

Columbia County Building Permit Application

For Office Use Only Application # 0801-12 Date Received 1/4/08 By G Permit # 26587
Zoning Official 1322 Date 07.01.08 Flood Zone X FEMA Map # N/A Zoning R8F-2
Land Use Res. La. Dev. Elevation N/A MFE N/A River N/A Plans Examiner OKJTH Date 1-7-08

Comments _____
 NOC EH Deed or PA Site Plan State Road Info Parent Parcel # _____
 Dev Permit # _____ In Floodway Letter of Authorization from Contractor
 Unincorporated area Incorporated area Town of Fort White Town of Fort White Compliance letter

Septic Permit No. _____ Fax 352-732-5459

Name Authorized Person Signing Permit David Griffin Phone 352-622-9218
Address P O Box 2463 Ocala, FL 34478

Owners Name Brown Archie L + Audrey C Phone 386-752-4218
911 Address 162 SW Brava Way Lake City, FL 32024

Contractors Name Darryl Hampy - Foundation Services Phone 352-622-9218
Address P O Box 2463 Ocala, FL 34478

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address N/A

Mortgage Lenders Name & Address N/A

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progress Energy

Property ID Number 26-45-16-03185-015HX Estimated Cost of Construction 86,625.00

Subdivision Name GREEN ACRES Lot 4 Block C Unit _____ Phase _____

Driving Directions 475 TR CR 242, TL BRAVA WAY, 2nd lot on right

Number of Existing Dwellings on Property 1

Construction of Compaction Grouting/underpinning Total Acreage _____ Lot Size _____

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height _____

Actual Distance of Structure from Property Lines - Front _____ Side _____ Side _____ Rear _____

Number of Stories _____ Heated Floor Area _____ Total Floor Area _____ Roof Pitch _____

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

left message @ office
1/8/08

Columbia County Building Permit Application

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment

According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:

YOU ARE HEREBY NOTIFIED as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

OWNERS CERTIFICATION: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

Richard L. Brown
Owners Signature


CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit.

Deborah Maddux
Contractor's Signature (Permitee)

Contractor's License Number CBCA59697
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 14th day of Dec. 2007.
Personally known or Produced Identification _____

Deborah Maddux
State of Florida Notary Signature (For the Contractor)

SEAL: NOTARY PUBLIC-STATE OF FLORIDA
 Deborah Maddux
Commission # DD393796
Expires: FEB. 07, 2009
Bonded Thru Atlantic Bonding Co., Inc.



**FOUNDATION
SERVICES**
of Central Florida, Inc.

JANUARY 3, 2008

COLUMBIA COUNTY BUILDING DEPARTMENT
P O BOX 1529
LAKE CITY, FLORIDA 32056

RE: AUTHORIZATION

TO WHOM IT MAY CONCERN:

I, DARRYL HAMPY, AUTHORIZE DAVID GRIFFIN TO PULL PERMITS AND CARRY ON BUILDING DEPARTMENT BUSINESS PERTAINING TO FOUNDATION SERVICES OF CENTRAL FLORIDA, INC. UNTIL FURTHER NOTICE.

SINCERELY,

DARRYL HAMPY, PRESIDENT
CONTRACTOR #CBCA59697

STATE OF FLORIDA
COUNTY OF MARION

SWORN BEFORE ME THIS 3rd DAY OF Jan., 2008 BY DARRYL HAMPY WHO IS PERSONALLY KNOWN TO ME.

DEBORAH MADDUX, NOTARY PUBLIC

NOTARY PUBLIC-STATE OF FLORIDA
Deborah Maddux
Commission # DD393796
Expires: FEB. 07, 2009
Bonded Thru Atlantic Bonding Co., Inc.

"Locally Owned & Operated"

Foundation & Slab Repair • Auger Cast Pile • Steel Pin Piers • Pressure Grouting • Helical Piers
4121 NW 44th Avenue • Ocala, FL 34478 • P.O. Box 2463 • (352) 622-9218 • Fax: (352) 732-5459
Email: foundationservices@earthlink.net • *State Certified Contractor CB-CA59697*

AC# 2805318

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L06091302

DATE	BATCH NUMBER	LICENSE NBR
09/13/2006	060012452	CBCA59697

The BUILDING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2008

HAMPY, DARRYL
FOUNDATION SERVICES OF CENTRAL FLORIDA INC
P O BOX 2463
OCALA FL 34479

JEB BUSH
GOVERNOR

DISPLAY AS REQUIRED BY LAW

SIMONE MARSTILLER
SECRETARY

AC# 3259260

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ#L070612009

DATE	BATCH NUMBER	LICENSE NBR
06/12/2007	060776915	QB0017531

The BUSINESS ORGANIZATION
Named below IS QUALIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2009
(THIS IS NOT A LICENSE TO PERFORM WORK. THIS ALLOWS
COMPANY TO DO BUSINESS ONLY IF IT HAS A QUALIFIER.)

FOUNDATION SERVICES OF CENTRAL FLORIDA INC
707 N.E. 25TH AVE
OCALA FL 34470

CHARLIE CRIST
GOVERNOR

DISPLAY AS REQUIRED BY LAW

HOLLY BENSON
SECRETARY

ACORD CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY) 12/14/2007
PRODUCER Affiliated Agency Ops 16 South River Street Wilkes-Barre, PA 18702	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED Employee Leasing Solutions, Inc. 1401 Manatee Ave W. Suite 600 Bradenton, FL 34205	INSURERS AFFORDING COVERAGE INSURER A: EastGUARD Insurance Company INSURER B: INSURER C: INSURER D: INSURER E:	NAIC # 14702

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR	ADD'L	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
		GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY EA ACC AGG \$
		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	EMWC802839	01/01/2007	01/01/2008	<input checked="" type="checkbox"/> WC STATUS - DTH TORY LIMITS [ER] E L EACH ACCIDENT \$ 1,000,000 E L DISEASE - EA EMPLOYEE \$ 1,000,000 E L DISEASE - POLICY LIMIT \$ 1,000,000
		OTHER Client ID: #2308155				* Valid in the State of Florida *

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
 COVERAGE APPLIES ONLY TO THOSE EMPLOYEES LEASED TO BUT NOT SUBCONTRACTORS OF:

Foundation Services of Central Florida Inc
 Qualifiers Name: Darryl Hampy Lic#BCBA59697

Aprox active employee count: 35
 Brown Residence

EastGUARD Insurance Company
 carries an A.M. Best
 Rating of A- (Excellent)
 and a financial size
 Category of VIII



CERTIFICATE HOLDER

Columbia County Building Department

 P O Box 1529
 Lake City, FL 32056

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/13/2007

PRODUCER (352) 307-4007
Monroe/Insurance Management Services, Inc.
11901 South US Hwy 441

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

Belleview FL 34420-

INSURERS AFFORDING COVERAGE

NAIC #

INSURED
Foundation Services Of Central Fl., Inc.
Darryl Hampy FL Lic #CB-CA5969
PO Box 2463
Ocala FL 34478-

INSURER A: Owners Insurance Company

INSURER B: AutoOwners Insurance Co

INSURER C:

INSURER D:

INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRG	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY	79577590-07	02/26/2007	02/26/2008	EACH OCCURRENCE \$ 500,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person) \$ 5,000
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				PERSONAL & ADV INJURY \$ 500,000
B	AUTOMOBILE LIABILITY	47182941-00	02/26/2007	02/26/2008	GENERAL AGGREGATE \$
	<input checked="" type="checkbox"/> ANY AUTO				PRODUCTS - COMP/OP AGG \$ 500,000
	<input type="checkbox"/> ALL OWNED AUTOS				BISPL 500,000
	<input type="checkbox"/> SCHEDULED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input type="checkbox"/> HIRED AUTOS				BODILY INJURY (Per person) \$
	<input type="checkbox"/> NON-OWNED AUTOS				BODILY INJURY (Per accident) \$
	GARAGE LIABILITY		/ /	/ /	PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$
					OTHER THAN AUTO ONLY EA ACC \$
B	EXCESS/UMBRELLA LIABILITY	9557590-01	07/01/2007	02/26/2008	AGG \$
	<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				EACH OCCURRENCE \$ 2,000,000
	DEDUCTIBLE		/ /	/ /	\$
	<input checked="" type="checkbox"/> RETENTION \$ 10,000		/ /	/ /	\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		/ /	/ /	WK STATUTORY LIMITS OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?		/ /	/ /	E.L. EACH ACCIDENT \$
	If yes, describe under SPECIAL PROVISIONS below		/ /	/ /	E.L. DISEASE - EA EMPLOYEE \$
	OTHER		/ /	/ /	E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

CERTIFICATE HOLDER

() - () -
Columbia County Building & Zoning
P.O. Drawer 1529
Lake City FL 32056-

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTORISED REPRESENTATIVE
Robert P. Pugh

Columbia County Property Appraiser

DB Last Updated: 11/15/2007

2008 Proposed Values

Parcel: 26-4S-16-03185-015 HX

Owner & Property Info

Search Result: 1 of 1

Owner's Name	BROWN ARCHIE L & AUDREY C &		
Site Address	BRAVA		
Mailing Address	WANDA J OLIN 162 SW BRAVA WAY LAKE CITY, FL 32024		
Use Desc. (code)	SINGLE FAM (000100)		
Neighborhood	26416.01	Tax District	2
UD Codes	MKTA01	Market Area	01
Total Land Area	0.890 ACRES		
Description	LOT 4 BLOCK C GREEN ACRES S/D. ORB 930-020,		

GIS Aerial



Property & Assessment Values

Mkt Land Value	cnt: (1)	\$20,000.00
Ag Land Value	cnt: (0)	\$0.00
Building Value	cnt: (1)	\$58,912.00
XFOB Value	cnt: (3)	\$3,500.00
Total Appraised Value		\$82,412.00

Just Value	\$82,412.00
Class Value	\$0.00
Assessed Value	\$49,614.00
Exempt Value	(code: HX) \$25,000.00
Total Taxable Value	\$24,614.00

Sales History

Sale Date	Book/Page	Inst. Type	Sale VImp	Sale Qual	Sale RCode	Sale Price
6/28/2001	930/20	QC	I	U	01	\$100.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
1	SINGLE FAM (000100)	1971	Common BRK (19)	1152	1796	\$58,912.00
Note: All S.F. calculations are based on exterior building dimensions.						

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0190	FPLC PF	0	\$1,600.00	1.000	0 x 0 x 0	(.00)
0252	LEAN-TO W/	1993	\$400.00	200.000	10 x 20 x 0	(.00)
0294	SHED WOOD/	1993	\$1,500.00	200.000	10 x 20 x 0	(.00)

Land Breakdown

Lnd Code	Desc	Units	Adjustments	Eff Rate	Lnd Value
000100	SFR (MKT)	1.000 LT - (.890AC)	1.00/1.00/1.00/1.00	\$20,000.00	\$20,000.00

Columbia County Property Appraiser

DB Last Updated: 11/15/2007

1 of 1

Disclaimer

This information was derived from data which was compiled by the Columbia County Property Appraiser's Office solely for the government purpose of property assessment. The information shown is a **work in progress** and should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's Office. The assessed values are **NOT CERTIFIED** values and therefore are subject to change before finalized for ad-valorem assessment purposes.

Notice:

Under Florida Law, e-mail addresses are public record. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead contact this office by phone or in writing.

[Scroll to Top](#)

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NOTICE OF COMMENCEMENT

County Clerk's Office Stamp or Seal

Tax Parcel Identification Number 26-45-16-03185-015 HX

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this NOTICE OF COMMENCEMENT.

1. Description of property (legal description): Lot 4 BIK C Green Acres S/D, DRB 930-020

a) Street (job) Address: 162 SW Brown Way

2. General description of improvements: Compaction Grouting, Underpinning

3. Owner Information

a) Name and address: Brown Archie L + Audrey C + Wanda J Olin Lake City, FL

b) Name and address of fee simple titleholder (if other than owner) N/A

c) Interest in property N/A

4. Contractor Information

a) Name and address: Foundation Services - Darryl Hampy P.O. Box 24

b) Telephone No.: 672-9218 (352) Fax No. (Opt.) 732-5459 (352)

5. Surety Information

a) Name and address: N/A

b) Amount of Bond: _____

c) Telephone No.: _____ Fax No. (Opt.) _____

6. Lender

a) Name and address: N/A

b) Phone No. _____

7. Identity of person within the State of Florida designated by owner upon whom notice

a) Name and address: N/A

b) Telephone No.: _____ Fa _____

Inst: 200812000347 Date: 1/8/2008 Time: 12:34 PM
DC, P. DeWitt Cason, Columbia County Page 1 of 1

8. In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:

a) Name and address: N/A

b) Telephone No.: _____ Fax No. (Opt.) _____

9. Expiration date of Notice of Commencement (the expiration date is one year from the date of recording unless a different date is specified): _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY; A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

STATE OF FLORIDA
COUNTY OF COLUMBIA

10. Archie L. Brown
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager

Archie L. Brown
Print Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 10th day of December, 2007, by:

Rita Y. Riegel as Notary (type of authority, e.g. officer, trustee, attorney fact) for Archie L. Brown (name of party on behalf of whom instrument was executed).

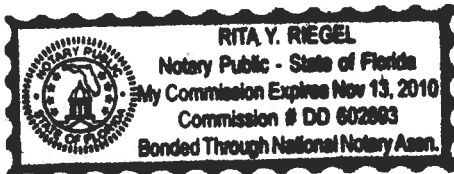
Personally Known OR Produced Identification _____ Type _____

Notary Signature Rita Y. Riegel Notary Stamp or Seal: _____

~~AND~~

11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

Archie L. Brown
Signature of Natural Person Signing (in line #10 above.)



Office copy



GEOHAZARDS, INC.

Sinkholes • Expansive Clays • Land Subsidence

P.O. Box 14956
Gainesville, FL 32604
(352) 371-7243 1-800-770-9990
Fax: (352) 371-4410

SITE LOCATION MAP

Brown Residence
162 SW Brava Way
Lake City, Florida

Brown Residence

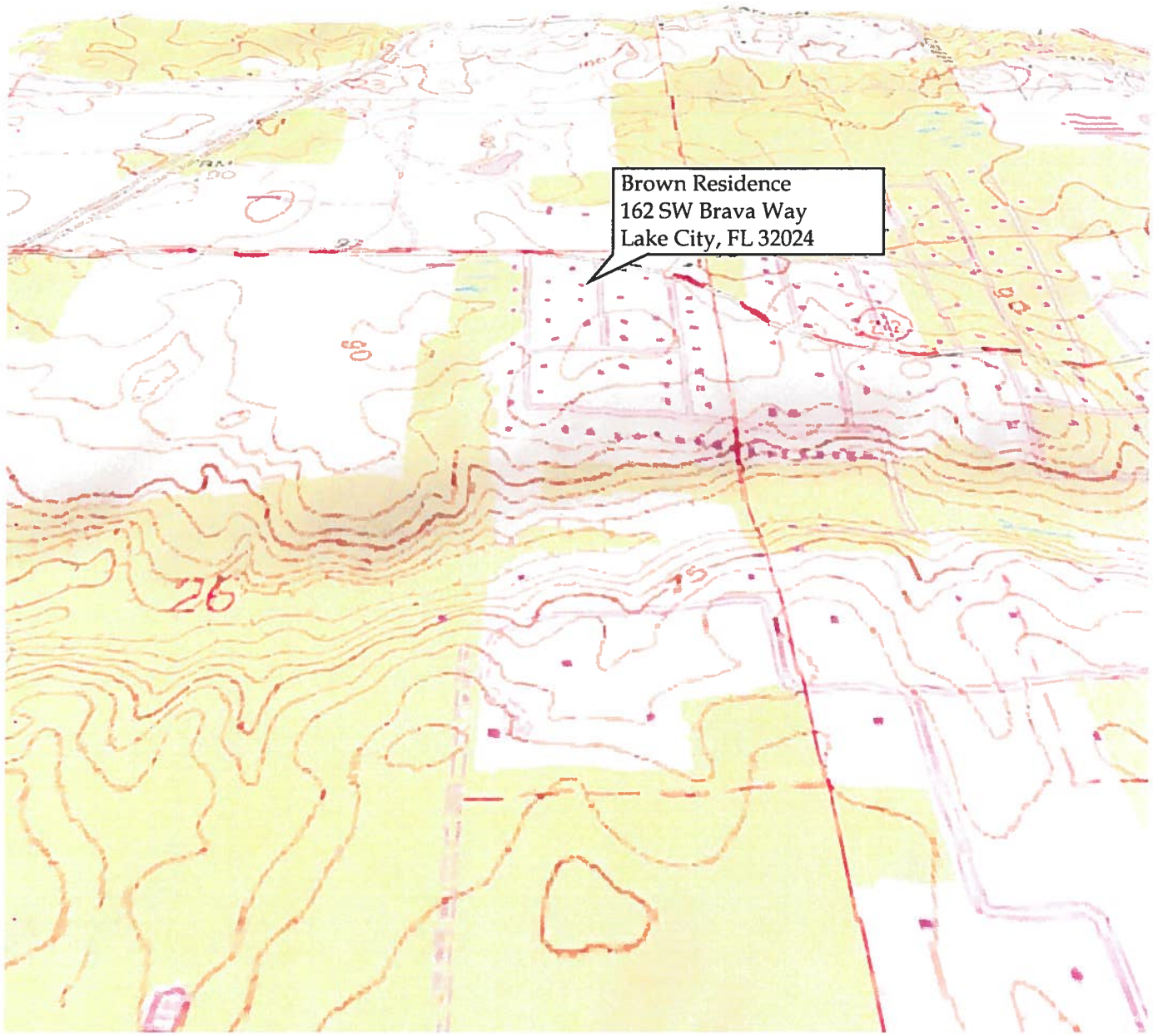
Elevation: 92 ft.

Quadrangle: Columbia

Township: T 4 S

Range: R 16 E

Section: 26



Brown Residence
162 SW Brava Way
Lake City, FL 32024

GEOHAZARDS, INC.

Sinkholes • Expansive Clays • Land Subsidence

P.O. Box 14956
Gainesville, FL 32604
(352) 371-7243 1-800-770-9990
Fax: (352) 371-4410

Three Dimensional Topographic Map

Brown Residence
162 SW Brava Way
Lake City, Florida

GEOHAZARDS, INC.

Professional Geological, Geophysical and Geotechnical Engineering Services

P.O. Box 14566
Gainesville, Florida 32604

Anthony F. Randazzo, Ph. D.
Geologist
Florida PG# 0003
Georgia PG#1136

David Bloomquist, Ph. D.
Geotechnical Engineer
Florida PE# 37235

Attila A. Bodo, P.E.
Structural Engineer
Florida PE# 15834

Douglas L. Smith, Ph.D.
Geophysicist
Florida PG# 0018
Georgia PG# 1140

TECHNICAL SPECIFICATIONS FOR FOUNDATION UNDERPINNING AT THE

Brown Residence
162 SW Brava Way, Lake City, Florida
State Farm Insurance Claim No. 59-D156-048 --- Geohazards, Inc. Project No. 2007356

1.0 DESCRIPTION

The following specifications are for the underpinning of a shallow foundation. The work consists of furnishing all labor, equipment and materials required to insert Steel Mini Piles until reaching competent load bearing strata. The underpinning program is intended to transfer the weight of the structure through the problematic soil zones in order to stabilize and if required, re-level the load bearing foundation. The pile system is designed to use either a combination of skin friction and end bearing, or end-bearing alone to transfer the foundation loads to the supporting soil.

