DEPARTMENT OF PERMITTING SERVICES

Marc Elrich
County Executive

Rabbiah Sabbakhan
Director

December 3, 2023

Mr. Gerald Miller, Jr., PE
Terra Solutions Engineering, Inc
5216 Chairmans Courte, Suite 105
Frederick, Maryland 21703

Re: **REVISED COMBINED PRELIMINARY AND FINAL WATER QUALITY PLAN** for
Bennett Creek Animal Hospital
22416 Frederick Road
Preliminary Plan #: 120080130
SM File #: 217106
Tract Size/Zone: 87,251 sq.ft./R-200
Total Concept Area: 27,925 sq.ft.
Lots/Block: 7
Watershed and Class: Seneca Creek/IV
Clarksburg Special Protection Area
Redevelopment (Yes/No): No

Dear Mr. Miller:

Based on a review by the Department of Permitting Services Review Staff, the revision to the Final Water Quality plan for the above-mentioned site is **acceptable**. The revision proposes to meet required stormwater management goals via the use of micro-bioretention and a bio-swale. This review is for the elements of the water quality plan of which DPS has the lead agency and does not include limits on the imperviousness or buffer encroachments.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

1. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
2. An engineered sediment control plan must be submitted for this project.
3. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.
4. This approval supersedes the previous approval dated November 14, 2007.
5. Side slopes greater than 3:1 are not permitted in the SPA.
6. Use of Super Silt Fence in lieu of Silt Fence is required in an SPA.

Exhibit 14
S-2659-A

ALL DISTURBED AREAS MUST BE TOPSOILED PER MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL" SEE SHEET 3 FOR THIS DETAIL

SEE SHEET 9 FOR THE SEQUENCE OF CONSTRUCTION

FOR TREE PROTECTION MEASURES THE CONTRACTOR SHALL REFER TO THE APPROVED FOREST CONSERVATION PLANS

BENNETT CREEK ANIMAL HOSPITAL

CLARKSBURG SPECIAL PROTECTION AREA - COMBINED PRELIMINARY / FINAL WATER QUALITY PLAN

TAX MAP EV-53, PARCELS 542 & 595

SITUATED AT 22416 FREDERICK ROAD

CLARKSBURG, MARYLAND 20871

CLARKSBURG ELECTION DISTRICT No. 2

MONTGOMERY COUNTY, MARYLAND

SOILS MAP

SCALE: 1" = 1000'

SWM Concept Table: Each line must be completed. Place this table on the first sheet with initial submission

Contact Information for Design Engineer (for technical issues): Terra Solutions Engineering, LLC (Contact: Gerald L. Miller, Jr., P.E.)

General Property Information

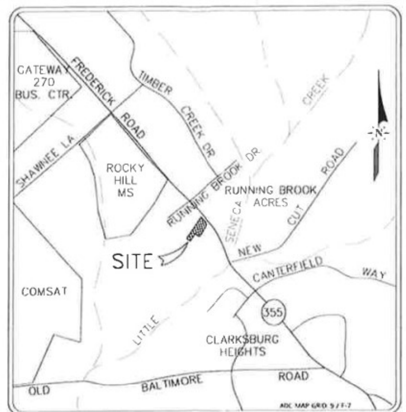
SM# Concept SM# 217106
Type of Concept: Combined Preliminary-Final Water Quality Plan
M-NCP&PC Process / No: M-NCP&PC #
Property Address: 22416 Frederick Road, Clarksburg, Maryland 20871
Property Legal Description: Lot 2 - Bennett Creek, Parcel
Property Size (ac /sq. ft.): 2.0030 Ac. / 87,251 sq. ft
Total Concept Area (ac /sq.ft.): 2.0030 Ac. / 87,251 sq. ft.
Property Zoning: R-200
Watershed(s) and Stream Class: Little Seneca Creek (IV-P)
Special Protection Area: Clarksburg
100-Yr Floodplain: No - Zone
Ex. % Impervious / Redevelopment or New Development: 29.4% Imp. / New Development - Proposed: 37.8% Imp. / New Development

SWM Summary: Study Point #1 - (Micro Bio-Retention Pond #1)
Target Pe / Proposed Pe: 1.80 Inches / 2.60 Inches
Target ESDv / Provided ESDv: 1,138 CF / 1,300 CF
ESD Measures: Allowable ESD: 1,138 CF
Structural Storage Required / Provided: Max. 1,138 CF / Provided: 1,300 CF
Structural Measures: Micro Bio-Retention Pond
Waiver Request QL / QN / Both: None!
Provided ESDv + Structural Storage Provided + Requested to be Waived = N/A

