80	10.00	128.80	55.81
J- 77		0.84	137.89	10.00	127.89	55.42
J- 78		2.10	137.89	10.00	127.89	55.42
J- 79		0.84	198.04	10.00	188.04	81.49
J- 80		3.15	137.89	10.00	127.89	55.42
J- 81		2.31	137.39	10.00	127.39	55.20
J- 82		0.84	137.39	10.00	127.39	55.20
J- 83		0.00	198.04	10.00	188.04	81.49
J- 84		2.10	138.39	10.00	128.39	55.64

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J- 85		2.10	138.39	10.00	128.39	55.64
J- 86		0.00	137.89	10.00	127.89	55.42
J- 87		0.42	136.83	10.00	126.83	54.96
J- 88		0.84	136.83	10.00	126.83	54.96
J- 89		0.21	136.83	10.00	126.83	54.96
J- 90		0.42	136.83	10.00	126.83	54.96
J- 91		2.10	124.17	10.00	114.17	49.47
J- 92		4.41	122.28	10.00	112.28	48.65
J- 93		0.00	197.51	10.00	187.51	81.25
J- 94		0.84	122.28	10.00	112.28	48.66
J- 95		3.78	119.64	10.00	109.64	47.51
J- 96		0.63	123.27	10.00	113.27	49.09
J- 97		0.21	119.65	10.00	109.65	47.51
J- 98		0.00	143.92	10.00	133.92	58.03
J- 99		3.78	119.67	10.00	109.67	47.52
J-100		0.00	120.37			
J-101		0.00	123.30	10.00	113.30	49.10
J-102		1.47	119.44	10.00	109.44	47.42
J-103		4.41	118.28	10.00	108.28	46.92
J-104		1.89	102.41	10.00	92.41	40.04
J-105		3.78	114.58	10.00	104.58	45.32
J-106		1.89	114.54	10.00	104.54	45.30
J-107		1.05	114.54	10.00	104.54	45.30
J-108		3.78	111.35	10.00	101.35	43.92
J-109		1.26	111.35	10.00	101.35	43.92
J-110		1.68	108.30	10.00	98.30	42.59
J-111		2.52	108.29	10.00	98.29	42.59
J-112		0.63	105.25	10.00	95.25	41.27
J-113		2.52	105.25	10.00	95.25	41.28
J-114		1.05	108.30	10.00	98.30	42.59
J-115		0.63	102.41	10.00	92.41	40.04
J-116		0.84	102.41	10.00	92.41	40.04
J-117		1.68	102.41	10.00	92.41	40.04
J-118		1.05	99.70	10.00	89.70	38.87
J-119		0.84	102.41	10.00	92.41	40.04
J-120		2.31	99.69	10.00	89.69	38.87
J-121		0.84	96.62	10.00	86.62	37.54
J-122		3.57	96.62	10.00	86.62	37.54
J-123		0.00	93.37	10.00	83.37	36.13
J-124		5.25	93.38	10.00	83.38	36.13
J-125		2.31	92.38	10.00	82.38	35.70
J-126		3.36	89.21	10.00	79.21	34.33
J-127		2.31	92.37	10.00	82.37	35.70
J-128		3.36	89.21	10.00	79.21	34.33
J-129		0.21	90.07	10.00	80.07	34.70
J-130		0.00	85.87	10.00	75.87	32.88
J-131		6.51	90.03	10.00	80.03	34.68
J-132		1.26	85.51	10.00	75.51	32.72
J-133		7.35	85.90	10.00	75.90	32.89
J-134		1.26	85.51	10.00	75.51	32.72
J-135		1.68	68.28	10.00	58.28	25.26
J-136		0.00	83.01	10.00	73.01	31.64
J-137		7.14	82.97	10.00	72.97	31.62
J-138		0.84	80.63	10.00	70.63	30.61

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-139		0.00	83.01	10.00	73.01	31.64
J-140		0.84	80.63	10.00	70.63	30.61
J-141		0.00	79.28	10.00	69.28	30.02
J-142		5.67	79.28	10.00	69.28	30.02
J-143		1.47	77.54	10.00	67.54	29.27
J-144		0.00	77.55	10.00	67.55	29.27
J-145		0.00	76.09	10.00	66.09	28.64
J-146		5.67	76.09	10.00	66.09	28.64
J-147		1.68	73.91	10.00	63.91	27.69
J-148		4.83	69.77	10.00	59.77	25.90
J-149		2.52	71.71	10.00	61.71	26.74
J-150		2.52	71.71	10.00	61.71	26.74
J-151		6.72	73.01	10.00	63.01	27.30
J-152		0.00	73.03	10.00	63.03	27.31
J-153		0.00	73.91	10.00	63.91	27.69
J-154		0.00	69.77	10.00	59.77	25.90
J-155		1.26	65.64	10.00	55.64	24.11
J-156		1.26	65.64	10.00	55.64	24.11
J-157		0.00	65.14	10.00	55.14	23.89
J-158		0.21	67.82	10.00	57.82	25.05
J-159		0.42	63.37	10.00	53.37	23.13
J-160		10.29	63.39	10.00	53.39	23.13
J-161		1.05	63.53	10.00	53.53	23.20
J-162		1.05	67.00	10.00	57.00	24.70
J-163		2.52	64.02	10.00	54.02	23.41
J-164		1.68	64.02	10.00	54.02	23.41
J-165		0.00	64.24	10.00	54.24	23.50
J-166		3.36	196.17	10.00	186.17	80.68
J-167		1.47	195.44	10.00	185.44	80.36
J-168		0.84	198.03	10.00	188.03	81.48
J-169		1.26	196.87	10.00	186.87	80.98
J-170		0.84	197.60	10.00	187.60	81.30
J-171		0.63	197.59	10.00	187.59	81.29
J-172		0.21	199.21	10.00	189.21	81.99
J-173		2.10	198.43	10.00	188.43	81.65
J-174		1.89	198.12	10.00	188.12	81.52
J-175		1.05	198.10	10.00	188.10	81.51
J-176		0.00	198.12	10.00	188.12	81.52
J-177		0.84	198.11	10.00	188.11	81.51
J-178		2.31	198.24	10.00	188.24	81.57
J-179		1.68	198.13	10.00	188.13	81.52
J-180		14.49	197.38	10.00	187.38	81.20
J-181		4.20	194.90	10.00	184.90	80.12
J-182		0.42	194.89	10.00	184.89	80.12
J-183		13.86	193.91	10.00	183.91	79.69
J-184		3.36	194.26	10.00	184.26	79.85
J-185		8.40	193.95	10.00	183.95	79.71
J-186		0.00	194.55	10.00	184.55	79.97
J-187		0.21	193.18	10.00	183.18	79.38
J-188		4.20	193.18	10.00	183.18	79.38
J-189		0.00	191.85	10.00	181.85	78.80
J-190		5.04	193.95	10.00	183.95	79.71
J-191		6.30	191.85	10.00	181.85	78.80
J-192		6.09	194.90	10.00	184.90	80.12

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-193		4.20	193.29	10.00	183.29	79.43
J-194		0.63	193.27	10.00	183.27	79.42
J-195		2.52	195.61	10.00	185.61	80.43
J-196		2.94	197.29	10.00	187.29	81.16
J-197		5.67	197.51	10.00	187.51	81.25
J-198		0.84	197.48	10.00	187.48	81.24
J-199		1.89	197.37	10.00	187.37	81.19
J-200		3.15	189.92	10.00	179.92	77.96
J-201		0.84	193.82	10.00	183.82	79.66
J-202		1.47	189.96	10.00	179.96	77.98
J-203		1.47	189.96	10.00	179.96	77.98
J-204		3.57	189.96	10.00	179.96	77.98
J-205		12.60	189.94	10.00	179.94	77.98
J-206		1.26	190.33	10.00	180.33	78.14
J-207		12.60	189.95	10.00	179.95	77.98
J-208		1.68	190.33	10.00	180.33	78.14
J-209		0.63	190.33	10.00	180.33	78.14
J-210		0.63	190.33	10.00	180.33	78.14
J-211		0.84	190.60	10.00	180.60	78.26
J-212		1.68	190.60	10.00	180.60	78.26
J-213		0.42	190.60	10.00	180.60	78.26
J-214		0.42	190.60	10.00	180.60	78.26
J-215		1.05	67.00	10.00	57.00	24.70
J-216		2.31	73.02	10.00	63.02	27.31
J-217		1.26	73.02	10.00	63.02	27.31
J-218		1.05	73.02	10.00	63.02	27.31
J-219		2.73	73.91	10.00	63.91	27.69
J-220		1.05	73.91	10.00	63.91	27.69
J-221		2.52	76.09	10.00	66.09	28.64
J-222		1.26	76.09	10.00	66.09	28.64
J-223		1.26	76.09	10.00	66.09	28.64
J-224		3.15	77.54	10.00	67.54	29.27
J-225		1.68	77.54	10.00	67.54	29.27
J-226		1.68	79.28	10.00	69.28	30.02
J-227		1.26	79.28	10.00	69.28	30.02
J-228		0.42	79.28	10.00	69.28	30.02
J-229		0.84	83.01	10.00	73.01	31.64
J-230		0.42	83.01	10.00	73.01	31.64
J-231		0.42	83.07	10.00	73.07	31.66
J-232		0.63	85.87	10.00	75.87	32.88
J-233		0.63	85.82	10.00	75.82	32.85
J-234		1.68	90.05	10.00	80.05	34.69
J-235		1.68	90.05	10.00	80.05	34.69
J-236		1.89	90.06	10.00	80.06	34.69
J-237		3.36	91.29	10.00	81.29	35.22
J-238		3.99	93.37	10.00	83.37	36.13
J-239		2.31	93.37	10.00	83.37	36.13
J-240		0.84	85.88	10.00	75.88	32.88
J-241		0.84	85.88	10.00	75.88	32.88
J-242		1.47	145.18	10.00	135.18	58.58
J-243		0.84	96.62	10.00	86.62	37.54
J-244		0.63	145.17	10.00	135.17	58.57
J-245		0.84	145.16	10.00	135.16	58.57
J-246		0.00	147.54	10.00	137.54	59.60

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-247		0.00	145.25	10.00	135.25	58.61
J-248		0.21	145.24	10.00	135.24	58.60
J-249		0.21	145.24	10.00	135.24	58.60
J-250		0.00	145.24	10.00	135.24	58.60
J-251		3.57	150.15	10.00	140.15	60.73
J-252		1.47	150.43	10.00	140.43	60.85
J-253		2.73	150.71	10.00	140.71	60.98
J-254		0.84	189.96	10.00	179.96	77.98
J-255		1.05	154.27	10.00	144.27	62.52
J-256		0.42	154.26	10.00	144.26	62.51
J-257		2.73	155.98	10.00	145.98	63.26
J-258		1.05	155.91	10.00	145.91	63.23
J-259		2.31	157.63	10.00	147.63	63.97
J-260		0.00	194.75	10.00	184.75	80.06
J-261		3.15	153.56	10.00	143.56	62.21
J-262		5.25	161.01	10.00	151.01	65.44
J-263		2.94	160.81	10.00	150.81	65.35
J-264		1.68	162.92	10.00	152.92	66.26
J-265		0.84	160.93	10.00	150.93	65.40
J-266		4.20	165.43	10.00	155.43	67.35
J-267		1.89	169.81	10.00	159.81	69.25
J-268		0.00	169.80	10.00	159.80	69.25
J-269		3.36	169.80	10.00	159.80	69.25
J-270		1.47	169.73	10.00	159.73	69.22
J-271		5.25	184.79	10.00	174.79	75.74
J-272		2.10	184.79	10.00	174.79	75.74
J-273		4.41	184.02	10.00	174.02	75.41
J-274		0.42	184.78	10.00	174.78	75.74
J-275		2.73	187.61	10.00	177.61	76.96
J-276		2.73	187.28	10.00	177.28	76.82
J-277		0.21	184.87	10.00	174.87	75.78
J-278		0.00	191.63	10.00	181.63	78.70
J-279		2.52	189.76	10.00	179.76	77.90
J-280		0.84	189.76	10.00	179.76	77.89
J-281		1.26	190.54	10.00	180.54	78.23
J-282		0.84	190.22	10.00	180.22	78.09
J-283		0.84	199.30	10.00	189.30	82.03
J-284		0.21	193.69	10.00	183.69	79.60
J-285		2.10	199.70	10.00	189.70	82.20
J-286		12.81	199.22	10.00	189.22	81.99
J-287		0.00	199.22	10.00	189.22	81.99
J-288		0.00	197.60	10.00	187.60	81.30
J-289		0.21	193.38	10.00	183.38	79.46
J-290		0.21	193.38	10.00	183.38	79.46
J-291		1.05	193.07	10.00	183.07	79.33
J-292		1.26	193.07	10.00	183.07	79.33
J-293		1.05	192.79	10.00	182.79	79.21
J-294		1.05	192.79	10.00	182.79	79.21
J-295		1.68	192.22	10.00	182.22	78.96
J-296		1.68	192.22	10.00	182.22	78.96
J-297		1.68	191.46	10.00	181.46	78.63
J-298		1.68	191.46	10.00	181.46	78.63
J-299		1.89	191.20	10.00	181.20	78.52
J-300		1.68	191.20	10.00	181.20	78.52

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-301		1.68	191.34	10.00	181.34	78.58
J-302		1.68	191.34	10.00	181.34	78.58
J-303		3.36	191.72	10.00	181.72	78.74
J-304		3.36	191.72	10.00	181.72	78.74
J-305		2.10	191.03	10.00	181.03	78.44
J-306		1.68	191.03	10.00	181.03	78.44
J-307		3.36	190.71	10.00	180.71	78.31
J-308		1.68	190.71	10.00	180.71	78.31
J-309		1.68	190.81	10.00	180.81	78.35
J-310		1.68	190.81	10.00	180.81	78.35
J-311		1.68	190.95	10.00	180.95	78.41
J-312		1.68	190.95	10.00	180.95	78.41
J-313		1.47	190.69	10.00	180.69	78.30
J-314		1.47	190.69	10.00	180.69	78.30
J-315		2.31	190.64	10.00	180.64	78.28
J-316		2.31	190.64	10.00	180.64	78.28
J-317		0.00	190.76	10.00	180.76	78.33
J-318		1.68	190.73	10.00	180.73	78.32
J-319		0.21	190.42	10.00	180.42	78.18
J-320		0.21	190.42	10.00	180.42	78.18
J-321		0.21	190.52	10.00	180.52	78.22
J-322		0.21	190.52	10.00	180.52	78.22
J-323		2.94	190.19	10.00	180.19	78.08
J-324		0.84	190.19	10.00	180.19	78.08
J-325		3.15	190.10	10.00	180.10	78.04
J-326		2.52	190.14	10.00	180.14	78.06
J-327		2.31	189.93	10.00	179.93	77.97
J-328		1.68	189.93	10.00	179.93	77.97
J-329		1.68	189.92	10.00	179.92	77.96
J-330		5.88	189.96	10.00	179.96	77.98
J-331		0.84	194.32	10.00	184.32	79.87
J-332		1.89	191.86	10.00	181.86	78.81
J-333		0.21	191.78	10.00	181.78	78.77
J-334		1.68	191.86	10.00	181.86	78.81
J-335		2.52	192.07	10.00	182.07	78.90
J-336		2.10	192.07	10.00	182.07	78.90
J-337		1.47	192.73	10.00	182.73	79.18
J-338		1.05	192.73	10.00	182.73	79.18
J-339		2.10	193.20	10.00	183.20	79.39
J-340		1.68	193.20	10.00	183.20	79.39
J-341		0.00	193.07	10.00	183.07	79.33
J-342		0.42	194.32	10.00	184.32	79.87
J-343		1.68	191.50	10.00	181.50	78.65
J-344		1.05	191.49	10.00	181.49	78.64
J-345		0.84	191.36	10.00	181.36	78.59
J-346		0.42	191.63	10.00	181.63	78.71
J-347		1.05	191.16	10.00	181.16	78.50
J-348		2.31	190.76	10.00	180.76	78.33
J-349		1.68	190.64	10.00	180.64	78.28
J-350		0.42	190.56	10.00	180.56	78.24
J-351		0.42	190.70	10.00	180.70	78.30
J-352		0.00	190.45	10.00	180.45	78.20
J-353		0.63	190.57	10.00	180.57	78.25
J-354		0.84	190.47	10.00	180.47	78.20

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-355		0.63	190.53	10.00	180.53	78.23
J-356		1.05	190.38	10.00	180.38	78.17
J-357		0.84	190.37	10.00	180.37	78.16
J-358		1.05	190.31	10.00	180.31	78.13
J-359		1.05	190.30	10.00	180.30	78.13
J-360		2.52	190.18	10.00	180.18	78.08
J-361		0.84	190.08	10.00	180.08	78.03
J-362		2.52	190.10	10.00	180.10	78.04
J-363		1.68	190.12	10.00	180.12	78.05
J-364		8.19	199.17	10.00	189.17	81.98
J-365		5.04	199.17	10.00	189.17	81.98
J-366		7.77	198.39	10.00	188.39	81.64
J-367		1.89	198.39	10.00	188.39	81.64
J-368		29.82	197.15	10.00	187.15	81.10
J-369		8.82	197.15	10.00	187.15	81.10
J-370		2.10	128.03	10.00	118.03	51.15
J-371		1.26	128.03	10.00	118.03	51.15
J-372		1.47	132.41	10.00	122.41	53.05
J-373		0.00	189.96	10.00	179.96	77.98
J-374		6.30	189.94	10.00	179.94	77.97
J-375		6.30	189.94	10.00	179.94	77.97
J-376		6.30	189.94	10.00	179.94	77.98
J-377		6.30	189.94	10.00	179.94	77.98
J-378		0.21	191.78	10.00	181.78	78.77
J-379		1.05	136.58	10.00	126.58	54.85
J-380		2.31	137.39	10.00	127.39	55.20
J-381		0.00	136.71	10.00	126.71	54.91
J-382		0.00	120.72	10.00	110.72	47.98
J-383		0.00	123.30	10.00	113.30	49.10
J-384		3.99	119.65	10.00	109.65	47.51
J-385		0.00	119.43	10.00	109.43	47.42
J-386		1.05	119.54	10.00	109.54	47.47
J-387		0.00	119.50	10.00	109.50	47.45
J-388		0.00	119.67	10.00	109.67	47.52
J-389		0.00	120.72	10.00	110.72	47.98
J-390		1.89	114.54	10.00	104.54	45.30
J-391		3.36	63.64	10.00	53.64	23.24
J-392		0.21	114.54	10.00	104.54	45.30
J-393		1.47	63.64	10.00	53.64	23.24
J-394		1.47	124.55	10.00	114.55	49.64
J-395		1.26	125.80	10.00	115.80	50.18
J-396		0.00	124.55	10.00	114.55	49.64
J-397		0.00	124.37	10.00	114.37	49.56
J-398		0.00	137.39	10.00	127.39	55.20
J-399		0.00	137.89	10.00	127.89	55.42
J-400		0.00	138.80	10.00	128.80	55.81
J-401		0.00	139.63	10.00	129.63	56.17
J-402		0.00	145.23	10.00	135.23	58.60
J-403		0.21	139.63			
J-404		0.21	145.23			
J-405		3.78	154.45	10.00	144.45	62.60
J-406		0.00	154.23	10.00	144.23	62.50
J-407		0.00	200.29	10.00	190.29	82.46
J-408		0.00	200.39	10.00	190.39	82.50

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-409		0.00	200.16	10.00	190.16	82.40
J-410		0.00	200.29	10.00	190.29	82.46
J-411		0.00	200.37	10.00	190.37	82.49
J-412		0.00	198.26	10.00	188.26	81.58
J-413		0.00	200.39	10.00	190.39	82.50
J-414		1.47	120.63	10.00	110.63	47.94
J-415		4.62	166.24	10.00	156.24	67.70
J-416		0.00	185.21	10.00	175.21	75.92
J-417		0.00	166.24	10.00	156.24	67.70
J-418		2.31	184.85	10.00	174.85	75.77
J-419		0.00	184.85	10.00	174.85	75.77
J-420		1.26	190.10	10.00	180.10	78.04
J-421		0.00	193.69	10.00	183.69	79.60
J-422		0.00	195.61	10.00	185.61	80.43
J-423		0.84	193.38	10.00	183.38	79.46
J-424		0.63	193.38	10.00	183.38	79.46
J-425		0.42	193.38	10.00	183.38	79.46
J-426		0.21	193.38	10.00	183.38	79.46
J-427		0.00	193.07	10.00	183.07	79.33
J-428		0.21	193.07	10.00	183.07	79.33
J-429		0.63	194.48	10.00	184.48	79.94
J-430		0.63	194.46	10.00	184.46	79.93
J-431		0.21	194.32	10.00	184.32	79.87
J-432		0.00	194.32	10.00	184.32	79.87
J-433		0.00	192.73	10.00	182.73	79.18
J-434		0.00	193.07	10.00	183.07	79.33
J-435		0.00	192.73	10.00	182.73	79.18
J-436		0.00	192.07	10.00	182.07	78.90
J-437		0.00	192.07	10.00	182.07	78.90
J-438		0.00	191.78	10.00	181.78	78.77
J-439		0.00	191.78	10.00	181.78	78.77
J-440		0.00	191.46	10.00	181.46	78.63
J-441		0.00	191.46	10.00	181.46	78.63
J-442		0.00	190.64	10.00	180.64	78.28
J-443		0.00	190.64	10.00	180.64	78.28
J-444		0.00	190.81	10.00	180.81	78.35
J-445		0.00	190.81	10.00	180.81	78.35
J-446		0.00	191.20	10.00	181.20	78.52
J-447		0.00	191.20	10.00	181.20	78.52
J-448		1.05	191.63	10.00	181.63	78.71
J-449		1.05	191.37	10.00	181.37	78.59
J-450		1.47	191.21	10.00	181.21	78.52
J-451		2.10	191.16	10.00	181.16	78.50
J-452		1.05	190.70	10.00	180.70	78.30
J-453		1.05	190.58	10.00	180.58	78.25
J-454		1.68	190.08	10.00	180.08	78.04
J-455		5.88	189.98	10.00	179.98	77.99
J-456		0.00	199.22	10.00	189.22	82.00
J-457		5.67	189.96	10.00	179.96	77.98
J-458		0.63	199.22	10.00	189.22	82.00
J-459		503.15	62.13	10.00	52.13	22.59
J-460		0.00	200.64	10.00	190.64	82.61
J-461		0.00	62.13	10.00	52.13	22.59
J-462		0.00	200.40	10.00	190.40	82.51

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-463		0.00	200.33	10.00	190.33	82.48
J-464		0.00	200.93	10.00	190.93	82.73
J-465		0.00	130.77	10.00	120.77	52.33
J-466		0.00	130.77	10.00	120.77	52.33
J-467		0.00	133.35	10.00	123.35	53.45
J-468		0.00	133.35	10.00	123.35	53.45
J-469		3.15	130.11	10.00	120.11	52.05
J-470		2.10	130.11	10.00	120.11	52.05
J-471		7.35	189.91	10.00	179.91	77.96
J-472		0.00	189.91	10.00	179.91	77.96
J-473		3.78	63.05	10.00	53.05	22.99
J-474		0.00	189.96	10.00	179.96	77.98
J-475		1.05	63.28			
J-476		0.21	101.55			
J-477		0.42	100.56			
J-478		0.00	101.55			
J-479		0.00	100.56			
J-480		0.00	145.23			
J-481		0.84	139.63	10.00	129.63	56.17
J-482		0.00	150.15			
J-483		0.84	145.23	10.00	135.23	58.60
J-484		0.00	153.98	10.00	143.98	62.39
J-485		0.00	145.23			
J-486		0.00	145.23			
J-487		0.00	137.39			
J-488		0.00	128.03			
J-489		0.00	63.28			
J-490		0.00	63.39			
J-491		0.00	120.63			
J-492		1.05	120.37	10.00	110.37	47.83
J-493		0.00	124.17	10.00	114.17	49.47
J-494		0.00	124.37			
J-495		0.00	139.63			
J-496		0.00	138.80			
J-497		0.00	137.89			
J-498		0.00	137.39			
J-499		0.00	137.89			
J-500		0.00	138.80			
J-501		0.00	154.21	10.00	144.21	62.49
J-502		0.00	154.23	10.00	144.23	62.50
J-503		0.00	193.04	10.00	183.04	79.32
J-504		0.00	187.23	10.00	177.23	76.80
J-505		0.00	187.23			
J-506		0.00	193.04			
J-507		0.00	168.02			
J-508		0.00	150.71			
J-509		0.00	157.68			
J-510		0.00	145.23	10.00	135.23	58.60
J-511		0.00	145.25	10.00	135.25	58.61
J-59		0.00	150.15	10.00	140.15	60.73
J-70		0.00	145.23	10.00	135.23	58.60
R- 1		----	201.00	10.00	191.00	82.77

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
(-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
R- 1	1502.08	

NET SYSTEM INFLOW = 1502.08
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1502.12

***** HYDRAULIC ANALYSIS COMPLETED *****

Water Management Services, INC. St. George Island Water System Capacity Analysis - 2021 Max Day w/ 500 gpm fire at State Park Entrance						
Planning Year	Customers Usage based # Customers = #ERCs	AADF GPD 350 gpd/ERC	Max Month Avg Day 150% x AADF	Max Day @ AADF x GPD 175%	HS GPM PEAK HR AADF X GPM	H.S. 500 fire HS GPM Max Day GPM
2021	2,388	835,800	1,253,700	1,462,650	2,031	1,516

Fire Demand is at Node number J-330 near the Park Entrance

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
J- 1		0.00	200.27	10.00	190.27	82.45
J- 2		0.63	200.26	10.00	190.26	82.44
J- 3		1.26	198.66	10.00	188.66	81.75
J- 4		11.13	198.45	10.00	188.45	81.66
J- 5		21.42	198.55	10.00	188.55	81.71
J- 6		0.84	197.77	10.00	187.77	81.37
J- 7		3.36	197.74	10.00	187.74	81.36
J- 8		3.36	199.27	10.00	189.27	82.02
J- 9		10.50	179.89	10.00	169.89	73.62
J- 10		2.52	197.99	10.00	187.99	81.46
J- 11		2.10	199.18	10.00	189.18	81.98
J- 12		4.83	193.64	10.00	183.64	79.58
J- 13		3.57	197.75	10.00	187.75	81.36
J- 14		9.87	196.49	10.00	186.49	80.81
J- 15		5.88	193.64	10.00	183.64	79.58
J- 16		5.67	196.50	10.00	186.50	80.82
J- 17		5.25	196.01	10.00	186.01	80.60
J- 18		1.47	197.24	10.00	187.24	81.14
J- 19		2.31	196.64	10.00	186.64	80.88
J- 20		3.78	196.64	10.00	186.64	80.88
J- 21		0.84	196.81	10.00	186.81	80.95
J- 22		2.73	196.66	10.00	186.66	80.89
J- 23		9.24	196.30	10.00	186.30	80.73
J- 24		0.63	196.00	10.00	186.00	80.60
J- 25		9.24	195.87	10.00	185.87	80.55
J- 26		3.99	195.42	10.00	185.42	80.35
J- 27		3.15	195.26	10.00	185.26	80.28
J- 28		1.47	195.67	10.00	185.67	80.46
J- 29		2.52	194.57	10.00	184.57	79.98

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
J-302		1.68	131.72	10.00	121.72	52.74
J-303		3.36	136.60	10.00	126.60	54.86
J-304		3.36	136.60	10.00	126.60	54.86
J-305		2.10	127.70	10.00	117.70	51.00
J-306		1.68	127.70	10.00	117.70	51.00
J-307		3.36	122.94	10.00	112.94	48.94
J-308		1.68	122.94	10.00	112.94	48.94
J-309		1.68	124.68	10.00	114.68	49.69
J-310		1.68	124.68	10.00	114.68	49.69
J-311		1.68	126.63	10.00	116.63	50.54
J-312		1.68	126.63	10.00	116.63	50.54
J-313		1.47	119.55	10.00	109.55	47.47
J-314		1.47	119.55	10.00	109.55	47.47
J-315		2.31	121.58	10.00	111.58	48.35
J-316		2.31	121.58	10.00	111.58	48.35
J-317		0.00	120.87	10.00	110.87	48.04
J-318		1.68	120.84	10.00	110.84	48.03
J-319		0.21	114.32	10.00	104.32	45.20
J-320		0.21	114.32	10.00	104.32	45.20
J-321		0.21	116.20	10.00	106.20	46.02
J-322		0.21	116.20	10.00	106.20	46.02
J-323		2.94	109.37	10.00	99.37	43.06
J-324		0.84	109.36	10.00	99.36	43.06
J-325		3.15	106.71	10.00	96.71	41.91
J-326		2.52	106.99	10.00	96.99	42.03
J-327		2.31	96.95	10.00	86.95	37.68
J-328		1.68	96.95	10.00	86.95	37.68
J-329		1.68	92.79	10.00	82.79	35.87
J-330	East End near Park	505.88	85.87	10.00	75.87	32.88
J-331		0.84	157.24	10.00	147.24	63.81
J-332		1.89	135.97	10.00	125.97	54.59
J-333		0.21	135.11	10.00	125.11	54.21
J-334		1.68	135.97	10.00	125.97	54.59
J-335		2.52	137.91	10.00	127.91	55.43
J-336		2.10	137.91	10.00	127.91	55.43
J-337		1.47	143.81	10.00	133.81	57.99
J-338		1.05	143.81	10.00	133.81	57.99
J-339		2.10	147.93	10.00	137.93	59.77
J-340		1.68	147.93	10.00	137.93	59.77
J-341		0.00	154.14	10.00	144.14	62.46
J-342		0.42	157.24	10.00	147.24	63.81
J-343		1.68	131.73	10.00	121.73	52.75
J-344		1.05	131.71	10.00	121.71	52.74
J-345		0.84	129.96	10.00	119.96	51.98
J-346		0.42	133.32	10.00	123.32	53.44
J-347		1.05	126.95	10.00	116.95	50.68
J-348		2.31	120.87	10.00	110.87	48.04
J-349		1.68	122.87	10.00	112.87	48.91
J-350		0.42	117.18	10.00	107.18	46.44
J-351		0.42	119.63	10.00	109.63	47.51
J-352		0.00	114.91	10.00	104.91	45.46
J-353		0.63	117.20	10.00	107.20	46.45
J-354		0.84	114.93	10.00	104.93	45.47
J-355		0.63	116.18	10.00	106.18	46.01

NAME	TITLE	DEMAND	GRADE	ELEVATION	HEAD	PRESSURE
R- 1		1501.95				

NET SYSTEM INFLOW = 1501.95
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1502.12

***** HYDRAULIC ANALYSIS COMPLETED *****
***** HYDRAULIC ANALYSIS COMPLETED *****

Water Management Services, INC. St. George Island Water System Capacity Analysis - 2021 Max Day w/ 1000 gpm fire at 3rd Street W						
Planning Year	Customers Usage based # Customers = #ERCs	AADF GPD 350 gpd/ERC	Max Month Avg Day 150% x AADF	Max Day @ AADF x GPD 175%	HS GPM PEAK HR AADF X GPM	H.S. 1000 fire HS GPM Max Day GPM
2021	2,388	835,800	1,253,700	1,462,650	2,031	2,016

1,000 gpm Fire Demand is at Node number J-3 at 3rd Street west

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
J- 1		0.00	199.23	10.00	189.23	82.00
J- 2		0.63	199.19	10.00	189.19	81.98
J- 3		1001.26	190.30	10.00	180.30	78.13
J- 4		11.13	198.11	10.00	188.11	81.51
J- 5		21.42	190.69	10.00	180.69	78.30
J- 6		0.84	191.79	10.00	181.79	78.78
J- 7		3.36	190.90	10.00	180.90	78.39
J- 8		3.36	196.14	10.00	186.14	80.66
J- 9		10.50	173.67	10.00	163.67	70.92
J- 10		2.52	192.45	10.00	182.45	79.06
J- 11		2.10	198.78	10.00	188.78	81.81
J- 12		4.83	186.70	10.00	176.70	76.57
J- 13		3.57	190.31	10.00	180.31	78.13
J- 14		9.87	189.29	10.00	179.29	77.69
J- 15		5.88	186.70	10.00	176.70	76.57
J- 16		5.67	189.30	10.00	179.30	77.70
J- 17		5.25	189.25	10.00	179.25	77.67
J- 18		1.47	191.08	10.00	181.08	78.47
J- 19		2.31	190.35	10.00	180.35	78.15
J- 20		3.78	190.35	10.00	180.35	78.15
J- 21		0.84	190.48	10.00	180.48	78.21
J- 22		2.73	190.28	10.00	180.28	78.12
J- 23		9.24	189.78	10.00	179.78	77.90
J- 24		0.63	189.35	10.00	179.35	77.72
J- 25		9.24	189.21	10.00	179.21	77.66
J- 26		3.99	188.45	10.00	178.45	77.33
J- 27		3.15	188.54	10.00	178.54	77.37
J- 28		1.47	188.99	10.00	178.99	77.56
J- 29		2.52	187.89	10.00	177.89	77.08
J- 30		1.05	189.05	10.00	179.05	77.59

St. George Island Water System 2011 Improvements

St. George Island, Florida

To be constructed for

Water Management Services, Inc.

Set No.

