

ADDENDUM NO. 1

**CBLH DESIGN, INC.
7850 FREEWAY CIRCLE
MIDDLEBURG HTS., OHIO 44130
PHONE: 440/243-2000
FAX: 440/243-3305
DATE: February 13, 2018
PROJECT NO.: 18904.00**

**ADDENDUM NO. 1 TO DRAWINGS AND TECHNICAL SPECIFICATIONS FOR
CONSTRUCT SURGERY ADDITION
CHALMER'S P. WYLIE VA AMBULATORY CARE CENTER
VA PROJ. NO. 757-203**

*Prepared by: CBLH Design, Inc.
7850 Freeway Circle, Middleburg Heights, Ohio 44130*

Bidding Documents, Specifications and Drawings dated February 21, 2017, for the above named project are modified and supplemented as set forth in this Addendum. Wherein this Addendum varies from or conflicts with the original issue of Bidding Documents, the requirements of this Addendum shall govern.

Addenda and addendum items are numbered consecutively from the commencement of the Project.

Items are not necessarily in sequence by Specification Section or Drawing Number.

This Addendum is comprised of five (5) items and five (5) attachments as noted.

The following Drawings, dated February 12, 2018, are included with this Addendum.

<u>Drawing No.</u>	<u>Title</u>	<u>Item No.</u>	<u>Size</u>
T-001	Technology Legend	4	30"x42"

Attachments:

Request for Information (RFI) Log
Subsurface Investigation Report
Specification Section 00 01 10 Table of Contents
Specification Section 27 52 23 Nurse Call and Code Blue Systems
Drawing T-001 Technology Legend

GENERAL

ITEM NO.1 Request for Information (RFI) Log
Document archiving Requests for Information and responses received by the VA during the designated bidding period.

ITEM NO.2 Subsurface Investigation Report
Subsurface report near the area where the addition is being constructed from the previous project on the floor below.

PROJECT MANUAL

ITEM NO.3 SECTION 00 01 00 TABLE OF CONTENTS
Remove Section 00 01 00 Table of Contents and insert revised Section 00 01 00 Table of Contents, issued with Addendum No. 1, attached herewith.

ITEM NO.4 SECTION 27 52 23 NURSE CALL AND CODE BLUE SYSTEM
Remove Section 27 52 23.01 Hill-Rom Nurse Call and Code Blue Systems and insert revised Section 27 52 23 Nurse Call and Code Blue System, issued with Addendum No. 1, attached herewith.

DRAWINGS

ITEM NO.5 DRAWING T-001 TECHNOLOGY LEGEND
Remove Drawing T-001 originally issued, and replace with Drawing T-001 dated February 12, 2018, issued with Addendum No. 1, attached herewith.



VA Project No. 757-203
 CBLH Project No. 18904

Request for Information (RFI) Log

Project Info

VA Columbus - Construct Surgery Addition

Owner Info

Department of Veterans Affairs
 Chalmer's P Wylie ACC

Printed: 02/13/18

Number		Received	Question	Response	Returned
001	A/E	1/19/2018	I have been reviewing this project and have been unable to find a soil boring for the drilled shaft foundations on this job.	Soils boring report for the Specialty Care Addition (project immediately below surgery addition) has been included in Addendum No. 1	2/13/2018
002	VA	1/30/2018	I am trying to verify the project specs for Division 7 (thermal & moisture protection) and confirm if the subcontractor has been awarded for this portion of the project.	The acquisition team is not sure what is meant by "verify." As of this publication, the acquisition team believes that he specification division 7 is accurate and complete as it relates to this project. The VA will not award subcontracts for this project. It is possible that the awardee, may award subcontracts.	2/13/2018
003	VA	1/30/2018	I am trying to confirm the GC bid date of 02/20/18	Please see solicitation for the bid opening date.	2/13/2018
004	A/E	2/7/2018	Specification indicate Hill-Rom as nurse call system vendor. Please verify vendor	Nurse call system shall be an extension of existing facility nurse call system. Refer to upcoming Addendum No. 1 for additional information and work requirements.	2/13/2018

SUBSURFACE EXPLORATION

**SUBSURFACE EXPLORATION
PROPOSED BUILDING ADDITION
CHALMERS P. WYLIE VA AMBULATORY CARE CENTER
420 N. JAMES RD, COLUMBUS, OHIO
CTL PROJECT NO. 13050029COL**

PREPARED FOR:

**CBLH DESIGN, INC.
7850 FREEWAY CIRCLE
CLEVELAND, OHIO 44130**

PREPARED BY:

**CTL ENGINEERING, INC.
2860 FISHER ROAD
COLUMBUS, OHIO 43204
(614)-276-8123-Phone
(614)-276-6377-Fax**

May 7, 2013



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I. PROJECT LOCATION AND DESCRIPTION

The project involves the construction of an addition to the existing VA Care Center building. The proposed addition will be 5 stories above grade with no basement. According to the structural engineer, the individual column foundation loads will be about 710 kips.

Existing building construction drawings were provided to us. Based on the drawings, the existing building is supported on drilled piers (Caissons) founded below a depth of 20.0 feet.

II. SUBSURFACE INVESTIGATION

Five (5) soil test borings, designated as B-1 through B-5, were drilled at the approximate locations shown on the enclosed Boring Location Plan sheet. Borings were drilled in the area of the proposed additions to depths of 25.0 to 50.0 feet.

The test borings were originally drilled to depths of 25 feet each, utilizing hollow stem augers (HSA), on March 21 and 22, 2013. On May 1, 2013 the drill rig returned to the site, and borings B-3 and B-4 were extended to depths of 50.0 feet each. Standard penetration tests were conducted in the test borings using a 140-pound hammer, falling 30 inches to drive a 2-inch O.D. split barrel sampler for 18 inches.

Soil samples obtained from the drilling operations were preserved in glass jars, visually classified in the field and laboratory, and tested for natural moisture content. Representative soil samples were tested for grain size analysis, Atterberg limits, loss on ignition and hand penetrometer.

The ground surface elevations at the test boring locations were referenced to a benchmark being the finished floor of the existing building. The elevation of this benchmark was taken as 795.0 feet from the existing building drawings provided to us.

III. FINDINGS

A. Visual Observations

The proposed addition area is generally grass covered. The existing grade across the site is relatively flat, gently sloping down to the east. A pond is located east of the proposed addition. At the time of drilling, no signs of surface water retention were noted across the site.



B. Subsurface Conditions

The borings exhibited 2 to 14 inches of topsoil at the surface. The topsoil was mixed with gravel in borings B-1, B-2, and B-3.

Below the topsoil, the borings exhibited fill and/or possible fill described as lean clay or sandy lean clay (CL) soils to depths ranging from 8.5 to 9.5 feet below grade. Brick fragments, slag and organics were encountered within the fill encountered in borings B-4 and B-5. These soils exhibited standard penetration N_{60} values ranging from 7 to 32 blows per foot (bpf), with natural moisture content values ranging from 1 to 38 percent.

Below the fill or possible fill, the test borings exhibited brown and gray sandy silt (ML), lean clay or lean clay with sand (CL) to the drilled depth of 25.0 feet in borings B-1, B-2 and B-5, and to depths of 25.0 to 26.0 feet in borings B-3 and B-4. These soils were further classified as glacial till deposits. These soils exhibited penetration N_{60} values ranging from 3 to 50 bpf, with natural moisture content values ranging from 8 to 50 percent. Cobbles were encountered within this layer in borings B-1 and B-2.

Borings B-3 and B-4 then encountered alternating layers of granular and cohesive soils, described as well graded gravel (GW), well graded sand (SW), clayey sand (SC), lean clay with gravel (CL), and sandy silty clay (CL-ML), extending downwards to the drilled depths of 50.0 feet. These soils exhibited standard penetration N_{60} values ranging from 19 to 51 bpf, with natural moisture content values ranging from 2 to 19 percent.

Groundwater and soil cave-in was measured in borings B-1 through B-5 as tabulated below.

Boring No.	Groundwater Depth (feet)		Soil Cave-In Depth (feet)
	During Drilling	At Completion	
B-1	18.5	Dry	14.5
B-2	8.5	14.0	14.5
B-3	18.5	39.2	41.8
B-4	23.5	11.8	12.9
B-5	18.5	15.0	23.0

IV. DISCUSSION

It is understood that the proposed building will be 5 stories above grade with no basement. According to the structural engineer, the individual column foundation loads will be about 710 kips.

Fill or possible fill materials were encountered to depths ranging from 8.5 to 9.5 below grade in the test borings. Fill soils encountered in borings B-1, B-2 and B-3 were relatively clean. Fill soils encountered in borings B-4 and B-5 had brick fragments, slag and organics. Organic content test performed on boring B-4, sample 4, from depths of 8.5 to 10.0 feet, indicated a high loss on ignition (LOI) value of 9.1 percent.

Relatively weak native soils were also encountered below the fill, to depths of up to about 20.0 feet in borings B-3, B-4 and B-5. The soils encountered in boring B-4 between depths 7.0 to 7.5 feet, exhibited a natural moisture content value of 50 percent and an LOI value of 4.0 percent. The fill soils encountered in borings B-4 and B-5 and the weak native soils encountered in borings B-4 and B-5 are not suitable to support the foundations or floor slabs.

The use of shallow foundations for this project would require mass excavation of unsuitable materials and replacement with properly compacted engineered fill. This is likely not feasible at this site. Therefore, it is recommended that the proposed structure, be supported on deep foundations, extending through the unsuitable soils into strong native soils below.

Deep foundations such as drilled piers, auger cast piles, driven piles could be considered for this project. However, it is expected that drilled piers or auger cast piles are best suited for this project. Driven piles would likely not be suitable, because of the percussion noises associated with pile driving. Therefore only recommendations for drilled piers and auger cast piles are provided in this report. Recommendations for driven piles will be provided upon request, if needed.

With deep foundations, the building floor could be constructed as a structural slab, also supported on the deep foundations. However, if the owner is willing to accept some on-going maintenance, then a three foot layer of engineered fill may be used to support the floor slab. This will require excavating all existing soils to a uniform depth of three feet below the finished subgrade, and placed new engineered fill. Prior to new fill placement, the exposed surface should be proofrolled and areas indicating excessive deflection or rutting should be treated as recommended by the site Soils engineer.