SWM Summary: Study Point #2 - (Micro Bio-Retention Pond #2)
Target Pe / Proposed Pe: 1.80 Inches / 2.60 Inches
Target ESDv / Provided ESDv: 1,285 CF / 1,300 CF
ESD Measures: Allowable ESD: 1,285 CF
Structural Storage Required / Provided: Max. 1,285 CF / Provided: 1,300 CF
Structural Measures: Micro Bio-Retention Pond
Waiver Request QL / QN / Both: None!
Provided ESDv + Structural Storage Provided + Requested to be Waived = N/A

SWM Summary: Study Point #3 - (Bio-Swale #1)
Target Pe / Proposed Pe: 1.00 Inches / 1.81 Inches
Target ESDv / Provided ESDv: 705 CF / 1,344 CF
ESD Measures: Bio-Swale
Structural Storage Required / Provided: 705 CF / 1,344 CF
Structural Measures: Bio-Swale
Waiver Request QL / QN / Both: None!
Provided ESDv + Structural Storage Provided + Requested to be Waived = N/A

Other Information: -



TAX MAP EV-53   TAX ID: 02-03642884   PARCELS 542 & 595

VICINITY MAP
SCALE: 1" = 1000'

SHEET INDEX

TITLE	SHEET No.
COVER SHEET	1
IMPROVEMENT PLAN	2
DRAINAGE AREA MAP	3
STORMWATER MANAGEMENT PLAN & PROFILES	4
ECS SOIL BORING SPECIFICATION SHEETS	5
SWM NOTES & DETAILS SHEET	6

"ATTENTION"

THIS SITE IS WITHIN THE ENVIRONMENTALLY SENSITIVE

CLARKSBURG SPECIAL PROTECTION AREA

Mr. Andrew Kohler AT 240-777-0311

AND THE M.C.D.P.S. STAFF MEMBER WILL ASSIST YOU IN DEVELOPING A SOLUTION BEFORE STREAM IMPACTS OCCUR

(MENTION THAT THE SITE IS WITHIN A SPECIAL PROTECTION AREA WHEN YOU CALL)

"LET'S WORK TOGETHER TO KEEP IT CLEAN"

ACKNOWLEDGED: ______________ Owner/Developer

ENVIRONMENTAL SITE DESIGN (ESD) - Site Summary Table

ESD TREATMENT METHODS USED	METHOD / DESCRIPTION	VOLUME TREATED
	ESDv or WQv REQUIRED:	2,837 CF
(3.4) STORMWATER FILTERING SYSTEMS:	-	-
BIORETENTION FACILITY	-	-
ALT. SURFACE (A-2)	-	-
(5.3) ALTERNATIVE SURFACES:	-	-
ALT. SURFACE (A-1)	-	-
ALT. SURFACE (A-2)	-	-
(5.4.2) NON-STRUCTURAL PRACTICES:	-	-
ROOFTOP DISCONNECTION (N-1)	-	-
NON-ROOFTOP DISCONNECTION (N-2)	-	-
SHEETFLOW CONSERVATION AREA (N-3)	-	-
(5.4.3) MICRO-SCALE PRACTICES:	-	-
RAINWATER HARVESTING (M-1)	-	-
SUBMERGED GRAVEL WETLANDS (M-2)	-	-
LANDSCAPE INFILTRATION (M-3)	-	-
INFILTRATION BERMS (M-4)	-	-
DRY WELLS (M-5)	-	-
MICRO-BIORETENTION POND (M-6)	TWO (2) NEW MICRO-BIORETENTION PONDS	2,423 CF
RAIN GARDENS (M-7)	-	-
SWALES (M-8)	NEW BIO-SWALE (M-8)	1,344 CF
ENHANCED FILTERS (M-9)	-	-
	ESDv or WQv PROVIDED:	3,767 CF
	EXCESS or (DEFICIT) ESDv:	930 CF Extra!

AGENCY FILE REFERENCES:
PROPERTY TAX ID #: 02-03642884
MC DPS SM File No: 217106
MC DPS SWM Concept App. No.: 232197

Revision to Preliminary/Final Water Quality plan approved for DPS
Sheryl Mitchell
12/01/2023

PROFESSIONAL ENGINEER'S CERTIFICATION
SIGNED BY: GERALD LEE MILLER, JR., PE   11/10/23 DATE
MD LICENSE No: 21401 P.E. EXPIRATION DATE: 11-09-24
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

Gerald L. Miller
Seal & Signature

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5216 Chairmans Court, Suite 105
Frederick, MD 21703