2.0 SCOPE

The scope of the underpinning program includes the installation of Steel Mini Piles. The estimated number of mini piles; length; and tentative pile locations are attached. However, the Contractor and Structural Engineer (or his or her representative) may modify the underpinning program slightly as dictated by the actual site conditions. If directed by the Structural Engineer (or his or her representative), additional pile locations may be required based on the site conditions encountered. Piles are typically installed on 5 – 7 foot centers, however these locations can be modified in the case of windows, doors, or other obstacles at the designated locations. The Structural Engineer (or his or her representative) will establish the final pin pile quantities and locations in the field.

3.0 CONTRACTOR

The underpinning Contractor shall submit his or her qualifications to the Structural Engineer. The Contractor shall have at least three years of experience in underpinning, and shall submit references of his or her activities if requested.

4.0 MATERIALS

Interlocking steel underpins shall be hydraulically pushed into the ground until refusal occurs or sufficient resistance has been met to support and/or lift the structure. The structure should be used as the reaction load to drive each pier into the ground. The steel piers should have a minimum

outside diameter of 2 1/2" and a minimum wall thickness of 0.165". The material should conform to ASTM A53.

If the Owner or Structural Engineer requests galvanized piers, the material can be hot dipped with a layer of zinc coating in accordance with ASTM A123 specifications.

The Contractor is responsible for furnishing grade beams if required. The Structural Engineer will provide dimensions and required steel reinforcing.

5.0 UNDERPINNING PROCEDURE

Assumptions

Concrete thickness, width, strength, and structural integrity of the footings, slabs and walls will be verified by the Contractor. Care must be taken to insure that the area has not previously been repaired with concrete underpins or piers and that there are no buried obstructions such as large tree stumps, utility lines, etc.

Access

In order to provide access to the foundation the contractor may excavate an area no greater than 4' x 4' immediately adjacent to the foundation. If a concrete slab must be removed to access the foundation, the area to be removed should not exceed 4' x 4'.

Scheduling

The underpinning program shall commence no sooner than 30 days after the completion of any concomitant compaction grouting procedure.

Underpin Installation

For a stem wall foundation, the centerline of the footing should be aligned with the pin pile so as to not create excessive moments applied to the footing. Steel brackets and/or trimming the exterior edge of the footing may be needed to satisfy this requirement.

Each underpin shall be hydraulically advanced by use of a cylinder drive assembly. The structure should be used as the reaction for inserting the piles.

During the driving process a surveying instrument with incrementally marked targets must be used to check for movement of the structure. Driving should be stopped if excessive movement occurs prior to the final lift. Depths, amount of movement, and pressure gauge readings must be recorded.

Each underpin should be individually advanced to bedrock or an equal bearing strata to a depth well below problematic soils (e.g., clay layers that are affected by seasonal changes in the water table). After each individual pier has been successfully load tested to establish a minimum load bearing capacity, an attempt to lift the structure can be performed. As long as no further distress in the structure is detected, the structure may be lifted sufficiently to close any cracks in the load bearing walls. Further lifting is allowed but must be performed so as to not create undue distress. When the structure is being lifted, the underpins and jacking assemblies should be connected together in order to simultaneously lift the structure. Otherwise, the underpins and jacking assemblies can be

tightened against the existing foundation and secured into place. After final elevations are checked, the underpins and bracket assemblies should be bolted or welded together, the hydraulic lift unit removed, and the access area backfilled.

6.0 MONITORING BY THE STRUCTURAL ENGINEER OR HIS OR HER REPRESENTATIVE

General

The Structural Engineer (or his or her representative) will monitor the underpinning operations to document compliance with the specifications outlined above and the duties discussed below. All underpinning installations and operations shall be performed in the presence of the Structural Engineer or Engineer's representative.

Compliance

The Structural Engineer (or his or her representative) may stop the underpinning operation at any time if, in his or her judgment, the operation does not comply with these specifications or the work is unsuitable.

Acceptance Criteria

The Structural Engineer (or his or her representative) will approve the underpinning operation after all of the piers have been installed in accordance with these specifications.

Daily Records

The Structural Engineer (or his or her representative) will record all measurements during the process. This includes, but is not limited to: lengths of piles, hydraulic pressures in rams, movement of structure, sequence of lifts, crack propagation, etc. Records of each day's underpinning operation will be maintained for the benefit of the insurance company and Contractor.

Ground/House Movement

During underpinning, the Contractor and Structural Engineer (or his or her representative) shall observe any vertical movement of the ground surface. If a downward movement of the ground surface is observed, the underpinning operation shall cease and observations shall continue for 30 minutes. If any distress in the exterior or interior of the structure is observed while lifting, the procedure shall cease and the underpins secured.

Existing Utilities/Structures

The Contractor shall exercise care when underpinning beneath and adjacent to any underground utilities. The Contractor is responsible for ensuring the underpinning operation does not damage existing utilities, wells, septic tanks, etc.



David Bloomquist, PhD, P.E.
Geotechnical Engineer
Florida License Number 37235
September 6, 2007



Attila Bodo, P.E.
Structural Engineer 9.7.07
Florida License Number 15834

GEOHAZARDS, INC.

Sinkholes • Expansive Clays • Land Subsidence











STANDARD PENETRATION TEST BORING

Project: Brown Residence
 Lake City, Florida
 Report No: 2007356
 EIT on Site: A. DeVault

Date Started: 6-29-07
 Date Finished: 6-29-07
 Drilled By: Central Florida Geotech, Inc.

Boring Designation: B-3 Sheet 1 of 2
 Water Table (ft.): Not Observed
 Type of Sampling: SPT-Mud Rotary

Location: 14 feet north and 5.5 feet west of the northeast corner of the house

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
0				NA		
	1	HA	NA			Brown fine sand (SP)
	2	HA	NA			Brown fine sand (SP)
5	3	4,10,12,12	22			Brown and orange medium dense clayey sand (SC)
	4	9,13,11,16	24			Brown and orange very stiff sandy clay (CL)
10	5	8,7,9,9	16			Gray and red medium dense clayey sand (SC)
15	6	4,4,6	10			Brown and orange loose clayey sand (SC)
20	7	4,3,4	7			Brown and gray loose clayey sand (SC) 100% LOC at 20 feet
25	8	3,2,4	6			Brown and orange loose clayey sand (SC)
30	9	WOR,2,3	5			Brown loose clayey sand (SC)
35	10	WOR/2 ft, 3,3	WOR			Weight of Rod (WOR) from 33.5 to 36.5 feet Sample No. 10 from 33.5 to 36.5: Brown very loose clayey sand (SC)



Sinkholes • Expansive Clays • Land Subsidence

STANDARD PENETRATION TEST BORING










Project: Brown Residence

Lake City, Florida

Report No: 2007356

EIT on Site: A. DeVault

Boring Designation: B-3 Sheet 2 of 2

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
35						
						Very soft drilling from 36.5 to 38.5 feet
40	11	WOR/3 ft.	WOR			WOR from 38.5 to 41.5 feet Sample No. 11 from 38.5 to 43 feet: Gray very loose clayey sand (SC)
	11	5,4,4	8			
45	12	WOR/3 ft.	WOR			WOR from 43.5 to 46.5 feet Sample No. 12 from 43.5 to 50.0 feet: Light gray and brown loose fine sand (SP) with minor clay
	12	3,3,2	5			
50	12	2,3,2,3	5			Light gray and brown loose fine sand (SP) with minor clay
						
55	13	WOR/4.5 ft.	WOR			Sample No. 13 from 53.5 to 58.75 feet WOR from 53.5 to 58 feet. No sample recovered; presumed fine sand
	13	26,50/3 in.	R			Light brown moderately hard limestone (LS)
60						Boring terminated at approximately 59 feet 100% LOC at 20 feet, without recovery

GEOHAZARDS, INC.

Professional Geological, Geophysical and Geotechnical Engineering Services

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TECHNICAL SPECIFICATIONS FOR SUBSURFACE STABILIZATION PRESSURE GROUTING AT THE

Brown Residence
162 SW Brava Way, Lake City, Florida
State Farm Insurance Claim No. 59-D156-048 --- Geohazards, Inc. Project No. 2007356

1.0 DESCRIPTION

The following specifications are for stabilization and remediation of subsoil conditions. The work consists of furnishing all labor, equipment and materials required to inject cementitious grout to expected depths of approximately 50 feet. The stabilization program is intended to stabilize the subsurface soil (WOR/LOC conditions, soft clays and soft limestone) by densification and minimize the potential for future ground subsidence due to raveling activity.

2.0 SCOPE

The scope of the stabilization program includes vertical and/or angled grout injections. The total estimated grout quantities; injection pipe footage and tentative grout point locations are attached. However, the grouting program may be modified by the Contractor and Geotechnical Engineer (or his or her representative) as dictated by the actual field conditions. In these specifications, "Geotechnical Engineer" refers to Geohazards, Inc.'s geotechnical engineer.

If directed by the Geotechnical Engineer or his or her representative, additional grout locations may be required based on the site conditions encountered. The location of the injection points is tentatively planned around the exterior of the dwelling and closed in porch on 8 - 10 foot centers. Alternative grout locations may be required. However, the Contractor or Geotechnical Engineer (or his or her representative) will establish the final grout injection locations in the field.

3.0 CONTRACTOR

The pressure grouting Contractor shall submit his or her qualifications to the Geotechnical Engineer. The Contractor shall have at least three years of experience in cement pressure grouting jobs, and shall submit references of his or her activities if requested.

4.0 EQUIPMENT

Grout Injection Equipment

A continuous flow, positive displacement model capable of pumping cement grout with a slump (ASTM C-143) of 3 to 6 inches maximum and pressures up to 600 psi (i.e., Schwing Model BPA 750D-15R or equivalent). Grout pressures should not exceed 300 – 350 psi. If higher pressures are

used, a compelling reason for doing so will be provided to the monitors in writing. A pressure gauge shall be located in-line at the top of the casing or immediately before the top of the casing. The gauge shall be capable of reading pressures up to 600 psi in increments of 25 psi or better. Alternate equipment may be used at the discretion of the Geotechnical Engineer or his or her representative. Approval of any and all onsite equipment does not infer final acceptance.

Injection Pipes

Minimum inside diameter: 2 inches, Maximum inside diameter: 3 inches. Use of reducing nipples is not allowed.

5.0 GROUT MIXTURE

General

The materials used in this work shall conform to standard grouting practices as follows:

- Portland cement will conform to ASTM C-150. Aggregate will be natural sand material with percent passing the No. 200 sieve not greater than 30 percent. No maximum grain size is specified, however, it must not create sand blocking at the nozzle at the specified operating pressures.
- Lime will be hydrated..
- Mix water shall be potable.
- Once mixed, the cement/sand grout (including approved additives) shall obtain a minimum 48-hour compressive strength of 200 psi.

Grout Mix

The mixture used for grouting shall be a creamy consistency, which will permit the grout to flow. If requested, when samples of the grout mixture are set aside for at least 12 hours in a standard concrete test mold, the resulting free surface water height shall be less than one percent of the initial sample height. Slump shall not exceed 6 inches. However, the slump may be varied throughout the grouting operation at the discretion of the Geotechnical Engineer or his or her representative. The grout mix shall not contain more than 0.6% by weight (22 lbs/cy) of bentonite. If bentonite is to be used, it must be hydrated prior to the addition of cement to minimize bleeding and segregation. The use of bentonite in compaction grouting can cause a loss of compressive strength of the grout mixture.

6.0 GROUT MIXING & PLACING

If on site mixing is used, facilities shall be provided for accurately measuring the ingredients in each batch of grout. The ingredients shall be thoroughly mixed and immediately pumped to the grout pipes through a flexible hose not more than 250 feet long.

7.0 PRESSURE GROUTING PROCEDURE

Pipe Installation

Grout pipes shall be installed to a depth sufficient to encounter bearing limestone or other bearing material (e.g., dense sand), located approximately 50 feet below the ground surface. The

Contractor may rotary drill or drive the injection pipes to the refusal depth. However, the method of installation shall ensure a good seal between the pipe and the surrounding soil. The installation method may be modified subject to the Geotechnical Engineer or his or her representative's approval if grout seeps up around the outside of the pipe during injection.

Grout Injection

Following satisfactory installation of an injection pipe, grouting operations may begin. During the grouting operation the injection pipes shall be incrementally raised to inject the entire zone between depths of approximately 50 feet and 10 feet below the ground surface. If feasible, the sequence of grouting should be performed at alternating locations to allow sufficient time for the mix to set prior to drilling and grouting adjacent points. The rate of pumping shall not exceed twelve cubic feet per minute. The pumping pressure at the top of the casing is planned to be in the range of 200 to 300 psi or as required by the Geotechnical Engineer or his or her representative. Unless otherwise directed by the Geotechnical Engineer or his or her representative, pumping shall cease for at least a 24-hour period, if a 1-foot zone takes 20 or more cubic yards of grout at a slump of 4 inches. The slump may be reduced further to 2 inches if a grout point fails to produce resistant pressure during the pumping operation. Once a resistance pressure of 250 – 300 psi is reached, the slump may be increased to 6 inches to improve migration of the grout into the soil in order to compact loose zones adjacent to the pipe. Grouting procedures should be terminated once the grout point is filled to within 6 – 10 feet of the surface in order to minimize collateral damage to the structure. If this excessive pumping occurs, the grout pipe shall be raised and flushed to prevent the pipe from being cemented in place. Pumping can then proceed at another grout pipe location. Pumping may resume at the excessive grout pipe location and depth after a period of 24 hours has passed.

Contractor Submittals

Methods of the work:

- a. Grout pipe installation procedures
- b. Proposed grout pipe locations, depths, and intervals
- c. Increments of depth for installation of grout
- d. Maximum grout quantities at each increment of depth
- e. Grout pressures at depths
- f. Equipment to be used in the work
- g. List of vendors and suppliers
- h. Daily records
- i. Grout mix design, design slump and tolerances

8.0 MONITORING BY THE GEOTECHNICAL ENGINEER OR HIS OR HER REPRESENTATIVE

General

The Geotechnical Engineer or his or her representative will monitor the pressure grouting operations to document compliance with the specifications outlined above and the duties discussed below. All injection pipe installations and grouting operations shall be performed in the presence of the Geotechnical Engineer's representative. The Geotechnical Engineer or his or her

representative shall assume responsibility for verifying the quantity of grout pumped, intervals of grouting and deciding if additional or less grout is necessary.

Compliance

The Geotechnical Engineer or his or her representative may stop the grouting operation at any time if, in his or her judgment, the operation does not comply with these specifications or the work is unsuitable.

Daily Records

The Geotechnical Engineer or his or her representative will make all measurements of ground heave, settlement, installed pipe lengths and grout quantities pumped. Records of each day's grouting operation will be maintained for the benefit of the insurance company and Contractor. The grout and pipe quantities recorded by the Geotechnical Engineer's representative shall be considered the final amounts for pay purposes.

Ground/House Movement

During grouting, the Contractor and Geotechnical Engineer or his or her representative shall observe any vertical movement of the ground and house. A survey transit or level must be used to monitor displacements. Visual observation is not permissible. If a downward movement of the ground surface is observed, the grouting operation shall cease and observations shall continue for 30 minutes. Likewise if there is any upward movement of the house, grouting should be temporarily suspended. If the ground does not return to its original grade, pumping shall be resumed at a lower rate of injection. If upward movement is observed, the grouting operation shall cease.

Existing Utilities/Structures

The Contractor shall exercise care when grouting beneath and adjacent to any underground utilities. The Contractor is responsible for ensuring the grouting operation does not damage existing utilities, wells, septic tanks, etc.



David Bloomquist, PhD, P.E.
Geotechnical Engineer
Florida License Number 37235
September 6, 2007

GEOHAZARDS, INC.

Sinkholes • Expansive Clays • Land Subsidence

STANDARD PENETRATION TEST BORING

Project: Brown Residence

Lake City, Florida

Report No: 2007356

EIT on Site: A. DeVault

Date Started: 6-29-07

Date Finished: 6-29-07

Drilled By: Central Florida Geotech, Inc.











Boring Designation: B-1

Sheet 1 of 2

Water Table (ft.): Not Observed

Type of Sampling: SPT-Mud Rotary

Location: 2.5 feet north and 10 feet west of the southwest corner of the house

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
0				NA		
	1	HA	NA			Gray fine sand (SP) with trace roots
	2	HA	NA			Gray fine sand (SP)
5	3	3,4,5,7	9			Light brown and orange loose clayey sand (SC)
	4	7,13,13,13	26			Light green and brown very stiff sandy clay (CL) Light green and orange very stiff clay (CL)
10	5	7,9,8,8	17			Light gray and red very stiff sandy clay (CL)
15	6	7,9,10	19			Light gray and red medium dense clayey sand (SC)
20	7	6,13,18	31			Light green hard clay (CL) Light green and orange sandy clay (CL)
25	8	6,7,10	17			Light gray medium dense clayey sand (SC)
30	9	10,12,12	24			Light gray (trace orange) medium dense clayey sand (SC)
35	10	8,9,9	18			Light gray and orange medium dense clayey sand (SC)



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STANDARD PENETRATION TEST BORING






Project: Brown Residence

Lake City, Florida

Report No: 2007356

EIT on Site: A. DeVault

Boring Designation: B-1 Sheet 2 of 2

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
35						
40	11	5,7,5	12			Gray and orange medium dense clayey sand (SC)
						Light brown very soft limestone (LS) 100% Loss of circulation (LOC) at 40 feet
45	12	7,3,2	5			Dark orange firm sandy clay (CL) with limestone fragments
50	13	50/0 in.	R			Light brown hard limestone (LS) with chert
55	14	50/2 in.	R			Light brown hard limestone (LS)
						Boring terminated at approximately 53.5 feet 100% LOC at 40 feet, without recovery



Sinkholes • Expansive Clays • Land Subsidence

STANDARD PENETRATION TEST BORING

Project: Brown Residence
 Lake City, Florida
 Report No: 2007356
 EIT on Site: A. DeVault

Date Started: 6-29-07
 Date Finished: 6-29-07
 Drilled By: Central Florida Geotech, Inc.

