SUBSOIL INVESTIGATION
PROPOSED WAREHOUSE
INDUSTRIAL DRIVE & MECHANICAL BLVD.
SLIDELL, LOUISIANA
AAI REPORT NO. 09-L3121

FOR
KENTWOOD SPRINGS

Ardaman & Associates, Inc.

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Exhibit #26 - Johnny F. Smith Business Park - Geotechnical Report

Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants

14 July 2009

Kentwood Springs
724 East I-10 Service Road.
Slidell, Louisiana 70461

Attention: Mr. L.J. Riedle

Subsoil Investigation
Proposed Warehouse
Lots 45 & 46
Industrial Dr. & Mechanical
Slidell, Louisiana
AAI Project No. 09-L3121

Gentlemen:

Herein is our report on the results of a subsoil foundation investigation made for the subject project. We appreciate the opportunity to serve you. Please contact us should you have any questions.

Yours very truly,

ARDAMAN & ASSOCIATES, INC.

ALEXANDER JARAMILLO, E.I.

Reviewed By:

REDA M. BAKEER, PhD., P.E.
Vice President/Chief Engineer

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PROPOSED WAREHOUSE
J.F. SMITH INDUSTRIAL PARK
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SLIDELL, LOUISIANA
AAI PROJECT NO: 09-L3121

1.0 INTRODUCTION

This report contains the results of a subsoil foundation investigation made at the subject site. Instructions to proceed with the investigation were received on June 23, 2009 from K. Dillon Schickli of Kentwood Springs, Inc. Corso Fabricators, Inc. are the Design Build Contractors for the project. A statement of limitations is provided following the text of this report.

The study included the drilling of soil test borings to determine subsurface conditions and stratification and the performance of soil mechanics laboratory tests on samples obtained from the borings to evaluate their physical characteristics. Engineering analyses were made, based on the borings and test data to develop criteria to be used in foundation design.

2.0 SOIL BORINGS

2.1 Field Exploration

Two (2) undisturbed sample type soil test borings (B-1 and B-2) were drilled to depths of 50 ft. on July 15, 2009 in the area of the proposed Warehouse. The borings were

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made with an ATV mounted drill rig at designated locations approximately as shown in plan on Figure 1.

Undisturbed sampling was performed continuously in all cohesive or semi-cohesive materials with a three inch diameter thin wall tube sampler. Representative samples were cut from the cores and placed in moisture proof containers for preservation until laboratory testing could be performed. Logs of borings B-1 and B-2 showing the detailed stratification and sample depths are given in the Appendix.

When cohesionless material was encountered, which could not be sampled by undisturbed methods, the Standard Penetration Test was performed. This test consists of driving a two inch diameter splitspoon sampler 1 ft. (after first seating it 6 inches) with a 140 lb. hammer falling 30 inches. The number of blows required to drive the sampler gives an indication of the density of the material.

In addition, four (4) undisturbed soil borings (P-1 thru P-4) were made to the 8 ft. depth on July 15, 2009. These borings were made with an ATV mounted drill rig at designated locations within the proposed area of pavement improvements and approximately as shown in plan on Figure 1. Samples were taken of representative materials and placed in moisture proof containers until further laboratory visual classification and testing could be performed. Logs or borings P-1 thru P-4 showing detailed stratification and sample depth are also given in the Appendix.

3.0 LABORATORY TESTS

In order to develop the physical properties of the soils, soil mechanics laboratory tests were performed on samples obtained from the borings. This testing consisted primarily of Natural Moisture Content, Unit Weight and Unconfined Compression. Grain Size (percent passing the No. 200 Sieve) tests were performed on some of the more granular materials and Atterberg Limits tests were performed on selected cohesive samples. The results of all the laboratory tests are tabulated along side the boring logs at the appropriate sample and depth given in the Appendix.

The Unconfined Compression strength tests are used in analyses to determine soil bearing values for spread footing foundations. They also give a measure of "skin friction" values used to estimate pile load capacities. The Atterberg Limits along with the Natural Moisture Content tests give an indication of the compressibility of the soils and are used empirically to estimate settlements and the potential for volumetric change. The Grain Size tests are used to classify the more granular soils.

4.0 SUBSOIL CONDITIONS

4.1 Subsoil Description

Borings B-1 and B-2 Reference to the logs of borings B-1 and B-2 shows that beginning at the ground surface in both borings there is about 2 ft. of loose tan clayey silt with roots. This is underlain in boring B-1 by soft light gray and reddish tan silty clay to the 4 ft. depth. Below this in both borings there is medium stiff to stiff light gray and reddish tan silty clay that extends to the 8 to 30 ft. depth. This is followed in boring B-1 by dense light gray sand to the 16 ft. depth. Beginning at the 16 to 30 ft. depth in both borings, there is soft to medium stiff light gray clay to the 22 to 36 ft. depth. The remainder of the explored depth of 50 ft. in boring B-1 consists of medium stiff to stiff light gray silty clay, whereas the remainder of the explored depth in boring B-2 of 50 ft. consists of very soft light gray silty clay.

