



# Columbia County Property Appraiser

DB Last Updated: 5/6/2010

2009 Tax Roll Year

Tax Collector

Tax Estimator

Property Card

Parcel List Generator

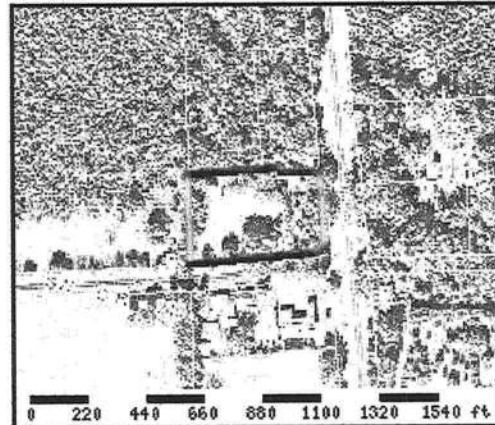
Print

Parcel: 10-5S-17-09179-000

&lt;&lt; Next Lower Parcel | Next Higher Parcel &gt;&gt;

Search Result: 1 of 1

<b>Owner's Name</b>	NETTLES WILLIAM J & PENNIE M		
<b>Mailing Address</b>	1323 NE MYRTIS RD LAKE CITY, FL 32025		
<b>Site Address</b>	MYRTIS RD		
<b>Use Desc. (code)</b>	VACANT (000000)		
<b>Tax District</b>	3 (County)	<b>Neighborhood</b>	10517
<b>Land Area</b>	3.620 ACRES	<b>Market Area</b>	02
<b>Description</b>	NOT: This description is not to be used as the legal description for this parcel in any legal transaction. COMM INTERS S LINE OF SEC & W R/W US-411, RUN NLY ALONG R/W 1396.50 FT TO N R/W OF CR-240 FOR POB, RUN W ALONG CR-240 509 FT, N 336 FT, E 345 FT, S 15 FT, E 141 FT TO R/W OF US-411, S 302.50 FT TO POB. ORB 417-728, 804-676, 954-708.		



<b>Mkt Land Value</b>	cnt: (0)	\$24,206.00
<b>Ag Land Value</b>	cnt: (1)	\$0.00
<b>Building Value</b>	cnt: (0)	\$0.00
<b>XFOB Value</b>	cnt: (0)	\$0.00
<b>Total Appraised Value</b>		\$24,206.00
<b>Just Value</b>		\$24,206.00
<b>Class Value</b>		\$0.00
<b>Assessed Value</b>		\$24,206.00
<b>Exempt Value</b>		\$0.00
<b>Total Taxable Value</b>	Cnty: \$24,206 Other: \$24,206   Schl: \$24,206	

2010 Working Values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

[Show Working Values](#)
[Show Similar Sales within 1/2 mile](#)

Sale Date	OR Book/Page	OR Code	Vacant / Improved	Qualified Sale	Sale RCode	Sale Price
5/15/2002		WD	I	U	06	\$17,600.00
3/14/1995		WD	I	U	13	\$40,000.00

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
NONE						

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
NONE						

Lnd Code	Desc	Units	Adjustments	Eff Rate	Lnd Value

000000	VAC RES (MKT)	3.62 AC	1.00/1.00/0.79/1.00	\$6,018.23	\$21,786.00
Columbia County Property Appraiser				DB Last Updated: 5/6/2010	

1 of 1

**DISCLAIMER**

This information was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information 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 being finalized for ad valorem assessment purposes.

## COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

PHONE: (386) 758-1125 \* FAX: (386) 758-1365 \* Email: ron\_croft@columbiacountyfla.com

### Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 7/22/2010 DATE ISSUED: 7/23/2010

#### ENHANCED 9-1-1 ADDRESS:

147 SW COUNTY ROAD 240

LAKE CITY FL 32025

PROPERTY APPRAISER PARCEL NUMBER:

10-5S-17-09179-000

#### Remarks:

NETTLES SAUSAGE BEEF FACILITY

Address Issued By:

  
Columbia County 9-1-1 Addressing / GIS Department

**NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE**

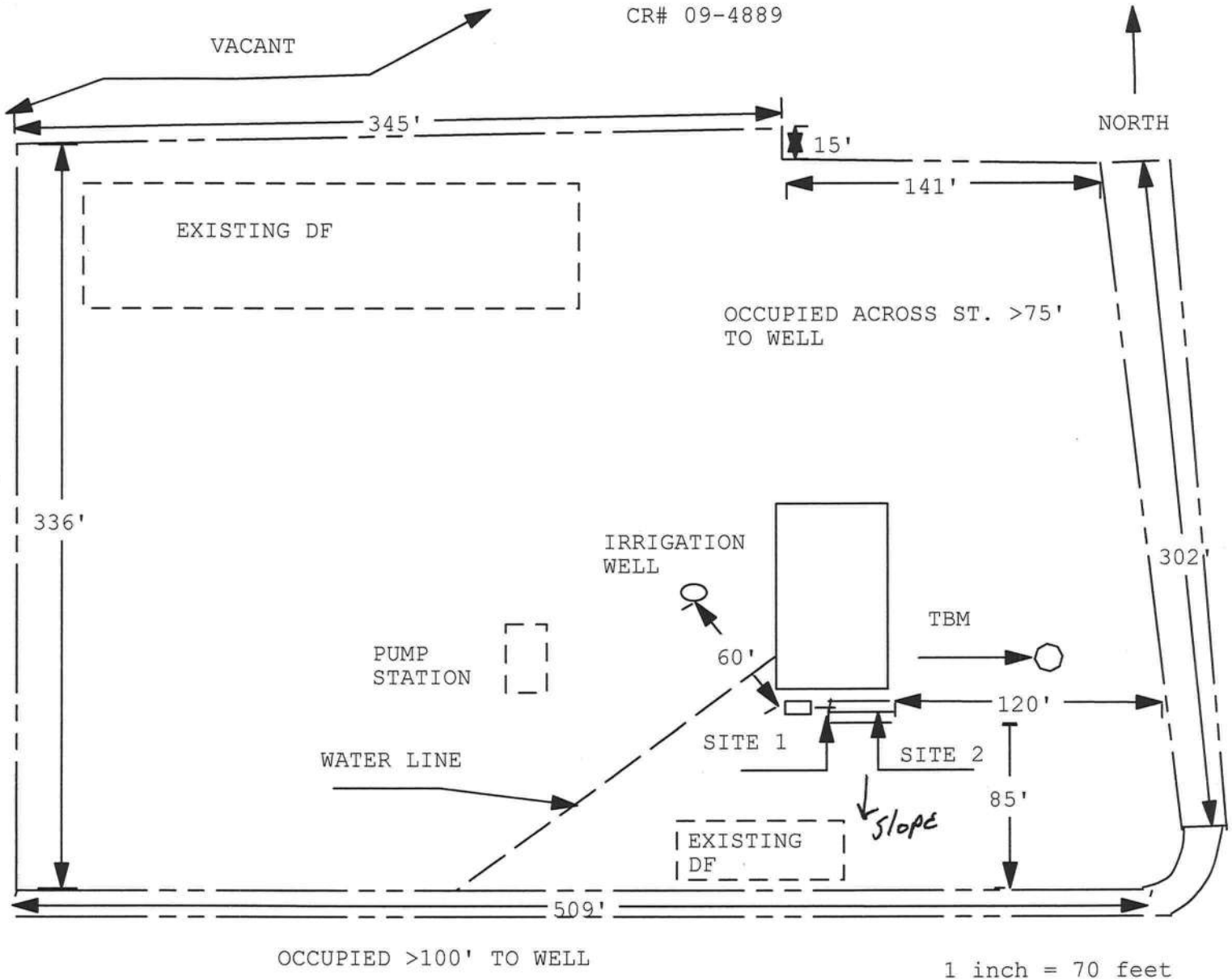
1779

RECEIVED



Application for Onsite Sewage Disposal System  
Construction Permit. Part II Site Plan  
Permit Application Number: 10-0263

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT



Site Plan Submitted By Paul R. Reed Date 5/3/10  
Plan Approved X Not Approved \_\_\_\_\_ Date \_\_\_\_\_  
By Sally Ford, EHD Director - Columbia CPHU  
Notes: 8-31-10

Charlie Crist  
Governor



Ana M. Viamonte Ros, M.D., M.P.H.  
State Surgeon General

July 13, 2010

Mr. William Nettles, Agent for:  
Nettles Sausage Company, Applicant  
7461 South U.S. Highway 441  
Lake City, FL 32025

Certified Mail: 7005 1820 0003 1872 3599

RE: Variance Request for an Onsite Sewage Treatment and Disposal System  
Variance Application #11860, County Health Department Reference #10-0263-N  
Parcel Number: 10-5S-17-09179-000  
7461 South U.S. Highway 441, Columbia County  
Variance from Section: 381.0065(4)(i), FS; 381.0065(3)(b), FS; 64E-6.001(4), FAC

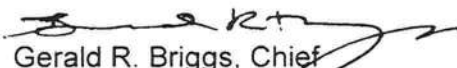
Dear Mr. Nettles:

The Variance Review and Advisory Committee for the Onsite Sewage Treatment and Disposal Program has recommended approval of your application for variance in the case of the above referenced property.

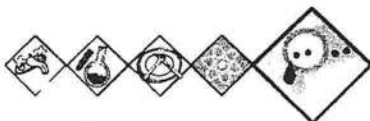
I concur with the advisory committee's recommendation but remind you this variance applies only to that section of the law or rules referenced above and in no way exempts compliance with other state and local regulations.

If you have any questions please call Ed Williams, Bureau of Onsite Sewage Programs, at (850) 245-4070.

Sincerely,

  
Gerald R. Briggs, Chief  
Bureau of Onsite Sewage Programs

Enclosure  
cc: Columbia County Health Department



Division of Environmental Health, Bureau of Onsite Sewage Programs  
4052 Bald Cypress Way, Bin #A08, Tallahassee, Florida 32399-1713



GTC Design Group, LLC  
176 NW Lake Jeffrey Rd  
Lake City, FL 32055  
(Phone) 386.719.9985  
(Fax) 386.719.8828  
cwilliams@gtcdesigngroup.com

September 22, 2010

Brian Kepner  
Land Development Regulations Administrator  
County Planner  
P.O. Box 1529  
Lake City, Florida 32056

**SUBJECT: Nettles Sausage, INC. (Beef Facility) - Variance  
(Parcel # 10-5S-17-09179-000)**

Mr. Kepner,

GTC has submitted a Variance request for Nettles Beef Facility in Columbia County. We have modified the site plan for this project to have the least possible impact on the adjacent properties. The location of the building referenced in Variance Application 0277 differs from the currently proposed location which has been illustrated and attached for your review.