Date Issued August 3, 2011

Les Thomas Consulting Engineers
3460 Point View Circle
Gainesville GA 678-677-6420

EXHIBIT B

TABLE OF CONTENTS

TABLE OF CONTENTS CONTINUED

TABLE OF CONTENTS CONTINUED

TABLE OF CONTENTS CONTINUED

SECTION 13200 PRESTRESSED CONCRETE STORAGE TANK
TABLE OF CONTENTS CONTINUED

SECTION R - TECHNICAL SPECIFICATIONS CONTINUED

DRAWINGS

ADVERTISEMENT FOR BIDS

WATER MANAGEMENT SERVICES, LLC, IS REQUESTING BIDS FROM STATE OF FLORIDA LICENSED GENERAL OR COMMERICAL BUILDING CONTRACTORS WHO ALSO HAVE A FLORIDA UNDERGROUND UTILITY CONTRACTOR LICENSE OR WHO WILL PROVIDE A SUBCONTRACTOR HAVING SAID LICENSE FOR THE CONSTRUCTION OF:

PROJECT: St. George Island Water System 2011 Improvements consisting of the following:

Provide and install: a new 600,000 gallon prestressed concrete ground storage tank with concrete pile foundation; a 2,600 GPM high service pumping station complete with building and concrete pile foundation and 250 KW generator; a new 500 gpm potable water well (#5) with 2800' - 8" pvc , modifications to the existing water plant, a new 60 KW generator at water well #3 and 1500'- 12" raw water supply mains and valves; and 1500' - 8", 12" pvc distribution piping.

Sealed bids will be received, publicly opened and read aloud on:

DATE AND TIME: August 15, 2011 , Until 2:00 PM local time.

PLACE: Water Management Services, Inc.
250 John Knox Road Unit #4
Tallahassee, Fl 32303

PROPOSAL: Bids must be submitted in full in accordance with the requirements of the Drawings, Specifications, Bidding Conditions and Contractual Conditions, which may be examined and obtained from the:

ARCHITECT/ENGINEER: *Les Thomas Consulting Engineers*

3460 Point View Circle, Gainesville GA 30506 TELEPHONE:(678) 677-6420

Drawings and specifications may be purchased for $ 500.00 per set from the Architect/Engineer.

SECTION B
INSTRUCTIONS TO BIDDERS

B-1 SPECIFICATION TERMINOLOGY

DEFINITION OF TERMS: Whenever in these Instructions the following terms (or pronouns which replace these terms) are used, their intent and meaning shall be interpreted as follows:

OWNER: WATER MANAGEMENT SERVICES, INC.

CONTRACTOR: Any individual, firm, partnership or corporation entering into an agreement to perform the work specified herein.

ENGINEER : *Les Thomas Consulting Engineers,* commissioned by the Owner and identified in the Advertisement for Bids acting directly or through a duly authorized representative.

PROJECT REPRESENTATIVE: An authorized representative of the Engineer.

BIDDER: Any individual, firm, partnership or corporation submitting a proposal for the work contemplated.

SURETY: The corporate body which is bound with and for the Contractor, which is primarily liable and which guarantees the faithful performance of the Agreement.

PROPOSAL: A bid for the work contemplated, which the Bidder shall submit on approved forms.

DRAWINGS: The drawings or reproductions thereof pertaining to the work to be performed and which have been prepared under the supervision of the Engineer.

SPECIFICATIONS: The Conditions of the Contract, Detailed Technical Specifications and such other descriptions of the work as are set forth in any of the contract documents.

AGREEMENT: "Agreement" shall mean the document entitled "Agreement Between Owner and Contractor for Construction of the project.

CONTRACT: "Contract" shall mean the Contract Documents as defined and listed in the Agreement.

B-2 BIDDER'S QUALIFICATION REQUIREMENTS AND PROCEDURES

Requirements: Each potential bidder must present with the bid, evidence that:

(l) He is authorized to perform the work required by these documents in accordance with the applicable provisions of Florida Statutes governing contractors, as a General and/ or Underground Utility contractor. If the bidder is not an Underground Utility Contractor, authorized by the State of Florida, the bidder must include a subcontractor that meets this requirement.

(2) If the Bidder is a corporation, he must submit evidence that the corporation is properly registered with the State of Florida, Department of State, Division of Corporations, and holds a current State Corporation Charter Number in accordance with the Florida Statutes.

2. Pre-qualification For Award of the Contract:

A. Requirements: Any bidder who has submitted a bid must satisfy the following requirements as judged by the owner in order to be eligible for award of the contract for construction.

(1) Satisfactory compliance with bid pre-qualification criteria.

(2) Must have provided with the bid, if required, or if a good faith deposit in the amount of 5% of the bid by way of a bid bond from a surety insurer authorized to do business in the State of Florida as surety or a certified check accompanying the bid, such requirement shall be satisfied by the bidder depositing in lieu of such certified check, a cashier's check, treasurer's check or bank draft of any national or state bank.

(3) On projects where the bid exceeds $100,000, bidder must provide with the bid or within forty-eight (48) hours of bid opening, evidence of ability to provide the necessary performance and payment bonds for the project by providing a letter of intent to provide a 100% performance bond and a 100% labor and material payment bond from a surety company authorized to do business in the State of Florida by the Department of Insurance, and meeting the financial and performance rating required by the bidding documents.

(4) Must provide at any time prior to the owner executing the construction contract, evidence of insurance in effect, equal to or exceeding the limits required by the bidding documents.

B. The firm determined by the OWNER to have submitted the low, responsive bid must complete and submit the above required qualification data within seven (7) calendar days following the bid opening to be considered for the award. All data submitted will be evaluated by the OWNER within fourteen calendar days following receipt and the firm will be judged as either qualified or unqualified. Should the bidder be judged unqualified his bid will be rejected and the bidder submitting the next lowest responsive bid will be given seven calendar days to submit his qualification data.

B-3 FAMILIARITY WITH LAWS

The Bidder is required to be familiar with all Federal, State and Local laws, ordinances, rules and regulations that in any manner affect the work. Ignorance on the part of the Bidder will in no way relieve him from responsibility.

B-6 ALTERNATES

Because the owner has existing pumps, motors, and equipment similar or identical to that described in these specifications, alterative or substitute equipment is not solicited nor will it be allowed. Bids offering different equipment will be deemed to not be responsible to this request.

B-7 ADDENDA

In case the Engineer finds it expedient to supplement, modify or interpret any portion of the Bidding Documents during the bidding period, such procedure will be accomplished by the issuance of written Addenda to the Bidding Documents which will be e-mailed to all prospective Bidders. Bidders shall indicate on their bids the addenda received.

B-8 INTERPRETATION OF BIDDING DOCUMENTS

No interpretation of the meaning of the Drawings, Specifications or other Bidding Documents and no correction of any apparent ambiguity, inconsistency or error therein will be made to any Bidder orally. Every request for such interpretation or correction shall be via email and addressed to the Engineer. All such interpretations and supplemental instructions will be in the form of email Addenda to the Bidding Documents.

Only the interpretation or correction so given by the Engineer in writing or by email shall be binding, and prospective Bidders are advised that no other source is authorized to give information concerning, or to explain or interpret, the Bidding Documents.

B-9 EXAMINATION OF BIDDING DOCUMENTS AND SITE OF WORK

Bidders are required, before submitting their proposals, to visit the site of the proposed work and completely familiarize themselves with the nature and extent of the work and any local conditions that may in any manner affect the work to be performed and the equipment, materials and labor required. They are also required to examine carefully the Drawings, Specifications and other Bidding Documents to inform themselves thoroughly regarding any and all conditions and requirements that may in any manner affect the work.

B-10 BASIS FOR BIDDING - TRADE NAMES

For clarity of the project, specific materials have been specified by trade names or manufacturers. To ensure a uniform basis for bidding, the Bidder shall base his Proposal on the particular material specified.

B-11 BID GUARANTEE

Bids shall be accompanied by a bid guarantee of not less than five (5) percent of the amount of the bid, which may be a certified check, a cashier's check, treasurer's check, bank draft or Bid Bond made payable to the Owner. Such check or Bid Bond shall be submitted with the understanding that it shall guarantee that the Bidder will not withdraw his bid for a period of forty (40) days after the scheduled closing time for the receipt of bids; that if his bid is accepted, he will enter into a written contract with the Owner in accordance with the form of agreement included as a part of the Contract Documents, and that the required Performance Bond and Labor and Material Payment Bond will be given; and that in the event of the withdrawal of said bond within said period, or failure to enter into said Agreement and give said bonds within ten (10) calendar days after he has received notice of acceptance of his bid, the Bidder shall be liable to the Owner for the full amount of the bid guarantee as representing the damage to the Owner on account of the default of the Bidder in any particular hereof. The Bid Bonds or checks shall be returned to all except the lowest two bidders after the formal opening of bids. The remaining Bid Bonds or checks will be returned to the two lowest bidders after the Owner and the accepted bidder have executed the Agreement and the Performance Bond and Labor and

Material Payment Bond have been approved by the Owner. If the required Agreement and Bonds have not been executed within forty (40) calendar days after the date of the opening of the bids, then the Bid Bond or check of any bidder will be returned upon his request, provided he has not been notified of the acceptance of his bid prior to the date of such request.

Notice: The Bid Bond must be signed by a Florida Licensed Resident Agent who holds a current Power of Attorney from the Surety Company issuing the Bond. The Power of Attorney must be attached to the Bid Bond.

B-12 SURETY COMPANIES ACCEPTABLE TO THE OWNER

To be acceptable to the owner as Surety for Bid Bonds, Performance Bonds and Labor and Material Payment Bonds, a Surety Company shall comply with the following provisions:

1. The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida, Department of Insurance, authorizing it to write surety bonds in the State of Florida.

2. The Surety Company shall have currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.

3. The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.

4. The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued.

B. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:

(a) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.

(b) In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

B-13 LISTING OF SUPPLIERS

In order that the Owner may be assured that only qualified MATERIALS will be USED on the project, each Bidder shall list on his proposal form, the manufacturers of the materials to be provided. Only one manufacturer shall be listed for each material of the work.

No change shall be made in the list of subcontractors or manufacturer, before or after the award of a contract, unless agreed to in writing by the Owner.

B-14 PREPARATION AND SUBMISSION OF BIDS

Each Bidder shall copy the proposal form on his own letterhead, indicate his bid prices thereon in proper spaces, for the Base Bid and for alternates on which he bids. Any erasure or other correction in the proposal may be explained or noted over the signature of the Bidder.

Proposals containing any conditions, omissions, unexplained erasures, alterations, items not called for or irregularities of any kind may be rejected by the Owner.

Each bid must give the full business address of the Bidder and state whether he is an individual, corporation or partnership. The bid must be submitted in a sealed envelope, clearly marked on its face

"SEALED BID - PROJECT: St. George Island Water System 2011 Improvements bid"

shall be submitted only prior to the time and the place specified in the Advertisement for Bids or in accordance with any Addendum issued subsequent to the advertisement. Sealed bid envelopes submitted by mail or by delivery service must be delivered within a separate mail or delivery envelope, also marked "SEALED BID". Bids not delivered in sealed envelopes may be returned to the bidder.

B-15 WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphic request received from Bidders prior to the time fixed for opening. Negligence on the part of the Bidder in preparing the bid confers no right for withdrawal of the bid after it has been opened.

B-16 DISQUALIFICATION OF BIDDERS

More than one bid from an individual, firm, partnership, corporation or association under the same or different names will not be considered. Reasonable grounds for believing that a Bidder is interested in more than one proposal for the same work will cause the rejection of all proposals in which such Bidders are believed to be interested.

B-17 RECEIPT AND OPENING OF BIDS

Bids will be opened publicly at the time and place stated in the Bidding Documents. The officer whose duty it is to open them will decide when the specified time has arrived and no bids received thereafter will be considered. No responsibility will be attached to any officer for the premature opening of a bid not properly addressed and identified.

B-18 DISQUALIFICATION OF BIDS

Any or all proposals will be rejected if there is reason to believe that collusion exists among the Bidders and no participants in such collusion will be considered in future proposals for the same work. Falsification of any entry made on the contractor's bid proposal will be deemed a material irregularity and will be grounds, at the Owner's option, for rejection.

B-19 REJECTION OF BIDS

The Owner reserves the right to reject any and all bids when such rejection is in the interest of the OWNER, and to reject the proposal of a bidder who the Owner determines is not in a position to perform the Contract.

B-21 CONTRACT AWARD

The owner will award the contract to the lowest responsive bidder..
The recommendation for contract award will be for the bidder qualified in accordance with Section B-2 and submitting the lowest bid provided his bid is responsible and it is in the best interest of the Owner to accept it. The qualified bidder submitting the lowest bid will be that bidder who has submitted the lowest price for the base bid, or the base bid plus additive alternates or less deductive alternates, taken in the numerical order listed in the bid documents in an amount determined by the Owner. The Order of the alternates may be accepted by the Owner in any sequence so long as such acceptance does not alter the designation of the low bidder.

The Owner reserves the right to waive any informality in bids received when such waiver is in the interest of the Owner. The Agreement will only be entered into with responsible contractors, found to be satisfactory by the Owner, qualified by experience and in a financial position to do the work specified.
Each bidder shall, if so requested by the Owner, present additional evidence of his experience, qualifications and ability to carry out the terms of the contract.

B-22 NOTICE TO PROCEED TO MOBILIZE ON SITE AND TO PROCEED WITH CONSTRUCTION
TIME OF COMPLETION AND LIQUIDATED DAMAGES

The work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to Proceed With Construction, and shall be substantially completed within 270 days and shall be finally completed tested and accepted within 30 calendar days.

B-24 PERMITS AND SPECIAL REQUIREMENTS

A. Permits: For the purpose of the contract, permits will be required as follows: Franklin County Building Department, FDEP water well drilling permit.

B. Special Requirements: none.

SECTION C

PROPOSAL FORM (SUBMIT IN TRIPLICATE ON CONTRACTOR'S LETTERHEAD)

DATE: _____ TIME: _____

TO: WATER MANAGEMENT SERVICES, INC.
250 John Knox Road, #4
Tallahassee, Florida 32303

Gentlemen:

The undersigned, hereinafter called "Bidder", having visited the site of the proposed project, and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the drawings, specifications, the Form of Agreement, and other Contract Documents including the Bond Requirements therein, proposes to furnish all labor, materials, equipment and other items, facilities, and services for the proper execution and completion of:

Provide and install a new 600,000 gallon ground storage tank, a 2,600 GPM high service pumping station, a 500 gpm potable water well #5, modifications to the existing water plant, water well #3 new generator, and supply and distribution piping in full accordance with the drawings and specifications prepared by the engineer *Les Thomas Consulting Engineers*, with the advertisement for bids, Instruction to Bidders, Agreement and all other documents relating thereto, and if awarded the contract, to complete the said work within 270 calendar days:

St. George Island 2011 Water System Improvements		
Bid Schedule		Bid Amount
1.	12" Raw water Main - from the existing line on the bridge to the new water tank in Parallel with the existing 12" PVC water main (which is partially exposed in the Apalachicola Bay) complete with fittings, appurtances, thrust blocking, Valves, etc..	
	1.a. 2,100 lf 12" raw water main	$
	1.b. 12" Valves and fittings	$
2.	Water Treatment Plant	
	2.a. 2-2600 gpm flow proportional chlorination systems including dual scales, dual chlorinators, a single fixed rate chlorinator for pre-chlorination, monitor system, emergency breathing apparatus and eye wash. The chlorine system is to send and receive signal information with the PLC.	$
	2.b. 4 - 720 gpm @ 80 psi high service end suction pump packages including 4- 60 HP motors and 4-variable speed drives with provisions for fifth (5) all skid mounted with 12" suction and discharge piping	$
	2.c. 1 - 250 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements installed and complete at the new high service PS. The generator is to send and receive signal information with the PLC.	$
	2.d. A complete control system for the high service pumps, 5 wells complete with a PLC controllers, a "TEXT" communication system, HMI color touch screen, and all instrumentation including flow meters, pressure transmitter, and level transmitter required to construct a working system.	$
	2.e. 1-600,000 gallon pre-stressed concrete ground storage tank supported by a concrete pile system, and including a dedicated fire protection 100,000 gallon inner tank; a 2,600 gpm fixed tray, screened aerator; a chlorine distribution system; inlet and outlet piping to 5' ; soils investigation, recommendation and testing services for foundation design; tank design and sealed by Florida	$

	PE; complete and in operation.	
2.	2.f Construct a new mechanical/ electrical/ generator/ and chlorine storage building with a separate HVAC system for each space.	$
	2. g. Electrical distribution system	$
	2.h Air Conditioning system	$
	2.i Sitework and plant piping, valves, meters	$
3.	1 - SCADA system for 5 wells, 5 high service pumps, ground storage tank water level, distribution system pressure including high service pump discharge flow rate totalizer with digital display and recorder.	$
4.	Tie-new water plant to existing potable water distribution system	
	4.a 800'- 8" water main w/ valves and thrust blocks	$
	4.b 700' - 12" water main w/ valves and thrust blocks	$
	4.c 400' - 6" water main w/ valves and thrust blocks	$
5.	Well #3 - Provide and install 1 - 60 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements. Connect the generator to send and receive signal information with the PLC.	$
6.	Well #5 - Permit and Construct a new 500 gpm ground water supply well complete and operable consisting of: 1-12" diameter, 282' +/- deep water well, a 500 gpm vertical turbine pump, piping, electrical, and appurtenances.	$
7.	Well #5 1 - 60 KW emergency generator with integral w/550 gallon diesel fuel tank per FDEP requirements furnished and installed complete. The generator is to send and receive signal information with the PLC.	$
8.	Well #5 Tie to existing - 2,750 lf of 8" with 6 - 8" GV&Bs	

Total Bid_____ Dollars $_____*

There is enclosed: A certified check, cashier's check, treasurer's check, bank draft or Bid Bond in the amount of not less than five (5) percent of the Base Bid payable to the Owner, as a guarantee for the purpose set out in your Instruction to Bidders.

LIST OF SUPPLIERS/ SUBCONTRACTORS

The under signed, hereinafter called "Bidder", lists below the name of each Manufacturer and/ or SUBCONTRACTOR. (Failure of the bidder to list shall deem the bid as being non-responsive.)

MATERIAL/WORK NAME OF MANUFACTURE/ SUBCONTRACTOR

1. High Service Pumps
2. Prestressed Concrete Ground Storage Tank
3. Well Driller
4. Well Pump
5. Underground Utility Construction
6. Water Treatment Plant Building

The Bidder hereby agrees that:

a. The above proposal shall remain in full force and effect for a period of twelve (12) months after the time of the opening of this proposal and that the Bidder will not revoke or cancel this proposal or withdraw from the competition within the said twelve months.

b. In the event the contract is awarded to this Bidder, he will enter into a formal written Agreement with the Owner in accordance with the accepted bid within ten (10) calendar days after said contract is submitted to him and will furnish to the Owner a Contract Performance Bond, a Labor Material Payment Bond, and a Liquidated Damages Bond

with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the

accepted bid, the form and terms of which shall fully comply with Section 255.05, Florida Statutes. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages. The work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to Proceed With Construction, shall be substantially completed within 270 calendar days.

Acknowledgment is hereby made of receipt of the following Addenda issued during the bidding period.

Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

Corporation Charter (if applicable)

_____ _____
(Name of Corporation) (Charter No.)

In witness whereof, the Bidder has hereunto set his signature and affixed his seal this ___ day of _____.

_____(Seal)

By: _____

Title: _____

SECTION E

CONDITIONS OF THE CONTRACT

E-1 PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND AND LIQUIDATED DAMAGES BOND

The Contractor shall furnish the Owner with a 100% Performance Bond and 100% Labor and Material Payment Bond written by a Surety Company acceptable to the Owner and authorized to do business in the State of Florida and signed by a Florida Licensed Resident Agent. Form of bond shall be as prescribed in these specifications.

The cost of the Performance Bond and Labor and Material Payment Bond and Liquidated Damages Bond shall be borne by the Contractor. The Bonds shall be accompanied by a duly authenticated or certified document, in duplicate, evidencing that the person executing the Bonds on behalf of the Surety had the authority to do so on that date of the Bond. In the usual case, the conferring of that authority has occurred prior to the date of the Bond, and the document showing the date of appointment and enumeration of powers of the person executing the Bond is accompanied by a certification that the appointment and powers have not been revoked and remain in effect. The date of that certification shall be dated the same date as the Bonds and the Bonds shall be dated the same date as the Agreement.

(a) In case of default by the contractor, the laborers, material men and subcontractors as defined in F.S. 713.01, making claims for unpaid bills, will be paid from the ten percent (10%) retainage on a pro rata basis as indicated in Rule 13D-11.0041, Florida Administrative Code.

(b) The contractor shall provide a certified list of all subcontractors, laborers and material suppliers to the owner within thirty (30) calendar days of his receiving his notice to proceed with the work. This list shall be updated thereafter each month with a certified statement that the list and its updates include the names and addresses of all of those subcontractors, laborers and material suppliers furnishing labor, material and/or equipment for the project. An updated copy of this certified list shall accompany each pay request.

(c) The contractor shall provide a written statement with each pay request to the owner which indicates how each payment requested will be distributed to subcontractors, laborers and material suppliers. This pay request breakdown shall define the disbursement intended for all of the funds requested.

(d) The contractor shall provide a written statement, with all but the first payment request, from each of the laborers, subcontractors and material suppliers indicated in (c) above that they have in fact received payment as indicated in the preceding statements. In the event any payment is not made as indicated on a prior statement noted in (c) above, the contractor shall furnish an explanation as to the reasons for such deviation and shall request approval from the owner.

(e) When a contractor receives any payment, he shall pay such monies received to each subcontractor, laborer and material supplier in accordance with FS 287.0585.

(f) The Engineer may, on request, or at his discretion, furnish to a laborer, subcontractor or material supplier, if practicable, information regarding the percentages of completion of the amount applied for by the Contractor and the action taken thereon by the Engineer on account of charges by the laborer, subcontractor or material supplier.

(g) Neither the owner nor the Engineer shall have any obligation to pay or to see to the payment of any monies to any laborer, subcontractor or material supplier except as specified above or as may otherwise be required by law.

(h) No certificate for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the project by the Owner, shall constitute an acceptance of any work not in accordance with the Contract.

E-2 FINAL PAYMENT AGAINST CONTRACT SUM

Within thirty (30) calendar days from the date of Contract completion, the Owner shall pay or cause to be paid to the Contractor, the entire unpaid balance of the then Contract Sum, less the amount of any sums which continue to be retained to satisfy the cost of performing and change in the work which is the subject of any claim or dispute and which has not yet been satisfactorily performed by the Contractor, provided that the parties have not otherwise stipulated in the Certificate of Substantial Completion, and provided further as stipulated below.

(a) The final payment of retainage shall not be made until the project has been inspected by the Engineer; until the Engineer has issued a written certificate that the project has been constructed in accordance with the approved plans, specifications, addenda and change orders; and until the Owner has accepted the project.

(b) The final payment shall not be made until the contractor has supplied the Owner with signed and dated statements from all laborers, material men and subcontractors, as defined in F.S. 713.01 and identified in Article 6.2.1 (b) herein above, that they have no claims against the contractor for the work under the contract. Said statements shall identify the project by name and project number.

(c) The final payment shall not be made until the Contractor has provided evidence, in the form of certified copies, that he has placed a notice on three occasions in a local newspaper and in a conspicuous place on the project site as prescribed in Section E, "Conditions of the Contract", Section E-22 - Public Notice.

E-3 EXECUTION OF AGREEMENT AND BONDS

Agreement Between Owner and Contractor

The Contractor shall execute all required forms of the agreement and return within ten (10) calendar days of their receipt. Failure to return all forms correctly executed within ten (10) calendar days of receipt, without written extension by the Owner otherwise, shall constitute an irregularity and deemed grounds, at the Owner's option, for rejection and forfeiture of the Bid Deposit or at the Owner's option, for the deduction on a day-for-day basis from the time allotted for completion of the work under Section B-22.

If the Contractor is a firm or Company owned by an individual, the agreement shall be executed in the name of the firm or company by the manual signature of the individual or sole proprietor.

If the Contractor is a Partnership, the agreement shall be executed in the name of the partnership by the manual signature of partner or partners.

If the Contractor is a corporation, the agreement shall be executed in the name of the Corporation and shall bear the corporate seal. It may be signed for the corporation by the President and attested by the Secretary; if signed for the Corporation by any other officer than the President, the signature of such officer signing shall be attested by the Secretary, and the executed agreement shall be accompanied by a duly authenticated document bearing the seal of the corporation, quoting the section of the by-laws of the corporation authorizing the Board of Directors to designate such officer and copy of the resolution designating and authorizing him to execute on behalf of the corporation. That document must contain a statement that the authority is in effect on the date of the execution of the contract, and may not be dated earlier than the date of the execution of the Agreement. The same officer may not execute the Agreement and authenticate the document of authority.

Performance, Labor and Material, and Liquidated Damages and Payment Bonds

These bonds shall be executed on behalf of the Contractor in the same manner and by the same person who executed the Agreement.

E-4 CONTRACTOR'S INSURANCE

The Contractor shall not commence any work in connection with this Agreement until he has obtained all of the following types of insurance and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved. All insurance policies shall be with insurers qualified and doing business in Florida through an authorized licensed Florida Resident Agent.

Worker's Compensation Insurance

The Contractor shall take out and maintain during the life of this Agreement, Worker's Compensation Insurance for all of his employees connected with the work of this project and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. Such insurance shall comply fully with the Florida Worker's compensation law. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation statute, the Contractor shall provide, and cause each subcontractor to provide, adequate insurance, satisfactory to the Owner, for the protection of his employees not otherwise protected.

Contractor's Public Liability and Property Damage Insurance

The Contractor shall take out and maintain during the life of this Agreement COMPREHENSIVE GENERAL LIABILITY AND COMPREHENSIVE AUTOMOBILE LIABILITY INSURANCE as shall protect him from claims for damage for personal injury, including accidental death, as well as claims for property damages which may arise from operating under this Agreement whether such operations are by himself or by anyone directly or indirectly employed by him, and the amount of

such insurance shall be the minimum limits as follows:

(1)	CONTRACTOR'S COMPREHENSIVE GENERAL LIABILITY COVERAGES, BODILY INJURY & PROPERTY DAMAGE	$1,000,000.00 Each Occurrence, Combined Single Limit
(2)	CONTRACTOR'S LIABILITY COVERAGES	$1,000,000.00,/disease-policy limit $1,000,000.00,/disease-each employee
(3)	AUTOMOBILE LIABILITY COVERAGES, BODILY INJURY & PROPERTY DAMAGE	$100,000.00, Each Occurrence, Combined Single Limit

Insuring clause for both BODILY INJURY AND PROPERTY DAMAGE shall be amended to provide coverage on an OCCURRENCE BASIS.

Subcontractor's Public Liability and Property Damage Insurance

The Contractor shall require each of his subcontractors to procure and maintain during the life of this subcontract, insurance of the type specified above or insure the activities of his subcontractors in his policy, as specified above.

Owner's and Contractor's Protective Liability Insurance

The Contractor shall procure and furnish an Owner's and Contractor's Protective Liability Insurance Policy with the following minimum limits:

BODILY INJURY LIABILITY & PROPERTY DAMAGE LIABILITY	$1,000,000.00 Each Occurrence, Combined Single Limit

"XCU" (Explosion, Collapse, Underground Damage)

The Contractor's Liability Policy shall provide "XCU" coverage for those classifications in which they are applicable.

Broad Form Property Damage Coverage
Products and Completed Operations Coverages

The Contractor's Liability Policy shall include Broad Form Property Damage Coverage, Products and Completed Operations Coverages.

Contractual Liability-Work Contracts

The Contractor's Liability Policy shall include Contractual Liability Coverage designed to protect the Contractor for contractual liabilities assumed by the Contractor in the performance of this Contract.

Indemnification Rider

The Contractor's Liability Policy shall provide a "Hold Harmless" rider to cover the provisions of Article 3.18 of the referenced AIA General Conditions and this shall be so noted on the Contractor's Certificate of Insurance. Article 3.18 of the referenced AIA General Conditions is hereby revised to include the following statement.

The Contractor shall invoice both the Owner and the Engineer for ten dollars ($10.00), upon notice that he has been awarded the contract, on the form shown in Section "K" hereinafter. Said ten dollars ($10.00) from the Owner and the Engineer is given in exchange for the Contractor giving the Owner and the Engineer the indemnification provided above in accordance with Article 3.18 of the AIA General Conditions which form a part of the Contract Documents.

Builder's Risk Coverage

The Contractor shall secure and maintain during the life of this Contract a "Builder's Risk Policy", All Risks Form, and issued on a completed valued basis. Installation Floaters and other Inland Marine Forms may be utilized where applicable and are in the best interest of the State of Florida.

The Owner shall be furnished proof of coverage of insurance as follows:

Certificate of Insurance

Certificate of Insurance Forms (see Section J) will be furnished by the Owner with contract documents. These shall be completed, signed by the authorized licensed Resident Agent and returned to the office of the Department of Corrections. These certificates shall be dated and show:

(1) The name of the insured contractor, the specific job by name and job number, the name of the insurer, the number of the policy, its effective date, and its termination date.

(2) Statement that the Insured will mail notice to the Owner and a copy to the Engineer at least thirty (30) calendar days prior to any material changes in provisions or cancellation of the policy.

LOSS DEDUCTIBLE CLAUSE

The Owner shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the General Contractor and/or Sub-Contractor providing such insurance.

E-5 PROGRESS SCHEDULE

Within twenty (20) calendar days after the date of the Owner's issuance of a Notice to Proceed, the Contractor shall prepare and submit to the Architect/ Engineer a construction schedule in quadruplicate graphically depicting the activities contemplated to occur as a necessary incident to performance of the work required to complete the Project, showing the sequence in which the Contractor proposes for each such activity to occur and the duration (dates of commencement and completion, respectively) of each such activity.

E-7 VERIFICATION OF OWNER'S SURVEY DATA

Prior to commencing any excavation or grading, the Contractor shall satisfy himself as to the accuracy of all survey data as indicated in these plans and specifications and/or as provided by the Owner. Should the Contractor discover any inaccuracies, errors, or omissions in the survey data, he shall immediately notify the Architect-Engineer in order that proper adjustments can be anticipated and ordered. Commencement by the Contractor of any excavation or grading shall be held as an

acceptance of the survey data by him after which time the Contractor has no claim against the Owner resulting from alleged errors, omissions or inaccuracies of the said survey data.

E-8 CONSTRUCTION FACILITIES

Sanitary Provisions

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with regulations of the County or the Department of Health and Rehabilitative Services. No nuisance will be permitted.

Temporary Wiring

The Contractor shall meet all safety requirements of the National Electric Code, Florida Department of Commerce, Bureau of Worker's Compensation or local requirements. In addition, all wire shall be so sized that it is not over-loaded according to the National Electric Code, and any wire used shall be fused to adequately protect that wire according to the Code referred to.

The Contractor shall have an adequate number of outlets and each outlet shall be properly and clearly labeled with the maximum voltage and fuse protection.

Where temporary lighting is used, outlet shall consist of weatherproof socket insulated and provided with a locking type wire guard.

All devices shall be properly grounded.

Storage and Work Areas

At the start of the operations the Contractor shall make arrangements with the Architect-Engineer's field representative and BOH Bros for the assignment of storage and work areas. During construction the Contractor shall maintain the areas in a neat condition.

Contractor's Field Offices

Trailers may be used for field offices, but shall not be used as living quarters for personnel.

Underground Utilities

The Contractor shall meet all requirements of the United States Department of Labor Occupational Safety and Health Administration (OSHA) in the performance of work related to excavations for underground utilities, foundations and other subsurface work. The contractor shall conduct thorough training in OSHA standards and requirements on a continuing and regular basis throughout the execution of such work.

Additional instructions regarding Construction Facilities are set forth in the Section entitled "Special Conditions".

E-9 PROJECT DRAWINGS-COPIES FURNISHED TO CONTRACTORS

The Architect-Engineer will provide the Contractor with one (1) set of drawings and one set of specifications upon contract award. The cost of the cost of making all copies will be the responsibility of the contractor. These drawings are to be kept in good condition and are to be used

for the as built drawings-see section E-18.

E-10 PROJECT DRAWINGS-CHANGES

The Contractor shall immediately indicate plainly and conspicuously on the field set of drawings and at appropriate paragraphs in the specifications, all changes or corrections made by Addenda and Change Orders as they are issued.

E-11A INSPECTIONS - ALL PROJECTS

The contractor shall notify the appropriate inspector(s), no less than 24 hours in advance, that the work is ready for inspection and before the work is covered up.

All inspections will be made for conformance with the applicable building codes. Cost for all re-inspections of work found defective and subsequently repaired shall be borne by the contractor.

Final Inspection; of the completed water system for conditions of line sterilization, performance, appearance and compliance with general specification standards and codes.

Additional Inspection Fees
Should the Contractor call for an inspection or re-inspection, and the work is not ready for the inspection or re-inspection, THE CONTRACTOR WILL BE REQUIRED TO PAY A FEE OF $750 FOR EACH OCCURRENCE.

Work Not Ready

A. When the Contractor calls for a "first-time" inspection and the work is not ready for inspection, and no inspection is performed, a fee will be assessed. There will be no charge on a call-back for re-inspection if the work is ready. If the work is not ready on the re-inspection, an additional fee will be assessed.

Work Failing Inspection

B. When the Contractor calls for the re-inspection of a previously cited violation, and the violation has not been corrected, a fee will be assessed. If the violation has been corrected, no fee will be assessed.

NOTE: Failure to pay these fees may result in a STOP WORK ORDER on the project. Additionally, the Certificate Of Occupancy will not be issued until all fees assessed against the Contractor have been paid.