Borings P-1 thru P-4 Reference to the logs of borings P-1 thru P-4 shows that beginning at the ground surface there is about 2 ft. of loose tan clayey silt with roots and organic matter. The remainder of the explored depth of 8 ft. in borings P-1 thru P-4 consists generally of medium stiff to very stiff light gray and reddish tan silty clay.

4.2 Groundwater At the time of making the borings, no groundwater or free water was detected in any of the borings. These observations were made during or shortly after drilling the borings and groundwater may not have become fully static at the time of measurement. However, based on our general experience with the general geographical area of the site, groundwater is typically encountered at depths ranging from 4 to 10 ft. below the

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existing ground surface depending on the site grade. Also, a "perched" groundwater table could develop at the site. This occurs as surface waters are trapped in the upper more permeable clayey silt, underlain by less permeable clays. In any event, groundwater could fluctuate due to seasonal precipitation, drainage, prolonged drought, etc. If groundwater is important to construction, it should be measured at that time.

5.0 FOUNDATION ANALYSIS

It is understood that the proposed construction will consist of a single story Office/Warehouse, nominally 10,000 to 12,500 square ft. in plan, at the subject site and approximately as shown in plan on Figure 1. Design structural loads are not known at this time, but they are anticipated to be typical of this type facility. However, furnished information indicates that the Warehouse will include three (3) 4 ft. deep truck wells. It is further understood that approximately 1 ft. of fill will be needed to raise the site grade in the area of the proposed structure.

The near surface tan clayey silt that was encountered to about the 2 ft. depth in borings B-1 and B-2 is potentially unstable. The underlying soft silty clay that was encountered to the 4 ft. depth in boring B-1 is also poor in bearing quality. These near surface soils are believed to be unsuitable for structural support and should be bypassed by the structure foundation or excavated and replaced with structural fill, as will be discussed.

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The underlying medium stiff to stiff light gray silty clay that was encountered at about the 2 to 4 ft. depth in borings B-1 and B-2 is more stable and is fair in bearing quality. It is believed capable of supporting the proposed structure on spread footing foundation assuming that some movements can be tolerated. This also assumes that the silty clay is well drained prior to and during construction and that good rigidity in the structure foundation is assured to minimize detrimental movements due to settlements and the effects of volumetric change, as will be discussed. Consequently, analyses were made with regard to spread footing foundations. Results of these analyses are given in the following section. It is understood that recommendations relative to pile foundations are not needed at this time and, therefore, no analyses were made in this regard.

5.1 Spread Footing Foundations

Allowable Soil Bearing Capacities Based on an analysis of borings B-1 and B-2, it has been determined that an allowable soil bearing capacity of 1,500 lbs. per sq. ft. is available for design of square spread footings up to 6 ft. in width. For continuous footings up to 3 ft. in width, an allowable soil bearing capacity of 1,200 lbs. per sq. ft. is recommended for design. These allowable soil bearing capacities assume that the spread footings bypass the upper tan clayey silt and soft silty clay and are seated in firm, naturally occurring medium stiff to stiff light gray and reddish tan silty clay that begins at about the 2 to 4 ft. depth below the existing ground surface elevation in borings B-1 and B-2. They contain a factor of safety of

3.0 against failure which is recommended for design, but do not preclude settlements or the effects of volumetric change, as will be discussed.

The allowable soil bearing capacities assume that the footings are seated in firm, naturally occurring medium stiff to stiff light gray and reddish tan silty clay that begins at about the 2 to 4 ft. depth below the existing ground surface elevation in borings B-1 and B-2. Prior to construction, the area of the structure foundation should be stripped of all vegetation, the upper tan clayey silt and soft silty clay, any other soft or loose surface soils, deleterious materials, etc. and should be well drained. It should be noted that the potentially unstable soils could be readily distinguishable by their distinctive colors, whereas the poor quality soils could be identified by their soft consistency.

All excavated materials should be replaced with controlled-compacted structural fill. The structural fill, which could also be used to raise the site grade, could consist of a red clay-sand type material having less than 30 percent fines passing the No. 200 Sieve. It should be compacted to at least 95 percent of Maximum Dry Density at Optimum Moisture Content according to ASTM D-698. In-place density measurements should be taken to assure that this degree of compaction is achieved. For this case, footings could be seated in this structural fill using the foregoing allowable soil bearing capacities.

