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Memorandum

To	Tony Esse, PE, VCO, City of Alexandria	Page	1
Subject	Taylor Run Stream Stabilization Design – Geotechnical 30% submittal		
From	Victor Omelchenko, PE, D.GE; Mohammed Alhachami, P.E. with AECOM		
Date	October 15, 2025		

INTRODUCTION/SCOPE

This memorandum provides a summary of the preliminary geotechnical investigations drilled at the site. The project encompasses four design areas. Our scope of work includes the following:

1. Drilling four geotechnical soil borings using the Standard Penetration Test (SPT) method:
    - Borings B-1 and B-2 were drilled to a depth of 30 feet near Design Area 2.
    - Borings B-3 and B-4 were drilled to a depth of 45 feet near Design Area 4.
2. Conducting a site visit to evaluate the existing site conditions.
3. Reviewing the preliminary design concepts and historical data provided by the City Alexandria.
4. Comments regarding the feasibility of installing new replacement sheet piles, recommended sheet pile depths and the feasibility of driving sheet piles to required depths.
5. Comments regarding the feasibility of installing new REDI-ROCK gravity retaining walls and if any special measures are needed due to highly plastic clay soils at the site that could be susceptible to slope instability.

Soil samples collected from the borings are currently undergoing laboratory testing to determine material properties and engineering parameters, which will be used for subsequent analysis and design.

EXISTING CONDITIONS AND PROPOSED CONTRUCTION

We performed a site visit on October 02, 2025. During our site visit we observed various damage across the designated areas. Three to four feet of bank erosion was observed within the site. The observations are summarized below:

Design Area 1:

- Localized erosion observed behind the wingwall.
- Presence of concrete debris within the channel.
- Erosion along both channel banks.

Design Area 2:

- Visible deterioration of the wingwall structure.
- Approximately 2 feet of bank erosion has resulted in the exposure of 12 inches of a ductile iron pipe.
- Bank erosion presents along the left bank of the channel.

Design Area 3:

- Exposed sanitary sewer manhole within the channel.
- Undermining observed beneath the concrete skirt beneath the manhole.
- Accumulation of wood debris that is obstructing flow within the channel.

Design Area 4:

- Channel erosion that has exposed root masses along the channel bank.
- Significant sheet pile retaining wall lateral movement of about 3 to 5 inches.
- Approximately 3 feet of bank erosion that has resulted in the exposure of 18 inches of ductile iron pipe.
- Wood debris is presented within the channel.
- Erosion that was observed along both channel banks.

We did not observe any slope failures or other evidence that would suggest that slope failures have occurred at the site.

This project involves the design of a “minimal stabilization” approach to provide targeted stream stabilization measures aimed at protecting at-risk infrastructure along Taylor Run in the City of Alexandria. The work focuses on three priority areas, each containing vulnerable infrastructure such as degraded outfalls, exposed sanitary sewer manholes, and sanitary sewer stream crossings. All focus areas and potential construction access points are located within City-owned property. Additionally, the project area is situated within or adjacent to Chinquapin Park.

EXISTING GEOTECHNICAL SUBSURFACE CONDITIONS

Four soil borings were drilled on the site between September 23, 2025, and October 2, 2025, The subsurface conditions at the site generally consist of a surficial layer of topsoil underlain by existing fill materials. The fill is characterized as medium stiff to stiff sandy clay and sandy silt with varying amounts of gravel and extends to an approximate depth of 6 feet below the ground surface.

The underlying native soil consists of predominantly medium stiff to very stiff Potomac clay and thin embedded layers of well-graded sands, extending to the maximum depth of the borings, which was a depth of approximately 45 feet below ground surface. The very stiff Potomac clay soils in the Alexandria, Virginia area are known to be susceptible to slope instability issues. The soils are also known to have high shrink-swell properties, where significant soil swelling occurs when the soils are wetted and significant shrinkage occurs where the soils are dried.

Groundwater was encountered in the soil borings at depths ranging from 8 to 11 feet, corresponding to elevations between 142 and 140 feet. Based on site conditions, the groundwater level is expected to generally follow the elevation of the adjacent stream bed.

A Boring Location Plan, the corresponding Soil Boring Logs and a Soil Boring Profile are provided at the end of this memorandum.

