CITY OF CUYAHOGA FALLS, OHIO

September 1, 2022

ADDENDUM NO. 1

To the Drawings and Specifications For

BUILDING IMPROVEMENTS BROOKLEDGE CLUBHOUSE

TO ALL BIDDERS:

This Addendum supplements and amends the original Plans and Specifications and shall be taken into account in preparing proposals and shall become a part of the contract documents as follows:

PUBLISHED BID DATE OF 12:00 NOON, SEPTEMBER 15, 2022, IS **EXTENDED TO 12:00 NOON, SEPTEMBER 29, 2022.**

1. Engineers Estimate: $1,832,737.00.
2. A copy of the Subsurface Exploration Report for Brookledge Golf Clubhouse dated August 27, 2022 is now available for the Bidders.

END OF ADDENDUM #1

Acknowledgement of Receipt of Addendum No. 1

BUILDING IMPROVEMENTS BROOKLEDGE CLUBHOUSE

PLEASE REPLY IMMEDIATELY via e-mail @ PARKS@cityofcf.com, to acknowledge receipt of this addendum.

Sign and print your name below on this acknowledgement sheet.

Addendum No. 1 received by: _____
Signature

Date

_____
Print Name

_____
Company Name

SUBSURFACE EXPLORATION REPORT

For

Brookledge Golf Clubhouse Addition
1621 Bailey Road
Cuyahoga Falls, Ohio

Date

August 27, 2022

Prepared for:

David Pelligra & Architects Inc.
2231 Broadview Boulevard
Cuyahoga Falls, Ohio 44223

Prepared by:

A Summit Testing & Inspection Company
910 White Pond Drive
Akron, Ohio 44320
Tel: (330) 869-6606
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ST&I Project №.

G22-12166

TABLE OF CONTENTS

Brookledge Golf Clubhouse Addition
1621 Bailey Road
Cuyahoga Falls, Ohio

SUBSURFACE EXPLORATION REPORT

The following is the subsurface soil exploration report completed at the site for the planned clubhouse addition in Cuyahoga Falls, Ohio. This study was made to determine subsurface soil characteristics across the site so our engineers could offer recommendations regarding project specific geotechnical engineering issues.

1.0 DESCRIPTION OF PROPOSED PROJECT AND EXISTING SITE

Plans call for the construction of a slab-on-grade, single-story structure having an approximate total foot print of 4,400 square feet as detailed on attached "Boring Location Plan". Construction will consist of wood trussing / framing with brick veneer supported on shallow foundations. Maximum column and strip footings loads have been estimated at 25,000 pounds and 2,500 pounds per lineal foot respectively. The finish floor elevation of the planned addition will match that of the existing clubhouse. New concrete sidewalks / patios will be located to the Northwest and Southwest of planned addition. To note, the existing clubhouse is single-story structure with a lower walkout basement level thus we anticipate "uncompacted backfill" placed along the below grade walls.

The subject property known as the Brookledge Golf Club is located on the East side of Bailey Road in Cuyahoga Falls, Ohio. At the time of our field exploration, the topography of the planned clubhouse addition was relatively level with gradual decreases in elevation heading to the East and Northeast down to two existing ponds. Groundcover consisted of asphalt drives, concrete sidewalks / pavers, and asphalt drives surrounded by maintained lawn and random trees.

2.0 FIELD EXPLORATION

The field exploration commenced on July 20th when a total of (4) boring locations were marked on the field with wood lathe and white tape by ST&I personnel. Then on July 27th, all boring holes were advanced with an all-terrain vehicle mounted, medium capacity, rotary drill and continuous flight, hollow stem augers. The test holes were terminated at the planned exploration depth of 20.0 feet below existing ground surfaces. The

approximate test positions are shown on the attached "Boring Location Plan" that follows at the end of this written section of report.

While drilling, split spoon samples of the subsurface soils were obtained as the drillers performed the Standard Penetration Tests (SPT). The soils were visually-manually classified at the site by a member of our staff and/or the drillers and representative portions of each sample were sealed in glass jars to preserve moisture during transport to our soil mechanics laboratory for verification of the field descriptions and testing.

