



June 19, 2008

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

JUN 20 2008

SITING COORDINATION

Mr. Mike Halpin
Administrator
Siting Coordinating Office
Florida Department of Environmental Protection
2600 Blair Stone Road STE 649
Tallahassee, FL 32399-2400

RE: Seminole Generating Station PA 78-10
Post Certification Amendment to the Application

Please accept this letter and attachments as a post-certification amendment to the application for the Seminole Generating Station's (SGS) original SCA application, as amended. This post certification amendment to the SCA addresses installation of three new potable wells to be installed at SGS. Seminole intends to use these wells for it's sole source of potable water. The wells will be connected to the potable water system through existing lines designed for potable water.

Condition of Certification VIII requires Seminole to meet all applicable DEP potable water supply regulations. The SGS has experienced levels of trihalomethanes (THMs) in the process well water that are unacceptable to meet the potable water regulations. The THM levels are believed to be caused by the recirculation of the well water picking up oxygen and reacting with chlorine compounds in the water. Seminole intends to install a system that does not re-circulate which should alleviate the problem.

Seminole will be locating the new wells adjacent to the three shallow wells that were installed for this purpose in 2005. The water quality in those wells was inadequate for potable use so the decision has been made to abandon these wells and install new, deeper wells. The current system of routing raw well water from the existing process wells through well water pre-treatment will be closed off so the process wells are no longer the source of potable water to the SGS.

The installation and use of the new wells is expected to provide a water source that is better suited for Seminole's potable water needs. It is anticipated that the only treatment process required for this water will be chlorination. Water quality data will be collected during installation of the three new wells and tested to make sure the water is of adequate quality. Seminole intends to use the existing potable water chlorination system at the facility and will install additional upgrades if necessary. The installation of the three new potable wells will not necessitate any changes to the existing Conditions of Certification.

Seminole's proposed amendment to the SCA entails the following changes to Section 4.2.1 of the original SCA (underscore language is new).

4.2 Construction Water System

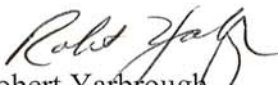
4.2.1. Source and Quantity of Construction Water

The station water supply well will provide water for construction as well as for later operation, including drinking water, construction water, and sanitary facilities. Two wells will draw water from the Floridan Aquifer and will be capable of yielding water at the rate of 50 gallons per minute (gpm) as required to provide the 20,000 gallons per day needed during the construction phase. The water will be chlorinated and stored in a pressure tank capable of holding at least 3,000 gallons.

Three additional water supply wells will be installed and utilized exclusively for plant potable water needs. Two wells capable of producing a minimum of 30 gpm at 70-90 pdig are needed to meet the maximum potable water flow requirements. Three wells will be installed, however, to provide an additional standby well in the event of a motor or pump failure. Each of the three wells will be equipped with an individual flow meter and will be use on a routine rotational basis to provide th necessary potable water supply. The locations of these wells are depicted in Attachment 1. Additional information concerning these wells is set forth in Attachment 2. St. Johns River Water Management District Application to Construct a Well.

If you have any questions concerning this submittal please contact myself or Mike Roddy at 813 963-0994.

Sincerely,


Robert Yarbrough
Senior Environmental Engineer

cc: Service List
Brenda Atkins
Dwight Jenkins SJRWMD
Blanche Waller – FDEP NE District



APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

See page 4 for instructions.

I. General Project Information

A. Name of Project: Seminole Electric Potable System Modification

B. Description of Project and Its Purpose: Seminole Electric is proposing to modify the existing potable water system by constructing three new deep potable supply wells to replace the existing shallower wells, and tie them into the existing potable supply system for the Seminole Electric Palatka Facility. The existing wells do not produce water of sufficient quality to avoid expensive water treatment requirements, and it is our intent to drill three new wells into the Floridan Aquifer to replace the existing wells. Upon completion and clearance, the existing wells will be grout filled and abandoned, and the new wells will be connected to the existing potable water system for use. The intent of this application is to provide the required technical information for modifications to a potable water supply system at the facility and demonstrate compliance with our existing conditions of certification. A separate permit is not requested or required for these activities.

C. Does project create a "new system" as described under subsection 62-555.525(1), F.A.C.? ☐ Yes, and a completed copy of Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, is attached. ☒ No.

D. Location of Project

1. County Where Project Located: Putnam County

2. Description of Project Location: Seminole Electric Cooperative power production facility at 890 N. Highway 17 in Palatka, Florida.

3. Latitude and Longitude of Each New Treatment Plant and Each New Raw Water Source (attach additional sheets if necessary):

Name of New Treatment Plant or Raw Water Source	Latitude			Longitude		
Potable Raw Water Well Number 1	29°	44'	5"N	81°	38'	5"W
Potable Raw Water Well Number 2	29°	44'	5"N	81°	38'	5"W
Potable Raw Water Well Number 3	29°	44'	6"N	81°	38'	5"W
	°	'	"N	°	'	"W
	°	'	"N	°	'	"W

E. Estimate of Cost to Construct Project: \$120,000

F. Estimate of Dates for Starting and Completing Construction of Project: Start June 15, 2008 Complete June 15, 2009

G. Applicant

PWS/Company Name: <u>Seminole Generating Station</u>		PWS Identification No.: <u>* 2541450</u>
PWS Type: * ☐ Community ☒ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive		
Contact Person: <u>Robert Yarbrough</u>		Contact Person's Title: <u>Sr. Environmental Engineer</u>
Contact Person's Mailing Address: <u>P.O. Box 272000</u>		
City: <u>Tampa</u>	State: <u>Florida</u>	Zip Code: <u>33688</u>
Contact Person's Telephone Number: <u>8139630994</u>		Contact Person's Fax Number: <u>813-264-7906</u>
Contact Person's E-Mail Address: <u>RYarbrough@seminole-electric.com</u>		

* This information is required only if the applicant is a public water system (PWS).

