SITE DEVELOPMENT PLAN
STREAKER FIREWOOD
TAX MAP 9 PARCEL 73
TAX MAP 15 PARCEL 146

GENERAL NOTES

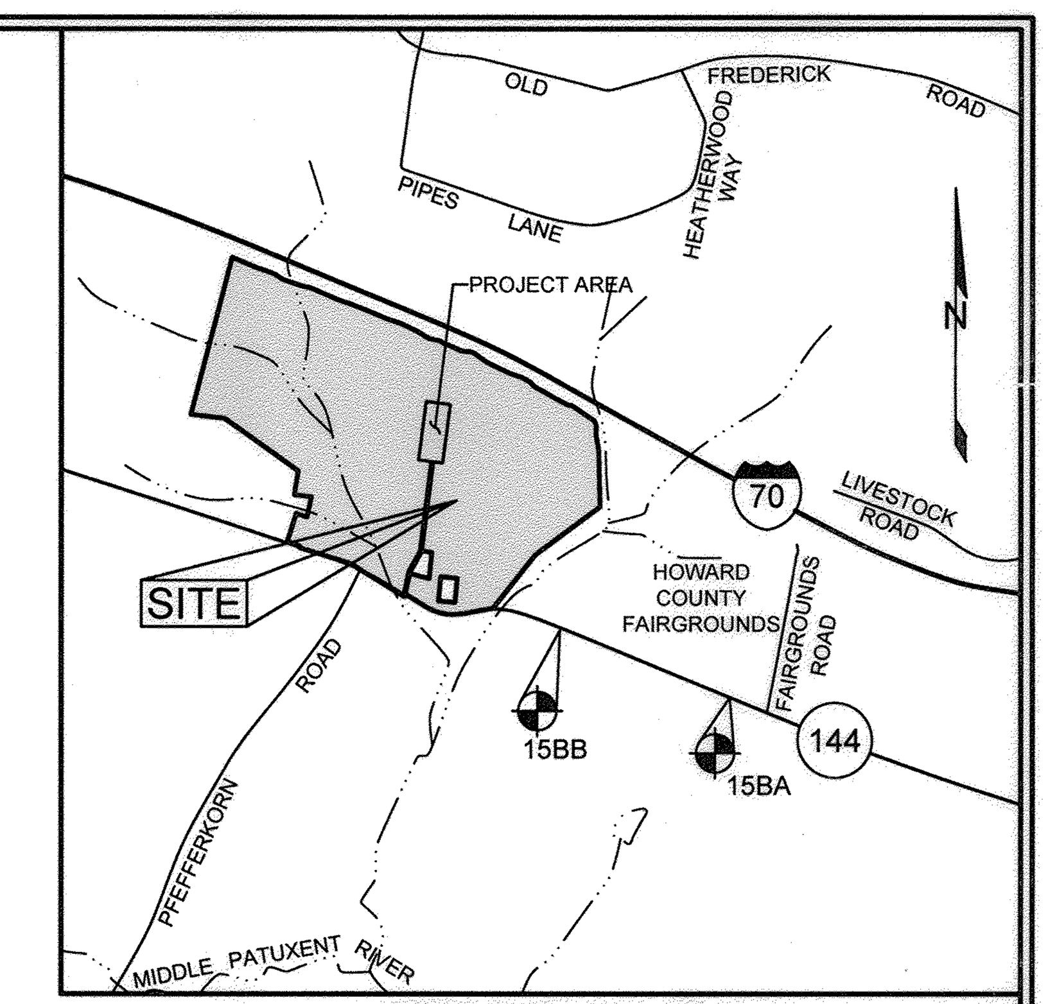
1. SUBJECT PROPERTY ZONED RC-DEO PER 10-06-2013 COMPREHENSIVE ZONING PLAN.
2. TOTAL AREA OF PROPERTY:
   PARCEL 73: 121.84 AC±
   PARCEL 146: 82.22 AC±
3. CONDITIONAL USE (PROJECT) AREA: 4.55 AC±
4. DEED REFERENCE:
   PARCEL 73: LIBER 18220, FOLIO 230
   PARCEL 146: LIBER 3999, FOLIO 580
5. PREVIOUS HOWARD COUNTY FILE NUMBERS: F-09-11, F-93-033, BA CASE NUMBER 15-026C, ECP-19-039, SDP-20-049(FC).
6. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION	410.531.5533
BGE (CONTRACTOR SERVICES)	410.850.4620
BGE (UNDERGROUND DAMAGE CONTROL)	410.797.9068
MISS UTILITY	800.257.7777
COLONIAL PIPELINE COMPANY	410.795.1390
HOWARD COUNTY DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES	410.313.4900
HOWARD COUNTY HEALTH DEPARTMENT	410.313.2640
AT&T	800.252.1133
VERIZON	800.743.0033/410.224.9210