3.0 LABORATORY TESTING

Due to the consistency of the soils no laboratory testing is deemed necessary at this time.

4.0 SUBSURFACE PROFILE

Based on the information acquired in the field exploration and laboratory testing, along with the necessary assumption that subsurface conditions between, away from and below individual sampling locations and depths are similar to those shown below, the subsurface profile can be generally described as follows:

4.1 Soil Profile

Initially, the augers penetrated a 4.0 to 7.0 inch thick pavement structure (i.e., 2.5 to 5.0 inches asphalt / 2.0 to 4.0 inches of 304 limestone aggregate or 4.0 inches concrete) underlain by a 3.0 to 6.0 feet thick layer of "uncontrolled fill or possible fill" consisting of both cohesionless silty sand / sandy soils and cohesive fine-grain clayey silty / silty clayey soils. The preceding soil layers were then followed predominately by naturally deposited cohesionless silty sand, sand, and sand & gravelly soils with random layering of cohesive fine-grain clayey silty / silty clayey soils to termination depths of 20.0 feet below the ground surface. Exception to the preceding general subsurface soil profile existed as follows:

1) Test hole B-1 did not reveal any "fill or possible fill "layers below the surface pavement structure; and

2) Borings B-1 and B-2 did not identify any naturally deposited cohesive fine-grain clayey silty / silty clayey soil layers below the "fill to possible fill" layers.

According to the SPT results (N-value column on the "Subsurface Exploration Logs"), the cohesionless soils had a relative density of medium very loose to medium dense while the cohesive fine-grain soils possessed consistencies between medium stiff to very stiff. Soil color varied between brown, mottled brown/gray, and gray. Please see the attached "Subsurface Exploration Logs" that follow at the end of this report for more detail

4.2 Groundwater

While drilling and upon the completion of each boring hole, groundwater was sounded between the depths of 7.0 to 10.0 feet below the respective ground surfaces. "Depth to Seepage" (i.e., permeable water bearing cohesionless soil layers or water on inner drilling rods) was measured between the depths of 8.0 to 11.5 feet below the ground surface. All the test holes had measured to collapse between the depths of 12.0 to 13.0 feet below the ground surface. To note, the depth to collapse is often a reliable indicator of the static ground water elevation in cohesionless soils.

Based on the preceding information we do not anticipate groundwater being an issue during the shallow short-term excavations of less than 10.0 feet below the ground surface yet we cannot rule out random pockets of "perched groundwater" which if encountered will easily be controlled with conventional sumps.

Relative to groundwater control, each bidding contractor should be required to conduct their own exploration into the effect groundwater will have on construction so that adequate allowance can be made in their bids.

5.0 ENGINEERING ANALYSIS

According to the information provided in this report, it is our opinion that the site soils will properly support the planned improvements with following concerns:

1) Foundations for the planned slab-on-grade addition that are within 10.0+/- feet of existing clubhouse will require undercutting of anticipated poor below grade wall backfill and replacing with "engineered fill" or structurally doweling footings to the existing wall. Also, consideration shall be given to removing all below grade poor backfill and replacing with "engineered fill" so proper slab support may be achieved. Additional exploration work would need to be performed to verify that the existing below grade block is solid or grouted should doweling a ledge for new slab-on-grade to bridge the anticipated poor below grade wall backfill.

2) The site's predominately cohesive, fine-grain silty clayey / clayey silty soils are considered sensitive when exposed to excessive repeated heavy construction traffic and moisture that will quickly degrade the soil to become highly unstable (i.e., excessively pump and rut). Therefore, earthwork shall commence during drier times of the year as opposed to periods of in climate weather to avoid delays and additional costs to stabilize throughout and/or after earthwork. Also, given the rather small size of property, we cannot rule out that random surface areas of prepared subgrades may require stabilization prior to pavement construction.

6.0 RECOMMENDATIONS

Based on our interpretation of the results of this exploration, along with the necessary assumption that subsurface characteristics between, away from and below individual sampling locations and depths are similar to those described herein, the following recommendations are offered for your consideration and use on this project.