H. Public Water System (PWS) Supplying Water to Project

PWS Name: <u>Seminole Generating Station</u>		PWS Identification No.: <u>2541450</u>
PWS Type: ☐ Community ☒ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive		
PWS Owner: <u>Seminole Electric Cooperative</u>		
Contact Person: <u>Robert Yarbrough</u>		Contact Person's Title: <u>Sr. Environmental Engineer</u>
Contact Person's Mailing Address: <u>P.O. Box 272000</u>		
City: <u>Tampa</u>	State: <u>Florida</u>	Zip Code: <u>33688</u>
Contact Person's Telephone Number: <u>813-963-0994</u>		Contact Person's Fax Number: <u>813-264-7906</u>
Contact Person's E-Mail Address: <u>RYarbrough@seminole-electric.com</u>		

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: Seminole Electric Potable System Modification Applicant: Seminole Generating Station

I. Public Water System (PWS) that Will Own Project After It Is Placed into Permanent Operation

PWS Name: Seminole Generating Station		PWS Identification No.: * 2541450	
PWS Type: * ☐ Community ☒ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
PWS Owner: Seminole Electric Cooperative			
Contact Person: Robert Yarbrough		Contact Person's Title: Sr. Environmental Engineer	
Contact Person's Mailing Address: P.O. Box 272000			
City: Tampa		State: Florida	Zip Code: 33688
Contact Person's Telephone Number: 813-963-0994		Contact Person's Fax Number: 813-264-7906	
Contact Person's E-Mail Address: RYarbrough@seminole-electric.com			

* This information is required only if the owner/operator is an existing PWS.

J. Professional Engineer(s) or Other Person(s) in Responsible Charge of Designing Project*

Company Name: Environmental Consulting & Technology, Inc.	
Designer(s): Steven G. Danskine, P.E.	Title(s) of Designer(s): Project Engineer
Qualifications of Designer(s):	
☒ Professional Engineer(s) Licensed in Florida – License Number(s): 62496	
☐ Public Officer(s) Employed by State, County, Municipal, or Other Governmental Unit of State [†]	
☐ Plumbing Contractor(s) Licensed in Florida – License Number(s): ^	
Mailing Address of Designer(s): 809 State Road 44	
City: New Smyrna Beach	State: Florida Zip Code: 32168
Telephone Number of Designer(s): 386-427-0694	Fax Number of Designer(s): 386-427-0889
E-Mail Address(es) of Designer(s): sdanskine@ectinc.com	

* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.

[†] Attach a detailed construction cost estimate showing that the cost to construct this project is \$10,000 or less.

[^] Attach documentation showing that this project will be installed by the plumbing contractor(s) designing this project, documentation showing that this project involves a public water system serving a single property and fewer than 250 fixture units, and a detailed construction cost estimate showing that the cost to construct this project is \$50,000 or less.

II. Certifications

A. Certification by Applicant

I am duly authorized to sign this application on behalf of the applicant identified in Part I.G of this application. I certify that, to the best of my knowledge and belief, this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C. I also certify that construction of this project has not begun yet.

 6/19/08	Mike Roddy	Mgr of Environmental Affairs
Signature and Date	Printed or Typed Name	Title

B. Certification by PWS Supplying Water to Project

I am duly authorized to sign this application on behalf of the PWS identified in Part I.H of this application. I certify that said PWS will supply the water necessary to meet the design water demands for this project. I certify that, to the best of my knowledge and belief, said PWS's connection to this project will not cause said PWS to be, or contribute to said PWS being, in noncompliance with Chapter 62-550 or 62-555, F.A.C. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers the connection(s) between this project and said PWS acceptable as designed.

- Name(s) of Water Treatment Plant(s) to Which this Project Will Be Connected: Seminole Electric Water Plant

- Total Permitted Maximum Day Operating Capacity of Plant(s), gpd: 100,000
- Total Maximum Day Flow at Plant(s) as Recorded on Monthly Operating Reports During Past 12 Months, gpd: 30,061

 6/19/08	Mike Roddy	Mgr of Environmental Affairs
Signature and Date	Printed or Typed Name	Title

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: Seminole Electric Potable System Modification

Applicant: Seminole Generating Station

C. Certification by PWS that Will Own Project After It Is Placed into Permanent Operation

I am duly authorized to sign this application on behalf of the PWS identified in Part I.I of this application. I certify that said PWS will own this project after it is placed into permanent operation. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers this project acceptable as designed.

Signature and Date

Mike Roddy
Printed or Typed Name

Mgr of Environmental Affairs
Title

D. Certification by Professional Engineer(s) in Responsible Charge of Designing Project*

I, the undersigned professional engineer licensed in Florida, am in responsible charge of preparing the preliminary design report or drawings, specifications, and design data for this project. I certify that, to the best of my knowledge and belief, the design of this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C.

Signature, Seal, and Date:



Printed/Typed Name: Steven G. Danskine, P.E.

License Number: 62496

Portion of Engineering Document(s) for Which Responsible:
All documents submitted

Signature, Seal, and Date:

Printed/Typed Name:

License Number:

Portion of Engineering Document(s) for Which Responsible:

Signature, Seal, and Date:

Printed/Typed Name:

License Number:

Portion of Engineering Document(s) for Which Responsible:

Signature, Seal, and Date:

Printed/Typed Name:

License Number:

Portion of Engineering Document(s) for Which Responsible:

* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D of this application shall be completed by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D does not have to be completed.

