



Project Correspondence

1724

STORMWATER GIS
PROCESSING SHEET



Application# 42-069-1391 ANG-ERP

Section(s) 16, 21, 22, 27, 28

Township(s) 22

Range(s) 26

Quad Name Clermont East

Date Received 3-4-99

Date Mapped 6-7-05

Acceptable Yes No

Mapper: *Sandra Jones*

COMMENTS: GRS # 50126-1 (4 mapped 2 points)

RESOURCE MANAGEMENT ROUTING SHEET

Application Number: 42-069-1391ANG-ERP

Date : 3/30/99

Date Received: 3/30/99

Appl. Received: 3/ 4/99

Date Issued: / /

Related Permit:

Mail Type: PENDING APPL. CORR.

F.O.R.:

P

Project Name: NORTH HANCOCK ROAD

 * Name Job Title Office *

RUTH GRADY ENGINEER ORL

BARBARA PRYNOSKI ENVIRONMENTAL SPECIALIST ORL

GENERAL COUNSEL:

Comments:

REVISED CALCS AND DRAWINGS

Copied and Routed By: *Sc* on *3-31-99*
MAIL ROUTED FROM: ORL

PROCESSED BY: SA



135 West Central Boulevard
Suite 1150
Orlando
Florida 32801-2436
407 839 4006
FAX 407 839 4008

March 30, 1999

Ref: 60633.00

Ms. Ruth Grady
Engineer
St. Johns River Water Management District
618 E. South Street
Orlando, Florida 32801

Re: Permit Submittal North Hancock Road (Phase 1A)
Application Number 42-069-1391ANG-ERP

Dear Ms. Grady:

As per our telephone conversation on March 22, 1999, we are submitting the following information:

- Five copies of revised pond recovery computations. The bottom elevation has been revised from 173 to 171 feet.
- Five copies of revised stage-storage computations. The information contained in the previously submitted Advanced Interconnected Pond Routing (AdICPR) analysis is correct.

The Florida Department of Transportation (FDOT) is currently finalizing the review of the FDOT Drainage Connection Permit and Lake County's request to utilize the pond. Once we have written approval from the FDOT regarding to the use of the pond, we will forward the information to you.

If you should have any questions, please give me a call at (407) 839-4006.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Paul W. Yeargain, P.E.
Senior Stormwater Engineer

cc: Frederick J. Schneider, P.E., Lake County
Matthew E. Kalus, Lake County
J. Dwayne Darbonne, P.E., VHB, Inc.
Correspondence file
Project file

Attachments

RECEIVED
MAR 30 1999
42-069-1391ANG-ERP
PDS
ORLANDO
SJR WMD

Stage -Storage Analysis

Project: North Hancock Road
Pond: A
Computed by: PWY
Date: 3/22/99

Existing Conditions		
Stage (ft)	Area (acres)	Incremental Volume (ac-ft)
173	1.77	0.00
186	2.99	30.94
Total		30.94

Proposed Conditions		
Stage (ft)	Area (acres)	Incremental Volume (ac-ft)
171	1.78	0.00
173	2.07	3.85
186	3.33	35.1
Total		38.95

March 23, 1999
Project No. W98-G-032

Mr. J. Dwayne Darbonne, P.E.
Vanasse Hangen Brustlin, Inc.
135 West Central Boulevard, Suite 1150
Orlando, Florida 32801

RECEIVED
MAR 30 1999
42-069-1391AUG-EP
PDS
ORLANDO
SJR WMD

**RE: Stormwater Recovery Analysis
Florida Department of Transportation Pond
North Hancock Road Improvements
Lake County, Florida**

LEILA NODARSE, P.E.
President

MICHAEL PREIM, P.E.
Senior Vice President

DANIEL DUNHAM, P.E.
LAUREL HALL, P.E.
SYLVIA JAMMAL
DANIEL STANFILL, P.E.
DAVID TWEDELL
SANDRA WINKLER
Vice Presidents

Dear Mr. Darbonne:

At the request of Mr. Paul Yeargain of your firm, Nodarse & Associates, Inc. (N&A) has performed a stormwater recovery analysis on the Florida Department of Transportation (FDOT) pond on State Road 50 for the North Hancock Road Project. We understand the requirements for the pond are as follows:

- Water quality volume of 8.47 acre feet in 72 hours.
- Stormwater runoff volume of 16.3 acre feet in thirty (30) days. The first half of the volume recovering in seven (7) days.