E-12 SHOP DRAWINGS

Shop drawings shall be submitted for manufactured or fabricated materials as called for in the separate specification sections. Drawings shall be fully identified by project name, location, supplier's name, date, drawing number, specifications section reference, etc. The Contractor shall submit, with such promptness as to cause no delay in his work, or in that or any other Contractor, four (4) copies (in addition to those copies necessary for his own requirements) of all shop drawings, and schedules, required for the work of the various trades, to the Engineer for approval. The Contractor shall make no deviation from the approved drawings, and the changes made thereto by the Engineer, if any.

It shall be the responsibility of the Contractor to properly schedule the submission of shop drawings

for approval to allow adequate time for checking of drawings, manufacture and shipment of items to job site in sufficient time to prevent delay in Progress Schedule.

It shall also be the responsibility of the Contractor to coordinate the preparation of shop drawings of items which will be furnished by more than one manufacturer but are designed to interface when installed.

Shop drawings submitted to the Engineer for his approval shall first be checked and approved by the Contractor, the prima facie evidence of which shall be a "checked" stamp marked "Approved", or "Approved as Noted" on each copy of each shop drawing, placed thereon by the Contractor. Shop drawings received without the Contractor's "checked" stamp will be cause for immediate return without further action. Each drawing correctly submitted will be checked by the Engineer and marked by him in one of the following ways:

1) Approved as drawn.

2) Approved as noted.

3) Returned for correction.

4) Not approved.

Submission and Approval Of Shop Drawing & Sample Schedule

If and when required by the Engineer the Contractor shall prepare and submit in triplicate to the Engineer a completely itemized Schedule of Shop Drawings, brochures and other descriptive literature, listing each and all such items as required under these specifications, which schedule shall indicate for each required item:

1) Identification as to pertinent Specification Division.

2) Item(s) involved.

3) Name of pertinent subcontractor or supplier and the name of pertinent manufacturer, and Schedule date of delivery of pertinent items to the project.

The subcontractors for all phases of the Contract shall submit through the General Contractor complete brochures covering all materials and/or equipment proposed for use in the execution of the work as required by their respective Divisions of the Specifications. These brochures shall be indexed and properly cross referenced to the plans and specifications for easy identification.

All shop drawings, setting drawings, material brochures, samples and/or color selection materials which are required and are not included in the foregoing shall be submitted via the General Contractor. Insofar as is possible or practical, all shop drawings or descriptive literature of equipment for the mechanical or electrical trades shall be submitted in a complete brochure for each trade as soon as possible after Notice to Proceed is executed.

The Owner will not grant time extension based on delays due to improper scheduling of work; and the Owner, at his discretion, may withhold progress payments until such time as these requirements are fully satisfied.

E-13 REFERENCE TO A.S.T.M. OR FEDERAL SPECIFICATIONS

Where reference is made to the Standard Specifications of the American Society for Testing and Materials (A.S.T.M.): "United States Government Federal Specifications, or to other standard specifications of Associated Manufacturer's Organizations, or trades, in connection with the required quality of materials, methods, etc., then the applicable specifications shall be of the latest revised edition effective as of the date bids are opened by the Owner, unless otherwise expressly provided in the Contract Documents".

E-14 MANUFACTURER'S SPECIFICATIONS

Where the name of a concern or manufacturer is mentioned on drawings or in specifications in reference to his required service or product, and no qualifications or specification of such is included, then the material gauges, details of manufacture, finish, etc., shall be in accordance with his standard practice, direction or specifications. The Contractor shall be responsible for any infringement of patents, royalties, or copyrights, which may be incurred thereby.

E-15 APPROVAL OF MATERIALS

A list of all materials, equipment, etc., together with manufacturer's drawings and catalog information shall be submitted to the Architect- Engineer for approval prior to ordering material or equipment but not later than forty-five (45) calendar days after receipt of Notice to Proceed to mobilize on site and proceed with construction. Information submitted shall show the capacity, operating conditions and all engineering data and descriptive information necessary for comparison and to enable the Architect-Engineer to determine whether same meets specifications. The Architect-Engineer's approval will not relieve the Contractor of the responsibility for performance of any terms of the Agreement.

If the submittals reflect any changes from the plans or specifications, these changes should be clearly indicated by the Contractor.

E-16 SUBSTITUTIONS

Substitutions will not be allowed. The equipment specified is because the owner has existing equipment as that specified and to maintain interchangeability, substitutions are not solicited nor will they be acceptable.

E-17 CONSTRUCTION CLIMATE CONTROL

It shall be the responsibility of the Contractor to provide at his expense, the power, fuel and equipment necessary to maintain climatic conditions and humidity when specified, required for work in progress, or required to protect materials, finishes, equipment or systems installed until the final acceptance of the project by the Owner.

E-18 AS-BUILT DRAWINGS

During the progress of the work, the Contractor shall note the location of all fittings and record on their field sets of drawings the exact locations STATION #, as installed, of all pipe hangers, expansion joints and valves. The Contractor shall also record all drawing revisions that have been authorized by change order.

Upon completion of the work this data shall be recorded to scale, by a competent CADD draftsman

on a CADD drawing.

The Contractor shall review the completed As-Built drawings and ascertain that all data furnished on the drawings are accurate and truly represent the work as actually installed. The CADD (must be AutoCAD vers. 2000) drawings including those unchanged and changed shall be submitted to the Engineer when completed, together with two sets of black-line prints for certification and forwarding to the Using Agency, at the time of final completion.

E-19 GUARANTEES AND OPERATING INSTRUCTIONS

All work performed by the Contractor in completing the subject project shall be guaranteed by the Contractor against all defects resulting from the use of materials, equipment and workmanship for a period of one year from the date of Final Completion of the project.

If, within any guarantee period, repairs or changes are required in connection with the guarantee work, which in the opinion of the Architect-Engineer is rendered necessary as a result of the use of materials, equipment or workmanship which are defective or inferior or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner and without expense to the Owner, proceed to:

Place in satisfactory condition in every particular all of such guaranteed work, correct all defects therein; and

Make good all damages to the structure or site or equipment or contents thereof, which, in the opinion of the Engineer, is the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract; and

Make good any work or materials or the equipment and contents of structures or site disturbed in fulfilling any such guarantee.

If the Contractor, after receipt of any such written notice, fails within seventy-two (72) hours to commence at the job site with performance of the work necessary to remedy all defects in the work described in such notice so as to provide the Owner with the subject project completed in accordance with all requirements of the Contract Documents, or fails to complete the performance of such remedial work within a reasonable time after commencing same, the Owner shall be entitled to have such defective work remedied on the account of the Contractor and his Surety, in which event, the Contractor and his Surety shall be fully liable for all costs and expenses reasonably incurred by the Owner in having such defective work remedied.

E-20 CLEANING

Entire area within scope of this work shall be completely cleaned and shall be kept clean for the completion of this job.

E-21 FINAL PAYMENT

Final payment shall be made to the Contractor as provided by the Agreement. (Also see Section E-36 PROGRESS PAYMENTS.)

The Contractor's application for final payment shall be accompanied by the following form:

1. Pay Request (4 copies with original signatures and original seals) noted as Final

2. Final Schedule of Contract Value

3. Consent of Surety to make Final Payment (Signed & Sealed)

4. Power of Attorney from Surety for Release of Final Payment (Signed, Sealed, and dated same as Consent of Surety)

5. Certificate of Contract Completion
   (a) Page 1 completed by the General Contractor (Original + 3 copies)
   (b) Page 2 completed by A/E (Original + 3 copies).

6. Notice of Release of Lien from each Sub-Contractor who has filed Notices to Owner

7. Contractor's Guarantee of Construction for One (1) year from the date of Substantial Completion.

8. Operating and Maintenance Manuals, Shop Drawings, As-Built (1 AutoCAD version 2000 electronic, 2 sets of Prints), Brochures, Warranties, and List of Subcontractors, with telephone numbers and addresses. As-built must include a detailed electrical wiring diagram.

9. Verification that Owner's personnel have been trained in the operation of their new equipment for each System; HVAC, Controls, Fire Alarm, etc. submit Attendance Lists.

10. Fully executed Roof Warranty (if applicable) in the name of the Owner.

11. Other special warranties as required by specifications, in the name of the Owner.

E-23 CERTIFICATE OF OCCUPANCY NOT APPLICABLE

E-24 INCLUSION OF AIA DOCUMENT A-201

Testing Costs Borne by the Owner - NONE

E-35 CHANGES IN THE WORK

During the course of the Contractor's performance of the work necessary to complete the subject Project, certain events may occur which have the effect of changing the conditions under which the work is to be performed as specified and described in the Bidding Documents, and/or the nature and extent of the work as specified and described in the Bidding Documents. The occurrence of such events may cause the Contractor to incur greater or less cost and expense to perform the work required to complete the subject Project than planned to be incurred in the Contractor's successful bid, in which event the Contractor or the Owner shall respectively be entitled to either an increase or decrease in the Contract Sum, whichever is the case, to the extent such greater or less cost and expense results, and in which event the party entitled to the benefit any such adjustment to the Contract Sum shall, within twenty (20) calendar days from the first occurrence of such event(s), present written demand therefore on the other party through the Engineer. Should the Contractor

and Owner be unable to settle and dispose of such demand within thirty (30) calendar days from the date any such claim is presented, upon terms and conditions mutually agreeable to the Contractor and the Owner, then such demand shall be referred to the Engineer for determination, which determination shall be final and binding upon the Contractor and the Owner, unless appealed in accordance with applicable provisions of the Contract Documents, and if the Engineer, upon considering any such demand, determines that the Contract Sum should be increased or decreased, the Engineer's determination of the amount of any such increase or decrease in the Contract Sum shall be governed and controlled by strict adherence to the following described guidelines and limitations, and neither the Contractor or the Owner shall be entitled to receive any monetary consideration beyond that which is authorized herein below.

All adjustments to the Contract Sum resulting from a change in the work shall be determined by the measure of actual, or estimated quantities as the case may be, out-of-pocket costs and expenses incurred or spared by the Contractor for labor, materials, equipment, and equipment rental, plus overhead and profit thereon, for performing the changed work.

1) Labor costs shall be inclusive of all direct job site cost for estimation, laying out, mechanics' wages and laborers' wages, together with all payroll taxes, payroll assessments, and insurance premiums paid for such labor.

2) All material costs, equipment costs and equipment rental costs shall be trade discount rates, plus State Sales Tax, where applicable.

3) Overhead and profit shall be inclusive of all project management, project administration, superintendence, project coordination, project scheduling and other administrative support functions and services, whether performed on the job site or off the job site and general support equipment. Overhead and profit shall be determined as follows:

    a. Overhead and profit shall be Contractor's labor, material, equipment and equipment rental costs, incurred or spared, as measured under the preceding paragraphs for changes in the work performed by the officers, employees or subsidiaries of the Contractor.

    b. Overhead and profit shall be calculated at the rate of 7 1/2 percent of the Contractor's sub-contractors' actual labor, material, equipment and equipment rental costs, incurred or spared, as measured under the preceding paragraphs, plus 15% of all such costs, as overhead and profit to the Contractor's subcontractors, for all changes in the work performed by the officers, employees or subsidiaries of the Contractor's sub-contractors.

4) In addition to the foregoing, all adjustments to the Contract Sum resulting from a change in the work shall include all out-of-pocket expenses, incurred or spared, in performing the changes in the work for:

    a. Paying the premiums required to obtain Performance Bonds and Labor and Material Payment Bonds called for by the Contract Documents;

    b. Paying the fee(s) required for licenses or permits called for by changes in the work;

c. Paying for delivery of materials or equipment to the job site;

d. Paying for storage of materials or equipment before use thereof in performing changes in the work, and

e. Paying for testing required by the changes in the work.

5) In the event Contractor demands an adjustment in the Contract Sum, such demand shall be accompanied by paid receipts or other such written evidence satisfactory to the Owner itemizing the costs and expenses incurred as a result of the event(s) constituting the changes in the work.

6) Article 8.3.3 of the AIA General Conditions is deleted and Contractor's remedies for delays in the progress of the Work, or for changes in the Work, shall be limited to those provided in this Article. The contractor's exclusive remedy for delays in performance of the contract caused by events beyond its control shall be a claim for equitable adjustment in the contract time; provided, however, inasmuch as the parties expressly agree that overhead costs incurred by Contractor for delays in performing the Work cannot be determined with any degree of certainty, it is hereby agreed that in the event the Contractor is delayed in the progress of the Work after Notice to Proceed to Mobilize on Site and to Proceed with Construction for causes beyond its control and attributable only to acts or omissions of Owner, Contractor shall be entitled to compensation for overhead and profit costs either (a) as a fixed percentage of the actual cost of the change in the Work, if the delay results from a change in the Work, as calculated in Section E, "Conditions of the Contract".

In the event of a change in the Work, Contractor's claim for adjustments in contract sum are limited exclusively to its actual costs for such changes plus fixed percentages for overhead, additional profit and bond costs, as specified in Section E.

The forgoing remedies for delays and changes in the Work are to the exclusion of, and thus eliminate, the total cost concept (that is, computing Contractor's additional costs for changes in Work or the costs of a delay in the progress of the Work by comparing Contractor's total actual costs with its original estimate, see McDevitt & Street Company v. Department of General Services State of Florida, 377 So.2d 191, (Fla. 1st-DCA 1979)) as method of determining Contractor's costs associated with a change in the Work or with delay in the progress of the Work.

No provision of this contract shall be construed as a waiver of sovereign immunity by the Owner.

No provision of the Contract Documents makes or is intended to make provision for recovery by Contractor of damages for delay or for breach of contract. All claims, disputes or controversies under this contract shall be determined and settled as provided in Article 8.4.3 of this Agreement. No claim for breach of contract shall be submitted, determined or settled under Article 8.4.3 of this Agreement.

E-36 PROGRESS PAYMENTS

The Owner will, at intervals, make progress payments to the Contractor as provided in the Agreement.

The Contractor shall request such compensation as well as final payment by submitting:

1. a properly completed and notarized Application for Progress Payment in the form as directed,
2. a schedule of Contract Values as described below.

The Contractor shall, within ten (10) calendar days from date of Agreement, submit to the Engineer for approval three copies of a Schedule of Contract Values which will reflect the estimated cost of each subdivision of work of each specification section, further detailed by Subcontractor item, and utilizing the Construction Specification's Institute "Master format Section Numbers". The value of each item shall include a true proportionate amount of the Contractor's overhead and profit. The sum of all such scheduled values shall equal the Contract Sum as evidenced by the Agreement.

The approved Schedule of Contract Values will accompany and support the Contractor's periodic Applications for Payment and shall indicate the value of suitably stored material as well as labor performed and materials incorporated into the work for each subdivision of the schedule during the period for which the requisition is prepared. The Schedule of Contract Values form shown after section "E" will be utilized to present this and other pertinent information which will facilitate the checking and processing by the Owner's representatives of the Contractor's Application for Payment.

E-37 EXCLUSION OF OWNER AND ENGINEER FROM LIABILITY

Notwithstanding any other provision of the Contract Documents, should the Contractor sustain loss or be damaged by act or omission of a separate Contractor, the Owner and Engineer shall not be liable for any such loss or damage and the Contractor shall not be entitled to obtain any monetary relief from the Owner to compensate for any such loss or damage, but shall be limited to such recovery as is otherwise available at law from persons and/or entities other than the Owner.

SECTION F SPECIAL CONDITIONS

F-1 WATER

Water necessary for testing the water main will be made available by the owner. The contractor shall make any transferring modifications necessary to transfer the water to where the tests will be. He shall make all connections, install a meter, take out and pay for all permits necessary, do all piping and clear away all evidence of same after the job is completed.

F-2 ELECTRICITY

All electricity for light and power necessary for the construction of the building and testing of its electrical and mechanical systems shall be paid for by the Contractor. He shall make all necessary arrangements for this service and perform the work required.

F-3 INITIAL-CONSTRUCTION CONFERENCE

Immediately prior to starting construction, or as soon as possible after the construction has started, the Engineer will arrange a meeting with the all associated and interested parties. The purpose of this meeting shall be to discuss requirements and responsibilities of the various parties involved with the objective of expeditious handling of the construction contract. The Project Engineer will chair this meeting.

F-4 SITE SECURITY

The Contractor shall pay for and be responsible to secure the site and the project against theft, vandalism, fire and for public safety at all times (24 hours per day) from Notice to Proceed until Substantial Completion.

F-5 CONSTRUCTION COORDINATION AND MEETINGS

The water service cannot be interrupted. The contractor must coordinate performing tie-ins with the owner to maintain service to the system users. The contractor shall attend bi-weekly progress meetings with the ENGINEER.

SECTION H - FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Upon receiving award of contract the contractor agrees to execute the following assignment

on his behalf.

WATER MANAGEMENT SERVICES, INC.
FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION OF

THIS AGREEMENT made this ____ day of _____ in the year Two-Thousand and Eleven

BY AND BETWEEN THE WATER MANAGEMENT SERVICES, INC., hereinafter called the

OWNER, and

_____

_____

_____ Federal ID No.: _____

hereinafter called the Contractor.

The OWNER and the Contractor agree as set forth below.

ARTICLE 1. THE CONTRACT DOCUMENTS
The Contract Documents consist of this Agreement, Conditions of the Contract (General Supplementary and other Conditions), Drawings, Specifications, all Addenda issued prior to execution of this Agreement and all Modifications issued subsequent thereto. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein. An enumeration of the Contract Documents are as follows:

Agreement
Specifications
Drawings

In the event of conflict in the provisions of said Contract Documents, or any of them, the provisions of the basic contract which immediately precede the signature of the parties shall control over the General Conditions and Supplementary General Conditions, and the Supplementary General Conditions shall control over the General Conditions of said Standard Form A-201 of the American Institute of Architects.

The OWNER may unilaterally cancel this Contract for refusal by the Contractor to allow public access to all documents, papers, letters, or other material originated or received by the Contractor in conjunction with the Contract, subject to the provisions of Florida Statutes, Chapter 119.

ARTICLE 2. THE WORK

The Contractor shall perform all the Work required by the Contract Documents for:
"St. George Island Water System 2011 Improvements" consisting of: provide and install a new 600,000 gallon ground storage tank, a high service pumping station, a 500 gpm potable water well #5, modifications to the existing water plant, water well #3 and supply and distribution piping.

ARTICLE 3. THE ARCHITECT/ENGINEER

The Architect/Engineer for this project is *Les Thomas Consulting Engineers*

ARTICLE 4. TIME OF COMMENCEMENT AND COMPLETION

4.1 The Work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to Proceed With Construction, shall be substantially completed within 270 calendar days and shall be finally completed and tested within 30 calendar days.

4.2 Liquidated Damages For Failure To Complete On Time: $500.00 per day

4.3 Liquidated Damages When Owner Terminates Contract

The Owner is entitled to completion of the project within the time fixed in Article 4 hereof or within such further time, if any, as may be allowed in accordance within the provisions of the contract. In the event of termination of the contract by the Owner prior to completion as provided in Article 14.2 of the General Conditions or elsewhere in the Contract Documents, the Contractor shall be liable to the Owner for the expenses for additional managerial and administrative services provided in said Article 14 and also for the per diem liquidated damages agreed upon Article 4.2 hereof.

(1) for each day he is in arrears in his work at the time of said termination as determined by the Engineer, and

(2) for each day of thirty (30) additional calendar days hereby stipulated and agreed to be the time it will require the Owner to effect another contract for completion of the project and for resumption of work thereon.

Provided, however, that the sum of (1) and (2) shall not exceed the number of days beyond the original agreed completion date, or any extension thereof as herein provided reasonably required for completion of the project.

ARTICLE 5. CONTRACT SUM

The Owner shall pay the Contractor for the performance of the work subject to additions and deductions by Change Order as provided in the Conditions of the Contract in current funds, the Contract Sum of _____.

ARTICLE 6. PAYMENTS TO CONTRACTOR

Thirty (30) calendar days shall be allowed for the Owner's inspection and approval of the installation

for which any Application For Payment is made.

6.1 Indemnification Rider

In addition to the Contract Sum, the Owner shall pay the Contractor ten dollars ($10.00) for the Indemnification Rider prescribed in Section E-4 of the Conditions of the Contract. Application for Payment of the ten dollars ($10.00) shall be submitted to the Owner by the Contractor simultaneous with the Contractor's execution and delivery of the Contract to the Owner. Within thirty (30) calendar days from the Owner's receipt of said Application, the Owner shall pay or cause to be paid to the Contractor the amount of ten dollars ($10.00).

6.2 Progress Payments Against Contract Sum

Based upon Application for Payment submitted to the Architect/Engineer by the Contractor and Certificates of Payment issued by the Architect/Engineer and approved by the Owner, the Owner shall make progress payments to the Contractor against the account of the Contract Sum, as provided in the Conditions of the Contract in accordance with the following:

6.2.1

Within Thirty (30) Calendar Days from the Owner's inspection and approval of the goods and services for which any application for payment is submitted by the Contractor, the Owner shall pay, or cause to be paid to the contractor, 90% of that portion of the contract sum properly allocable to labor, materials and equipment incorporated into the work, and 90% of that portion of the contract sum properly allocable to materials and equipment suitably stored at the site or at some other locations agreed upon in writing by the parties, less the aggregate of previous payments.

However, at the time the work is 50% complete or thereafter, if the manner of completion of the work and its progress are and remain satisfactory to the Architect/Engineer in consultation with the Owner, the Architect/Engineer may authorize a 5% retainage on progress payments. The full 10% retainage may be reinstated if the manner of completion of the work and its progress do not remain satisfactory to the Architect or for other good and sufficient reasons.

(a) The Contractor shall promptly pay each Sub-contractor, upon receipt of payment from the Owner out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, for payments to the Contractor on account of such Subcontractor's work.

(b) The Engineer may, on request at his discretion, furnish to a Subcontractor, if practicable, information regarding the percentages of completion of the amount applied for by the Contractor and the action taken thereon by the Engineer on account of Work done by such Subcontractor.

(c) Neither the Owner nor the Engineer shall have any obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.

(d) No Certificate for a progress payment, nor any progress payment, nor any partial or entire use of occupancy or the project by the Owner, shall constitute an acceptance of any work not in accordance with the Contract Documents.

(e) Invoices for compensation for services or expenses will be submitted in detail sufficient for a proper pre-audit and post-audit thereof.

6.3 Payments Withheld From Contract Sum

The Engineer may decline to certify payment or, because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary, in his opinion, to protect the Owner from loss because of:

1. defective work not remedied,
2. third party claims filed or reasonable evidence indicating probable filing of such claims.
3. failure of the Contractor to make payments properly to Subcontractors or for labor, materials, or equipment,
4. reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
5. damage to the Owner or another contractor,
6. reasonable evidence that the Work will not be completed within the Contract Time, or
7. persistent failure to carry out the Work in accordance with the Contract Documents.

When the above grounds in Subparagraph 6.3 are removed, payment shall be made for amount withheld because of them.

ARTICLE 7. FINAL PAYMENT AGAINST CONTRACT SUM

Within thirty (30) days from the date of Contract Completion the Owner shall pay or cause to be paid to the Contractor, the entire unpaid balance of then Contract Sum, less the amount of any sums which continue to be retained to satisfy the cost of performing any change in the Work which is the subject of any claim or dispute and which has not yet been satisfactorily performed by the Contractor, provided that the parties have not otherwise stipulated in the Certificate of Substantial Completion, and provided further that the Work has been satisfactorily completed, the Contractor's obligations under the Contract have been fully performed, and a final Certificate for Payment has been issued by the Engineer.

ARTICLE 8. MISCELLANEOUS PROVISIONS

8.1 Terms used in the Agreement which are defined in the conditions of the Contract shall have the meaning designated in those Conditions.

8.2 The term "Substantial Completion" shall mean that the project under this contract is sufficiently completed in accordance with the Contract Documents, so that the Owner can occupy or utilize the work or designated portions thereof for the use for which it is intended,

as expressed in the Contract Documents.

The term "Substantial Completion" shall not mean the inclusion of such minor alterations and patching as the Final Inspection shall disclose.

8.3 Claims and Disputes

8.3.1 Arbitration Provisions Deleted

The provisions of Articles 4.5.1, 4.5.2, 4.5.3, 4.5.4, 4.5.4.1, 4.5.4.2, 4.5.5, 4.5.6 and 4.5.7 of the Standard Form American Institute of Architects' AIA Document A-201 General Conditions of the Contract for Construction, are hereby eliminated.

The purpose of deleting these provisions is to exclude in their entirety each of the cited provisions, which related to the arbitration of claims, so that the administrative remedy provided in Article 8.3.2 of this Agreement shall be exclusive, in lieu of arbitration proceedings.

8.3.2 Exclusive Claims Provision

The provisions of Chapter 120, Florida Statutes (the Administrative Procedure Act), Rule 33-1.006 Florida Administrative Code (FAC), and the Model Rules of Procedure of the Administration Commission, Rules 28-5.101 through 28-5.604 FAC will apply to the resolution of any claim or dispute arising out of this contract.

The Contractor and the Owner will attempt to resolve all disputes by the informal process of Rule 28-5.603 FAC before resorting to proceedings under Section 120.57 Florida Statutes. The informal process is as follows:

1. The Contractor shall file a written protest with the Owner within 10 days after the Contractor learns of the facts giving rise to the protest. The Contractor should explain in its protest the facts giving rise to the dispute, the provisions of the contract, law, ordinances, codes, or customs that apply to dispute, and a statement of why the Contractor is entitled to specific relief.

2. Upon receipt of the protest, the Owner shall endeavor to resolve the issues raised by the protest. If the Owner and Contractor cannot agree upon a resolution within 15 days of receipt of the protest, or if the Owner fails to respond within 15 days after receipt of the protest, the Contractor may request a hearing under Section 120.57 Florida Statutes. The Contractor will have 14 days from receipt of the Owner's response, or from the conclusion of the 15 day period for the Owner's response, in which to request a Section 120.57 hearing.

3. Whenever possible the Owner shall respond to a protest within the 15 day period, and shall set forth as fully as possible the reasons for its action or proposed action on the issues raised by the protest.

   The Contractor shall carry on the Work and maintain the progress schedule during any administrative proceeding unless otherwise agreed by the Contractor and the Owner in writing.

8.4 Harmony

Contractor is advised and hereby agrees that he will exert every reasonable and diligent effort to assure that all labor employed by Contractor and his Subcontractors for Work on the project shall work in harmony with and be compatible with all other labor being used by the owner on the site. Contractor further agrees that this provision will be included in all subcontracts of the Subcontractor as well as in the Contractor's own contract; provided, however, that this provision shall not be interpreted or enforced so as to deny or abridge, on account of membership or non-membership in any labor union or labor organization, the right of any. person to work as guaranteed by Article 1, Section 6 of the Florida Constitution.

8.9 Contractor Representation

The Contractor represents and warrants that the information provided by the Contractor, which was submitted by the Contractor to qualify for award of this contract, and is hereby made a part of this Agreement by reference, is true, accurate and correct. The Contractor understands and agrees that materially inaccurate information may result in termination of this contract at the Owner's option.

8.11 Contractor's Supervision of Project

The Contractor must provide, as a minimum, field (on site) supervision (through a named superintendent). The Contractor shall not change or deviate from these principal and supervisory personnel without the written consent of the Owner.

SECTION M

ENGINEER'S CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT: St. George Island Water System 2011 Improvements
ENGINEER: *Les Thomas Consulting Engineers*
OWNER: WATER MANAGEMENT SERVICES, INC.

CONTRACTOR:_____
CONTRACT FOR: St. George Island Water System 2011 Improvements
CONTRACT DATE:_____
DATE OF ISSUANCE:_____

PROJECT OR DESIGNATED PORTION SHALL INCLUDE:_____

The Work performed under this Contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as _____ which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

DEFINITION OF DATE OF SUBSTANTIAL COMPLETION
The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Architect/Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The date of commencement of warranties for items on the attached list will be the date of final payment unless otherwise agreed to in writing.

Les Thomas Consulting Engineers _____ _____
ENGINEER BY: :Les M. Thomas, PE DATE:

The Owner accepts the Work or designated portion thereof as substantially complete.

WATER MANAGEMENT SERVICES, INC _____ _____
OWNER: BY: Gene Brown DATE

The Contractor will complete or correct the Work on the list of items attached hereto within the time prescribed in the contract from the above Date of Substantial Completion.

_____ _____ _____
CONTRACTOR BY: DATE

CONTRACTOR'S AFFIDAVIT OF CONTRACT COMPLETION

OWNER: Water Management Services, INC.

PROJECT: St. George Island Water System 2011 Improvements

CONTRACTOR:_____

CONTRACT FOR: _____

CONTRACT DATE:_____CONTRACT AMOUNT:_____

CONTRACTOR'S AFFIDAVIT
I solemnly swear and affirm: That the work under the above named contract and all amendments thereto have been completed in accordance with the requirements of said contract; that all costs incurred for equipment, materials, labor, and services against the project have been paid; that no liens have been attached against the project; that no suits are pending by reason of work on the project under the contract; that all Workmen's Compensation claims are covered by Workmen's Compensation insurance as required by law; that all public liability claims are adequately covered by insurance, and that the Contractor shall save, protect, defend, indemnify, and hold the Owners harmless form and against any and all claims which arise as a direct or indirect result of any transaction, event or occurrence related to performance of the work contemplated under said contract.

CONTRACTOR:

_____SEAL

Title:_____
Date: _____

STATE OF _____
COUNTY OF_____

Personally appeared before me this ___ day of _____ 201__

known (or made known) to me to be _____
(Owner)(Partner)(Corporate Officer - Title)

_____

Contractor(s), who, being by me duly sworn, subscribed to the foregoing affidavit in my presence.

_____
(Notary Public)
(type name):
My Commission Expires _____

SECTION N
CERTIFICATE OF CONTRACT COMPLETION

PROJECT TITLE: St. George Island Water System 2011 Improvements
CONTRACTOR:_____
CONTRACT DATE: _____DATE OF FINAL COMPLETION:_____

CERTIFICATE OF ENGINEER

I CERTIFY: That the work under the above contract has been satisfactorily completed on the date set forth in accordance with the terms of the contract; that the contractor has submitted his sworn affidavit as evidence that he has paid all labor, materials and other charges against the project in accordance with the terms of the contract.