Boring Designation: B-2 Sheet 1 of 2
 Water Table (ft.): Not Observed
 Type of Sampling: SPT-Mud Rotary

Location: 23 feet south and 12.5 feet east of the northeast corner of the house

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
0				NA		
1	1	HA	NA			Gray fine sand (SP)
2	2	HA	NA			Orange clayey sand (SC)
5	3	6,8,8,15	16			Gray and orange very stiff sandy clay (CL)
4	4	9,15,19,23	34			Gray and orange hard clay (CL)
10	5	6,9,11,14	20			Gray and orange very stiff sandy clay (CL)
15	6	7,8,8	16			Light gray (trace orange) medium dense clayey sand (SC)
20	7	5,6,8	14			Light gray and orange medium dense clayey sand (SC)
25	8	6,9,9	18			Light gray (trace orange) medium dense clayey sand (SC)
30	9	6,9,8	17			Light gray medium dense clayey sand (SC)
35	10	6,7,13	20			Orange and light gray medium dense clayey sand (SC) Light gray medium dense fine sand (SP)

GEOHAZARDS, INC.

Sinkholes • Expansive Clays • Land Subsidence

STANDARD PENETRATION TEST BORING









Project: Brown Residence

Lake City, Florida

Report No: 2007356

EIT on Site: A. DeVault

Boring Designation: B-2 Sheet 2 of 2

DEPTH (ft.)	SAMPLE	BLOWS per 6 in. increment	N-value (blows/ft.)	W.T.	SYMBOL	DESCRIPTION
35						
40	11	4,5,5	10			Orange and gray stiff sandy clay (CL)
45	12	6,4,5	9			Orange stiff clay (CL) with limestone fragments
						Hard drilling from 46 to 48.5 feet
						100% LOC at 48.5 feet
50	13	50/1 in.	R			Light brown hard limestone (LS)
						
	14	50/0 in.	R			Light brown hard limestone (LS)
55						Boring terminated at 53.5 feet 100% LOC at 48.5 feet, without recovery

GEOHAZARDS, INC.

Professional Geological, Geophysical and Geotechnical Engineering Services

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Douglas L. Smith, Ph.D.
Geophysicist
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POTENTIAL REMEDIATION PROGRAM

Brown Residence
162 SW Brava Way, Lake City, Florida
State Farm Insurance Claim No. 59-D156-048 --- Geohazards, Inc. Project No. 2007356

Geohazards, Inc. has conducted a site investigation at the above location. Based on the data acquired and analyzed, a possible contributing cause of distress is sinkhole activity. Due to the WOR/LOC zones identified in the SPT data, a common subsurface modification is via compaction grouting. However, the presence of near surface highly plastic clays with concomitant exterior and interior distress suggest that the structure should be further stabilized by underpinning. The following preliminary grouting and underpinning plan has been developed to complete the remediation program.

Task	Description	Estimated Quantity Survey
1	Mobilization/Demobilization/Permits	1 ea.
2	Site Preparation	1 ea.
3	Injection Pipe Installation – 21 injection points – average 50 feet depth and reaching competent limestone	1,050 lf.
4	Grout Injection	200 - 300 cy.
5	Pin Piles, w/spreader beams if necessary (5 – 7 feet on center, installed to average 50 foot depth, but must reach competent bearing material)	34 - 36 ea.
6	Concrete Replacement	1 ea.
7	Monitoring/Certification	1 ea.

GEOHAZARDS, INC.

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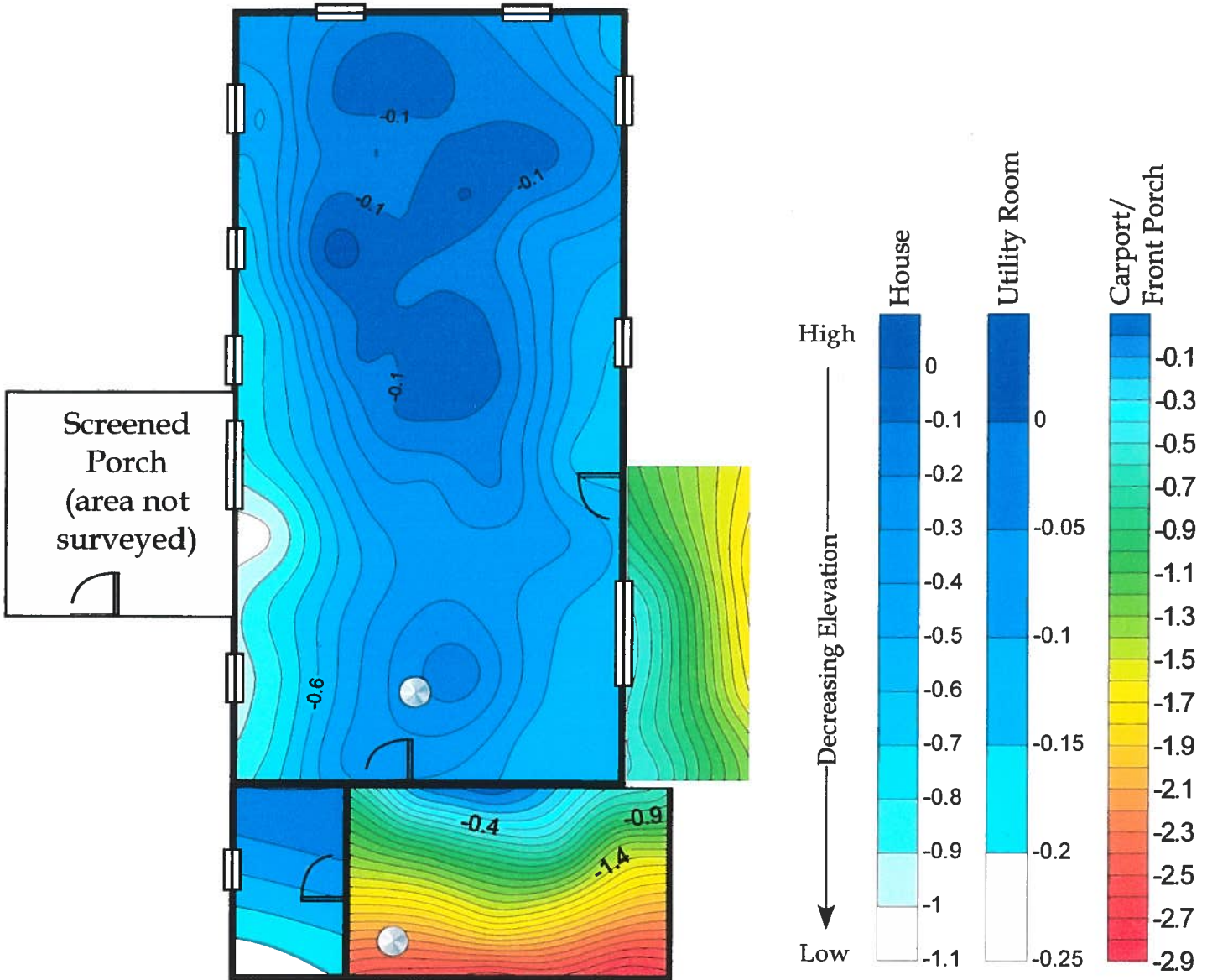
FLOOR ELEVATION SURVEY

Brown Residence
 162 SW Brava Way
 Lake City, Florida

FOR: State Farm Florida Insurance


DATE: 07-10-07

BY: M. Roberts, Geologist
 Investigation# 2007356



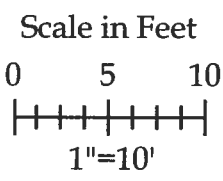
All elevations are in inches below highest point of floor

KEY:

Manometer 

Gridding: Radial Basis

Note: Grid in Feet and Elevations in Inches



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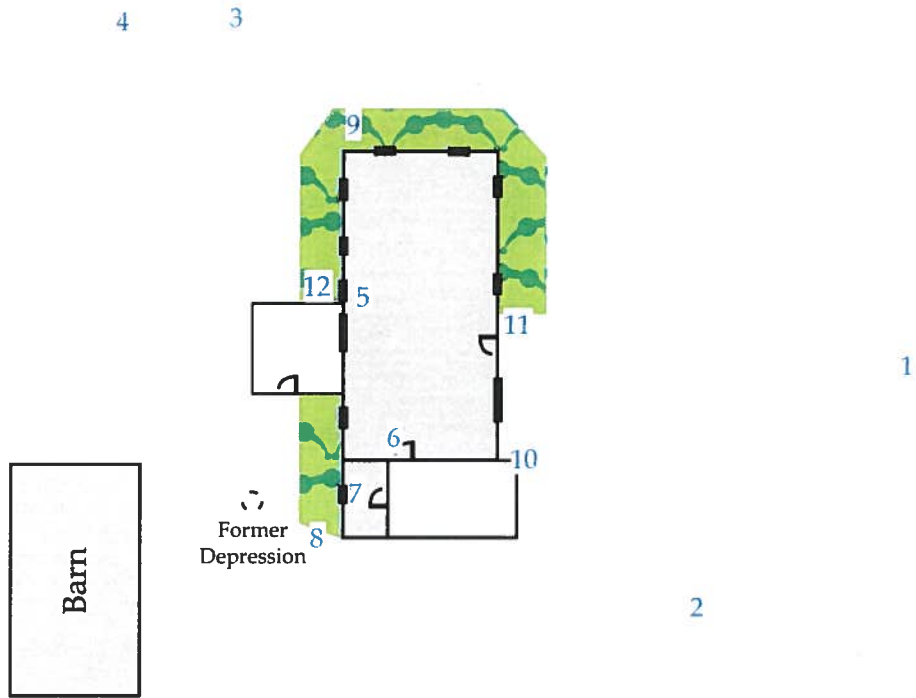
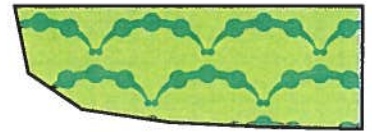
PHOTOGRAPH LOCATION MAP


Brown Residence
162 SW Brava Way
Lake City, Florida

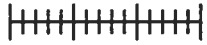
FOR: State Farm Florida Insurance

DATE: 07-07-07

BY: M. Roberts, Geologist
Investigation# 2007356



KEY:
GPR Traverse
Start →
GPR Anomaly


Scale in Feet
0 10 20 30

1"=30'



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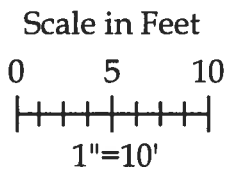
TENTATIVE GROUT LOCATIONS

Brown Residence
 162 SW Brava Way
 Lake City, Florida

FOR: State Farm Florida Insurance

DATE: 8-31-07

BY: David Bloomquist, P.E.
 Investigation#2007356

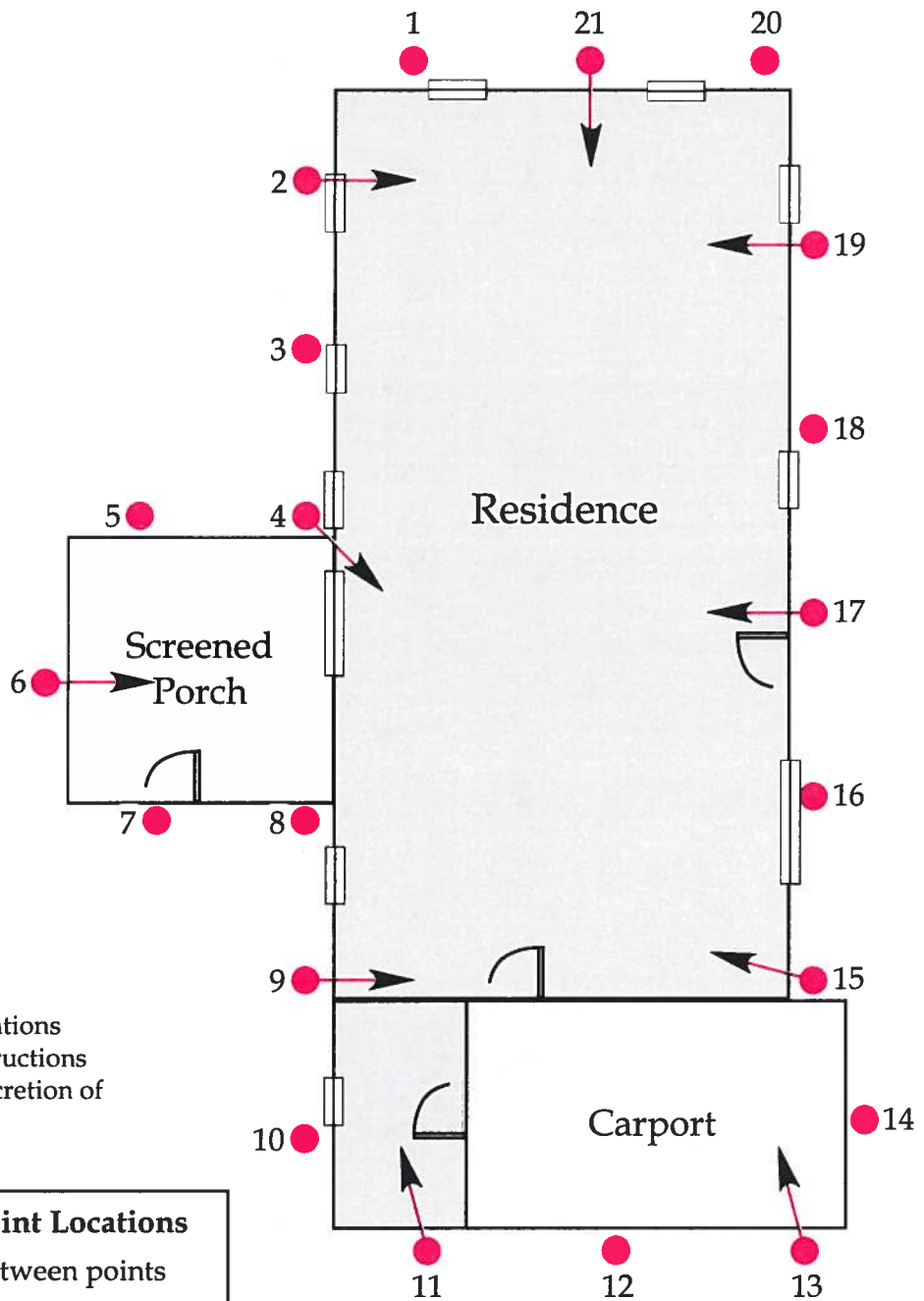


Note: Some injection point locations may be inaccessible due to obstructions and minor relocation at the discretion of the contractor may be required.

21 Tentative Injection Point Locations

Approximately 8' - 10' between points
 Estimated average depths: 50 feet

Injection Point 
 Angled Injection Point 



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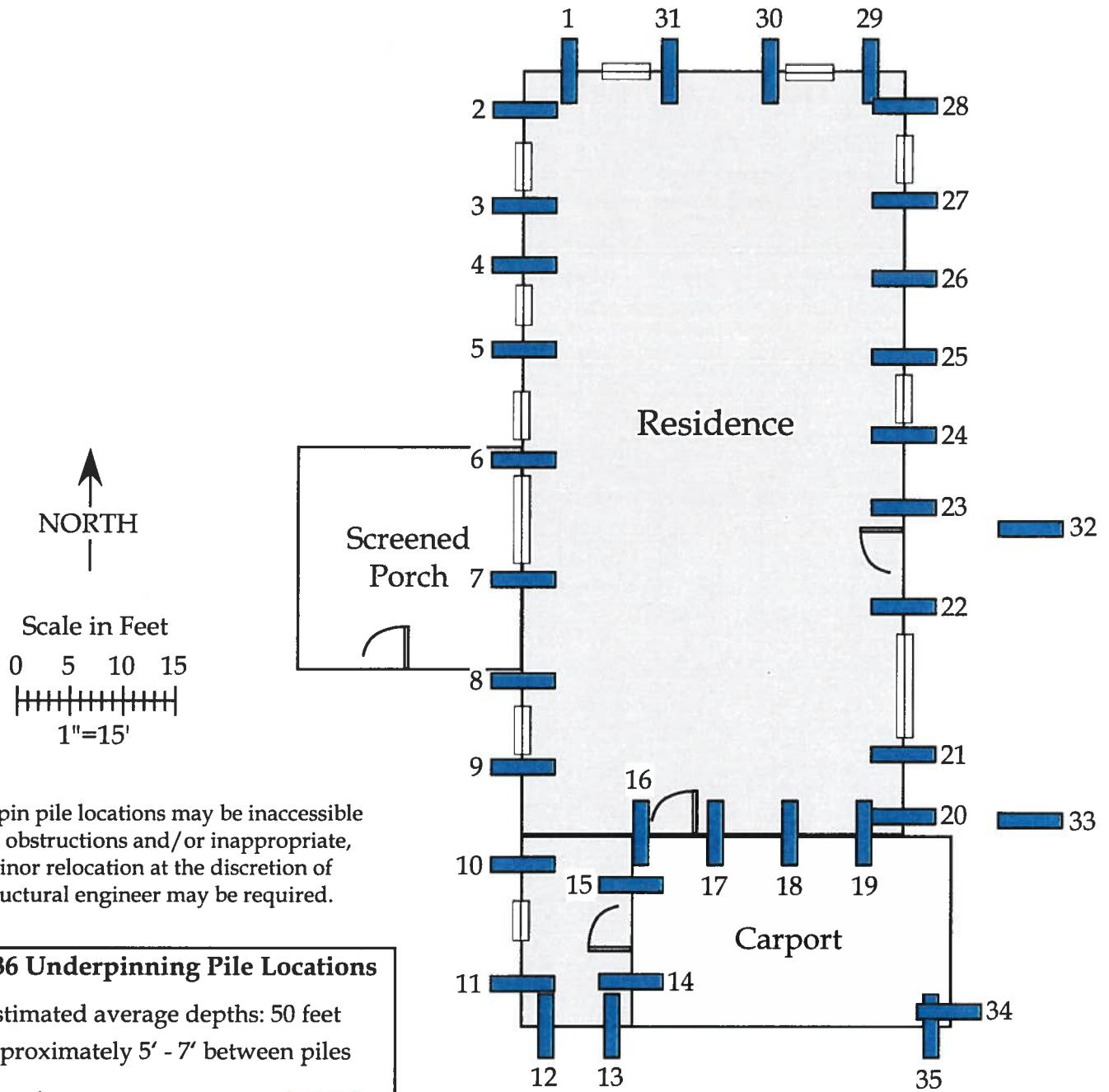
TENTATIVE UNDERPIN LOCATIONS

Brown Residence
 162 SW Brava Way
 Lake City, Florida

FOR: State Farm Florida Insurance

DATE: 09-06-07

BY: Attila Bodo, P.E.
 David Bloomquist, P.E.
 Investigation#2007356



Note:
 Some pin pile locations may be inaccessible due to obstructions and/or inappropriate, and minor relocation at the discretion of the structural engineer may be required.