If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

Chadwick Williams, PE 63144  
Project Engineer

# Beef Facility

## Site Plan

FOR:  
Nettles Sausage, INC.  
c/o William Nettles  
1323 NE Myrtis Road  
Lake City, FL 32025  
Phone: (386) 752-2510



GTC Design Group, LLC.  
Auth. # 9461  
Structural / Civil Engineers  
www.gtcdesigngroup.com

**Live Oak**  
P.O. Box 187  
130 West Howard Street  
Live Oak, FL 32064  
Phone: (386) 362-3678  
Fax: (386) 362-6133

**Lake City**  
176 NW Lake Jeffery Rd  
Lake City, FL 32055  
Phone: (386) 719-9985  
Fax: (386) 719-8828  
www.gtcdesigngroup.com

Chadwick W. Williams, PE 63144  
Auth. #: 9461

PROJECT LOCATION

### LEGEND

EXISTING	PROPOSED
CONCRETE MONUMENT FOUND	TELEPHONE POLE
IRON PIPE FOUND	TELEPHONE MANHOLE
ELECTRIC METER	ELECTRIC MANHOLE
ELECTRIC MANHOLE	ELECTRIC METER
LIGHT STANDARD	LIGHT
POWER POLE	STANDARD POWER POLE
SHARED POWER POLE W/ TRANSFORMER	POWER POLE SHARED
SHARED POWER POLE	POWER POLE SHARED W/ TRANSFORMER
TELEPHONE POLE	GAS METER
REDUCER	GAS VALVE
WATER METER	WATER METER
WATER VALVE	WATER VALVE
FIRE HYDRANT	WATER REDUCER
BACKFLOW PREVENTER	WATER TEE
SANITARY SEWER VALVE	WATER 90° BEND
SANITARY MANHOLE	SINGLE WATER SERVICE
STORMWATER MANHOLE	DOUBLE WATER SERVICE
FOOT STORMWATER MANHOLE	FIRE HYDRANT
GROUND CONTOUR	BACKFLOW PREVENTER
D.O.T. MARKER FOUND	SANITARY MANHOLE
GAS METER	SANITARY VALVE
GAS VALVE	SANITARY SINGLE SERVICE
SOIL BORING LOCATION	SANITARY DOUBLE SERVICE
SINGLE POST SIGN	GROUND CONTOUR
BENCH MARK	DITCH BLOCK
SECTION CORNER	STORMWATER MANHOLE
	FLOW ARROW
	HANDICAP PARKING
	MITERED END
	SIGN

### ABBREVIATIONS

PL	PROPERTY LINE	IP	IRON PIPE
CL	CENTER LINE	MH	MANHOLE
BL	BASE LINE	G	GAS
SAN	SANITARY SEWER	UC	UNDERGROUND CABLE
ST	STORM SEWER	OC	OVERHEAD CABLE
E	ELECTRIC	W	WATER LINE
OHE	OVERHEAD ELECTRIC	HDPE	HIGH-DENSITY POLYETHYLENE
UG	UNDERGROUND ELECTRIC	RCP	REINFORCED CONCRETE PIPE-ROUND
OHT	OVERHEAD TELEPHONE	RCPA	REINFORCED CONCRETE PIPE-ARC
UT	UNDERGROUND TELEPHONE	RCPE	REINFORCED CONCRETE PIPE-ELLIPTICAL
R	RADIUS	CMP	CORRUGATED METAL PIPE-ROUND
CO	CLEANOUT	CMPA	CORRUGATED METAL PIPE-ARC
BM	BENCH MARK	BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE
IE	INVERT ELEVATION	BCCSP	BITUMINOUS COATED CORRUGATED STEEL PIPE
LF	LINEAR FEET		

### SHEET INDEX

1	GENERAL NOTES AND DETAILS
2	EXISTING CONDITIONS
3	SITE PLAN
4	EROSION CONTROL DETAILS



LOCATION MAP

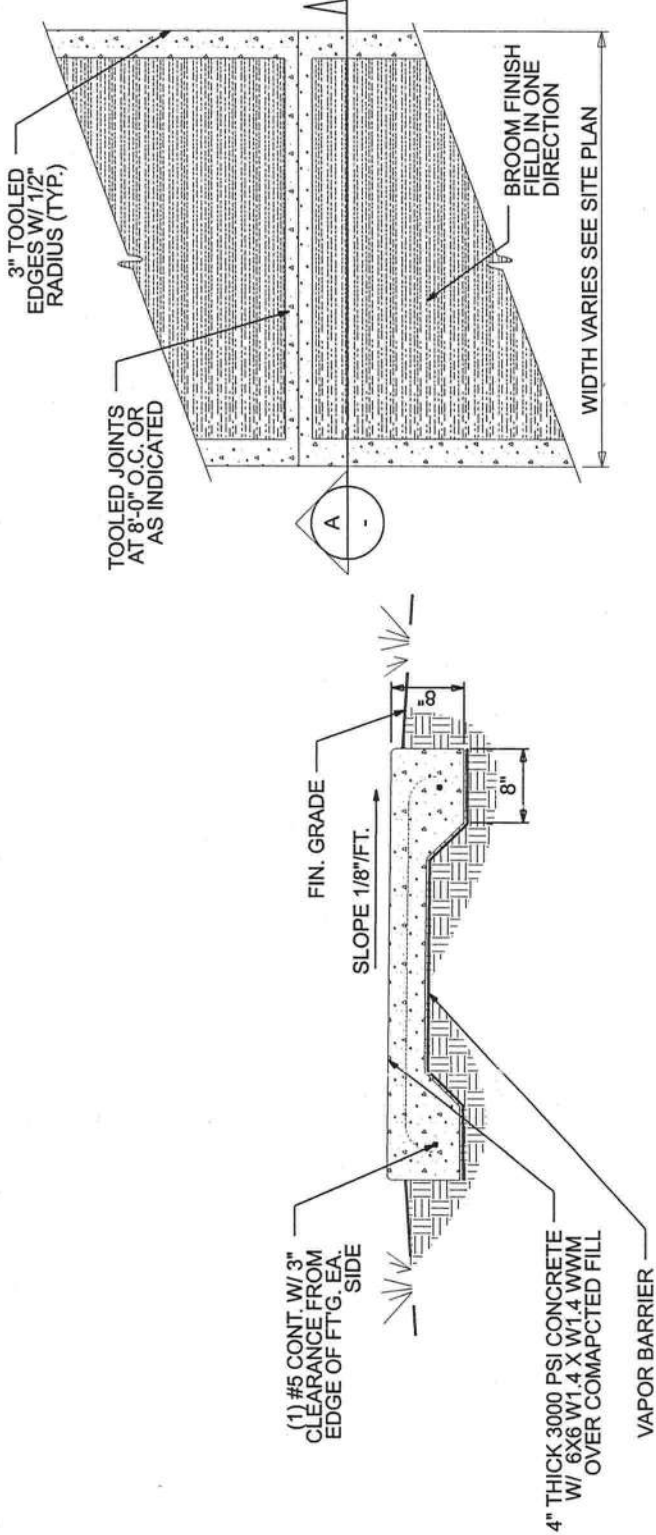
SECTION 10, TOWNSHIP 5 SOUTH, RANGE 17 EAST  
COLUMBIA COUNTY, FLORIDA

GENERAL NOTES

- The contractor shall verify all existing conditions and dimensions at the job site to insure that all new work will fit in the manner intended on the plans. Should any conditions exist that are contrary to those shown on the plans, the contractor shall notify the engineer and Columbia County, Florida (Department of Growth Management) of such differences immediately & prior to proceeding with the work.
- The contractor shall maintain the construction site at all times in a secure manner. All open trenches and excavated areas shall be protected from access by the general public.
- Boundary and topographical information shown was obtained from a survey performed by Donald F. Lee & Associates, Inc., P.S.M. Florida Certificate #7042.
- Any public land corner within the limits of construction is to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the contractor should notify the engineer.
- Contractor shall contact GTC Design Group, LLC and Department of Public Works for Columbia County to perform site inspections. No Certificate of Occupancy will be issued for any developments that do not receive the following inspections.
  - Erosion & sediment control inspection (prior to commencing construction)
  - Completion of clearing and grubbing (GTC visual site visit)(no test requirements)
  - Rough Grading and Drainage Structures and pipes in place (Density and LBR test results required)
  - Subgrade and limerock base of pavement sections complete (Density and LBR test results required)
  - Asphalt/Concrete in place (Thickness and Density tests required)
  - Site Compliance Inspection (once building foundation poured)
  - Final Site Compliance Inspection (once all improvements are finalized)
- Contractors shall adhere to the Erosion Control Plan. All erosion control measures shall be implemented prior to construction and be continued until construction is complete. Any failure of erosion measures must be corrected immediately per SWPPP.
- All disturbed areas not sodded shall be seeded with a mixture of long-term vegetation and quick-growing short-term vegetation for the following conditions. For the months from September through March, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of winter rye. For the months of April through August, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of millet.
- A pad of rubble riprap shall be placed at the bottom of all collection flumes and collection pipe outlets.
- Existing drainage structures within the construction limits shall be removed, unless otherwise specified in the plans.
- The contractor shall waste all excess earth on site as directed by the engineer.
- All site construction shall be in accordance with the Columbia County Land Development Regulations.
- Contractor shall provide an as-built survey meeting the requirements of Chapter 61G17 F.A.C. for the stormwater management systems. Include horizontal and vertical dimensional data so that improvements are located and delineated relative to the boundary. Provide sufficient detailed data to determine whether the improvements were constructed in accordance with the plans. Submit the survey to the engineer on reproducible 20 lb. vellum.
- Contractor shall review and become familiar with all required utility connections prior to bidding and determine exact location during construction. Contractor shall provide all work and materials required to complete connection to the existing utilities. The location of the utilities shown in the plans is approximate only. The exact location shall be determined by the contractor during construction. This includes, but is not limited to, manhole coring, wet taps, pavement repairs and directional boring.
- Contractor shall coordinate all work with other contractors within project limits.
- Contractor shall seed and mulch all disturbed areas, and shall sod all slopes of 5' horizontal to 1' vertical to 3' horizontal to 1' vertical and shall staple sod all slopes steeper than 3' horizontal to 1' vertical.
- All swales, depression areas and retention ponds shall be inspected monthly for sinkhole occurrence. Should a sinkhole occur, the area should be repaired as soon as possible. If a solution pipe sinkhole does form in the stormwater system, then the sinkhole shall be repaired by backfilling with a lower permeability material. A 2-foot cap that extends 2 feet beyond the perimeter of the sinkhole shall be constructed with clayey soils. The clayey soil should have at least 20% passing the number 200 sieve, compacted to 95% of Standard Proctor, and compacted in a wet condition with moisture 2%-4% above optimum. The clay soil cap shall be re-graded to prevent ponding and re-vegetated.
- All stormwater pipes shall have a minimum cover of 6". Use Limerock backfill if pipe under pavement has less than 12" cover.
- Potable water will be supplied by an existing on site well and sanitary sewer will be supplied by on-site septic system.

- The construction plans must be reviewed and approved by Columbia County prior to commencing construction.
- All materials and construction shall conform to the requirements of the FDOT Standard Specifications for Road and Bridge Construction.
- The materials and construction shall be certified by a testing laboratory retained by the contractor. Copies of all test results shall be provided prior to acceptance.
- All traffic control and safety items (striping, stop bars, regulatory signs, etc.) shall be in place before final Certificate of Occupancy.
- The temporary grass shall be sufficient to control erosion during periods of construction when earth work areas are left for more than 7 calendar days.
- Final inspection for acceptance to be performed by GTC Design Group and Public Works Director.