Borings in the stormwater pond generally found Stratum 1 soils (A-3) over Stratum 2 soils (A-2-4) to their boring termination depth of 25 feet below the existing pond bottom. The boring locations and profiles are attached. Groundwater was not observed to the termination depth of 25 feet. A falling head vertical permeability test was performed on a sample obtained from Boring AB-1 at a depth of 5 feet below the existing pond bottom. Laboratory test results found the vertical permeability rate to be approximately 61 feet per day. Since the vertical permeability test was performed with Stratum 1 soils, the effective permeability rate of the soils was reduced to approximately 10 feet per day to account for the increased amount of fines in Stratum 2 and possible siltation of the pond bottom. Stormwater recovery analysis was modeled using the computer program PONDS, Version 2.26 using the simplified method. Analyses show the water quality volume being recovered in approximately one and one-half (1.5) days with the total runoff volume recovered in 4.8 days. The calculations are attached.

Vanasse Hangen Brustlin, Inc.
Project No. W98-G-032
Page 2



Should you have any questions, or if we can be of any further service to you, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Horst', with the date '3/23/99' written below it.

Michael J. Horst, P.E.
Project Engineer
FL Registration No. 52663

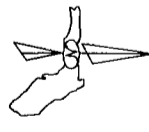
W98-032.LT1:MJH3-99/sc

A handwritten signature in black ink, appearing to read 'Jay W. Casper', with the date '3/23/99' written below it.

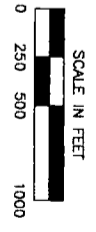
Jay W. Casper, P.E.
Manager, Geotechnical Services
FL Registration No. 36330

Attachments: Figures 2 and 5
Calculations

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
	FLA.			