6.1 Site Preparation and Earthwork

The first stage of site preparation after razing the existing pavement structures, topsoil, brush, root balls, and any obvious soft/wet soils proofroll areas cut to grade or in need of "engineered fill" shall be to proofroll the exposed grades. The proofroll shall consist of a fully loaded tandem or tri-axle dump truck weighing at least 25-tons making at least two forward and back passes in each of two perpendicular directions across the test area. The proofroll is meant to detect zones of weak soil (loose, soft or otherwise unstable) that lie at or within about two feet of the surface. Unstable areas that are found shall be systematically corrected (e.g., scarified, dried if needed and recompacted or removed and replaced) per recommendations of the Summit Testing representative, who should be present to witness the initial subgrade compaction and proofroll.

Following the proofroll and any required remedial work, the site can be filled to grade as required. In general, all imported fill shall be cohesive fine-grain silty clayey soils similar in composition free of organic, frozen, and other deleterious matter and particles larger than 6.0-inches in any dimension. Fill and backfill should be placed in maximum loose 8.0-inch thick measure lifts, adjusted to moisture content within +/-2.0% of optimum and then be uniformly compacted using mechanical equipment to at least 98% of the standard Proctor (ASTM D698) maximum dry density. The 98% requirement is recommended for structures and pavements while lawn and landscaped areas may be relaxed to 92% maximum dry density. Each lift of fill and backfill should be tested for in-place density to verify that the recommended compaction percentages are obtained. We recommend at least one density test per 5,000 square feet of building or pavement area per lift, with at least three tests per lift, regardless of size of the area being filled. For trench or wall backfill, we recommend a testing frequency of not less than one per 50 lineal feet per lift. Samples of proposed fill and backfill materials should be delivered to our soil mechanics lab in sufficient time before use for plasticity and moisture-density relationship testing.

6.2 Foundations

We recommend using conventional shallow reinforced concrete footings (i.e., column pads and strip footings) to support the planned building. Footings must bear on firm, naturally deposited soil or engineered fill (i.e., fill that is placed, compacted and tested in lifts). We recommend proportioning footings to exert net allowable loading pressure of not more than 2,000 pounds per square foot.

Minimum footing dimensions of 16.0 and 30.0 inches are recommended for strip wall footers and column pads, respectively, to prohibit local shear failure of any foundation component. We estimate that footings proportioned using these criteria will not settle more than 1.0-inch total and 0.5-inch differential.

Exterior footers and other footings in unheated space are recommended to bear at the minimum depth of 42.0 inches for frost protection. Interior footings may bear at nominal depth, although we recommend at least four inches of aggregate or soil between floor slabs and the tops of footing.

Foundations should be concreted the same day they are excavated to reduce the time that the bearing strata are exposed to the elements. Footings should be backfilled as soon as practical for the same reason.

6.3 Seismic Site Class

According to the subsoil profile revealed by the exploratory borings and other data available to us, this site can be categorized into Seismic Site Class D.

6.4 Lateral Earth pressure Parameters: The following lateral earth pressure parameters have been estimated for use in design of earth retention systems that may be required for the project:

DESIGN PARAMETER	SOIL DESCRIPTION		
	Silty Clay/ Clayey Silt	**Sand/ Silty Sand**	**Washed #57 Aggregate**
Total Unit Weight, γ (PCF)	135	125	105
Internal friction angle, ϕ	15°	30°	40°
Active Pressure Coefficient, K_a	0.600	0.333	0.217
At Rest Pressure Coefficient, K_o	0.750	0.500	0.357
Passive Pressure Coefficient, K_p	1.670	3.000	4.598
Cohesion, c (PSF)	1000	0	0
Coefficient of (Sliding) Friction, f	0.237	0.364	Not Applicable

6.5 Slabs-on-Grade and Pavements

The recommendations presented in subsection **6.1 Site Preparation and Earthwork** of this report are expected to result in subgrades capable of providing adequate support for properly designed and built at-grade features such as slabs, pavements, sidewalks, etc. We recommend that concrete slab and asphalt pavement designs include at least 4.0 and 6.0 inches, respectively, of premium aggregate base to provide for uniform distribution of live loads onto the compacted subgrade. In addition to the minimum aggregate base depths, we recommend at least 4.0 inches asphalt and 5.0 inches concrete for all exterior pavements; thicker pavement should be considered for areas that will be subjected to truck traffic.