7. THE SITE IS LOCATED APPROXIMATELY 1,430' AWAY FROM MARYLAND ROUTE 144, A SCENICE ROAD, AND AS SUCH, SCENICE ROAD REGULATIONS DO NOT APPLY TO THE PROJECT.
8. WATER AND SEWER ARE PRIVATE AND PROVIDED ONSITE.
9. THE BOUNDARY SHOWN FOR PARCEL 146 WAS FIELD RUN BY SILL, ADCOCK & ASSOCIATES, LLC ON OR ABOU MAY 2006. THE BOUNDARY SHOWN FOR PARCEL 73 IS BASED ON TAX RECORD INFORMATION.
10. THE EXISTING TOPOGRAPHY SHOWN TO THE WEST OF THE CONDITIONAL USE AREA WAS FIELD RUN BY ADCOCK & ASSOCIATES, LLC ON 1/21/2019. THE EXITSING TOPOGRAPHY ALONG FREDERICK ROAD WAS FIELD RUN BY ADCOCK & ASSOCIATES ON 8/17/2018. THE CONTOURS ARE SHOWN AT TWO-FOOT CONTOUR INTERVALS. ALL OTHER EXISTING TOPOGRAPHY IS BASED OFF OF AERIAL TOPOGRAPHY FLOWN IN 2011.
11. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
12. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
14. ALL CONSTRUCTION SHALL BE INACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
15. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
16. THE PROJECT IS INCONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
17. THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE. HOWARD COUNTY SOILS MAP: GRID 19, SUB-GRID 12.
18. TO THE BEST OF OUR KNOWLEDGE, NO CEMETERIES LOCATED ONSITE.
19. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
20. EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORDED DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTARCTOR'S EXPENSE.
21. SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GOETECHNICAL ENGINEER. PAVING TO BE HOWARD COUNTY STANDARD P-2 OR P-3 PAVING SECTION (SEE DETAILS ON THIS SHEET). GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST, PRIOR TO CONSTRUCTION.
22. ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR TH PURPOSE OF CALCULATING FEES.
23. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GOEDETIC CONTROL WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT 15BA AND 15BB WERE USED FOR THIS PROJECT.
24. ALL PROPOSED SPOT ELEVATIONS ALONG CURB AND GUTTER ARE SHOWN TO THE FLOW LINE UNLESS OTHERWISE NOTED.
25. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
26. ENVIRONMENTAL FEATURES INCLUDING FLOODPLAINS, WETLANDS, STREAMS AND THEIR BUFFER DO EXIST ON THE PROPERTY BUT NONE EXIST WITHIN THE CONDITIONAL USE AREA.
27. THERE ARE NO CEMETERIES WITHIN THE CONDITIONAL USE AREA.
28. EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOOLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORDED DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
29. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
   1) WIDTH - 12 FEET (16 FEET SERVNIG MORE THAN ONE RESIDENCE);
   2) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
   3) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHNAGE AND 45-FOOT TURNING RADIUS;
   4) STRUCTURES (CULVERT/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
   5) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
   6) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
30. FLAG AND PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
31. THE AREA CURRENTLY USED FOR FIREWOOD PROCESSING IS TO BE RELOCATED TO THE CONDITIONAL USE AREA AND RETURNED TO ITS NATURAL STATE.
32. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AND THE FOREST CONSERVATION MANUAL BY THE OFF-SITE AFFORESTATION/REFORESTATION OF 0.80 ACRES OF FOREST. FINANCIAL SURETY WILL BE POSTED AS PART OF THE DEVELOPERS AGREEMENT AT $0.50 PER SQUARE FOOT. (34,858 SF X $0.50, OR $17,429.00.)
33. THIS PROJECT IS SUBJECT TO A WAIVER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 2.5.B.9, WHICH REQUIRES INTERSECTION SIGHT DISTANCE PROVIDED FOR MAJOR COLLECTORS AND HIGHER. THIS WAIVER WAS APPROVED ON JUNE 26, 2020, BASED ON THE FACT THAT:
   1) MD 144 IS A STATE ROAD AND SHA HAS NO OBJECTION FOR THE WAIVER;
   2) STOP SIGHT DISTANCE HAS BEEN PROVIDED FOR THE SITE ENTRANCE.
34. THIS PLAN IS SUBJECT TO A WAIVER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME FOUR, DETAIL R-6.10, WHICH REQUIRES 24FT PAVEMENT WIDTH FOR COMMERCIAL USE DRIVE ISLES. THIS WAIVER WAS APPROVED ON MARCH 31, 2021, BASED ON THE FACT THAT:
   1) THE PROPOSED 16 FEET WIDE USE-IN-COMMON DRIVEWAY AND EXISTING DRIVEWAY ON SDP-20-049 MATCHES WHAT THE CONDITONAL USE REQURIES;
   2) THERE ARE SEVERAL NATURAL PULL-OFF AREAS TO ALLOW TWO WAY TRAFFIC TO SAFELY PASS;
   3) THE FACILITY IS PRIVATELY OWNED AND MAINTAINED.
35. ON OCTOBER 27, 2016, THE HOWARD COUNTY BOARD OF APPEALS HEARD THE PETITION OF STREAKER FIREWOOD, LLC FOR A BULK FIREWOOD PROCESSING CONDITIONAL USE IN AN RC-DEO (RURAL CONSERVATION-DENSITY EXCHANGE OPTION OVERLAY) ZONING DISTRICT. ON FEBRUARY 22, 2018, IT WAS HEREBY GRANTED, SUBJECT TO THE FOLLOWING CONDITIONS:
   1) THE CONDITIONAL USE SHALL APPLY ONLY TO THE BULK FIREWOOD PROCESSING CONDITIONAL USE AS DESCRIBED IN THE PETITION AND AS DEPICTED ON THE REVISED CONDITIONAL USE PLAN SUBMITTED TO THE BOARD ON OCTOBER 27, 2016 AS PETITIONER'S EXHIBIT #5;
   2) BULK FIREWOOD PROCESSING CONDITIONAL USE TRUCK TRAFFIC IS LIMITED TO THE HOURS OF 8 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY AND TO THE HOURS OF 8 A.M. TO 1 P.M. ON SATURDAY;
   3) PROCESSING OF BULK FIREWOOD HOURS OF OPERATION MAY TAKE PLACE MONDAY THROUGH SATURDAY FROM 7 A.M. UNTIL 6 P.M.
36. PARCEL 73 & 146 ARE BOTH SUBJECT TO AGRICULTURAL LAND PRESERVATION EASEMENTS HELD BY THE HOWARD COUNTY AGRICULTURAL LAND PRESERVATION PROGRAM. HO-86-05-E & HO-09-17.
37. BULK FIREWOOD USE IS CONSISTENT WITH SECTION 106.1 OF THE HOWARD COUNTY ZONING REGULATIONS, PERTAINING TO PERMITTED USES ON COUNTY PRESERVATION EASEMENTS.
38. ALL OPERATIONS ARE TO BE IN ACCORDANCE WITH NFPA-1 CHAPTER 31.
39. ALL SEWAGE DISPOSAL AREAS, DISPOSAL SYSTEMS, AND WELLS ON THE PROPERTY MUST MEET ALL APPLICABLE CODES PRIOR TO HEALTH DEPARTMENT APPROVAL OF ANY BUILDING PERMITS ON THE SITE.
40. ONLY ONE EMPLOYEE WILL BE ONSITE FOR THE FIREWOOD OPERATION.
41. STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET BY A BIO-RETENTION FACILITY (M-6) FOR THE PROPOSED RELOCATED DRIVEWAY AND A PERMANENT SEDIMENT TRAP (ST-II) FOR THE FIREWOOD PROCESSING AREA. ON-SITE FACILITIES SHALL BE OWNED AND MAINTAINED BY THE PARCEL OWNER.
42. A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED MARS GROUP, INC. ON JULT 20, 2021 AND WAS APPROVED IN SEPTEMBER 2021.