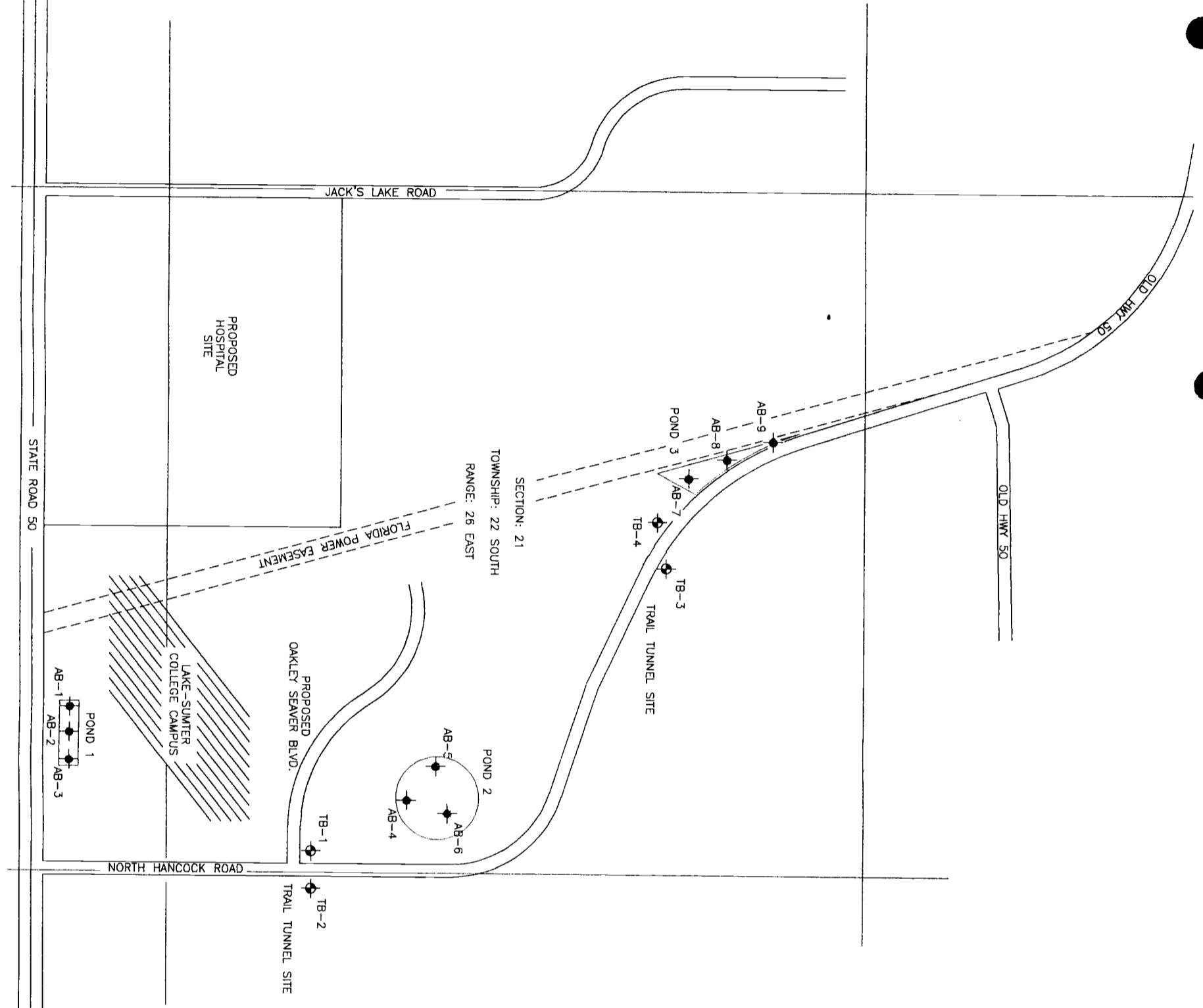
LOCATION PLAN



LEGEND

- APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
- APPROXIMATE LOCATION OF AUGER BORING

NOTE: PLAN AS SHOWN IS PRELIMINARY FOR REPRESENTATION OF BORING LOCATION ONLY AND MAY NOT BE INDICATIVE OF FINAL CONTRACT PLANS.



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
N/A	N/A	N/A	N/A	N/A	N/A		

SECTION: 21
TOWNSHIP: 22 SOUTH
RANGE: 26 EAST

FLORIDA POWER EASEMENT

JACK'S LAKE ROAD

STATE ROAD 50

PROPOSED HOSPITAL SITE

LAKE-SUMTER COLLEGE CAMPUS

PROPOSED OAKLEY SEAVER BLVD.

TRAIL TUNNEL SITE

NORTH HANCOCK ROAD

POND 1

POND 2

POND 3

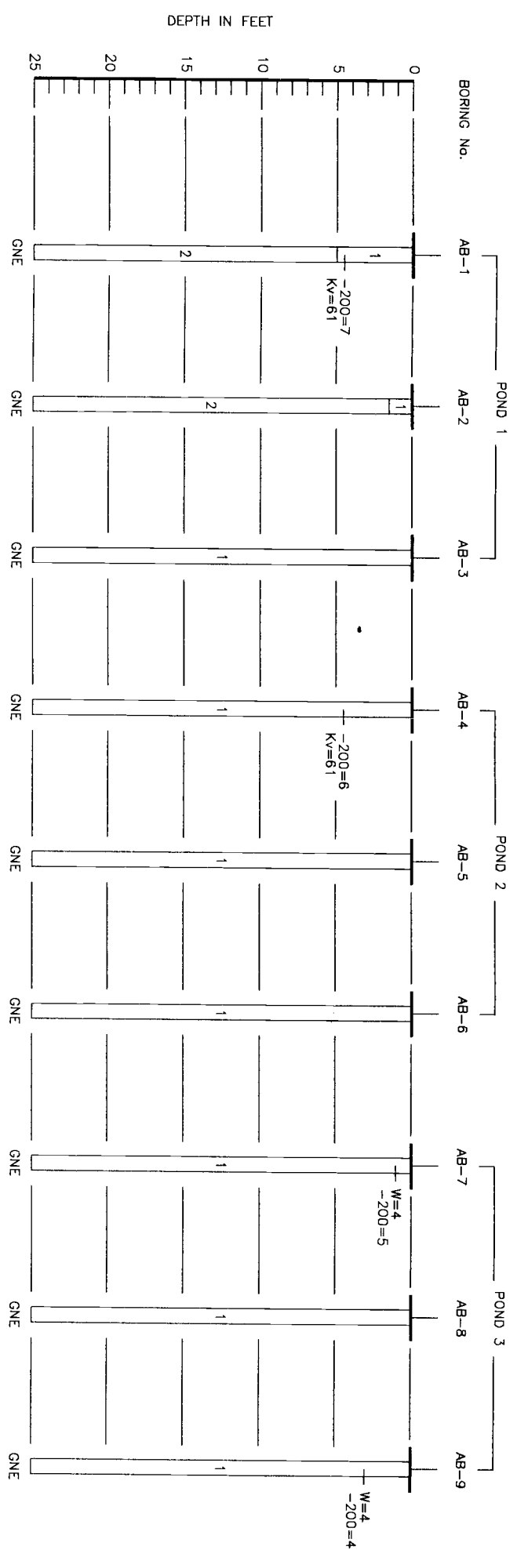
AB-1, AB-2, AB-3, AB-4, AB-5, AB-6, AB-7, AB-8, AB-9