34 - 36 Underpinning Pile Locations

Estimated average depths: 50 feet
 Approximately 5' - 7' between piles

Pin Piles





1. Front (east) side of the Brown residence. View is to the west.



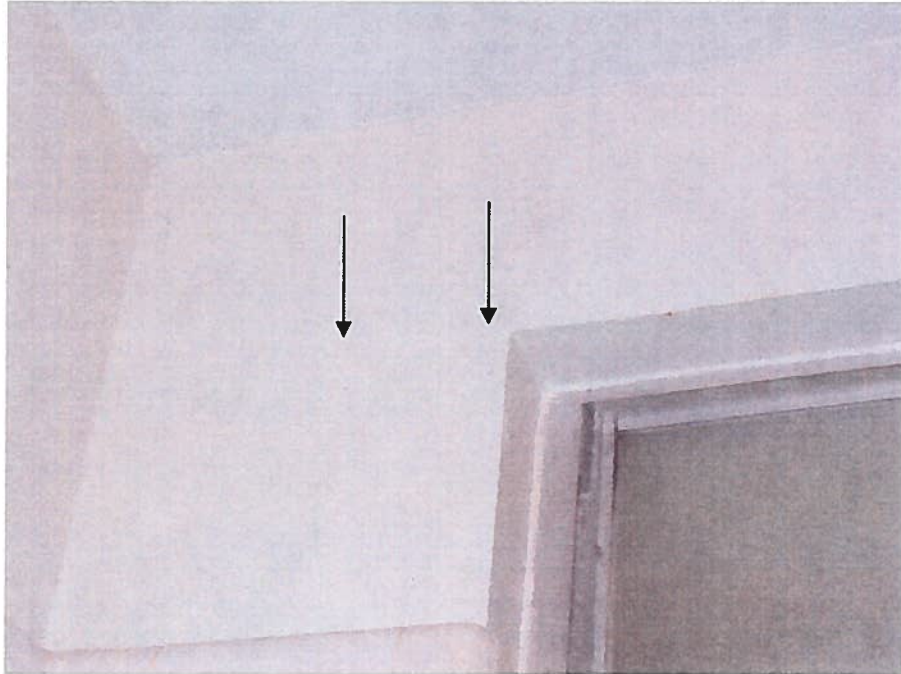
2. South side of the Brown residence. View is to the northwest.



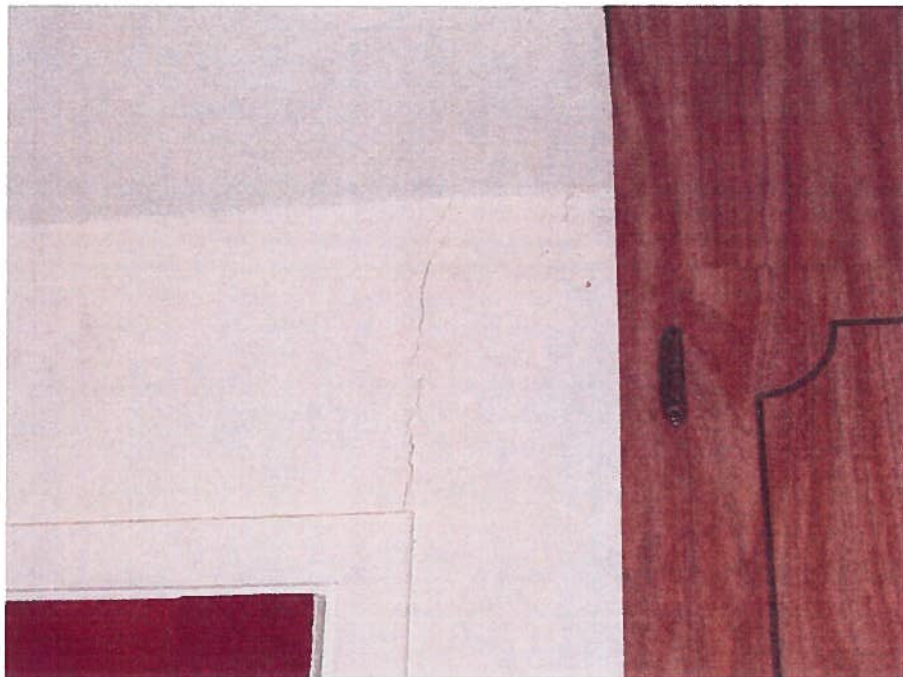
3. North side of the Brown residence. View is to the southeast.



4. Rear (west) side of the Brown residence. View is to the southeast.



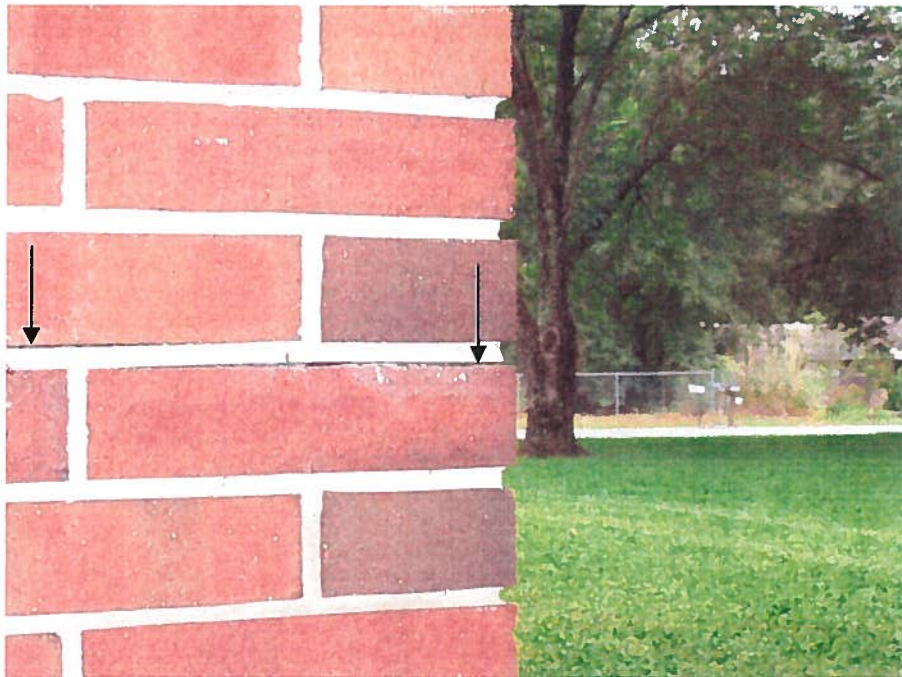
5. Drywall crack from window, south bathroom



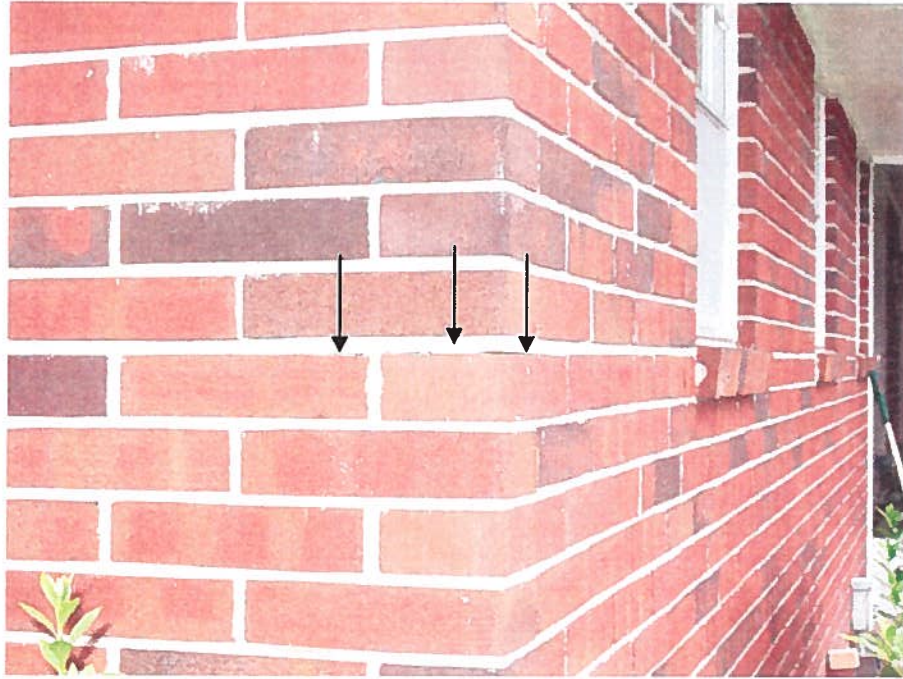
6. Drywall crack from door, south wall of kitchen



7. Separation crack between floor slab and wall, west side of utility room



8. Separation crack between bricks, southwest corner of utility room



9. Separation crack between bricks, northwest corner of home



10. Crack in front patio slab, southwest corner



11. Test pit one (TP-1), located near the center of the east wall (see site plan), revealed a foundation embedded approximately 18 inches below ground surface.



12. Test pit two (TP-2), located near the center of the west wall (see site plan), revealed a foundation embedded approximately 18.5 inches below ground surface.

GEOHAZARDS, INC.

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 Fax: (352) 371-4410

SITE PLAN


Brown Residence
 162 SW Brava Way
 Lake City, Florida

FOR: State Farm Florida Insurance

DATE: 07-02-07

BY: M. Roberts, Geologist
 Investigation#2007356

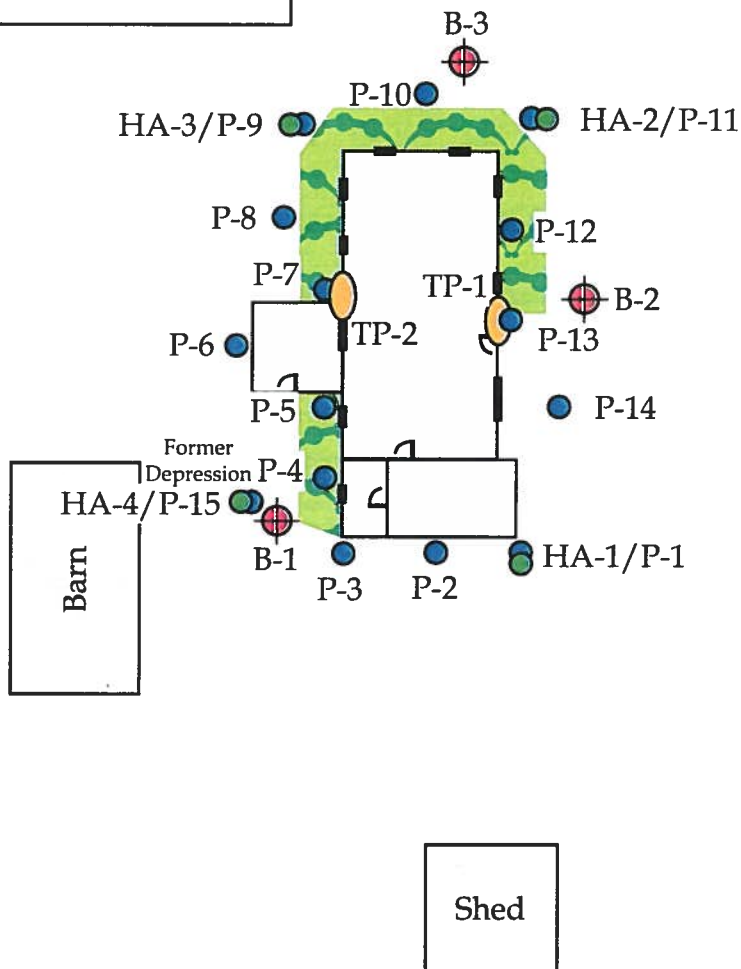
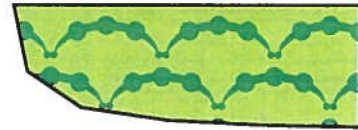
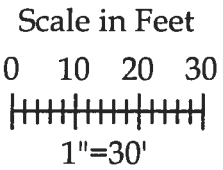
KEY:

Hand Auger Location HA-1 

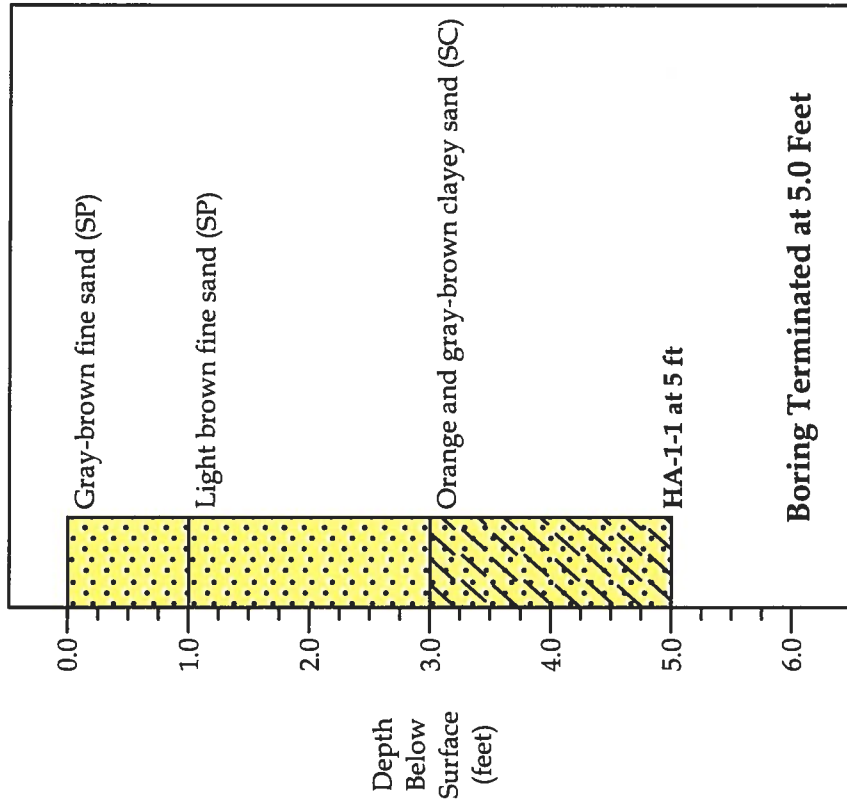
Cone Penetrometer Test Location P-1 

Test Pit Location TP-1 

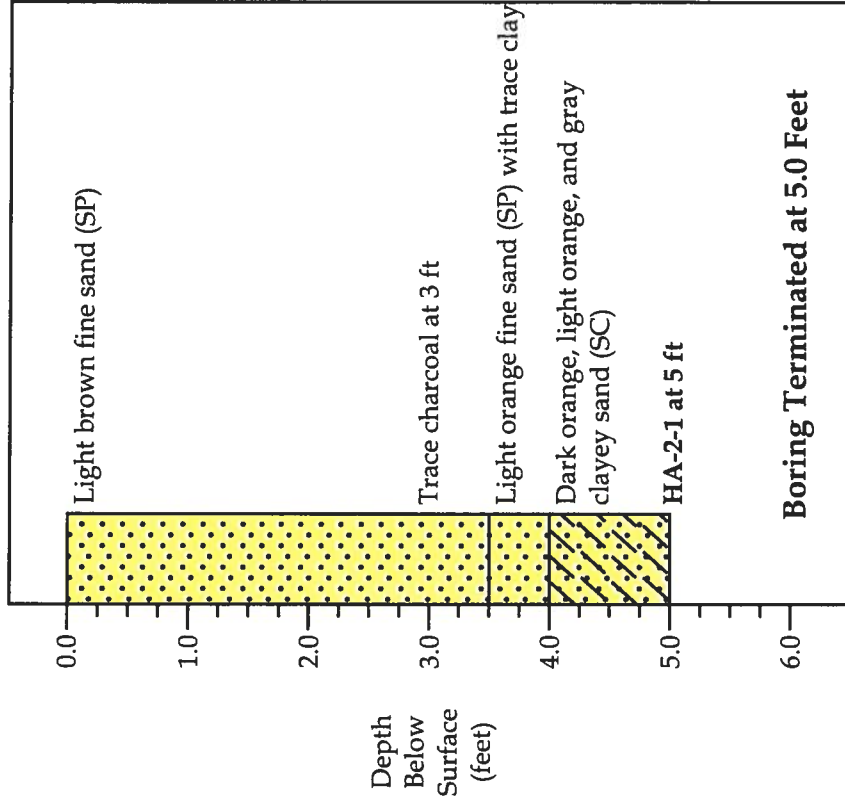
SPT Boring Location B-1 



HA-1



HA-2



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HAND AUGER INVESTIGATION

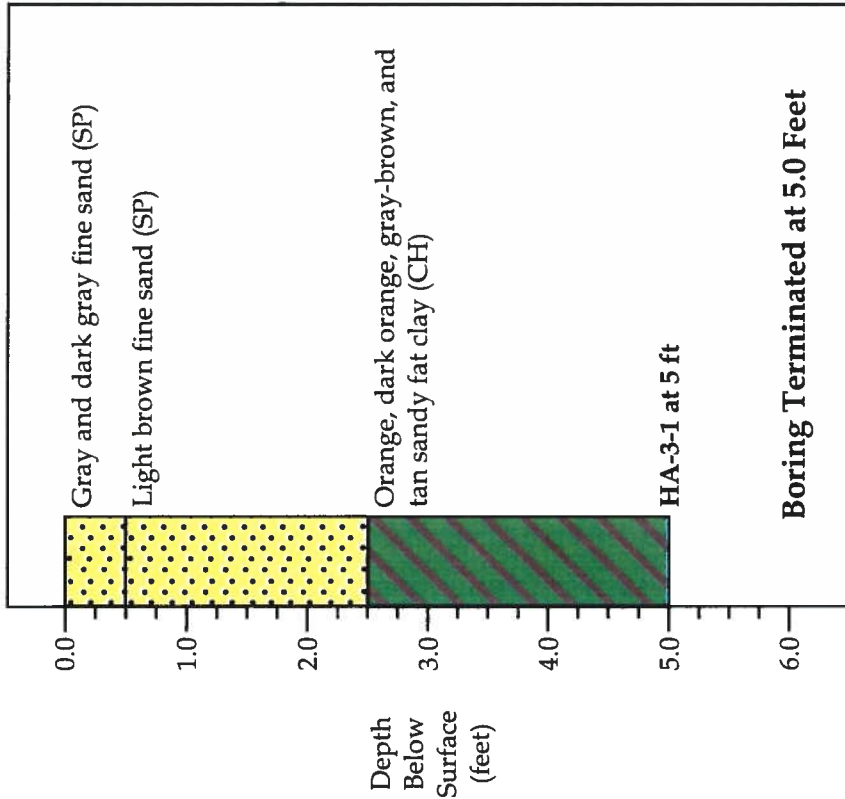
Brown Residence
162 SW Brava Way
Lake City, Florida