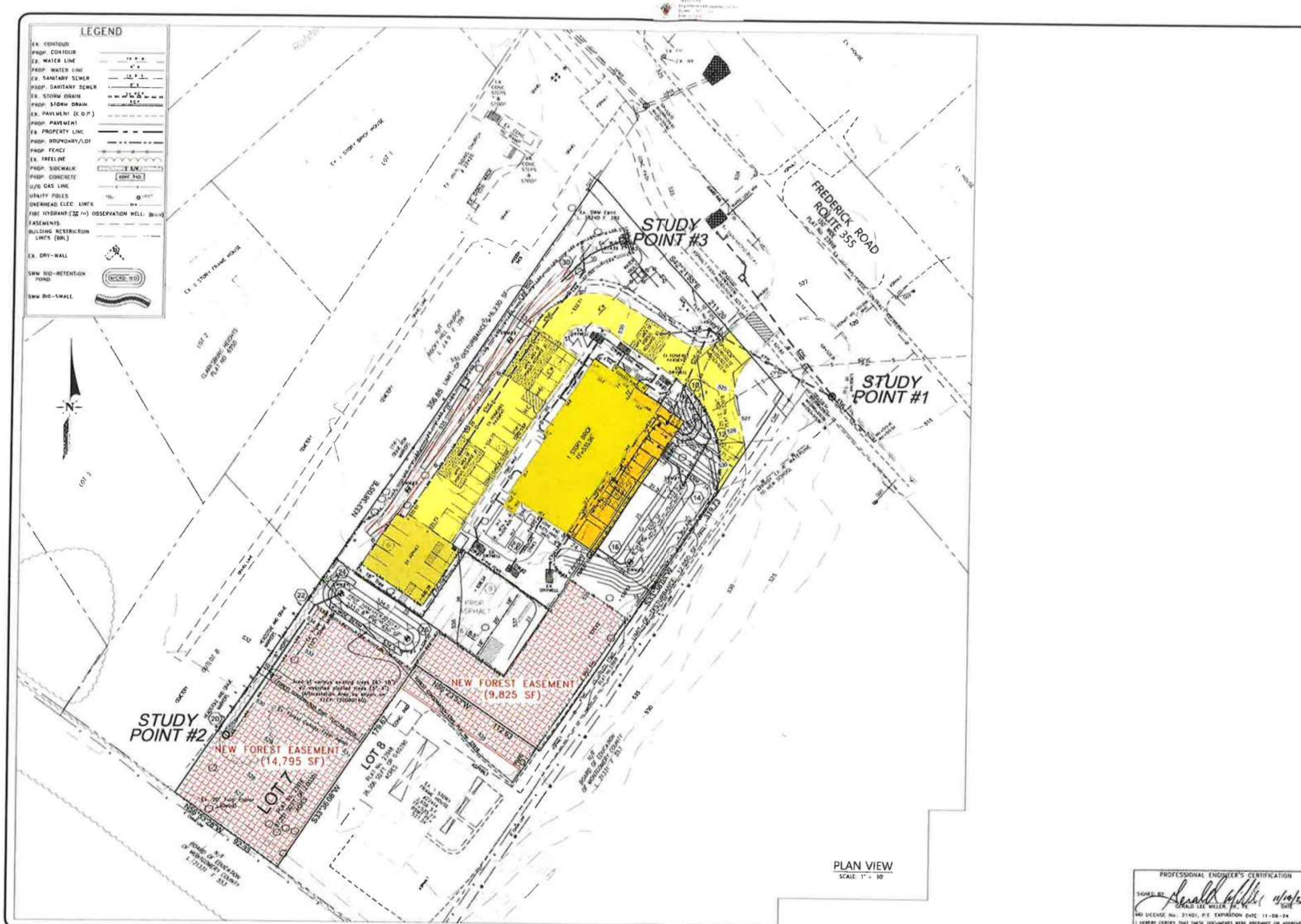
Owner/Developer
Biscayne Veterinary Holdings, LLC
907 Oak Knoll Terrace
Rockville, MD 20871
Attn: Dr. Jeff Wakeall, DVM

BENNETT CREEK ANIMAL HOSPITAL
Situated at No. 22416 Frederick Road
Liber 37035 Folio 226
Clarksburg Election District No. 2
Montgomery County, Maryland

WATER QUALITY PLAN - COVER SHEET

NO.	DATE	REVISION DESCRIPTION	BY
1	-		
2	-		
3	-		
4	-		
5	-		
6	-		
7	-		

PROJECT No.: 302
DATE: NOVEMBER 2023
SCALE: AS SHOWN
SHEET No. 1 of 6



PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: 11/10/23
GERALD LEE MILLER, JR, PE DATE
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BENNETT CREEK ANIMAL HOSPITAL

Situated at No. 22416 Frederick Road
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Montgomery County, Maryland