V. **ANALYSIS AND RECOMMENDATIONS**

Based upon the preceding Discussion as well as soil data obtained from the field and laboratory testing the following recommendations are provided.

A. **General Site Preparation and Earthwork**

1. Any vegetation, topsoil or organic soils encountered within the proposed building limits should be removed. Topsoil may be stockpiled for future landscaping purposes.
2. Special care should be taken when excavating near the existing structure so as not to undermine support of the existing structure
3. During earthwork operations, care should be taken to provide adequate drainage on the surface of exposed soils. Absorption of heavy rainfall, accumulations of water and heavy construction traffic may result in softening of these soils, hence, severely weakening the strength of subgrade soils.
4. Exposed surfaces should be compacted and/or proofrolled until a relatively unyielding surface is achieved. Soft or loose soils, if encountered, should be disked, dried and recompactd, or undercut and replaced with compacted engineered fill, or otherwise as directed by the Soils Engineer.
5. Some of the on-site excavated materials could be reused as engineered fill provided that they are clean and free of organic materials, and provided that proper moisture content is maintained during placement.
6. Engineered fill should be placed in layers not to exceed 8 inches in loose thickness, with each layer compacted to 100 percent of the maximum dry density as determined by ASTM D-698 standard method (AASHTO T-99), or as otherwise directed by the Soils Engineer.
7. Where new fill will be placed on existing slopes, slopes that are steeper than 8:1 Horizontal to Vertical (H:V) should be continuously benched over those areas. Benching should be of sufficient width to permit operation of placing and compacting equipment.

8. Fill placement should extend beyond the perimeter of the proposed building addition or pavement a minimum horizontal distance equal to the height of the fill or 5 feet, whichever is greater. Otherwise, the fill should be contained in a retaining wall system.
9. Groundwater/seepage is expected during site preparation or the excavation and construction of shallow foundation units. Sump pumps are considered suitable to maintain the excavations in a relatively dry condition

B. Foundation Support

Drilled Piers (Caissons)

1. The structure can be supported on drilled Piers (Caissons) extending into the underlying strong native soils, generally encountered at and below depths of about 20 to 25 feet.
2. Drilled piers, when founded at or below 25 feet, can be designed using an allowable end bearing value of 12 kips per square feet. In addition, a skin friction value of 0.75 kips per square foot could be used for the portion of the shaft extending below an embedment depth of 25 feet.
3. Existing fill, sand, gravel and groundwater were encountered in our borings. Therefore it is recommended that the drilled shaft excavations be cased during installation to prevent cave in and to provide for inspection and cleaning of the hole.
4. Cobbles and possibly boulders should be expected during drilled pier excavations.

Auger Cast Concrete Piles

1. Structural loads could be supported at this site onto auger cast piles extending below 25 feet. Several different pile diameters may be selected. However, for the purpose of performing a cost analysis, 18-inch diameter piles extended to a total depth of about 35 to 40 feet, could be designed using an allowable axial design load of about 40 tons per pile.

2. Sand and gravel deposits were encountered across the site. Special care would be required to assure that excess soils are not removed during drilling, causing bulging of the piles (an unexpected increase in the pile diameter) or that these soils types do not cave during auger extraction, causing necking (an unexpected decrease in the pile diameter). Pile Integrity Testing (PIT) could be performed on some or all of the auger cast piles, to help evaluate the overall integrity of the piles.
3. The piles should be installed at center to center spacing no closer than 3 times the pile diameter. Pile load tests could be performed on selected auger cast piles to verify the load capacity. The Soils Engineer and Structural Engineer should determine the number and location of any pile load tests, once the plans have been prepared.

VI. CHANGED CONDITIONS

The evaluations, conclusions, and recommendations in this report are based on our interpretation of the field and laboratory data obtained during the exploration, our understanding of the project and our experience with similar sites and subsurface conditions using generally accepted geotechnical engineering practices. Although individual test borings are representative of the subsurface conditions at the boring locations on the dates drilled, they are not necessarily representative of the subsurface conditions between boring locations or subsurface conditions during other seasons of the year.

In the event that changes in the project are proposed, additional information becomes available, or if it is apparent that subsurface conditions are different from those provided in this report, CTL Engineering should be notified so that our recommendations can be modified, if required.

VII. TESTING AND OBSERVATION

During the design process, it is recommended that CTL Engineering work with the project designers to confirm that the geotechnical recommendations are properly incorporated into the final plans and specifications, and to assist with establishing criteria for the construction observation and testing.



CTL Engineering is not responsible for independent conclusions, opinions and recommendations made by others based on the data and recommendations provided in this report. It is recommended that CTL be retained to provide construction quality control services on this project. If CTL Engineering is not retained for these services, CTL shall assume no responsibility for compliance with the design concepts or recommendations provided.

VIII. CLOSING

This report has been prepared for the exclusive use by the client for use only on this project. Our services have been performed in accordance with generally accepted Geotechnical Engineering principles and practices. No warranty is either expressed or implied.

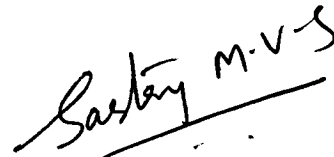
This report addresses only the geotechnical aspects of this project and does not include any environmental issues.

Specific design and construction recommendations have been provided in this report. Therefore, the report should be used in its entirety.

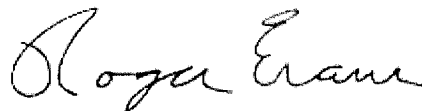
Soil samples will be retained in our laboratory for a period of 60 days, after which they will be discarded unless instructions are received from you as to their disposal.

Respectfully Submitted,

CTL ENGINEERING, INC.



Sastry Malladi
Staff Engineer



Roger Evans, P.E.
Project Engineer



**APPENDIX A
TEST BORING RECORDS**



SOIL DESCRIPTION

Descriptors for soil consistency used in this report are based upon the Standard Penetration Test (SPT), ASTM D 1587, with the penetration (N) values corrected to N_{60} , based upon the efficiency of the SPT Hammer used for the soil sampling.

Descriptors for both non-cohesive and cohesive soils are presented below, with the corresponding range of corrected penetration values.

<u>NON-COHESIVE SOIL DESCRIPTION</u>	<u>CORRECTED PENETRATION VALUES BLOWS PER FOOT (BPF)</u>
Very Loose.....	0 – 4
Loose.....	5 – 10
Medium Dense.....	11- 30
Dense.....	31 – 50
Very Dense.....	Over 50

<u>COHESIVE SOIL DESCRIPTION</u>	<u>CORRECTED PENETRATION VALUES BLOWS PER FOOT (BPF)</u>
Very Soft.....	0 – 1
Soft.....	2 – 4
Medium Stiff.....	5 – 8
Stiff.....	9 – 15
Very Stiff.....	16 – 30
Hard.....	Over 30

Moisture term descriptors for both non-cohesive and cohesive soils are presented below.

<u>NON-COHESIVE SOIL DESCRIPTION</u>	<u>MOISTURE TERMS</u>	<u>COHESIVE SOIL DESCRIPTION</u>
Powdery.....	Dry.....	Powdery
Some Moisture.....	Damp.....	Below Plastic Limit
Damp to the Touch.....	Moist.....	Above Plastic, Below Liquid Limit
Free Water.....	Wet.....	Above Liquid Limit



TEST BORING RECORD

CLIENT : CBLH Design, Inc.
PROJECT : Chalmers P. Wylie VA Ambulatory Care Center
LOCATION : 420 N. James Road, Franklin Co., Ohio
PROJECT NO. : 13050029COL

BORING NO.: **B-1**
SHEET 1 OF 2
DATE STARTED : 03-22-13
DATE COMPLETED : 03-22-13

BORING ELEVATION : 794.8 Feet STATION : OFFSET : DEPTH : 25.0 Feet BORING METHOD: HSA	RIG TYPE : CME 55 CASING DIA. : 3.25" CORE SIZE : HAMMER : Auto ENERGY RATIO : 81.2	DRILLER : BK TEMPERATURE : 30° WEATHER : Sunny
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GROUNDWATER: Encountered at 18.5' Caved in at 14.5'

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
793.6		TOPSOIL AND GRAVEL (14")	1.2											
		Stiff, Dark Brown SANDY LEAN CLAY (CL) , Moist (FILL)		SS-1	4 5 6	15	28	17			5.0*			
	5		5.0	SS-2	3 5 6	15	100	20			5.0*			
789.8		Stiff, Gray LEAN CLAY With SAND(CL) , Damp (FILL)		SS-3	5 7 8	20	100	15			7.0*			
			8.5	SS-4	2 3 8	15	100	13			5.0*			
786.3		Stiff, Gray SANDY LEAN CLAY (CL) , Damp (TILL)		SS-5	9 11 15	35	100	10			1.0*			
	10		13.5											
781.3		Very Stiff to Hard, Gray SANDY SILT (ML) , with Cobbles, Moist (TILL)		SS-6	16 13 24	50	100	8			2.0*			
	15													
	20													

Continued on next page

TEST BORING/PIIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13

2860 Fisher Road Columbus, Ohio 43204 Telephone: 614-276-8123 Fax: 614-276-6377 Email: ctl@ctleng.com	BORING METHOD HSA - Hollow Stem Auger SFA - Solid Flight Auger RC - Rock Coring MD - Mud Drilling WD - Wash Drilling HA - Hand Auger	SAMPLING METHOD SS - Split Spoon Sample ST - Shelby Tube Sample CR - Rock Core Sample BS - Bag Sample	ABBREVIATIONS * - Hand Penetrometer LL - Liquid Limit PL - Plastic Limit PI - Plasticity Index SPT - Standard Penetration Test N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER
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TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-1**
 SHEET 2 OF 2

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS		
											LL	PL	PI
769.8	25	Very Stiff to Hard, Gray SANDY SILT (ML) , with Cobbles, Moist (TILL)	25.0	SS-7	12 15 17	43	100	11		3.0*			
		BOTTOM OF BORING											
	30												
	35												
	40												
	45												