ENGINEER: *Les Thomas Consulting Engineers*
Date: _____ BY: _____

TO BE COMPLETED BY ENGINEER DATE DAYS LIQUIDATE DAMAGES THROUGH THE SUBSTANTIAL COMPLETION PHASE

1. Notice to Proceed (N.T.P.)

2. Time Specified in Original Contract for Substantial Completion (S.C.)
3. Extension Granted by Change Orders (Days Between Original Contract S.C. and final Contract S.C.)
4. Total Days Allowable to Substantial Completion (Add Lines 2 and 3)
5. Project Substantially Completed as Certified by A/E (Total Days from N.T.P. through Date Certified by A/E)
6. Substantial Completion Overrun (Subtract Line 4 from 5 and Enter Overrun) @ $ Per Day =

THROUGH THE FINAL COMPLETION PHASE

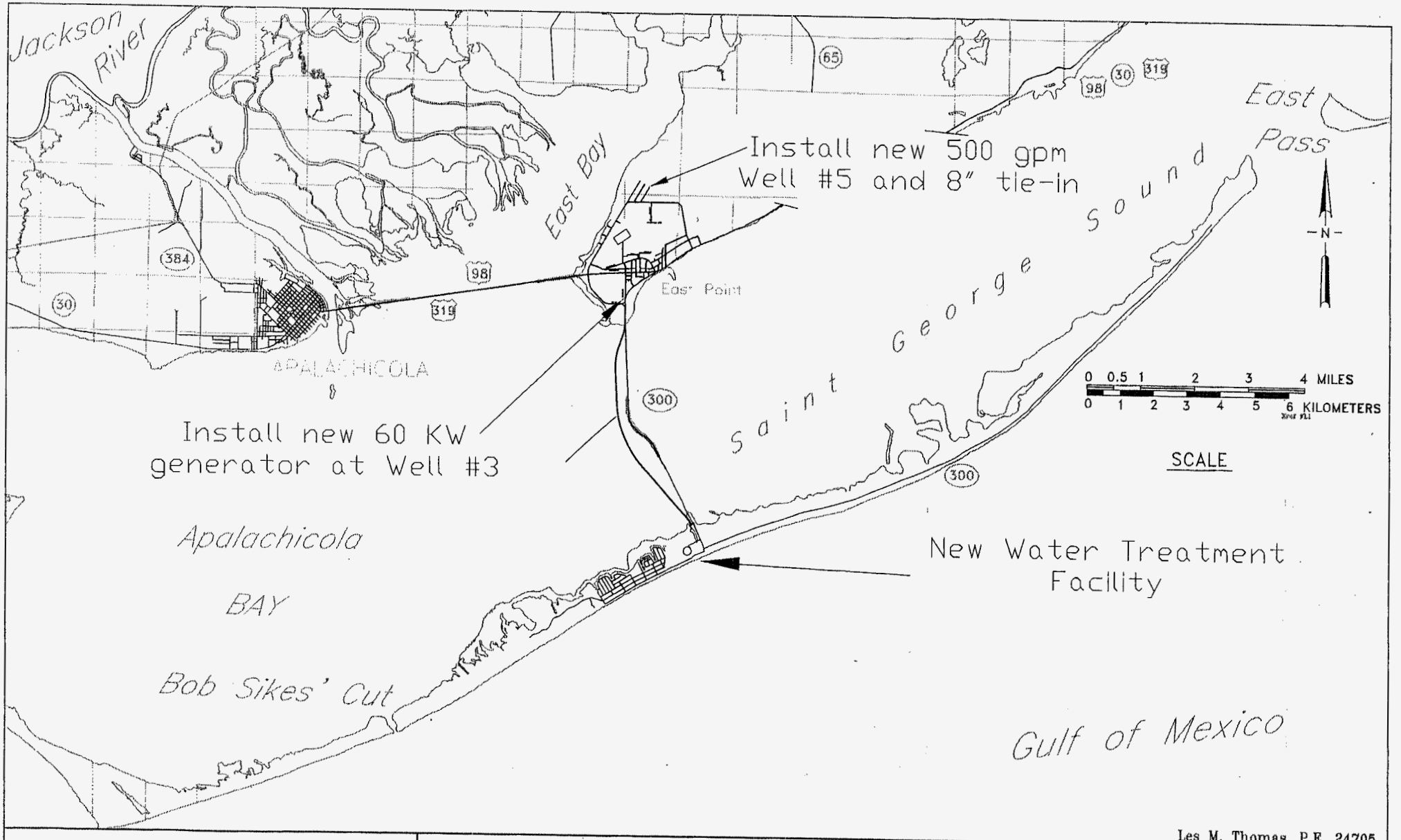
1. Time Specified in Contract, Between Substantial and Final Completion
2. Extensions Granted by Change Orders (Days Between S.C. and Final Completion)
3. Total Days Allowable Between Substantial and Final Completion (Add Lines 1 and 2)
4. Date Actually Completed and Total Days Between Actual S.C. and Date Certified by A/E as Actually being Finally Completed.
5. Final Completion Overrun (Subtract Line 3 from 4 and Enter Overrun) @ $ Per Day = $

Total Liquidated Damages $

Date: _____ _____
ENGINEER

Date: _____ _____
OWNER

SECTION R – TECHNICAL SPECIFICATIONS CONSISTS OF 182 PAGES WHICH HAVE BEEN ODMITTED FROM THIS COPY, BUT ARE AVAILABLE FROM WATER MANAGEMENT SERVICES, INC



Les M. Thomas, P.E. 24705

WATER MANAGEMENT SERVICES, INC	LES THOMAS CONSULTING ENGINEERS 3460 Point View Cr. LThomasPE@aol.com Gainesville, GA 30506	PROJECT: SGI 2011 Improvements	DATE: 7/15/11 SCALE:
		SHEET : Overall Plan	SHEET 1 OF

LEGEND

- EXISTING TREE
- FENCE
- EXISTING STRUCTURE
- TELEPHONE POLE / POWER POLE
- ELECTRIC OPERATOR
- CONCRETE SIDEWALK
- CONCRETE CURB & GUTTER
- PROPOSED PAVEMENT
- EXISING PAVEMENT
- RECLAIMED WATER LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING OVERHEAD TELEPHONE LINE
- RIGHT-OF-WAY LINE
- CITY LIMITS
- EASEMENT
- PROPOSED WATERMAIN
- EXISTING WATERMAIN
- EXISTING SWALE
- PROPOSED SWALE
- D.I.P. DUCTILE IRON PIPE
- P.V.C. POLYVINYL CHLORIDE PIPE
- SANITARY SEWER LINE
- GAS LINE
- STORMDRAIN LINE
- R.C.P. REINFORCED CONCRETE PIPE
- E.R.C.P. ELLIPTICAL REINFORCED CONCRETE PIPE
- BUILDINGS BY CONTRACTOR
- BENCHMARK
- EXISTING GRADE ELEVATION
- PROPOSED SPOT ELEVATION
- DETAIL NUMBER
- SHEET NUMBER
- PROPOSED FIRE HYDRANT
- PROPOSED SEWER SERVICE CLEAN-OUT
- WATER MAIN BLOW-OFF, PROPOSED
- WATER MAIN STANDPIPE, EXISTING
- CHECK VALVE
- GATE VALVE
- GATE VALVE
- EXISTING UNDERGROUND STORM DRAIN PIPE
- STORM DRAIN INLET
- CASED HIGHWAY CROSSING
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY MANHOLE
- EXISTING PUMPING STATION
- EXISTING SANITARY FORCE MAIN
- EXISTING CABLE T.V. MARKER
- EXISTING WATER METER
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED SANITARY MANHOLE
- PROPOSED SEWER LATERAL
- EXISTING FIBEROPTIC CABLE
- HOSE BIB

GENERAL NOTES

1. MINIMUM GROUND COVER OVER WATER MAINS TO BE 36". MINIMUM GROUND COVER OVER SEWAGE FORCE TO BE 48"
2. WATER AND SEWER LINES SHALL MAINTAIN A HORIZONTAL SEPARATION OF 10' OR A VERTICAL SEPARATION OF 18". WHEN THIS IS NOT POSSIBLE, CONCRETE ENCASEMENT OF PIPE, FOR A DISTANCE OF 10' EACH SIDE OF THE SEWER MAIN SHALL BE USED, IN LIEU OF THE CONCRETE ENCASEMENT, DUCTILE IRON PIPE MAY BE USED. A MINIMUM VERTICAL SEPARATION OF 6" SHALL BE MAINTAINED WITH ALL OTHER UTILITIES.
3. WHERE NECESSARY, WATER MAINS TO BE DEFLECTED TO PROVIDED 12" MIN. HORIZONTAL CLEARANCE BETWEEN MAIN AND STORM STRUCTURE AND DRAINS.
4. NOTIFY THE OWNER PRIOR TO MAKING ALL CONNECTIONS TO EXISTING WATER MAINS/ UTILITIES.
5. BACTERIOLOGICAL SAMPLING SHALL BE PERFORMED BY CONTRACTOR.
6. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES.
7. AT LEAST FORTY-EIGHT HOURS IN ADVANCE OF BREAKING GROUND IN ANY AREA, CONTRACTOR SHALL NOTIFY THE FOLLOWING:

   WATER & SEWER: SUNSHINE - 800-432-4770
   GAS: SUNSHINE - 800-432-4770
   TELEPHONE: SUNSHINE - 800-432-4770
   ELECTRIC: SUNSHINE - 800-432-4770
   CABLE TV: SUNSHINE - 800-432-4770
   BURIED CABLE: SUNSHINE - 800-432-4770

8. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION IN CASE OF CONFLICTS OF NEW CONSTRUCTION WITH EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER TO RESOLVE SUCH CONFLICTS PRIOR TO CONTINUING CONSTRUCTION.

DRAWING INDEX

Les M. Thomas, P.E. 24705

Water Management Services, Inc.

LES THOMAS CONSULTING ENGINEERS
3460 Point View Circle Gainesville GA 30506

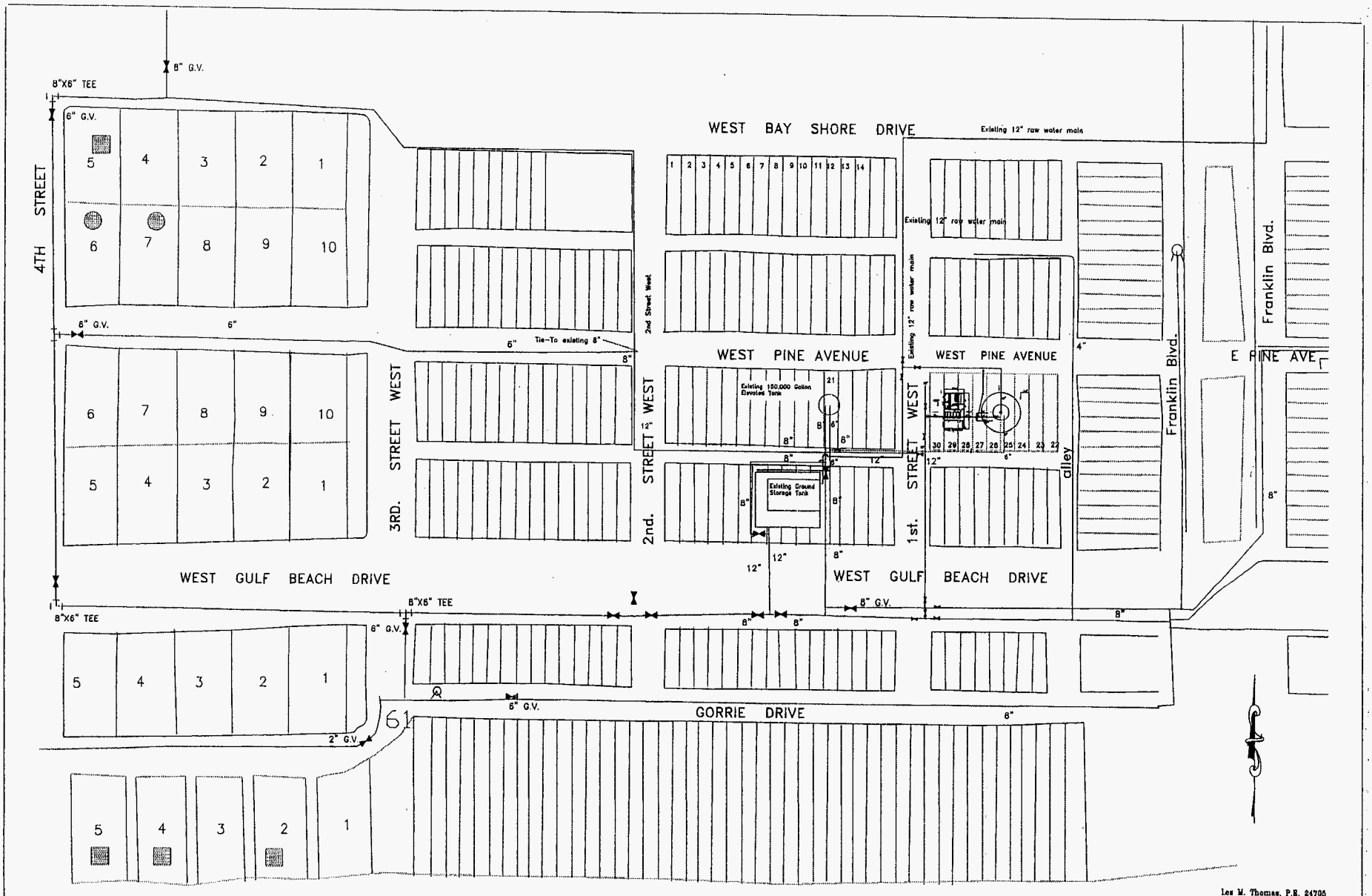
PROJECT: SGI Water System Improvements 2011

SHEET: Index, Legend, Notes

DATE: 7/18/11

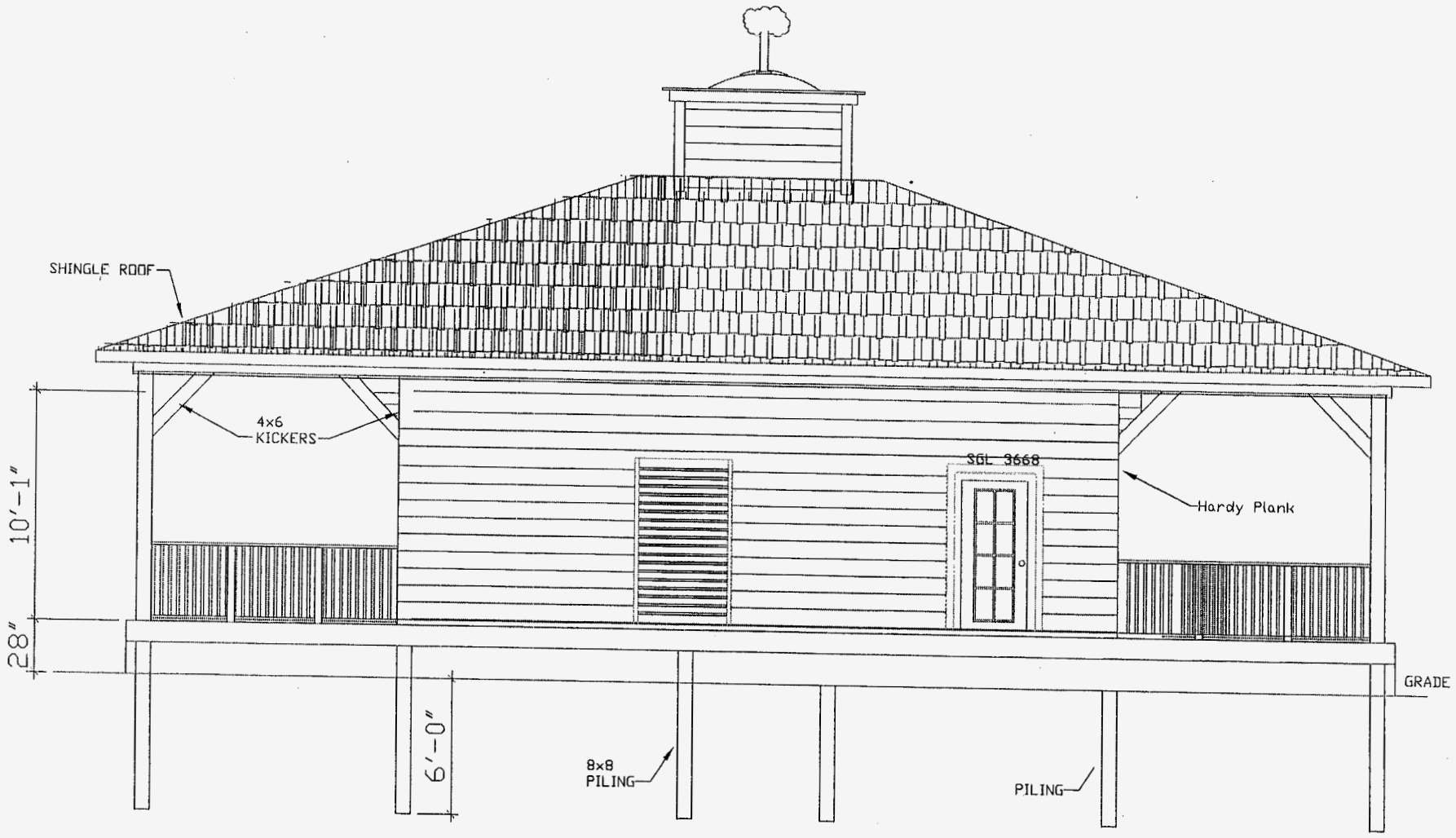
SCALE:

SHEET 2 OF



Les M. Thomas, P.E. 24705

Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: WTP Site Plan	DATE: 8/8/11 SCALE: 3 SHEET OF

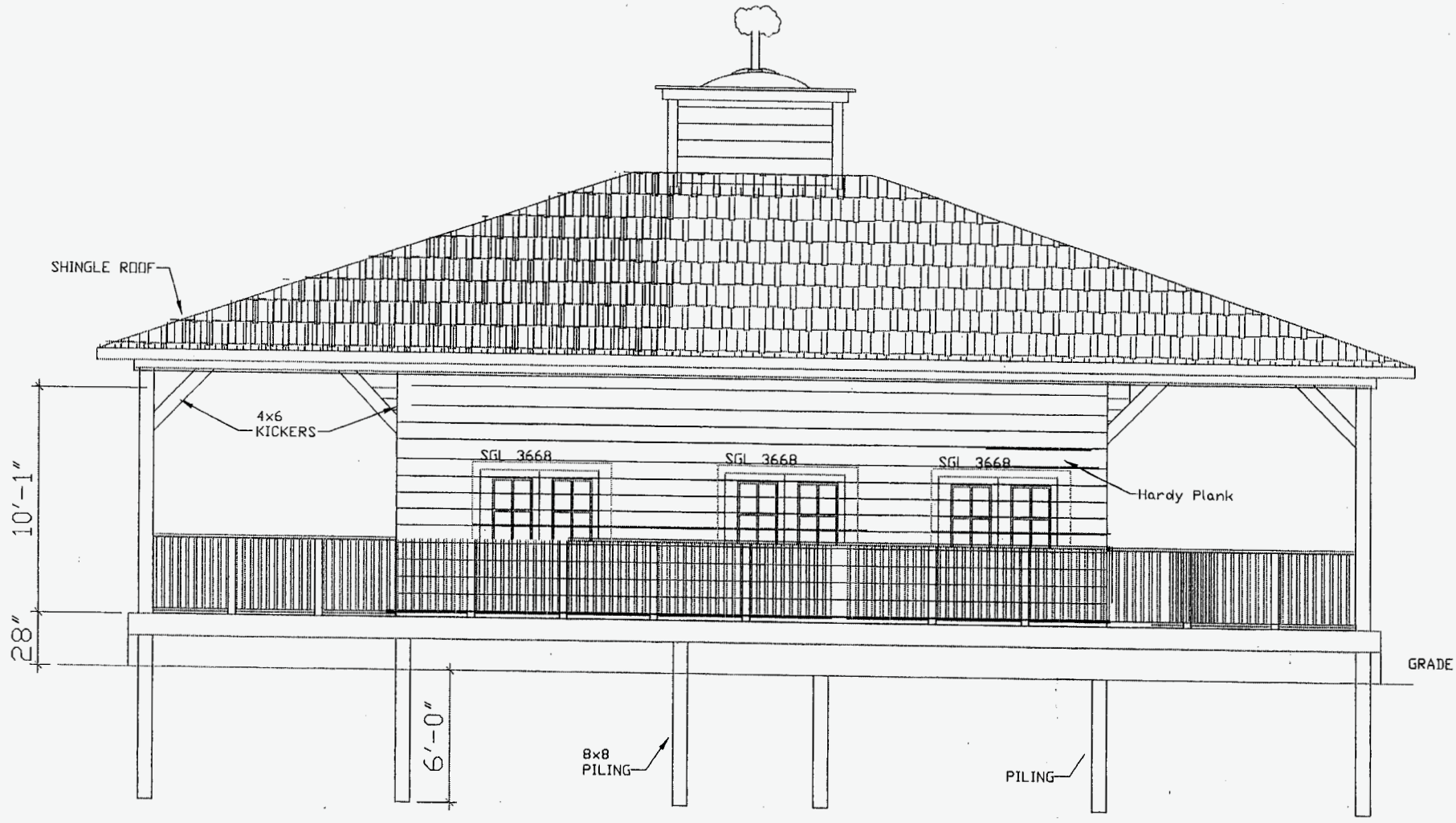


NORTH ELEVATION

SCALE: 1/4" = 1'-0"

Les M. Thomas, P.E. 24705

Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS North Elevation	DATE: 7/7/2011 SCALE: SHEET 4 OF

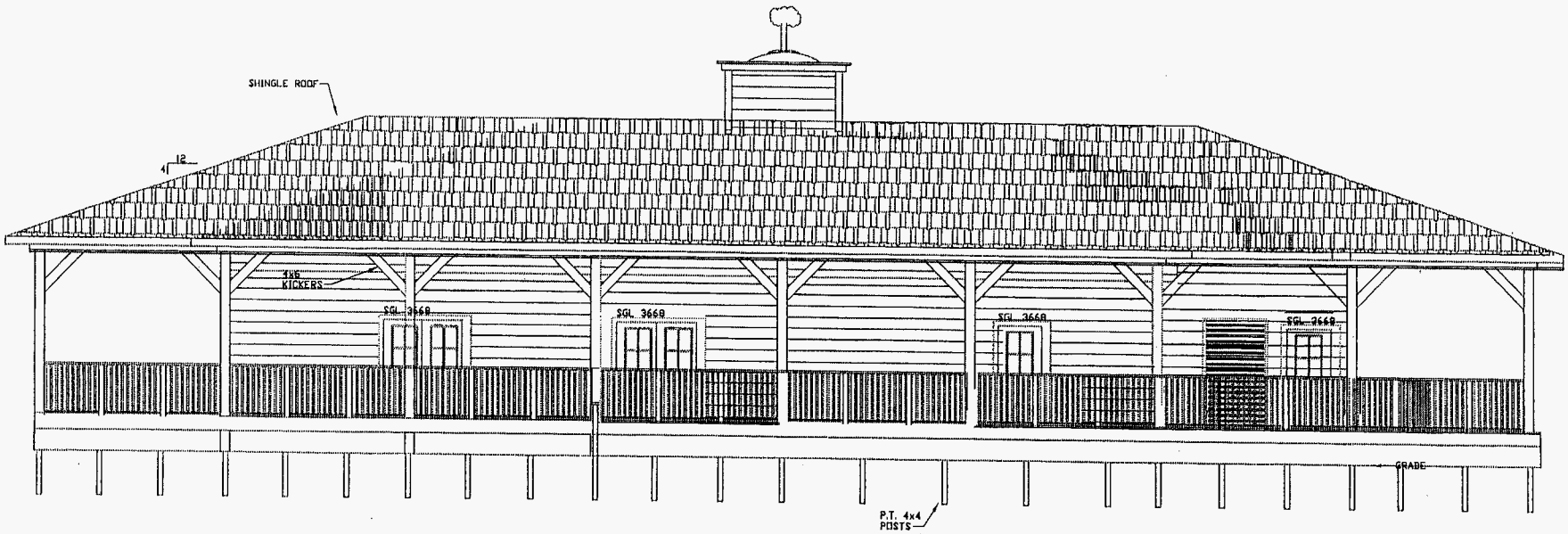


SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

Les M. Thomas, P.E. 24706

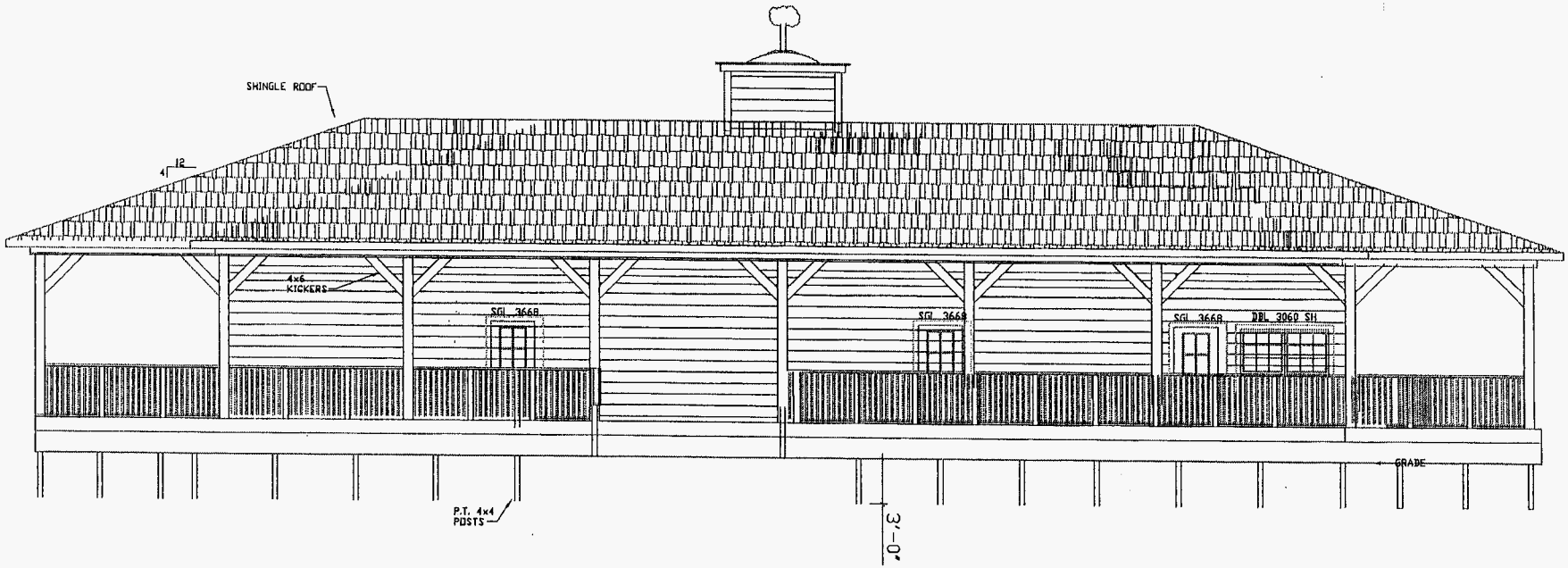
Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS South Elevation	DATE: 7/7/2011 SCALE: 5 SHEET OF



0 5 10 20 30 40

Les M. Thomas, P.E. 24705

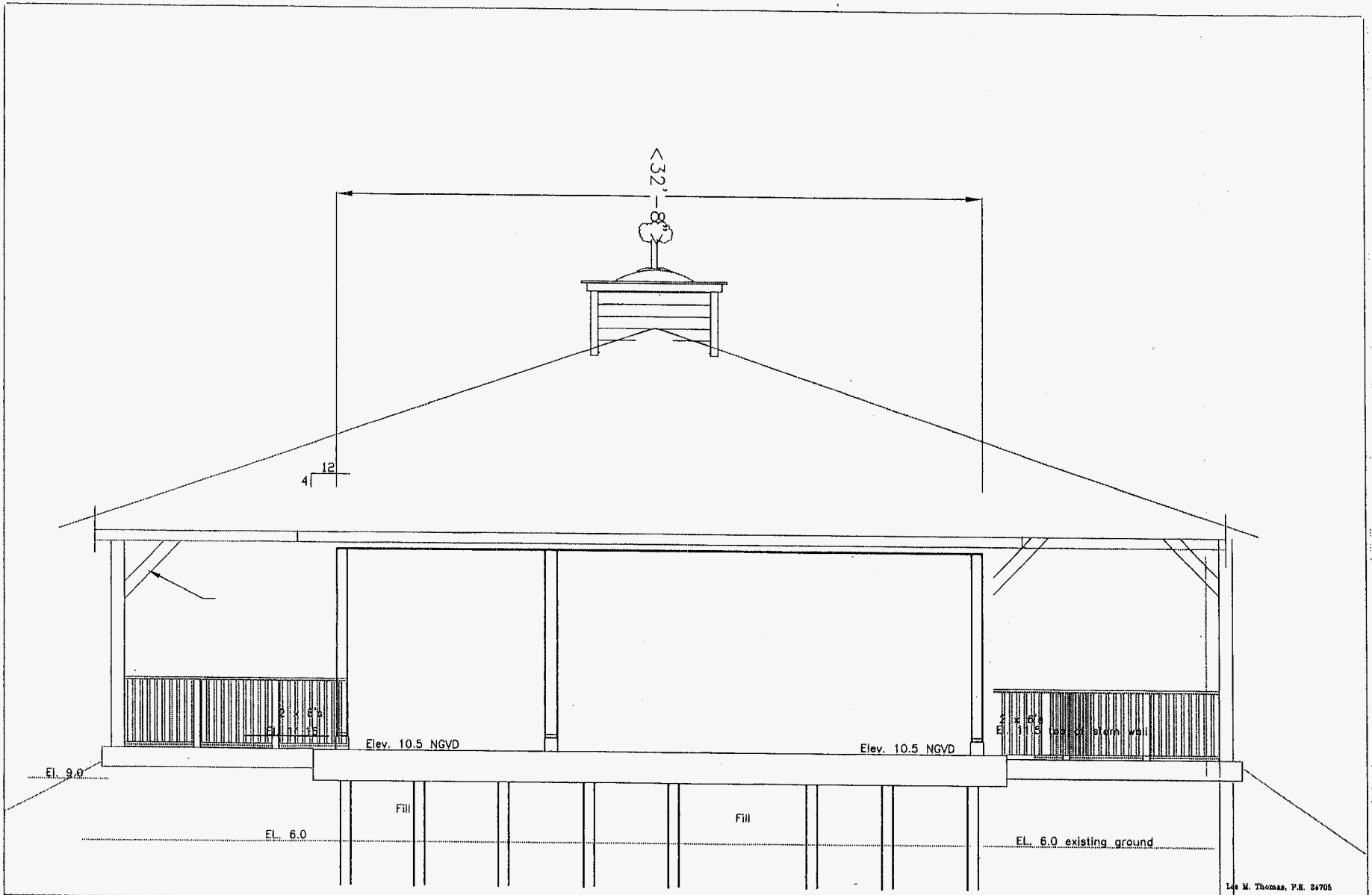
Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle LThomasPE @ AOL.com Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS East Elevation	DATE: 7/7/2011 SCALE: 6 SHEET OF



0 5 10 20 30 40

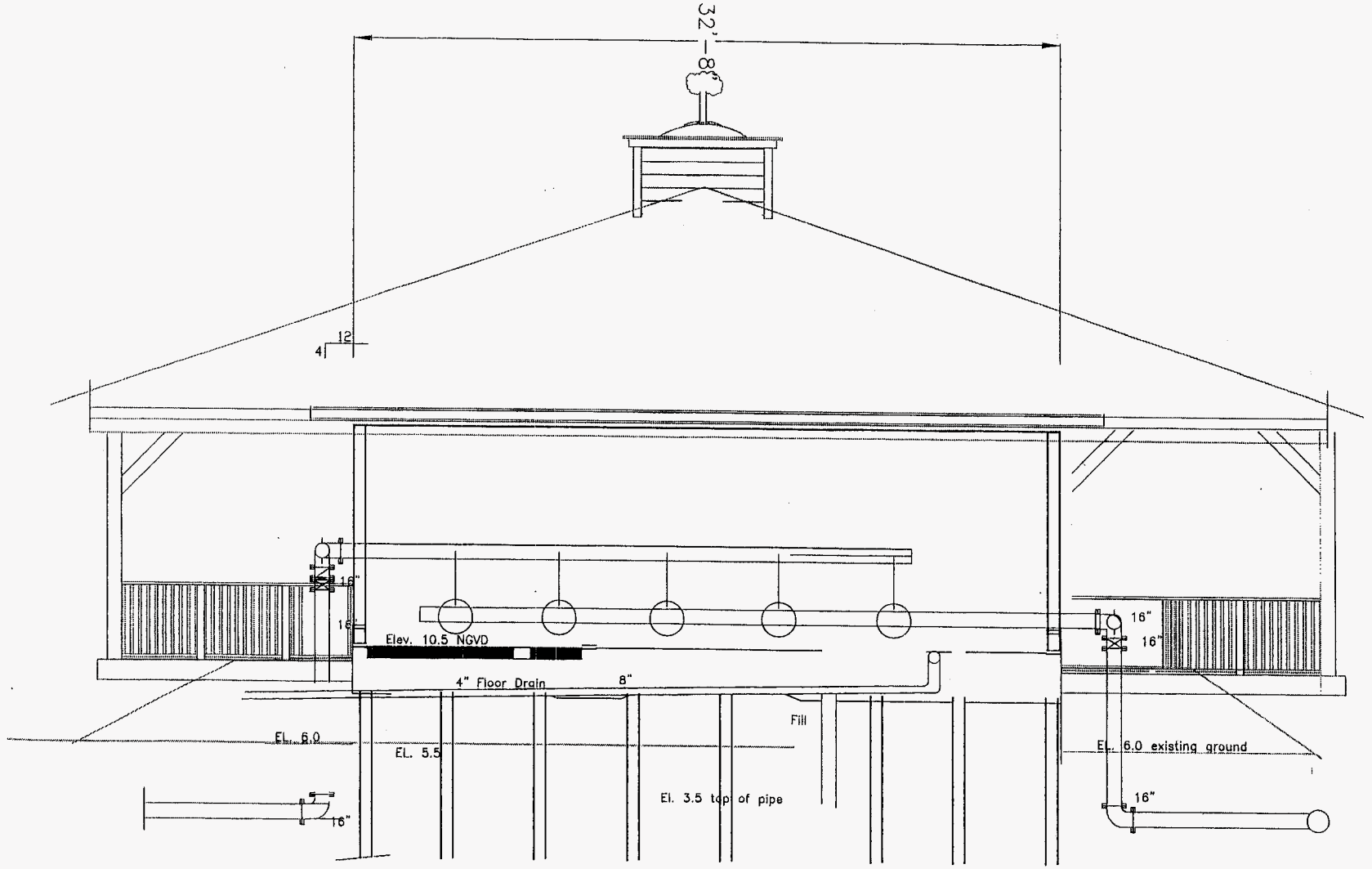
Les M. Thomas, P.E. 24705

Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle LThomasPE @ AOL.com Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS West Elevation	DATE: 7/7/2011 SCALE: SHEET 7 OF



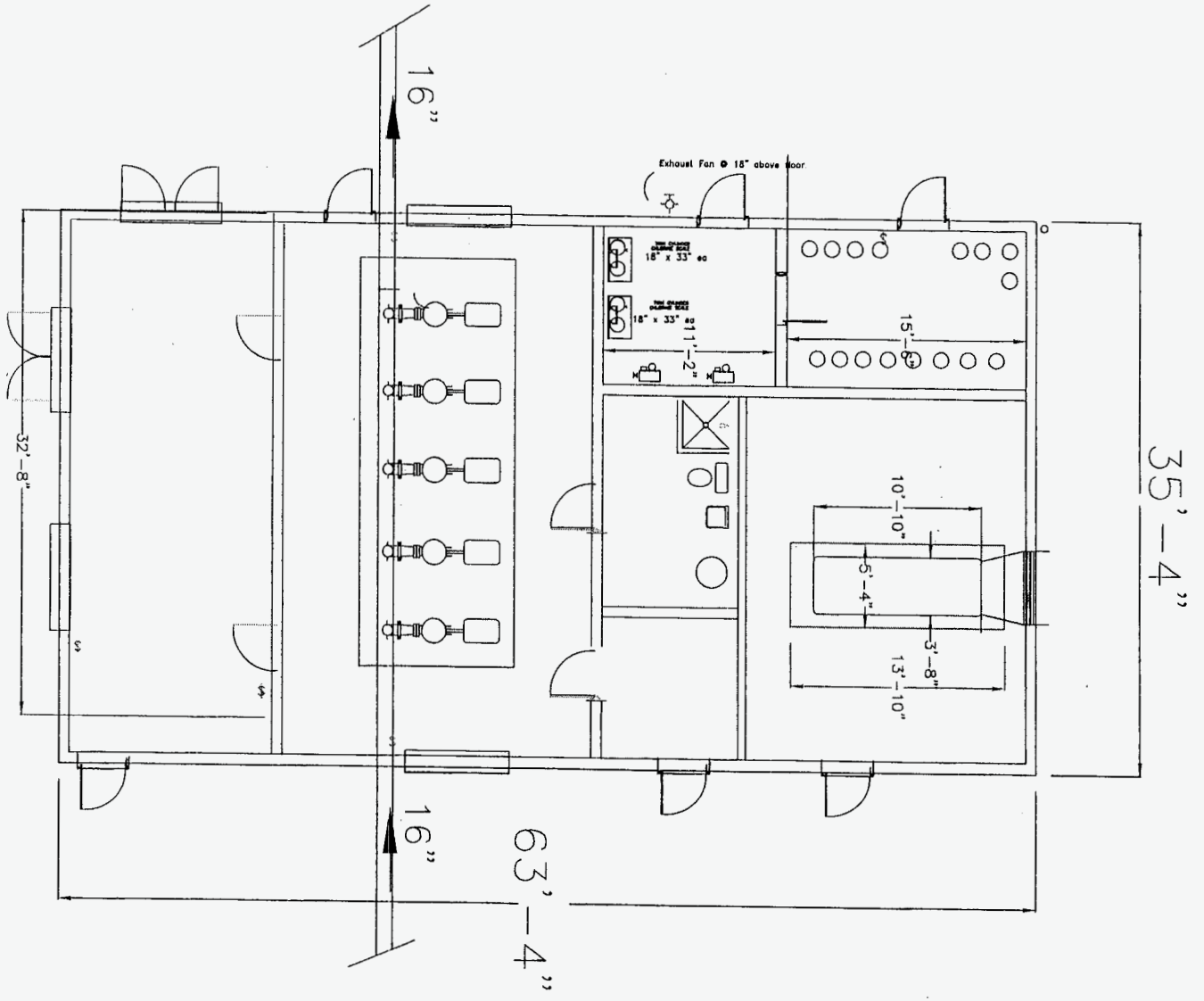
Les M. Thomas, P.E. 24705

Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS Building Section	DATE: 8/6/11 SCALE: 8 SHEET OF



Les M. Thomas, P.E. 24706

Water Management Services, Inc.	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET: HSPS Pump Section	DATE: 8/6/11 SCALE: 9 SHEET OF



Water Management Services, Inc.