WATER QUALITY PLAN

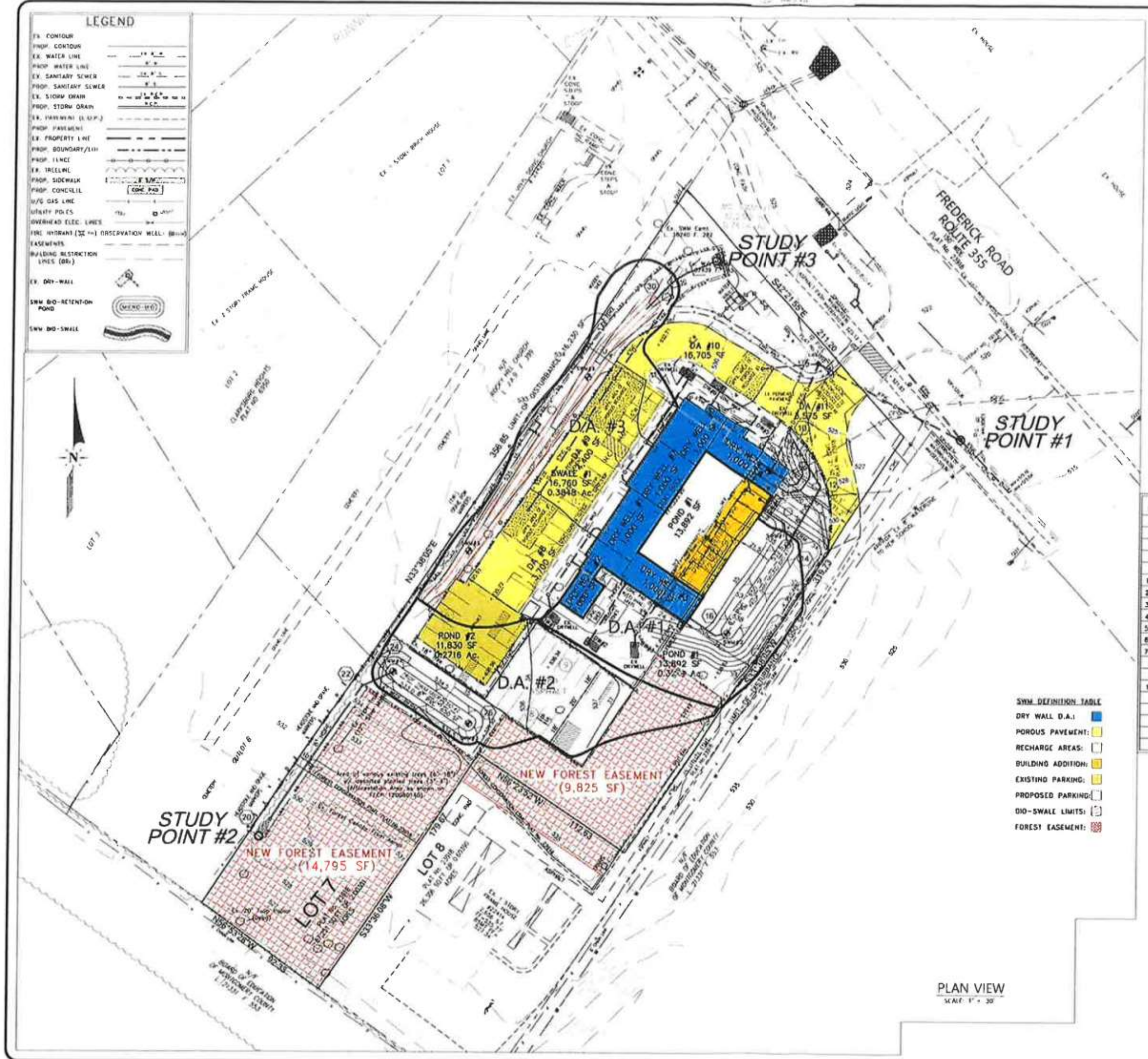
NO	DATE	REVISION DESCRIPTION	BY
7			
6			
5			
4			
3			
2			
1			

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5216 Chairmans Court, Suite 105
Frederick, MD 21703

Owner/Developer
607 Oak Knoll Terrace
Rockville, MD 20871

Seal & Signature

PROJECT No.: 302
DATE: NOVEMBER 2023
SCALE: 1" = 30'
SHEET No. 2 of 6



STANDARDS and SPECIFICATIONS for TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to the establishment of permanent vegetation

Purpose

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation

Conditions Where Practice Applies

This practice is limited to areas having 2:1 or flatter slopes

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans

Construction and Material Specifications

Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications

Topsoil Specifications – Soil to be used as topsoil must meet the following:

1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by and agronomist or soil scientist and approved by DPS. Regardless, topsoil shall not be a mixture of contrasting textured subsoils, and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter

The subsoil shall be tilled to a minimum depth of 6 inches before placement of topsoil

Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 lbs per 1000 sq ft) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil

Topsoil shall be tested and amended a per soil test recommendations

Topsoil Application

1. When topsoiling, maintain needed erosion and sediment control practices.
2. Topsoil shall be uniformly distributed in a 4-8 inch layer and lightly compacted to a minimum thickness of 4 inches. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets
3. Topsoil shall not be placed while the topsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation

DRAINAGE AREA #	DRAINAGE AREA	PRIMARY W.Q. METHOD	REDUNDANT W.Q. METHOD	COMMENTS
1 MICRO-BIO #1	13,892 SF	MICRO-BIO POND	NONE	NEW W.Q. POND
2 MICRO-BIO #2	11,830 SF	MICRO-BIO POND	FOREST CON.	NEW W.Q. POND
3 BIO-SWALE #1	16,780 SF	BIO-SWALE	EX. BIO-POND	NEW W.Q. SWALE
4 FOREST ESM'T	25,290 SF	FOREST CONSERV.	NONE	EXPANDED FOREST CON.
1 EX. DRYWELL #1	1,000 SF			
2 EX. DRYWELL #2	1,000 SF			
3 EX. DRYWELL #3	1,000 SF			
4 EX. DRYWELL #4	* 1,000 SF			* #4 TO BE REMOVED!
5 EX. DRYWELL #5	1,000 SF			
6 EX. DRYWELL #6	1,000 SF			
7 PERV. PAVEMENT	12,120 SF			TO BE PAVED OVER!
8 RECHARGE #1	N/A			TO BE PAVED OVER!
9 RECHARGE #2	N/A			TO BE PAVED OVER!
10 RECHARGE #3	N/A			TO BE PAVED OVER!

PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: GERALD LEE MILLER, JR., PE 11/14/23 DATE

MD LICENSE No: 21401, P.E. EXPIRATION DATE: 11-06-24

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

BENNETT CREEK ANIMAL HOSPITAL

Situated at No. 22416 Frederick Road
Liber 37035 Folio 226
Clarksburg Election District No. 2
Montgomery County, Maryland

SWM - DRAINAGE AREA MAP

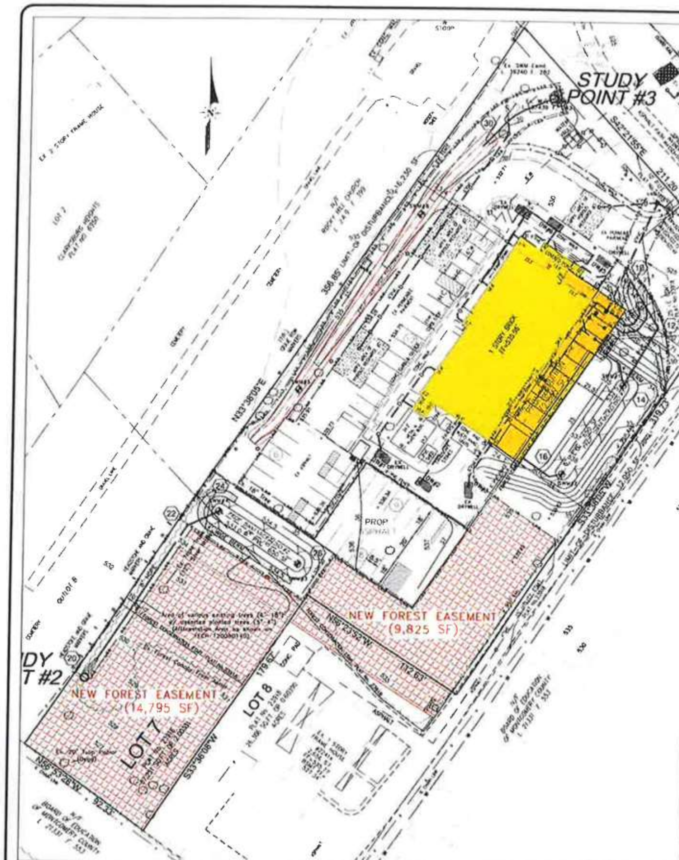
NO	DATE	REVISION DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5219 Chairmans Court, Suite 105
Frederick, MD 21703
Phone: 301.378.9842

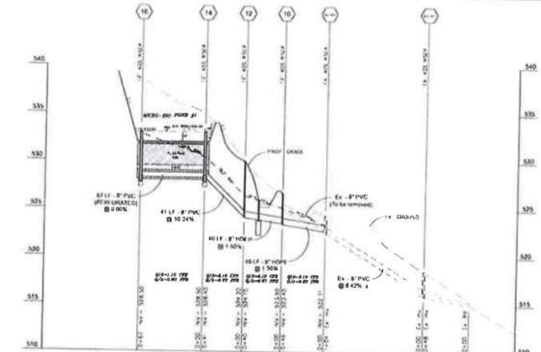
Owner/Developer
Bluegrass Veterinary Holdings, LLC
637 Oak Knoll Terrace
Rockville, MD 20871
Attn: Dr. Jeff Walentz, DVM