Estimated Settlements No detailed settlement analyses were made since design structural loads are not known at this time. However, settlements of 5 ft. square spread footings and 2 ft. wide continuous footings that are seated in medium stiff to stiff silty clay or in controlled-compacted structural fill and using the recommended allowable soil bearing capacities are estimated to be on the order of ½ to 1 inch. Settlements would increase with the size of the spread footings and, if larger footings are needed for support, detailed settlement analyses should be made.

In view of the magnitude of the estimated settlements and to bridge any undetected soft areas, it is recommended that good rigidity be assured in the structure foundation to minimize any detrimental effects of differential settlements. This could consist of stiffening grade beams tying individual foundation elements together and forming a rigid or "waffle" like pattern. If the foregoing estimated settlements are untolerable or if the depth of excavation and/or soil replacement becomes prohibitive, piles are recommended for support of all structural loads including the ground floor slabs and any sensitive pavements. If the case arises, our office will be available to perform additional analyses in this regard, upon request.

Volumetric Change The near surface cohesive soils are believed to be only slightly to moderately susceptible to volumetric change if changes if moisture content of the subsoils occur. Therefore, there is a some potential for heave and shrinkage during periods of heavy precipitation and severe drought, respectively. In view of this, it is our opinion that all provisions should be undertaken to guard against this tendency for volumetric change. In this regard, it is recommended that good rigidity of the structure foundation be assured, as previously discussed.

Good drainage should be assured, both during and subsequent to construction, to divert the flow of surface waters from the area of the structure foundation. By precluding surface waters from saturating the potentially expansive soils, the resulting volumetric movements would be minimized. In this regard, good roof and surface drainage should be assured with positive collection and runoff of these waters. The surrounding ground should slope away from the structure to divert surface runoff away from the structure foundation. Also, a distance of at least one-half (1/2) the expected height of fully-grown trees should be maintained between any trees and the structure foundation. It is also recommended that trees and shrubbery with heavy moisture demand not be placed in close proximity to the structure foundation.

5.2 Truck Wells

Lateral Pressure The base slabs of the truck wells will be located up to about 4 ft. below the existing ground surface elevation at the boring locations. Therefore, the vertical walls of the truck wells will be subjected to lateral soil and groundwater pressures. For design purposes, the lateral soil pressure could be assumed as zero at the ground surface (or top of fill) and to increase linearly (equivalent fluid pressure) with depth to the bottom of the wall. For the purpose of analyses, an equivalent fluid pressure increment of 110 lbs. per sq.

ft. per foot of depth could be assumed. This is an ultimate lateral pressure value (F.S. = 1.0) and a structural factor of safety should be considered in design. In view of the potential for volumetric change, it is recommended that good rigidity of the structure base slabs and walls be assured.

Backfill Backfill needed landward of the vertical walls of the truck wells could consist of red clay-sand type material having less that 30 percent fines passing the No. 200 Sieve or a "sugar" sand or "pumped" sand having less than 10 percent fines passing the No. 200 Sieve. In unpaved areas, the backfill could consist of a good quality excavated granular material, free from organic, roots, deleterious materials, etc. This backfill should be compacted to a density of at least that of the natural subsoils in order to minimize long-term settlements. Any backfill in pavement areas (excluding pavement improvement section) should consist of a granular material, as specified above. It should be compacted to at least 95 percent of Maximum Dry Density at Optimum Moisture Content according to ASTM D-698.

Uplift Pressure Provisions should be taken in design to account for the effect of uplift water pressure acting on the bottom of the base slabs of the truck wells. Even though no free water or groundwater was detected below the existing ground surface elevation at the boring locations, the potential exists for a higher groundwater table to develop during periods of heavy precipitation and flash flooding in the general area. The most critical case would be for the water pressure beneath the base of the structure slabs to be equal to the depth below ground surface to the bottom of the slab times the unit weight of water (62.4 lbs. per cubic ft.). This condition would exist if the water table adjacent to the structures is coincident with the ground surface, while the truck wells are dry.

The resistance to uplift pressure along the structure base slab should be resisted by the weight of the base slab and structure. For the critical case, it is believed that a factor of safety of at least 1.0 should be assured using the total weight of the structure. If the factor of safety against uplift is less than unity, the factor of safety could be increased by extending the base slab outside the structure to create a "lip" along the structure perimeter. For this case, the additional weight of the extended base slab and any backfill above this "lip" could also be considered for resisting the potential for uplift. However, the total load due to the uplift pressure would also increase as the width of the slab increases.