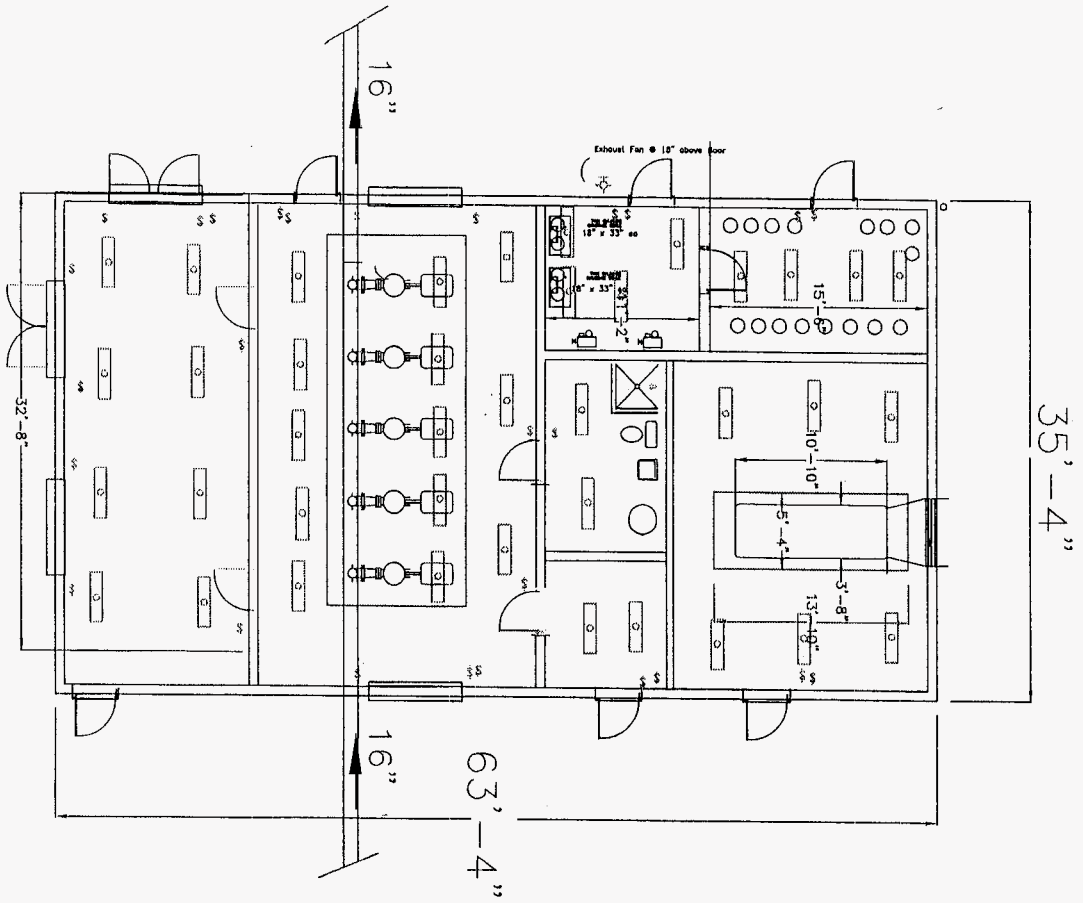
LES THOMAS CONSULTING ENGINEERS
3460 Point View Circle Gainesville GA 30506

Les M. Thomas, P.E. 21705

PROJECT: SGI Water System Improvements 2011

SHEET: Water Plant Plan

DATE: 8/5/11
SCALE:
SHEET 10 OF



PLAN NOTES

1. PROVIDE 3" X 5" RED MICARTA PLATE ENGRAVED WITH WHITE 3/4" LETTERS: "SERVICE DISCONNECT #1.
2. PROVIDE 2" C IN SLAB TO BATTERY LOCATION. CONNECT BATTERY TO BATTERY CHARGER. COORDINATE LOCATION WITH SHOP DRAWINGS.
3. 2 - 2-1/2" CONDUITS BELOW SLAB TO GENERATOR. COORDINATE LOCATION WITH SHOP DRAWINGS. CONNECTIONS FROM SLAB TO GENERATOR TO BE WITH LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.
4. 2 - 72"H X 63"W LOUVERS
5. DUCT FROM RADIATOR TO WALL LOUVER PROVIDED BY CONTRACTOR. PROVIDE FLEXIBLE BOOT AT THE RADIATOR TO ABSORB VIBRATIONS. DUCT SHALL COMPLETELY CONTAIN AIR FLOW FROM RADIATOR TO WALL LOUVER.
6. 4 - 8' - 4 bulb Ft. lights recessed in ceiling
7. 6- 2 1/2" conduits from control center to pump motor below grade

A/C -1 Air Handler for Offices and Restroom

A/C -2 Air Handler for High Service Pump Room

A/C -3 Air Handler for Controls Room

A/C - 4 Air Handler for Generator Room

PANEL 'GB-1' 120/240 VOLTS, SINGLE PHASE, 100 AMP MCB, SURFACE MT. PANEL BOARD, 10,000 SRI, A.I.C.

CKT	SERVING	CONN. LOAD	CKT. BKR. TRIP	POLE	PHASE A	PHASE B
1	LIGHTING		20	1		
2	LIGHTING		20	1		
3	RECEPTACLES		20	1		
4	RECEPTACLES		20	1		
5	BATTERY CHARGER		20	1		
6	Chlorine Room Heater		---	1		
7	Cl Storage heater		20	1		
8	Restroom		20	1		
9	A/C 1		20	1		
10	A/C 2		20	1		
11	A/C 3		20	1		
12	A/C 4		---	1		
13	GENERATOR BLOCK HEATER		20	1		
14	A/C 1 Compressor		50	1		
15	A/C 2 compressor		50	1		
16	A/C 3 compressor		50	1		
17	A/C 4 compressor		50	1		

PANEL DIRECTORY

0 5 10 20 30 40

PLAN - ELECTRICAL LIGHTING & OUTLETS

Les M. Thomas, P.E. 24705

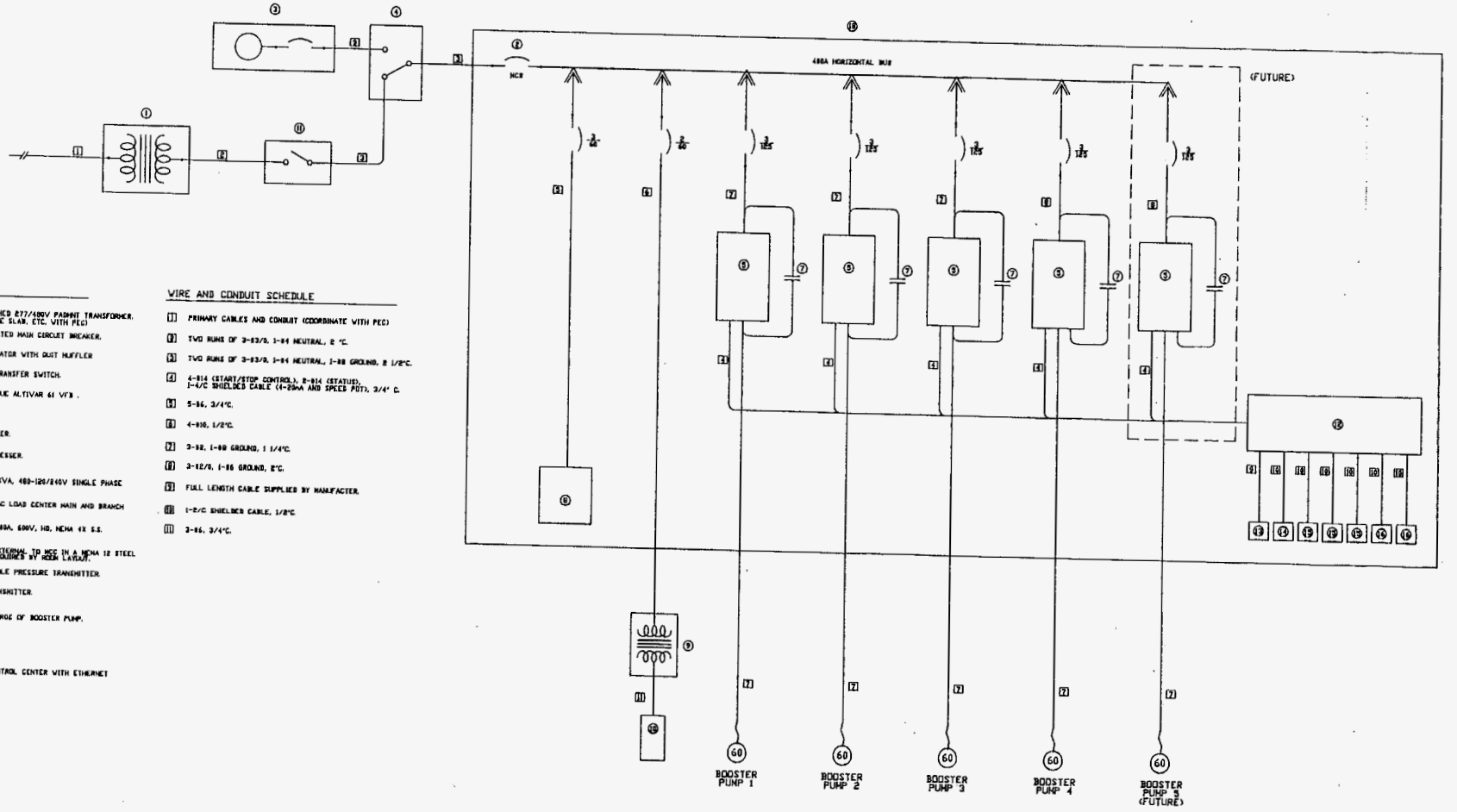
Water Management Services, Inc.

LES THOMAS CONSULTING ENGINEERS
3460 Point View Circle LThomasPE @ AOL.com Gainesville GA 30506

PROJECT: SGI Water System Improvements 2011

SHEET: WTP Electrical

DATE: 7/7/2011
SCALE:
SHEET 11 OF



EQUIPMENT SCHEDULE

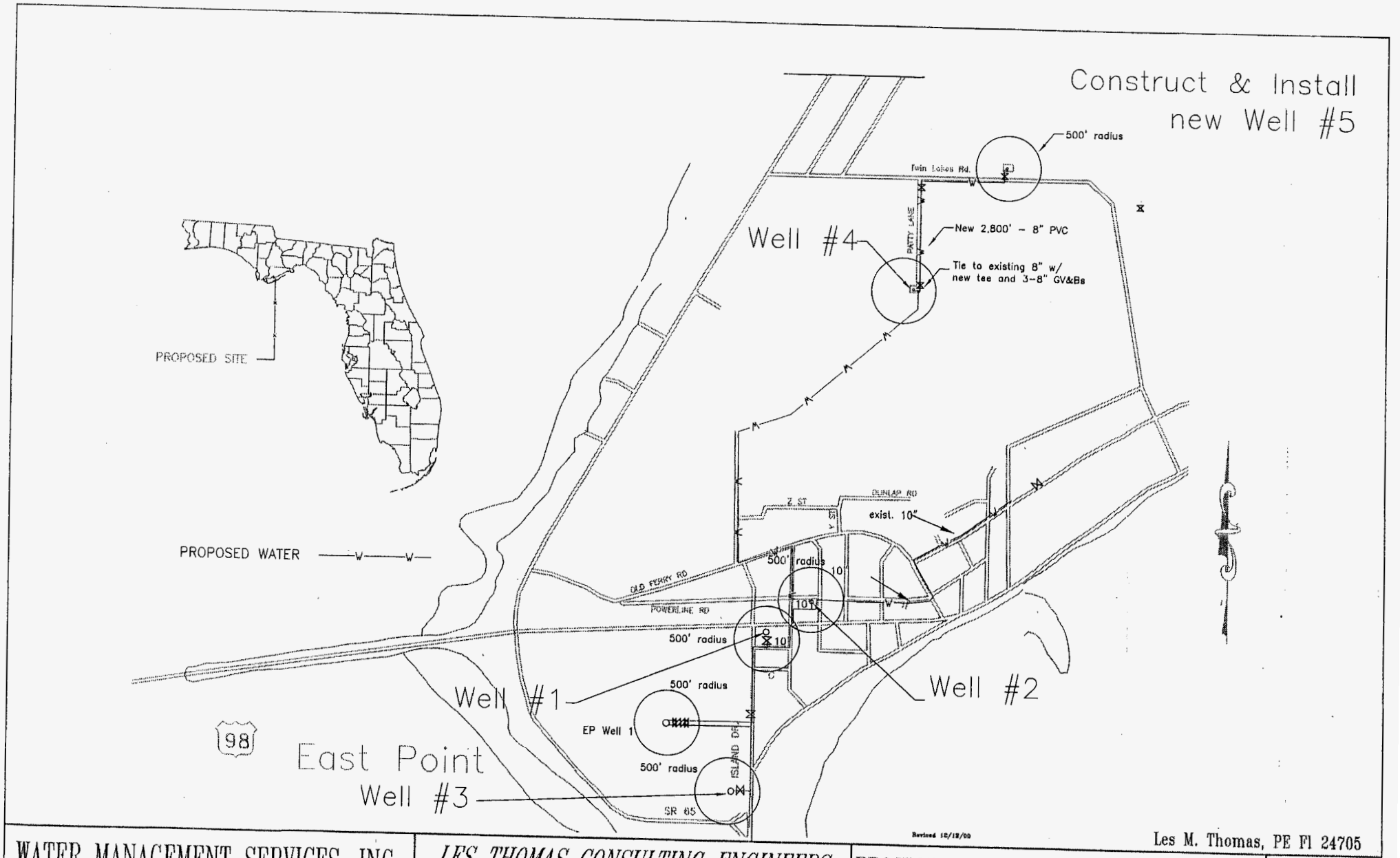
1. PROGRESS ENERGY (PEC) FURNISHED 277/480V PADMNT TRANSFORMER. (COORDINATE METERING, CONCRETE SLAB, ETC. WITH PEC)
2. ENCLOSED 400A, 3POLE, 600V RATED MAIN CIRCUIT BREAKER.
3. 250KV, 277/480V DIESEL GENERATOR WITH DUST MUFFLER AND DOUBLE WALL FUEL TANK.
4. 400A, 480V, 3POLE AUTOMATIC TRANSFER SWITCH.
5. SQUARE D 60 HP VARIABLE TORQUE ALTIVAR 61 VFD .
6.
7. SQUARE D ENCLOSED NEMA STARTER.
8. TRANSIENT VOLTAGE SURGE SUPPRESSER.
9. SQUARE D CLASS 7400 10540F 10KVA, 480-120/240V SINGLE PHASE TRANSFORMER.
10. SQUARE D CLASS 1130 QOE8L125GC LOAD CENTER MAIN AND BRANCH BREAKER.
11. SQUARE D CLASS 3110 HU36SDS 400A, 600V, HD, NEMA 4X S.S. SAFETY SWITCH
12. PUMP CONTROL PANEL (MAY BE EXTERNAL TO MCC IN A NEMA 12 STEEL FREE-STANDING ENCLOSURE OF ACCEPTED BY ROSS LATLAT.
13. GROUND STORAGE TANK SUBMERSIBLE PRESSURE TRANSMITTER.
14. SYSTEM PRESSURE PRESSURE TRANSMITTER.
15. 0-1,600GPM FLOWMETER ON DISCHARGE OF BOOSTER PUMP.
16. VARIABLE RATE CHLORINATOR
17. AUTO DIALER
18. SQUARE D 400A, 480V, MOTOR CONTROL CENTER WITH ETHERNET COMMUNICATION TO VFD'S.

WIRE AND CONDUIT SCHEDULE

1. PRIMARY CABLES AND CONDUIT (COORDINATE WITH PEC)
2. TWO RUNS OF 3-#3/0, 1-#4 NEUTRAL, 2 "C.
3. TWO RUNS OF 3-#3/0, 1-#4 NEUTRAL, 1-#8 GROUND, 2 1/2"C.
4. 4-#14 (START/STOP CONTROL), 2-#14 (STATUS), 1-4/C SHIELDED CABLE (4-20mA AND SPEED POT), 3/4" C.
5. 5-#6, 3/4"C.
6. 4-#10, 1/2"C.
7. 3-#2, 1-#8 GROUND, 1 1/4"C.
8. 3-#2/0, 1-#6 GROUND, 2"C.
9. FULL LENGTH CABLE SUPPLIED BY MANUFACTER.
10. 1-2/C SHIELDED CABLE, 1/2"C.
11. 3-#6, 3/4"C.

Les M. Thomas, P.E. 24705

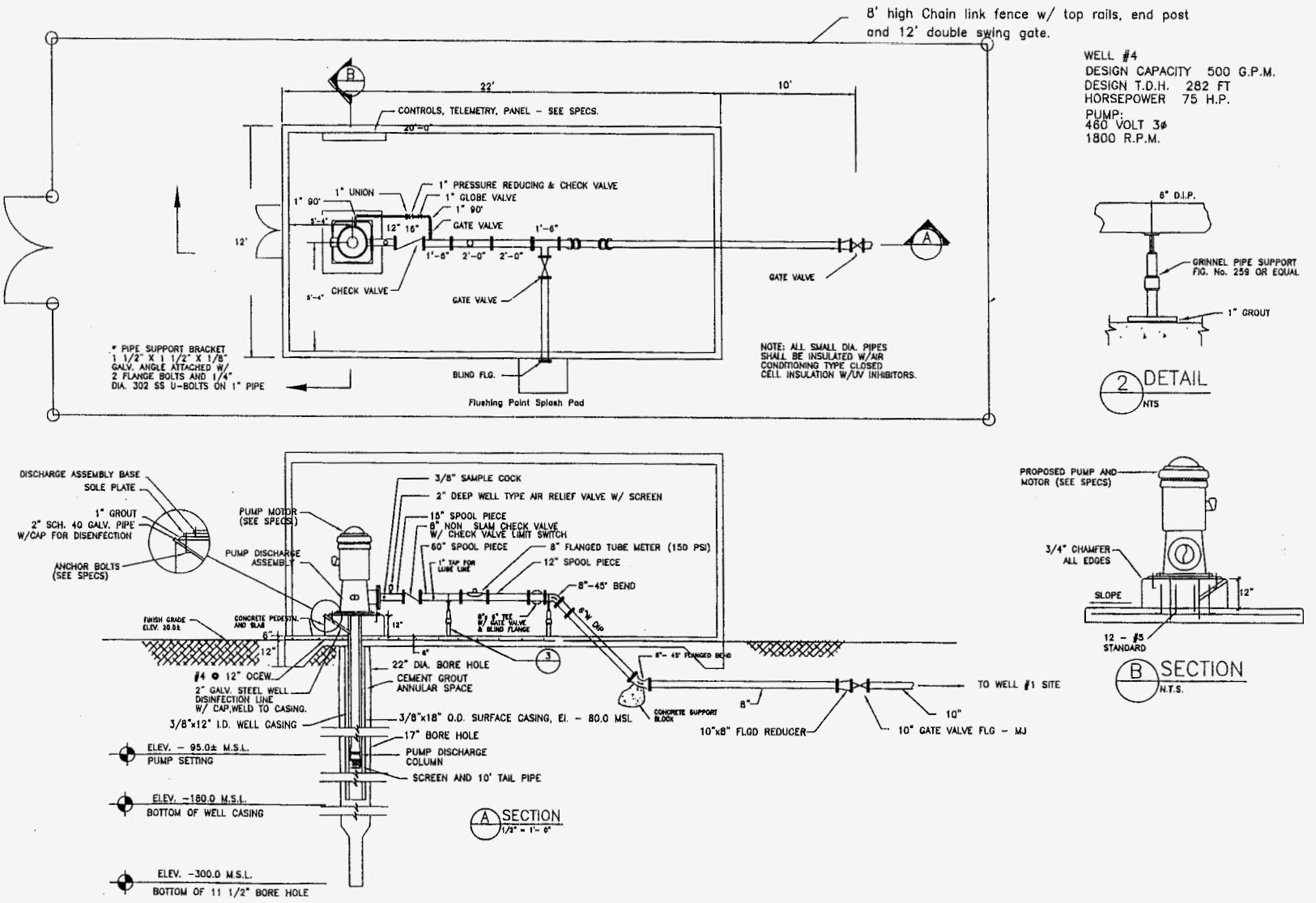
St. George Island Water System	LES THOMAS CONSULTING ENGINEERS 3460 Point View Circle 678-677-6420 Gainesville, GA 30506	PROJECT: 2011 Water System Improvements	DATE: 7/29/11 SCALE:
		SHEET: Water Plant Controls	SHEET 12 OF



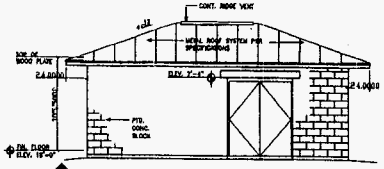
WATER MANAGEMENT SERVICES, INC	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville, GA 30506*	PROJECT: SGI Water System Improvements 2011 SHEET : Well #5 Area Plan	DATE: 7/10/2011 SCALE: 1"=600' SHEET 13 OF

Revised 12/13/00

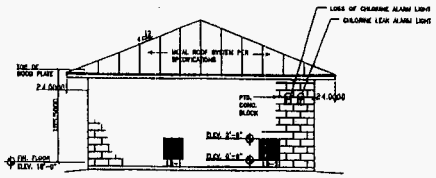
Les M. Thomas, PE Fl 24705



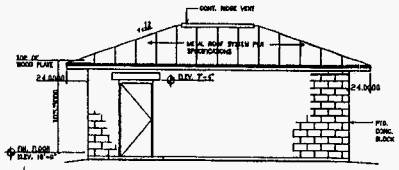
WATER MANAGEMENT SERVICES, INC	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville, GA 30506* *678-677-6420 LThomasPE@AOL.COM*	PROJECT: SGI Water System Improvements 2011 SHEET : WATER WELL #5	DATE: 7/16/11 SCALE: AS NOTED SHEET 14 OF



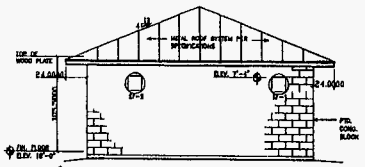
A A-1 FRONT ELEVATION
1/4" = 1'-0"



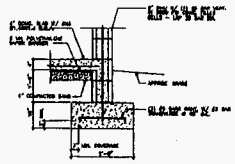
B A-1 RIGHT SIDE ELEVATION
1/4" = 1'-0"



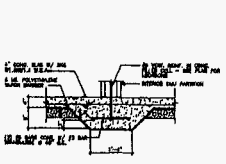
C A-1 REAR ELEVATION
1/4" = 1'-0"



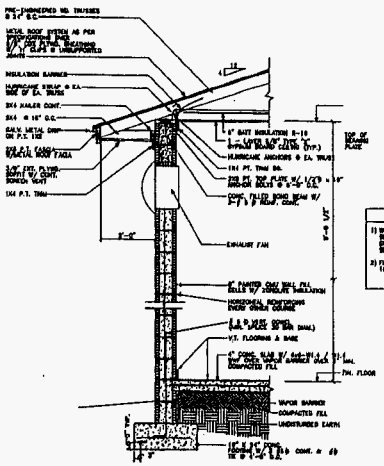
D A-1 LEFT SIDE ELEVATION
1/4" = 1'-0"



1 A-1 DETAIL
SCALE: 3/4" = 1'-0"



2 A-1 DETAIL
SCALE: 3/4" = 1'-0"

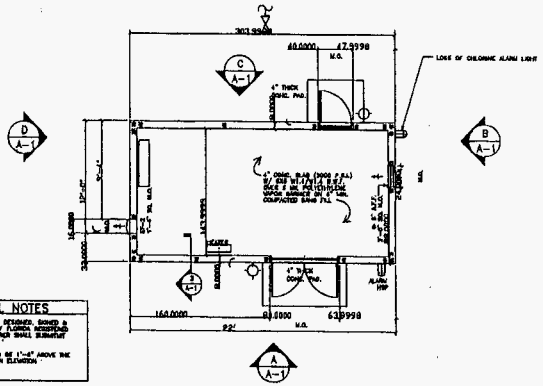


3 A-1 TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"

GENERAL NOTES

1) WOOD TRUSSES TO BE DESIGNED, SIGNED & SEALED BY A STATE OF FLORIDA REGISTERED ENGINEER. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS.

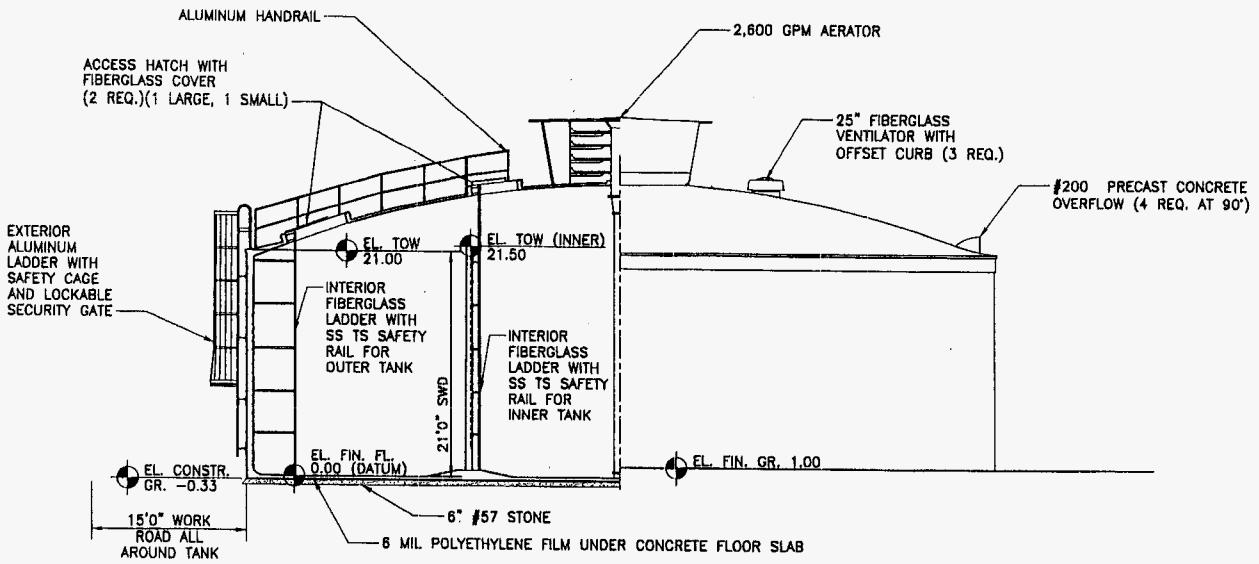
2) FINISH FLOOR SLAB TO BE 1'-0" ABOVE THE 100 YEAR FLOOD PLAIN ELEVATION.



FLOOR PLAN
1/4" = 1'-0"

NOTE: THE SLAB IS PART OF THE WELL DRILLERS CONTRACT.
THE BUILDING IS TO BE CONSTRUCTED BY THE OWNER.

WATER MANAGEMENT SERVICES, INC	*LES THOMAS CONSULTING ENGINEERS* *3460 Point View Circle Gainesville GA 30506* *(678) 677-6420*	PROJECT: WTP Improvements	DATE: 7/20/11 SCALE: AS NOTED
		SHEET : WATER WELL #5 BLDG.	2011 15 SHEET OF



SECTION–ELEVATION

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

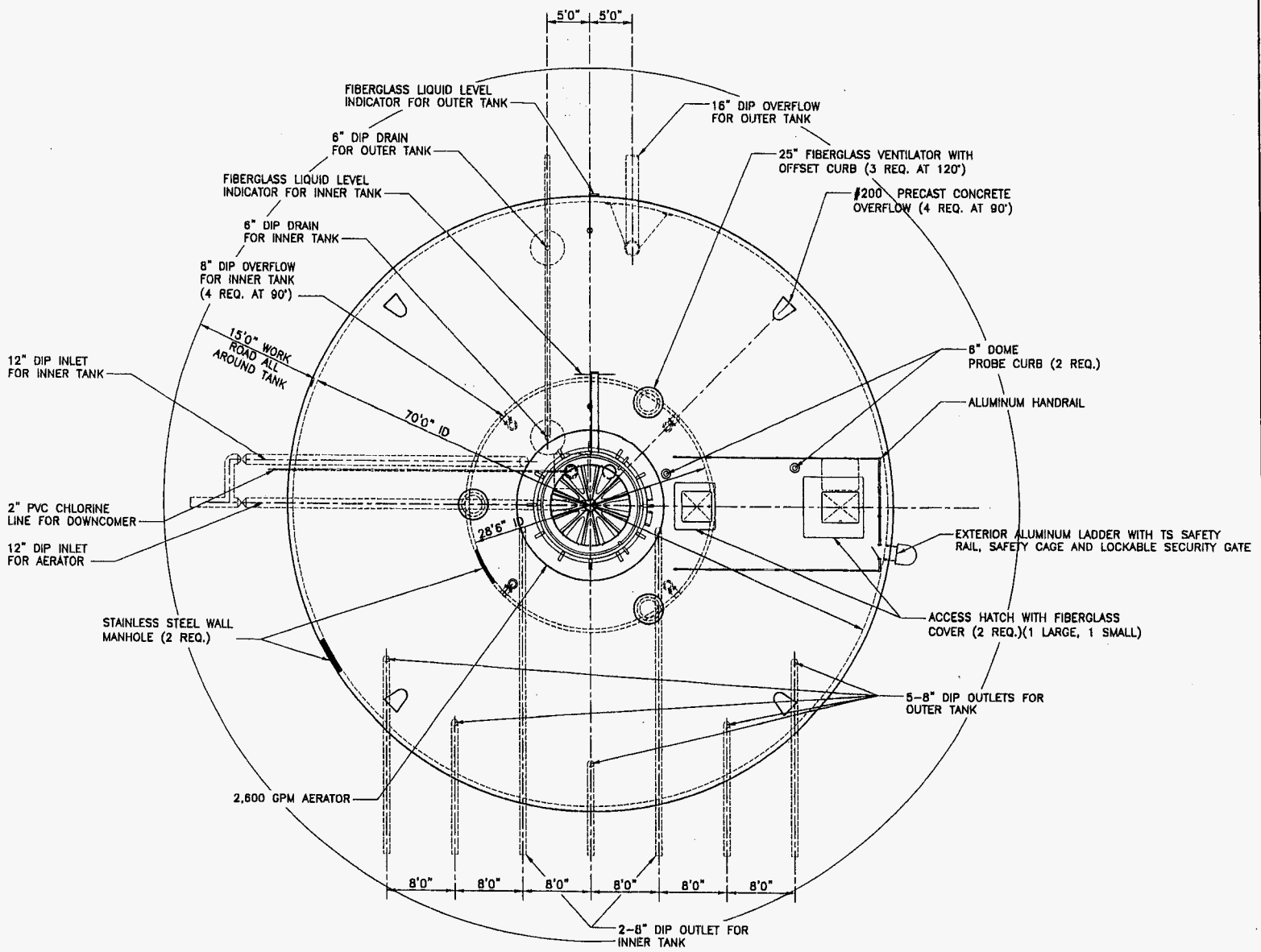
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
2' 0 5' 10'
1/8"=1'0"

FILE NO.
2010–E–301

SHEET 1 OF 15



PLAN

NOTE: FIELD VERIFY ALL ACCESSORIES & PIPE LOCATIONS WITH ENGINEER PRIOR TO PLACEMENT.