PROJECT CONTACTS  
GTC DESIGN GROUP  
(386) 719-9985  
COLUMBIA COUNTY PUBLIC WORKS  
(386) 758-1019  
COLUMBIA COUNTY PLANNING AND ZONING  
(386) 758-1008  
SUWANNEE RIVER WATER MANAGEMENT  
(396) 362-1001



NETTLES' SAUSAGE  
BEEF FACILITY  
GENERAL NOTES & DETAILS

GTC Design Group, LLC, 176 NW LAKE JEFFREY RD  
Auth. # 9461  
Structural / Civil Engineers  
www.gtcdesigngroup.com  
P.O. BOX 187  
LIVE OAK FL, 32064  
PHONE: (386) 362-3678  
FAX: (386) 362-6133  
LAKE CITY, FL 32055  
Phone: (386) 719-9985  
Fax: (386) 719-8828



DRAWN BY	AS	CHECKED BY	CW
		PROJECT NUMBER	
		PF10-051	
SHEET		1	



SHEET

2

PF10-051

PROJECT NUMBER

DRAWN BY AS  
CHECKED BY CW

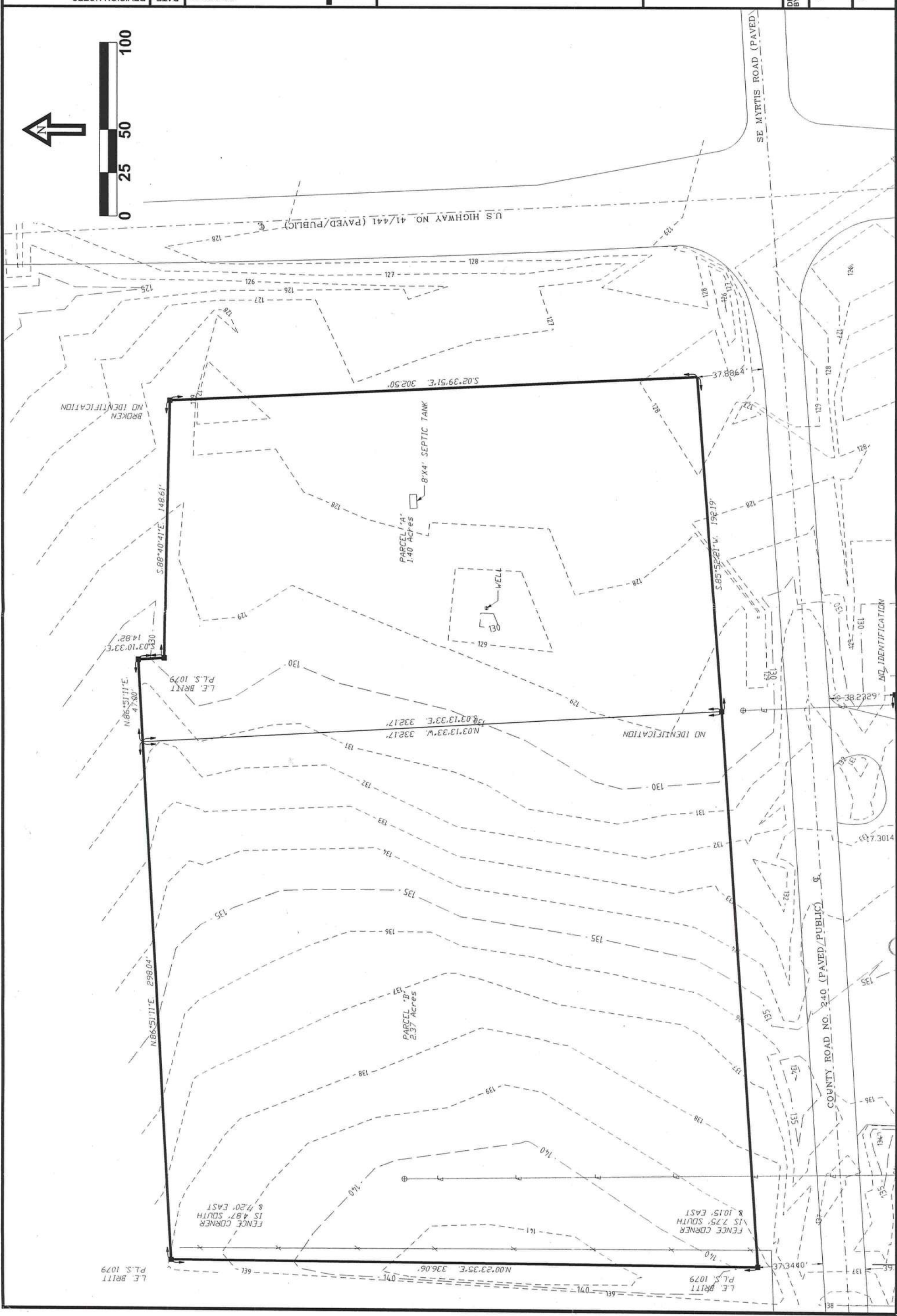
NETTLES' SAUSAGE  
BEEF FACILITY  
EXISTING CONDITIONS

GTC Design Group, LLC  
176 NW LAKE JEFFREY RD  
LAKE CITY, FL 32055  
Auth. # 9461  
Structural / Civil Engineers  
www.gtcdesigngroup.com



P.O. BOX 187  
130 W HOWARD ST  
LIVE OAK FL 32064  
PHONE: (386) 362-3678  
FAX: (386) 362-6133

DATE  
REVISION NOTES





ZONING: A-3

PARKING SPACES PROVIDED:  
REGULAR SPACES PROVIDED: 6 SPACES  
HANDICAP SPACES PROVIDED: 1 SPACE  
TOTAL SPACES PROVIDED: 7 SPACES  
TOTAL SPACES REQUIRED: 3 SPACES

IMPERVIOUS AREA  
BUILDING: 4,429 SF  
CONCRETE: 825 SF  
TOTAL: 5,304 SF

NOTE:  
NO PROPOSED SCREENING,  
BUFFERING, OR LANDSCAPING  
IS REQUIRED ACCORDING TO  
COLUMBIA COUNTY LDR 4.5.12

- 1 INGRESS / EGRESS
- 2 OFF-STREET PARKING
- 3 OFF-STREET LOADING (1 10X10 DUMPSTER PAD)
- 4 REQUIRED BUILDING SETBACKS
- 5 POTABLE WATER HOOKUP
- 6 SANITARY LINE HOOKUP

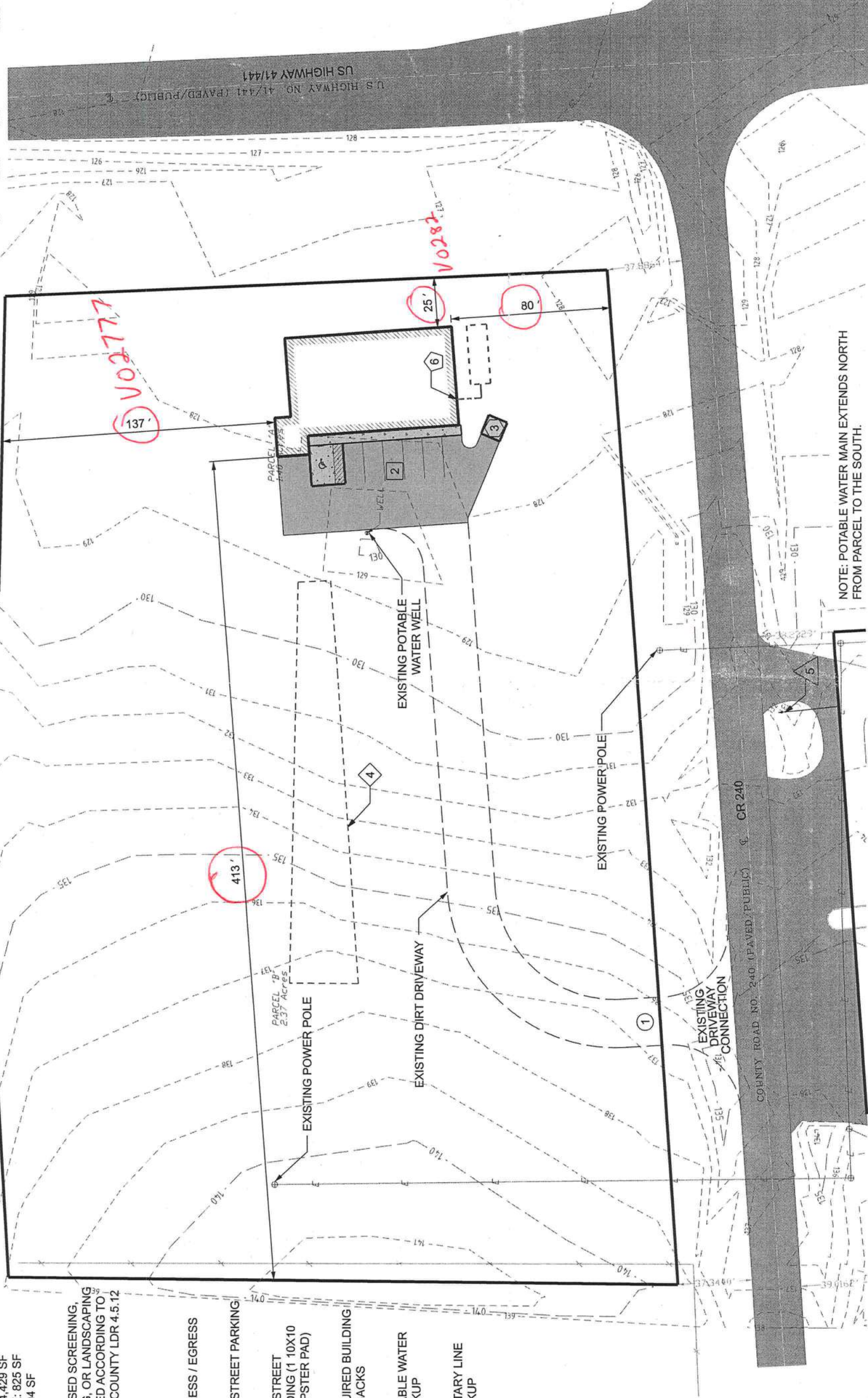
HATCH DENOTES  
CONCRETE SIDEWALKS (285 SF)  
CONCRETE SLABS (540 SF)



HATCH DENOTES  
GRASS PARKING



PROPERTY BOUNDARY



NOTE: POTABLE WATER MAIN EXTENDS NORTH  
FROM PARCEL TO THE SOUTH.