Construction Conditions It is understood that construction of the truck wells will require relatively deep excavations. It is our opinion that the methods, means and sequence of this construction excavations, including dewatering, should be the responsibility of the general contractor who should be experienced in this type construction. The design of the cofferdam system should also be the responsibility of the contractor and their engineers. However, considering the consistency of the near surface cohesive subsoils, the granular soils that were encountered at the 8 ft. depth in boring B-1 and the close proximity of the excavation to existing sensitive structures, it is our opinion that the construction excavation should be sheeted and

Exhibit #26 - Johnny F. Smith Business Park - Geotechnical Report internally braced, as needed, to assure good stability and to minimize lateral movements. Consideration should also be given in the dewatering plan to the presence of a more permeable granular stratum near the bottom of the excavations.

ARDAMAN AND ASSOCIATES, INC.

REDA BAKEER, Ph.D, P.E.
Vice President/Chief Engineer

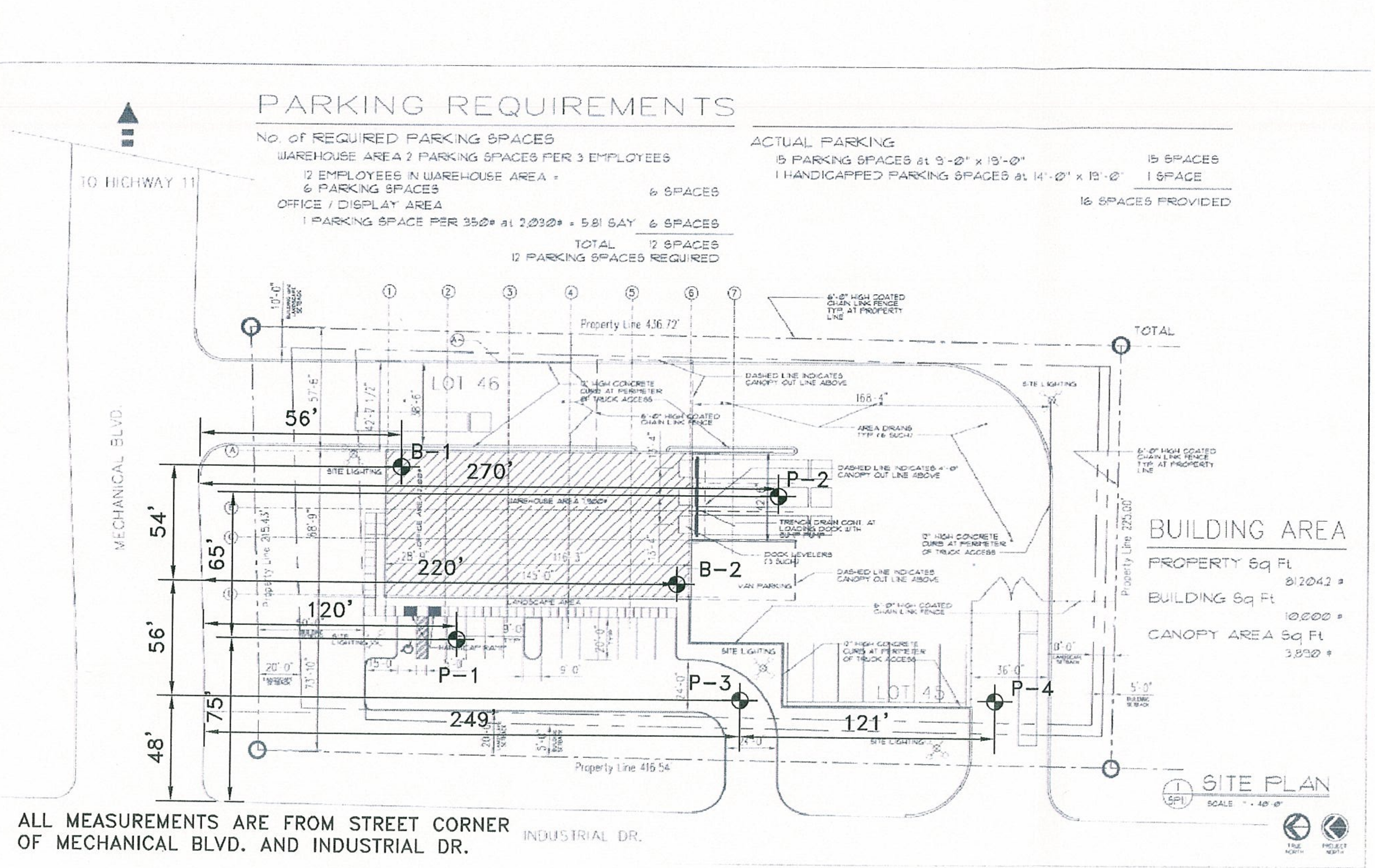
STATE OF LOUISIANA
REDA M. BAKEER
REG. No. 27123
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