For pavement and slab thickness design, we recommend using presumptive California Bearing Ratio (CBR) value = 5 for flexible (asphalt) pavements and presumptive modulus of subgrade reaction (k_s) of not more than 140 pounds per cubic inch for rigid (concrete) pavements and slabs.

6.6 Temporary Excavations

Contractors working on the site must be made aware that excavation protection systems must observe the rules specified in local, state, or federal safety regulations; e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926 or successor regulations. Such regulations are strictly enforced and, if not followed, the owner or the contractors could be liable for substantial penalties.

Construction site safety generally is the sole responsibility of the contractor. The contractor shall also be solely responsible for the means, methods, techniques, sequences, and operations of the proposed construction. Under no circumstances is Summit Testing & Inspection assuming responsibility for construction site safety or the contractor's activities; such responsibility is not implied and should not be inferred.

7.0 FIELD OBSERVATION

Field observation comprises the second phase of a complete geotechnical engineering service, permitting those who developed the report to observe site excavation and thereby assess the reliability of their subsurface profile and the appropriateness of their preliminary recommendations. Actual conditions often differ from those expected, and that situation can create serious problems unless a qualified individual is available to decide what to do about them, where and when they are found. Decisions such as these are "judgment calls," and the quality of judgment can have a profound impact on the project's bottom line.

The geotechnical engineers of record are most qualified to make effective judgment calls, because they are the individuals who are most familiar with the report and its original findings and preliminary recommendations. Further, the geotechnical engineer of record is in the best position to respond quickly to unanticipated conditions that are encountered.

8.0 GENERAL CONSIDERATIONS AND LIMITATIONS

The scope of our exploration and this report are based on our understanding of the proposed project as described herein. Should any of this information change, we must be notified and asked to review our conclusions and recommendations to insure their continuing validity in light of the changes.

In preparing this report, we had to assume that subsurface conditions between and away from individual sampling locations and depths are similar to those described herein. If construction reveals subsoil characteristics that differ, we must be asked to evaluate the differences be allowed to modify our report as we deem necessary. Conclusions about this site drawn by others from the data presented herein are strictly their responsibility.

8.1 Standard of Care

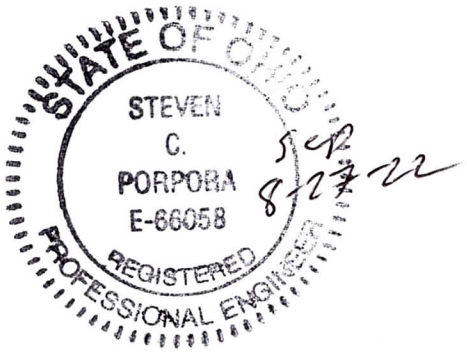
Summit Testing & Inspection Company has endeavored to provide its services in a manner that is consistent with appropriate professional practice and the level of care and skill ordinarily exercised by members of the profession currently practicing in this locality, at the same time, and under similar conditions as this project. No other representation, expressed or implied, is included or intended in this document.