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center
 LOCATION : 420 N. James Road, Franklin Co., Ohio
 PROJECT NO. : 13050029COL

BORING NO.: **B-2**
 SHEET 1 OF 2
 DATE STARTED : 03-22-13
 DATE COMPLETED : 03-22-13

BORING ELEVATION : 795.0 Feet	RIG TYPE : CME 55	DRILLER : BK
STATION :	CASING DIA. : 3.25"	TEMPERATURE : 30°
OFFSET :	CORE SIZE :	WEATHER : Sunny
DEPTH : 25.0 Feet	HAMMER : Auto	
BORING METHOD: HSA	ENERGY RATIO : 81.2	

GROUNDWATER: ▼ Encountered at 8.5' ▼ At completion 14.0' ☒ Caved in at 14.5'

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
794.2		TOPSOIL AND GRAVEL (10")	0.8											
	5	Very Stiff, Dark Brown and Black SANDY LEAN CLAY (CL) , Moist (FILL)		SS-1	4 7 7	19	100	18		6.0*				
				SS-2	7 8 9	23	100	28		4.0*				
				SS-3	4 6 7	18	100	26		5.0*				
786.5 ▼	10	Stiff, Brown LEAN CLAY with SAND (CL) , Moist (TILL)	8.5	SS-4	4 5 5	14	100	11		5.0*				
					SS-5	3 4 5	12	100	14		1.0*			
781.5	15	Stiff to Very Stiff, Gray SANDY SILT (ML) , with Cobbles, Moist	13.5											
					SS-6	7 9 13	30	100	11		2.0*			
	20													

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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING/PIIT RECORD 13050029COL.GPJ_CTL_CORPORATE.GDT 5/3/13

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-2**
 SHEET 2 OF 2

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS		
											LL	PL	PI
770.0	25	Stiff to Very Stiff, Gray SANDY SILT (ML) , with Cobbles, Moist	25.0	SS-7	15 15 12	37	100	9		5.0*			
		BOTTOM OF BORING											

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center
 LOCATION : 420 N. James Road, Franklin Co., Ohio
 PROJECT NO. : 13050029COL


BORING NO.: **B-3**
 SHEET 1 OF 3
 DATE STARTED : 03-22-13
 DATE COMPLETED : 05-01-13

BORING ELEVATION : 794.9 Feet STATION : OFFSET : DEPTH : 25.0 Feet BORING METHOD: HSA	RIG TYPE : CME 55 CASING DIA. : 3.25" CORE SIZE : HAMMER : Auto ENERGY RATIO : 81.2	DRILLER : BK TEMPERATURE : 40° WEATHER : Sunny
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GROUNDWATER: ▼ Encountered at 18.5' ☒ Caved in at 15.5'

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
793.9		TOPSOIL AND GRAVEL (12")	1.0											
		Stiff to Medium Stiff, Brown and Gray LEAN CLAY (CL) , Moist (FILL)		SS-1	4 4 5	12	100	15		3.0*				
	5			SS-2	8 7 9	22	100	24		3.0*				
				SS-3	3 3 3	8	100	13		2.5*				
				ST-1								47	25	22
785.4	10			SS-4	1 1 1	3	100	35						
			Very Soft to Stiff, Gray LEAN CLAY (CL) , Moist (TILL)		SS-5	1 1 1	3	100	15					
	15													
					SS-6	3 2 4	8	100	12		4.0*			
	20													

Continued on next page

 <p> 2860 Fisher Road Columbus, Ohio 43204 Telephone: 614-276-8123 Fax: 614-276-6377 Email: ctl@ctleng.com </p>	<table border="0"> <tr> <th style="text-align: left;">BORING METHOD</th> <th style="text-align: left;">SAMPLING METHOD</th> <th style="text-align: left;">ABBREVIATIONS</th> </tr> <tr> <td>HSA - Hollow Stem Auger</td> <td>SS - Split Spoon Sample</td> <td>* - Hand Penetrometer</td> </tr> <tr> <td>SFA - Solid Flight Auger</td> <td>ST - Shelby Tube Sample</td> <td>LL - Liquid Limit</td> </tr> <tr> <td>RC - Rock Coring</td> <td>CR - Rock Core Sample</td> <td>PL - Plastic Limit</td> </tr> <tr> <td>MD - Mud Drilling</td> <td>BS - Bag Sample</td> <td>PI - Plasticity Index</td> </tr> <tr> <td>WD - Wash Drilling</td> <td></td> <td>SPT - Standard Penetration Test</td> </tr> <tr> <td>HA - Hand Auger</td> <td></td> <td>N₆₀ - Standard Penetration Normalized to 60% Drill Rod ER</td> </tr> </table>	BORING METHOD	SAMPLING METHOD	ABBREVIATIONS	HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer	SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit	RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit	MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index	WD - Wash Drilling		SPT - Standard Penetration Test	HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER	
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TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-3**
 SHEET 2 OF 3

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
769.9	25	Very Soft to Stiff, Gray LEAN CLAY (CL) , Moist (TILL)	25.0	SS-7	3 6 9	20	100	9		7.0*				
			SS-8A	4	8	31	28	16						
			SS-8B	15	15			14						
	30	Dense to Medium Dense, Gray CLAYEY SAND(SC) , with Cobbles, Moist		SS-9	4 6 9	20	0							
761.4	35		Very Stiff, Gray SANDY SILTY CLAY (CL-ML) , Damp (TILL)	33.5	SS-10	2 6 8	19	11	11		3.0*			
756.4	40	Medium Dense to Dense WELL GRADED GRAVEL (GW) , Wet to Moist	38.5	SS-11	4 7 7	19	17	19						
	45				SS-12	10 14 19	45	11	16					

Continued on next page

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-3**
 SHEET 3 OF 3

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
744.9	50	Medium Dense to Dense WELL GRADED GRAVEL (GW) , Wet to Moist	50.0	SS-13	14 14 18	43	44	14						
		BOTTOM OF BORING												
	55													
	60													
	65													
	70													

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
PROJECT : Chalmers P. Wylie VA Ambulatory Care Center
LOCATION : 420 N. James Road, Franklin Co., Ohio
PROJECT NO. : 13050029COL

BORING NO.: **B-4**
SHEET 1 OF 3
DATE STARTED : 03-21-13
DATE COMPLETED : 05-01-13

BORING ELEVATION : 794.3 Feet STATION : OFFSET : DEPTH : 25.0 Feet BORING METHOD: HSA	RIG TYPE : CME 55 CASING DIA. : 3.25" CORE SIZE : HAMMER : Auto ENERGY RATIO : 81.2	DRILLER : BK TEMPERATURE : 30° WEATHER : Cloudy
--	--	--

GROUNDWATER: ▼ Encountered at 23.5' : ▼ At completion 11.0' ☒ Caved in at 18.3'

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
793.7		(TOPSOIL) (7")	0.6											
	5	Stiff to Very Stiff, Brown LEAN CLAY with SAND (CL), Damp (FILL)		SS-1	5 6 5	15	100	16		8.0*				
				SS-2	4 5 8	18								
788.3		Medium Stiff, Black LEAN CLAY (CL), with Organics, Moist (FILL)	6.0											
787.3		Stiff to Soft, Gray LEAN CLAY (CL), Moist		SS-3A	2	9	100	38		2.0*				
				SS-3B	3 4				50	2.0*				
	10			SS-4	1 1 1	3	100	26			36	20	16	
780.8		Medum Stiff, Gray LEAN CLAY With SAND (CL), Damp (TILL)	13.5											
	15			SS-5	1 2 2	5	100	15		3.0*				
	20			SS-6	1 2 4	8	100	15		3.0*				

Continued on next page

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-4**
 SHEET 2 OF 3

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
769.3	25	Medum Stiff, Gray LEAN CLAY With SAND (CL) , Damp (TILL)	25.0	SS-7	5 15 16	42	100	12						
				SS-8	9 10 11	28	22	11						
	30	Dense to Very Dense WELL GRADED GRAVEL (GW) , Wet to Moist		SS-9	8 20 18	51	50	2						
760.8			33.5	SS-10	4 8 12	27	67	11		4.5*				
	35	Very Stiff, Gray LEAN CLAY with GRAVEL (CL) , Moist (TILL)												
755.3			39.0	SS-11A	4	30	67	13		2.5*				
	40			SS-11B	10 12			19						
	45	Medium Dense to Dense, Gray WELL GRADED SAND (SW) , Wet		SS-12	16 17 14	42	67	8						

Continued on next page

TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13

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TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-4**
 SHEET 3 OF 3

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
745.8		Medium Dense to Dense, Gray WELL GRADED SAND (SW) , Wet	48.5											
744.3	50	Very Stiff LEAN CLAY with GRAVEL (CL) , Moist (TILL)	50.0	SS-13	4 8 10	24	78	15		2.0*				
		BOTTOM OF BORING												
	55													
	60													
	65													
	70													

TEST BORING/PI RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/23/13



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WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
PROJECT : Chalmers P. Wylie VA Ambulatory Care Center
LOCATION : 420 N. James Road, Franklin Co., Ohio
PROJECT NO. : 13050029COL


BORING NO.: **B-5**
SHEET 1 OF 2
DATE STARTED : 03-21-13
DATE COMPLETED : 03-21-13

BORING ELEVATION : 794.4 Feet STATION : OFFSET : DEPTH : 25.0 Feet BORING METHOD: HSA	RIG TYPE : CME 55 CASING DIA. : 3.25" CORE SIZE : HAMMER : Auto ENERGY RATIO : 81.2	DRILLER : BK TEMPERATURE : 30° WEATHER : Windy
--	--	---

GROUNDWATER: ▼ Encountered at 18.5' ▼ At completion 15.0' ☒ Caved in at 23.0'