NETTLES' SAUSAGE  
BEEF FACILITY  
SITE PLAN



GTC Design Group, LLC, 176 NW LAKE JEFFREY RD  
LAKE CITY, FL 32055  
Auth: # 9461  
Structural / Civil Engineers  
www.gtcdesigngroup.com  
P.O. BOX 187  
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CHECKED BY CW  
PROJECT NUMBER

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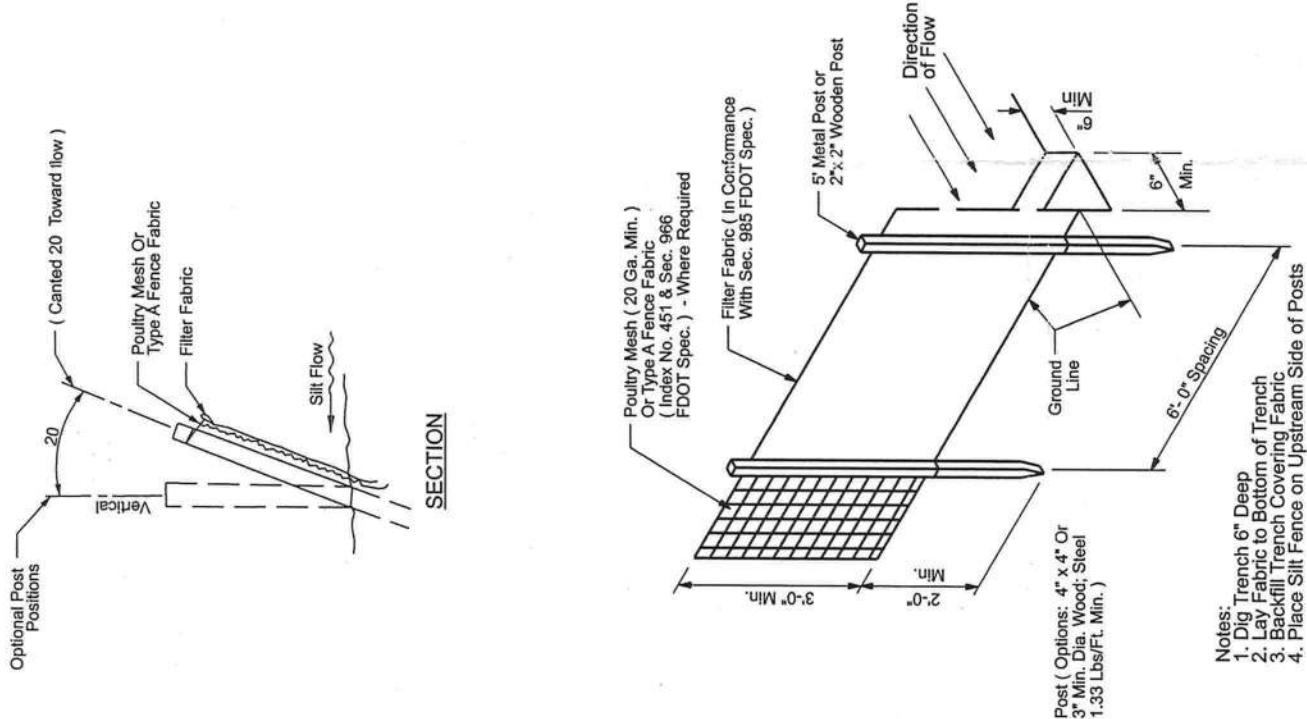
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3



EROSION CONTROL NOTES

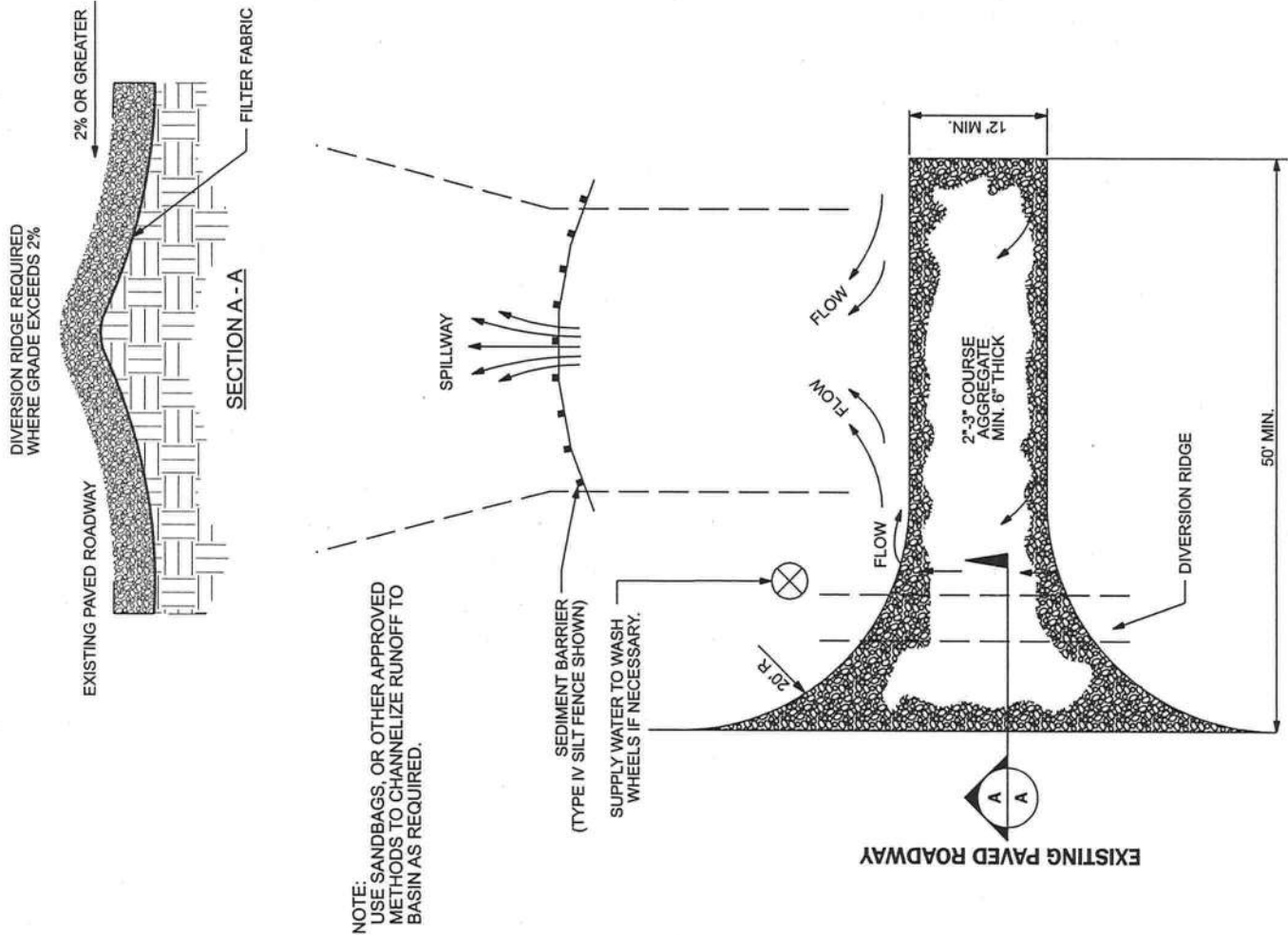
- Contractor shall adhere to Columbia County, SRWMD and other governing authorities for erosion and sediment control regulations. Contractor shall use BMP's from "The Florida Development Manual".
- Sediment and erosion control facilities, storm drainage facilities and detention basins shall be installed prior to any other construction.
- Erosion control measures shall be inspected weekly and after each rainfall and replaced as necessary.
- Sediment and erosion control measures shall not be removed until all construction is complete and until a permanent ground cover has been established.
- All open drainage swales shall be grassed and riprap shall be placed as required to control erosion.
- Silt fences shall be located on site to prevent sediment and erosion from leaving right-of-way limits.
- Additional erosion control devices shall be used as required.
- Silt fence shall be cleaned or replaced when silt builds up to within one foot of top of silt fence.
- During construction and after construction is complete, all structures shall be cleaned of all debris and excess sediment.
- All grades areas shall be stabilized immediately with a temporary fast-growing cover and/or mulch.
- A pad of rubble riprap shall be placed at the bottom of all collection flumes and collection pipe outlets.
- All disturbed areas not sodded shall be seeded with a mixture of long-term vegetation and quick-growing short-term vegetation for the following conditions. For the months from September through March, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of winter rye. For the months of April through August, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of millet.
- Staked silt fences shall be placed near all box culvert extensions in accordance with FDOT Standard Index 102.
- Disturbed areas with shall be stabilized by sodding, grassing, and mulching. All side slopes steeper than 4:1 shall be adequately protected from erosion through the use of hay bales or sodding.
- All stabilization practices shall be initiated as soon as practicable in areas of the job where construction activities have temporarily or permanently stopped, but in no case shall the disturbed area be left unprotected for more than seven (7) days.
- If the proposed erosion control plan does not work, the contractor should use the BMP's in the Florida Erosion and Sediment Control Inspector's manual to implement a plan that will work and meet actual field conditions.
- All waste generated on the project shall be disposed of by the contractor in areas provided by contractor.
- Loaded haul trucks shall be covered with tarps.
- Excess dirt shall be removed daily.
- Fertilizer shall be applied as specified in the plans and specifications.
- This project shall comply with all water quality standards. Permit required from SRWMD has been obtained.
- All pollution controls shall be maintained at all times.
- Type IV silt fence shall be placed to prevent sediment. Silt fence shall be replaced after three (3) months or when sediment reaches one-half (1/2) the height of the fence.
- Qualified personnel shall inspect the area used for storage of stockpiles, the silt fence and straw bales, the location where vehicles enter or exit the site, and the disturbed areas that have not been finally stabilized, at least once every seven (7) calendar days and within 24 hours of the end of a storm of 0.2 inches or greater.
- Sites that have been finally stabilized with sod or grassing shall be inspected at least once every week.
- Contractor is responsible for the construction and maintenance of all erosion and sedimentation controls during proposed construction.



TYPE IV SILT FENCE

NTS

AS COMPARED TO TYPE III SILT FENCE, TYPE IV FENCE HAS GREATER STRENGTH AND HEIGHT WHICH REDUCES THE POSSIBILITY OF SEDIMENT AND WATER FROM OVERTOPPING THE FENCE. AS A RESULT, AVOID USING TYPE IV FENCE IN AREAS WHERE THE DETAINED WATER WOULD BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.



PLAN

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

NTS

NOTES:  
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.  
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.  
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS ONTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

REVISION NOTES

DATE

P.O. BOX 187  
130 W HOWARD ST  
LAKE OAK FL 32064  
PHONE: (386) 362-3678  
FAX: (386) 362-6133

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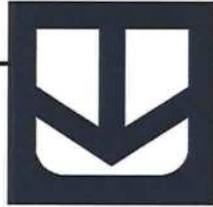
NETTLES' SAUSAGE  
BEEF FACILITY  
EROSION CONTROL  
NOTES & DETAILS

DRAWN BY AS  
CHECKED BY CW  
PROJECT NUMBER

PF10-051

SHEET

4



# **UNIVERSAL**

## **ENGINEERING SCIENCES**

### **REPORT OF GEOTECHNICAL CONSULTING SERVICES**

**Nettles Sausage Cattle Plant  
147 SW C.R. 240  
Lake City, Columbia County, Florida**

**UES Project No.0230.1000082.0000  
UES Report No. 859577**

**Prepared for:**

**J.L. Dupree Construction Services, Inc.  
1944 East Duval Street  
Lake City, FL 32055  
(386) 754-5678**

**Prepared by:**

**Universal Engineering Sciences, Inc.  
4475 SW 35<sup>th</sup> Terrace  
Gainesville, Florida 32608  
(352) 372-3392**

**October 1, 2010**

**Consultants in: Geotechnical Engineering • Environmental Sciences • Construction Materials Testing Threshold Inspection • Private Provider Inspection  
Offices in: Daytona Beach • Ft. Myers • Gainesville • Jacksonville • Miami • Ocala • Orlando • Palm Coast •  
Panama City • Pensacola • Rockledge • Sarasota • Tampa • West Palm Beach**



# UNIVERSAL ENGINEERING SCIENCES

Consultants in: Geotechnical Engineering • Environmental Engineering  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

LOCATIONS:  
Atlanta  
Daytona Beach  
Fort Myers  
Fort Pierce  
Gainesville  
Jacksonville  
Kissimmee  
Leesburg  
Miami  
Ocala  
Orlando (Headquarters)  
Palm Coast  
Panama City  
Pensacola  
Rockledge  
Sarasota  
Tampa  
West Palm Beach

October 1, 2010

J.L. Dupree Construction Services, Inc.  
1944 East Duval Street  
Lake City, FL 32055

Attention: Mr. Lamar Dupree

Reference: **Report of Geotechnical Consulting Services**  
Nettles Sausage Cattle Plant  
147 SW C.R. 240  
Lake City, Columbia County, Florida  
UES Project No. 0230.1000082.0000

UES Report No. 859577

Dear Mr. Dupree:

Universal Engineering Sciences, Inc. (UES) has completed the geotechnical engineering services for the subject project in Columbia County, Florida. This geotechnical Report is submitted in satisfaction of the contracted scope of services as summarized in UES Proposal No. 856948, dated September 7, 2010.