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

REV.	DESCRIPTION	DATE CK.BY

WHERE STANDARD SPECIFICATIONS ARE IN CONFLICT WITH THE CROM CORPORATION SPECIFICATIONS OR WITH GOOD PRESTRESSING OR SHOTCRETE PRACTICES, THE STANDARD SPECIFICATIONS SHALL BE SUBORDINATED.

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

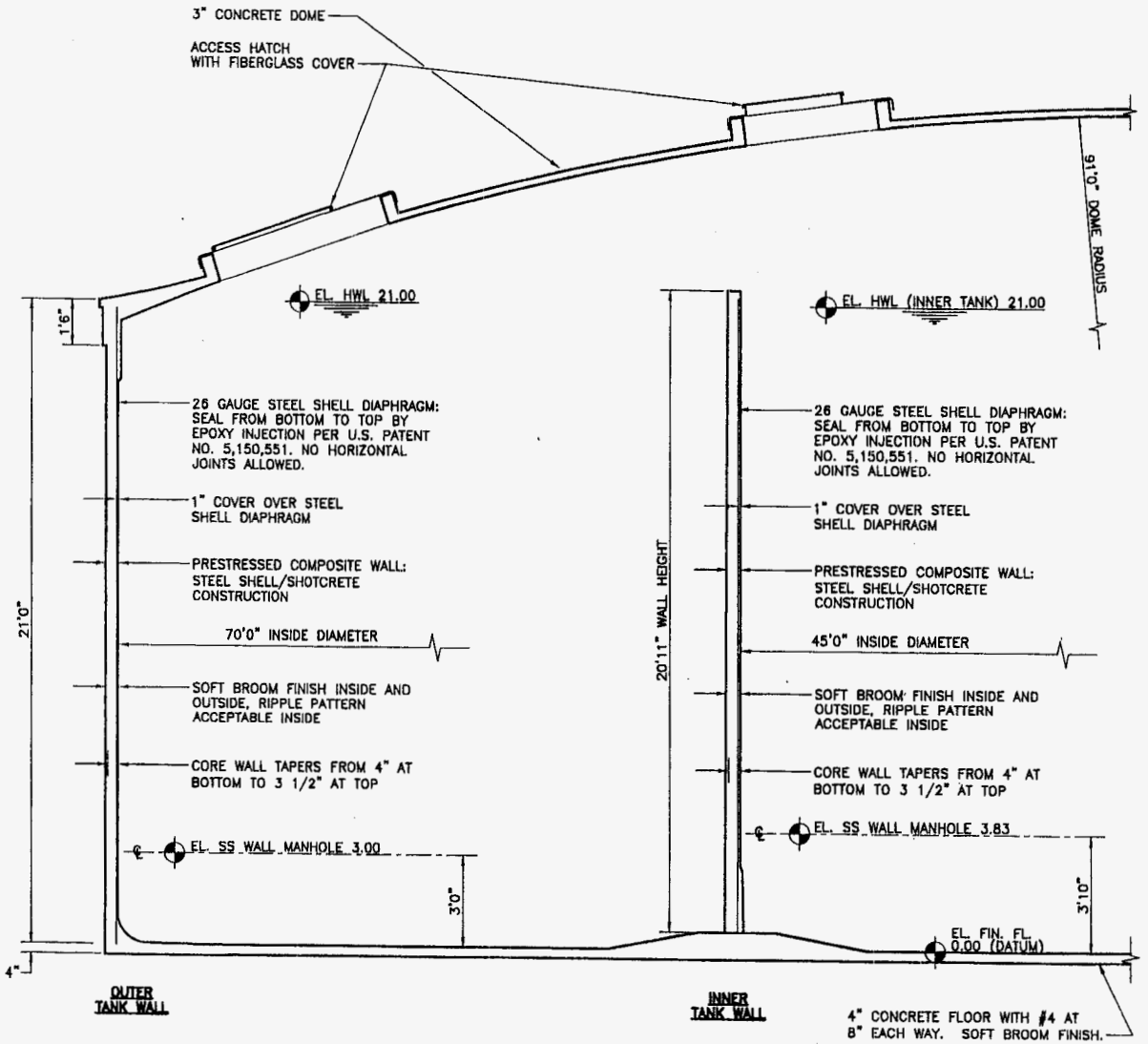
SCALE:
2' 0 5' 10'
1/8"=1'0"

FILE NO.
2010-E-301

SHEET 2 OF 15

NOTES:

1. SHOTCRETE SHALL BE APPLIED BY OR UNDER DIRECT SUPERVISION OF NOZZLEMEN CERTIFIED BY THE AMERICAN CONCRETE INSTITUTE AS OUTLINED IN ACI CERTIFICATION PUBLICATION CP-60.
2. TENSION IN PRESTRESSING WIRE SHALL BE MEASURED BY AN ELECTRONIC DIRECT-READING STRESSOMETER ACCURATE TO WITHIN 2%.



TYPICAL WALL DETAIL

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

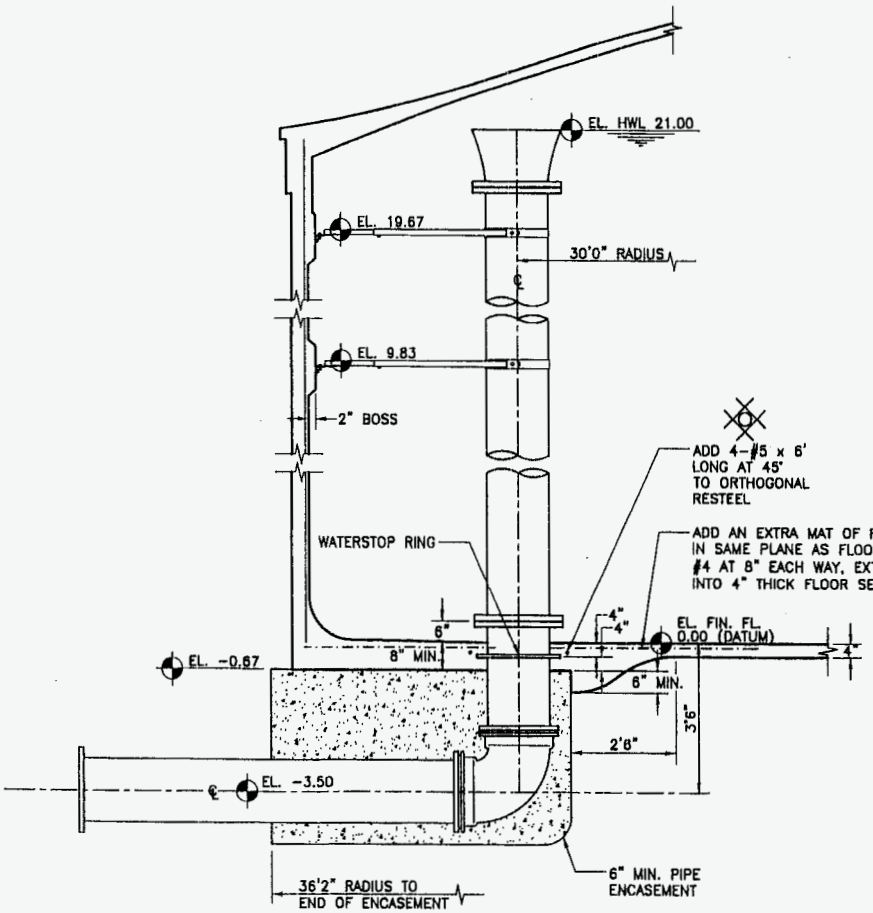
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
2' 0 1' 2'
3/8"=1'0"

FILE NO.
2010-E-301

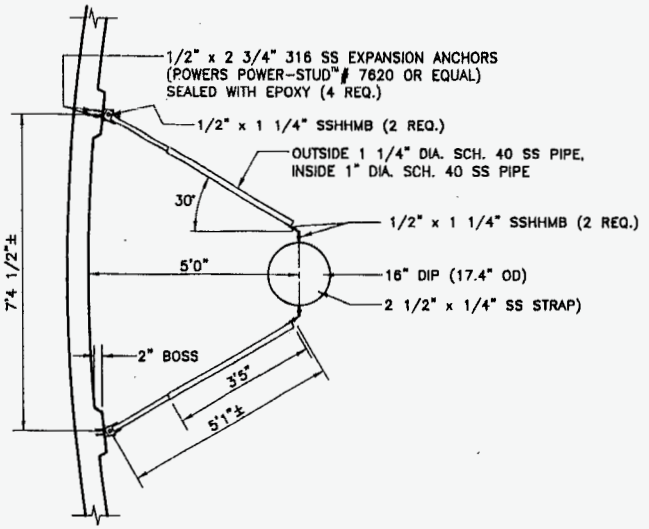
SHEET 3 OF 15



16" DIP OVERFLOW FOR OUTER TANK

1/2"=1'0"

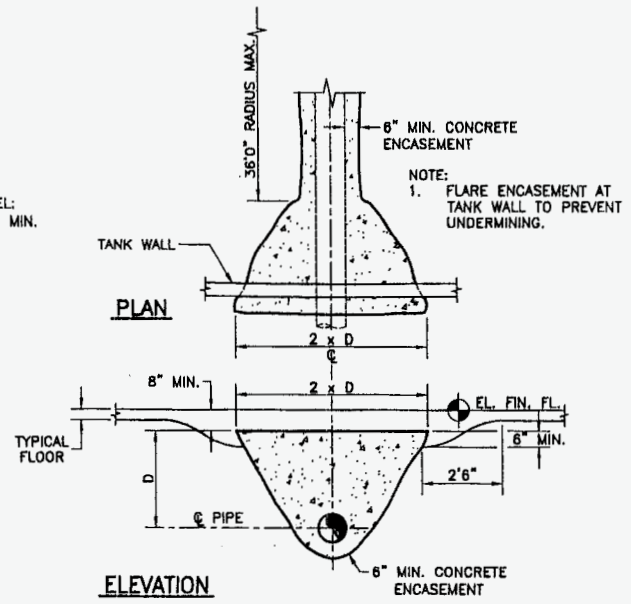
1' 0 1' 2'



PIPE BRACKET (2 REQ.)

1/2"=1'0"

1' 0 1' 2'



TYPICAL PIPE ENCASEMENT AT WALL

NTS

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

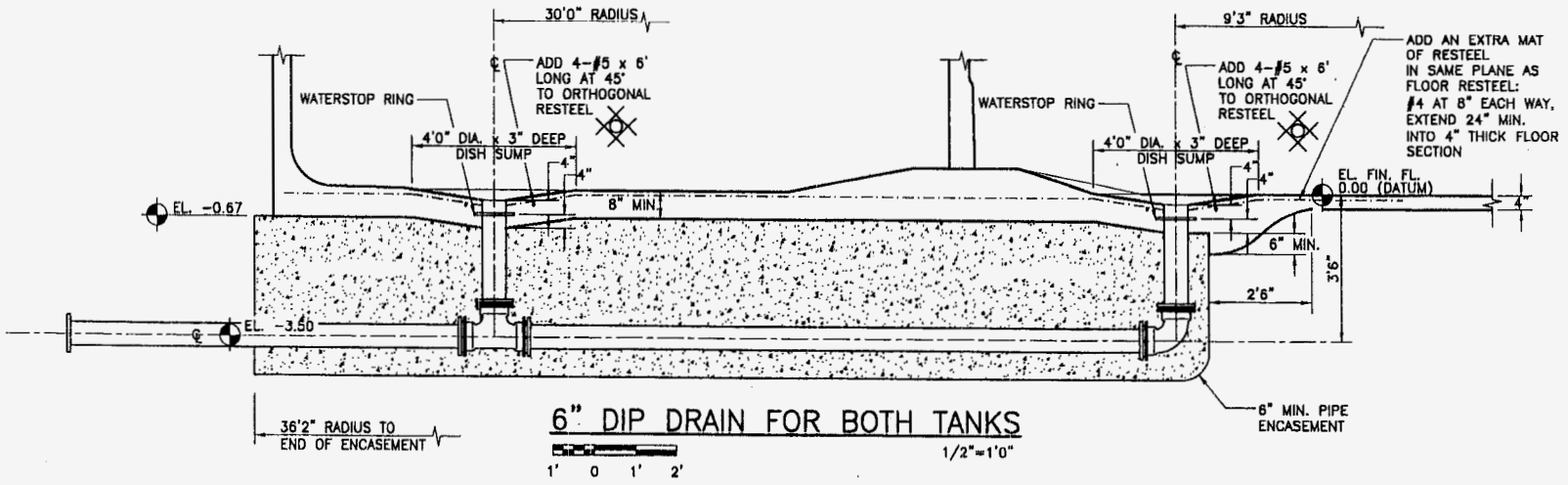
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

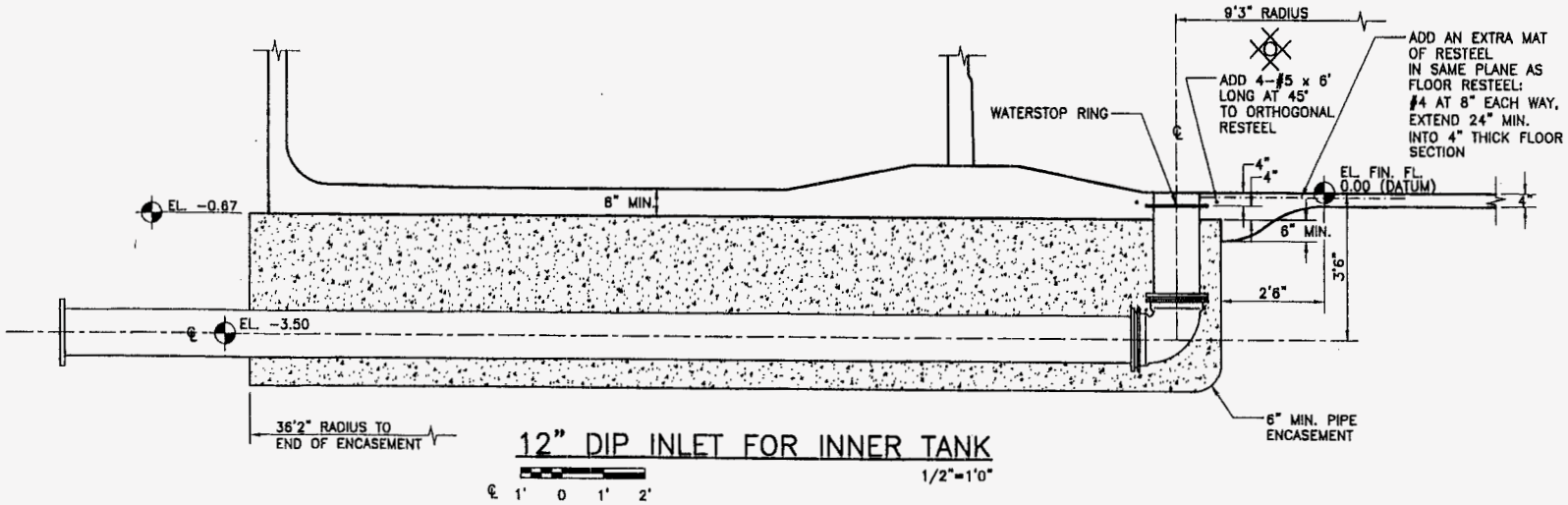
SHEET 4 OF 15



6" DIP DRAIN FOR BOTH TANKS

1/2"=1'0"

1' 0 1' 2'



12" DIP INLET FOR INNER TANK

1/2"=1'0"

℄ 1' 0 1' 2'

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

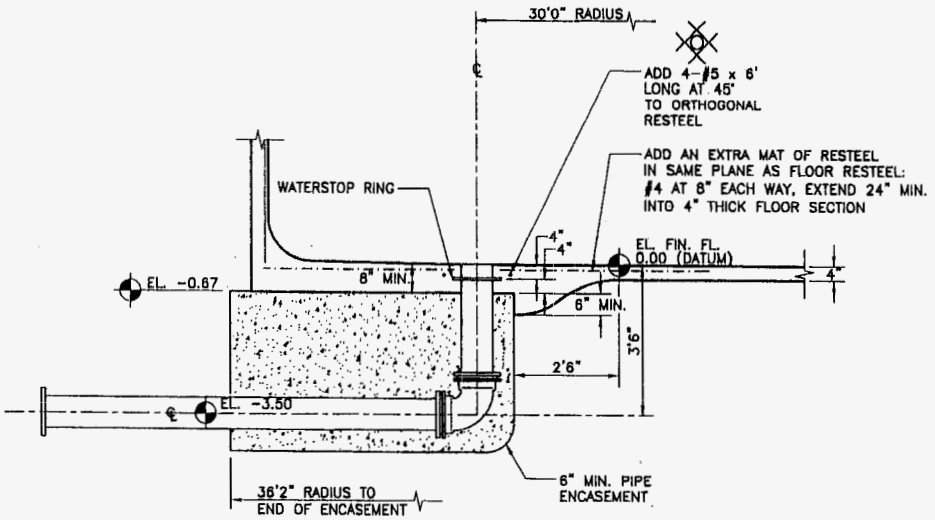
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

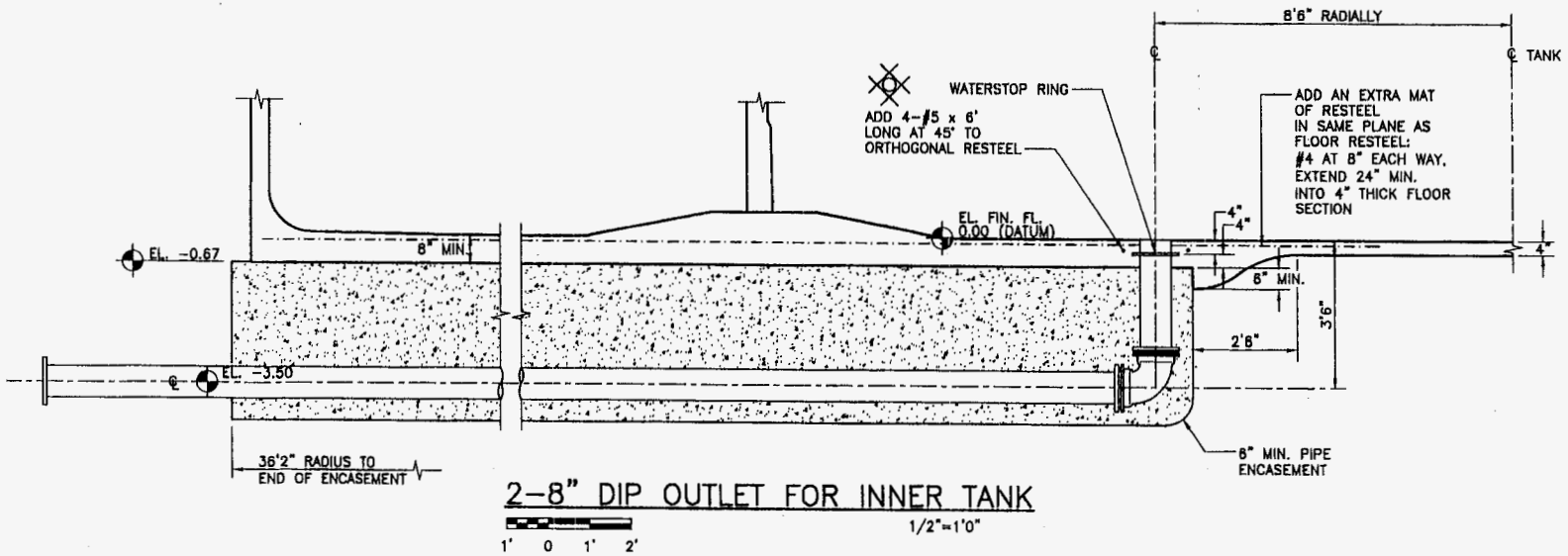
SHEET 5 OF 15



5-8" DIP OUTLETS FOR OUTER TANK

1/2"=1'0"

1' 0 1' 2'



2-8" DIP OUTLET FOR INNER TANK

1/2"=1'0"

1' 0 1' 2'

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

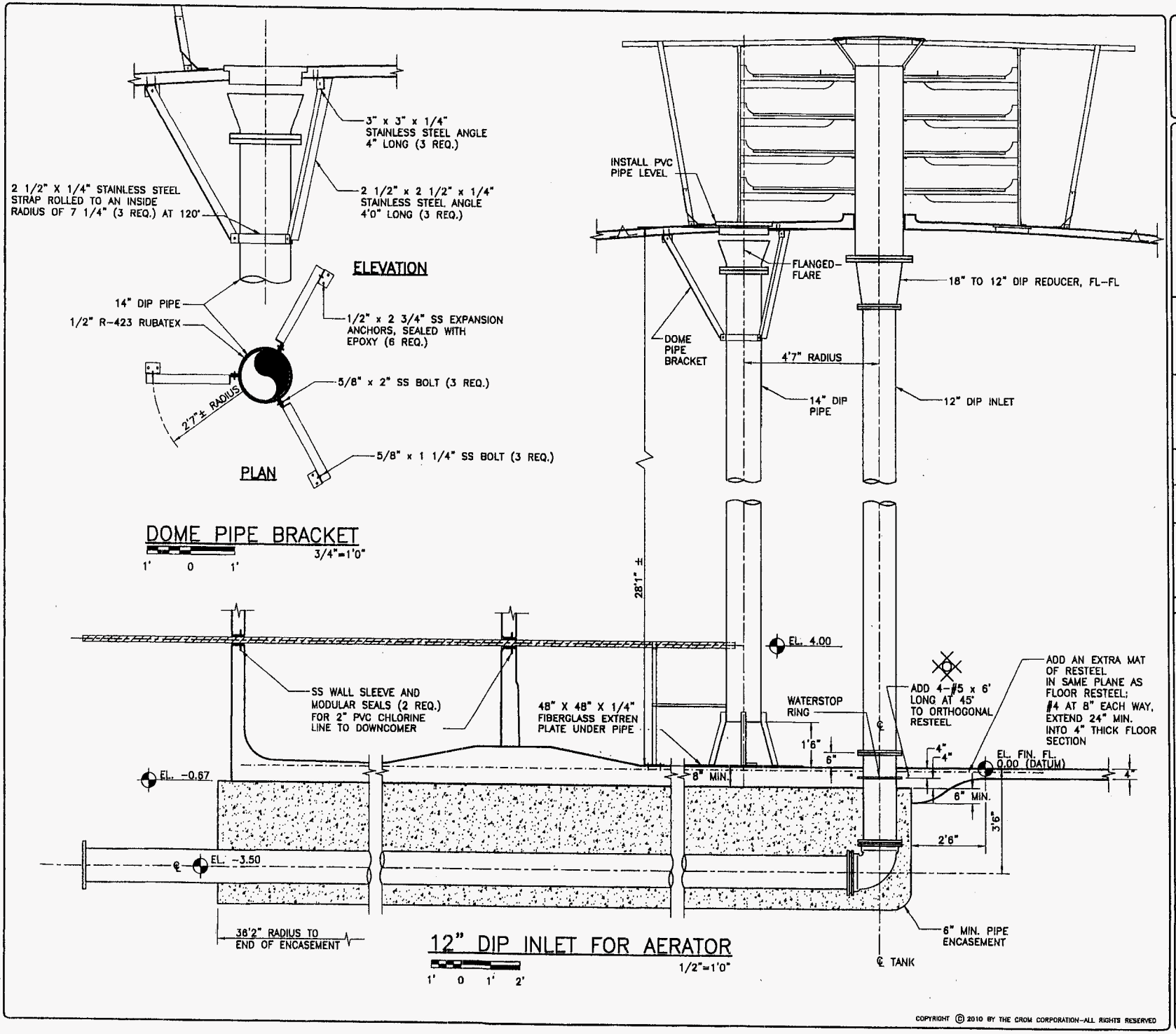
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

SHEET 6 OF 15



CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

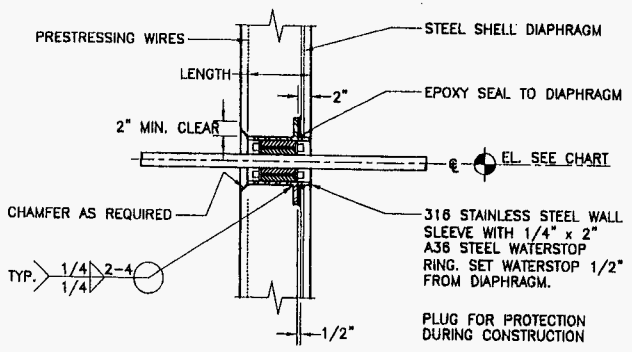
REV.	DESCRIPTION	DATE CK BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

SHEET 7 OF 15

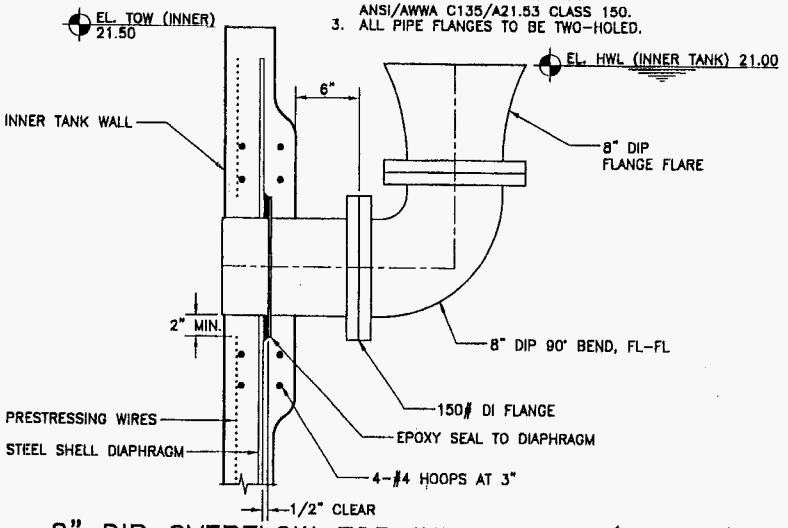


PIPE DESCRIPTION	OD	℄ EL.	MODULAR SEAL/#	SLEEVE:		
				ID	WALL	LENGTH
2" PVC LINE	2.375"	3.00	LS-XXX-S/XX	3.55"	.375"	5"

SS WALL SLEEVE AND MODULAR SEALS (2 REQ.)

NTS

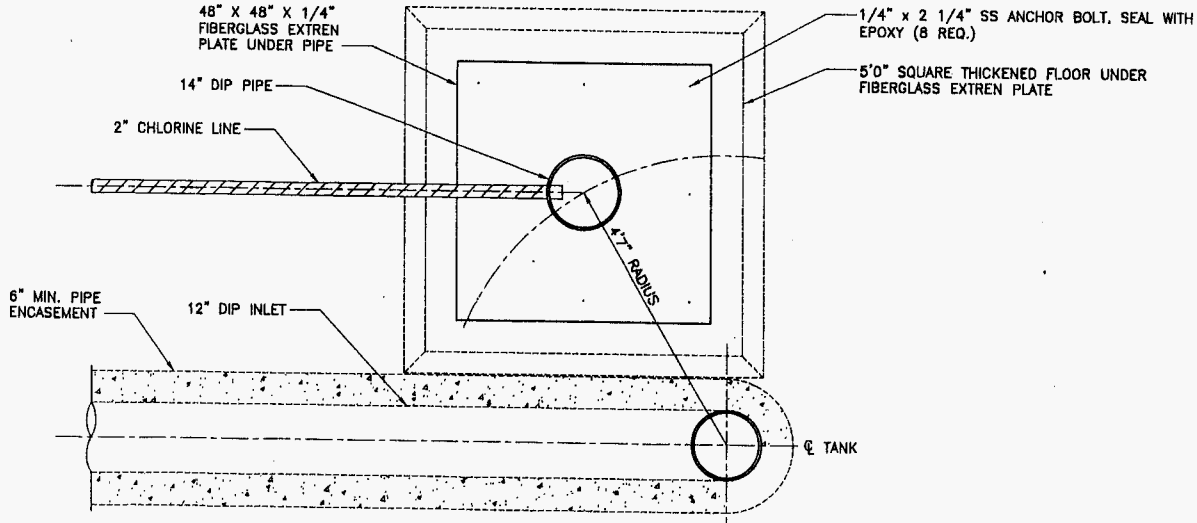
NOTES:
1. PLACE SO THAT WALL PIPE IS LEVEL AND WALL FLANGES ARE PLUMB.
2. ALL FLANGES TO COMPLY WITH ANSI/AWWA C135/A21.53 CLASS 150.
3. ALL PIPE FLANGES TO BE TWO-HOLED.



8" DIP OVERFLOW FOR INNER TANK (4 REQ.)