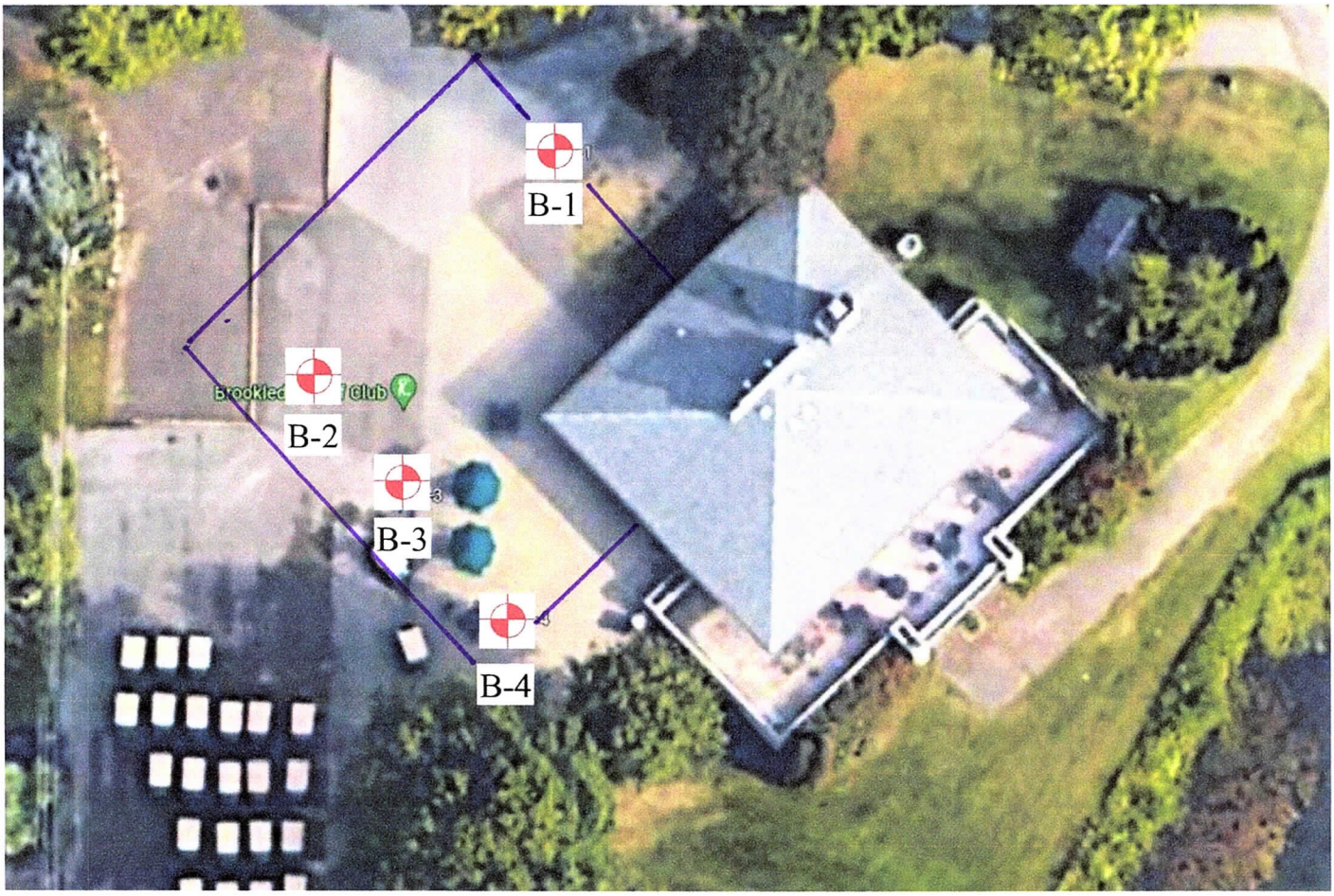
Respectfully submitted,

SUMMIT TESTING & INSPECTION COMPANY

Steven C. Porpora, P.E., M.S.C.E

PC: FILE





BORING LOCATION PLAN

Brookledge Clubhouse Addition
1621 Bailey Road
Cuyahoga Falls, Ohio

Project No. G22-12166	Scale: NTS
Drawn By: K.F.	Date: 08-01-2022

SUMMIT TESTING & INSPECTION COMPANY
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Boring No. **B-1**
Sheet 1 of 1
Date 07-27-2022

SUBSURFACE EXPLORATION LOG

Job Title: Brookledge Golf Club 2022 Addition — Job No.: G22-12166
Location: 1621 Bailey Road, Cuyahoga Falls, Ohio
Ground Elevation: Ex. Grade — Depth to seepage: 9.0 — Depth to collapse: 12 — Depth to water: 8.0
Drilling Contractor: Ridgeway Drilling, Inc. — Drill: ATV D-50 — Driller: P. Simpson — Logger: K. Freese
Hammer weight: 140 lbs — Hammer drop: 30" — Sampler Size: 2.0" O.D. — Auger Size: 2.25" I.D.

