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HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-1
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 370.0 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
370 / 0	D	Red/orange-brown, moist, loose, SAND, some silt, gravel, trace roots and mica (SM; FILL)	2" topsoil	1	8		2-3-4	7			
367.5 / 2.5	D	Orange-brown with tan, moist medium dense, SAND, some silt and mica, trace to no roots (SM)	No groundwater encountered while drilling	2	16		6-6-7	13			
365 / 5	D			3	16		3-4-5	9			
362.5 / 7.5	D	Brown and gray-brown, moist, loose, silty, micaceous SAND, trace gravel, trace roots (SM)		4	12		2-2-3	5			
360 / 10	D	Orange-brown, light brown and gray, very moist, loose to medium dense, silty SAND, trace mica, with gravel and residual structure (SM)		5	14	27.3	3-3-5	8			
357.5 / 12.5	D		Boring backfilled after 4 hrs	6	18		7-9-12	21			
355 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	7.2 ft.
AFTER 24 HRS.	ft.	7.2 ft.
AFTER 4 HRS.	DRY ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-2
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 376.0 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
375 / 0	D	Red-brown, moist, soft to stiff, sandy CLAY, some silt, trace gravel, organics and mica (CL; FILL)	4" topsoil	1	15		1-1-3	4			
372.5 / 2.5	D			2	18		6-6-6	12			
370 / 5	D	Brown to tan, moist, loose to medium dense, SAND, silty to some silt, some mica, no gravel to some gravel (SM)	No groundwater encountered while drilling	3	18		3-2-3	5			
367.5 / 7.5	D			4	7		4-5-6	11			
365 / 10	D			5	14		6-5-7	12			
362.5 / 12.5	D		Boring backfilled at completion	6	12		9-12-14	26			
360 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	6.1 ft.
AFTER 24 HRS.	ft.	ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-3
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 391.6 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/30/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/30/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
390 / 0	D	Light brown with red-brown, moist to very moist, very loose, SAND, some silt, some to trace clay, some mica, trace to no gravel, trace roots (SM; FILL)	3" topsoil	1	14		3-2-2	4			
387.5 / 2.5	D			2	16		1-1-2	3			
385 / 5	D	Tan and light brown, moist, loose, SAND, some silt and mica, trace gravel (SM)	No groundwater encountered while drilling	3	18		6-4-6	10			
382.5 / 7.5	D	Dark gray with orange-brown, moist, loose, SAND, some silt, with residual structure (SM)		4	16		2-3-7	10			
380 / 10	D	Dark orange-brown with gray and buff, moist, medium dense, silty, micaceous SAND (SM)		5	18		10-8-8	16			
377.5 / 12.5	D		Boring backfilled after 24 hrs	6	18		5-9-9	18			
375 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	7.3 ft.
AFTER 24 HRS.	DRY ft.	7.3 ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-4
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 397.6 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/30/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/30/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
397.5 / 0	D	Light brown and orange-brown, moist, loose, silty SAND, trace gravel, wood, and mica (SM; FILL)	1.5" topsoil	1	13		3-3-3	6			
395 / 2.5	D	Light brown and dark green-brown to light red/orange-brown, moist, loose, SAND, some silt to silty, trace to some mica, with residual structure (SM)		2	16		3-3-4	7			
392.5 / 5	D		No groundwater encountered while drilling	3	11		3-3-3	6			
390 / 7.5	D	Dark blue-gray with orange-brown and buff, moist, loose to medium dense, SAND, some silt, trace to some mica, with residual structure (SM)		4	18		2-3-6	9			
387.5 / 10	D			5	15		11-7-8	15			
385 / 12.5	D	Buff with pink-orange and gray, moist, dense, SAND, some gravel, trace silt, with residual structure (SP-SM)	Boring backfilled after 24 hrs	6	18		19-11-20	31			
382.5 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	5.7 ft.
AFTER 24 HRS.	DRY ft.	5.7 ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-5
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 391.6 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/30/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/30/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
390 / 0	I	Red/gray-brown,moist, stiff, sandy SILT, some mica, trace clay and roots (ML/MH; probable FILL)	2" topsoil	1	12		1-1-3	4			