PROPOSED CONSTRUCTION

We understand that the proposed construction involves the installation of REDI-ROCK gravity retaining walls across all designated design areas. To mitigate potential scour, the gravity walls are to be underlain by sheet piles. As-built drawings indicate that the existing steel sheet piles extend about 4.5 ft beneath the current ground surface in the stream areas. We also understand that the scour depth is estimated to be about 10 feet below the current ground surface in the stream channels.

PRELIMINARY GEOTECHNICAL ENGINEERING RECOMMENDATIONS

Preliminary evaluation of regional geologic conditions and site-specific subsurface profiles indicates the presence of stiff to very stiff Potomac clay strata within the upper 30 feet of the subsurface soil. These low-permeability, high-strength cohesive soils may pose drivability challenges for conventional sheet pile installation methods, potentially resulting in refusal or excessive driving resistance. This subsurface constraint will be further assessed during the next design phase, and alternative installation techniques such as predrilling and or vibratory methods or design modifications will be considered as warranted by the geotechnical findings. A geotechnical slope stability analysis of the REDDI-ROCK retaining walls and sheet pile elements will also be performed as part of the 60% design submittal after current soil laboratory testing is completed.

Limitations

Interpretation of general subsurface soil conditions presented herein is based our understanding of the proposed project as described in this memorandum, soil and groundwater conditions encountered in the limited number of soil borings. Subsurface conditions may vary between exploration locations. This memorandum does not reflect any variations that may occur between boring locations or across the site in areas not sampled. The nature and extent of such variations may not become evident until construction. Groundwater conditions during construction may be different from the observations made in the borings.

This memorandum has been prepared for the specific project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranty, express or implied, is provided. In the event that any changes in the nature, design, or location of the project as outlined in this memorandum are planned, the data and conclusions contained in this memorandum will not be considered valid unless the changes are reviewed, and the conclusions of this report are modified or verified in writing by AECOM.

Enclosures

Appendix 1

Vicinity Plan, Figure 1
Boring Location Plan, Figure 2
Subsurface Soil Profile-Figure 3

Appendix 2
Boring logs (8 Sheets)

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Appendix 1

Vicinity Plan, Figure 1

Boring Location Plan, Figure 2

Subsurface Soil Profile-Figure 3

Taylor Run Stream
Alexandria, VA

Site Vicinity Plan

DATE - 10/14/2025	DRAWN BY - TM	CHECKED BY - MA	Project Number - 60742359	REV - 0

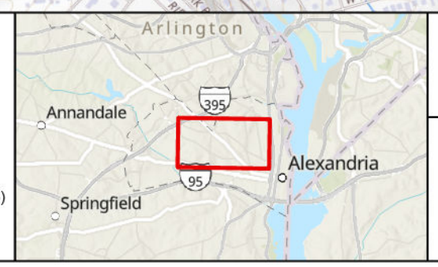
Figure 1

0 1,000 2,000 3,000 4,000 5,000 US Feet

Legend

Project Location

Notes:
1. Basemap imagery provided by USGS (2025)
2. Street Names provided by City of Alexandria (2025)
3. Inset Map Provided by ESRI
4. Coordinate System NAD 1983 StatePlane Virginia North



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Taylor Run Stream
Alexandria, VA

Exploration Location Plan

DATE - 10/14/2025	DRAWN BY - TM	CHECKED BY - MA	Project Number - 60742359	REV - 0

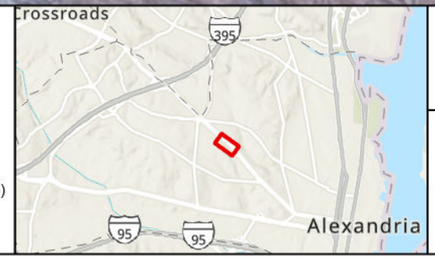
Figure 2

0 100 200 300 400 500 US Feet

Legend

- Approximate Exploration Location

Notes:
1. Basemap imagery provided by Google (2025)
2. Street Names provided by City of Alexandria (2025)
3. Inset Map Provided by ESRI
4. Coordinate System NAD 1983 StatePlane Virginia North