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

INSTRUCTIONS: This application shall be completed and submitted by persons proposing to construct or alter public water system components unless such proposed construction or alteration is permitted under the Department of Environmental Protection's (DEP's) "General Permit for Construction of Water Main Extensions for Public Water Systems," in which case Form 62-555.900(7) is to be completed and submitted, or under the DEP's "General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium Public Water Systems," in which case Form 62-555.900(18) is to be completed and submitted. Complete and submit one copy of this application to the appropriate DEP District Office or Approved County Health Department (ACHD) along with payment of the proper application processing fee and one copy of the following information:

- either a preliminary design report or drawings, specifications, and design data (the preliminary design report or drawings, specifications, and design data shall contain all pertinent information required under subsection 62-555.520(4), F.A.C.); and
- the Florida Public Service Commission (FPSC) certificate of authorization to provide water service if the project involves construction of a new public water system subject to the jurisdiction of the FPSC.

All information provided on this application shall be typed or printed in ink. Application processing fees are listed in paragraph 62-4.050(4)(n), F.A.C. Checks for application processing fees shall be made payable to the Department of Environmental Protection or to the appropriate ACHD. Preliminary design reports, drawings, specifications, and design data prepared under the responsible charge of one or more professional engineers licensed in Florida shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. NOTE THAT A SEPARATE APPLICATION AND A SEPARATE APPLICATION PROCESSING FEE ARE REQUIRED FOR EACH NON-CONTIGUOUS PROJECT.*

** Non-contiguous projects are projects that are neither interconnected nor located nearby one another (i.e., on the same site, on adjacent streets, or in the same neighborhood).*

ENGINEERING DESIGN REPORT

For

**Potable Water System Upgrades at
Seminole Electric Power Plant Palatka Facility
PWS 2541450
890 N. Highway 17
Palatka, Florida 32177**

Prepared for:



**16313 Marby Highway
Tampa, Florida 33688
(813) 963-0994 Fax: (813) 264-7906**

Prepared by:

**Environmental Consulting & Technology, Inc.
809 State Road 44
New Smyrna Beach, Florida 32168
(386) 427-0694 Fax: (386) 427-0889**

June, 2008

**Engineering calculations relating to the
potable water system were
prepared by or at the direction
of the engineer below.**

A handwritten signature in blue ink, appearing to read "Steyen G. Danskine", followed by the date "6-6-08".

**Steyen G. Danskine, P.E.
Florida P.E. No. 62496**

I. POTABLE WATER SYSTEM IMPROVEMENTS SUMMARY

Due to water quality considerations, Seminole Electric is proposing to modify the existing potable water system by grout filling and abandoning the three existing shallow potable water wells, and constructing three new deep potable supply wells and tie them into the existing potable supply system for the Seminole Electric Palatka Facility. The three wells constructed in 2004 were drilled to a depth of approximately 120 feet, and draw from an aquifer that requires expensive treatment to meet water quality criteria. The new wells are proposed to be drilled into the Floridan Aquifer, and should result in water requiring less expensive treatment methods. It is anticipated that the well pumps in the existing wells can be refurbished, disinfected, and reused in the new wells. Well construction permits will be obtained from the Putman County Health Department, and final construction as-built drawings, well logs (including well profiles), and well clearance documents will be submitted following construction.

The current use permit allows for 20,000 gallons of potable water per day, and no increase in water use is proposed.

The intent of this engineering design report is to provide the required technical information for modifications to a potable water supply system at the facility and demonstrate compliance with the existing conditions of certification. A separate permit is not requested or required for these activities.

In the attached design report the following information is attached:

1. An overall location map (Figure 1),
2. A general site plan (Figure 2),
3. A schematic diagram of the water system improvements (Figure 3),
4. Flood Zone Map (Figure 4),
5. Well Head Detail (Figure 5),
6. Land Ownership and Sanitary Setbacks (Figure 6),
7. USGS Map (Figure 7),
8. Specifications for materials and installation procedures.

II. GENERAL PROJECT INFORMATION

A. Name of Project: **Seminole Electric Potable System Modification**

B. Description of Project and Purpose:

Seminole Electric is proposing to modify the existing potable water system by constructing three new potable supply wells which draw from the Floridan Aquifer, abandon the three existing shallow potable supply wells, and tie them into the existing potable supply system for the Seminole Electric Palatka Facility. The intent of these three new supply wells is to reduce the treatment requirements due to poor water quality from the existing wells. The intent of this submittal is to provide the required technical information for modifications to a potable water supply system at the facility and demonstrate compliance with our existing conditions of certification. A separate permit is not requested or required for these activities.

C. **The project does not create a new system as described under subsection 62-555.525(1) F.A.C.**

D. Location of Project:

1. County: **Putnam County**
2. Address: **Seminole Electric Cooperative
890 N. Highway 17
Palatka, Florida 32177**

3. Latitude and Longitude of Proposed Raw Water Wells

Name of Proposed Well	Latitude	Longitude
Potable Well Number 1	29° 44' 5.2" N	81° 38' 5" W
Potable Well Number 2	29° 44' 5.4" N	81° 38' 5" W
Potable Well Number 3	29° 44' 5.7" N	81° 38' 5" W

E. Estimate of Cost to Construct Project: **\$120,000**

F. Estimated Start and End Dates: **June 15, 2008- June 15, 2009**

G. Project Owner

PWS/Company Name: **Seminole Electric Power Plant**
PWS ID Number: **2541450**
PWS Type: **Non-Transient Non-Community**
Contact Person: **Mike Roddy**
Contact Person's Title: **Manger Environmental Affairs**
Contact Person's Address: **16313 Dale Marby Highway**
Tampa, Florida 33688
Contact Person's Tele: **(813) 963-0994**
Contact Person's Fax: **(813) 264-7906**
Contact Person's e-mail: **mroddy@seminole-electric.com**