STATE OF MARYLAND GERALD LEE MILLER, JR. PROFESSIONAL ENGINEER
Seal & Signature

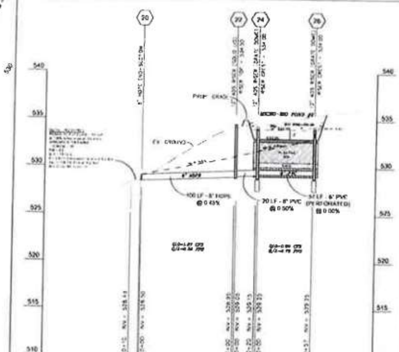
PROJECT No:	302
DATE:	NOVEMBER 2023
SCALE:	1" = 30'
SHEET No	3 of 6



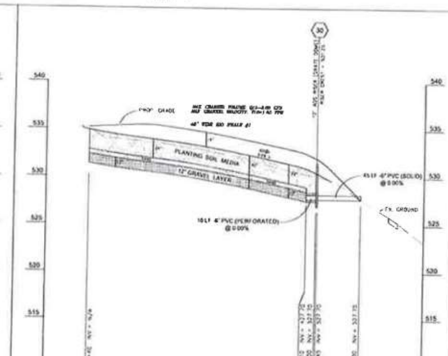
SWM - PLAN VEIW
SCALE: HOR. 1"= 30'



SWM POND #1 w/ CONNECTION to EX. STORM DRAIN SYSTEM
SCALE: HOR. 1"= 30'
VERT. 1"= 5'



SWM POND #2 PROFILE
SCALE: HOR. 1"= 30'
VERT. 1"= 5'



BIO-SWALE PROFILE w/ OUTFALL
SCALE: HOR. 1"= 50'
VERT. 1"= 5'

PROFESSIONAL ENGINEER'S CERTIFICATION
SIGNED BY: [signature] 11/10/23
GERALD LEE MILLER, JR., PE — DATE
MD LICENSE No.: 21401, P.E. EXPIRATION DATE: 11-05-24
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.

NO.	DATE	REVISION DESCRIPTION	BY
7	-	-	-
6	-	-	-
5	-	-	-
4	-	-	-
3	-	-	-
2	-	-	-
1	-	-	-

BENNETT CREEK ANIMAL HOSPITAL

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Liber 37035 Folio 226
Clarksburg Election District No. 2
Montgomery County, Maryland

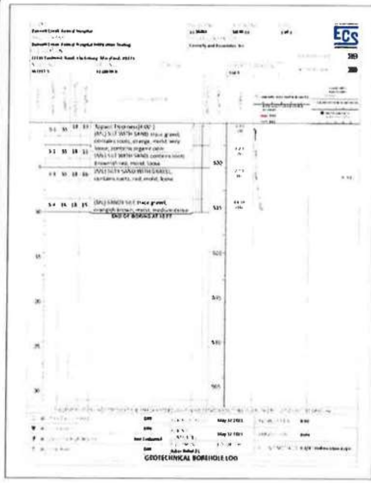
SWM PLAN & PROFILES

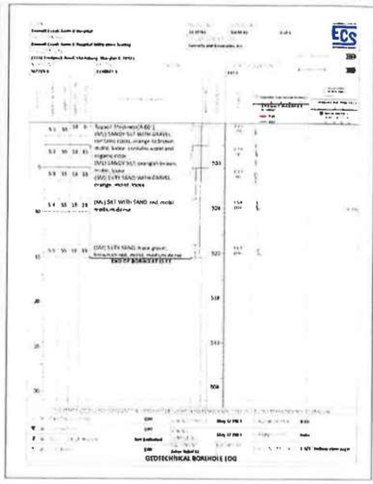
Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5218 Chairmans Court, Suite 105
Frederick, MD 21703
Phone: 301-378-9842

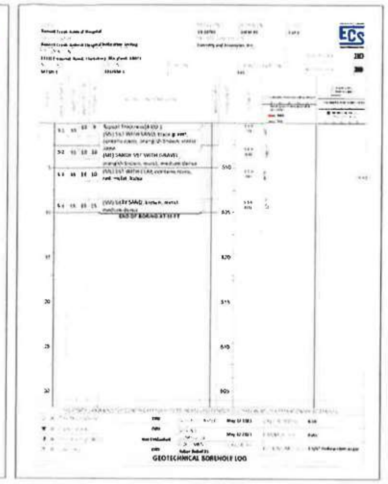
Owner/Developer
Bluegrass Veterinary Holdings, LLC
407 Oak Knoll Terrace
Rockville, MD 20871
Attn: Dr. Jeff Wakeff, DVM