LIMITATIONS AND CONDITIONS

The analyses and recommendations presented in this report are based on the provided project information and the results of the investigation. While it is not likely that conditions will differ greatly from those observed in the soil boring it is always possible that variations can occur away from the borehole location. If it becomes apparent during construction that subsurface conditions differing significantly from those observed in our boring are being encountered, this office should be notified at once so their effects can be determined and any remedial measures necessary can be prescribed. Also, should the nature of the project change, the recommendations provided in this report may have to be re-evaluated.

This report has been prepared for the exclusive use of Wetland Equipment Company for the purpose of constructing the proposed project features as generally described in this report. The recommendations provided in this report are site specific and are not intended for use at any other site or for any other facility. This report provides recommendations for design and construction and should not be used as construction specifications.

Aug 05, 2009 - 9:35am



PARKING REQUIREMENTS

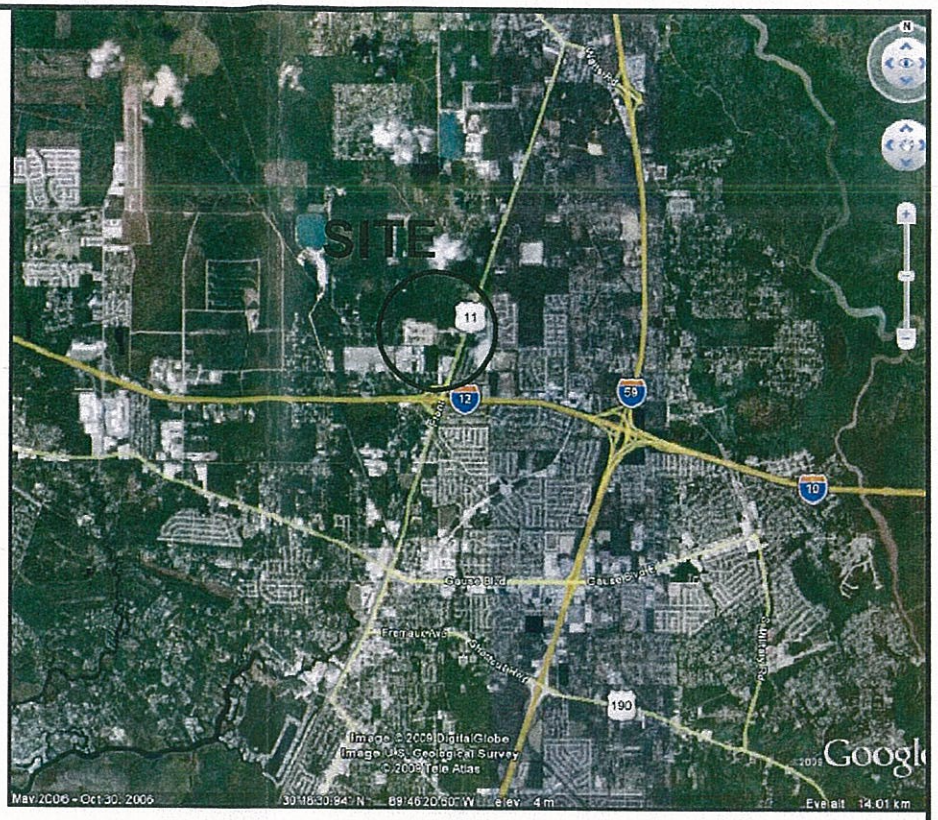
No. of REQUIRED PARKING SPACES
WAREHOUSE AREA 2 PARKING SPACES PER 3 EMPLOYEES
12 EMPLOYEES IN WAREHOUSE AREA = 6 PARKING SPACES — 6 SPACES
OFFICE / DISPLAY AREA
1 PARKING SPACE PER 350# at 2,030# = 5.81 SAY — 6 SPACES
TOTAL — 12 SPACES
12 PARKING SPACES REQUIRED

ACTUAL PARKING
15 PARKING SPACES at 9'-0" x 19'-0" — 15 SPACES
1 HANDICAPPED PARKING SPACES at 14'-0" x 19'-0" — 1 SPACE
16 SPACES PROVIDED

BUILDING AREA
PROPERTY Sq Ft — 81,204.2 #
BUILDING Sq Ft — 10,000 #
CANOPY AREA Sq Ft — 3,890 #

ALL MEASUREMENTS ARE FROM STREET CORNER OF MECHANICAL BLVD. AND INDUSTRIAL DR.