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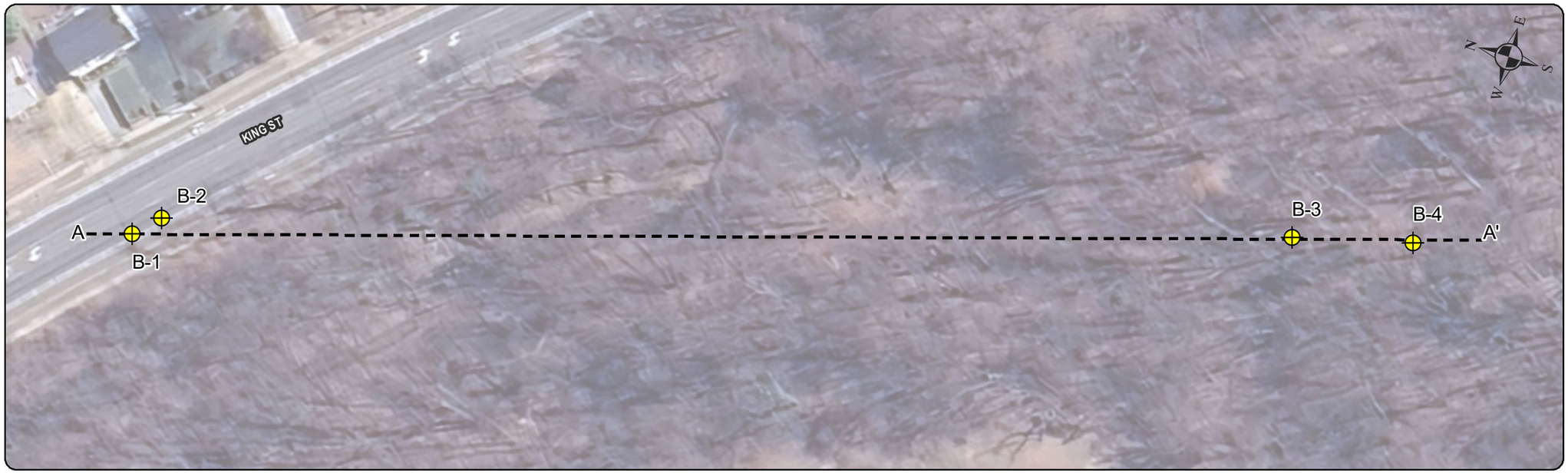
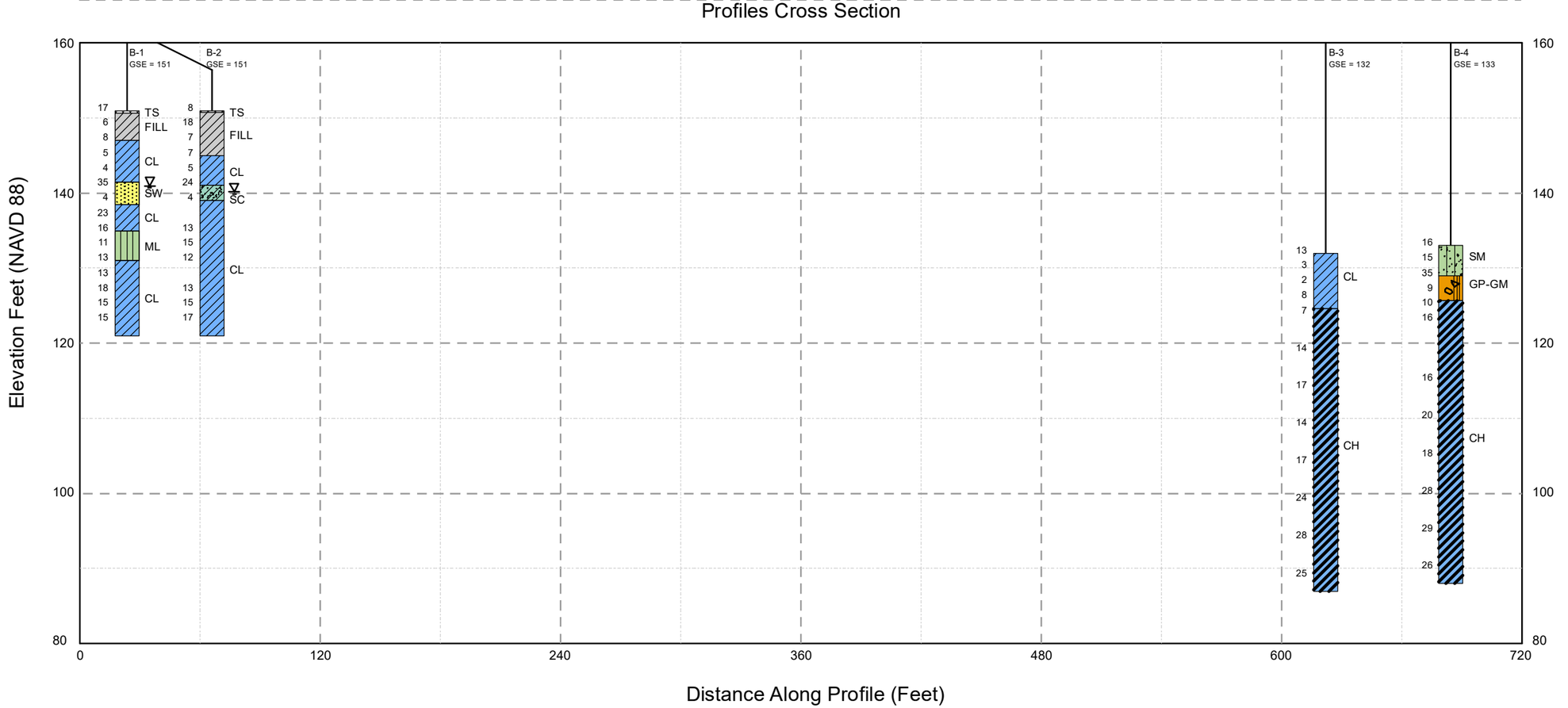