0 1'

1 1/2"=1'0"



FIBERGLASS EXTREN PLATE

1' 0 1'

3/4"=1'0"

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

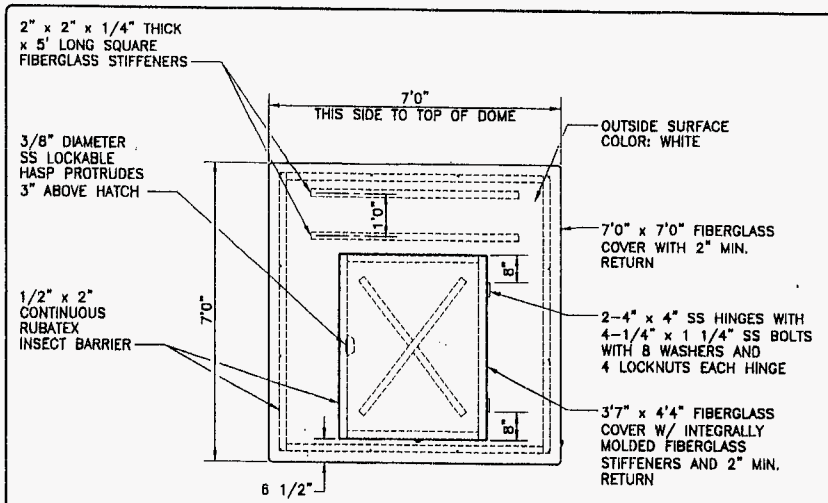
REV.	DESCRIPTION	DATE CK.BY

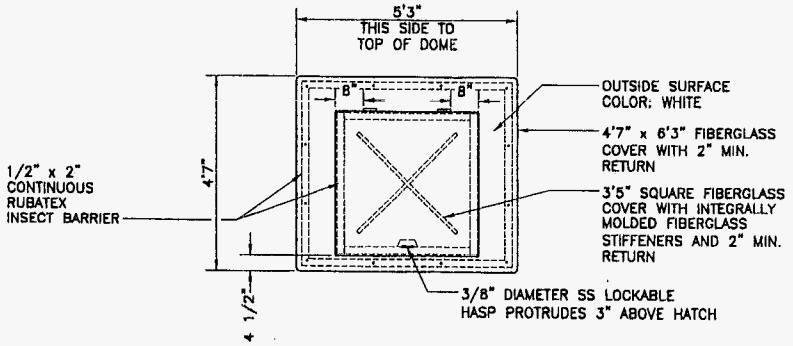
BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

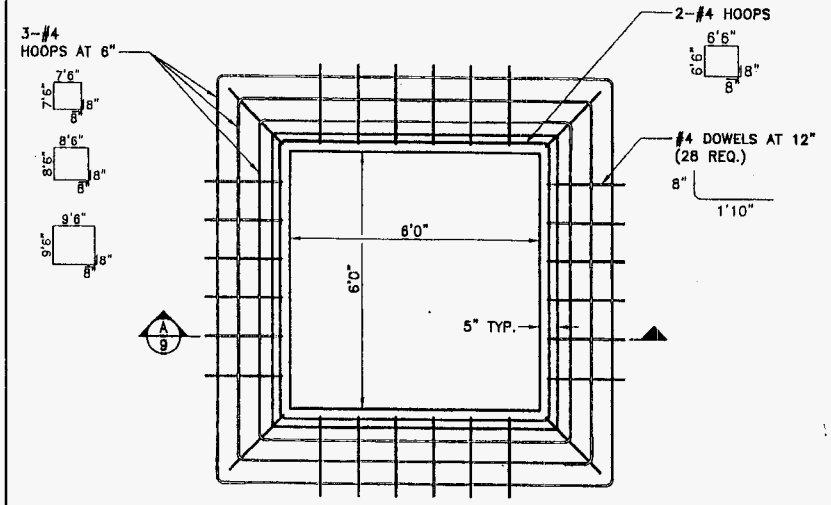
SCALE: AS NOTED

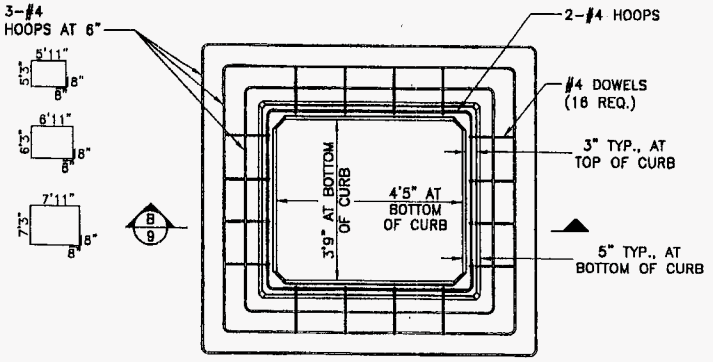
FILE NO. 2010-E-301

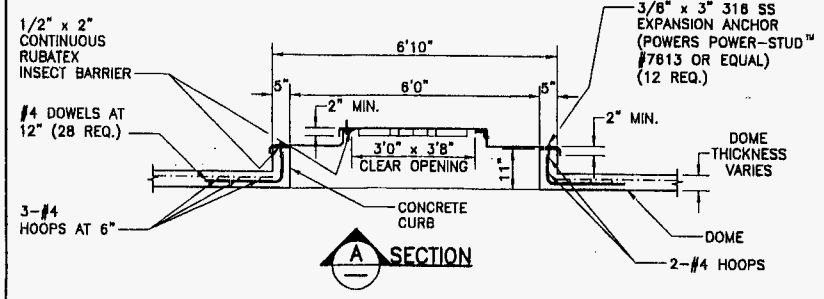
SHEET 7 OF 15

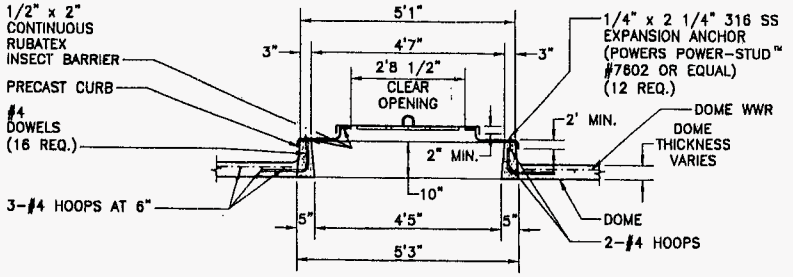












FIBERGLASS HATCH COVER (LARGE)

1' 0 1' 2'

1/2"=1'0"

FIBERGLASS HATCH COVER (SMALL)

1' 0 1' 2'

1/2"=1'0"

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

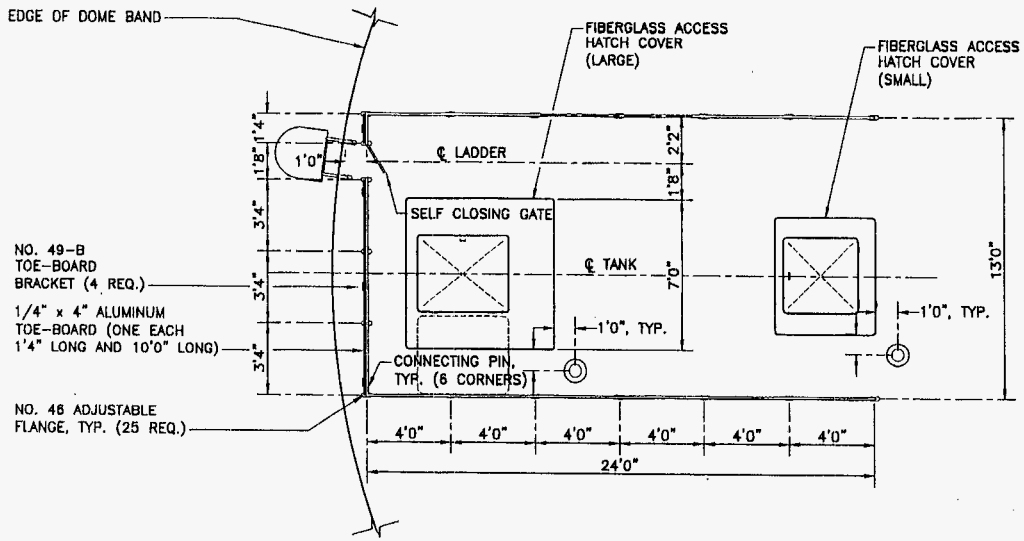
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

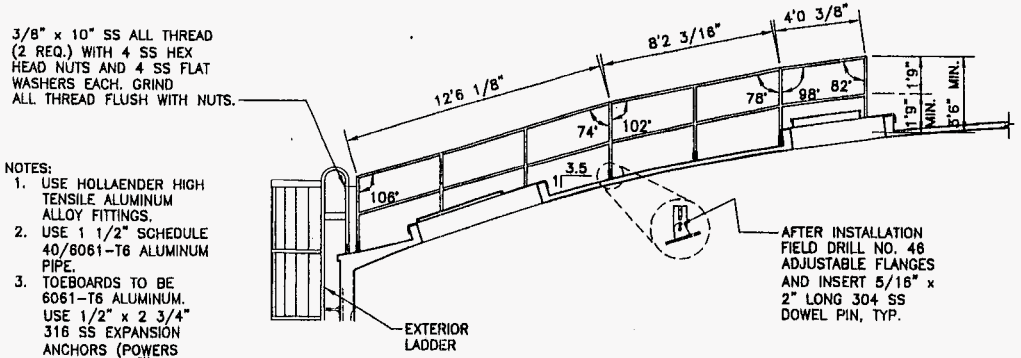
SCALE: AS NOTED

FILE NO. 2010-E-301

SHEET 9 OF 15



PLAN



ELEVATION

NOTES:
1. USE HOLLAENDER HIGH TENSILE ALUMINUM ALLOY FITTINGS.
2. USE 1 1/2" SCHEDULE 40/6061-T6 ALUMINUM PIPE.
3. TOEBOARDS TO BE 6061-T6 ALUMINUM. USE 1/2" x 2 3/4" 316 SS EXPANSION ANCHORS (POWERS POWER-STUD™ #7620 OR EQUAL)(50 REQ.).
4. 316 SS CHAIN WITH CLASS "D" HOOK AT ONE END x 2'6" LONG.
5. ALL ALUMINUM IN DIRECT CONTACT WITH CONCRETE SHALL BE COATED WITH A MINIMUM 8.0 DRY-MIL THICKNESS SERIES 46-465 H.B. TNEMECOL OR EQUAL.

ALUMINUM HANDRAIL

1/4"=1'0"

2' 0 2' 4'

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

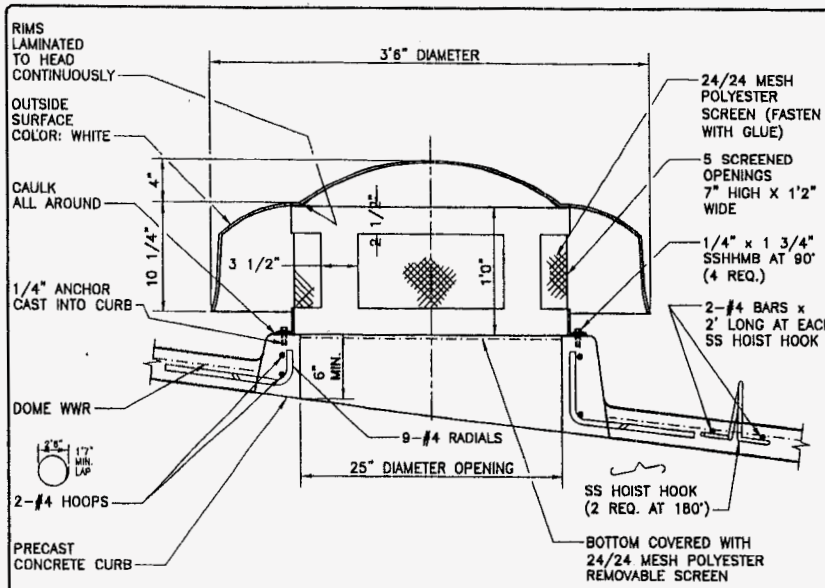
REV.	DESCRIPTION	DATE CK. BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE: AS NOTED

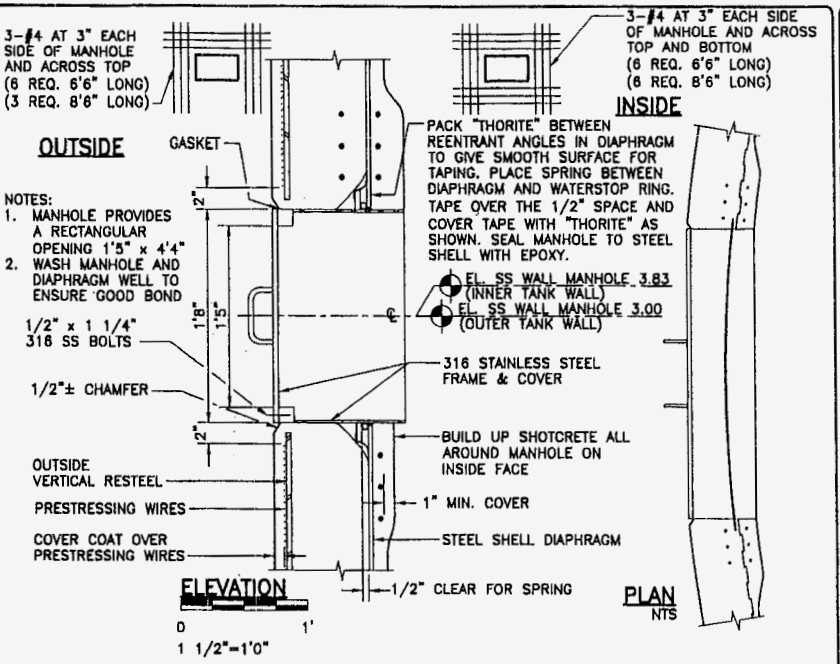
FILE NO. 2010-E-301

SHEET 10 OF 15

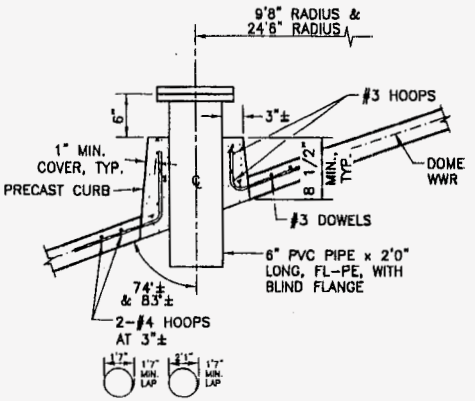


25" FIBERGLASS VENTILATOR WITH OFFSET CURB (3 REQ.)

0 1' 1 1/2"=1'0"

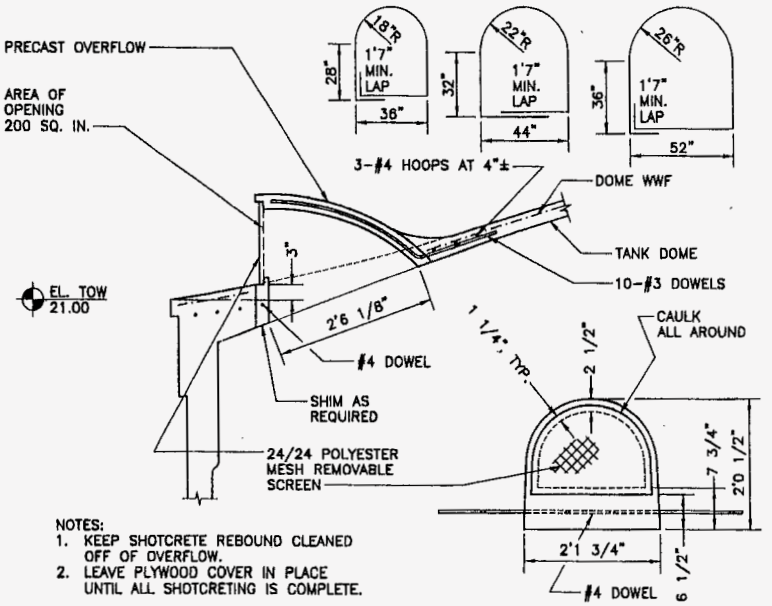


STAINLESS STEEL WALL MANHOLE (2 REQ.)



6" DOME PROBE CURB (2 REQ.)

NTS



NOTES:
1. KEEP SHOTCRETE REBOUND CLEANED OFF OF OVERFLOW.
2. LEAVE PLYWOOD COVER IN PLACE UNTIL ALL SHOTCRETING IS COMPLETE.

#200 PRECAST CONCRETE OVERFLOW (4 REQ.)

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

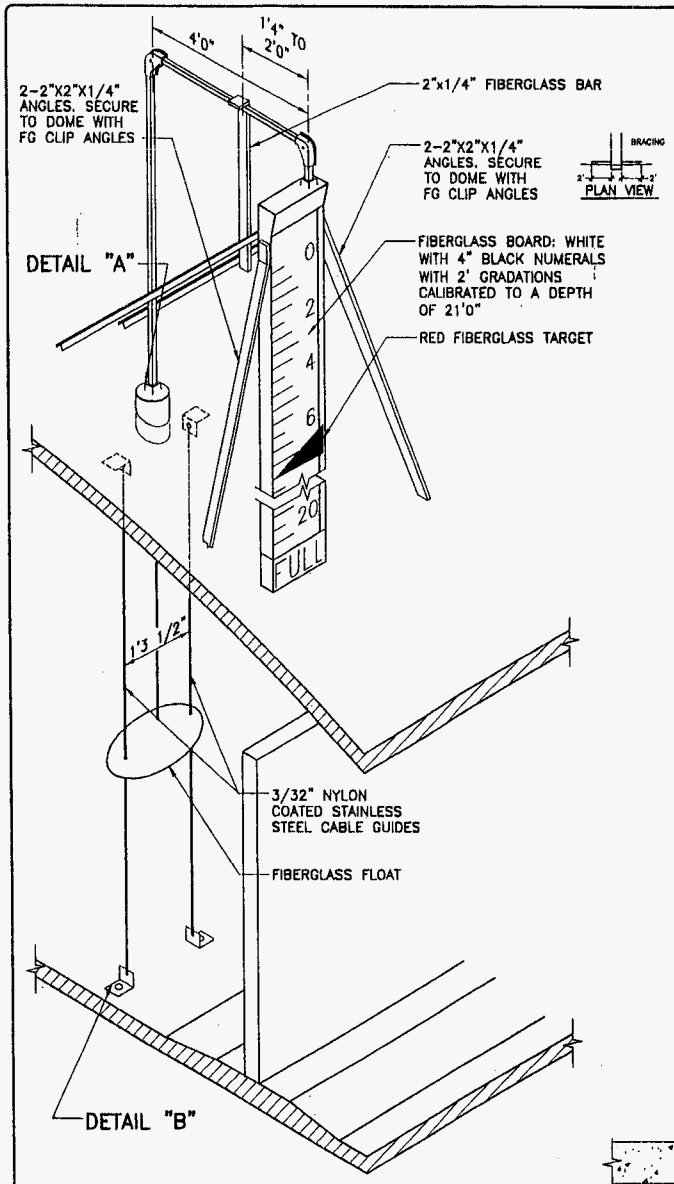
REV.	DESCRIPTION	DATE CK.BY

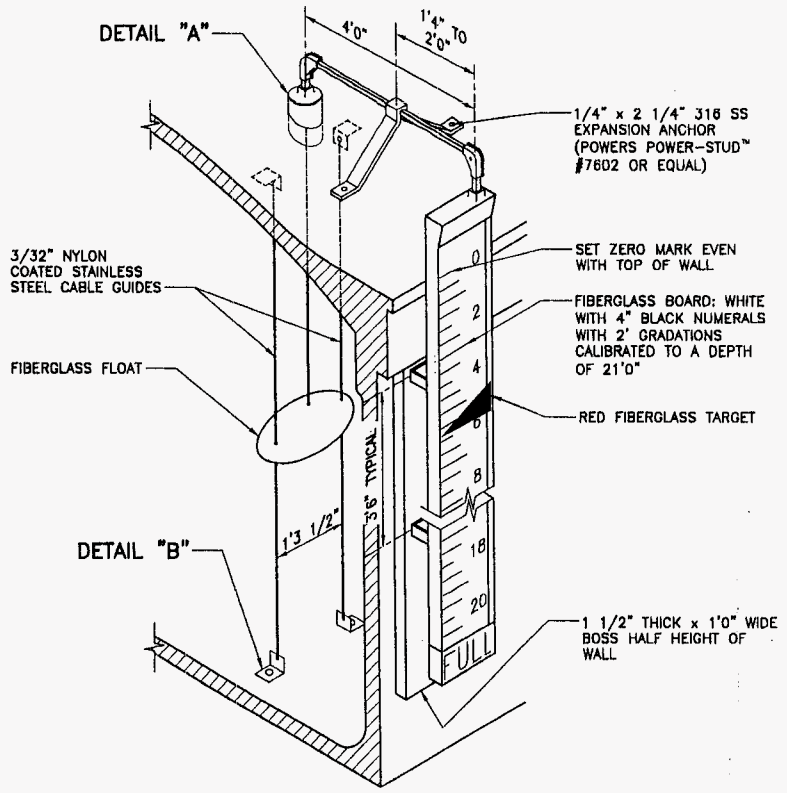
BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

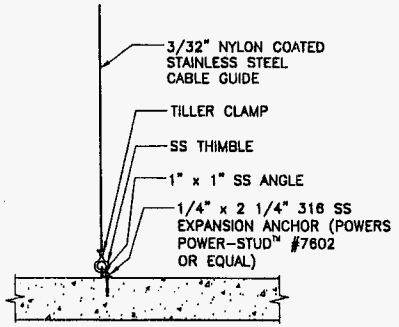
SCALE: AS NOTED

FILE NO. 2010-E-301

SHEET 11 OF 15



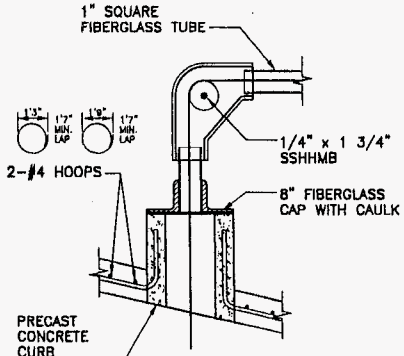




DETAIL "B" TYPICAL TOP AND BOTTOM

0 1'

1 1/2"=1'0"



DETAIL "A"

0 1'

1 1/2"=1'0"

FIBERGLASS LIQUID LEVEL INDICATOR INNER TANK

NTS

FIBERGLASS LIQUID LEVEL INDICATOR OUTER TANK

NTS

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

REV.	DESCRIPTION	DATE CK.BY

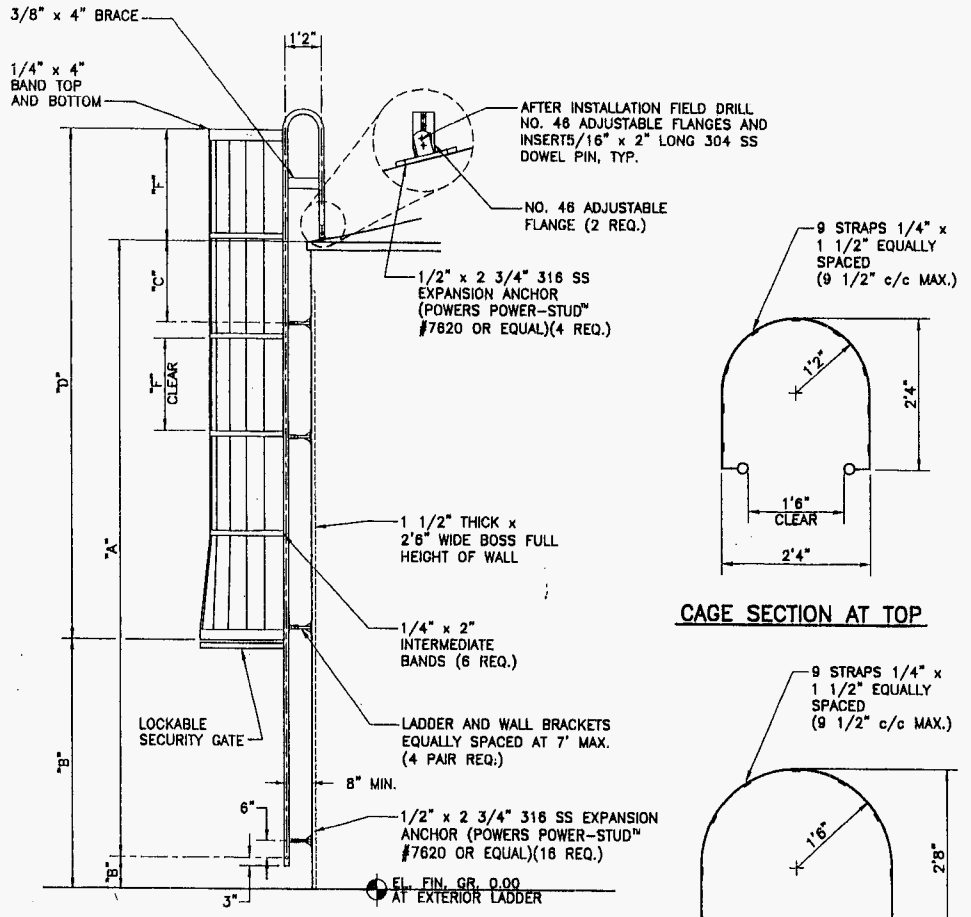
WHERE STANDARD SPECIFICATIONS ARE IN CONFLICT WITH THE CROM CORPORATION SPECIFICATIONS OR WITH GOOD PRESTRESSING OR SHOTCRETE PRACTICES, THE STANDARD SPECIFICATIONS SHALL BE SUBORDINATED. THIS DESIGN AND DRAWING ORIGINATED BY AND IS THE EXCLUSIVE PROPERTY OF THE CROM CORPORATION.

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

SHEET 12 OF 15



CAGE SECTION AT TOP

CAGE AT FLARED SECTION

3/4"=1'0"

1' 0 1'

NOTES:
1. ALL TUBULAR MATERIAL TO BE NOMINAL DIAMETER SCHEDULE 40 ALUMINUM PIPE 6061-T6.
2. PLATES AND GUSSETS TO BE STRUCTURAL GRADE ALUMINUM 6061-T6.
3. ALL ALUMINUM IN DIRECT CONTACT WITH CONCRETE SHALL BE COATED WITH A MINIMUM 8.0 MIL-DRY THICKNESS SERIES 46-465 H.B. TNEMECOL OR EQUAL.

EXTERIOR ALUMINUM LADDER WITH SAFETY CAGE AND LOCKABLE SECURITY GATE

3/8"=1'0"

2' 0 1' 2'

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

REV.	DESCRIPTION	DATE CK BY

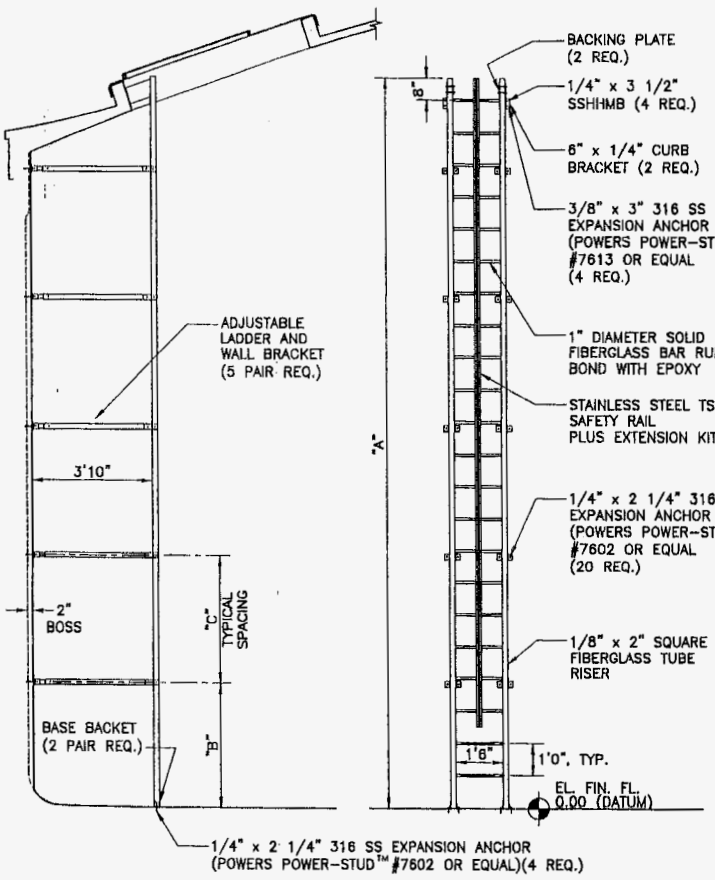
WHERE STANDARD SPECIFICATIONS ARE IN CONFLICT WITH THE CROM CORPORATION SPECIFICATIONS OR WITH GOOD PRESTRESSING OR SHOTCRETE PRACTICES, THE STANDARD SPECIFICATIONS SHALL BE SUBORDINATED. THIS DESIGN AND DRAWING ORIGINATED BY AND IS THE EXCLUSIVE PROPERTY OF THE CROM CORPORATION.

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010-E-301

SHEET 13 OF 15

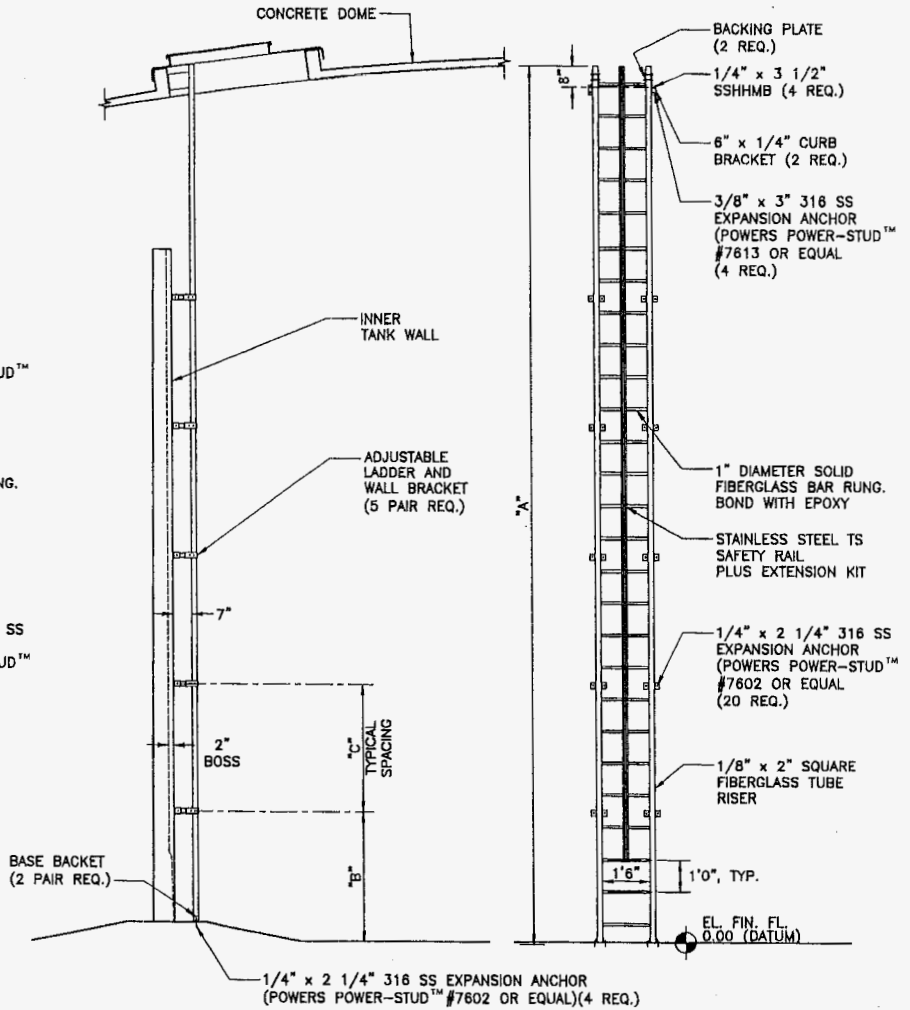


SIDE VIEW FRONT VIEW

NOTE:
1. 1/4" x 2" FLAT BAR FIBERGLASS CROSS BRACE TO BE PROVIDED FOR BRACING WALL BRACKET SUPPORTS ON EVERY BRACKET.

INTERIOR FIBERGLASS LADDER WITH SS TS SAFETY RAIL FOR OUTER TANK

2' 0 1' 2' 3/8"=1'0"



SIDE VIEW FRONT VIEW

NOTE:
1. 1/4" x 2" FLAT BAR FIBERGLASS CROSS BRACE TO BE PROVIDED FOR BRACING WALL BRACKET SUPPORTS ON EVERY BRACKET.

INTERIOR FIBERGLASS LADDER WITH SS TS SAFETY RAIL FOR INNER TANK

2' 0 1' 2' 3/8"=1'0"

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

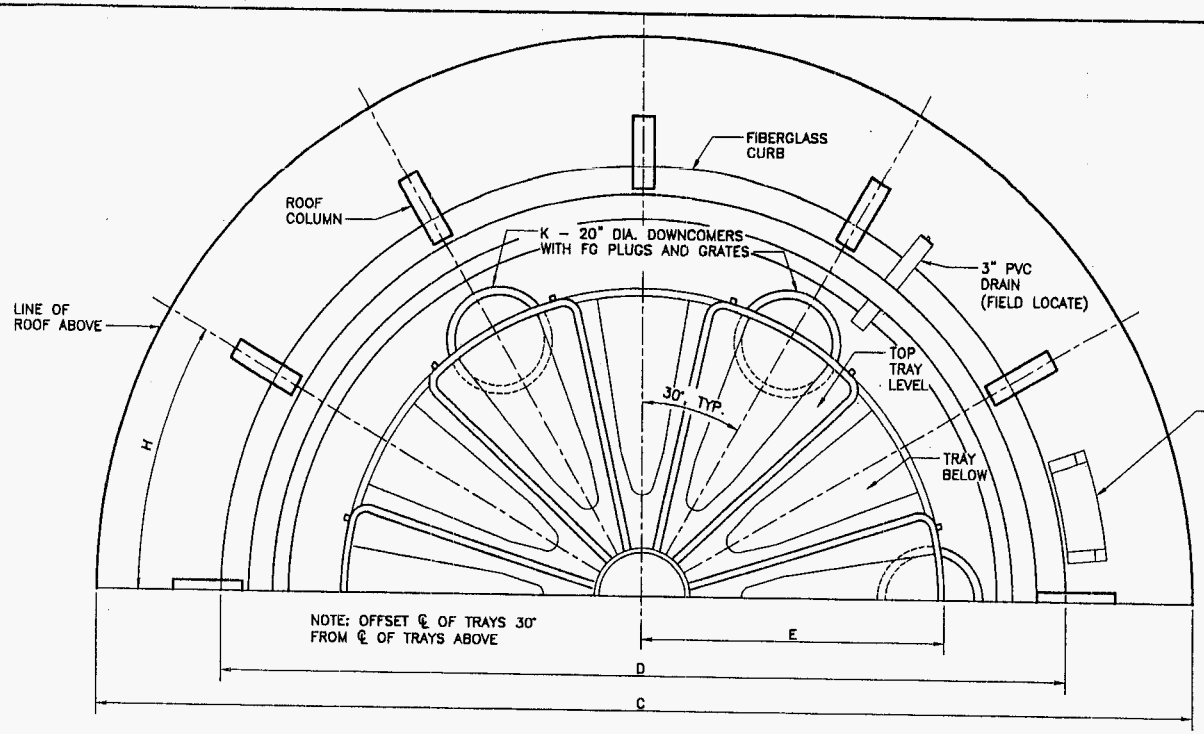
REV.	DESCRIPTION	DATE CK.BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE: AS NOTED

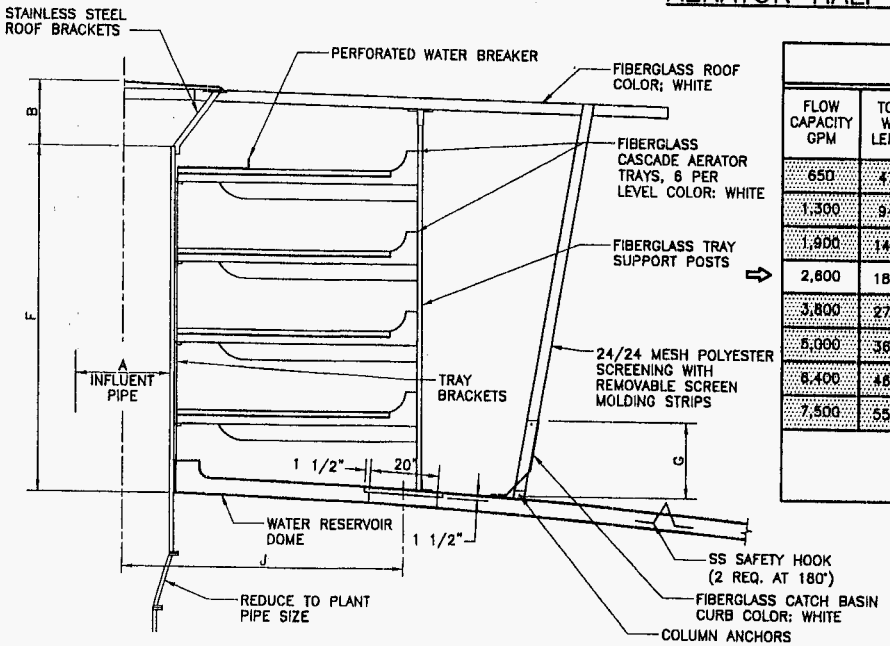
FILE NO. 2010-E-301

SHEET 14 OF 15



AERATOR HALF–PLAN

NTS



AERATOR HALF–SECTION THRU CENTER LINE

NTS

FLOW CAPACITY AND DIMENSION TABLE

FLOW CAPACITY GPM	TOTAL WEIR LENGTH	A PIPE SIZE	B CLEAR	C ROOF DIA.	D CURB DIA.	E TRAY RADIUS	F PIPE HEIGHT	G CURB HEIGHT	H ROOF COLUMN SPACING	I TOTAL TRAYS (LEVELS)	J DOWN–COMER RADIUS	K NUMBER DOWN–COMERS
650	47'0"	14"	1'0"	17'4"	13'4"	4'9"	5'4"	1'4"	30°	6 (1)	4'7"	2
1,300	94'0"	14"	1'0"	17'4"	13'4"	4'9"	5'4"	1'4"	30°	12 (2)	4'7"	2
1,900	141'0"	14"	1'0"	17'4"	13'4"	4'9"	5'4"	1'4"	30°	18 (3)	4'7"	2
2,600	188'0"	18"	1'0"	17'4"	13'4"	4'9"	5'4"	1'4"	30°	24 (4)	4'7"	2
3,800	278'0"	20"	1'6"	28'0"	23'4"	9'0"	5'4"	1'6"	15°	18 (3)	9'7"	3
5,000	368'0"	24"	1'8"	28'0"	23'4"	9'0"	5'4"	1'6"	15°	24 (4)	9'7"	3
6,400	460'0"	24"	1'6"	28'0"	23'4"	9'0"	7'2"	1'6"	15°	30 (5)	9'7"	3
7,500	552'0"	30"	1'6"	28'0"	23'4"	9'0"	8'4"	1'6"	15°	36 (6)	9'7"	4

CASCADE TRAY NATURAL DRAFT AERATORS

ALL FIBERGLASS CONSTRUCTED WITH STAINLESS STEEL HARDWARE

2,600 GPM AERATOR

NTS

CROM

THE CROM CORPORATION
GAINESVILLE, FLORIDA

OWNER:
WATER MANAGEMENT SERVICES, INC.
ST GEORGE ISLAND, FLORIDA

CONSULTING ENGINEER:
THE CROM CORPORATION
GAINESVILLE, FLORIDA

TANK DESCRIPTION:
600,000 GALLON GROUND STORAGE TANK

TANK DIMENSIONS:
70'0" ID x 21'0" SWD
28'6" ID x 21'6" SWD

DATE: 5/25/11
DRAWN: MAL/JWM
CHECKED: JLN
APPROVED: JBL
DESIGNED:

REV.	DESCRIPTION	DATE CK. BY

BAR IS ONE INCH ON ORIGINAL DRAWINGS 0 1"

SCALE:
AS NOTED

FILE NO.
2010–E–301

SHEET 15 OF 15

ROYAL AMERICAN MANAGEMENT, INC.
ROYAL AMERICAN DEVELOPMENT, INC.
ROYAL AMERICAN CONSTRUCTION CO., INC.