NOT TO SCALE



VICINITY MAP

NOT TO SCALE

REFERENCE:
SITE IMAGE BY GOOGLE.

PROPOSED WAREHOUSE
LOTS 45 & 46
J. F. SMITH INDUSTRIAL PARK
SLIDELL (ST. TAMMANY PARISH), LOUISIANA

for
KENTWOOD SPRINGS
SLIDELL, LOUISIANA

AAI
Ardaman & Associates, Inc.
Baton Rouge, LA   Jefferson, LA

Project Engineer:	Drawn by:	Checked by:
A. JARAMILLO	NMS	
File No.: 09-L3121	Date: 08-05-09	Figure No.: 1

Title:
BORING PLAN

REFERENCE:
PLAN BY OTHERS.

NOTE:
BORING LOCATIONS ARE APPROXIMATE.

P:\2009\09-L3121\CADD\09-L3121 Boring Plan.dwg

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APPENDIX

BORING LOGS

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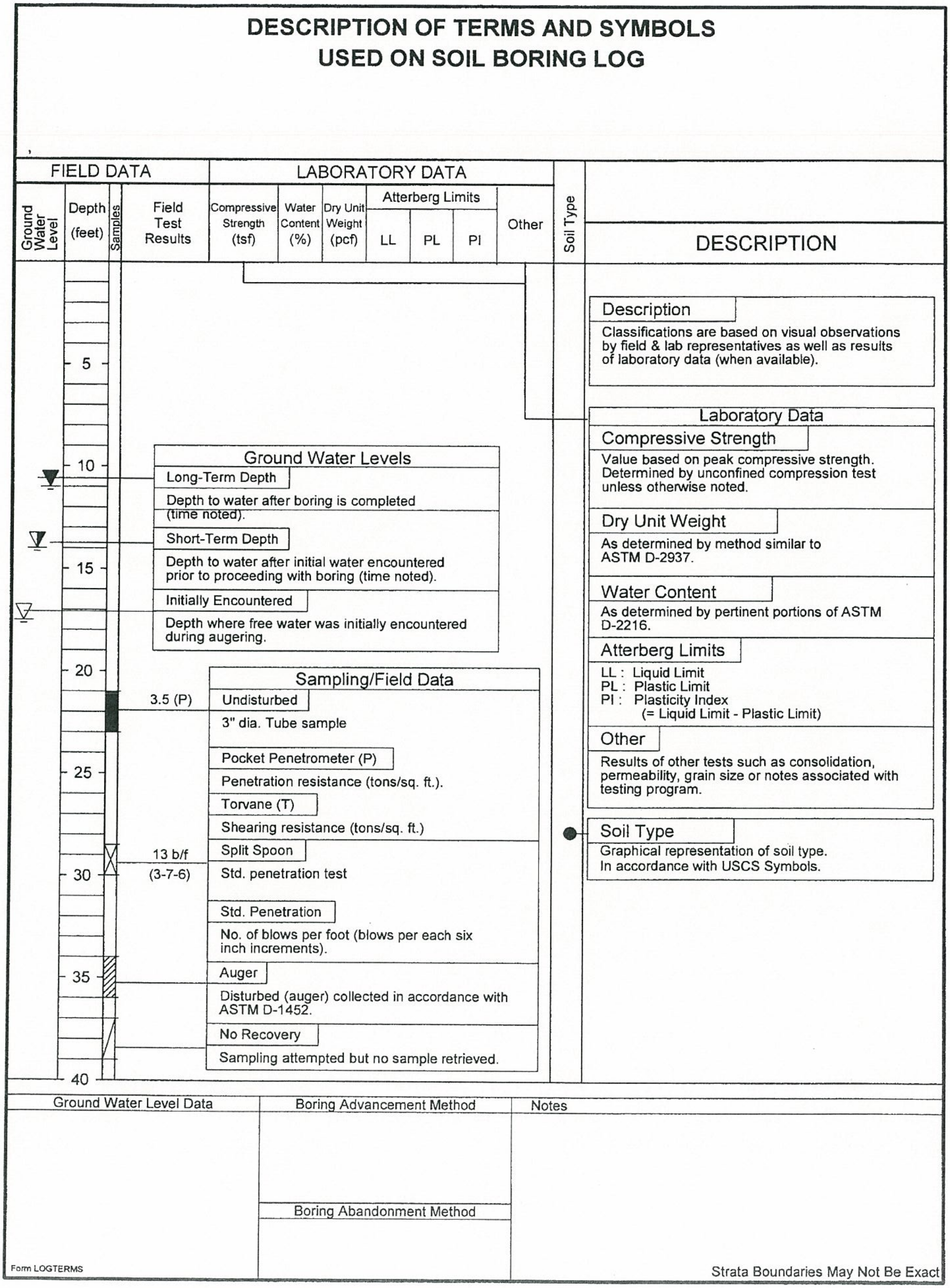
DESCRIPTION OF TERMS AND SYMBOLS USED ON SOIL BORING LOG



Description

Classifications are based on visual observations by field & lab representatives as well as results of laboratory data (when available).