FOR: State Farm Florida Insurance

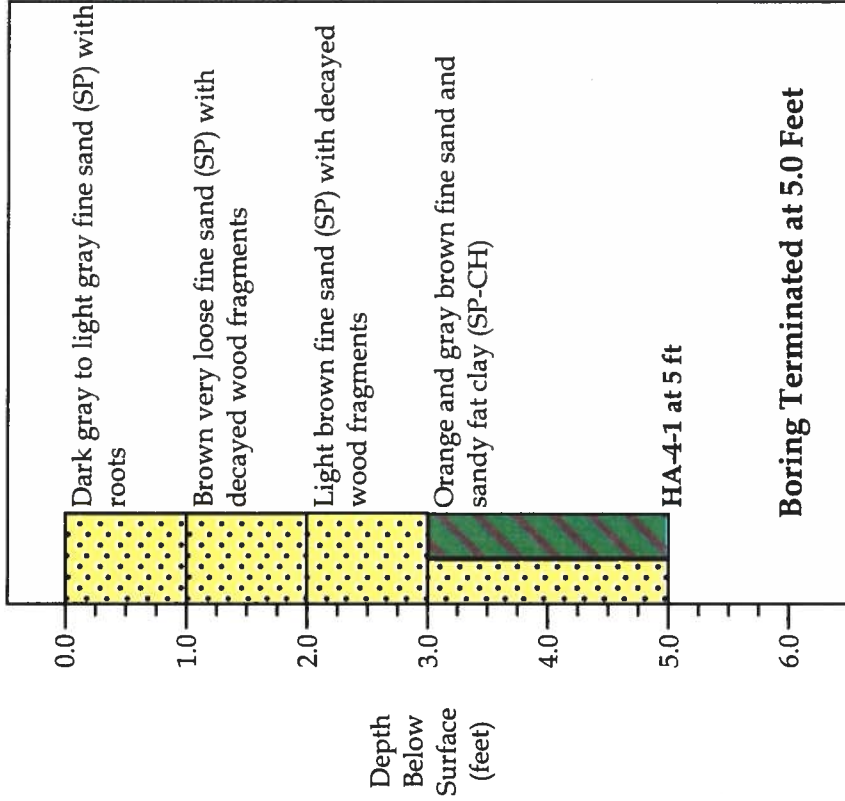
DATE: 07-10-07

BY: M. Roberts, Geologist
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HA-3



HA-4



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HAND AUGER INVESTIGATION

Brown Residence
 162 SW Brava Way
 Lake City, Florida

FOR: State Farm Florida Insurance

DATE: 07-10-07

BY: M. Roberts, Geologist
 Investigation# 2007356

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SUMMARY OF LABORATORY RESULTS

BROWN RESIDENCE

FOR: State Farm Florida Insurance

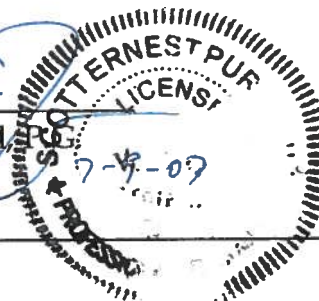
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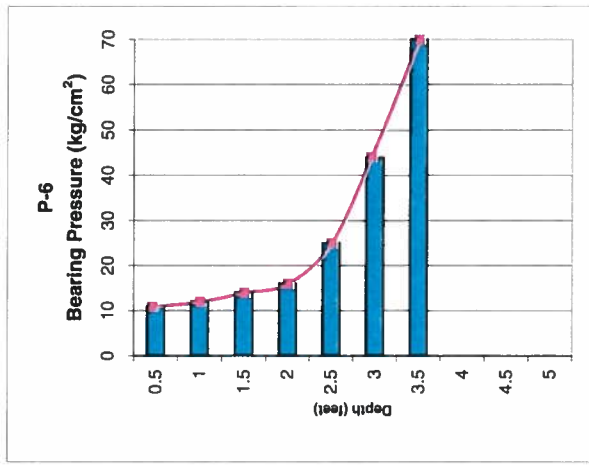
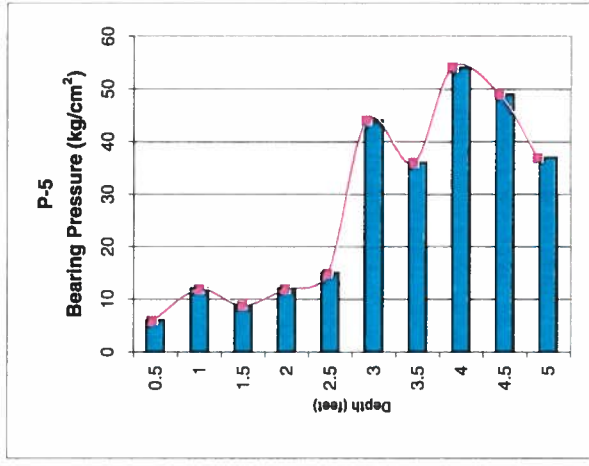
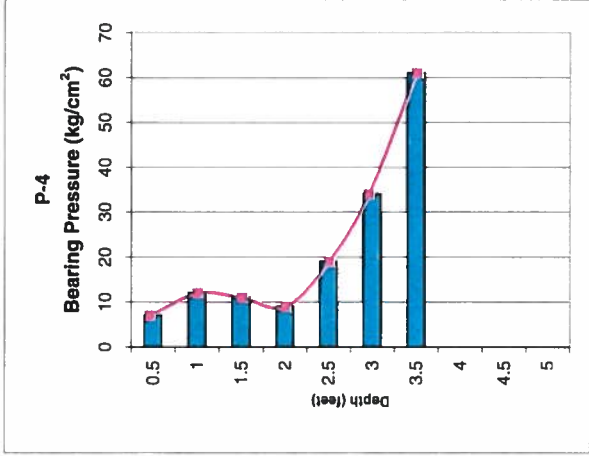
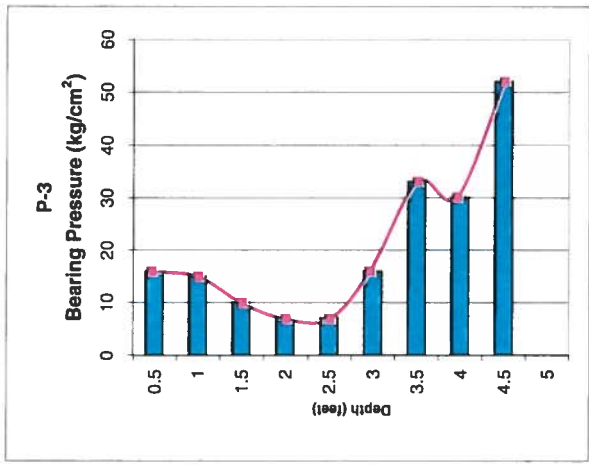
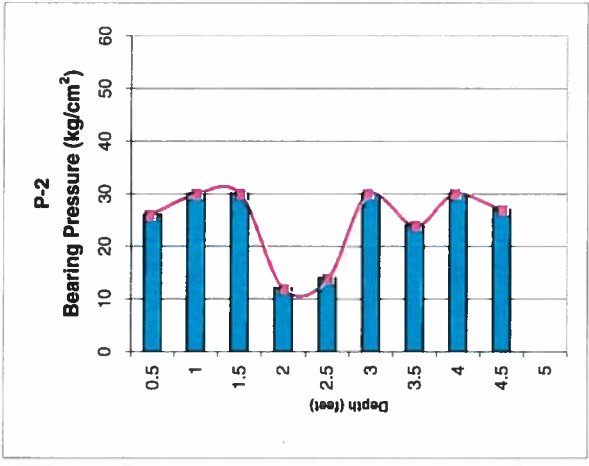
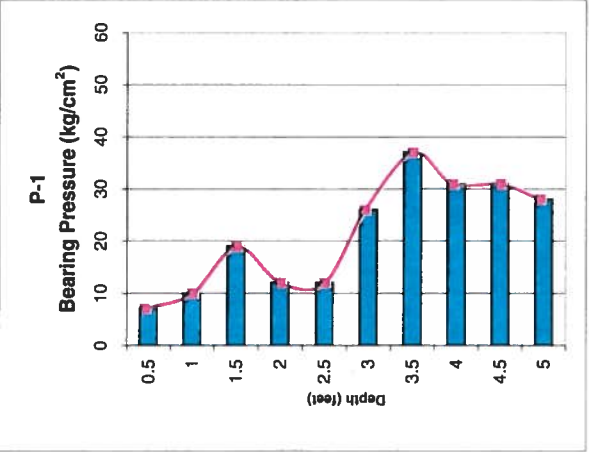
Investigation #: 2007356

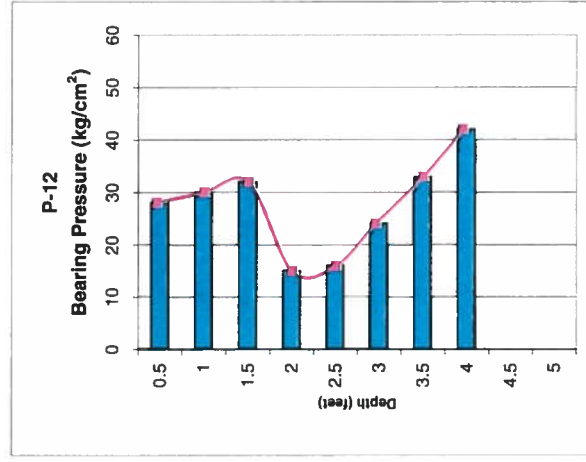
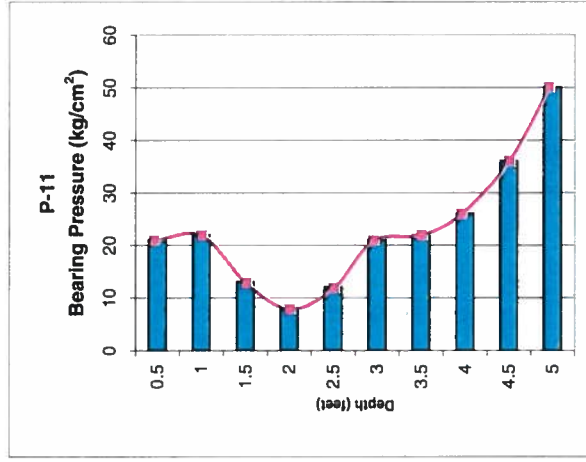
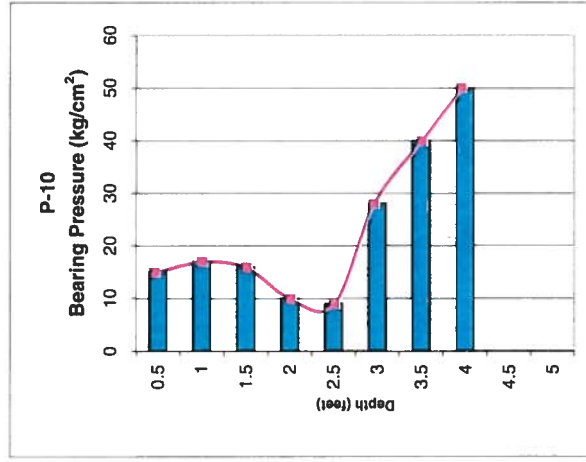
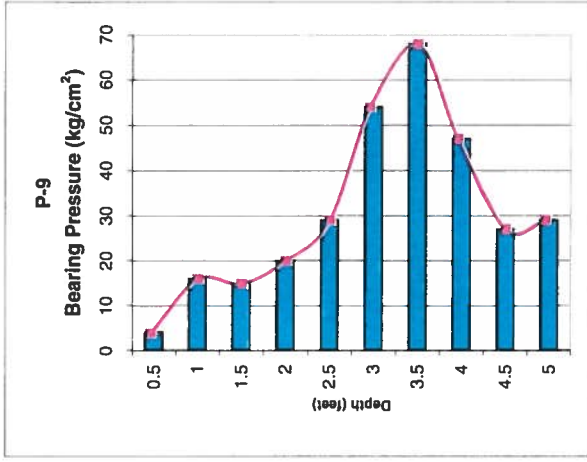
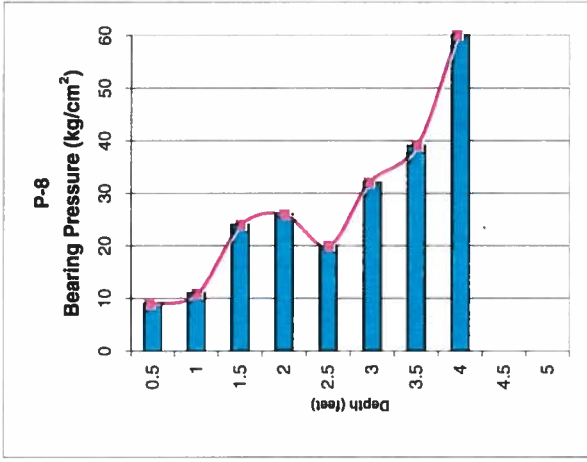
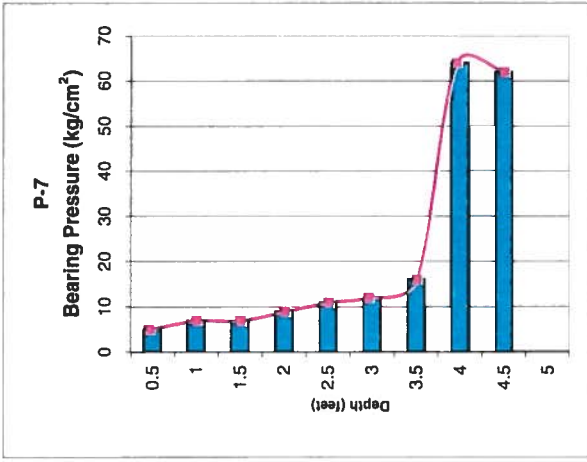
SAMPLE NUMBER	DEPTH (ft)	NATURAL MOISTURE CONTENT	PERCENT PASSING NO. 200 SIEVE	ATTERBERG LIMITS			ORGANIC CONTENT	UNIFIED SOIL CLASSIFICATION
				LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
HA-1-1	5	15.7%	33.8%					SC ¹
HA-3-1	5	28.7%	64.5%	87	38	49		CH ²
HA-4-1	5	32.3%	68.1%	79	32	47		CH ²

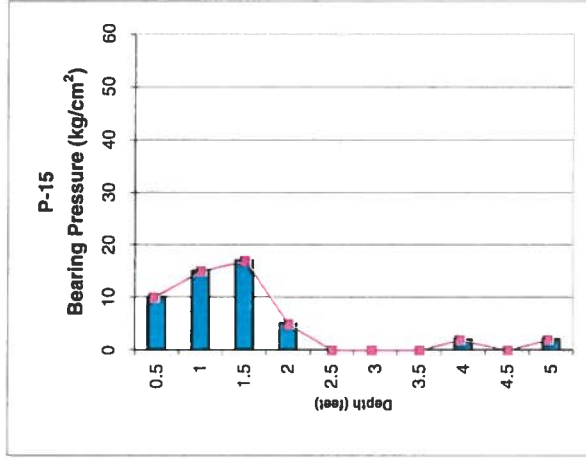
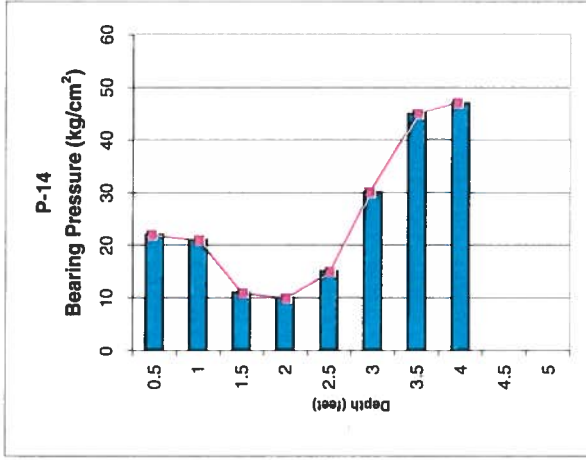
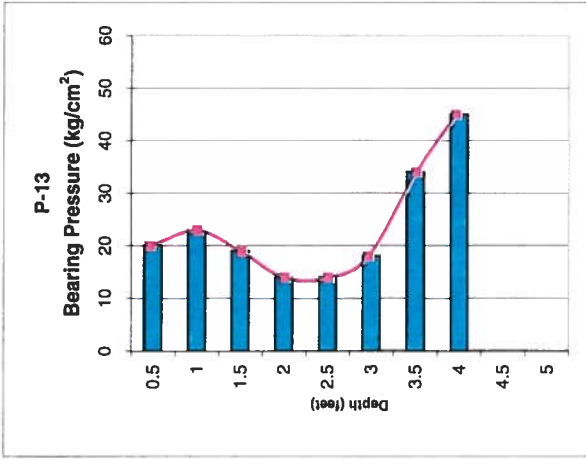
Descriptive Classification: ¹ Clayey sand ² Sandy fat clay


Scott E. Purcifull









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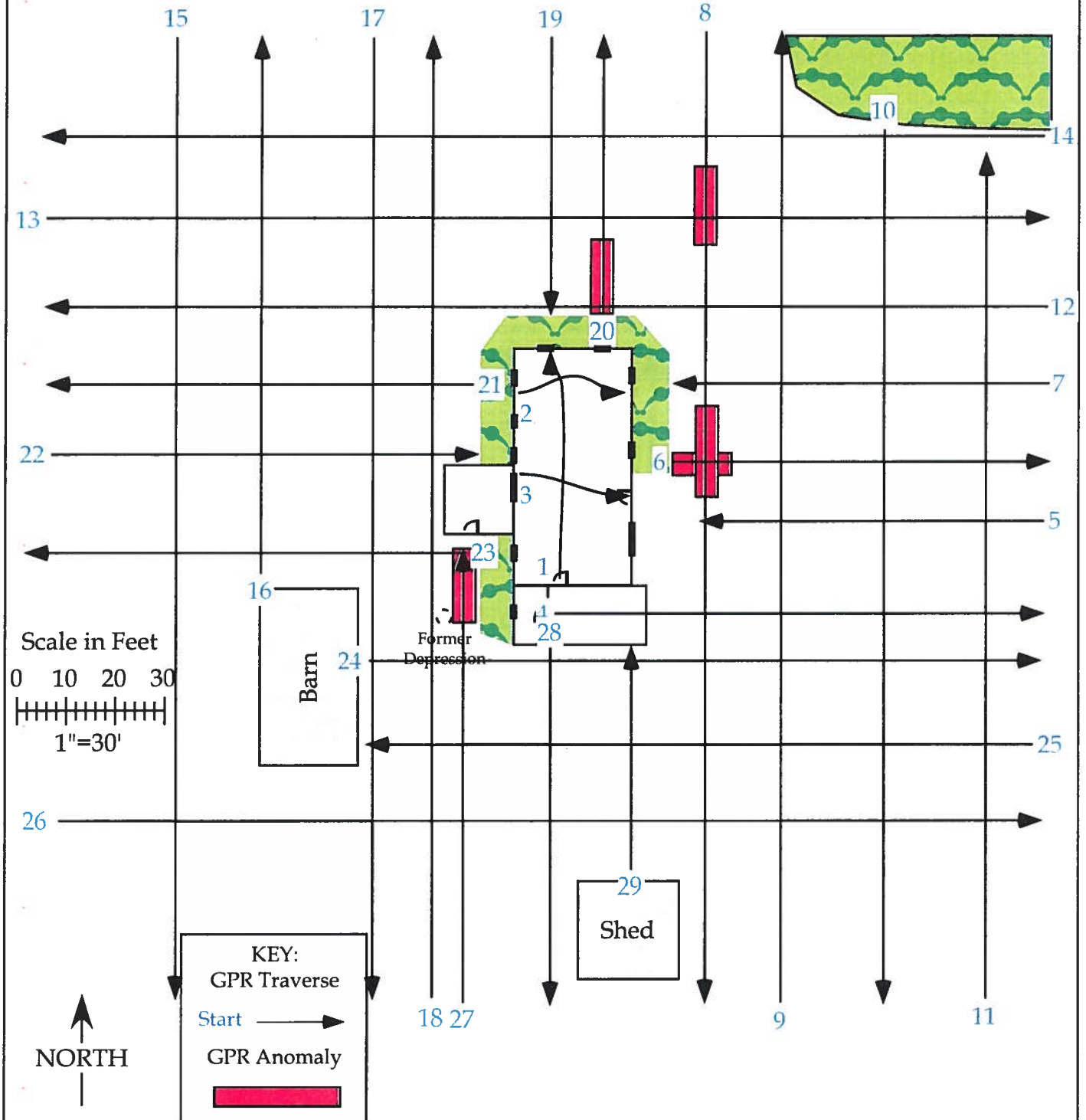
SITE PLAN OF GEOPHYSICAL INVESTIGATION GROUND PENETRATING RADAR SURVEY