This Report presents the results of our limited field subsurface exploration and recommendations for geotechnical site preparation and foundation design and construction.

We appreciate the opportunity to have assisted you on this project and look forward to a continued association. Please do not hesitate to contact our office if you should have any questions, or to assist your office with the remaining phases of project design and construction.

Respectfully submitted,


**UNIVERSAL ENGINEERING SCIENCES, INC.**

Certificate of Authorization 549

  
Eduardo Suarez, P.E.  
Project Engineer  
Florida P.E. No. 60272  
Date: 10-1-10



Reviewed by:

  
Jeffrey S. Pruett, P.E.  
Vice President  
Florida P.E. No. 50775



## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY .....	1
1.0 INTRODUCTION .....	2
1.1 GENERAL .....	2
2.0 SCOPE OF SERVICES .....	2
2.1 PROJECT DESCRIPTION.....	2
2.2 PURPOSE .....	3
2.3 FIELD EXPLORATION .....	3
2.3.1 Standard Penetration Test (SPT) Borings .....	4
3.0 FINDINGS .....	4
3.1 REGIONAL GEOLOGY .....	4
3.2 KARST TOPOGRAPHY .....	4
3.3 GENERAL AREA SOIL SURVEY INFORMATION .....	4
3.4 SURFACE CONDITIONS .....	5
3.5 SUBSURFACE CONDITIONS .....	5
3.6 GROUNDWATER DEPTH .....	5
3.7 LABORATORY TESTING.....	6
3.7.1 Percent Passing No. 200 Sieve.....	6
3.7.2 Moisture Content .....	6
4.0 RECOMMENDATIONS .....	6
4.1 GENERAL .....	6
4.2 GEOTECHNICAL CONSIDERATIONS .....	7
4.3 GROUNDWATER CONSIDERATIONS.....	7
4.4 BUILDING FOUNDATION .....	8
4.4.1 Bearing Pressure .....	8
4.4.2 Foundation Size .....	8
4.4.3 Bearing Depth .....	8
4.4.4 Bearing Material .....	9
4.4.5 Settlement Estimates.....	9
4.4.6 Ground Floor Slab.....	9
4.5 SITE PREPARATION.....	9
4.6 CONSTRUCTION RELATED SERVICES.....	11
5.0 REPORT LIMITATIONS .....	11

### **APPENDIX A**

Boring Location Plan .....	A-1
Boring Logs .....	A-2 to A-5
Key to Boring Logs .....	A

### **APPENDIX B**

Important Information About Your Geotechnical Engineering Report, Constraints and Restrictions, General Conditions .....	B
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### **LIST OF TABLES**

Table 1 – Relevant Engineering Properties of Blanton Sand Soils .....	5
Table 2 – Laboratory Soil Tests Results .....	6

## **EXECUTIVE SUMMARY**

We have prepared this executive summary solely to provide a general overview. Do not rely on this executive summary for any purpose except that for which it was prepared. Rely on the full report for information about findings, recommendations, and other concerns.

### **Project Location and Description**

The project parcel is located at the northwest corner of the intersection of CR 240 and US HWY 41/441 at 147 SW County Road 240, in Lake City, Columbia County, Florida. Current site development plans include the construction of an approximately 4,000 square foot CMU block building. Our office was provided a set of plans titled "Beef Facility Site Plan," showing the general layout of the site along general notes and details.

### **Soil and Groundwater Conditions**

The soil test borings generally encountered fill material consisting primarily of sand with silt [SP-SM/SM] to a depth of 4.5 foot followed by sand with silt to silty sand [SP-SM/SM] to depths of 7.5 to 8 feet. Below the silty sand the soil borings encountered clayey sand [SC] to the boring termination depths of 15 feet below ground surface. The groundwater level was measured at a depth of 6 to 8.5 feet below ground surface upon work completion. Based upon our review of regional hydrogeology and the Columbia County Soil Survey, we estimate the normal seasonal high groundwater level will occur from 5 to 6 feet below the ground surface in the general area of the project site.

### **Site Preparation**

Geotechnical site preparation will generally consist of site clearing and grubbing, subgrade proof-rolling and compaction, and structural fill placement for general site grading and building pad construction. We recommend that all footing excavations be probed to confirm the suitability of the bearing soils.

### **Foundation Design**

A shallow foundation system may be used for the support of the proposed construction on this project with the understanding that some aesthetic cracking and other minor architectural type nuisance issues may occur during the useful life of the structure. Following completion of the recommend geotechnical site preparation and building pad preparation activities, the proposed building may be supported on a shallow foundation system designed with a maximum average soil bearing pressure of 2,000 pounds per square foot (psf).



## **1.0 INTRODUCTION**

### **1.1 GENERAL**

In this report, we present the results of the subsurface exploration of the site for the proposed new building at 147 SW County Road 240 in Lake City, Columbia County, Florida. We have divided this report into the following sections:

- SCOPE OF SERVICES - Defines what we did
- FINDINGS - Describes what we encountered
- RECOMMENDATIONS - Describes what we encourage you to do
- LIMITATIONS - Describes the restrictions inherent in this report
- APPENDICES - Presents support materials referenced in this report

## **2.0 SCOPE OF SERVICES**

### **2.1 PROJECT DESCRIPTION**

The project parcel is located at the northwest corner of the intersection of CR 240 and US HWY 41/441 at 147 SW County Road 240, in Lake City, Columbia County, Florida. Current site development plans include the construction of an approximately 4,000 square foot CMU block building. Our office was provided a set of plans titled "Beef Facility Site Plan," showing the general layout of the site along general notes and details.

Our office was not provided with Foundation Plans or any other construction-related information other than that discussed herein. Considering the limitations stated above and based on prior experience with structures of this type, we assumed the following structural loading conditions: ground floor slab loads not exceeding 100 psf, a maximum of 2 kips per linear feet (klf) on wall footings, and a maximum load of 10 kips on individual footings. We understand the building construction will require nominal structural fill placement operations (2 feet or less) for leveling of the proposed building footprint and building pad construction.

If our foundation loading estimates and assumptions are incorrect we should be advised so that we may review our engineering evaluations, conclusions and recommendations. If our understandings and assumptions of project issues are incorrect our conclusions and recommendations will not be considered valid until we have had the opportunity to review all pertinent issues. The above constitutes all of the project information provided to our office at the time of this Report preparation.

We note that, our authorized scope of services and this Report do not address any other project elements, such as earth retaining walls, sidewalks, or slope stability issues that may be part of the overall project site plan. Since other site improvements could have detrimental effects on the performance of a foundation system at this site, UES, or other qualified geotechnical consultant, should be consulted to review the entire site development plan and conduct additional services as required to minimize any impact of associated improvements on foundation performance.

Our recommendations are based upon the above considerations. If any of this information is incorrect, or if you anticipate any changes, please inform Universal Engineering Sciences so that we may review our recommendations.

## **2.2 PURPOSE**

The purposes of this exploration were:

- To explore the prevailing site subsurface conditions beneath the area of the proposed building foundation footprint,
- To perform a series of laboratory tests on selected subsurface soil specimens, recovered from the field exploration program to assist with engineering soil classifications,
- To evaluate the subsurface response to anticipated structural loadings and discuss the groundwater table characteristics,
- To evaluate and discuss geotechnical issues deemed relevant to the proposed on-site building construction,
- To prepare foundation design and construction recommendations,

This report presents an evaluation of site conditions on the basis of traditional geotechnical procedures for site characterization. The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards. Universal Engineering Sciences would be pleased to perform these services, if you desire.

Our exploration was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for surface expression of deep geological conditions such as sinkhole. This evaluation requires a more extensive range of field services than performed in this study. We will be pleased to conduct an investigation to evaluate the probable effect of the regional geology upon the proposed construction, if you desire.

## **2.3 FIELD EXPLORATION**

The field geotechnical testing activities were started and completed on September 21, 2010. Field test for the geotechnical study included four (4) soil test borings to a depth of 15 feet within the limits of the proposed building area. All boreholes were backfilled to grade upon field work completion. The soil test boring locations are shown in the attached Boring Location Plan drawing in Appendix A.

Representative portions of the subsurface soil samples recovered were transported to our Gainesville soils laboratory. The soil samples were visually classified by an experienced geotechnical engineer. It should be noted that soil conditions might vary between soil test boring locations, and between the subsurface soil strata interfaces which have been shown on the Boring Logs. The soil test boring data reflect information from the specific test locations only.

### **2.3.1 Standard Penetration Test (SPT) Borings**

Penetration tests were performed in accordance with ASTM Procedure D-1586, Penetration Test and Split-Barrel Sampling of Soils. This test procedure generally involves driving a 1.4-inch I.D. split-tube sampler into the soil profile in six inch increments for a minimum distance of 18 inches using a 140-pound hammer free-falling 30 inches. The total number of blows required to drive the sampler the second and third 6-inch increments is designated as the N-value, and provides an indication of in-place soil strength, density and consistency.

## **3.0 FINDINGS**

### **3.1 REGIONAL GEOLOGY**

The general geology of Columbia County is characterized by undifferentiated sediments consisting primarily of clay and clayey sand of the Hawthorne and Alachua formation lying beneath the ground surface. These formations are not so thick south of the central ridge as they are to the north. Pleistocene terrace deposits, consisting of unconsolidated sands, are underlain by clay. The slow absorption of water into the clay results in the development of a high water table in the overlying sand during the rainy season.

Information obtained from the Suwannee River Water Management District (SRWMD) Potentiometric Surface Map dated September 2002 suggests the potentiometric level of the Floridan Aquifer in the general area of the project site to be in the elevation range of +40 to +45 feet NGVD

### **3.2 KARST TOPOGRAPHY**

About 10% of the earth's land (and 15% of the United States) crust is composed of, or underlain by, soluble limestone. When limestone interacts with underground water, over time, the water dissolves the limestone to form karst topography, a mix of caves, underground channels, and rough and undulating ground surfaces. The underground water of karst topography carves channels and caves that become susceptible to collapse from the surface. When enough limestone is eroded from underground, a sinkhole may develop. Sinkholes can range in size and depth from a few feet to over 300 feet. The topography of North Central Florida is characteristic of karst terrain, with sinkholes caused by natural climatic variability, as well as, man-made activities, such as, the drop in groundwater levels from well pumping.

Per contract scope of services, our exploration was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for surface expression of deep geological conditions, such as sinkhole development related to karst activity. This evaluation requires a more extensive range of field services than performed in this study

### **3.3 GENERAL AREA SOIL SURVEY INFORMATION**

The United States Department of Agriculture (USDA) *Soil Survey of Columbia County, Florida* describes the near-surface soil profile in the project parcel as Blanton sands. Blanton sand soils are characterized as nearly level to sloping, moderately well drained soils, with an estimated high water table of 5 to 6 feet below the ground surface. Relevant engineering index properties have been summarized in Table 1.