A A'

Profiles Cross Section



Plan Legend

- Approximate Exploration Location
- Profile Cross Section

Scale
0 30 60 120 Feet

Cross Section Profile Legend

New Explorations

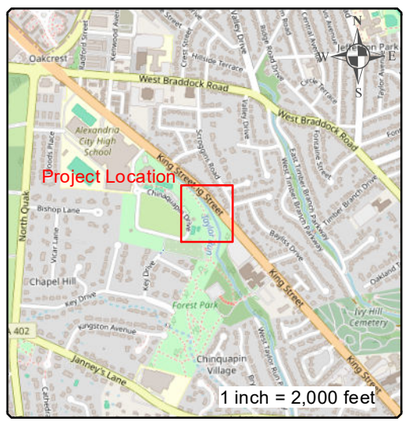
Ground Water

B-1 — Exploration ID
GSE - 39 — Ground Surface Elevation
CH — USCS Soil Classification
11 — Standard Penetration Test Number
50 — Fines Content

Lithology Legend

- Well Graded Sand (SW)
- Fat Clay (CH)
- Poorly-graded Gravel with Silt (GP-GM)
- Clayey Sand (SC)
- Silty Sand (SM)
- TopSoil (TS)
- Lean Clay (CL)
- Silt (ML)
- Fill

Notes:
1. Basemap imagery provided by Google. (2024)
2. Coordinate System - NAD 1983 Virginia North, Elevations are NAVD 88
3. Profile view shown is 2-dimensional
4. Inset map provided by OpenStreetMaps (2024)
5. Boring locations are approximate.



Taylor Run Stream

Alexandria
Virginia

Project Number - 60742359

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Figure - 3

Appendix 2

Boring logs (8 sheets)

Log of Boring B-1

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985731.794 E 11887162.335**

DATE STARTED: **9/23/2025**
DATE COMPLETED: **9/23/2025**
LOGGED BY:
CHECKED BY:
DRILLING CONTRACTOR:
DRILL RIG: **CME-45 (Truck)**
DRILLER: **M. Stawas**

DRILL METHOD:
HAMMER TYPE/WEIGHT: **Auto Hammer/140lbs**
CASING TYPE:
CASING SIZE:
BIT TYPE/SIZE: **NA/NA**
BOREHOLE DEPTH: **30.0 FT**
SURFACE ELEVATION: **151.00 FT**

Groundwater Observations

Event	Date	Time	Depth (ft)	Cave in Depth (ft)
During Drilling ▽	09-23-2025		10.0	-
Completion	09-23-2025		-	23.2
24-hour ▼	09-24-2025		7.9	