Brown Residence
162 SW Brava Way
Lake City, Florida

FOR: State Farm Florida Insurance

DATE: 06-21-07

BY: M. Roberts, Geologist
Investigation# 2007356





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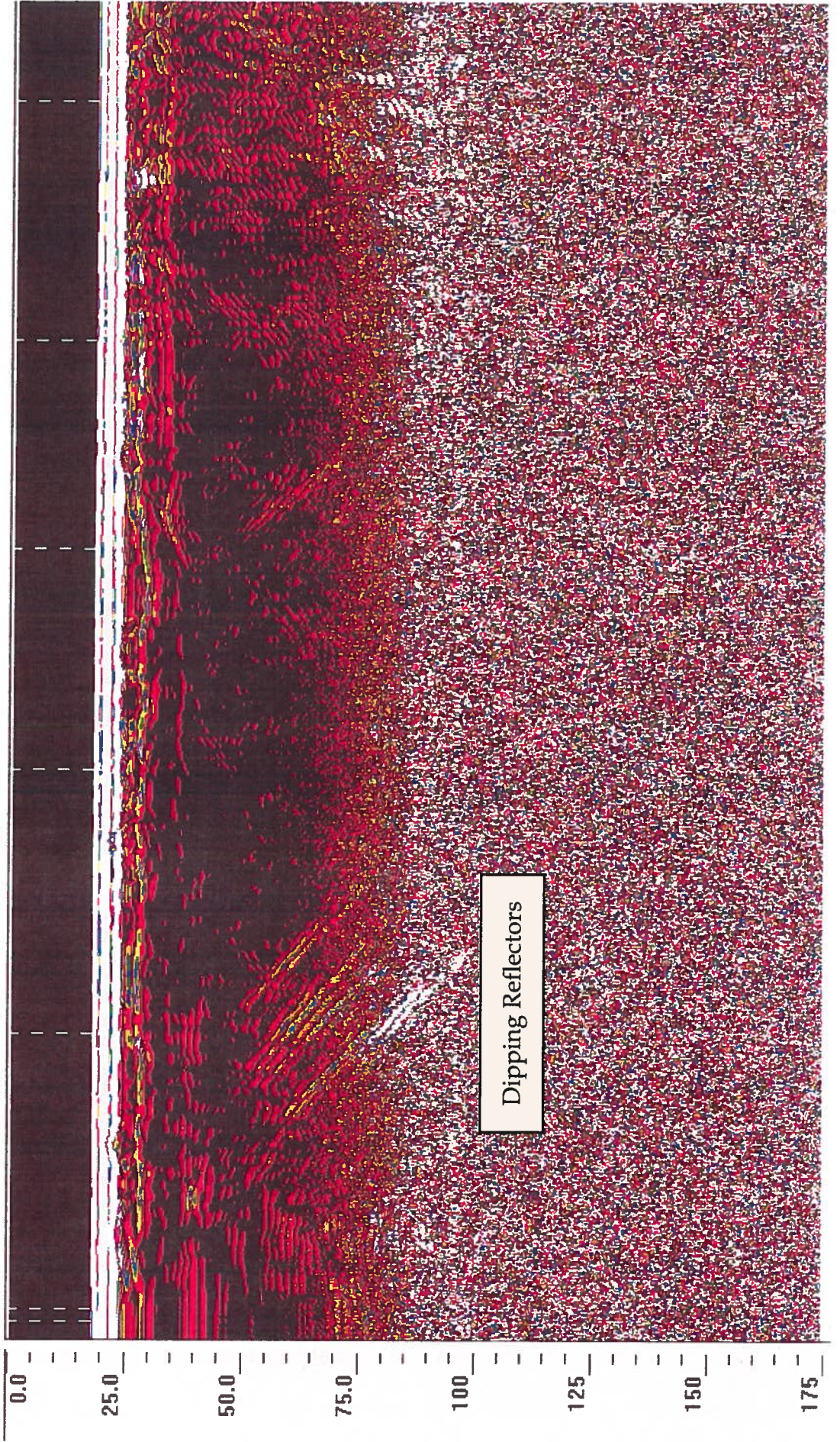
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Fax: (352) 371-4410

GROUND PENETRATING RADAR TRAVERSE # 20

Brown Residence
162 SW Brava Way
Lake City, Florida

Antenna: 400 MHZ, 150 ns
System: SIR 3000
Description: Disturbed sediments and
dipping reflectors in upper
4-6 feet depth

Date: 07-05-07 Investigation #2007356



GEOHAZARDS, INC.

Professional Geological, Geophysical and Geotechnical Engineering Services

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September 7, 2007

Geohazards, Inc., Investigation No. 2007356

CLAIM INVESTIGATION REPORT

GEOTECHNICAL INVESTIGATION OF THE GEOLOGICAL SUBSURFACE AT THE ARCHIE BROWN RESIDENCE, 162 SOUTHWEST BRAVA WAY, LAKE CITY, FLORIDA

INTRODUCTION

Purpose

Geohazards, Inc. was tasked by State Farm Florida Insurance Company (Claim No. 59-D156-048) to conduct a geotechnical investigation at the above referenced locality. The purpose of the investigation was to determine the probable cause of distress at the subject property.

This investigation was conducted to provide a geophysical characterization of the geological subsurface with verification by drilling. In particular, efforts were designed to determine the presence of subsurface cavities and subsurface zones of disruption that might contribute to subsidence. Any of these conditions could be responsible for existing or potential subsidence at the site. Efforts were also incorporated into this investigation to determine if distress at the site of investigation is attributable to causes other than geotechnical, and to identify such causes.

Scope

This investigation was conducted in accordance with the provisions of Florida Statutes Chapters 627.706 and 627.707, as amended by the Florida Legislature in 2006. In particular, definitions of scientific features and conditions as expressed in Chapter 627.706 are adopted in this report, and all testing conducted is in compliance with Chapter 627.7072. Furthermore, the scope and scientific techniques utilized are consistent with the protocols specified by the Florida Geological Survey, Special Publication No. 57, 2005 (Geological and Geotechnical Investigation Procedures For Evaluation of the Causes of Subsidence Damage in Florida). This report complies with the provisions of Chapter 627.7073.

The investigation conducted and reported herein included the following:

- A review of available geologic maps and other published data to establish the general probable lithology and regional conditions for the site of investigation.
- A reconnaissance of the site of investigation to recognize and identify surface conditions pertinent to the purpose of the investigation.
- An interview with the property owner or representative to determine the nature and timing of any damage and to determine the history of the site, including photographic documentation.
- An inspection and assessment of the affected structures and a structural engineering evaluation of possible sources of distress.
- Four Hand Auger Borings to determine the nature of the near-surface materials, and to identify soil conditions at the site.
- Laboratory analyses of selected soil samples to characterize specific properties of significance to the site.
- Static Cone Penetration tests to investigate the bearing capacity of the near-surface materials.
- Excavation of two test pits to determine the nature and depth of the foundation.

- A Ground Penetrating Radar (GPR) investigation of the site to determine evidence for anomalous subsurface features or conditions.
- An Electrical Resistivity (ER) investigation of the site to assist in the recognition of site-specific geological conditions at the subject property and to determine evidence for the presence of anomalous subsurface features or conditions.
- A floor elevation survey to identify variations in elevation within the house.
- Three Standard Penetration Test (SPT) borings to explore deeper subsurface conditions.
- A final report summarizing results and conveying professional opinions, including a possible mitigation strategy with technical specifications for subsurface stabilization.

Site Information

The initial reconnaissance and geophysical field investigation were conducted on June 21, 2007. The standard penetration test borings were conducted on June 29, 2007.

The site of investigation is located at 162 SW Brava Way, Lake City, Florida. Based on information available from the county property appraiser's office, the legal description and property owners are as follows:

LOT 4 BLOCK C GREEN ACRES S/D. ORB 930-020,
ARCHIE L. & AUDREY C., & WANDA J. OLIN BROWN

This site includes a single story brick home. A screened porch is attached along the central portion of the west side of the house, and a carport and utility room are attached to the south side of the home. A wood-framed barn is located to the southwest of the residence, and a metal shed is located to the south of the home. A potable well is located in the south yard on the east side of the shed.

According to available property appraisal information, the house was built in 1971, and the current homeowners have resided in the house since February

1972. In approximately January 2007, Mr. Brown observed a surface depression near the southwest corner of the residence. He described this depression as being approximately 2.5 feet in diameter, approximately 3 feet deep, and as requiring several wheel barrow-loads of soil to fill. Mr. Brown was not aware of any structural distress in January 2007. However, he observed separation cracks between the bricks at the southwest corner of the residence in March or April, 2007, and filed this claim. He has also noticed a separation crack between the floor slab and the west wall of the utility room, a crack extending from the kitchen door to the ceiling (south side of residence), and cracks in the concrete slabs of the carport and front porch. Mr. Brown was not aware of any neighbors with sinkhole claims.

An inspection of the interior of the home revealed drywall cracks extending from the windows in both the south bathroom and the kitchen (Photograph #5). Hairline separation cracks were also observed between the tiles below the window in the south bathroom. A drywall crack, up to 1/16" wide extended from the doorframe in the south wall of the kitchen (Photograph #6). A separation crack, approximately 1/16" wide, was also noted between the concrete floor slab and the western brick wall of the utility room (Photograph # 7).

Evidence of exterior distress included a separation crack (approximately 1/16-inch wide) between the bricks at the southwest corner of the utility room (Photograph #8). Similar but smaller cracks were also observed at the northwest and northeast corners of the residence. Cracks were observed in the concrete slabs of the front porch and the carport. Mr. Brown indicated that the bare spot of grass near the southwest corner of the residence is the location of the depression he filled with soil. This spot is marked as "Former Depression" in the site plan map.

Copies of color photographs of the structure are attached.

REGIONAL CONDITIONS

Geology

Based on map consultations and personal inspection, the surficial geologic material at the study site is the Hawthorn Group of geological formations overlain by a cover of very young unconsolidated sands and sandy clays. These consist of fine to medium grained, unconsolidated quartz sand, silt, and clay in varying

proportions and thickness. Shrink/swell clays of significant size, continuity and nearness to the surface are a particularly troublesome characteristic of the Hawthorn where they occur in significant thickness and lateral continuity. Concrete slabs and foundations can be severely damaged where such a geologic condition occurs.

The Suwannee and Ocala Limestones underlie the Hawthorn. These limestone units have experienced significant dissolution and the creation of an intricate cavernous system. Problems in the development of sinkholes are related to the size and nearness to the surface of the limestone and these underground cavities. The upper surface of the limestone is highly irregular.

Topography

The subject property is located in Section 26 of Township 4 South, Range 16 East. Elevation information available on the U.S. Geological Survey Columbia 7.5 minute Quadrangle 1:24,000 topographic map is shown in the Appendix. The immediate neighborhood of the Brown residence ranges from approximately 75 to 95 feet NGVD. The Brown residence is situated at approximately 92 feet NGVD.

Hydrology

Based on the U.S. Geological Survey Potentiometric Map of the Floridan Aquifer, the expected water table level in the area of the Brown property is approximately 42 feet above mean sea level. The surficial water table was not encountered in the hand auger borings and was not discerned in the standard penetration test borings.

Soils

The U.S. Department of Agriculture Soil Conservation Service (SCS) Web Soil Survey describes the soil underlying the Brown property as Bonneau fine sand (2-5% slopes). This soil is nearly level to gently sloping and moderately well drained. Typically, the upper 7 inches of the soil profile consists of fine sand and, below that, sandy clay loam to a depth of 80 inches. The water table sits between 42 and 60 inches below land surface. The available water capacity is low.

FIELD TEST METHODS: GEOLOGICAL AND GEOTECHNICAL

Hand Auger Borings

Four hand auger borings (HA-1 through HA-4) were conducted at sites shown on the location map. The borings were performed in general accordance with ASTM standard D1452-80 (2000) entitled "Standard Practice for Soil Investigation and Sampling by Auger Borings." The borings were conducted by manually rotating the auger into the ground to termination depths of approximately 5 feet to provide a continuous profile of the near-surface materials. Increments of approximately 0.5 feet are extracted for description and, if necessary, retention for later analyses. Results of the hand auger borings are shown in the Hand Auger Investigation Profiles.

Laboratory Analyses

Representative samples of material collected at the site of investigation were stored in sealed bags and analyzed. The laboratory procedures followed include a sieve analysis (ASTM standard D1140) to determine the percentage of fine-grained material (-No. 200 mesh sieve screen), determination of the natural moisture percentage of the sample (ASTM standard D2216), and Atterberg limits (ASTM standard D4318) to determine plasticity indexes. Results are attached.

Static Cone Penetration Tests

Static hand cone penetration tests (CPT) were completed at fifteen locations around the perimeter of the dwelling as shown on the Site Location Map. The measurements were acquired with a Durham Geo Model S212 double rod portable static cone penetrometer. Data were collected by pushing a steel rod with a cone-shaped tip into the ground and measuring the deflection of a proving ring as the probe was advanced. Results are shown in the attached Cone Penetrometer Results Graphs.

Standard Penetration Tests

The standard penetration test (SPT) is a widely accepted method of testing subsurface materials. It is conducted in accordance with ASTM standard D1586-99 titled "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils."

With SPT borings, a rotary drilling rig is used to advance the borehole to the desired test depth. A 2 feet long, 2 inch diameter split-barrel sampler attached to the end of a string of drilling rods is then driven 18 inches into the ground by successive blows of a 140 pound hammer freely dropping 30 inches. The sum of blows required for penetration of the second and third 6 inch increments of penetration constitutes the "N" value.

Following an individual test, the sampler is extracted to allow visual classification and retention, if desired, of the core sample. Tests are usually performed at 5 feet depth intervals. N-values are generally correlated with material properties of stability to allow a conservative estimate of the behavior of subsurface materials.

Three SPT borings were conducted in this investigation at the sites shown on the location map. Central Florida Geotech, Inc. of Land O' Lakes, Florida, conducted the borings, under the supervision of a geologist from Geohazards, Inc. Results are shown in the attached logs.

FIELD TEST METHODS: STRUCTURAL ANALYSES

Structural Assessment

A visual assessment of the structural condition of the Brown residence was completed at the time of the initial investigation and a subsequent evaluation of the structural damage was completed by a structural engineer. The evaluation was designed to address possible sources of observed distress.

Test Pit Excavation

Two test pits were excavated to determine the approximate design of the footing or foundation of the house and additions and the depth of emplacement. The first test pit (TP-1) was performed near the center of the east wall of the house. The second test pit (TP-2) was performed near the center of the west wall of the house (see marked locations on the site plan map).

Floor Elevation Survey

Differential elevation of a structure may be defined by the difference in elevation between any two points on the interior floor of the structure. The American Concrete Institute (ACI) lists a tolerance of 0.5 inches over a 10 feet horizontal distance for conventional slabs. Maximum overall tolerances for tops of slabs are placed at plus or minus 0.75 inches (1.5 inches total differential). The floor elevation survey was conducted with an R & A Products "Pro-Level" manometer.

FIELD TEST METHODS: GEOPHYSICAL SURVEYS

Ground Penetrating Radar

Ground penetrating radar (GPR) is a geophysical procedure employed to detect and identify subsurface features and conditions characterized by a contrast in dielectric properties. This technique involves the transmission, from a receiver-transmitter antenna system that is pulled along the ground surface, of microwave radiation into the ground. Subsurface contrasts in the dielectric properties of varying materials present a surface from which reflections are generated. Accordingly, contacts between rock types, physical features such as cavities or disrupted sedimentary layers, and/or man-made objects such as metallic barrels or pipes cause reflections that are recorded at the surface.

The intensity of the reflected signal is affected by the contrast in dielectric properties of materials, the electromagnetic conductivity of the medium through which the waves traverse, and the frequency of the signal. Digital signals are recorded and stored in a recorder for on-site visual color display or subsequent

transferal to a computer for careful analysis and printing. The radar survey was conducted in general accordance with ASTM Standard D6432-99.

A Geophysical Survey Systems, Inc., (GSSI) SIR System-3000 radar was used. This is a portable, digital radar signal recorder. A 200-megahertz transceiver antenna was not used in this survey due to poor signal penetration caused by the presence of near-surface clayey materials. A 400-megahertz transceiver antenna was used with a two-way travel time range of 175 nanoseconds. Data collection was continuous. Penetration depths for GPR signals are a function of lithology type (greater signal attenuation in clayey materials or brackish water) and frequency (greater signal attenuation in higher frequency antenna systems). Actual depths of penetration vary from site to site. Based on the near-surface materials, the depth capability at this site was approximately 8-10 feet, but actual penetration is variable.

A total of 29 GPR traverses were conducted at the site. As shown on the GPR location map, the configuration and distribution of the traverses were designed to provide representative coverage of the site of investigation.

Electrical Resistivity

Electrical resistivity (ER) is a geophysical procedure to investigate the presence of geological conditions or features characterized by contrasts in electrical resistivity. The measurements were conducted using the Wenner electrode configuration, and were performed in general accordance with the appropriate portions of ASTM standards G57-95a entitled "Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method," and standard D6431-99 "Standard Guide for Using Direct Current Resistivity Method for Subsurface Investigations."

Electrical resistivity measurements involve the passing of an electric current underground and measuring its resistance to flow. Different earth materials (e.g. clay, sand, limestone) and subsurface cavities will resist the flow of electrical current differently. Substantially greater contrasts in the degree of resistance (anomalies) are used to identify and locate boundaries among different materials as well as the presence of cavities.

The types of ER measurements used in this investigation were Soundings and Lee-directional. Sounding measurements reveal two-dimensional detail below

the surface at progressively greater depths. Lee-directional measurements determine the direction of higher or lower resistivity along a traverse line. In the field, electrodes are placed in the ground at equal distances from one another. After a measurement, this distance is increased in an orderly fashion to sequentially allow a greater depth of penetration.