<b>Table 1 – Relevant Engineering Index Properties of Blanton Sand Soils</b>						
<b>Depth, Inches</b>	<b>Texture</b>	<b>Classification</b>	<b>% Passing #200 Sieve</b>	<b>Plasticity Index</b>	<b>Shrink-swell Potential</b>	<b>Permeability</b>
0 – 7	Fine sand	SP-SM, SM	5 to 14	Non-plastic	Very Low	2.0 to 6.0 in/hr
7 – 52	Fine sand	SP-SM, SM	5 to 15	Non-plastic	Very Low	2.0 to 6.0 in/hr
52 – 80	Sandy clay loam, sandy loam, fine sandy loam	SC, SM-SC, SM	25 to 50	Non-plastic to 20	Low	0.06 to 2.0 in/hr

### **3.4 SURFACE CONDITIONS**

UES engineering personnel visited the project site prior to and during the performance of the field portion of this geotechnical study. Our on-site observations have been summarized as follows. At the time of our exploration, the project parcel was undeveloped and lightly wooded. Exposed surface soils were observed to be sandy and dry. Surface organic soils, unusual ground depressions, or rock outcroppings were not observed on the project site. The elevation characteristics of the building pad area were not provided to UES for our evaluation.

### **3.5 SUBSURFACE CONDITIONS**

The soil test borings performed beneath the proposed structure were reviewed to evaluate the subsurface soil strata lateral continuity and uniformity, both parameters that would have an impact in foundation system selection and performance. Soil classifications and descriptions for this geotechnical study are based both on the results of the laboratory soil testing programs and on visual examinations of soil specimens by the Geotechnical Engineer. The subsurface soil conditions encountered in the soil test borings have been summarized in the attached Boring Logs and described below.

The soil test borings generally encountered fill material consisting primarily of sand with silt [SP-SM/SM] to a depth of 4.5 foot followed by sand with silt to silty sand [SP-SM/SM] to depths of 7.5 to 8 feet. Below the silty sand the soil borings encountered clayey sand [SC] to the boring termination depths of 15 feet below ground surface.

### **3.6 GROUNDWATER DEPTH**

The groundwater level was measured at a depth of 6 to 8.5 feet below ground surface upon work completion. It should be noted that the groundwater level may not have been fully stabilized in the boreholes when the readings were taken upon work completion. The stabilized groundwater levels may have been impacted by the drilling process. Fluctuations of the groundwater levels should be expected to occur seasonally as a result of rainfall, surface runoff, and nearby construction activities.



### **3.7 LABORATORY TESTING**

The soil samples recovered from the field exploration program were placed in containers and returned to our soils laboratory, where the Geotechnical Engineer visually examined and classified the samples. Laboratory soil tests are performed to aid in the classification of the soils, and to help in the evaluation of engineering characteristics of the soils. Representative soil samples were selected for percent fines determination, moisture content, and Atterberg Limits testing. The test results have been presented on the attached Boring Logs and summarized in Table 2.

#### **3.7.1 Percent Passing No. 200 Sieve**

Certain recovered soil sample was selected to determine the percentage of fines. In these tests the soil sample was dried and washed over a U.S. No. 200 mesh sieve. The percent of soil by weight passing the sieve was the percentage of fines or portion of the sample in the silt and clay size range. This test was conducted in accordance with ASTM Procedure D-1140, *Standard Test Methods for Amount of Material in Soils Finer than the No. 200 Sieve*.

#### **3.7.2 Moisture Content**

Certain recovered soil sample was selected to determine the moisture content. The moisture content was the ratio expressed as a percentage of the weight of water in a given mass of soil to the weight of the solid particles. These tests were conducted in accordance with ASTM Procedure D-2216, *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock*.

<b>Table 2 Laboratory Soil Test Results</b>				
<b>Soil Test Boring</b>	<b>Sample Depth</b>	<b>Type of Test</b>	<b>Results</b>	<b>Soil Description</b>
B-1	3 feet	% Finer #200	16 %	Silty Sand
		Moisture Content	11 %	
B-3	9 feet	% Finer #200	27 %	Clayey Sand
		Moisture Content	19 %	

### **4.0 RECOMMENDATIONS**

#### **4.1 GENERAL**

The following recommendations are made based upon a review of the attached soil test data, our understanding of the *client's willingness to accept nuisance and aesthetic movements of the structure*, and experience with similar projects and subsurface conditions. If plans change from those discussed previously, we request the opportunity to review and possibly amend our recommendations with respect to those changes.

Additionally, if subsurface conditions are encountered during construction, which were not encountered in the borings, report those conditions immediately to us for observation and recommendations. In this section of the report, we present our detailed recommendations for groundwater control, building foundations, site preparation, and construction related services.

#### **4.2 GEOTECHNICAL CONSIDERATIONS**

Recommendations for foundation design are dependent, among other factors, on the amount of total settlement and more importantly differential settlement between various structural elements that can be safely tolerated by the structure.

If the anticipated total and differential settlements estimated herein exceed the tolerable limits as set forth by the Structural Engineer, we should be so advised so that we may consider other foundation system alternatives.

It should further be noted that the estimated magnitudes of total and differential settlements are dependent on foundation loading conditions among other factors, and that we have made certain assumptions regarding those loading conditions in this Report. If unusually heavy foundation loading conditions are expected for some of the proposed project elements, or if our estimates vary significantly from actual anticipated conditions, we should be so advised so that we may revisit our engineering evaluations and foundation settlement estimates.

The silty sandy soils may require stringent moisture control during compaction, particularly during rainy periods. Footings that are excavated through the upper layer of compacted sand fill soils into the native silty sands, should be visually inspected and tested to verify the in-place density and condition of the subgrade bearing soils.

We recommend that we be provided the opportunity to review the project plans and specifications to confirm that our recommendations have been properly interpreted and implemented. If the structural loadings or the building location changes significantly from those discussed previously, we request the opportunity to review and possibly amend our recommendations with respect to those changes. The discovery of any subsurface conditions during construction which deviate from those encountered in the borings should be reported to us immediately for observation, evaluation, and recommendations.

#### **4.3 GROUNDWATER CONSIDERATIONS**

The groundwater level will fluctuate seasonally depending upon local rainfall. The rainy seasons in North Florida are normally between June and September and December and February. Based upon our review of regional hydrogeology and the Columbia County Soil Survey, we estimate the normal seasonal high groundwater level will occur from 5 to 6 feet below the ground surface in the general area of the project site.



It should be noted that the normal estimated seasonal high water levels do not provide any assurance that groundwater levels will not exceed these estimated levels during any given year in the future. Should the impediments to surface water drainage be present, or should rainfall intensity and duration, or total rainfall quantities, exceed the normally anticipated rainfall quantities, groundwater levels might once again exceed our seasonal high estimates. We recommend positive drainage be established and maintained on the site during construction. We further recommend permanent measures be constructed to maintain positive drainage from the site throughout the life of the project.

#### **4.4 BUILDING FOUNDATION**

Based on the results of our exploration, we consider the subsurface conditions at the site adaptable for support of the proposed structure when constructed on a properly designed conventional shallow foundation system. A shallow foundation system may be used for support of the proposed building construction on this project with the understanding that some aesthetic cracking and other minor architectural type nuisance issues may occur during the useful life of the structure.

Provided the site preparation and earthwork construction recommendations outlined in Section 4.5 of this report are performed, the following parameters may be used for foundation design.

##### **4.4.1 Bearing Pressure**

The net maximum allowable soil bearing pressure for use in shallow foundation design should not exceed 2,000 psf. Net bearing pressure is defined as the soil bearing pressure at the foundation bearing level in excess of the natural overburden pressure at that level. The foundations should be designed based on the maximum load which could be imposed by all loading conditions.

##### **4.4.2 Foundation Size**

The minimum widths recommended for any isolated column footings and continuous wall footings are 24 inches and 18 inches, respectively. Even though the maximum allowable soil bearing pressure may not be achieved, these width recommendations should control the minimum size of the foundations.

##### **4.4.3 Bearing Depth**

The exterior foundations should bear at a depth of at least 18 inches below the finished exterior grades and the interior foundations should bear at a depth of at least 12 inches below the finish floor elevation to provide confinement to the bearing level soils. It is recommended that stormwater be diverted away from the building exteriors to reduce the possibility of erosion beneath the exterior footings.

#### **4.4.4 Bearing Material**

The foundations may bear in either the compacted suitable existing soils or compacted structural fill. The bearing level soils, after compaction, should exhibit densities equivalent to at least 95 percent of the modified Proctor maximum dry density (AASHTO T-180) to a depth of at least one foot below the foundation bearing level. We recommend that all footing excavations be probed to confirm the suitability of the bearing soils.

#### **4.4.5 Settlement Estimates**

Post-construction settlement of the structure will be influenced by several interrelated factors, such as (1) subsurface stratification and strength/compressibility characteristics; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundations; and (3) site preparation and earthwork construction techniques used by the Contractor. Our settlement estimates for the structure are based on the use of site preparation/earthwork construction techniques as recommended in Section 4.5 of this report. Any deviation from these recommendations could result in an increase in the estimated post-construction settlement of the structure.

Using the recommended maximum bearing pressure, the assumed maximum structural loads and the field data which we have correlated to geotechnical strength and compressibility characteristics of the subsurface soils, we estimate that total settlements of the structures could be on the order of 1 inch or less.

Differential settlement results from differences in applied bearing pressures and variations in the compressibility characteristics of the subsurface soils. Because of the general uniformity of the subsurface conditions and the recommended site preparation and earthwork construction techniques outlined in Section 4.5, we anticipate that differential settlement of the structure should be within tolerable magnitudes ( $\frac{1}{2}$  inch or less).

#### **4.4.6 Ground Floor Slab**

The floor slab can be constructed as a post-tensioned or slab-on-grade member using a modulus of subgrade reaction (K) of 100 pci provided the subgrade materials are compacted as outlined in Section 4.5. It is recommended the floor slab bearing soils be covered with an impervious membrane to reduce moisture entry and floor dampness. A 10-mil thick plastic membrane is commonly used for this purpose. Care should be exercised not to tear large sections of the membrane during placement of reinforcing steel and concrete.

#### **4.5 SITE PREPARATION**

We recommend normal, good practice site preparation procedures. These procedures include: stripping the site of existing vegetation and topsoil, compacting the subgrade and placing necessary fill or backfill to grade with engineered fill. A more detailed synopsis of this work is as follows:

1. Prior to construction, the location of any existing underground utility lines within the construction area should be established. Provisions should then be made to relocate interfering utilities to appropriate locations. It should be noted that if underground pipes are not properly removed or plugged, they may serve as conduits for subsurface erosion which may subsequently lead to excessive settlement of the overlying structure.
2. If required, perform remedial dewatering prior to any earthwork operations. Dewatering operations scheduled immediately adjacent to existing structure footings should be carefully evaluated for possible impacts to the existing foundation systems. Dewatering systems should not be decommissioned until the excavation is backfilled two feet above the groundwater level at the time of construction. Further, the site should always be graded to prohibit ponding of stormwater runoff. Dewatering means and methods are the sole responsibility of the Contractor.
3. Strip the proposed construction limits of all grass, roots, topsoil, and other deleterious materials within 5 feet beyond the perimeter of the proposed area. Expect typical stripping at this site to depths of 6 to 12 inches. Deeper clearing and grubbing depths may be encountered in heavily vegetated areas.
4. Following site clearing, grubbing and rough grading, the same project areas should be proof-rolled using a large, fully loaded rubber-tired vehicle (dump truck) or similar equipment. Proof-rolling will help locate any surficial zones of especially loose or soft or unsuitable soils not encountered in the soil test borings, and should help provide more uniformity in the sandy subsurface soil profile. Unusual or unanticipated conditions identified during this process must be immediately brought to the attention of the UES Geotechnical Engineer. Field density testing is not required during proof-rolling operations.
5. Weak subgrade soils identified during proof-rolling operations should be excavated and removed from the site, and replaced with granular fill soils. We recommend that all footing excavations be probed to confirm the suitability of the bearing soils. Granular soils used for backfill purpose should meet the material and placement specifications outlined below.
6. Proof-rolling operations should be followed by backfill compaction operation. Subgrade compaction operations should be implemented with a tracked dozer equipment or a medium weight vibratory roller (a 2- to 3-ton roller, minimum static weight and 2- to 3-foot minimum drum diameter) until you obtain a minimum density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D-1557), to a depth of 1 foot below the final subgrade, or foundation bearing elevations, whichever is greater. The subgrade beneath slabs should be compacted to a depth of 1 foot below the beginning grade prior to placing fill.
7. Compaction operations should extend to the limits of the cleared/grubbed project areas. Compaction of the existing, near-surface sandy soils will provide for uniformity of foundation/slab settlements and improve the soils' bearing capacity conditions. Typically, the soils should exhibit moisture contents within  $\pm 2$  percent of the modified Proctor optimum moisture content during compaction.