H. Public Water System Supplying Water to Project

PWS/Company Name: **Seminole Electric Power Plant**
PWS ID Number: **2541450**
PWS Type: **Non-Transient Non-Community**
Contact Person: **Mike Roddy**
Contact Person's Title: **Manger Environmental Affairs**
Contact Person's Address: **16313 Dale Marby Highway**
Tampa, Florida 33688
Contact Person's Tele: **(813) 963-0994**
Contact Person's Fax: **(813) 264-7906**
Contact Person's e-mail: **mroddy@seminole-electric.com**

I. Public Water System That Will Own Project After It Is Complete

PWS/Company Name: **Seminole Electric Power Plant**
PWS ID Number: **2541450**
PWS Type: **Non-Transient Non-Community**
Contact Person: **Mike Roddy**
Contact Person's Title: **Manger Environmental Affairs**
Contact Person's Address: **16313 Dale Marby Highway**
Tampa, Florida 33688
Contact Person's Tele: **(813) 963-0994**
Contact Person's Fax: **(813) 264-7906**
Contact Person's e-mail: **mroddy@seminole-electric.com**

Certification of Owner's Representative
I certify that to the best of my knowledge
the project complies with Chapter 62-555 F.A.C.

Mike Roddy
Manager Environmental Affairs

Date

J. Professional Engineer Responsible Charge of Designing Project

Company Name:	Environmental Consulting & Technology, Inc.
Designer:	Steven G. Danskine, P.E.
Title:	Project Engineer
P.E. License Number:	62496
Address:	809 State Road 44 New Smyrna Beach, Florida 32168
Telephone:	(386) 427-0694
Fax:	(386) 427-0889
e-mail:	<u>sdanskine@ectinc.com</u>

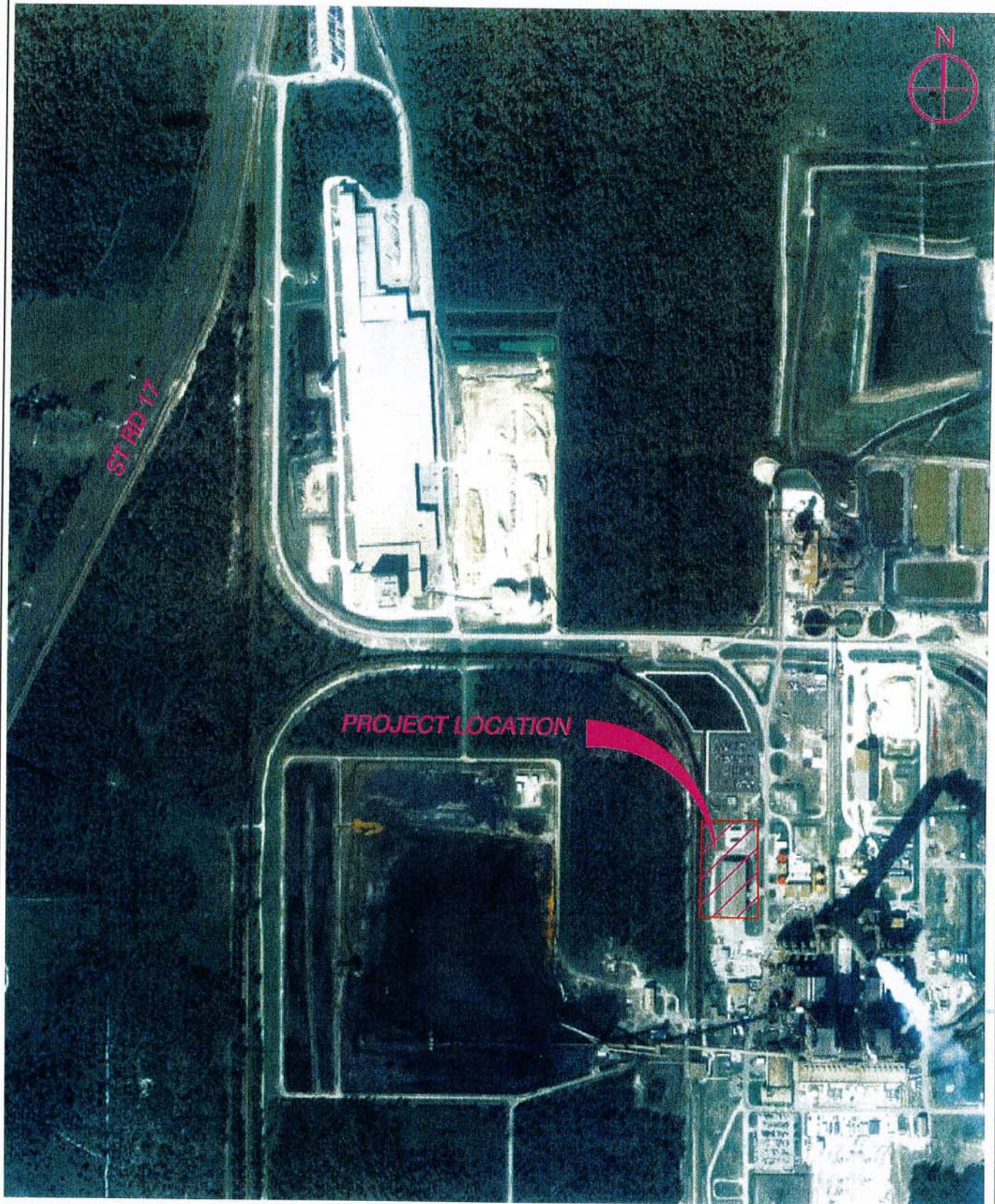


FIGURE 1
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
AERIAL

ECT

Environmental Consulting & Technology, Inc.
809 State Road 44, New Smyrna Beach, FL 32168
(386) 427-0694 fax (386) 427-0889