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS			
											LL	PL	PI	
794.2		TOPSOIL (2")	0.2											
	5	Stiff, Brown LEAN CLAY (CL) , with Brick fragments, Cinders and Slag, Damp (FILL)		SS-1	4 6 7	18	100	19		9.0*				
				SS-2	54 17 7	32	6	1						
788.4				SS-3	3 2 3	7	100	25		2.0*				
		Medium Stiff, Gray LEAN CLAY (CL) , Moist (POSSIBLE FILL)	6.0											
785.9				SS-4	1 2 3	7	100	20		2.0*				
	10				SS-5	2 3 4	9	100	16		5.0*			
			Medium Stiff to Very Stiff, Gray LEAN CLAY with SAND (CL) , with Shale fragments, (TILL)	8.5										
	15													
	20			SS-6	2 2 4	8	100	15		9.0*				

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TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13

TEST BORING RECORD

CLIENT : CBLH Design, Inc.
 PROJECT : Chalmers P. Wylie VA Ambulatory Care Center

BORING NO.: **B-5**
 SHEET 2 OF 2

STRATUM ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	STRATUM DEPTH	SAMPLE NUMBER	SPT per 6"	N ₆₀	RECOVERY (%)	MOISTURE CONTENT	TOTAL UNIT WEIGHT pcf	UNCONF. COMP., ksf	ATTERBERG LIMITS		
											LL	PL	PI
769.4	25	Medium Stiff to Very Stiff, Gray LEAN CLAY with SAND (CL) , with Shale fragments, (TILL) BOTTOM OF BORING	25.0	SS-7	5 6 8	19	100	12		9.0*			

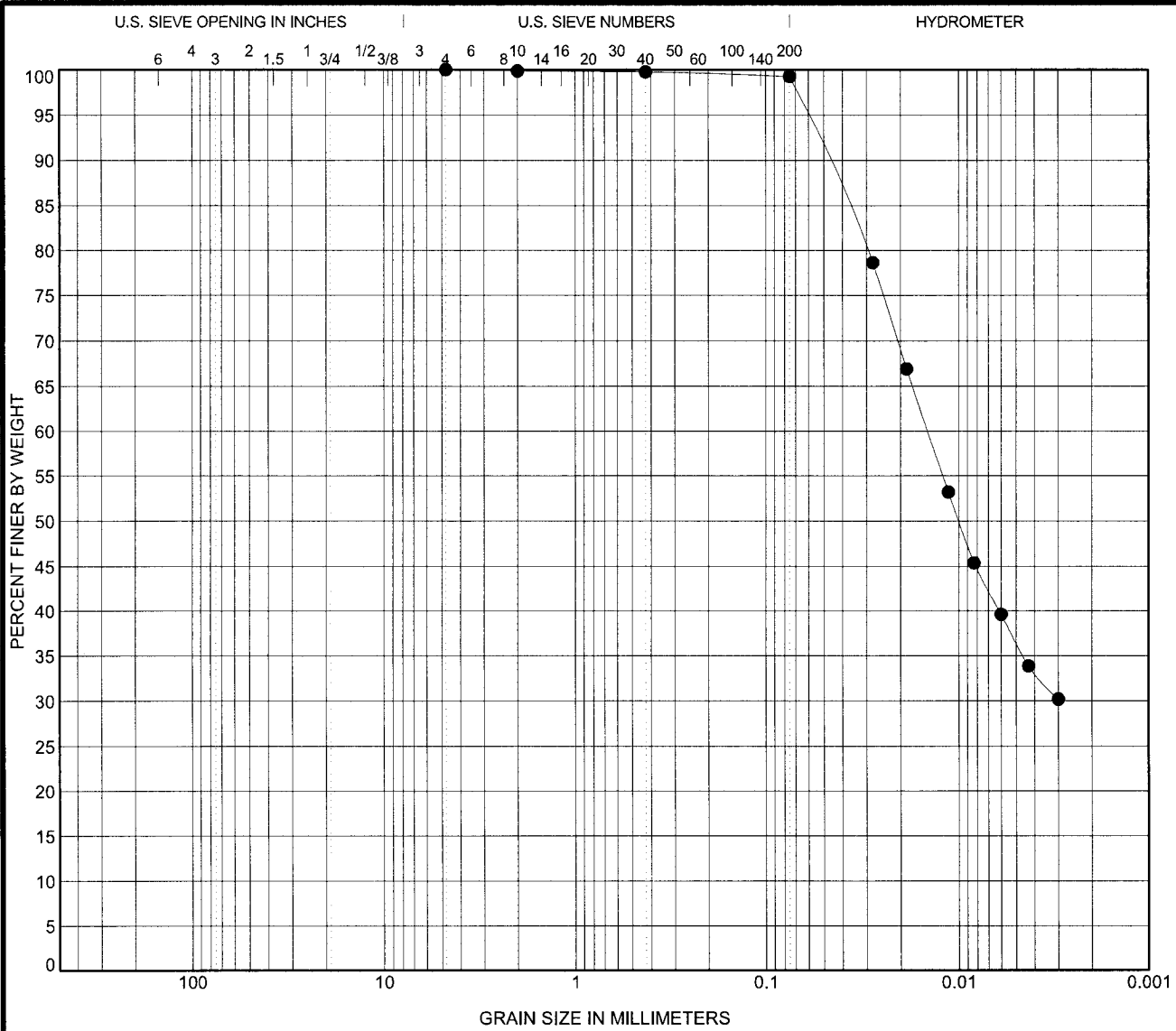
TEST BORING/PIT RECORD 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



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WD - Wash Drilling		SPT - Standard Penetration Test
HA - Hand Auger		N ₆₀ - Standard Penetration Normalized to 60% Drill Rod ER

APPENDIX B
LAB TEST RESULTS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring No.	Sample	Depth	Classification	%MC	LL	PL	PI	Cc	Cu
● B-3	ST-1	7.5	LEAN CLAY(CL)		47	25	22		

Boring No.	Sample	Depth	D100	D60	D50	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-3	ST-1	7.5	4.75	0.014	0.01			0	1	63	36

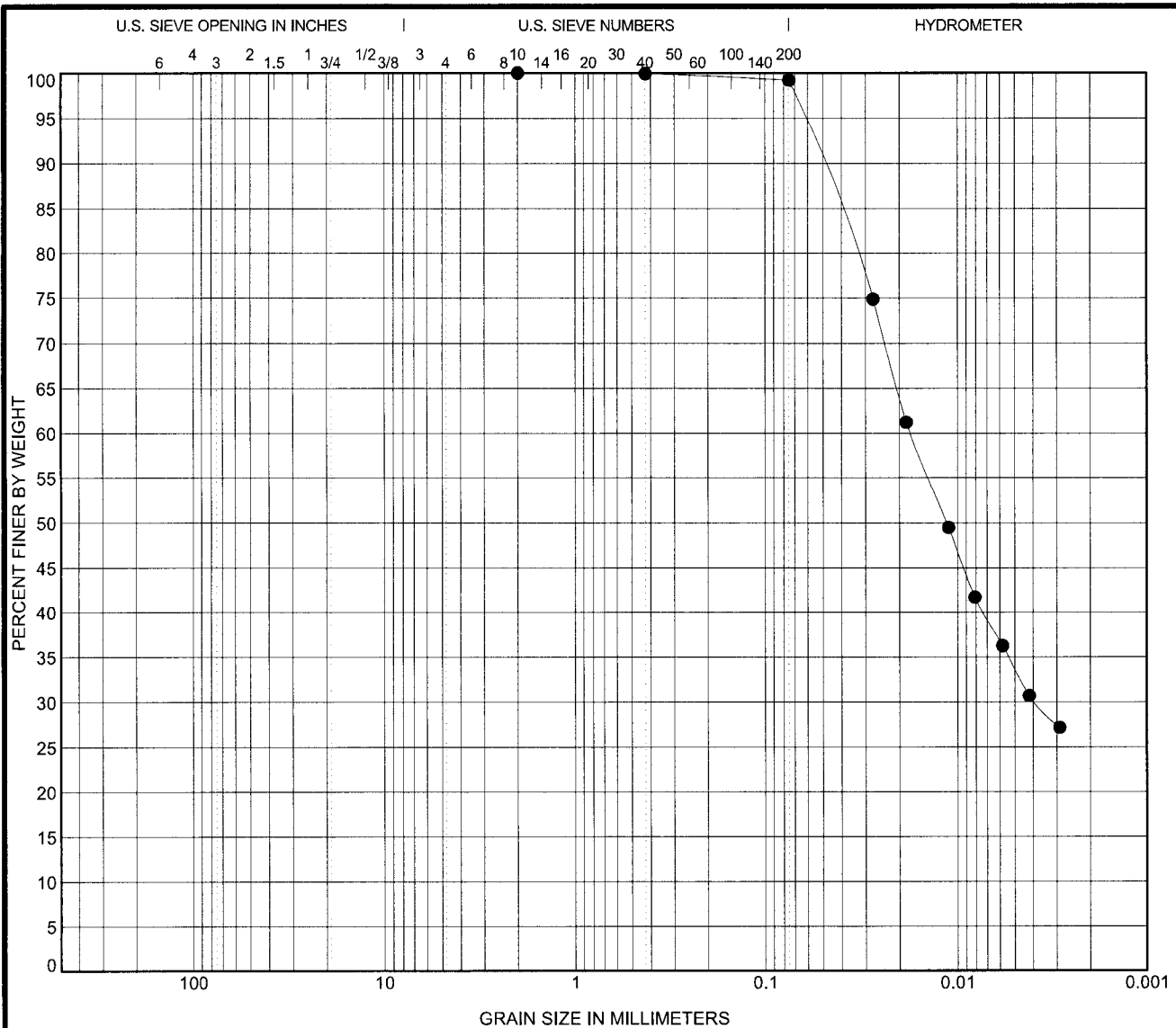


CTL Engineering
 2860 Fisher Rd.
 Columbus, Ohio 43204
 Telephone: 614-276-8123
 Fax: 614-276-8123

GRAIN SIZE DISTRIBUTION

Project: Chalmers P. Wylie VA Ambulatory Care Center
 Location: 420 N. James Road, Franklin Co., Ohio
 CTL Project Number: 13050029COL