TB-1, TB-2, TB-3, TB-4

APPROVED BY: JAY W. CASPER
P.E. NO.: 36330 DATE:

GEOTECHNICAL ENGINEERING EVALUATION
NORTH HANCOCK ROAD
LAKE COUNTY, FLORIDA

NODARSE and ASSOC. No. W98G-032 FIGURE: 2



- LEGEND**
- 1 ORANGE-BROWN TO BROWN FINE SAND TO SLIGHTLY SILTY FINE SAND (A-3)
 - 2 ORANGE-BROWN TO ORANGE SLIGHTLY SILTY TO SILTY FINE SAND (A-2-4)
 - 3 RED-ORANGE SILTY FINE SAND, TRACE CLAY (A-2-4)
 - (A-3) A.A.S.H.T.O. SOIL CLASSIFICATION GROUP SYMBOL AS DETERMINED BY VISUAL EXAMINATION
 - GNE GROUNDWATER NOT ENCOUNTERED TO DEPTH OF BORING
 - W NATURAL MOISTURE CONTENT (%)
 - 200 FINES PASSING No. 200 SIEVE (%)
 - Kv COEFFICIENT OF VERTICAL PERMEABILITY (ft./day)

APPROVED BY: JAY W. CASPER
 P.E. NO.: 36330 DATE:

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE	CHECKED BY	NAME	DATE	APPROVED BY	DATE
	N/A	N/A		SW	1-25-99		MJH	1-25-99		
	N/A	N/A								

SUPERVISED BY: JAY W. CASPER, P.E.



POND BORINGS

GEOTECHNICAL ENGINEERING EVALUATION
 NORTH HANCOCK ROAD
 LAKE COUNTY, FLORIDA

NODARSE and ASSOC. No. W98G-032 FIGURE: 5

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Nodarse & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: North Hancock Road-Pond #1-Water Quality Volume
Engineer: MJH/JWC
Date: 3-22-99

II. Input Data

Equivalent Pond Length, [L] (ft):	550.00
Equivalent Pond Width, [W] (ft):	250.00
Pond Bottom Elevation, [PB] (ft above datum):	171.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	148.00
Water Table Elevation, [WT] (ft above datum):	148.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	10.00
Fillable Porosity of Aquifer, [n] (%):	25.00
Runoff Volume, [V] (cubic feet)	368954.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Not Considered.

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	1.4823
Recovered Volume From Saturated Flow, [V2] (ft ³):	368954.00
Maximum Radius Of Influence, [R] (ft):	73.49
Maximum Driving Head, [Hmax] (ft):	25.583
Minimum Driving Head, [Hmin] (ft):	22.900

TOTAL

Total Recovery Time, [T] (days):	1.4823
Total Recovered Volume, [V] (ft ³):	368954.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Nodarse & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: North Hancock Road-Pond #1-Total Runoff Volume
Engineer: MJH/JWC
Date: 3-22-99

II. Input Data

Equivalent Pond Length, [L] (ft):	550.00
Equivalent Pond Width, [W] (ft):	250.00
Pond Bottom Elevation, [PB] (ft above datum):	171.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	148.00
Water Table Elevation, [WT] (ft above datum):	148.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	10.00
Fillable Porosity of Aquifer, [n] (%):	25.00
Runoff Volume, [V] (cubic feet)	710028.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Not Considered.