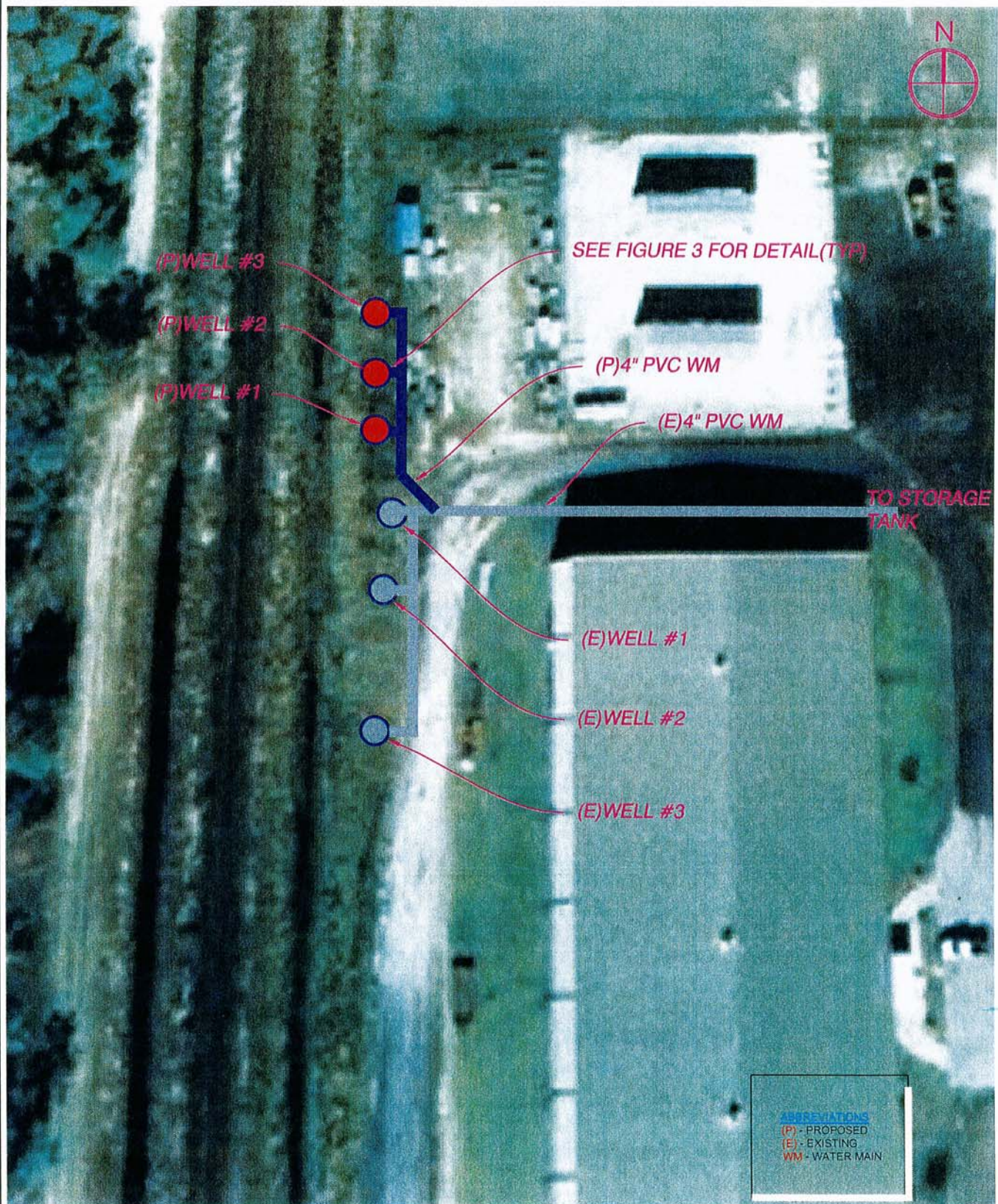


FIGURE 2
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
OVERALL WELL LAYOUT

ECT

Environmental Consulting & Technology, Inc.
809 State Road 44, New Smyrna Beach, FL 32168
(386) 427-0694 fax (386) 427-0889