Laboratory Data

Compressive Strength

Value based on peak compressive strength. Determined by unconfined compression test unless otherwise noted.

Dry Unit Weight

As determined by method similar to ASTM D-2937.

Water Content

As determined by pertinent portions of ASTM D-2216.

Atterberg Limits

LL : Liquid Limit
PL : Plastic Limit
PI : Plasticity Index
(= Liquid Limit - Plastic Limit)

Other

Results of other tests such as consolidation, permeability, grain size or notes associated with testing program.

Soil Type

Graphical representation of soil type. In accordance with USCS Symbols.

Ground Water Levels

Long-Term Depth

Depth to water after boring is completed (time noted).

Short-Term Depth

Depth to water after initial water encountered prior to proceeding with boring (time noted).

Initially Encountered

Depth where free water was initially encountered during augering.

Sampling/Field Data

Undisturbed

3" dia. Tube sample

Pocket Penetrometer (P)

Penetration resistance (tons/sq. ft.).

Torvane (T)

Shearing resistance (tons/sq. ft.)

Split Spoon

Std. penetration test

Std. Penetration

No. of blows per foot (blows per each six inch increments).

Auger

Disturbed (auger) collected in accordance with ASTM D-1452.

No Recovery

Sampling attempted but no sample retrieved.

Ground Water Level Data	Boring Advancement Method	Notes
	Boring Abandonment Method	

Form LOGTERMS

Strata Boundaries May Not Be Exact

Exhibit #26 - Johnny F. Smith Business Park - Geotechnical Report

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING B-1

Ardaman & Associates, Inc.

Sheet 1 of 1

File:	09-L3121
Date:	07/15/09
Logged by:	D. D.
Driller:	K. Cunningham
Rig:	Buggy

Location: Lat. 30° 19' 9.84"
Long. 89° 46' 17.04"

Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒			1.0 (P)		19							▥	Loose tan CLAYEY SILT (ML) w/ roots
			0.25 (P)	0.43	18	127						▨	Soft light gray and reddish tan SILTY CLAY (CL)
	5		1.25 (P)		14		26	17	9			▨	Medium stiff light gray and reddish tan SILTY CLAY (CL)
			0.75 (P)	0.54	16	130							
		☒			23							▒	Dense light gray SAND (SP)
	10	☒	48 b/f 12-20-28		22					5			
		☒	35 b/f 11-16-19		23								
	15												
	20		1.75 (P)	0.76	51	113						▨	Medium stiff light gray CLAY (CH) w/ silt seams
	25		1.5 (P)		24							▨	Medium stiff to stiff light gray SILTY CLAY (CL)
	30		1.5 (P)	0.50	30	120	31	19	12				
	35		1.0 (P)		45								w/ clay layers and lenses
	40		3.0 (P)	1.12	23	127							
	45		1.75 (P)		26								
	50		1.0 (P)	1.00	26	122	37	19	18				

Boring completed at 50 ft.

Ground Water Level Data	Boring Advancement Method	Notes
☒ No free water encountered to 14 ft.	4" Nom. Dia. Short Flight Auger: 0 to 14 ft. 4" Dia. Rotary Wash: 14 to 50 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING B-2

Ardaman & Associates, Inc.

Sheet 1 of 1

File:	09-L3121
Date:	07/15/09
Logged by:	D. D.
Driller:	K. Cunningham
Rig:	Buggy

Location: Lat. 30° 19' 8.4"
Long. 89° 46' 18.12"

Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒			1.0 (P)		12								Loose tan CLAYEY SILT (ML) w/ roots
			0.5 (P)	0.66	21	126							Medium stiff to stiff light gray and reddish tan SILTY CLAY (CL)
	5		2.0 (P)		17								
			2.25 (P)	1.31	23	123	36	16	20				
	10		2.0 (P)	0.70	20	127							
	15		1.5 (P)	0.76	31	118	46	21	25				
	20		1.75 (P)		43								
	25		1.0 (P)	0.64	24	123							
	30		1.75 (P)		23								
	35		0.25 (P)	0.43	51	107	82	29	53				Soft to medium stiff light gray CLAY (CH) w/ silt seams
	40		1.0 (P)		27								Very soft light gray SILTY CLAY (CL)
	45		1.25 (P)	0.24	28	126							
	50		0.25 (P)		36								

Boring completed at 50 ft.