Depth in feet	"N" value	Description of Material	Sample Recovery (Inches)	Water Content (%)	Liquid Limit (%)	Plasticity Index (%)	Unconfined Compressive Strength (TSF)	Remarks
0		2.5" ASPHALT / 4.0" LIMESTONE AGGREGATE BASE						
1–3	12	Medium dense brown fine to medium grain SAND, moist	18					
4–7	5 6	Medium stiff brown CLAYEY SILT, little sand and gravel, moist	18 18				1.5 1.5	
8 ▽								
9–12	13	Medium dense brown medium to coarse grain SAND & GRAVEL, wet to saturated	16					
13–18	75+*		16					* 3, 25 and 50 blows for 6, 6 and 5 inches of penetration. Elevated blow counts from driving rock or cobble.
19–20	18	Medium dense gray fine to medium grain SAND & GRAVEL, little silt, saturated	18					
		Boring terminated at 20ft						

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Boring No. **B-2**
Sheet 1 of 1
Date 07-27-2022

SUBSURFACE EXPLORATION LOG

Job Title: Brookledge Golf Club 2022 Addition Job No.: G22-12166
Location: 1621 Bailey Road, Cuyahoga Falls, Ohio
Ground Elevation: Ex. Grade Depth to seepage: 8.0 Depth to collapse: 13.0 Depth to water: 7.0
Drilling Contractor: Ridgeway Drilling, Inc. Drill: ATV D-50 Driller: P. Simpson Logger: K. Freese
Hammer weight: 140 lbs Hammer drop: 30" Sampler Size: 2.0" O.D. Auger Size: 2.25" I.D.

Depth in feet	"N" value	Sample type	Graphic log	Description of Material	Sample Recovery (Inches)	Water Content (%)	Liquid Limit (%)	Plasticity Index (%)	Unconfined Compressive Strength (TSF)	Remarks
0				5.0" ASPHALT / 2.0" LIMESTONE AGGREGATE BASE						
1										* Drove rock.
2	9			POSSIBLE FILL: Stiff brown CLAYEY SILT, little sand and gravel, moist	8*				1.5	
3										
4	10			Loose to very loose brown fine to medium grain SAND, moist to saturated	18					
5										
6										
7 ▼	3				18					
8 ▽										
9	7			Medium stiff gray CLAYEY SILT, trace sand and gravel, moist	18				2.0	
10										
11										
12										
13 ▶										
14	6				18				2.0	Water added at a depth of 13.5 feet to facilitate sampling below the groundwater table.
15										
16										
17										
18										
19	6			Loose brown medium to coarse grain SAND & GRAVEL, saturated	18					
20				Boring terminated at 20ft						

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Boring No. **B-3**
Sheet 1 of 1
Date 07-27-2022

SUBSURFACE EXPLORATION LOG

Job Title: Brookledge Golf Club 2022 Addition Job No.: G22-12166
Location: 1621 Bailey Road, Cuyahoga Falls, Ohio
Ground Elevation: Ex. Grade Depth to seepage: 9.0' Depth to collapse: 13.0' Depth to water: 9.0'
Drilling Contractor: Ridgeway Drilling, Inc. Drill: ATV D-50 Driller: P. Simpson Logger: K. Freese
Hammer weight: 140 lbs Hammer drop: 30" Sampler Size: 2.0" O.D. Auger Size: 2.25" I.D.

Depth in feet	"N" value	Sample type	Graphic log	Description of Material	Sample Recovery (Inches)	Water Content (%)	Liquid Limit (%)	Plasticity Index (%)	Unconfined Compressive Strength (TSF)	Remarks
0				4.0" CONCRETE						
1				FILL: Stiff brown SANDY CLAY, moist						
2	10			FILL: Loose to medium dense brown fine to medium grain SAND, moist	18					
3										
4	21			POSSIBLE FILL: Very stiff brown SILTY CLAY, trace gravel and sand, moist	18				4.5	
5										
6				Loose brown SANDY SILT, little clay, moist to wet						
7	8				18					
8										
9 ▼	5				18					
10										
11										
12										
13 ▶										
14	10			Loose brown fine to coarse grain SAND, some gravel, saturated	18					Water added at a depth of 13.5 feet to facilitate sampling below the groundwater table.
15										
16										
17										
18										
19	6			Loose gray fine to medium grain SILTY SAND, saturated	18					
20				Boring terminated at 20ft						