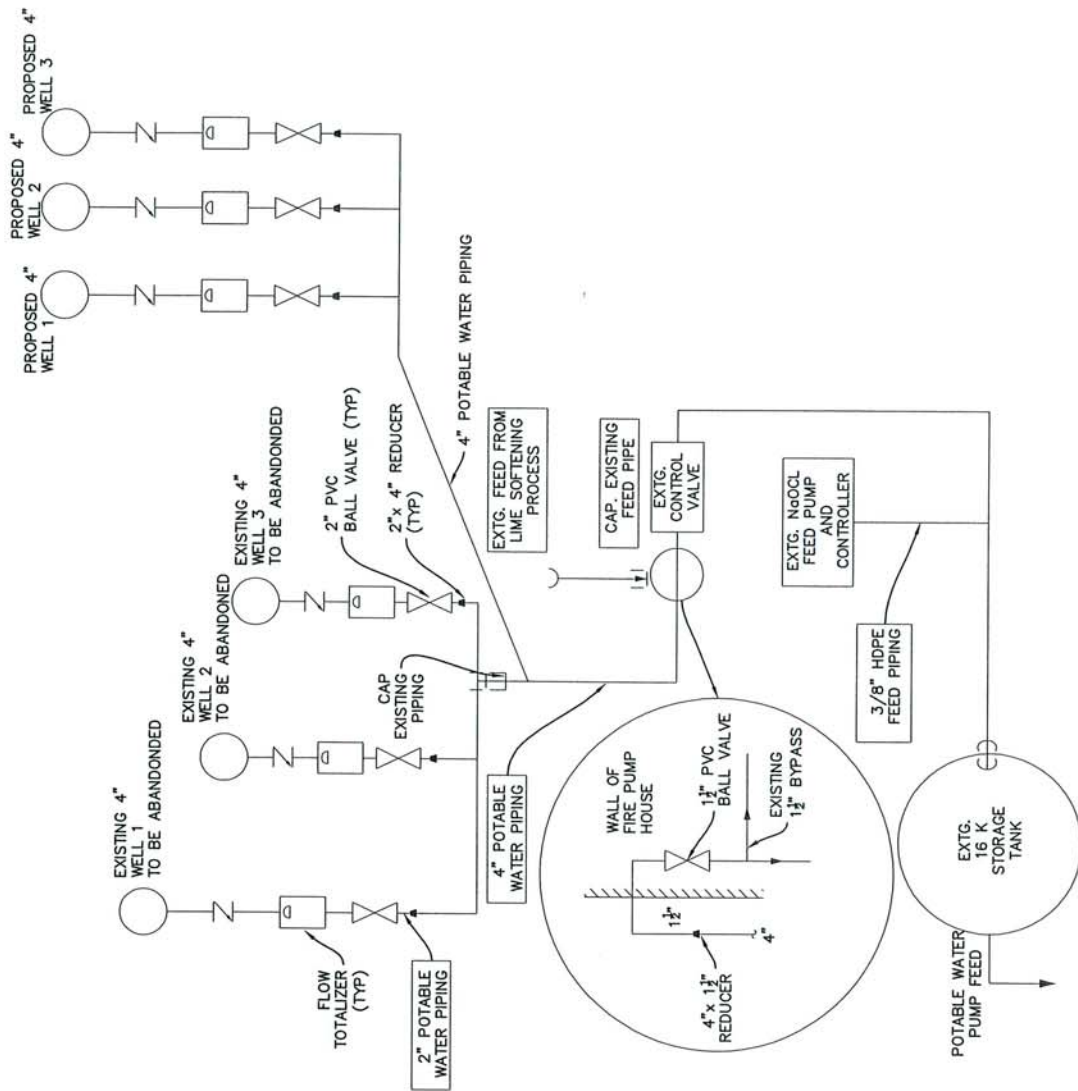
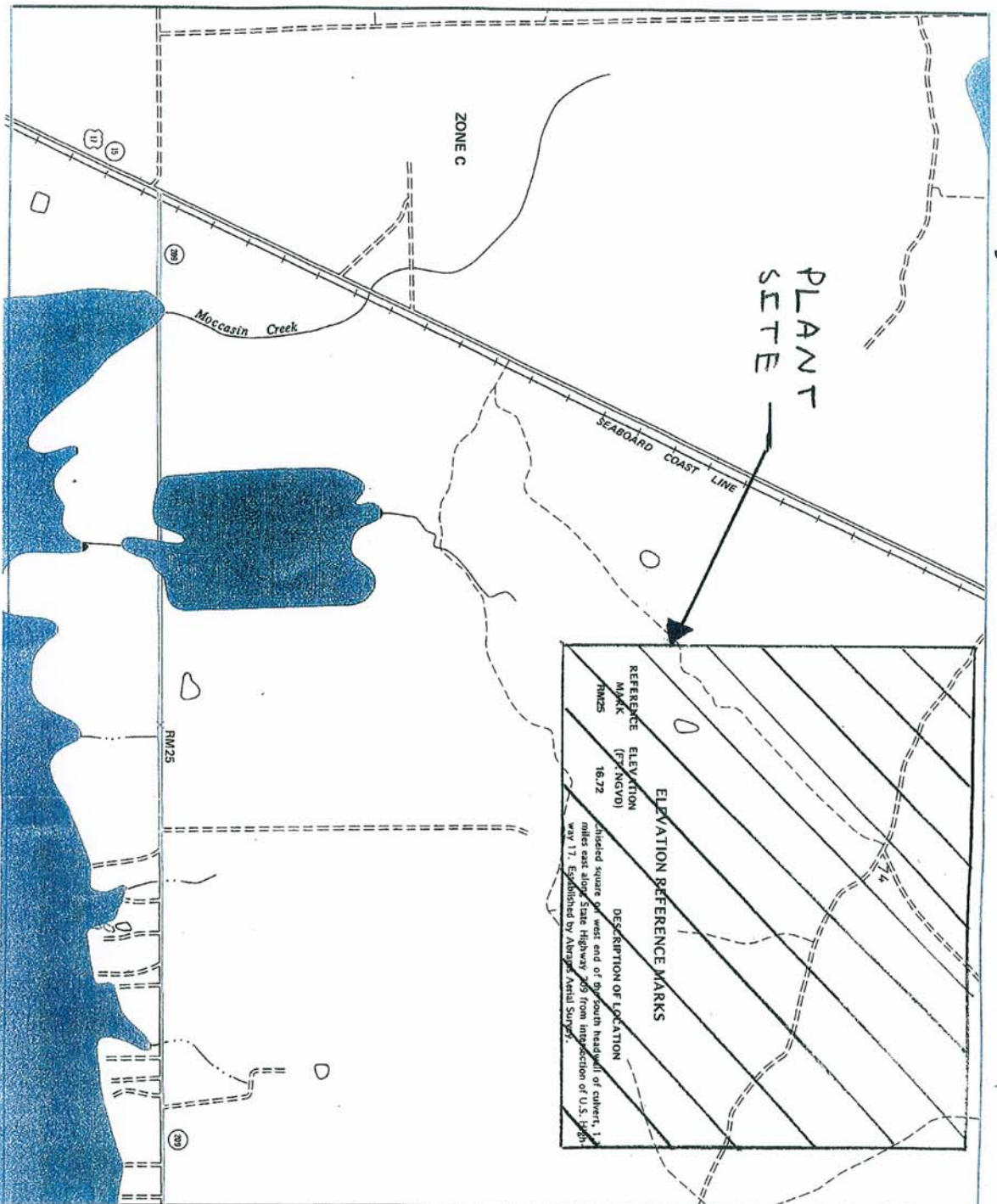