Measurements of ER were made with an L and R Instruments MiniRes Earth Resistivity Meter. Four current/potential electrodes and one Lee electrode are employed. Depending on the surface space available for deployment of electrodes, a maximum depth capability of 100 feet can be achieved.

ER traverse lines were oriented to provide representative coverage of the site of investigation (see ER location map). Six traverses were measured, configured as shown on the location map. Maximum depth of penetration ranged from 60 feet to 70 feet.

RESULTS

Hand Auger Borings

1. The locations of the hand auger borings are shown on the site plan map. The results of the auger borings are shown on the Hand Auger Investigation profiles in the appendix. All four borings were sampled and terminated at approximately five feet depth.
2. Borings HA-1 and HA-2 penetrated 3 to 4 feet of variably-colored fine sand before encountering clayey sand.
3. Boring HA-3 penetrated 2.5 feet of variably-colored fine sand before encountering sandy fat clay.
4. Boring HA-4, advanced in the filled depression, penetrated 3 feet of variably-colored fine sand with decayed wood fragments before encountering a mixture of fine sand and sandy fat clay.

Laboratory Results

1. The results of the laboratory analyses are shown in the attached Summary of Laboratory Results. Samples HA-1-1, HA-3-1, and HA-4-1 were selected for analyses.
2. Sample HA-1-1, collected at approximately 5 feet depth, was classified as clayey sand (SC), with natural moisture of 15.7% and a –No. 200 Mesh grain size percentage of 33.8%.
3. Sample HA-3-1, collected at approximately 5 feet depth, was classified as sandy fat clay (CH), with natural moisture of 28.7%, a –No. 200 Mesh grain size percentage of 64.5%, and a plasticity index of 49.
4. Sample HA-4-1 was collected at approximately 5 feet depth. The clay portion of the sample was classified as sandy fat clay (CH), with natural moisture of 32.3%, a –No. 200 Mesh grain size percentage of 68.1%, and a plasticity index of 47.
5. Materials with plasticity indexes greater than 35 are considered to have high plasticity and large potential for unstable behavior (samples HA-3-1 and HA-4-1).

Static Cone Penetrometer Tests

1. Graphical depictions of the hand cone penetrometer results are attached. The results are interpreted as indicative of very loose to dense materials (very low to high bearing strength) among the 15 penetrometer stations.

Test Pit Excavations

1. Test Pit one (TP-1) was excavated near the center of the east side of the house (photograph #11). TP-1 revealed a foundation embedded approximately 18 inches below the ground surface.
2. Test Pit two (TP-2) was excavated near the center of the west side of the house (photograph #12). TP-2 revealed a foundation embedded approximately 18.5 inches below the ground surface.

3. Current standard construction practices for this area call for a minimum depth of embedment of 12 inches.

Ground Penetrating Radar

1. Ground penetrating radar (GPR) signals at the Brown residence were interpreted as generally irregularly-layered to horizontal reflectors extending to the depth of penetration. Signal attenuation was experienced below approximately 4-5 feet depth, likely due to the presence of near-surface clay.
2. Radar signals interpreted as anomalous were recorded on 4 of the 29 traverse routes. The locations of these anomalies are shown on the GPR location map with the GPR anomaly symbol.
3. GPR signals interpreted as indicative of disturbed sediments or dipping reflectors were detected in the upper 4-6 feet depth below traverse #s 6, 8, 20 and 27.

Electrical Resistivity

1. In general, near-surface resistivity values and sounding patterns varied among the traverses. Sounding profiles are included in the appendix.
2. The configuration of the sounding values and patterns are interpreted as indicative of sands and clayey materials, approximately 15 to 50 feet thick, overlying limestone.
3. Lee-directional measurements (not plotted) yielded disparities on two of the six traverses. The locations of the Lee-directional disparities are shown in yellow on the ER location map. The directional disparities detected were not corroborated with sounding anomalies and are likely related to the presence of buried utilities or lateral changes in soil composition and moisture.

Floor Elevation Survey

The floor elevation survey is attached. The lowest elevations of the living area occurred along the western wall to the south of the sliding glass door to the screened porch. The elevation difference between the highest and lowest points of the living area is 1.1 inches over a span of 16.5 feet. This amount of slope exceeds normal construction tolerance limits.

Separate floor elevation surveys were completed for the utility room, carport, and front porch. The lowest elevation of the utility room occurred on the southwest corner. The lowest elevations of the carport occurred on the south side while the lowest elevations of the front porch occurred along the east side. The utility room exhibited a total elevation difference of approximately 0.25 inches, the carport exhibited a total elevation difference of approximately 2.9 inches, and the front porch exhibited a total elevation difference of approximately 1.3 inches. Both the carport and the front porch were constructed with a slope to promote proper drainage.

Structural Evaluation-Site Observations and Information

For purposes of orientation in this section the front door is assumed to be on the east side.

The current homeowner purchased the house, built in 1971, in 1972. Exterior walls of the single-story structure are of brick construction, supported on a stemwall foundation. According to the homeowner, distress, in the form of a crack in the wall at the southwest corner of the utility room, was first noticed in March of 2007.

A separation of up to 1/16" is visible in the brick mortar joint near the southwest corner of the utility room. A crack of up to 1/16" in width is visible in the wall near the west top corner of the door in the south wall of the kitchen. A hairline separation is visible in the tile joint in the sill of the hall bathroom window.

A separation of up to 1/8" is visible in the brick mortar joint at the southwest corner of the utility room. A hairline separation is visible in the soffit at the southwest corner of the house. A hairline separation is visible in the brick mortar joint near the south lower corner of the north window in the west wall. A

separation of up to 1/16" is visible in the brick mortar joint at the northwest corner of the house. A crack of up to 1/16" in width is visible through the brick below the east window in the north wall. A hairline crack is visible in the brick mortar joint north of the front door. A crack of up to 1/8" in width is visible at the southeast corner of the front porch slab. A crack of up to 1/16" in width is visible in the brick south of the utility room door. Cracks of up to 1/16" in width are visible in the carport slab.

Structural Evaluation-Findings and Recommendations

- No evidence of significant loss of structural integrity is noted at this time.
- Evidence of structural distress is noted in the form of cracking and locally excessive variations in floor elevation.
- The observed distress is consistent with distress caused by differential movements. Such movements may be attributed to the potential sinkhole activity and the presence of near-surface expansive clays identified in our investigation.
- Cosmetic repairs should be started no sooner than sixty days after completion of the recommended foundation remediation program.

Standard Penetration Tests

1. Boring B-1 was located 2.5 feet north and 10 feet west of the southwest corner of the utility room (see site plan) within a GPR anomaly, near the filled surface depression, and near evidence of structural distress. Boring B-1 penetrated approximately 40 feet of sands and clayey materials, overlying limestone. A layer of sandy clay was encountered from 43.5 to 48.5 feet depth, before again encountering limestone. The boring was terminated in limestone at approximately 53.5 feet depth.
2. N-values (blows per foot) for boring B-1 ranged from N = 9 to N = 26 in the upper 10 feet depth. Refusal conditions were recorded in limestone at the 50 and 55 feet depth sample intervals. A 100% loss of drilling fluid circulation was experienced at 40 feet depth, without recovery.
3. Boring B-2 was located 23 feet south and 12.5 feet east of the northeast corner of the residence (see site plan) near GPR anomalies. The boring

encountered sands and clayey materials, overlying limestone at 46 feet depth. The boring was terminated in limestone at approximately 53.5 feet depth.

4. N-values for boring B-2 ranged from $N = 16$ to $N = 34$ in the upper 10 feet depth. An N-value of $N = 9$ was recorded in clay at the 45 feet depth sample interval above refusal conditions in limestone at the 50 and 55 feet depth sample intervals. A 100% loss of drilling fluid circulation was experienced at 48.5 feet depth, without recovery.
5. Boring B-3 was located 14 feet north and 5.5 feet west of the northeast corner of the residence (see site plan) near a GPR anomaly. Boring B-3 penetrated a variable sequence of sands and clayey materials overlying limestone at 58.5 feet depth. The boring was terminated in limestone at approximately 59 feet depth.
6. N-values for boring B-3 ranged from $N = 16$ to $N = 24$ in the upper 10 feet depth. Blow counts decreased from $N = 24$ at 8 feet depth to $N = 5$ at 30 feet depth. A 100% loss of drilling fluid circulation was experienced at 20 feet depth, without recovery. Significant weight-of-hammer conditions were experienced at the 40, 45 and 55 feet depth sample intervals. A refusal condition was recorded in limestone at approximately 59 feet depth.

CONCLUSIONS

The Brown residence is located at 162 SW Brava Way, Lake City, Florida. The site includes a single story brick-masonry home built in 1971. In January 2007, the homeowner filled a depression located near the southwest corner of the utility room which he stated was approximately 2.5 feet in diameter and approximately 3 feet deep. In March and April 2007, the homeowners observed drywall cracks in the interior of the residence and separation cracks between the exterior bricks at the southwest, northwest, and northeast corners of the residence.

The four hand auger borings penetrated 2.5 to 4 feet of sand overlying clayey materials. HA-4, conducted in the surface depression, encountered decayed wood fragments and clay. Charred wood was also encountered in HA-2. No organic materials were encountered. Laboratory analyses of the clayey materials found in the filled depression (HA-4) and near the southeast corner (HA-3) of the carport indicated the presence of highly plastic clays with a high potential for

unstable behavior. Cone penetrometer tests indicate that the near-surface materials range from very low to high bearing strength.

Electrical resistivity results indicate that near-surface sands and clayey materials overlie limestone at depths ranging from approximately 15 to 50 feet. Radar signals interpreted as anomalous were recorded on 4 of the 29 traverse routes.

The enclosed floor elevation survey documents a total interior elevation difference of 1.1 inches. Test pit investigations demonstrated the foundation to be embedded approximately 18 to 18.5 inches, which is consistent with standard building practices for this area. The structural evaluation yielded no evidence of significant loss of structural integrity.

The upper limestone surface was penetrated at depths ranging from approximately 40 to 58 feet in the three SPT borings. This differential depth to limestone is indicative of a possible paleosink environment underlying the Brown property. Weight-of-rod conditions were experienced at several depth intervals above the upper limestone surface in boring B-3. These conditions are interpreted as evidence of raveling. Raveling is the lateral or vertical migration of sediments to deeper or more distant sites in limestone; it is a mechanism for sinkhole formation. The detected raveling is also interpreted as evidence that the paleosink may be in a state of reactivation. Complete loss of drilling fluid circulation was experienced in all three borings.

Based on the results of this investigation, Geohazards, Inc. is of the opinion that evidence of sinkhole activity (paleosink, raveling, loss of circulation, surface depression) was detected at the Brown property and sinkhole activity is identified as a contributing cause of the observed distress. The distress may also be attributed to differential movements associated with the presence of highly plastic near-surface clayey materials, and to natural aging of the structure.

CERTIFICATION

Compliance with Florida Statutes Section 627.707


In compliance with the above stated Florida Statute, this report was prepared under the direction and supervision of a Registered Professional Geologist, licensed in the State of Florida, whose field of expertise is geology and sinkhole evaluation, and with the participation of a Professional Engineer, licensed in the State of Florida. The geologist(s) and engineer(s) signature(s) and seal(s) with Florida Registration Number appear on the report.

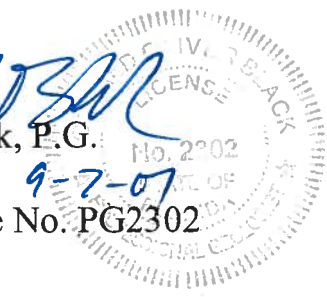
It is our professional opinion, based on the information generated by this investigation, and by testing conducted in compliance with generally accepted scientific practices and with Chapter 627.7072, that evidence of sinkhole activity is present at the site of investigation. The analyses conducted were of sufficient scope to identify sinkhole activity as a possible cause of damage within a reasonable professional probability.

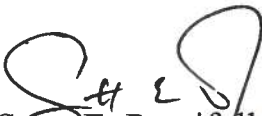
This Claim Investigation Report is certified to State Farm Florida and to Archie and Audrey Brown, the property owners.

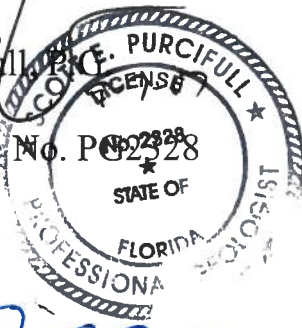
LIMITATIONS


While due care has been exercised in the performance of these measurements and their interpretation, Geohazards, Inc. can make no representations, warranties, or guarantees with respect to latent or concealed conditions which may exist that may be beyond the limits of detection with the methodologies used. This report is prepared for the exclusive use of our clients and their assigns. Any use by other parties for any purposes is not authorized.


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Scott E. Purcifull
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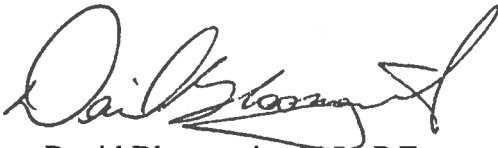

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9.7.07

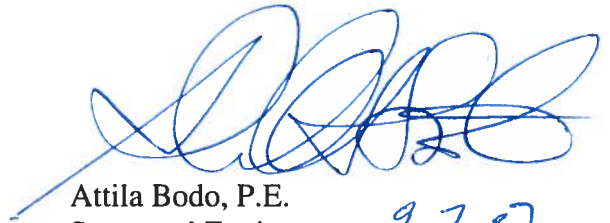
The above plan does not include any remedial repair of the dwelling interior or exterior, concrete slabs, nor vegetation removal/replacement.

This grouting and underpinning program estimate and pile and insertion locations should only be construed as a suggested plan of action. It is not intended, nor should it be used as the final mitigation design. The suggested plan provided by Geohazards, Inc. should only be used by the contractor as a basis for bidding.

The successful awardee must develop a final design for remediation based on the Geohazards, Inc. preliminary plan. Site conditions must be taken into consideration (e.g., septic tanks, drain fields, underground sprinkler pipes, utilities, etc.) when locating insertion points. We recommend that the final plan and the associated specifications be reviewed and approved prior to implementation.



David Bloomquist, PhD, P.E.
Geotechnical Engineer
Florida License Number 37235
September 6, 2007


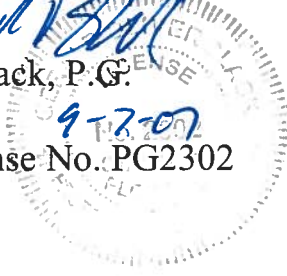


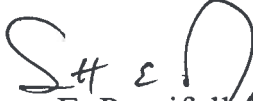
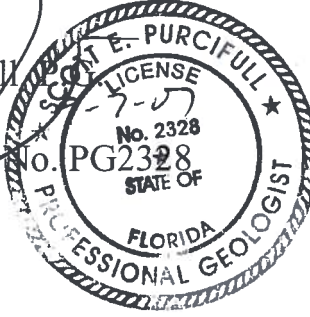
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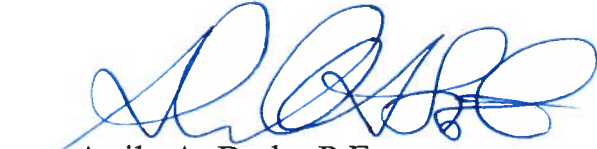
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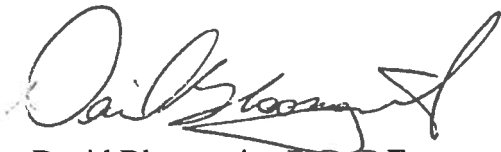

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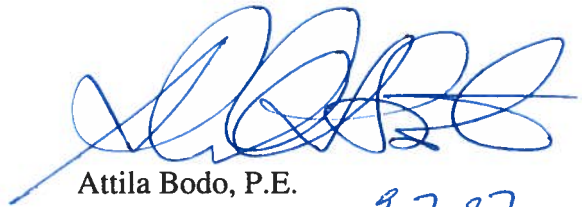
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tightened against the existing foundation and secured into place. After final elevations are checked, the underpins and bracket assemblies should be bolted or welded together, the hydraulic lift unit removed, and the access area backfilled.

6.0 MONITORING BY THE STRUCTURAL ENGINEER OR HIS OR HER REPRESENTATIVE

General

The Structural Engineer (or his or her representative) will monitor the underpinning operations to document compliance with the specifications outlined above and the duties discussed below. All underpinning installations and operations shall be performed in the presence of the Structural Engineer or Engineer's representative.

Compliance

The Structural Engineer (or his or her representative) may stop the underpinning operation at any time if, in his or her judgment, the operation does not comply with these specifications or the work is unsuitable.

Acceptance Criteria

The Structural Engineer (or his or her representative) will approve the underpinning operation after all of the piers have been installed in accordance with these specifications.

Daily Records

The Structural Engineer (or his or her representative) will record all measurements during the process. This includes, but is not limited to: lengths of piles, hydraulic pressures in rams, movement of structure, sequence of lifts, crack propagation, etc. Records of each day's underpinning operation will be maintained for the benefit of the insurance company and Contractor.

Ground/House Movement

During underpinning, the Contractor and Structural Engineer (or his or her representative) shall observe any vertical movement of the ground surface. If a downward movement of the ground surface is observed, the underpinning operation shall cease and observations shall continue for 30 minutes. If any distress in the exterior or interior of the structure is observed while lifting, the procedure shall cease and the underpins secured.

Existing Utilities/Structures

The Contractor shall exercise care when underpinning beneath and adjacent to any underground utilities. The Contractor is responsible for ensuring the underpinning operation does not damage existing utilities, wells, septic tanks, etc.



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representative shall assume responsibility for verifying the quantity of grout pumped, intervals of grouting and deciding if additional or less grout is necessary.

Compliance

The Geotechnical Engineer or his or her representative may stop the grouting operation at any time if, in his or her judgment, the operation does not comply with these specifications or the work is unsuitable.

Daily Records

The Geotechnical Engineer or his or her representative will make all measurements of ground heave, settlement, installed pipe lengths and grout quantities pumped. Records of each day's grouting operation will be maintained for the benefit of the insurance company and Contractor. The grout and pipe quantities recorded by the Geotechnical Engineer's representative shall be considered the final amounts for pay purposes.

Ground/House Movement

During grouting, the Contractor and Geotechnical Engineer or his or her representative shall observe any vertical movement of the ground and house. A survey transit or level must be used to monitor displacements. Visual observation is not permissible. If a downward movement of the ground surface is observed, the grouting operation shall cease and observations shall continue for 30 minutes. Likewise if there is any upward movement of the house, grouting should be temporarily suspended. If the ground does not return to its original grade, pumping shall be resumed at a lower rate of injection. If upward movement is observed, the grouting operation shall cease.

Existing Utilities/Structures

The Contractor shall exercise care when grouting beneath and adjacent to any underground utilities. The Contractor is responsible for ensuring the grouting operation does not damage existing utilities, wells, septic tanks, etc.