8. Should the bearing level soils experience pumping and soil strength loss during the compaction operations, compaction work should be immediately terminated and (1) the disturbed soils removed and backfilled with dry structural fill soils which are then compacted, or (2) the excess pore pressures within the disturbed soils allowed to dissipate before recompacting.
9. Test the subgrade for compaction at a frequency of not less than one test per 2,500 square feet in the building area, or a minimum of three test locations, whichever is greater.
10. Place fill material, as required. Offsite fill material should contain less than 10 percent passing the No. 200 sieve. Place backfill and fill in uniform 10- to 12-inch loose lifts and compact each lift to a minimum density of 95 percent of the modified Proctor maximum dry density.

#### **4.6 CONSTRUCTION RELATED SERVICES**

We recommend the Owner retain Universal Engineering Sciences to perform construction materials tests and observations on this project. Field tests and observations include verification of foundation subgrades by performing quality assurance tests on the placement of compacted structural fill. We can also provide concrete testing, pavement section testing, and general construction observation services.

The geotechnical engineering design does not end with the advertisement of the construction documents. The design is an on-going process throughout construction. Because of our familiarity with the site conditions and the intent of the engineering design, we are most qualified to address problems that might arise during construction in a timely and cost-effective manner.


#### **5.0 REPORT LIMITATIONS**

This Report has been prepared for the exclusive use of J.L. Dupree Construction Services, and other members of the Design/Construction Team for the specific project discussed in this Report. This Report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty is expressed or implied.

During the early stages of most construction projects, geotechnical issues not addressed in this report may arise. Because of the natural limitations inherent in working with the subsurface, it is not possible for a geotechnical engineer to predict and address all possible problems. An ASFE publication, "Important Information About Your Geotechnical Engineering Report" appears in Appendix B, and will help explain the nature of geotechnical issues. Further, we present documents in Appendix: Constraints and Restrictions, to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.

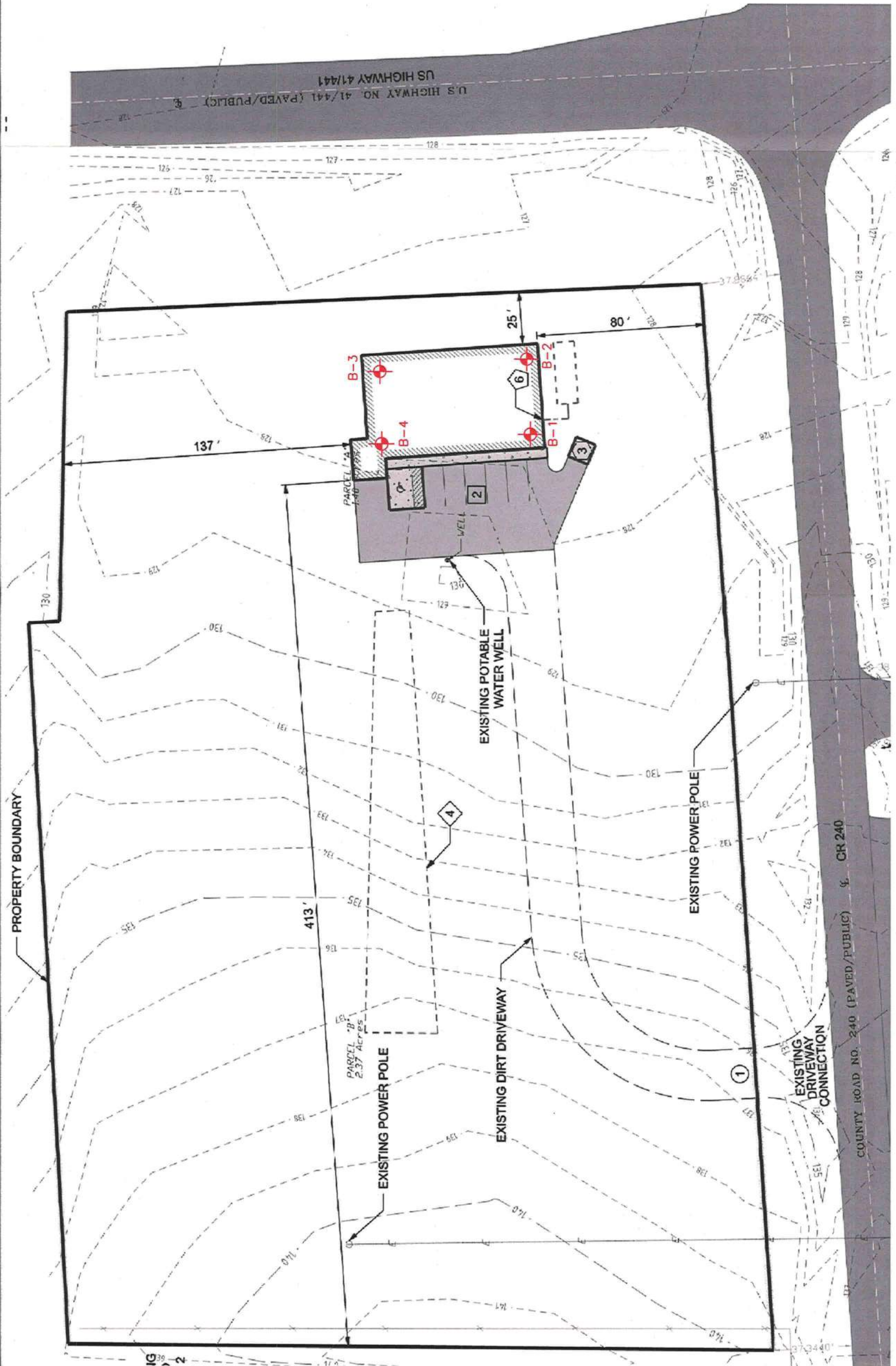
CLIENT: J.L. DUPREE CONSTRUCTION SERVICES, INC.		DRAWN BY: KD	DATE: 9/21/10
CHECKED BY: ES		DATE: 9/21/10	
SCALE: 1"=50'		PROJECT NO: 0230.1000082.0000	REPORT NO: 859577
ACAD FILE: 0230.1000082-A			

NETTLES SAUSAGE CATTLE PLANT  
147 NW COUNTY ROAD 240  
LAKE CITY, COLUMBIA COUNTY, FLORIDA  
BORING LOCATION PLAN



UNIVERSAL  
ENGINEERING SCIENCES

PAGE NO: A - 1



DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0												
		1-1-2	3			Very loose light brown SAND, with silt [SP-SM] (Fill)						
		5-6-5	11			Medium dense to loose brown and gray silty SAND [SM] (Fill)	16	11				
5		4-4-4	8			Loose brown to tan SAND [SP]						
		4-3-4	7									
		4-3-3	6	▼		Loose gray and orange clayey SAND, with trace of silt [SC]						
10		2-3-3	6			Loose...						
		5-8-10	18			Medium dense...						
15						Boring Terminated at 15'						





# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1000082.0000

REPORT NO.: 859577

PAGE: A-3

PROJECT: NETTLE SAUSAGE CATTLE PLANT  
147 SW COUNTY ROAD 240  
LAKE CITY, COLUMBIA COUNTY, FLORIDA

BORING NO: **B-2**

SHEET: 1 of 1

SECTION: TOWNSHIP: RANGE:

CLIENT: J.L. DUPREE CONSTRUCTION SERVICES, INC.

GS ELEVATION(ft): DATE STARTED: 9/21/10

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 7 DATE FINISHED: 9/21/10

REMARKS: FILL MATERIAL IN UPPER 4.5'

DATE OF READING: 9/21/10 DRILLED BY: R. WOODARD

EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Loose light brown SAND, with silt [SP-SM] (Fill)						
		2-2-3	5			Loose dark brown and gray silty SAND [SM] (Fill)						
		4-4-4	8									
5		5-4-3	7			Loose brown SAND, with trace of silt [SP-SM]						
		4-3-3	6	▼								
		3-2-2	4			Loose to medium dense gray and orange clayey SAND, with trace of silt [SC]						
10		4-6-7	13			Medium dense...						
15		7-9-10	19			Medium dense...						
						Boring Terminated at 15'						

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0												
		1-2-3	5			Loose light brown SAND, with silt [SP-SM] (Fill)						
		3-3-4	7			Loose brown and gray silty SAND [SM] (Fill)						
						Loose brown silty SAND [SM]						
5		2-2-2	4			Loose light brown to tan SAND, with silt [SP-SM]						
		3-2-2	4			Loose gray and orange clayey SAND [SC]						
		2-2-3	5									
10		3-4-5	9			Loose...	27	19				
15		8-10-11	21			Medium dense...						
						Boring Terminated at 15'						



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1000082.0000

REPORT NO.: 859577

PAGE: A-5

PROJECT: NETTLE SAUSAGE CATTLE PLANT  
147 SW COUNTY ROAD 240  
LAKE CITY, COLUMBIA COUNTY, FLORIDA

BORING NO: **B-4**

SHEET: 1 of 1

SECTION: TOWNSHIP: RANGE:

CLIENT: J.L. DUPREE CONSTRUCTION SERVICES, INC.

GS ELEVATION(ft): DATE STARTED: 9/21/10

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 7.5 DATE FINISHED: 9/21/10

REMARKS: FILL MATERIAL IN UPPER 4.5'

DATE OF READING: 9/21/10 DRILLED BY: R. WOODARD

EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Loose light brown SAND, with silt [SP-SM] (Fill)						
		2-2-3	5			Loose dark brown and gray silty SAND [SM] (Fill)						
		3-3-3	6									
						Loose brown silty SAND [SM]						
5		2-2-2	4									
		3-2-3	5			Loose light brown to tan SAND, with silt [SP-SM]						
		4-4-5	9			Loose to medium dense gray, orange and brown silty clayey SAND [SM-SC]						
		7-9-9	18			Medium dense...						
10												
		5-5-5	10			Medium dense...						
15						Boring Terminated at 15'						



## KEY TO BORING LOGS

### SYMBOLS

22	Number of Blows of a 140-lb Weight Falling 30 in. Required to Drive Standard Spoon One Foot
WOR	Weight of Drill Rods
S	Thin-Wall Shelby Tube Undisturbed Sampler Used
90% Rec.	Percent Core Recovery from Rock Core-Drilling Operations
	Sample Taken at this Level
	Sample Not Taken at this Level
	Change in Soil Strata
	Free Ground Water Level
	Seasonal High Ground Water Level

### RELATIVE DENSITY (sand-silt)

Very loose - Less Than 4 Blows/Ft.  
Loose - 4 to 10 Blows/Ft.  
Medium Dense - 10 to 30 Blows/Ft.  
Dense - 30 to 50 Blows/Ft.  
Very Dense - More Than 50 Blows/Ft.