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	4.7679
Recovered Volume From Saturated Flow, [V2] (ft ³):	710028.00
Maximum Radius Of Influence, [R] (ft):	132.16
Maximum Driving Head, [Hmax] (ft):	28.064
Minimum Driving Head, [Hmin] (ft):	22.900

TOTAL

Total Recovery Time, [T] (days):	4.7679
Total Recovered Volume, [V] (ft ³):	710028.00

RESOURCE MANAGEMENT ROUTING SHEET

P

Application Number: 42-069-1391ANG-ERP

Date : 3/30/99

Date Received: 3/29/99

Appl. Received: 3/ 4/99

Date Issued: / /

Related Permit:

Mail Type: RAI LETTER

F.O.R.:

Project Name: NORTH HANCOCK ROAD

 * Name Job Title Office *

RUTH GRADY ENGINEER ORL

BARBARA PRYNOSKI ENVIRONMENTAL SPECIALIST ORL

GENERAL COUNSEL:

Comments:

Copied and Routed By: CD on 3/30
 MAIL ROUTED FROM: ORL PROCESSED BY: CD



March 29, 1999

Henry Dean, Executive Director
John R. Wehle, Assistant Executive Director

POST OFFICE BOX 1429

PALATKA, FLORIDA 32178-1429

TELEPHONE 904-329-4500

SUNCOM 904-860-4500

TDD 904-329-4450

TDD SUNCOM 860-4450

FAX (Executive) 329-4125

(Legal) 329-4485

(Permitting) 329-4315

(Administration/Finance) 329-4508

SERVICE CENTERS

618 E. South Street
Orlando, Florida 32801
407-897-4300
TDD 407-897-5960

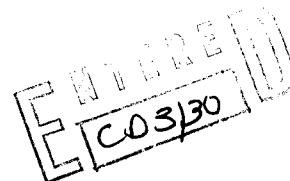
7775 Baymeadows Way
Suite 102
Jacksonville, Florida 32256
904-730-6270
TDD 904-448-7900

PERMITTING:
305 East Drive
Melbourne, Florida 32904
407-884-4940
TDD 407-722-5368

OPERATIONS:
2133 N. Wickham Road
Melbourne, Florida 32935-8109
407-752-3100
TDD 407-752-3102

CERTIFIED NO. Z 315 271 296

Mr. Paul W. Yeargain, P.E.
VHB, Inc.
135 West Central Blvd., Suite 1150
Orlando, FL 32801-2436



Re: North Hancock Road (Phase 1A); Application Number 42-069-1391ANG-ERP
(Please reference the above number on any submittal)

Dear Mr. Yeargain:

Thank you for taking the time to discuss the above referenced project with me on March 22, 1999. Your input and cooperation during the review process is greatly appreciated.

I have reviewed your response to the District's Request for Additional Information. As discussed in our teleconference, the following technical information is lacking to sufficiently review the possible impacts the project may have on the surrounding area. This information is again being requested pursuant to the authority vested in the St. Johns River Water Management District under subsection 373.413(2), Florida Statutes, and sections 40C-4.101 and 40C-4.301, Florida Administrative Code (F.A.C.).

In order to expedite the review of your application, please use the application number referenced above on all correspondence, and submit five (5) copies of all requested information unless otherwise indicated by a specific information request.

1. Based on our March 22, 1999, teleconference, it is my understanding that revisions to the calculations will be forthcoming and will include the following:

- Revision of the *Pond Bottom Elevation, [PB] (ft above datum)* input parameter, as utilized in the **PONDS – Version 2.26** Retention Pond Recovery Analysis, to be consistent with that shown on the plans.
- Revision of the *PONDA* stage/area input parameters, as utilized in the **ICPR Ver 2.11** Basin A routing analysis, to be consistent with the stage/area parameters indicated in the treatment volume calculations.
- Provision of the FDOT Drainage Connection Permit.

[40C-42.023(1); 40C-42.024(2)(b); 40C-42.026(1), F.A.C.]

Dan Roach, CHAIRMAN
FERNANDINA BEACH

Duane Ottenstroer, TREASURER
SWITZERLAND

Otis Mason, SECRETARY
ST. AUGUSTINE

William Kerr
MELBOURNE BEACH

Jeff K. Jennings
MAITLAND

William M. Segal
MAITLAND

Ometrias D. Long
APOPKA

Clay Albright
EAST LAKE WEIR

Reid Hughes
DAYTONA BEACH

Mr. Paul W. Yeargain, P.E.
March 29, 1999
Page 2

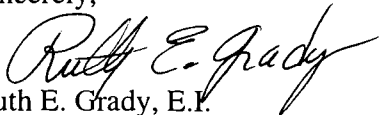
If the applicant wishes to dispute the necessity for any information requested on an application form or in a letter requesting additional information, he or she may, pursuant to section 373.4141, Florida Statutes, request that District staff process the application without the requested information. If the applicant is then unsatisfied with the District's decision regarding issuance or denial of the application, the applicant may request a section 120.569, Florida Statutes, hearing pursuant to Chapter 28-106 and section 40C-1.1007, F.A.C.