PROPOSAL FORM (SUBMIT IN TRIPLICATE ON CONTRACTOR'S LETTERHEAD)

DATE: August 18, 2011 TIME: 2:00 p.m. est

TO: WATER MANAGEMENT SERVICES, INC.
250 John Knox Road, #4
Tallahassee, Florida 32303

Gentlemen:

The undersigned, hereinafter called "Bidder", having visited the site of the proposed project, and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the drawings, specifications, the Form of Agreement, and other Contract Documents including the Bond Requirements therein, proposes to furnish all labor, materials, equipment and other items, facilities, and services for the proper execution and completion of:

Provide and install a new 600,000 gallon ground storage tank (with an internal 100,000 gallon fire protection tank, a 2,600 GPM high service pumping station, a 500 gpm potable water well #5, modifications to the existing water plant, water well #3 new generator, and supply and distribution piping in full accordance with the drawings and specifications prepared by the engineer *Les Thomas Consulting Engineers*, with the advertisement for bids, Instruction to Bidders, Agreement and all other documents relating thereto, and if awarded the contract, to complete the said work within 270 calendar days:

St. George Island 2011 Water System Improvements				
Base Bid Schedule - the quantities listed are approximations only for the use of the bidders - this is a lump sum project and the total bid shall be for the project complete and operable per intent of the plans and specifications.		Bid Amount		
1.	12" Raw water Main - from the existing line on the bridge to the new water tank in Parallel with the existing 12" PVC water main (which is partially exposed in the Apalachicola Bay) complete with fittings, appurtances, thrust blocking, Valves, etc..			
	1.a. Approximately2,300 lf 12" raw water main w/ 3 tie-ins	$	87,969.00	LS
	1.b. 11-12" Valves and fittings	$	18,729.00	LS
2.	Water Treatment Plant			
	2.a. 2-2600 gpm flow proportional chlorination systems including dual scales, dual chlorinators, a single fixed rate chlorinator for pre-chlorination, monitor system, emergency breathing apparatus and eye wash. The chlorine system is to send and receive signal information with the PLC.	$	57,307.00	LS
	2.b. 4 - 720 gpm @ 80 psi high service end suction pump packages including 4- 60 HP motors and 4-variable speed drives with provisions for fifth (5) all skid mounted with 12" suction and	$	461,636.00	LS

	discharge piping			
	2.c. 1 - 250 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements installed and complete at the new high service PS. The generator is to send and receive signal information with the PLC.	$	87,065.00	LS
	2.d. A complete control system for the high service pumps, 5 wells complete with a PLC controllers, a "TEXT" communication system, HMI color touch screen, and all instrumentation including flow meters, pressure transmitter, and level transmitter required to construct a working system.	$	61,978.00	LS
	2.e. 1-600,000 gallon pre-stressed concrete ground storage tank supported by a concrete pile system, and including a dedicated fire protection 100,000 gallon inner tank; a 2,600 gpm fixed tray, screened aerator; a chlorine distribution system; inlet and outlet piping to 5' ; soils investigation, recommendation and testing services for foundation design; tank design and sealed by Florida PE; complete and in operation.	$	793,679.00	LS
	2.f Construct a new mechanical/ electrical/ generator/ and chlorine storage building with a separate HVAC system for each space.	$	393,747.00	LS
	2. g. Electrical distribution system	$	58,959.00	LS
	2.h Air Conditioning system	$	34,591.00	LS
	2.i Sitework and plant piping, valves, meters	$	75,242.00	LS
3.	1 - SCADA system for 5 wells, 5 high service pumps, ground storage tank water level, distribution system pressure including high service pump discharge flow rate totalizer with digital display and recorder.	$	35,877.00	LS
4.	Tie-new water plant to existing potable water distribution system - all road crossings shall be by jack and bore - the below quantities are estimated - bid			
	4.a Approximately 800'- 8" water main w/ 6-8" valves and thrust blocks (east and west extensions)	$	38,039.00	LS
	4.b Approximately 700' - 12" water main w/ 6-12" valves and thrust blocks w/2 tie-ins to 8" existing	$	43,627.00	LS
	4.c Approximately400' - 6" water main w/ 3 valves and thrust blocks from elev tank to ground storage tank	$	15,258.00	LS
	4.d Approximately200' - 16" 350 #DI w/ field lok gaskets water main w/ 4-16" gv and thrust blocks	$	34,952.00	LS
	4.e Approximately40' of 8" with motorized BF valve w/ raised stem to tie inner ground storage tank to 16" from outer storage tank.	$	10,484.00	LS
5.	Well #3 - Provide and install 1 - 60 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements. Connect the generator to send and receive signal information with the PLC.	$	77,136.00	LS
6.	Well #5 - Permit and Construct a new 500 gpm ground water supply well complete and operable consisting of: 1-12" diameter, 282' +/-	$	308,710.00	LS

	deep water well, a 500 gpm vertical turbine pump, piping, electrical, and appurtenances.			
7.	Well #5 1 - 60 KW emergency generator with integral w/550 gallon diesel fuel tank per FDEP requirements furnished and installed complete. The generator is to send and receive signal information with the PLC.	$	77,136.00	LS
8.	Well #5 Tie to existing - Approximately 3,700 lf of 8" with 6 - 8" GV&Bs and 1 bore and jack	$	133,430.00	LS

Total Base Bid Two Million Nine Hundred Five Thousand Five Hundred Fifty-five and 00/100 Dollars $ 2,905,551.00

LIST OF SUPPLIERS/ SUBCONTRACTORS

The under signed, hereinafter called "Bidder", lists below the name of each Manufacturer and/ or SUBCONTRACTOR. (Failure of the bidder to list shall deem the bid as being non-responsive.)

	Material/ Work	Manufacturer or Subcontractor
1	High Service Pumps	Sanders Company
2	Prestressed Concrete Ground Storage Tank	The Crom Corporation
3	Well Driller	Rowe Well Drilling
4	Underground Utility Contractor	Royal American Construction
5	Water Treatment Plant Building Contractor	Royal American Construction

The Bidder hereby agrees that:

a. The above proposal shall remain in full force and effect for a period of twelve (12) months after the time of the opening of this proposal and that the Bidder will not revoke or cancel this proposal or withdraw from the competition within the said twelve months.

b. In the event the contract is awarded to this Bidder, he will enter into a formal written Agreement with the Owner in accordance with the accepted bid within ten (10) calendar days after said contract is submitted to him and will furnish to the Owner a Contract Performance Bond, a Labor Material Payment Bond, and a Liquidated Damages Bond with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the accepted bid, the form and terms of which shall fully comply with Section 255.05, Florida Statutes. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages. The work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to Proceed With Construction, shall be substantially completed within 270 calendar days.

Acknowledgment is hereby made of receipt of the following Addenda issued during the bidding period.

Addendum No. 1 Dated 8/11/2011
Addendum No. 2 Dated 8/12/2011
Addendum No. 3 Dated 8/17/2011
#4 DATED 8/18/2011

Corporation Charter (if applicable)

Royal American Construction Co., Inc. 332908

In witness whereof, the Bidder has hereunto set his signature and affixed his seal this 18th day of 2011.

_____(Seal)
By: Joseph F. Chapman, IV
Title: President

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

SMITH, HARRY WILLIAM III
ROYAL AMERICAN CONSTRUCTION CO INC
1002 W 23RD STREET
SUITE 400
PANAMA CITY FL 32405

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 5087280
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CGC055219 08/11/10 100002938
CERTIFIED GENERAL CONTRACTOR
SMITH, HARRY WILLIAM III
ROYAL AMERICAN CONSTRUCTION CO I
IS CERTIFIED under the provisions of Ch 489 FS
Expiration date: AUG 31, 2012 L10081102457

DETACH HERE

5087280 STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD
SEQ# L10081102457

DATE	BATCH NUMBER	LICENSE NBR
08/11/2010	100002938	CGC055219

he GENERAL CONTRACTOR
amed below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

SMITH, HARRY WILLIAM III
ROYAL AMERICAN CONSTRUCTION CO INC
1002 W 23RD STREET
SUITE 400
PANAMA CITY FL 32405

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
SECRETARY

DISPLAY AS REQUIRED BY LAW

State of Florida

Department of State

I certify from the records of this office that ROYAL AMERICAN CONSTRUCTION COMPANY, INC. is a corporation organized under the laws of the State of Florida, filed on July 22, 1968.

The document number of this corporation is 332908.

I further certify that said corporation has paid all fees due this office through December 31, 2011, that its most recent annual report was filed on March 10, 2011, and its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of Florida, at Tallahassee, the Capital, this the Ninth day of August, 2011

Secretary of State

Authentication ID: **800210901318-080911-332908**

To authenticate this certificate,visit the following site, enter this ID, and then follow the instructions displayed.
https://efile.sunbiz.org/certauthver.html

FDI
Residential
Commercial
General
Contractors

FLORIDA DEVELOPERS, INC.
642 W. Brevard Street
Tallahassee, FL 32304
850-224-6002 ofc 850-222-8010 fax
fldevelopers.com
LICENSE# CGC 044570 CUC 048365

 SECTION C Revised 8-17-2011

DATE: August 18, 2011 TIME: 2:00pm

TO: WATER MANAGEMENT SERVICES, INC.
250 John Knox Road, #4
Tallahassee, Florida 32303

Gentlemen:

The undersigned, hereinafter called "Bidder", having visited the site of the proposed project, and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the drawings, specifications, the Form of Agreement, and other Contract Documents including the Bond Requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities, and services for the proper execution and completion of:

Provide and install a new 600,000 gallon ground storage tank (with an internal 100,000 gallon fire protection tank, a 2,600 GPM high service pumping station, a 500 gpm potable water well #5, modifications to the existing water plant, water well #3 new generator, and supply and distribution piping in full accordance with the drawings and specifications prepared by the engineer *Les Thomas Consulting Engineers*, with the advertisement for bids, Instruction to Bidders, Agreement and all other documents relating thereto, and if awarded the contract, to complete the said work within 270 calendar days:

St. George Island 2011 Water System Improvements		
Base Bid Schedule - the quantities listed are approximations only for the use of the bidders - this is a lump sum project and the total bid shall be for the project complete and operable per intent of the plans and specifications.		Bid Amount
1.	12" Raw water Main - from the existing line on the bridge to the new water tank in Parallel with the existing 12" PVC water main (which is partially exposed in the Apalachicola Bay) complete with fittings, appurtances, thrust blocking, Valves, etc..	
	1.a. Approximately2,300 lf 12" raw water main w/ 3 tie-ins	$206,211.40 / LS
	1.b. 11-12" Valves and fittings	$72,343.00 /LS
	Water Treatment Plant	
	2.a. 2-2600 gpm flow proportional chlorination systems including dual	$50,000.00 / LS

	scales, dual chlorinators, a single fixed rate chlorinator for pre-chlorination, monitor system, emergency breathing apparatus and eye wash. The chlorine system is to send and receive signal information with the PLC.	
	2.b. 4 - 720 gpm @ 80 psi high service end suction pump packages including 4- 60 HP motors and 4-variable speed drives with provisions for fifth (5) all skid mounted with 12" suction and discharge piping	$376,950.00 / LS
	2.c. 1 - 250 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements installed and complete at the new high service PS. The generator is to send and receive signal information with the PLC.	$75,000.00 / LS
	2.d. A complete control system for the high service pumps, 5 wells complete with a PLC controllers, a "TEXT" communication system, HMI color touch screen, and all instrumentation including flow meters, pressure transmitter, and level transmitter required to construct a working system.	$ 146,150.00 / LS
	2.e. 1-600,000 gallon pre-stressed concrete ground storage tank supported by a concrete pile system, and including a dedicated fire protection 100,000 gallon inner tank; a 2,600 gpm fixed tray, screened aerator; a chlorine distribution system; inlet and outlet piping to 5' ; soils investigation, recommendation and testing services for foundation design; tank design and sealed by Florida PE; complete and in operation.	$ 862,475.00 / LS
	2.f Construct a new mechanical/ electrical/ generator/ and chlorine storage building with a separate HVAC system for each space.	$223,510.00 / LS
	2. g. Electrical distribution system	$16,430.00 / LS
	2.h Air Conditioning system	$28,000.00 / LS
	2.i Sitework and plant piping, valves, meters	$176,645.00 / LS
3.	1 - SCADA system for 5 wells, 5 high service pumps, ground storage tank water level, distribution system pressure including high service pump discharge flow rate totalizer with digital display and recorder.	$ 45,000.00 / LS
4.	Tie-new water plant to existing potable water distribution system - all road crossings shall be by jack and bore - the below quantities are estimated - bid	
	4.a Approximately 800'- 8" water main w/ 6-8" valves and thrust blocks (east and west extensions)	$ 33,568.50 / LS
	4.b Approximately 700' - 12" water main w/ 6-12" valves and thrust blocks w/2 tie-ins to 8" existing	$ 56,890.50 / LS
	4.c Approximately400' - 6" water main w/ 3 valves and thrust blocks from elev tank to ground storage tank	$ 15,965.00 / LS
	4.d Approximately200' - 16" 350 #DI w/ field lok gaskets water main w/ 4-16" gv and thrust blocks	$ 54,000.00 / LS
	4.e Approximately40' of 8" with motorized BF valve w/ raised stem to	$ 11,045.00 / LS

	tie inner ground storage tank to 16" from outer storage tank.	
5.	Well #3 - Provide and install 1 - 60 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements. Connect the generator to send and receive signal information with the PLC.	$ 55,350.00 / LS
6.	Well #5 - Permit and Construct a new 500 gpm ground water supply well complete and operable consisting of: 1-12" diameter, 282' +/- deep water well, a 500 gpm vertical turbine pump, piping, electrical, and appurtenances.	$ 275,562.00 / LS
7.	Well #5 1 - 60 KW emergency generator with integral w/550 gallon diesel fuel tank per FDEP requirements furnished and installed complete. The generator is to send and receive signal information with the PLC.	$ 55,350.00 / LS
8.	Well #5 Tie to existing - Approximately 3,700 lf of 8" with 6 - 8" GV&Bs and 1 bore and jack	$ 125,763.00 / LS

Total Base Bid Two Million, Nine Hundred Fifty-Nine Thousand, Nine Hundred Twenty-Three Dollars and 40/100 Cents Dollars $ 2,959,923.40

LIST OF SUPPLIERS/ SUBCONTRACTORS

he under signed, hereinafter called "Bidder", lists below the name of each Manufacturer and/ or SUBCONTRACTOR. (Failure of the bidder to list shall deem the bid as being non-responsive.)

	Material/ Work	Manufacturer or Subcontractor
1	High Service Pumps	Barneys Pumps
2	Prestressed Concrete Ground Storage Tank	Crom Corporation
3	Well Driller	Layne Christensen Company
4	Underground Utility Contractor	Florida Developers, Inc. and Dowdy Plumbing
5	Water Treatment Plant Building Contractor	Florida Developers, Inc. and The Deeb Companies

The Bidder hereby agrees that:

a. The above proposal shall remain in full force and effect for a period of twelve (12) months after the time of the opening of this proposal and that the Bidder will not revoke or cancel this proposal or withdraw from the competition within the said twelve months.

b. In the event the contract is awarded to this Bidder, he will enter into a formal written Agreement with the Owner in accordance with the accepted bid within ten (10) calendar days after said contract is submitted to him and will furnish to the Owner a Contract Performance Bond, a Labor Material Payment Bond, and a Liquidated Damages Bond with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the accepted bid, the form and terms of which shall fully comply with Section 255.05, Florida Statutes. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of

this proposal, the said bid deposit shall be forfeited as liquidated damages. The work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to proceed with Construction, shall be substantially completed within 270 calendar days.

Acknowledgment is hereby made of receipt of the following Addenda issued during the bidding period.

Addendum No. 1 Dated 8/11/2011
Addendum No. 2 Dated 8/12/2011
Addendum No. 3 Dated 8/17/2011
Addendum No. 4 Dated 8/18/2011

Corporation Charter (if applicable)

(FLORIDA DEVELOPERS, INC. OF TALLAHASSEE) (Charter No. 671632)

In witness whereof, the Bidder has hereunto set his signature and affixed his seal this 18th day of August 2011.

(Seal)
By: Frank W. Williams
Title: President

AC# 5155097

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L10090104326

DATE	BATCH NUMBER	LICENSE NBR
/01/2010	108062259	CUC048365

The UNDERGROUND UTILITY & EXCAVATION CO
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

MC ROY, JAMES ELLIS
FLORIDA DEVELOPERS INC OF TALLAHASSEE
642 W BREVARD ST
TALLAHASSEE FL 32304

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
SECRETARY

DISPLAY AS REQUIRED BY LAW

AC# 5044774

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L10072001015

DATE	BATCH NUMBER	LICENSE NBR
07/20/2010	100036875	CGC044570

GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

MCROY, JAMES E
FLORIDA DEVELOPERS INC OF TALLAHASSEE
TALLAHASSEE
642 W BREVARD ST
TALLAHASSEE FL 32304-7911

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
INTERIM SECRETARY

DISPLAY AS REQUIRED BY LAW

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

(850) 487-1395

ATKINSON, WILLIAM ANDREW
DOWDY PLUMBING CORPORATION
3214 OLD BAINBRIDGE RD
TALLAHASSEE FL 32303

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 5087508
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CUC1224746 08/11/10 090487118

CERT UNDERGROUND & EXCAV CNTR
ATKINSON, WILLIAM ANDREW
DOWDY PLUMBING CORPORATION

IS CERTIFIED under the provisions of Ch.489 FS
Expiration date: AUG 31, 2012 L10081102685

DETACH HERE

AC# 5087508

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L10081102685

DATE	BATCH NUMBER	LICENSE NBR
08/11/2010	090487118	CUC1224746

The UNDERGROUND UTILITY & EXCAVATION CO
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

ATKINSON, WILLIAM ANDREW
DOWDY PLUMBING CORPORATION
3214 OLD BAINBRIDGE RD
TALLAHASSEE FL 32303

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
SECRETARY

DISPLAY AS REQUIRED BY LAW

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 4488453
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

QB0016056 07/29/09 087065116

QUALIFIED BUSINESS ORGANIZATION
DOWDY PLUMBING CORPORATION

(NOT A LICENSE TO PERFORM WORK. ALLOWS COMPANY TO DO BUSINESS IF IT HAS A LICENSED QUALIFIER.)
IS QUALIFIED under the provisions of Ch. 489 FS
Expiration date: AUG 31, 2011 L09072901390

DETACH HERE

AC# 4488453

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L09072901390

DATE	BATCH NUMBER	LICENSE NBR
07/29/2009	087065116	QB0016056

The BUSINESS ORGANIZATION
Named below IS QUALIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2011
(THIS IS NOT A LICENSE TO PERFORM WORK. THIS ALLOWS THE COMPANY TO DO BUSINESS ONLY IF IT HAS A QUALIFIER.)

DOWDY PLUMBING CORPORATION
4425 ENTREPOT BLVD
TALLAHASSEE FL 32310

CHARLIE CRIST
GOVERNOR

DISPLAY AS REQUIRED BY LAW

CHARLES W. DRAGO
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

DOWDY, HAROLD RICHARD
DOWDY PLUMBING CORPORATION
4425 ENTREPOT BLVD
TALLAHASSEE FL 32310

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 5077994
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CFC057654 08/06/10 090487118

CERTIFIED PLUMBING CONTRACTOR
DOWDY, HAROLD RICHARD
DOWDY PLUMBING CORPORATION

IS CERTIFIED under the provisions of Ch.489 FS
Expiration date: AUG 31, 2012 L10080601654

DETACH HERE

AC# 5077994

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L10080601654

DATE	BATCH NUMBER	LICENSE NBR
08/06/2010	090487118	CFC057654

The PLUMBING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

DOWDY, HAROLD RICHARD
DOWDY PLUMBING CORPORATION
5121 WILLIAMS RD
TALLAHASSEE FL 32311

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
SECRETARY

DISPLAY AS REQUIRED BY LAW

Previous on List Next on List Return To List

Events **No Name History**

Detail by Entity Name

Florida Profit Corporation

FLORIDA DEVELOPERS, INC. OF TALLAHASSEE

Filing Information

Document Number	671632
FEI/EIN Number	591990852
Date Filed	05/29/1980
State	FL
Status	ACTIVE
Last Event	REINSTATEMENT
Event Date Filed	12/29/1994
Event Effective Date	NONE

Principal Address

642 WEST BREVARD STREET
TALLAHASSEE FL 32304

Mailing Address

642 WEST BREVARD STREET
TALLAHASSEE FL 32304

Registered Agent Name & Address

WILLIAMS, FRANK W.
1704 HILLGATE COURT
TALLAHASSEE FL 32308 US

Officer/Director Detail

Name & Address

Title P

WILLIAMS, FRANK W.
1704 HILLSGATE CT
TALLAHASSEE FL 32308

Title V/ST

WILLIAMS, RALPH
1221 VOLUSIA ST.
TALLAHASSEE FL 32304

Annual Reports

Report Year	Filed Date
2009	05/07/2009
2010	04/30/2010
2011	04/29/2011

Document Images

2011 FOR PROFIT CORPORATION ANNUAL REPORT

FILED
Apr 29, 2011
Secretary of State

DOCUMENT# 671632

Entity Name: FLORIDA DEVELOPERS, INC. OF TALLAHASSEE

Current Principal Place of Business:

642 WEST BREVARD STREET
TALLAHASSEE, FL 32304

New Principal Place of Business:

Current Mailing Address:

642 WEST BREVARD STREET
TALLAHASSEE, FL 32304

New Mailing Address:

FEI Number: 59-1990852 **FEI Number Applied For ( )** **FEI Number Not Applicable ( )** **Certificate of Status Desired ( )**

Name and Address of Current Registered Agent:

WILLIAMS, FRANK W.
1704 HILLGATE COURT
TALLAHASSEE, FL 32308 US

Name and Address of New Registered Agent:

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE: _____

Electronic Signature of Registered Agent — Date

OFFICERS AND DIRECTORS:

Title: P
Name: WILLIAMS, FRANK W.
Address: 1704 HILLSGATE CT
City-St-Zip: TALLAHASSEE, FL 32308

Title: VIST
Name: WILLIAMS, RALPH
Address: 1221 VOLUSIA ST.
City-St-Zip: TALLAHASSEE, FL 32304

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an officer or director of the corporation or the receiver or trustee empowered to execute this report as required by Chapter 607, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

SIGNATURE: FRANK W. WILLIAMS P 04/29/2011

Electronic Signature of Signing Officer or Director — Date

PROPOSAL FROM BEN WITHERS, INC. P. O. BOX 908, PANACEA, FL, 32346
Telephone: 850-984-0149, e-mail: Ben2361@aol.com
DATE: August 18, 2011 TIME: 2:00 p.m.
TO: WATER MANAGEMENT SERVICES, INC.
250 John Knox Road, #4
Tallahassee, Florida 32303

Gentlemen:

The undersigned, hereinafter called "Bidder", having visited the site of the proposed project, and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the drawings, specifications, the Form of Agreement, and other Contract Documents including the Bond Requirements therein, proposes to furnish all labor, materials, equipment and other items, facilities, and services for the proper execution and completion of:

Provide and install a new 600,000 gallon ground storage tank (with an internal 100,000 gallon fire protection tank, a 2,600 GPM high service pumping station, a 500 gpm potable water well #5, modifications to the existing water plant, water well #3 new generator, and supply and distribution piping in full accordance with the drawings and specifications prepared by the engineer *Les Thomas Consulting Engineers*, with the advertisement for bids, Instruction to Bidders, Agreement and all other documents relating thereto, and if awarded the contract, to complete the said work within 270 calendar days:

St. George Island 2011 Water System Improvements			
General Conditions: Mobilization, layout, testing and bond		$127,075.00	
1.	12" Raw water Main - from the existing line on the bridge to the new water tank in Parallel with the existing 12" PVC water main (which is partially exposed in the Apalachicola Bay) complete with fittings, appurtances, thrust blocking, Valves, etc..		
	1.a. Approximately2,300 lf 12" raw water main w/ 3 tie-ins	$100,095.08	LS
	1.b. 11-12" Valves and fittings	$49,259.10	LS
2.	Water Treatment Plant		
	2.a. 2-2600 gpm flow proportional chlorination systems including dual scales, dual chlorinators, a single fixed rate chlorinator for pre-chlorination, monitor system, emergency breathing apparatus and eye wash. The chlorine system is to send and receive signal information with the PLC.	$53,266.38 LS	
	2.b. 4 - 720 gpm @ 80 psi high service end suction pump packages including 4- 60 HP motors and 4-variable speed drives with provisions for fifth (5) all skid mounted with 12" suction and discharge piping	$404,800.00 LS	
	2.c. 1 - 250 KW emergency generator with integral 550 gallon diesel	$65,758.00	

	fuel tank per FDEP requirements installed and complete at the new high service PS. The generator is to send and receive signal information with the PLC.	LS
	2.d. A complete control system for the high service pumps, 5 wells complete with a PLC controllers, a "TEXT" communication system, HMI color touch screen, and all instrumentation including flow meters, pressure transmitter, and level transmitter required to construct a working system.	$44,557.70 LS
	2.e. 1-600,000 gallon pre-stressed concrete ground storage tank supported by a concrete pile system, and including a dedicated fire protection 100,000 gallon inner tank; a 2,600 gpm fixed tray, screened aerator; a chlorine distribution system; inlet and outlet piping to 5' ; soils investigation, recommendation and testing services for foundation design; tank design and sealed by Florida PE; complete and in operation.	$699,909.56 LS
	2.f Construct a new mechanical/ electrical/ generator/ and chlorine storage building with a separate HVAC system for each space.	$213,800.00 LS
	2. g. Electrical distribution system	$55,384.00 LS
	2.h Air Conditioning system	$13,800.00 LS
	2.i Sitework and plant piping, valves, meters	$102,279.04 LS
3.	1 - SCADA system for 5 wells, 5 high service pumps, ground storage tank water level, distribution system pressure including high service pump discharge flow rate totalizer with digital display and recorder.	$44,110.00 LS
4.	Tie-new water plant to existing potable water distribution system - all road crossings shall be by jack and bore - the below quantities are estimated - bid	$18,400.00
	4.a Approximately 800'- 8" water main w/ 6-8" valves and thrust blocks (east and west extensions)	$27,678.59 LS
	4.b Approximately 700' - 12" water main w/ 6-12" valves and thrust blocks w/2 tie-ins to 8" existing	$43,674.51 LS
	4.c Approximately400' - 6" water main w/ 3 valves and thrust blocks from elev tank to ground storage tank	$11,797.73 LS
	4.d Approximately200' - 16" 350 #DI w/ field lok gaskets water main w/ 4-16" gv and thrust blocks	$56,344.92 LS
	4.e Approximately40' of 8" with motorized BF valve w/ raised stem to tie inner ground storage tank to 16" from outer storage tank.	$22,510.47
5.	Well #3 - Provide and install 1 - 60 KW emergency generator with integral 550 gallon diesel fuel tank per FDEP requirements. Connect the generator to send and receive signal information with the PLC.	$53,669.00 LS
6.	Well #5 - Permit and Construct a new 500 gpm ground water supply well complete and operable consisting of: 1-12" diameter, 282' +/- deep water well, a 500 gpm vertical turbine pump, piping, electrical,	$254,529.60 LS

	and appurtenances.	
7.	Well #5 1 - 60 KW emergency generator with integral w/550 gallon diesel fuel tank per FDEP requirements furnished and installed complete. The generator is to send and receive signal information with the PLC.	$56,342.00 LS
8.	Well #5 Tie to existing - Approximately 3,700 lf of 8" with 6 - 8" GV&Bs and 1 bore and jack	$107,441.49 LS

Total Base Bid: Two Million Six Hundred Twenty Six Thousand Four Hundred Eighty Two Dollars and Eighteen Cents $2,626,482.18

LIST OF SUPPLIERS/ SUBCONTRACTORS

The under signed, hereinafter called "Bidder", lists below the name of each Manufacturer and/ or SUBCONTRACTOR. (Failure of the bidder to list shall deem the bid as being non-responsive.)

	Material/ Work	Manufacturer or Subcontractor
1	High Service Pumps	Sanders
2	Prestressed Concrete Ground Storage Tank	Crom Corporation
3	Well Driller	Rowe Drilling
4	Underground Utility Contractor	Ben Withers, Inc.
5	Water Treatment Plant Building Contractor	John Abbot

The Bidder hereby agrees that:

a. The above proposal shall remain in full force and effect for a period of twelve (12) months after the time of the opening of this proposal and that the Bidder will not revoke or cancel this proposal or withdraw from the competition within the said twelve months.

b. In the event the contract is awarded to this Bidder, he will enter into a formal written Agreement with the Owner in accordance with the accepted bid within ten (10) calendar days after said contract is submitted to him and will furnish to the Owner a Contract Performance Bond, a Labor Material Payment Bond, and a Liquidated Damages Bond with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the accepted bid, the form and terms of which shall fully comply with Section 255.05, Florida Statutes. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages. The work to be performed under this contract shall be commenced within ten (10) calendar days after date of Notice to Proceed to Mobilize on Site and to Proceed With Construction, shall be substantially completed within 270 calendar days.

Acknowledgment is hereby made of receipt of the following Addenda issued during the bidding period.

Addendum No. 1 Dated 8/11/2011
Addendum No. 2 Dated 8/12/2011
Addendum No. 3 Dated 8/17/2011
Addendum No. 4 Dated 8/18/2011

Corporation Charter (if applicable)

Ben Withers, Inc. L12931

In witness whereof, the Bidder has hereunto set his signature and affixed his seal this 18th day of August, 2011.

_____(Seal)
By: Ben Withers
Title: President

ADVERTISEMENT FOR BIDS

WATER MANAGEMENT SERVICES, LLC, IS REQUESTING BIDS FROM STATE OF FLORIDA LICENSED GENERAL OR COMMERICAL BUILDING CONTRACTORS WHO ALSO HAVE A FLORIDA UNDERGROUND UTILITY CONTRACTOR LICENSE OR WHO WILL PROVIDE A SUBCONTRACTOR HAVING SAID LICENSE FOR THE CONSTRUCTION OF:

PROJECT: St. George Island Water System 2011 Improvements consisting of the following:

Provide and install: a new 600,000 gallon prestressed concrete ground storage tank with concrete pile foundation; a 2,600 GPM high service pumping station complete with building and concrete pile foundation and 250 KW generator; a new 500 gpm potable water well (#5) with 2800' - 8" pvc , modifications to the existing water plant, a new 60 KW generator at water well #3 and 1500'- 12" raw water supply mains and valves; and 1500' - 8", 12" pvc distribution piping.

Sealed bids will be received, publicly opened and read aloud on:

DATE AND TIME: August 15, 2011 , Until 2:00 PM local time.

PLACE: Water Management Services, Inc.
250 John Knox Road Unit #4
Tallahassee, Fl 32303

PROPOSAL: Bids must be submitted in full in accordance with the requirements of the Drawings, Specifications, Bidding Conditions and Contractual Conditions, which may be examined and obtained from the:

ARCHITECT/ENGINEER: *Les Thomas Consulting Engineers*

3460 Point View Circle, Gainesville GA 30506 TELEPHONE:(678) 677-6420

Drawings and specifications may be purchased for $ 500.00 per set from the Architect/Engineer.