DEPTH (FT)	ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	BLOWS	REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
		0.0 - 0.4 ft: TOPSOIL	Topsoil												
	150	0.4 - 2.0 ft: (FILL) Sampled as Moist, very stiff, dark brown, Sandy Silt, contains little gravel and roots	ML			S-1		9- 10- 7- 7 (N=17)	6 (25%)						
		2.0 - 4.0 ft: (FILL) Sampled as Moist, medium stiff, grayish brown to dark brown, Lean Clay, contains some to little sand, little gravel, trace roots	CL			S-2		3- 3- 3- 4 (N=6)	6 (25%)						
	5	4.0 - 9.5 ft: Moist, medium stiff, grayish brown to dark brown, LEAN CLAY, contains some to little sand, little gravel				S-3		3- 4- 4- 5 (N=8)	12 (50%)						
	145		CL			S-4		2- 2- 3- 2 (N=5)	8 (33%)						
	▼	8.0 ft: changes to soft				S-5		1- 1- 3- 17 (N=4)	12 (50%)						
	10 ▽	9.5 - 12.5 ft: Moist to wet, dense, brown, coarse, WELL GRADED SAND WITH GRAVEL													
	140		SW			S-6		10- 16- 19- 23 (N=35)	2 (8%)						
		12.5 - 16.0 ft: Moist, soft, light brown and gray, LEAN CLAY, contains little silt				S-7		8- 1- 3- 3 (N=4)	16 (67%)						
		14.0 ft: changes to very stiff	CL												
	15					S-8		16- 12- 11- 5 (N=23)	12 (50%)						
	135	16.0 - 20.0 ft: Moist, very stiff, light brown and gray, SILT, contains little clay and fine sand				S-9		4- 6- 10- 11 (N=16)	19 (79%)						
		18.0 ft: changes to stiff	ML			S-10		3- 5- 6- 7 (N=11)	18 (75%)						
	20														
	130	20.0 - 30.0 ft: Moist, stiff, light brown and gray, LEAN CLAY, contains little silt				S-11		4- 5- 8- 7 (N=13)	24 (100%)						
			CL			S-12		3- 6- 7- 10 (N=13)	24 (100%)						
		24.0 ft: changes to very stiff													
	25							5- 7- 11- 12	24						

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B = Bulk Sample S = Split Spoon Sample P = Pitcher Sample
G = Geoprobe T = Shelby Tube Sample RC = Rock Core
PS = Piston Sample H = Hand Auger Sample SC = Sonic Core

Log of Boring B-1

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985731.794 E 11887162.335**

DEPTH (FT) / ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	BLOWS	REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
125	26.0 ft: changes to stiff, contains little sand from 26-28ft	CL			S-13		(N=18)	(100%)						
					S-14		4- 7- 8- 11 (N=15)	24 (100%)						
					S-15		5- 6- 9- 12 (N=15)	24 (100%)						
30														

Boring completed at 30.0 FT on 9/23/2025.

Boring was offset 8.6' towards King Street due to underground utilities

Log of Boring B-2

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985719.598 E 11887174.491**

DATE STARTED: **9/23/2025**
DATE COMPLETED: **9/24/2025**
LOGGED BY:
CHECKED BY:
DRILLING CONTRACTOR:
DRILL RIG: **CME-45 (Truck)**
DRILLER: **M. Stawas**

DRILL METHOD:
HAMMER TYPE/WEIGHT: **Auto Hammer/140lbs**
CASING TYPE:
CASING SIZE:
BIT TYPE/SIZE: **NA/NA**
BOREHOLE DEPTH: **30.0 FT**
SURFACE ELEVATION: **151.00 FT**

Groundwater Observations

Event	Date	Time	Depth (ft)	Cave in Depth (ft)
During drilling ▽	09-23-2025		11.0	-
Completion	09-24-2025		-	14.7