Ground Water Level Data

☒ No free water encountered to 10 ft.

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 50 ft.

Boring Abandonment Method

Borehole grouted with cement/bentonite upon completion

Notes

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09

Exhibit #26 - Johnny F. Smith Business Park - Geotechnical Report

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING P-1

Ardaman
& Associates, Inc.

Sheet 1 of 1

File: 09-L3121
Date: 07/15/09
Logged by: D. D.
Driller: K. Cunningham
Rig: Buggy

Location: Lat. 30° 19' 9.6"
Long. 89° 46' 18.42"

Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒		■	3.5 (P)		9							▥	Loose tan CLAYEY SILT (ML) w/ roots
		■	2.0 (P)	1.02	16	125	30	18	12			▨	Stiff light gray and reddish tan SILTY CLAY (CL)
	5	■	0.75 (P)	1.61	22	129						▨	
		■	1.5 (P)	1.60	14	132						▨	
													Boring completed at 8 ft.
	10												
	15												
	20												

Ground Water Level Data

☒ No free water encountered to 8 ft.

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 8 ft.

Boring Abandonment Method

Borehole backfilled with soil upon completion

Notes

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING P-2

Ardaman & Associates, Inc.

Sheet 1 of 1

File:	09-L3121
Date:	07/15/09
Logged by:	D. D.
Driller:	K. Cunningham
Rig:	Buggy

Location: Lat. 30° 19' 8.16"
Long. 89° 46' 17.64"

Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒		■	1.5 (P)		12							▥	Loose tan CLAYEY SILT (ML) w/ roots
		■	1.25 (P)	0.72	21	128				79		▨	Medium stiff to stiff light gray and reddish tan SILTY CLAY (CL)
	5	■	1.0 (P)	1.12	19	131						▨	
		■	2.25 (P)	1.35	19	128						▨	
													Boring completed at 8 ft.
	10												
	15												
	20												

Ground Water Level Data	Boring Advancement Method	Notes
☒ No free water encountered	4" Nom. Dia. Short Flight Auger: 0 to 8 ft.	
	Boring Abandonment Method	
	Borehole backfilled with soil upon completion	

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING P-3

Ardaman
& Associates, Inc.

Sheet 1 of 1

File: 09-L3121
Date: 07/15/09
Logged by: D. D.
Driller: K. Cunningham
Rig: Buggy

Location: Lat. 30° 19' 8.1"
Long. 89° 46' 18.66"

Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒			0.25 (P)		14								Loose tan CLAYEY SILT (ML) w/ roots
			1.5 (P)	1.64	17	130							Stiff to very stiff light gray and reddish tan SILTY CLAY (CL)
	5		2.0 (P)	2.04	14	133	27	17	10				
			1.5 (P)	1.42	18	132							
													Boring completed at 8 ft.
	10												
	15												
	20												

Ground Water Level Data

☒ No free water encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 8 ft.

Boring Abandonment Method

Borehole backfilled with soil upon completion

Notes

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09

Proposed Warehouse
Lots 45 & 46
J. F. Smith Industrial Park
Slidell, (St. Tammany Parish), LA

Kentwood Springs
Slidell, LA

LOG OF SOIL BORING P-4

Ardaman
& Associates, Inc.

Sheet 1 of 1

File: 09-L3121
Date: 07/15/09
Logged by: D. D.
Driller: K. Cunningham
Rig: Buggy

Location: Lat. 30° 19' 7.08" Long. 89° 46' 18.66"
Surface Elevation: N/A (ft., NAVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Wet Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Percent Passing #200 Sieve	Other	Soil Type	Description
☒			1.5 (P)		20							▨	Loose tan CLAYEY SILT (ML) w/ roots and organic matter
			0.0 (P)	0.56	22	129						▨	Medium stiff light gray and reddish tan SILTY CLAY (CL)
	5		1.5 (P)	2.23	21	129						▨	Very stiff light gray and reddish tan SILTY CLAY (CL)
			1.5 (P)	2.90	17	130	39	17	22			▨	
													Boring completed at 8 ft.
	10												
	15												
	20												

Ground Water Level Data

☒ No free water encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 8 ft.

Boring Abandonment Method

Borehole backfilled with soil upon completion

Notes

Strata Boundaries May Not Be Exact

ARD LOG01 01R 093121.GPJ LOG01R.GDT 08/12/09