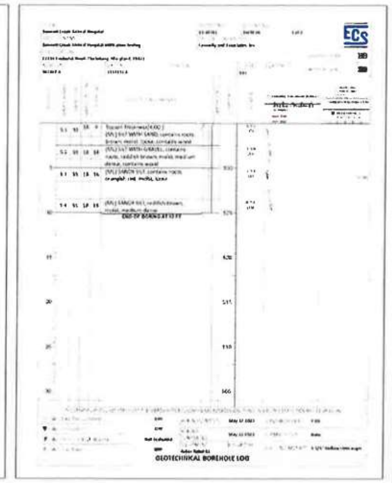
Seal & Signature

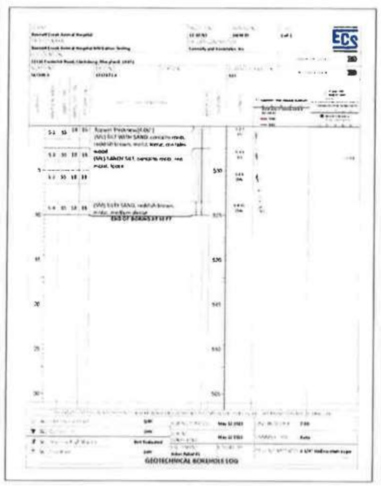
PROJECT No.: 302
DATE: NOVEMBER 2023
SCALE: AS SHOWN
SHEET No. 4 of 6

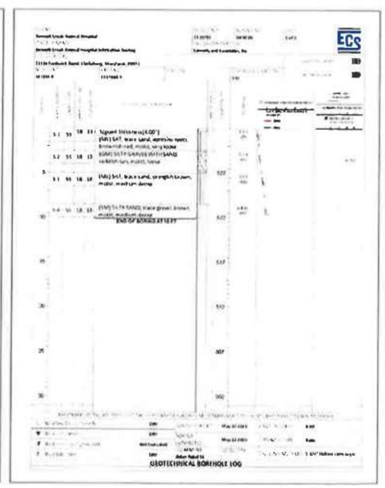


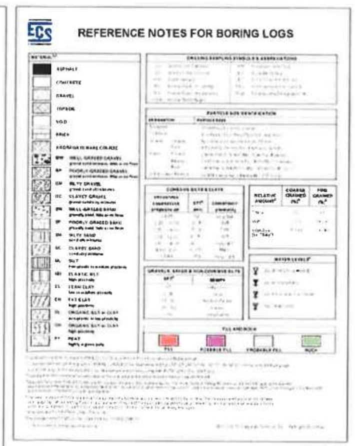












Test Location	Test Depth (ft)	Approximate Test Elevation (EL)	Soil Encountered at Test Depth	Field Infiltration Rate (in/hr)	USDA Soil Classification
SWM-01	5.7	528.8	Loose Silty SAND with Gravel (SM)	0.33	Silt Loam
SWM-02	9.1	528.4	Medium Dense SILT with Sand (ML)	0.27	Silt Loam
SWM-03	5.7	529.3	Loose SILT with Clay (ML)	1.90	Silt Loam
SWM-04	4.9	530.3	Loose Sandy SILT (ML)	0.15	Silt Loam
SWM-05	4.0	531.0	Loose Sandy SILT (ML)	0.48	Silt Loam
SWM-06	4.1	522.9	Loose Silty GRAVEL with Sand (GM)	0.60	Silt Loam

INFILTRATION TESTING RESULTS

PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: GERALD LEE MILLER, JR., PE 11/10/23 DATE

MD LICENSE No: 21401, P.E. EXPIRATION DATE: 11-05-24

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

NO	DATE	REVISION	DESCRIPTION	BY

BENNETT CREEK ANIMAL HOSPITAL

Situated at No. 22416 Frederick Road
Liber 37035 Folio 226
Clarksburg Election District No. 2
Montgomery County, Maryland

STORMWATER MANAGEMENT - SOILS TESTING RESULTS

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
Frederick, MD 21703

Owner/Developer
Rockville, MD 20871

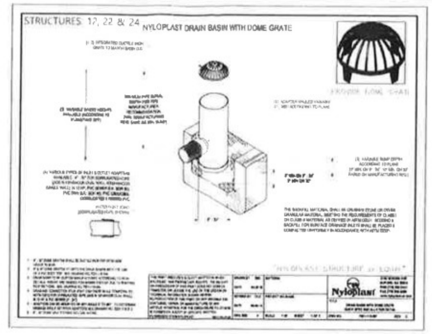
STATE OF MARYLAND — GERALD LEE MILLER — PROFESSIONAL ENGINEER
Seal & Signature