DEPTH (FT)	ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	BLOWS	REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
	150	0.0 - 0.3 ft: TOPSOIL	Topsoil												
		0.3 - 2.0 ft: (FILL) Sampled as Moist, medium stiff, dark brown, Sandy Silt, contains gravel and roots	ML			S-1		3- 4- 4- 7 (N=8)	6 (25%)						
		2.0 - 6.0 ft: (FILL) Sampled as Moist, very stiff, dark brown to brown, Sandy Lean Clay, contains little gravel				S-2		3- 13- 5- 4 (N=18)	10 (42%)						
		4.0 ft: changes to medium stiff	CL												
5						S-3		3- 3- 4- 9 (N=7)	6 (25%)						
	145	6.0 - 10.0 ft: Moist, medium stiff, brown and gray, SANDY LEAN CLAY				S-4		5- 3- 4- 2 (N=7)	14 (58%)						
			CL			S-5		2- 3- 2- 4 (N=5)	14 (58%)						
10															
	140 ▽	10.0 - 12.0 ft: Wet, medium dense, brown, coarse, CLAYEY SAND, contains gravel	SC			S-6		5- 12- 12- 12 (N=24)	10 (42%)						
		12.0 - 30.0 ft: Wet, soft, brown, LEAN CLAY, contains some coarse sand and gravel				S-7		2- 2- 2- 4 (N=4)	12 (50%)						
		14.0 ft: changes to Moist, brown and gray													
15						T-1			24 (100%)						
	135	16.0 ft: changes to stiff													
						S-8		3- 5- 8- 11 (N=13)	24 (100%)						
			CL			S-9		5- 7- 8- 10 (N=15)	24 (100%)						
20															
	130					S-10		3- 5- 7- 9 (N=12)	24 (100%)						
						T-2			24 (100%)						
25								5- 6- 7- 9	24						

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PS = Piston Sample H = Hand Auger Sample SC = Sonic Core

Log of Boring B-2

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985719.598 E 11887174.491**

DEPTH (FT) / ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS	SAMPLES REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
					S-11		(N=13)	(100%)						
125					S-12		4- 8- 7- 10 (N=15)	24 (100%)						
	28.0 ft: changes to very stiff, contains little silt	CL			S-13		6- 7- 10- 12 (N=17)	24 (100%)						
30														

Boring completed at 30.0 FT on 9/24/2025.

Boring was offset 9.6' towards King Street due to underground utilities

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Log of Boring B-3

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985161.823 E 11887344.454**

DATE STARTED: **10/3/2025**
DATE COMPLETED: **10/3/2025**
LOGGED BY: **P.Mahato**
CHECKED BY:
DRILLING CONTRACTOR: **Emerson Harper**
DRILL RIG: **Diedrich D-50 (Track)**
DRILLER: **I.Hall**

DRILL METHOD: **3-1/4" I.D. Hollow Stem Auger**
HAMMER TYPE/WEIGHT: **Automatic/140lbs**
CASING TYPE:
CASING SIZE:
BIT TYPE/SIZE: **NA/NA**
BOREHOLE DEPTH: **45.0 FT**
SURFACE ELEVATION: **132.00 FT**

Groundwater Observations

Event	Date	Time	Depth (ft)	Cave in Depth (ft)
Completion	10-03-2025	13:26	Dry	3.0

DEPTH (FT) / ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	TYPE	BLOWS	REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
130	0.0 - 2.0 ft: Moist, stiff, dark gray, medium plasticity, SANDY LEAN CLAY WITH GRAVEL, contains root fragments	CL			S-1		6- 8- 5- 5 (N=13)	9 (38%)						
	2.0 - 7.4 ft: Moist, soft, dark gray, medium plasticity, SANDY LEAN CLAY				S-2		2- 2- 1- 1 (N=3)	17 (71%)						
5		CL			S-3		2- 1- 1- 2 (N=2)	7 (29%)						
125	6.0 ft: changes to medium stiff				S-4		8- 5- 3- 3 (N=8)	15 (63%)						
	7.4 - 13.0 ft: Moist, medium stiff, reddish brown and yellowish brown, high plasticity, FAT CLAY WITH SAND				S-5		1- 2- 5- 6 (N=7)	17 (71%)						
10		CH			T-1			17 (71%)						
120														
	13.0 - 43.0 ft: Moist, stiff, dark reddish brown with greenish gray, high plasticity, FAT CLAY				S-7		3- 6- 8- 9 (N=14)	24 (100%)						
15														
115														
	18.0 ft: changes to very stiff	CH			S-8		3- 6- 11- 15 (N=17)	24 (100%)						
20														
110														
	23.0 ft: changes to stiff, reddish brown and greenish gray				S-9		3- 6- 8- 12 (N=14)	24 (100%)						
25														