FIGURE 3
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
SCHEMATIC DIAGRAM



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**PUTNAM COUNTY,
FLORIDA**
(UNINCORPORATED AREAS)

PANEL 185 OF 500
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
120272 0185 A
EFFECTIVE DATE:
SEPTEMBER 16, 1981

 federal emergency management agency
federal insurance administration

This is an official copy of a portion of the Flood Insurance Rate Map. It was prepared by the Federal Emergency Management Agency (FEMA) and is not to be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from FEMA. This map is for informational purposes only and does not constitute a contract. The actual Flood Insurance Rate Map is the only authoritative source for flood insurance information.

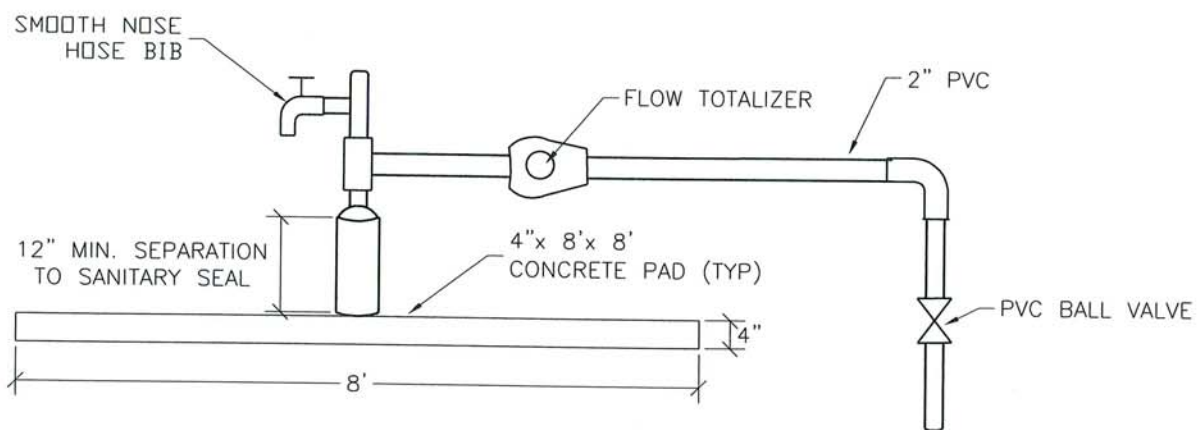
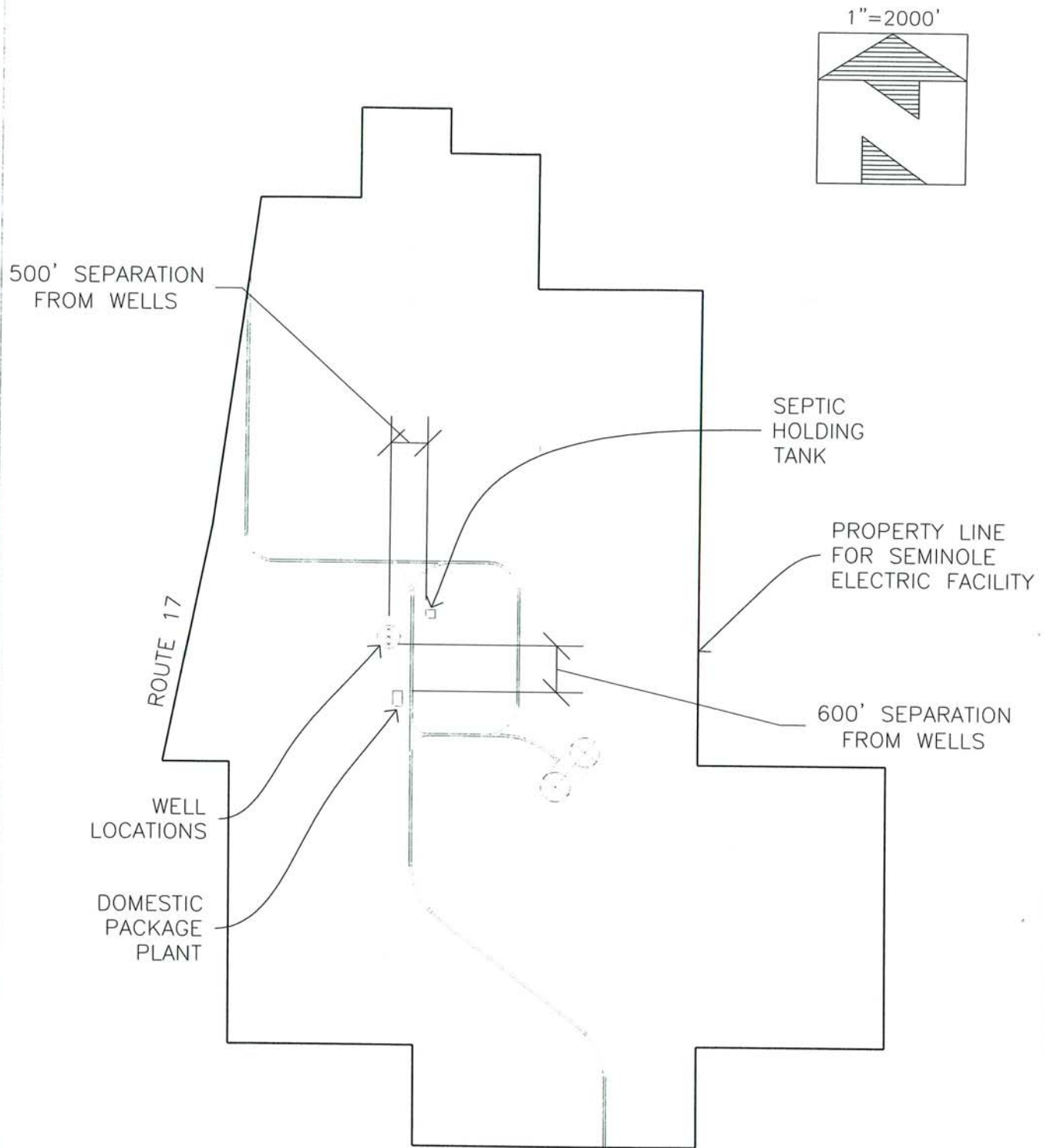