USCS 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring No.	Sample	Depth	Classification	%MC	LL	PL	PI	Cc	Cu
● B-4	SS-4	8.5	LEAN CLAY(CL)	26	36	20	16		

Boring No.	Sample	Depth	D100	D60	D50	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-4	SS-4	8.5	2	0.017	0.011	0.004		0	1	65	34

GRAIN SIZE DISTRIBUTION



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 Columbus, Ohio 43204
 Telephone: 614-276-8123
 Fax: 614-276-8123

Project: Chalmers P. Wylie VA Ambulatory Care Center
 Location: 420 N. James Road, Franklin Co., Ohio
 CTL Project Number: 13050029COL

USCS 13050029COL.GPJ CTL CORPORATE.GDT 5/3/13

CTL Engineering, Inc.
Organic Content in Soils by Loss of Ignition
ASTM D 2974

Client: CBLH Design
Location:
Project No.: 13050029COL
Date: 04/10/13

Tech: JD
Reviewed by: JG

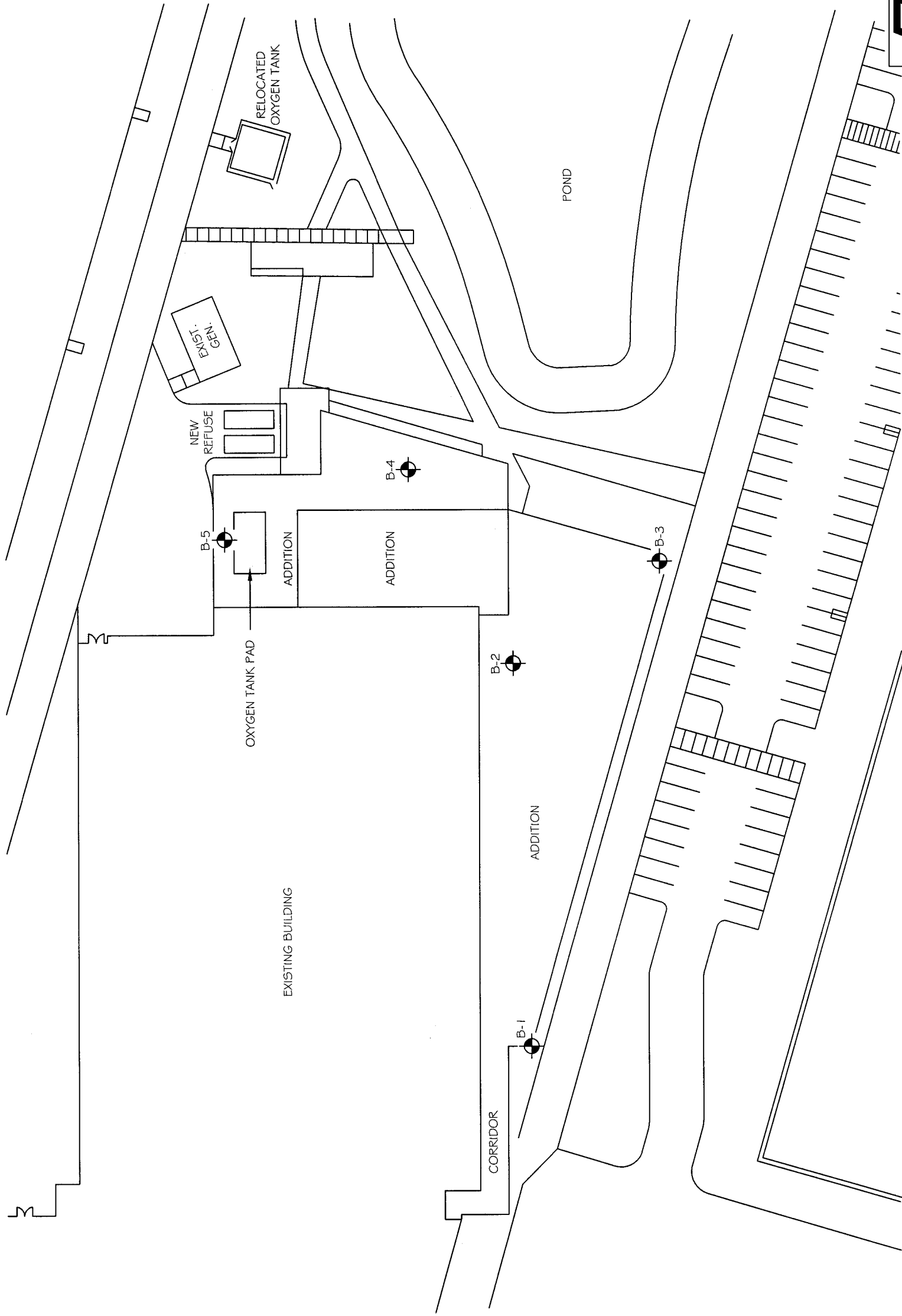
Boring No.	Sample No.	Loss on Ignition (%)
B-4	SS-3	9.1
B-4	SS-4	4.0

Calculations based on Dry Weight

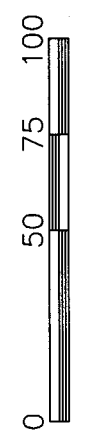


APPENDIX C
BORING LOCATION PLAN/SOIL PROFILE SHEETS





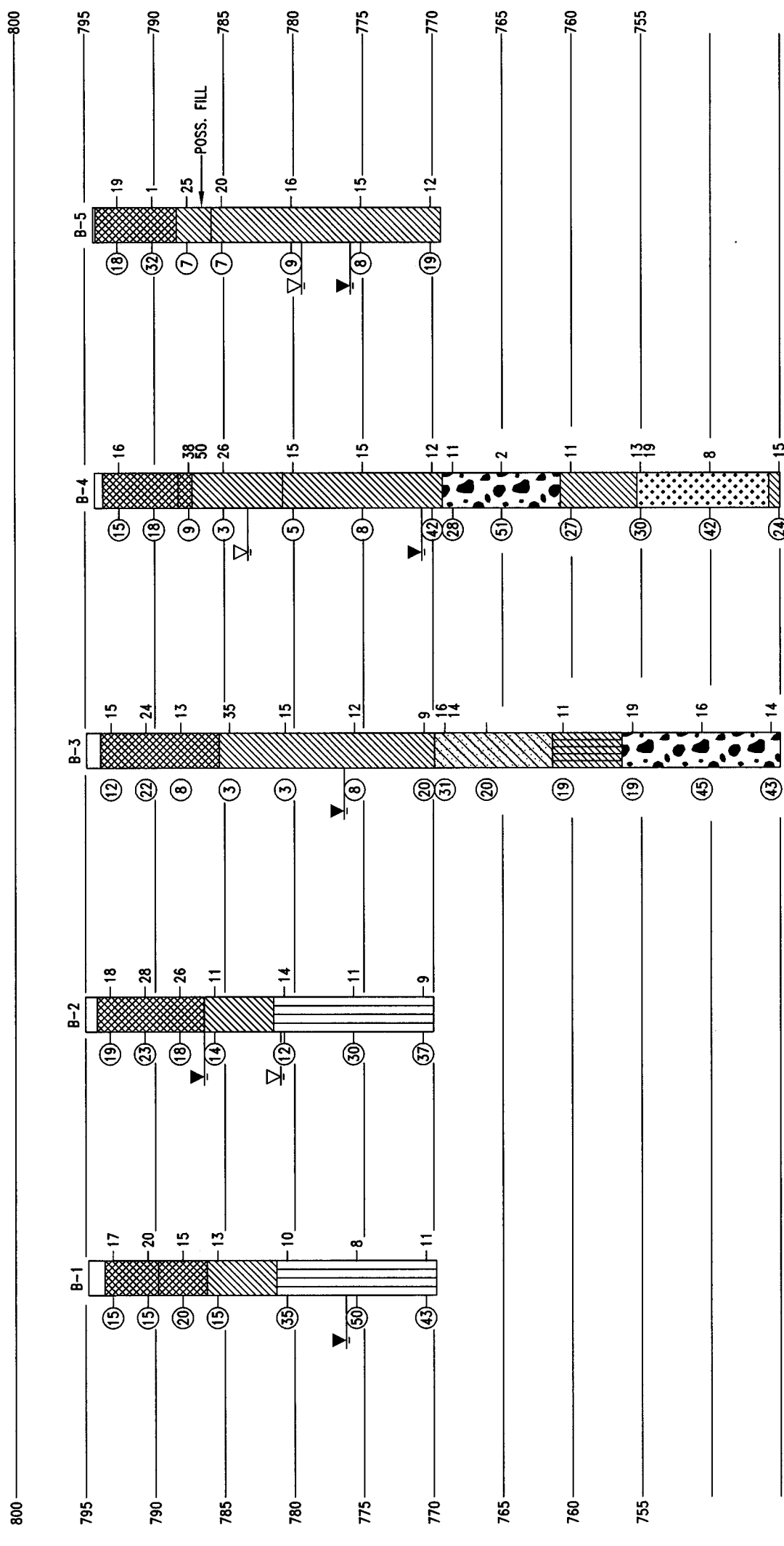
B-1
 APPROXIMATE BORING LOCATION



CTL ENGINEERING INC.
 CONSULTING ENGINEERS
 TESTING * INSPECTION
 LABORATORY SERVICES

BORING LOCATION PLAN

DATE	04-08-13	DESIGN, INC.	PROJECT NO.
SCALE	AS SHOWN	CHALMERS P. WYLIE VA AMBULATORY-CARE CENTER	1 3050029COL
DRAWN BY	B.R.U.	420 N. JAMES ROAD, COLUMBUS, OHIO	
REVIEWED BY	SM	PAGE	1 OF 2



CTL ENGINEERING INC.
CONSULTING ENGINEERS
TESTING * INSPECTION
LABORATORY SERVICES

SOIL PROFILE

DATE: 04-08-13
SCALE: AS SHOWN

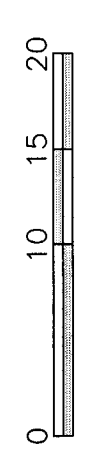
CBLH DESIGN, INC.
BUILDING ADDITION
CHALMERS F. WYLLIE VA AMBULATORY-
CARE CENTER
420 N. JAMES ROAD, COLUMBUS, OH

DRAWN BY: B.R.U.
REVIEWED BY: SM
PAGE: 2 OF 2
PROJECT NO.: 13050029COL

LEGEND

	TOPSOIL		CL		SW-SM		MOISTURE CONTENT IN PERCENT (w)
	ASPHALT		CL-ML		SW-SC		
	CONCRETE		CH		SP-SM		STANDARD PENETRATION RESISTANCE NORMALIZED TO
	BASE COURSE				SC-SM		(N ₆₀)
	FILL				SP-SC		
	GW				ML		

GROUND WATER AT "N" HOURS AFTER COMPLETION
 GROUND WATER DURING DRILLING
 GROUND WATER AT COMPLETION OF DRILLING



**DEPARTMENT OF VETERANS AFFAIRS
 VHA MASTER SPECIFICATIONS**

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SECTION 27 52 23
NURSE CALL AND CODE BLUE SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. The contractor shall retain Simplex Grinnell to extend the existing Simplex Zettler nurse call system and provide devices as indicated on floor plans for this project. Contractor shall furnish, install and connect complete all nurse call devices in accordance with wiring diagrams as prepared by Simplex Grinnell.