### CONSISTANCY (clay)

Very Soft - Less Than 2 Blows/Ft.  
Soft - 2 to 4 Blows/Ft.  
Firm - 4 to 8 Blows/Ft.  
Stiff - 8 to 15 Blows/Ft.  
Very Stiff - 15 to 30 Blows/Ft.  
Hard - More Than 30 Blows/Ft.

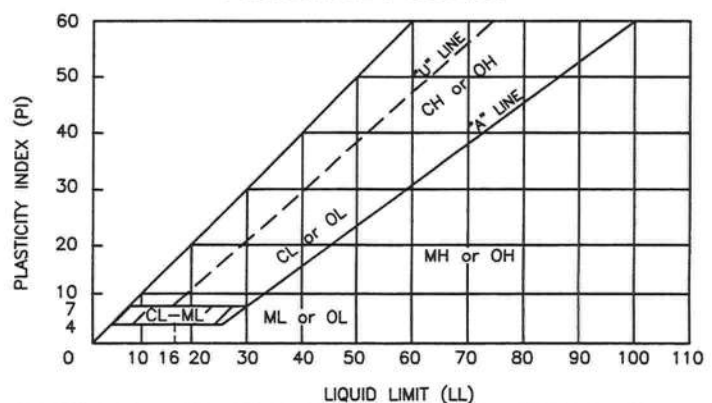
Based on Safety Hammer N-Values

### UNIFIED CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 200 sieve	CLEAN GRAVELS	GW Well-graded gravels and gravel-sand mixtures, little or no fines
			GP Poorly graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GM Silty gravels, gravel-sand-silt mixtures
			GC Clayey gravels, gravel-sand-clay mixtures
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW Well-graded sands and gravelly sands, little or no fines
			SP Poorly graded sands and gravelly sands, little or no fines
		SANDS WITH FINES	SM Silty sands, sand-silt mixtures
			SC Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS 50% or more passes No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less		ML Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50%		MH Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH Inorganic clays or high plasticity, fat clays
			OH Organic clays of medium to high plasticity
Highly organic Soils		PT	Peat, muck and other highly organic soils

\* Based on the material passing the 3-in. (75mm) sieve.

### PLASTICITY CHART





# Important Information About Your Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*The following information is provided to help you manage your risks.*

## **Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects**

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

## **Read the Full Report**

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## **A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors**

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## **Subsurface Conditions Can Change**

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## **Most Geotechnical Findings Are Professional Opinions**

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## **A Report's Recommendations Are *Not* Final**

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual



subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

### **A Geotechnical Engineering Report Is Subject to Misinterpretation**

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Geoenvironmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

### **Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance**

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910  
Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: [info@asfe.org](mailto:info@asfe.org) [www.asfe.org](http://www.asfe.org)

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## **CONSTRAINTS AND RESTRICTIONS**

### **WARRANTY**

Universal Engineering Sciences has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices and makes no other warranty either expressed or implied as to the professional advice provided in the report.

### **UNANTICIPATED SOIL CONDITIONS**

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variation which may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

### **CHANGED CONDITIONS**

We recommend that the specifications for the project require that the contractor immediately notify Universal Engineering Sciences, as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Universal Engineering Sciences of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Universal Engineering Sciences to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

### **MISINTERPRETATION OF SOIL ENGINEERING REPORT**

Universal Engineering Sciences is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Universal Engineering Sciences.

### **CHANGED STRUCTURE OR LOCATION**

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusion modified or approved by Universal Engineering Sciences.

## **USE OF REPORT BY BIDDERS**

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Universal Engineering Sciences cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

## **STRATA CHANGES**

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

## **OBSERVATIONS DURING DRILLING**

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

## **WATER LEVELS**

Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last readings. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

## **LOCATION OF BURIED OBJECTS**

All users of this report are cautioned that there was no requirements for Universal Engineering Sciences to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Universal Engineering Sciences to locate any such buried objects. Universal Engineering Sciences cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

## **TIME**

This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.



**Universal Engineering Sciences, Inc.**  
**GENERAL CONDITIONS**

**SECTION 1: RESPONSIBILITIES**

- 1.1 *Universal Engineering Sciences, Inc.*, heretofore referred to as the Consultant, has the responsibility for providing the services described under the Scope of Services section. The work is to be performed according to accepted standards of care and is to be completed in a timely manner. The term "Consultant" as used herein includes all of *Universal Engineering Sciences, Inc.*'s agents, employees, professional staff, and subcontractors.
- 1.2 The Client or a duly authorized representative is responsible for providing the Consultant with a clear understanding of the project nature and scope. The Client shall supply the Consultant with sufficient and adequate information, including, but not limited to, maps, site plans, reports, surveys and designs, to allow the Consultant to properly complete the specified services. The Client shall also communicate changes in the nature and scope of the project as soon as possible during performance of the work so that the changes can be incorporated into the work product.

**SECTION 2: STANDARD OF CARE**

- 2.1 Services performed by the Consultant under this Agreement are expected by the Client to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Consultant's profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, express or implied, is made.
- 2.2 The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or other explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by the Consultant will be based solely on information available to the Consultant at the time of service. The Consultant is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

**SECTION 3: SITE ACCESS AND SITE CONDITIONS**

- 3.1 Client will grant or obtain free access to the site for all equipment and personnel necessary for the Consultant to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted Consultant free access to the site. The Consultant will take reasonable precautions to minimize damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur, and the correction of such damage is not part of this Agreement unless so specified in the Proposal.
- 3.2 The Client is responsible for the accuracy of locations for all subterranean structures and utilities. The Consultant will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against Consultant, and agrees to defend, indemnify, and hold Consultant harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate Consultant for any time spent or expenses incurred by Consultant in defense of any such claim with compensation to be based upon Consultant's prevailing fee schedule and expense reimbursement policy.

**SECTION 4: SAMPLE OWNERSHIP AND DISPOSAL**

- 4.1 Soil or water samples obtained from the project during performance of the work shall remain the property of the Client.
- 4.2 The Consultant will dispose of or return to Client all remaining soils and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's prior written request.
- 4.3 Samples which are contaminated by petroleum products or other chemical waste will be returned to Client for treatment or disposal, consistent with all appropriate federal, state, or local regulations.

**SECTION 5: BILLING AND PAYMENT**

- 5.1 Consultant will submit invoices to Client monthly or upon completion of services. Invoices will show charges for different personnel and expense classifications.
- 5.2 Payment is due 30 days after presentation of invoice and is past due 31 days from invoice date. Client agrees to pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.
- 5.3 If the Consultant incurs any expenses to collect overdue billings on invoices, the sums paid by the Consultant for reasonable attorneys' fees, court costs, Consultant's time, Consultant's expenses, and interest will be due and owing by the Client.

**SECTION 6: OWNERSHIP OF DOCUMENTS**

- 6.1 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by the Consultant, as instruments of service, shall remain the property of the Consultant.
- 6.2 Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose.
- 6.3 The Consultant will retain all pertinent records relating to the services performed for a period of five years following submission of the report, during which period the records will be made available to the Client at all reasonable times.

**SECTION 7: DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS**

- 7.1 Client warrants that a reasonable effort has been made to inform Consultant of known or suspected hazardous materials on or near the project site.
- 7.2 Under this agreement, the term hazardous materials include hazardous materials (40 CFR 172.01), hazardous wastes (40 CFR 261.2), hazardous substances (40 CFR 300.6), petroleum products, polychlorinated biphenyls, and asbestos.
- 7.3 Hazardous materials may exist at a site where there is no reason to believe they could or should be present. Consultant and Client agree that the

discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. Consultant and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for Consultant to take immediate measures to protect health and safety. Client agrees to compensate Consultant for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.

- 7.4 Consultant agrees to notify Client when unanticipated hazardous materials or suspected hazardous materials are encountered. Client agrees to make any disclosures required by law to the appropriate governing agencies. Client also agrees to hold Consultant harmless for any and all consequences of disclosures made by Consultant which are required by governing law. In the event the project site is not owned by Client, Client recognizes that it is the Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.
- 7.5 Notwithstanding any other provision of the Agreement, Client waives any claim against Consultant, and to the maximum extent permitted by law, agrees to defend, indemnify, and save Consultant harmless from any claim, liability, and/or defense costs for injury or loss arising from Consultant's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. Client will be responsible for ultimate disposal of any samples secured by the Consultant which are found to be contaminated.

**SECTION 8: RISK ALLOCATION** *(Must select a or b below if neither is selected a shall prevail)*

- ☐ 8.1a Client agrees that Consultant's liability for any damage on account of any error, omission or other professional negligence will be limited to a sum not to exceed \$50,000 or Consultant's fee, whichever is greater. Client agrees that the foregoing limits of liability extend to all of consultant's employees and professionals who perform any services for Client. If Client prefers to have higher limits on professional liability, Consultant agrees to increase the limits up to a maximum of \$1,000,000.00 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of four percent of the total fee, or \$400,00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.
- ☐ 8.1b Client agrees that Consultant's liability for any damage on account of any error, omission or other professional negligence will be limited to a sum not to exceed \_\_\_\_\_ or Consultant's fee, whichever is greater. Client agrees that the foregoing limits of liability extend to all of consultant's employees and professionals who perform any services for Client.

**SECTION 9: INSURANCE**

- 9.1 The Consultant represents and warrants that it and its agents, staff and Consultants employed by it, is and are protected by worker's compensation insurance and that Consultant has such coverage under public liability and property damage insurance policies which the Consultant deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. Within the limits and conditions of such insurance, Consultant agrees to indemnify and save Client harmless from and against loss, damage, or liability arising from negligent acts by Consultant, its agents, staff, and consultants employed by it. The Consultant shall not be responsible for any loss, damage or liability beyond the amounts, limits, and conditions of such insurance or the limits described in Section 8, whichever is less. The Client agrees to defend, indemnify and save Consultant harmless for loss, damage or liability arising from acts by Client, Client's agent, staff, and other consultants employed by Client.

**SECTION 10: DISPUTE RESOLUTION**

- 10.1 All claims, disputes, and other matters in controversy between Consultant and Client arising out of or in any way related to this Agreement will be submitted to Alternative dispute resolution (ADR) such as mediation and/or arbitration, before and as a condition precedent to other remedies provided by law.
- 10.2 If a dispute at law arises related to the services provided under this Agreement and that dispute requires litigation instead of ADR as provided above, then:
- (a) the claim will be brought and tried in judicial jurisdiction of the court of the county where Consultant's principal place of business is located and Client waives the right to remove the action to any other county or judicial jurisdiction, and
  - (b) The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

**SECTION 11: TERMINATION**

- 11.1 This agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, Consultant shall be paid for services performed to the termination notice date plus reasonable termination expenses.
- 11.2 In the event of termination, or suspension for more than three (3) months, prior to completion of all reports contemplated by the Agreement, Consultant may complete such analyses and records as are necessary to complete his files and may also complete a report on the services performed to the date of notice of termination or suspension. The expense of termination or suspension shall include all direct costs of Consultant in completing such analyses, records and reports.

**SECTION 12: ASSIGNS**

- 12.1 Neither the Client nor the Consultant may delegate, assign, sublet or transfer his duties or interest in this Agreement without the written consent of the other party.

**SECTION 13. GOVERNING LAW AND SURVIVAL**

- 13.1 The laws of the State of Florida will govern the validity of these Terms, their interpretation and performance.
- 13.2 If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this Agreement for any cause.