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SUBSURFACE EXPLORATION LOG

Job Title: Brookledge Golf Club 2022 Addition Job No.: G22-12166
Location: 1621 Bailey Road, Cuyahoga Falls, Ohio
Ground Elevation: Ex. Grade Depth to seepage: 11.5' Depth to collapse: 12.0' Depth to water: 10.0'
Drilling Contractor: Ridgeway Drilling, Inc. Drill: ATV D-50 Driller: P. Simpson Logger: K. Freese
Hammer weight: 140 lbs Hammer drop: 30" Sampler Size: 2.0" O.D. Auger Size: 2.25" I.D.

Depth in feet	"N" value	Sample type	Graphic log	Description of Material	Sample Recovery (Inches)	Water Content (%)	Liquid Limit (%)	Plasticity Index (%)	Unconfined Compressive Strength (TSF)	Remarks
0				4.0" CONCRETE						
1										
2	14			FILL: Medium dense to loose brown fine to medium grain SAND, trace brick and gravel, moist	17					
3										
4	9				18					
5				POSSIBLE FILL: Loose mottled brown and gray fine grain SILTY SAND, moist						
6										
7	11			Medium dense brown fine grain SILTY SAND, little clay, moist	16					
8										
9	6			Loose brown fine grain SILTY SAND, trace gravel and clay, moist	16					
10 ▼										
11										
12 ▽ ▶										
13										
14	7			Loose brown medium to coarse grain SAND, little gravel, saturated	13					Water added at a depth of 13.5 feet to facilitate sampling below the groundwater table.
15										
16										
17										
18										
19	7			Loose gray fine grain SILTY SAND, trace gravel and clay, saturated	16					
20				Boring terminated at 20ft						

Summit Testing & Inspection Company

BORING LOG TERMINOLOGY

CLASSIFICATION TERMINOLOGY AND CORRELATIONS

NON COHESIVE SOILS			COHESIVE SOILS		
N Value (blows/foot)	Description Term	Relative Density	N Value (blows/foot)	Consistency Term	Qu (tsf)
0 – 4	Very loose	< 0.15	0 – 2	Very Soft	<0.25
5 – 10	Loose	0.15 – 0.35	3 – 4	Soft	0.25 – 0.5
11 – 30	Medium dense	0.35 – 0.65	5 – 8	Medium Stiff	0.5 – 1.0
31 – 50	Dense	0.65 – 0.85	9 – 16	Stiff	1.0 – 2.0
>50	Very dense	> 0.85	17 – 32	Very Stiff	2.0 – 4.0
			>32	Hard	>4.0

SOIL PARTICAL SIZES AND GRAPHICAL SYMBOLS

Gravel	Coarse: ¾" – 3" Fine: 4.76mm – ¾"	Clayey Silty Sand		Shale	
Sand	Coarse: 2.0mm – 4.76mm Medium: 0.42mm – 2.0mm Fine: 0.075mm – 0.42mm	Sandy Silty Clay		Sandstone	
Silt	0.005mm – 0.075mm	Clayey Silt		Siltstone	
Clay	<0.005mm	Silty Clay		Limestone	
Sand & Gravel		Organic Silt		Coal	
Silty Sand		Organic Clay		Topsoil	
Sandy Silt		Peat		Fill	
Silty Sand & Gravel		Marl		Paving (Asphalt or Concrete)	

ADJECTIVE	% BY WEIGHT
Trace	1-10
Little	10-20
Some	20-35

MOISTURE DESCRIPTION	
Moist	Damp but not visible water
Wet	Visible free water
Saturated	Excess free water

ROCK HARDNESS	
Term	N Value Blows / Penetration
Soft	50 / 6-8"
Medium	50 / 3-5"
Hard	50 / 1-2"
Very Hard	50 / 0"