1.2 RELATED DOCUMENTS

- A. 01 33 23 - SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. 07 84 00 - FIRESTOPPING.
- C. 26 05 19 - LOW - VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES.
- D. 27 05 11 - REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS.
- E. 27 05 26 - GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS.
- F. 27 05 33 - RACEWAYS AND BOXES FOR COMMUNICATIONS SYSTEMS.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Equipment cabinets.
 - 2. Cabling diagrams.
 - 3. Station installation details.

1.4 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.
- B. Sample warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

1.6 QUALITY ASSURANCE

- A. The complete Nurse Call System shall be provided by a single manufacturer and obtained through the Original Equipment Manufacturer (OEM) as the single source.
- B. The Manufacturer shall be a firm experienced in manufacturing, installing and maintaining Nurse Call Systems. The Manufacturer of the Nurse Call System equipment shall be regularly involved in the design, manufacture, and distribution of all products specified in this document. These processes shall be monitored under a quality assurance program that meets ISO requirements.
- C. All equipment and components shall be the Manufacturer's most recently released model.

- D. The Manufacturer's authorized representative who is trained, certified and/or approved for managing installation shall be responsible for the satisfactory installation of the complete Nurse Call System. All equipment and components shall be installed in strict compliance with the Manufacturer's recommendations.
- E. The Manufacturer's representative shall provide equipment and components, which comply with the requirements of these specifications. Equipment or components, which do not provide the performance and features required by these specifications, will not be accepted, regardless of Manufacturer.
- F. All Nurse Call System components, inclusive of staff locating, shall be the catalogued products of a single Supplier. All products shall be listed by the Manufacturer for their intended purpose.
- G. The manufacturer shall maintain technical support services capable of providing users of the system with training, parts, and emergency maintenance and repair both on site and remotely.
- H. All connected nurse call components shall be tested to ensure that a fully functioning Nurse Call System is designed and installed.
- I. The Nurse Call System should conform to FDA Class II exempt medical device standards.
- J. The Nurse Call System shall support compliance with HIPPA requirements for sharing and displaying patient information.
- K. The Nurse Call System must conform to applicable codes, rules, regulations, and laws of the hospital authority and local jurisdiction for hospital nurse call systems. Manufacturer will provide proof of certification for regulatory compliance from issuing authority.
- L. The Nurse Call System, inclusive of electrical components, infrastructure components, devices and accessories, shall comply in all respects and shall be labeled in accordance with the requirements of the specifications, manufacturer's recommendations and Underwriters Laboratories Inc. (UL) 1069 - Standard for Hospital Signaling and Nurse Call Equipment.
- M. All components used must be RoHS (Reduction of Hazardous Substances) compliant.

PART 2 - PRODUCTS

2.1 SYSTEM DESIGN AND CONFIGURATION

- A. The Nurse Call System shall be an extension of the existing nurse call system. Installation, system design, configuration, and programming shall match existing facility nurse call system.

2.2 PRODUCTS - MANUFACTURER FURNISHED EQUIPMENT

- A. The Nurse Call System shall be sole sourced from Simplex Grinnell. System shall match existing Zettler Sentinel 500 system. Coordinate equipment model numbers with vendor prior to purchase. System extension shall consist of (include), but is not limited to, the following:
 - 1. Staff Console Master Stations - 5008-9012/5008-9317
 - 2. Single Patient Stations - ZTS326551
 - 3. Emergency Pullcord Stations - ZTS030510
 - 4. Corridor (Dome / Zone) Lights - ZTS000505E

5. Staff Stations - ZTS340522
 6. Duty Stations - ZTS340542
 7. Room Terminal Transponders - ZTS000500E
 8. Control Equipment/Power Supplies - SNT371020/2020/4020
 9. Configuration Software
- B. Contractor shall be responsible for all devices and equipment required for a complete system as indicated on drawings and per manufacturer's system vendor.

2.3 CONDUCTORS AND CABLES

- A. Data Cable and Hardware: Category 6 UTP and UTP hardware. Comply with requirements in Section 27 15 00 "Communications Horizontal Cabling."
- B. Power Conductors and Cables: Copper, solid, No. 20 AWG. Comply with requirements in Section 26 05 19 "LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES."
- C. Grounding Conductors and Cables: Copper, stranded, No. 16 AWG. Comply with requirements in Section 26 05 19 "LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES."

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General Requirements:
 1. The installer must install the Nurse Call System equipment in compliance with the manufacturer's installation and implementation specifications.
 2. Manufacturer shall effectively coordinate the installation process. This would include but not be limited to reviewing correct placement of cables, correct mounting of devices, and monitoring the installing contractor's compliance with the installation schedule.
 3. Install wiring in compliance with ANSI/TIA-569 Commercial Building Standards Telecom Pathways and Spaces.
 4. The Nurse Call System must be tested per the manufacturer's instructions to confirm that it was installed and is functioning as designed.
 5. Submit a report containing an as-built package with all test results and drawings.
- B. Wiring Method:
 1. Install cables in complete conduit system.
 2. Conduit and Boxes: Comply with requirements in Section 26 05 33 "Raceway and Boxes for Electrical Systems." Flexible metal conduit shall not be used.
- C. Outlet boxes shall be installed as required by Simplex Grinnell and shall be no smaller than the following:
 1. Staff Console: 1-gang back box.
 2. Patient Stations: 3-gang back box.
 3. Staff Stations: 3-gang back box.
 4. Lavatory Stations: 4" sq. box.

5. Dome Lights: 4" sq. box.
6. Room Terminal Transponders: 4" sq. box.
- D. Install cables without damaging conductors, shield, or jacket.
- E. Do not bend cables, while handling or installing, to radii smaller than as recommended by manufacturer.
- F. Pull cables without exceeding cable manufacturer's recommended pulling tensions.
 1. Pull cables simultaneously if more than one is being installed in same raceway.
 2. Use pulling compound or lubricant if necessary. Use compounds that will not damage conductor or insulation.
 3. Use pulling means, including fish tape, cable, rope, and basket-weave wire or cable grips, that will not damage media or raceway.
- G. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.
- H. Separation of Wires: Separate speaker/microphone, line-level, speaker-level, and power-wiring runs. Run in separate raceways or, if exposed or in same enclosure, provide 12-inch (300-mm) minimum separation between conductors to speaker/microphones and adjacent parallel power and telephone wiring. Provide separation as recommended by equipment manufacturer for other conductors.
- I. Splices, Taps, and Terminations: Make splices, taps, and terminations on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Install terminal cabinets where there are splices, taps, or terminations for eight or more conductors.
- J. Impedance and Level Matching: Carefully match input and output impedances and signal levels at signal interfaces. Provide matching networks if required.
- K. Identification of Conductors and Cables: Comply with requirements in Section 27 15 00 "Communications Horizontal Cabling" for cable administration, cable schedule, and cable and wire identification.
- L. Equipment Identification:
 1. Comply with requirements in Section 26 05 53 "Identification for Electrical Systems" for equipment labels and signs and labeling installation requirements.
 2. Label stations, controls, and indications using approved consistent nomenclature.

3.2 GROUNDING

- A. Ground cable shields and equipment to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other signal impairments.
- B. Signal Ground Terminal: Locate at main equipment cabinet. Isolate from power system and equipment grounding except at connection to main building ground bus.
- C. Grounding Provisions: Comply with requirements in Section 26 05 26 "Grounding and Bonding for Electrical Systems."

3.3 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Tests and Inspections:
 - 1. Schedule tests a minimum of seven days in advance.
 - 2. Report: Submit a written record of test results.
 - 3. Operational Test: The installer must install the Nurse Call System equipment in compliance with the manufacturer's installation and implementation specifications.
- D. Retesting: Rectify deficiencies indicated by tests and completely retest work affected by such deficiencies at Contractor's expense. Verify, by the system test, that the total system meets these Specifications and complies with applicable standards. Report results in writing.
- E. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.
- F. Prepare test and inspection reports.

3.4 ADJUSTING

- A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting sound levels and controls to suit actual occupied conditions. Provide up to three visits to Project during other-than-normal operating hours for this purpose.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel and caregiver staff to adjust, operate, and maintain nurse-call equipment.

PART 4 - END OF SECTION 27 52 23

LOW VOLTAGE SYSTEM LEGEND

SPEAKER - CEILING MOUNTED. "a" INDICATES LOCAL PAGING SYSTEM SPEAKER VOLUME CONTROL. CONNECT SPEAKERS SO THAT VOLUME IS CONTROLLED BY $\frac{1}{2}$ VCA. CONNECT COMPLETE TO EXISTING HOSPITAL'S PAGING SYSTEM VIA 16AWG/2 NON-PLENUM CONDUCTOR.