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Log of Boring B-3

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985161.823 E 11887344.454**

DEPTH (FT) / ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS	SAMPLES REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
105	28.0 - 43.0 ft: very stiff													
30					S-10		3- 6- 11- 14 (N=17)	24 (100%)						30.0ft: Driller lost Shelby tube in the hole. Driller mentioned they can't take more tube because of hard clay.
100		CH			S-11		6- 10- 14- 20 (N=24)	24 (100%)						
35														
95					S-12		6- 10- 18- 15 (N=28)	24 (100%)						
40														
90	43.0 - 45.0 ft: Moist, very stiff, reddish brown and greenish gray, high plasticity, FAT CLAY WITH SAND	CH			S-13		5- 8- 17- 28 (N=25)	24 (100%)						
45	at 45.0 FT on 10/3/2025 at 13:24 HOURS. Boring backfilled with cement/bentonite grout upon completion.													

Log of Boring B-4

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PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985101.375 E 11887361.219**

DATE STARTED: **10/2/2025**
DATE COMPLETED: **10/2/2025**
LOGGED BY: **P.Mahato**
CHECKED BY:
DRILLING CONTRACTOR: **Emerson Harper**
DRILL RIG: **Diedrich D-50 (Track)**
DRILLER: **I.Hall**

DRILL METHOD: **3-1/4" I.D. Hollow Stem Auger**
HAMMER TYPE/WEIGHT: **Automatic/140lbs**
CASING TYPE:
CASING SIZE:
BIT TYPE/SIZE: **NA/NA**
BOREHOLE DEPTH: **45.0 FT**
SURFACE ELEVATION: **133.00 FT**

Groundwater Observations

Event	Date	Time	Depth (ft)	Cave in Depth (ft)
Completion	10-02-2025	16:15	Dry	12.6
24-hour	10-03-2025	12:51	Dry	12.6

DEPTH (FT)	ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	BLOWS	REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
0	130	0.0 - 4.0 ft: medium dense, dark gray, SILTY SAND WITH GRAVEL, contains root fragments	SM			S-1		6- 8- 8- 12 (N=16)	4 (17%)						
						S-2		11- 9- 6- 10 (N=15)	1 (4%)						
5		4.0 - 7.3 ft: Moist, dense, light gray, fine to coarse, POORLY GRADED GRAVEL WITH SILT, angular to subrounded gravel	GP-GM			S-3		19- 18- 17- 9 (N=35)	8 (33%)						
						S-4		7- 3- 6- 6 (N=9)	15 (63%)						
	125	7.3 - 10.0 ft: Moist, stiff, light gray, high plasticity, FAT CLAY WITH SAND	CH			S-5		6- 4- 6- 9 (N=10)	4 (17%)						
10		10.0 - 38.0 ft: Moist, very stiff, dark gray and olive gray, high plasticity, FAT CLAY				S-6		7- 8- 8- 10 (N=16)	24 (100%)						
	120					T-1			0 (NR)						
15						T-2			24 (100%)						
	115	18.0 ft: changes to reddish brown	CH			S-8		5- 7- 9- 11 (N=16)	24 (100%)						
20															
	110	23.0 ft: changes to reddish brown with greenish gray				S-9		4- 9- 11- 18 (N=20)	24 (100%)						
25															

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PS = Piston Sample H = Hand Auger Sample SC = Sonic Core

Log of Boring B-4

PROJECT: **Taylor Run Stream Stabilization**

PROJECT LOCATION: **, Alexandria, VA**

PROJECT NUMBER: **60742359** COORDINATES: **N 6985101.375 E 11887361.219**

DEPTH (FT) / ELEV. (FT)	DESCRIPTION	USCS	GRAPHIC	STRATUM	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS	SAMPLES REC (IN) (%)	Moisture Content (%)	Liquid Limit	Plastic Limit	Pocket Pen.(tsf)	Fines Content (%)	REMARKS AND TESTS
					T-3			24 (100%)						
105					S-10		5- 7- 11- 16 (N=18)	24 (100%)						
30		CH												
100					S-11		6- 11- 17- 27 (N=28)	24 (100%)						
35														
95	38.0 - 45.0 ft: Moist, very stiff, reddish brown with greenish gray, high plasticity, FAT CLAY WITH SAND													
40					S-12		7- 11- 18- 40 (N=29)	24 (100%)						
		CH												
90					S-13		4- 11- 15- 31 (N=26)	24 (100%)						
45	at 45.0 FT on 10/2/2025 at 13:24 HOURS. Boring backfilled with cement/bentonite grout upon completion.													