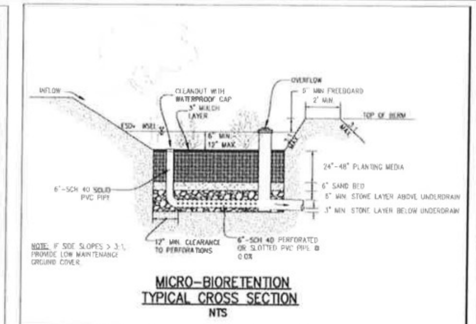
PROJECT No: 302
DATE: NOVEMBER 2023
SCALE: AS SHOWN
SHEET No. 5 of 6

Table B.4.1 Material Specifications for Micro-Bioretention, Infiltration Swales, & Rain Gardens

Material	Specification/Test Method	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting Soil [15" deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D-2974)	n/a	n/a
Mulch	shredded hardwood	n/a	aged 6 months, minimum; no pine or wood chips
geotextile fabric (if required)	ASTM-D-4833 (puncture strength - 125 lb.) ASTM-D-4632 (tensile strength - 300 lb.)	0.08" thick equivalent opening size of #80 sieve	[illegible]
Gravel (under drains and infiltration berms)	AASHTO M-43	No. 57 or No. 6 Aggregate (3/8" to 3/4")	n/a
underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" - 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" gravel over & under pipes; [illegible]
sand	clean AASHTO M6 or ASTM C-33 concrete sand	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand
concrete (cast-in-place)	MSHA Standards and Specs., Section 902, Mix No. 3, f'c=3,500 psi, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the state of Maryland
concrete (pre-cast)	per pre-cast manufacturer	n/a	see above note
rebar steel	ASTM A-36	n/a	structural steel to be hot-dipped galvanized ASTM-A-123

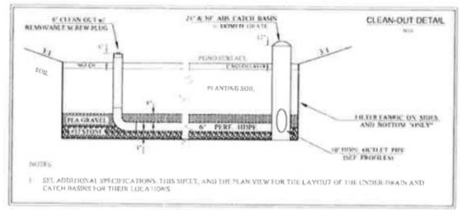
Whether new development or redevelopment, all materials must consist of MDE approved materials!



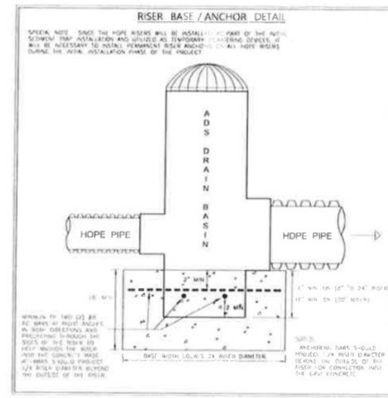


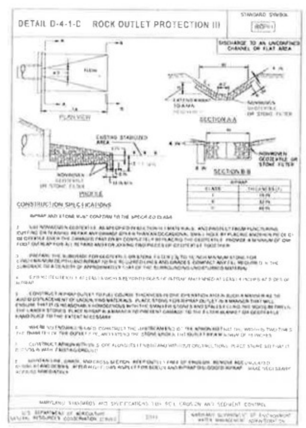
MICRO-BIORETENTION TYPICAL CROSS SECTION
NTS

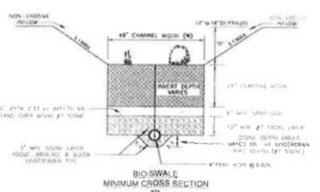
BIORETENTION FACILITY - MAIN CELL - TYPICAL DETAIL



CLEAN-OUT INSTALLATION DETAIL







PROFESSIONAL ENGINEER'S CERTIFICATION
SIGNED BY: GERALD LEE MILLER, JR., PE — 11/14/23 DATE
MD LICENSE NO. 21401, P.E. EXPIRATION DATE 11-09-24
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.

NO	DATE	REVISION	DESCRIPTION	BY

BENNETT CREEK ANIMAL HOSPITAL
Situated at No. 22416 Frederick Road
Liber 37885 Folio 226
Clarksburg Election District No. 2
Montgomery County, Maryland

STORMWATER MANAGEMENT NOTES & DETAILS

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
Frederick, MD 21701

Owner/Developer
Attn: Dr. Jeff Wakeel, DVM

Seal & Signature

PROJECT No.: 302
DATE: NOVEMBER 2023
SCALE: AS SHOWN
SHEET No. 6 of 6