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September 6, 2007

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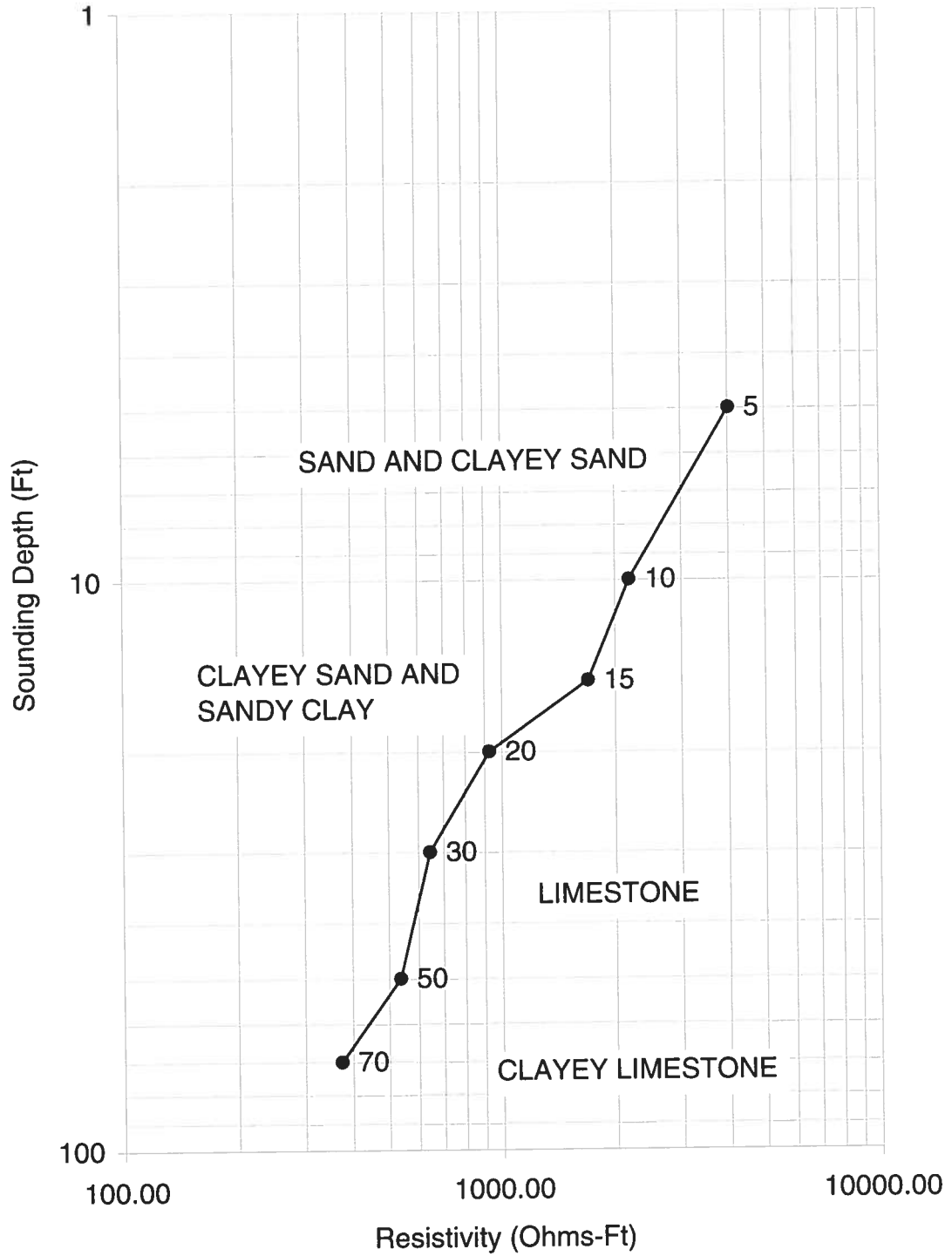
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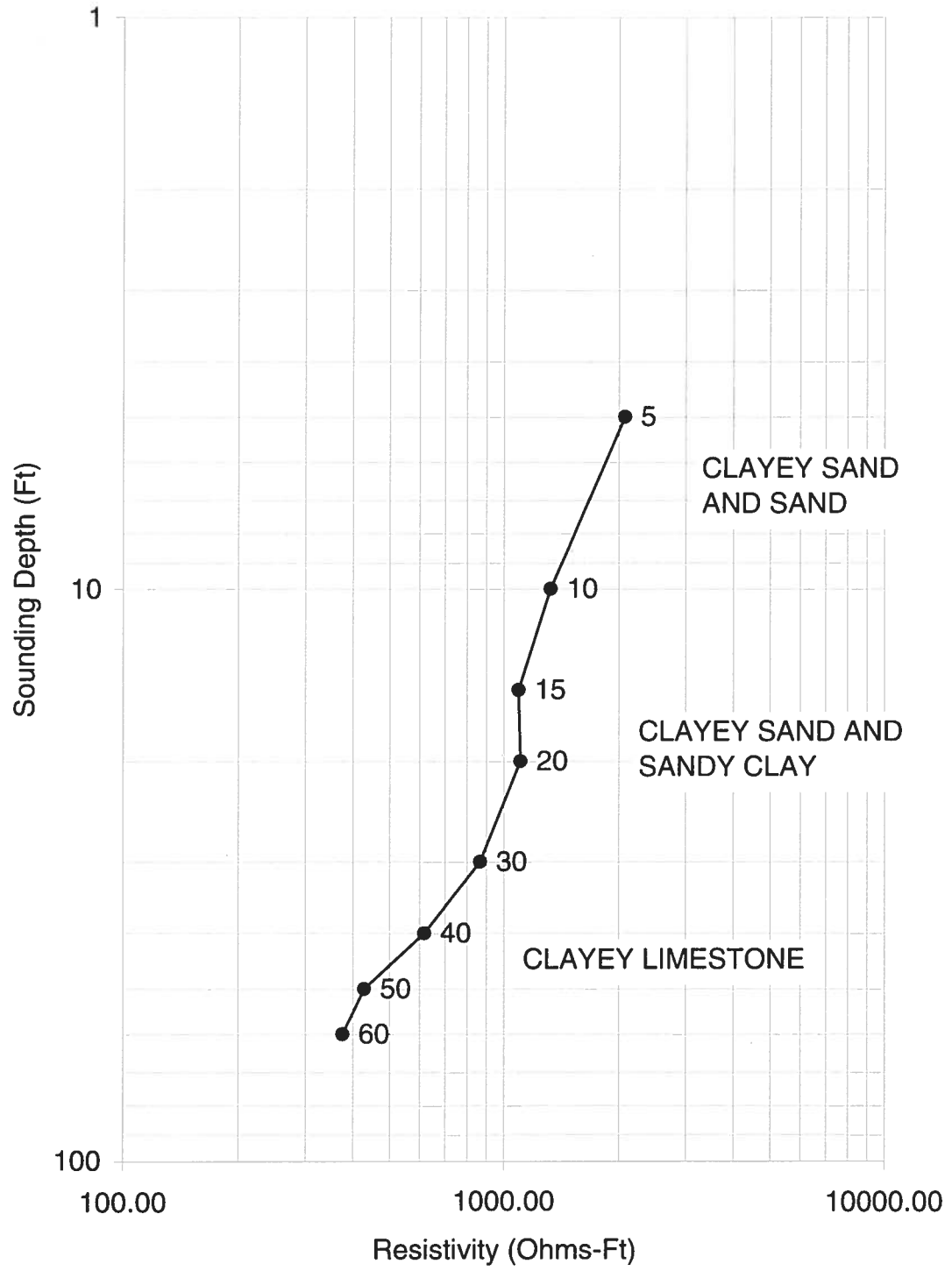
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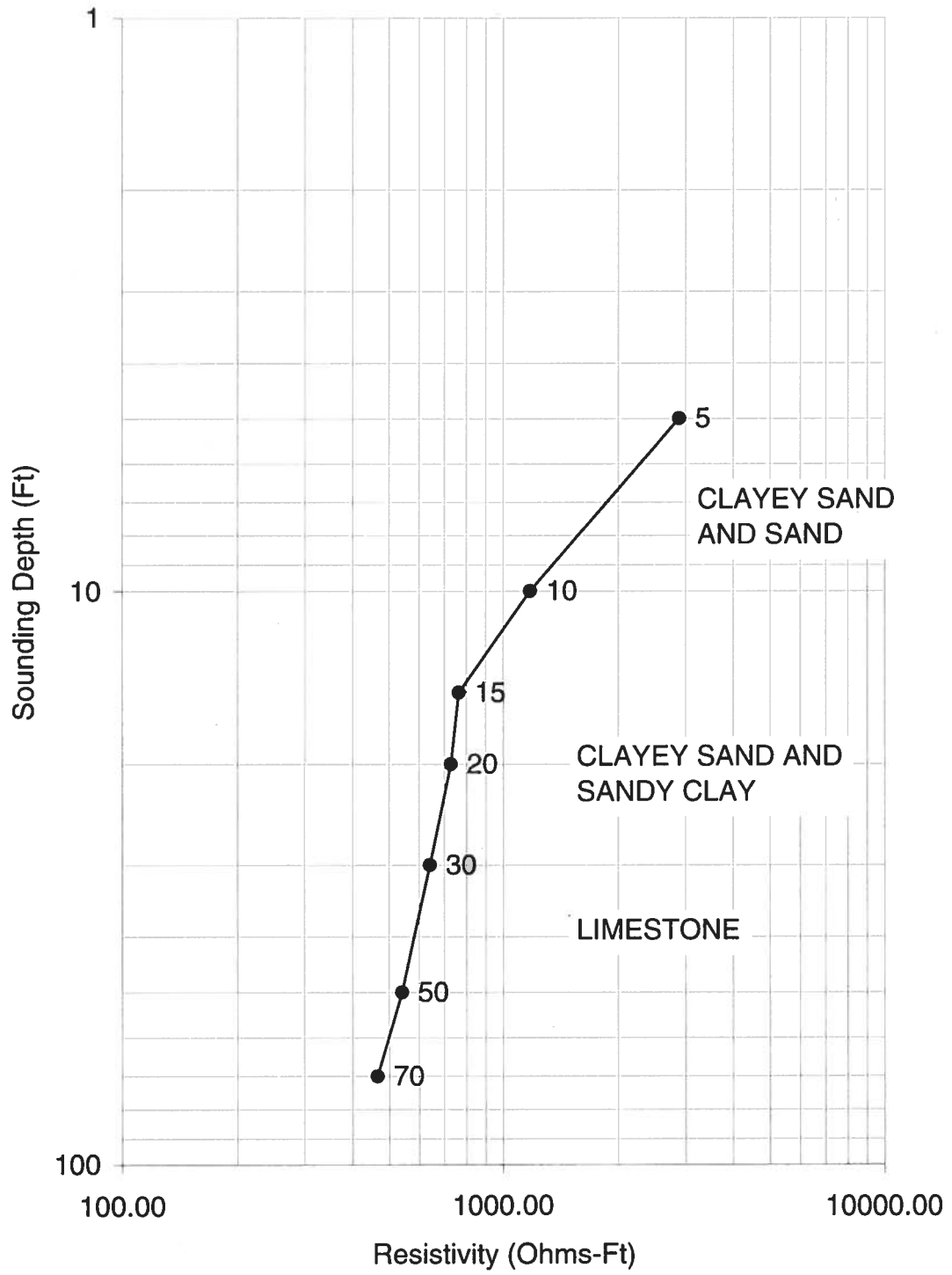
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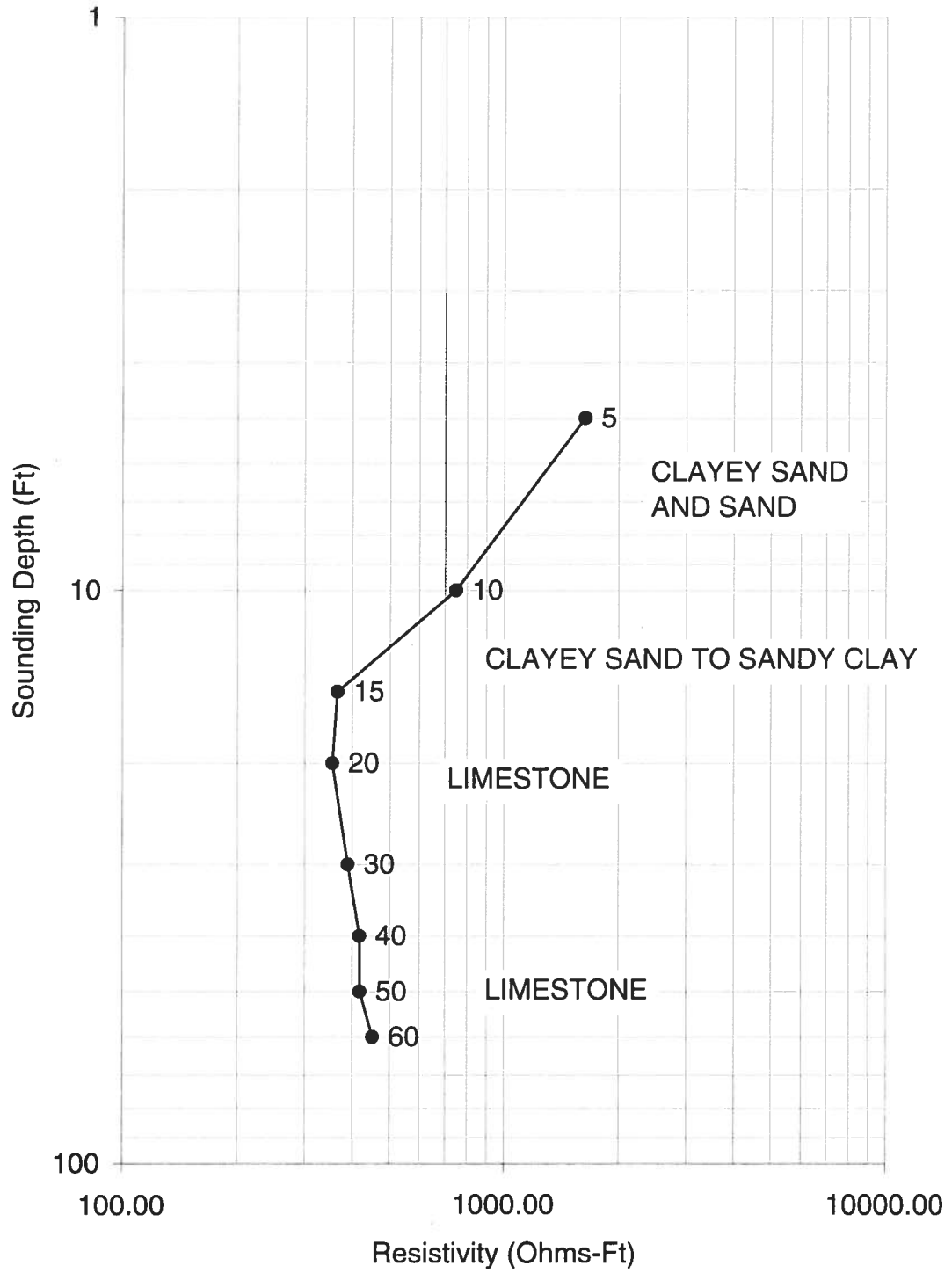
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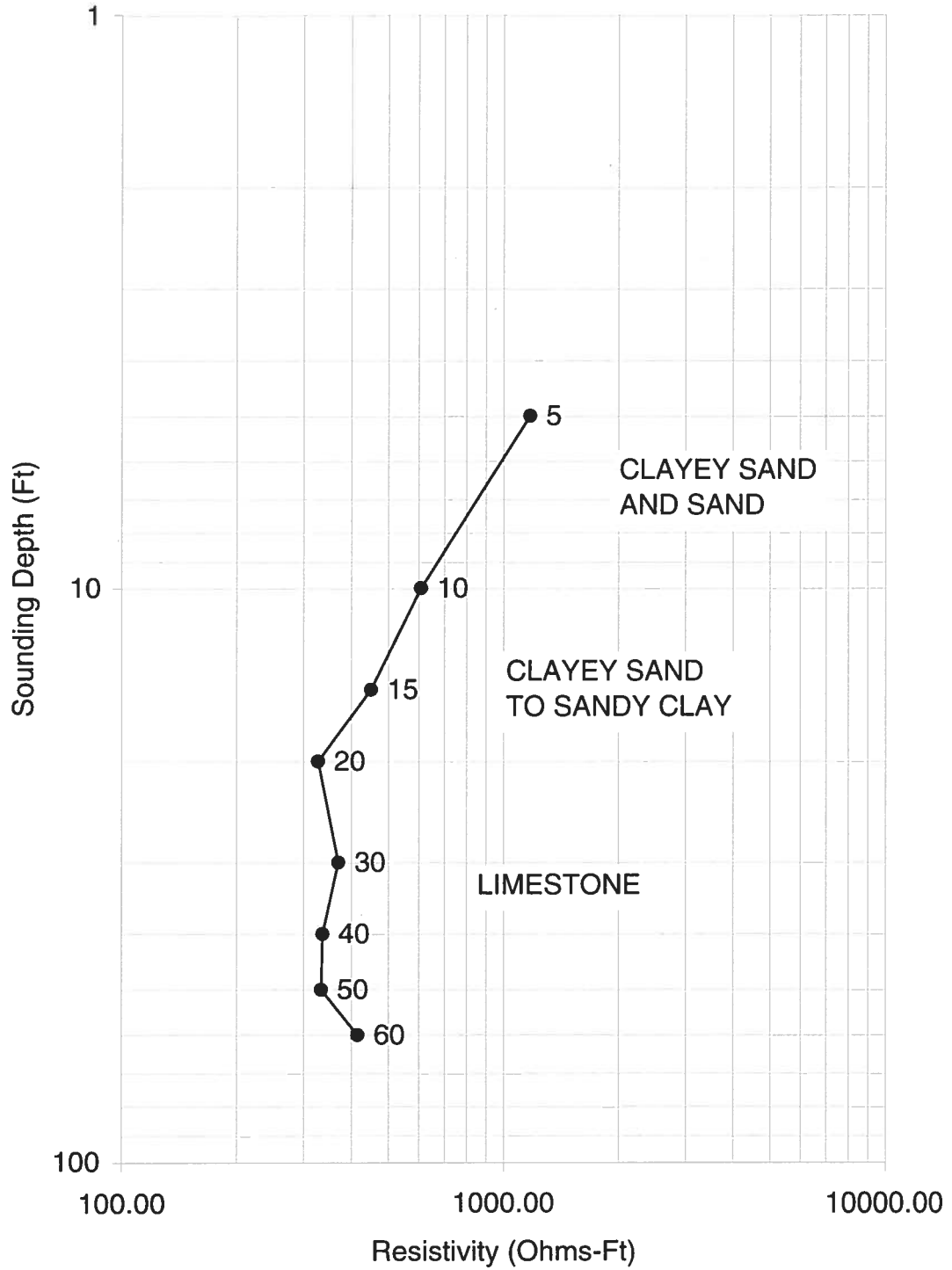
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Station Number: 3



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Array Orientation:N-S
Station Number: 4



GEOHAZARDS INC.
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GEOHAZARDS INC.
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