Please be advised, pursuant to subsection 40C-1.1008, F.A.C., the applicant shall have 90 days from receipt of a request for additional information regarding a permit or license application undergoing review by the District to submit that information to the District. If an applicant requires more than 90 days in which to complete an application, the applicant may notify the District in writing of the circumstances and for good cause shown, the application shall be held in active status for additional periods commensurate with the good cause shown. Any application which has not been completed by the applicant within the given time period following a request for additional information by the District shall be recommended for denial at the next regularly scheduled Board meeting. Denial of an application due to failure to submit requested additional information shall be a denial without prejudice to the applicant's right to file a new application.

In addition, no construction shall begin on the proposed project until a permit is issued by the St. Johns River Water Management District. This is pursuant to subsection 40C-40.042(2), F.A.C., which states, "No construction, operation, maintenance, alteration, abandonment or removal shall be commenced until the permittee receives a written authorization to proceed from the District"; and subsection 40C-42.024(1), F.A.C, which states in relevant part, "No construction, alteration, removal, operation, maintenance, or abandonment of a stormwater management system shall be undertaken without a valid standard general or individual environmental resource stormwater permit as required pursuant to this section."

If you have any questions, please do not hesitate to call me at 407/897-4334.

Sincerely,



Ruth E. Grady, E.I.
Department of Resource Management

REG:sj

cc: PDS/RAIL, Joan B. Budzynski

Lake County Board of County Commissioners
315 West Main Street, Tavares, FL 32778

Lake County Department of Public Works, Mr. Jim Stivender, Jr., P.E.
123 North Sinclair Avenue, Tavares, FL 32778

PERMIT DATA SERVICES - CHANGE ORDER REQUEST

PERMIT OR APPLICATION NUMBER: 42-069-1391ANG-ERP

PERMIT TYPE: AG CUP FWD GENERAL
 MSSW STORMWATER WOD WRM WWC

TYPE OF CHANGE: ADD UPDATE (CHANGE/ERROR CORRECTION)

ITEM: _____ FROM: _____ TO: _____

REVIEWER: _____

PROJECT NAME: NORTH HANCOCK ROAD NORTH HANCOCK ROAD
(Phase 1A)

SECTION / TOWNSHIP / RANGE: (CIRCLE ONE) _____

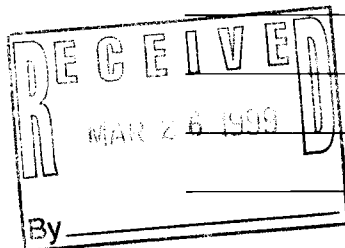
OWNER / APPLICANT / AGENT: (CIRCLE ONE) _____

DATE ISSUED / EXPIRED: (CIRCLE ONE) _____

PROJECT ACREAGE: _____

OWNED ACREAGE: _____

MAILING ADDRESS: _____



TELEPHONE NUMBER: _____

OTHER: _____

OTHER: _____

COMMENTS: _____

REQUESTED BY: Ruth E. Geady DATE OF REQUEST: 3, 22, 99

DEPARTMENT: Res. Mgmt. DIVISION: Orlando

AUTHORIZATION: Joan B. Budzynski 3/22/99

(CHIEF, DEPARTMENT, DIVISION, FIELD OFFICE DIRECTOR OR DMS MUST AUTHORIZE CHANGE ORDER)

PERMIT DATA SERVICES USE ONLY

DOCUMENT / PROCEDURE USED TO VERIFY:

APPLICATION TSR PERMIT BOARD FOLDER MINUTES

SITE VISIT CORRESPONDENCE OTHER: _____

VERIFIED BY: [Signature] DATE: 4/22/99

PDS DIRECTOR: _____

DATA FILE CHANGED BY: [Signature] DATE: 4/16/99

[Signature]
4/22/99

* PLEASE ATTACH ANY AVAILABLE DOCUMENTATION AND RETAIN BOTTOM COPY FOR YOUR RECORDS.

cc: Barbara Prynosi, Joan Budzynski