PAGING SYSTEM VOLUME CONTROL WITH BYPASS RELAY. "a" INDICATES LOCAL PAGING SYSTEM SPEAKER VOLUME CONTROL. PROVIDE 2 GANG FLUSH BOX WITH 1 GANG RAISED COVER WITH 3/4" CONDUIT TO ABOVE FINISHED CEILING - STUB AND BUSH.

TELEVISION OUTLET - CEILING MOUNTED OR WALL MOUNTED AT 78" AFC UNLESS OTHERWISE NOTED. PROVIDE 2 GANG FLUSH BOX WITH 1 GANG RAISED COVER WITH 1" CONDUIT TO ABOVE FINISHED CEILING - STUB AND BUSH. PROVIDE NEW CATV OUTLET TO MATCH EXISTING TYPE AND INSTALL (1) RG-6 COAX CABLE AND (1) CAT5 CABLE FOR NURSE CALL PER OUTLET TO EXISTING NETWORK CABLE TAP. CONNECT EACH CABLE AT OUTLET AND AT NETWORK CABLE TAP. SUPPORT CABLES USING J-HOOKS 3'-0" ON CENTER IN ROOMS AND TRANSITION TO CONDUIT THROUGH ROOM WALL AND INTO CABLE TRAY IN THE CORRIDOR. TEST COMPLETE INSTALLATION IN ACCORDANCE WITH VA STANDARDS. COORDINATE WORK WITH VA ENGINEERING DEPARTMENT.

CABLE TV DISTRIBUTION AMPLIFIER (MATCH EXISTING FACILITY TYPE) - WALL MOUNTED. CONNECT TO 120V-1Ø DUPLEX RECEPTACLE.

LOW VOLTAGE SYSTEM NOTES:

LV1. REFER TO TECHNOLOGY DETAILS FOR ADDITIONAL INFORMATION.

LV2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LV3. CONTRACTOR SHALL PROVIDE DEVICES, CABLING, TESTING, AND TERMINATIONS. TEST COMPLETE INSTALLATION IN ACCORDANCE WITH VAACC STANDARDS.

LV4. CONTRACTOR SHALL VERIFY ALL BACKBOX SIZES WITH VA COR AND MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.

NURSE CALL SYSTEM LEGEND

NURSE CALL TERMINAL CABINET - MATCH EXISTING SIMPLEX GRINNELL ZETTLER SENTINEL 600 NURSE CALL SYSTEM. PROVIDE SYSTEM ENCLOSURE WITH POWER SUPPLY, CONTROL MODULE, AND TERMINATION BOARD AS NECESSARY TO PROVIDE FUNCTIONS AS INDICATED ON TECHNOLOGY PLANS. SURFACE MOUNT AT 48" AFF AT LOCATION AS INDICATED AND PROVIDE PHENOLIC LABEL STATING 'SURGERY ADDITION - NURSE CALL SYSTEM'. VERIFY EXACT SIZES OF ENCLOSURE WITH NURSE CALL SYSTEM VENDOR. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PULL CORD TOILET/SHOWER STATION - MOUNTED AT 24" AFF AT TOILETS/60" IN SHOWERS INTO INTO BOX AS REQUIRED BY MANUFACTURER.

ANNUNCIATOR - MOUNTED AT 48" AFF AT RECEPTION DESK INTO BOX AS REQUIRED BY MANUFACTURER.

DOME LIGHT - VISUAL 4-BULB - WALL MOUNT AT 7'-6" OR CEILING MOUNT AS INDICATED ON PLANS INTO BOX AS REQUIRED BY MANUFACTURER.

ZONE DOME LIGHT - VISUAL 4-BULB - PROGRAMMED TO ALARM FROM MULTIPLE ROOMS. WALL MOUNT AT 7'-6" OR CEILING MOUNT AS INDICATED ON PLANS INTO BOX AS REQUIRED BY MANUFACTURER.

MASTER STATION - DESK MOUNTED AT SURGERY RECEPTION DESK. MATCH EXISTING FACILITY STANDARD.

STAFF ASSIST - (1) CODE PUSHBUTTON, LED INDICATOR, (1) CANCEL PUSHBUTTON - MOUNTED AT 48" AFF INTO BOX AS REQUIRED BY MANUFACTURER.

PATIENT STATION - (1) PULL CORD, (1) LED INDICATOR (1) CANCEL BUTTON- MOUNTED AT 48" AFF INTO BOX AS REQUIRED BY MANUFACTURER.

DUTY STATION - ROOM STATION WITH TONE/ALERT ONLY, DISPLAY AND INFRA-RED BUTTONS - MOUNTED AT 48" AFF INTO BOX AS REQUIRED BY MANUFACTURER.

EXISTING WALL MOUNTED NURSE CALL DEVICE.

NURSE CALL SYSTEM NOTES:

N1. CONTRACTOR SHALL PROVIDE ALL NURSE CALL SYSTEM COMPONENTS (ROUGH-IN, BACKBOX, DEVICES, CONDUITS, WIRING, ETC.) FOR A COMPLETE SYSTEM. PROVIDE 3/4" MINIMUM SIZE CONDUIT FROM DEVICES STUBBED TO AN ACCESSIBLE LOCATION ABOVE THE FINISHED CEILING. THE NURSE CALL SYSTEM SHALL BE FROM A SINGLE MANUFACTURER (UL 1089 LISTED). SUBMIT ALL NURSE CALL DEVICES WITH SHOP DRAWINGS SUBMITTAL.

N2. MOUNT DEVICES AT MOUNTING HEIGHTS LISTED ABOVE UNLESS OTHERWISE NOTED ON THE FLOOR PLANS. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECTURAL ELEVATIONS.

N3. CONTRACTOR SHALL VERIFY ALL BACKBOX SIZES WITH VAACC COR AND MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.

ABBREVIATIONS

AC	ABOVE COUNTER AT 9" UNLESS OTHERWISE NOTED
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
BC	BELOW COUNTER AT 18" AFF UNLESS OTHERWISE NOTED
BFC	BELOW FINISHED CEILING
CM	CEILING MOUNTED
COR	CONTRACTING OFFICERS REPRESENTATIVE
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
EOL	END OF LINE
GC	GENERAL CONTRACTOR
LV	LOW VOLTAGE
MC	MECHANICAL CONTRACTOR
NEC	NATIONAL ELECTRICAL CODE
NF	NOT FUSED
NIC	NOT IN CONTRACT
OFE	OWNER FURNISHED EQUIPMENT
TC	TELECOMMUNICATIONS CONTRACTOR
TCC	TEMPERATURE CONTROLS CONTRACTOR
TV	TELEVISION - MOUNT TV OUTLET AND RECEPTACLE AT SAME HEIGHT ADJACENT TO ONE ANOTHER.
WP	WEATHERPROOF ENCLOSURE - NEMA 4 TYPE
X	EXISTING OUTLET, DEVICE, LIGHTING FIXTURE, CONDUIT, ETC. - TO REMAIN
XB	INDICATES EXISTING OUTLET, LIGHTING FIXTURE, CONDUIT, ETC. - TO BE REMOVED. PROVIDE BLANK COVER FOR OUTLET AND MAINTAIN CIRCUIT CONTINUITY.
XL	NEW LOCATION OF EXISTING OUTLET, DEVICE, LIGHTING FIXTURE, ETC.
XN	EXISTING OUTLET, DEVICE, LIGHTING FIXTURE, ETC. - TO BE REPLACED WITH NEW OF SPECIFIED TYPE
XR	EXISTING OUTLET, DEVICE, LIGHTING FIXTURE, CONDUIT, ETC. - TO BE REMOVED COMPLETE- MAINTAIN CIRCUIT CONTINUITY TO ADJACENT OUTLETS. EXTEND CONDUIT AND WIRING AS REQUIRED.
XRR	EXISTING OUTLET, DEVICE, LIGHTING FIXTURE, ETC. - TO BE REMOVED AND REINSTALLED AT NEW LOCATION - EXTEND CONDUIT AND WIRING AS REQUIRED.
VAACC	VETERANS AFFAIRS AMBULATORY CARE CENTER

TELECOMMUNICATIONS LEGEND

TELECOMMUNICATIONS OUTLET "TCO" - 4-PORT - MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. REFER TO TELECOMMUNICATIONS OUTLET DETAILS ON SUBSEQUENT DRAWING FOR REQUIREMENTS.

TELECOMMUNICATIONS OUTLET "TCO" - 2-PORT - MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. REFER TO TELECOMMUNICATIONS OUTLET DETAILS ON SUBSEQUENT DRAWING FOR REQUIREMENTS.

TELECOMMUNICATIONS OUTLET "TCO" - MOUNTED IN FURNITURE UNLESS OTHERWISE NOTED. REFER TO TELECOMMUNICATIONS OUTLET DETAILS ON SUBSEQUENT DRAWING FOR REQUIREMENTS.

TELEPHONE OUTLET - SINGLE PORT - MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.

MEDICAL GAS ALARM PANEL OUTLET - SINGLE PORT - COORDINATE MOUNTING HEIGHT WITH MC.

TELECOMMUNICATIONS OUTLET "TCO" - ROUGH-IN ONLY (BACKBOX AND CONDUIT STUBBED TO ABOVE FINISHED CEILING).

WIRELESS ACCESS OUTLET - MOUNTED ABOVE FINISHED CEILING.

FLUSH STYLE FIRE-RATED 6" POKE THRU - MULTI-SERVICE WITH (1) DUPLEX RECEPTACLE, (1) VOICE/DATA MODULAR DEVICE. VERIFY FINISH ON COVERPLATE WITH ARCHITECT. PROVIDE CORE DRILL THRU FLOOR AS REQUIRED AND SEAL FLOOR PENETRATIONS TO MAINTAIN FIRE RATING.

18"W x 4"D (MINIMUM SIZE) CABLE TRAY WIRE MANAGEMENT SYSTEM. MOUNTED ABOVE ACCESSIBLE CEILING. COORDINATE LOCATION WITH OTHER TRADES. MAINTAIN 6" WORKING CLEARANCE ABOVE AND BELOW CABLE TRAY AT ALL LOCATIONS.

TELECOMMUNICATIONS SYSTEM NOTES:

T1. REFER TO TECHNOLOGY DETAILS FOR ADDITIONAL INFORMATION.