FIGURE #5
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
WELL HEAD DETAIL

ECT

Environmental Consulting & Technology, Inc.
809 State Road 44, New Smyrna Beach, FL 32168
(386) 427-0694 fax (386) 427-0889



SCALE: 1" = 2000'

FIGURE #6
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
LAND OWNERSHIP AND SANITARY SETBACKS

ECT

Environmental Consulting & Technology, Inc.
 809 State Road 44, New Smyrna Beach, FL 32168
 (386) 427-0694 fax (386) 427-0889

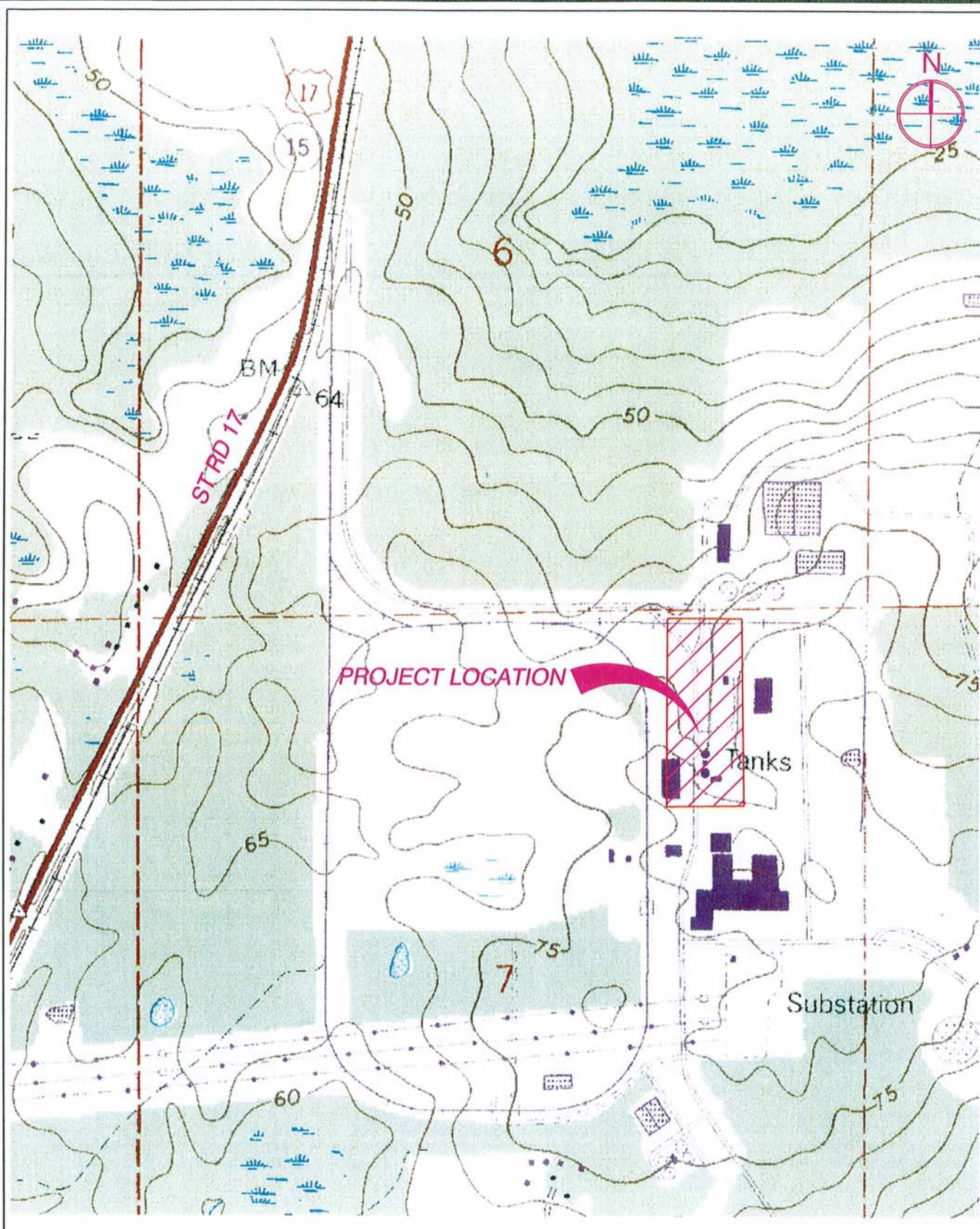


FIGURE 7
SEMINOLE ELECTRIC CO-OP
POTABLE WATER SYSTEM IMPROVEMENTS
USGS

ECT

Environmental Consulting & Technology, Inc.
809 State Road 44, New Smyrna Beach, FL 32168
(386) 427-0694 fax (386) 427-0889