387.5 / 2.5	D	Orange-brown, brown and gray, moist, loose, SAND, some silt and mica, trace gravel, with residual structure (SM)		2	15		2-3-4	7			
385 / 5	D		No groundwater encountered while drilling	3	18		3-2-3	5			
382.5 / 7.5	I	Orange-brown and beige-brown, moist, loose, silty SAND, trace gravel (SM)		4	17		2-3-4	7			
380 / 10	D	-some roots		5	16		4-4-3	7			
377.5 / 12.5	D	Light blue-gray with orange-brown, moist, medium dense, silty SAND (SM)	Boring backfilled after 24 hrs	6	17	14.0	5-8-11	19			
375 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	7.5 ft.
AFTER 24 HRS.	DRY ft.	7.5 ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-6
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 397.0 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/30/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/30/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
395 / 0		Light brown and orange-brown, moist, loose, silty SAND, trace gravel, mica and organics (SM; FILL)	2.5" topsoil	1	10		3-4-4	8			
392.5 / 2.5	D	Light brown and orange-brown, moist, loose to medium dense, silty SAND, some mica to micaceous, trace gravel and organics (SM)		2	18		4-5-5	10			
390 / 5	D		No groundwater encountered while drilling	3	16		7-9-8	17			
387.5 / 7.5	D			4	18		5-6-7	13			
385 / 10	D	Gray with brown, buff, and orange-brown, moist, medium dense to dense, SAND, some mica, with gravel and residual structure (SM)		5	14	10.4	5-10-20	30			
382.5 / 12.5	D		Boring backfilled after 24 hrs	6	16		20-20-14	34			
380 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	7.2 ft.
AFTER 24 HRS.	DRY ft.	7.2 ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-7
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 404.0 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
402.5 / 0	D	Red-brown and gray-brown, moist, loose, sandy GRAVEL, some clay and silt, trace mica and organics (GC; FILL)	4" topsoil	1	6		2-4-4	8			
400 / 2.5	D	Dark red-brown, moist, loose, SAND, some silt, trace gravel and organics (SM; FILL)		2	14		3-4-6	10			
397.5 / 5	D	Dark blue-gray with orange-brown, moist, very dense, GRAVEL or rock fragments, some sand, trace silt (GP-GM)	No groundwater encountered while drilling	3	8		13-26-36	62			>62
395 / 7.5	D	Dark orange-brown with blue-gray, moist, medium dense, SAND, some silt, trace gravel, with residual structure (SM)		4	7		6-7-5	12			
392.5 / 10	D	Red/orange-brown, moist medium dense, silty SAND, some mica to micaceous, trace roots (SM)		5	18		5-6-7	13			
390 / 12.5	D		Boring backfilled after 1 hr	6	18		10-8-8	16			
387.5 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	6.0 ft.
AFTER 24 HRS.	ft.	ft.
AFTER 1 HRS.	DRY ft.	6.0 ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-8
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 402.8 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
402.5 / 0	I	Brown, moist, very loose, silty, fine SAND, some mica, trace gravel and roots (SM; probable FILL)	4" topsoil	1	9		1-2-2	4			
400 / 2.5	I	Brown, moist, soft, sandy SILT, trace mica (ML; possible FILL)		2	18		2-2-2	4			
397.5 / 5	I	Dark red/orange-brown to tan orange-brown, moist, medium dense to loose, SAND, some silt, trace mica, with residual structure (SM)	No groundwater encountered while drilling	3	18		2-8-8	16			
395 / 7.5	D			4	16		6-5-4	9			
392.5 / 10	D	Beige-brown with gray, moist, loose to medium dense, silty, SAND, micaceous to some mica (SM)		5	10		4-2-4	6			
390 / 12.5	D		Boring backfilled after 1.5 hrs	6	14		9-6-8	14			
387.5 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	6.7 ft.
AFTER 24 HRS.	ft.	ft.
AFTER 1.5 HRS.	DRY ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-9
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 389.9 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
387.5 / 0	D	Red-brown and gray, moist, medium dense, silty GRAVEL, some sand, trace mica and organics (GM; probable FILL)	4" topsoil	1	18		3-7-6	13			
385 / 2.5	D	Dark red/orange-brown, moist, loose, silty SAND, some mica (SM)		2	14		5-5-5	10			
382.5 / 5	I		No groundwater encountered while drilling	3	16		2-4-3	7			
380 / 7.5	D	Tan-gray with orange-brown, moist, medium dense to loose, SAND, some silt, some to no gravel, trace mica (SM)		4	14		4-5-6	11			
377.5 / 10	D			5	13		2-3-5	8			
375 / 12.5	D	-with odor	Boring backfilled after 2 hrs	6	11		10-10-12	22			
372.5 / 15		Boring terminated at 13 ft									