T2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

T3. CONTRACTOR SHALL PROVIDE DEVICES, CABLING, TESTING, AND TERMINATIONS. TEST COMPLETE INSTALLATION IN ACCORDANCE WITH VAACC STANDARDS.

SECURITY SYSTEM LEGEND

SECURITY CONTROL PANEL. SOFTWARE HOUSE #I-STAR-PRO SECURITY SYSTEM (TYCO #STAR008W-64ANPS) PANEL AT LOCATION AS INDICATED ON SECURITY PLAN. PROVIDE PANEL POWER SUPPLY AND LOCK POWER SUPPLY. PANEL SHALL ACCOMMODATE UP TO 16 DOORS WITH FUTURE EXPANSION CAPABILITY. REFER TO SECURITY SYSTEM RISER DIAGRAM FOR ADDITIONAL INFORMATION.

CARD READER - TYPE AS EXISTING. OPERATES MAGNETIC LOCKS, ELECTRIC STRIKES, ELECTRIFIED LOCKSET, AUTOMATIC DOOR, ETC. CONTRACTOR SHALL PROVIDE 2-GANG BOX WITH STAINLESS STEEL BLANK COVERPLATE MOUNTED AT 48" AFF.

PANIC ALARM BUTTON - WIRELESS - TYPE AS EXISTING - MOUNTED TO UNDERSIDE OF DESK/COUNTER. RELOCATE AS INDICATED ON PLANS AND RECONNECT TO NEW SYSTEM.

ACCESS CONTROLLED DOOR - CONTRACTOR SHALL PROVIDE ACCESS CONTROL DEVICES AND CONNECT DOOR COMPLETE PER MANUFACTURER'S WIRING DIAGRAMS. "R" INDICATES DOOR TYPE. REFER TO ACCESS CONTROLLED DOOR DETAILS FOR ADDITIONAL INFORMATION AND WORK REQUIREMENTS.

MOTION DETECTOR - MATCH EXISTING TYPE.

KEY SWITCH - MATCH EXISTING TYPE.

SHUNT SWITCH - MATCH EXISTING TYPE.

SECURITY CAMERA - INDOOR HD PTZ DOME SURVEILLANCE CAMERA. 12X OPTICAL ZOOM WITH AUTOFOCUS. 10X DIGITAL ZOOM. 1080P RESOLUTION AT 35/30 FRAMES PER SECOND, H.264 STREAM. IP51 RATED AGAINST DUST AND DRIPPING WATER (SUITABLE FOR SPRINKLER ACTIVATION CONDITIONS). POWER-OVER-ETHERNET (MAX 13 WATTS), 1/2 3" CMOS SENSOR, 3.8-42.95MM FOCAL LENGTH, F1.4-F2.1 VARIABLE MAXIMUM APERTURE, 360° PAN, 180° TILT. FURNISHED AND INSTALLED BY CONTRACTOR. PROVIDE ALL NECESSARY POWER SUPPLIES, SURGE PROTECTOR, MOUNTS AND WIRING FOR POWER, DATA, AND CONTROL FOR A COMPLETE INSTALLATION.

SECURITY SYSTEM NOTES:

S1. PROVIDE MINIMUM SIZE BACKBOX AS REQUIRED FOR ALL OF THE ABOVE SECURITY DEVICES AND INSTALL IN 3/4" MINIMUM COMPLETE CONDUIT SYSTEM TO JUNCTION BOX ABOVE FINISHED CEILING. REFER TO THE "ACCESS-CONTROLLED DOOR DETAIL" ON THE TECHNOLOGY DETAILS DRAWING FOR ADDITIONAL INFORMATION.

S2. REFER TO SPECIFICATIONS DIVISION 28 FOR FURTHER DETAILS REGARDING THE SECURITY SYSTEM.

S3. MOUNT DEVICES AT MOUNTING HEIGHTS LISTED ABOVE UNLESS OTHERWISE NOTED ON THE FLOOR PLANS. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECTURAL ELEVATIONS.

S4. SECURITY SYSTEM EQUIPMENT AND WIRING SHALL BE PROVIDED BY CONTRACTOR, UNLESS OTHERWISE NOTED.

S5. CONTRACTOR SHALL VERIFY ALL BACKBOX SIZES WITH VA COR AND MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.

GENERAL LEGEND

CODED NOTE - "1" INDICATES NOTE NUMBER.

MECHANICAL EQUIPMENT IDENTIFIER

DETAIL REFERENCE - "1" INDICATES DETAIL NUMBER, "1-E01" INDICATED DRAWINGS NUMBER.

COLUMN GRID

REVISION REFERENCE NUMBER

PROJECT COORDINATION NOTES:

A. THIS PROJECT CONSISTS OF MULTIPLE TRADES OF WORK PERFORMED WITHIN AN EXISTING BUILDING AND A BUILDING ADDITION. ALL OF WHICH ALLOWS VERY LITTLE PERMISSIBLE RANGE OF VARIATION. THE CONTRACTOR SHALL TAKE CAREFUL CONSIDERATION WITH THE COORDINATION AND INSTALLATION OF THE MULTITUDE OF NEW SYSTEMS WHILE ALSO ACCOMMODATING ANY EXISTING SYSTEMS TO REMAIN.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL TRADES ASSOCIATED WITH THIS PROJECT AND ISSUING COORDINATION PLANS PRIOR TO COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.

C. THE COORDINATION DRAWINGS SHALL ILLUSTRATE ALL SYSTEMS IN PLACE. NO EXCEPTIONS! THE CONTRACTOR SHALL SHOW ALL NECESSARY OFFSETS, TRANSITIONS, ETC. AS REQUIRED IN ORDER TO ACCOMMODATE CONDITIONS IDENTIFIED IN THE FIELD.

D. IF CONFLICTS ARE IDENTIFIED DURING THE DEVELOPMENT OF COORDINATION PLANS, THE CONTRACTOR SHALL NOTIFY THE VA COR, ARCHITECT, AND/OR ENGINEER OF ANY CONDITIONS WHICH WILL NOT PERMIT THE WORK TO BE PERFORMED AS INDICATED ON THE PROJECT PLANS.

E. A COMPLETED SET OF COORDINATION PLANS ISSUED FOR REVIEW SHALL CONFIRM THAT THE CONTRACTOR FULLY UNDERSTANDS THE PROJECT CONSTRAINTS AND ALL KNOWN CONFLICTS HAVE BEEN ADDRESSED.

WALL TYPE LEGEND

INDICATES DEMOLITION

INDICATES NEW CONSTRUCTION

INDICATES EXISTING CONSTRUCTION

GENERAL TECHNOLOGY INSTALLATION NOTES:

- ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE UNLESS OTHERWISE NOTED.
- ALL NEW WALL MOUNTED ELECTRICAL DEVICES ARE TO BE INSTALLED FLUSH IN WALL UNLESS OTHERWISE NOTED. ALL ELECTRICAL CONDUIT SHALL BE CONCEALED BEHIND FINISHED WALLS AND ABOVE FINISHED CEILING UNLESS OTHERWISE NOTED. THE COST TO CUT AND PATCH WALLS SHALL BE THE RESPONSIBILITY OF THE TRADE REQUIRING THE CUTTING.
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS REQUIRED FOR ELECTRICAL WORK. CONTRACTOR SHALL REPLACE ANY DAMAGED CEILING TILES.
- PRIOR TO INSTALLATION, VERIFY PRECISE LOCATION OF NEW OR RELOCATED WALL OR CEILING MOUNTED DEVICES WITH ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS.
- COORDINATE ALL SHUT-DOWNS OF EXISTING COMMUNICATIONS SYSTEMS WITH OWNER A MINIMUM OF TWENTY-ONE (21) WORKING DAYS IN ADVANCE. ALL SHUT-DOWNS SHALL OCCUR DURING WEEKENDS OR BETWEEN 8:00PM AND 7:00AM ON WEEKDAYS ("OFF-HOURS"). INCLUDE ALL PREMIUM TIME CHARGES IN BID.
- ALL NOISE GENERATING OPERATIONS, INCLUDING CUTTING OF CEILINGS, WALLS AND FLOORS, CORING, DRILLING, ETC. SHALL BE SCHEDULED DURING WEEKENDS OR BETWEEN 8:00PM AND 7:00AM ON WEEKDAYS ("OFF-HOURS"). INCLUDE ALL PREMIUM TIME CHARGES IN BID.
- ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE PHASING REQUIREMENTS OF THE PROJECT. ALL COSTS ASSOCIATED WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE BID SUBMITTAL.
- PRIOR TO INSTALLATION, VERIFY PRECISE LOCATION OF NEW OR RELOCATED WALL OR CEILING MOUNTED DEVICES WITH ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS.
- DEFINITION:** "PROVIDE" - FURNISH, INSTALL AND CONNECT COMPLETE.
- PROJECT AND PHASING SCOPE LINES INDICATE WHERE GENERAL CONSTRUCTION BOUNDARIES OCCUR. ALL WORK IN EXISTING BUILDING MUST BE DONE OFF HOURS.

BID AND CONSTRUCTION FULLY SPRINKLERED

ADDENDUM #1	02/12/2018
BID AND CONSTRUCTION	02/21/2017
Revisions	Date

CONSULTANTS:

BARBER & HOFFMAN, INC.
Consulting Engineers

EFGH ENGINEERS INCORPORATED

Thorson Baker + Associates CONSULTING ENGINEERS

KEY PLAN

NORTH

ARCHITECTS/ENGINEERS:

ARCHITECTURAL PROJECT #18904

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Drawing Title: TECHNOLOGY LEGEND

Project Title: CONSTRUCT SURGERY ADDITION

Project Number: 757-203

Building Number: 1

Drawing Number: T-001

Dwg. 120 of 132

Location: 420 N. JAMES ROAD, COLUMBUS, OH 43219

Date: 02/21/2017

Checked: MPL

Drawn: JDM

Approved: Project Director

Columbus VA
Children's Wyle Ambulatory Care Center

VA U.S. Department of Veterans Affairs