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	6.6 ft.
AFTER 24 HRS.	ft.	ft.
AFTER 2 HRS.	DRY ft.	6.6 ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Lutfi's Property Additional SWM | Boring No. B-10
Location: 6301 Guilford Rd, Clarksville, MD | Job # 16246B

SAMPLER
Datum: | Hammer Wt. 140 lbs. | Hole Diameter 6 in. | Foreman B. Van Doren
Surf. Elev. 381.8 ft | Hammer Drop 30 in. | Rock Core Diameter NA | Inspector
Date Started 8/31/2018 | Pipe Size (O.D.) 2.0 in. | Boring Method HSA | Date Completed 8/31/2018

Elevation/ Depth (ft)	SOIL SYMBOLS/ SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N	10	30	50
380 / 0	I	Light brown, moist, soft, CLAY, some silt and sand, trace mica (CL; probable FILL)	3" topsoil	1	13		2-2-2	4			
377.5 / 2.5	I	Red/orange-brown to beige, very moist, loose, silty SAND, some mica (SM)	Boring offset 5 ft north due to auger refusal at 6.5 ft; boring offset 5 ft north	2	18		2-3-2	5			
375 / 5	D	Red/orange-brown and tan, moist, very dense, SAND, some gravel and silt, trace mica (SM)	No groundwater encountered while drilling	3	9		20-50/5"	50/5"			
372.5 / 7.5	D		Boulders encountered								
370 / 10	D	Orange-brown and beige-brown, moist, medium dense, silty fine SAND, some mica (SM)		4	16		4-5-6	11			
367.5 / 12.5	D			5	18		4-5-7	12			
365 / 15		Boring terminated at 13 ft	Boring backfilled after 2 hrs	6	12		6-9-10	19			

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	DRY ft.	6.5 ft.
AFTER 24 HRS.	ft.	ft.
AFTER 2 HRS.	DRY ft.	6.5 ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

APPROVED: HOWARD COUNTY, DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: Kent Sheubrooks 7D63E7A4EE4149...	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 7/26/2024
DocuSigned by: Amy Gray 0A3A1C3B3B5F40D...	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 7/26/2024

NO.	DESCRIPTION	DATE

REVISIONS

OWNER/DEVELOPER
LLU, LLC
12143 CLARKSVILLE PIKE
CLARKSVILLE, MARYLAND 21029
C/O RON BAQUOL
RLBDEVLLC2@GMAIL.COM
443-250-7272

BORING LOGS

LUTFI PROPERTY

LUTFI PROPERTY LOTS 2 THRU 5, A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL 'A' AS SHOWN ON PLAT NUMBER 26221 LUTFI PROPERTY LOT 1 AND NON-BUILDABLE BULK PARCEL 'A'

TAX MAP 35 GRID 13 | PARCEL 56
5TH ELECTION DISTRICT | HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — PAUL W. SILL — No. 32025 — PROFESSIONAL ENGINEER

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DESIGN BY: PS
DRAWN BY: TB
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 3, 2024
PROJECT #: 23-065
SHEET #: 8 of 8

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE JUNE 20, 2025