LEGEND

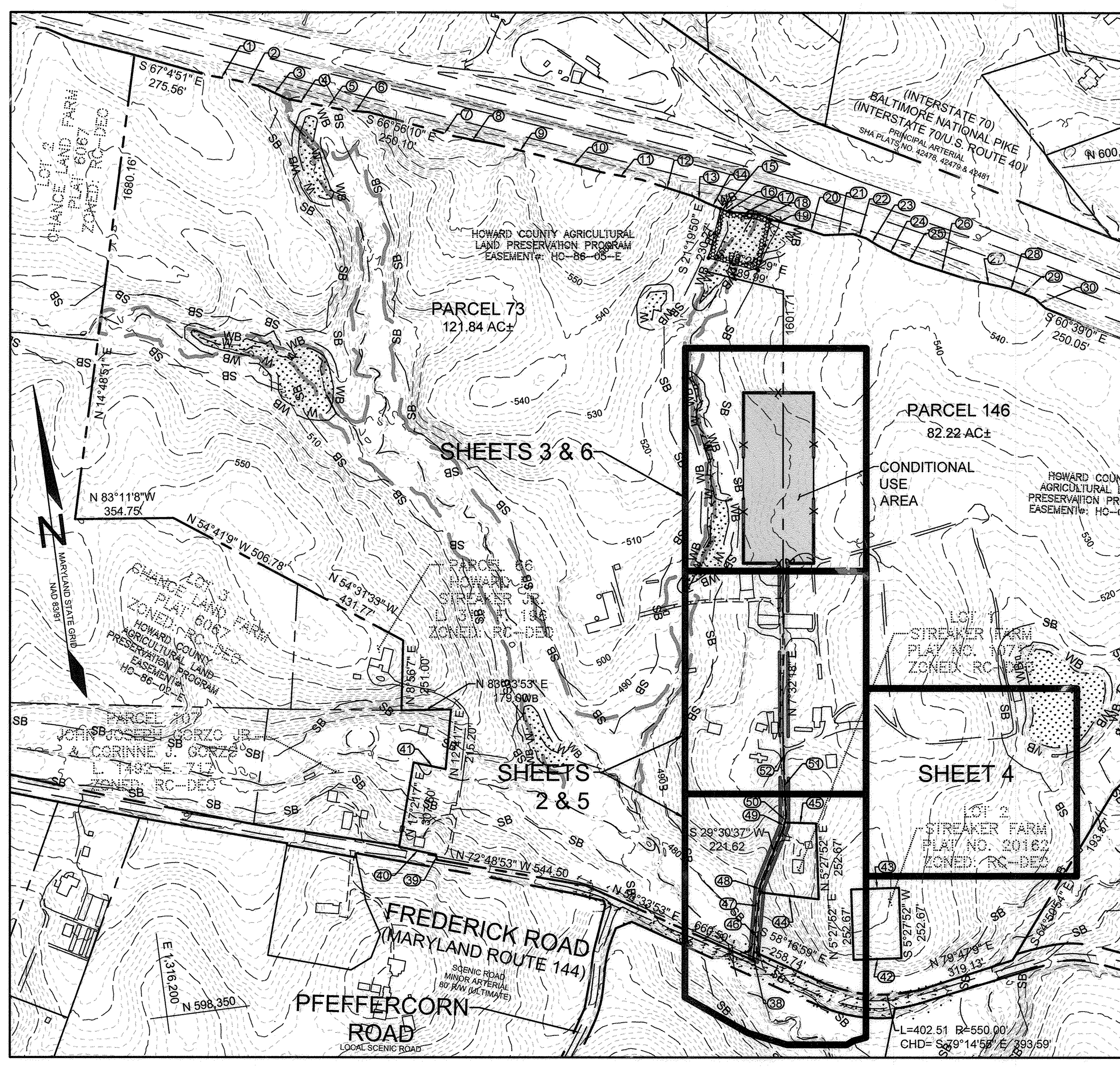
EXISTING CONTOUR	382
PROPOSED CONTOUR	382
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 82.53
DIRECTION OF FLOW	
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING SPECIMEN TREE	●
EXISTING WETLAND	W
EXISTING WETLAND BUFFER	WB
EXISTING STREAM	
EXISTING STREAM BUFFER	SB
EXISTING 100-YEAR FLOODPLAIN	



HOWARD COUNTY, MARYLAND
ADC MAP 17 GRIDS F1 & F2 AND MAP 18 GRIDS A1 & A2

VICINITY MAP

SCALE: 1"=2000'



LOCATION MAP

SCALE: 1"=300'

GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 INCH = 300 FEET

BENCHMARKS

NUMBER	NORTHING	EASTING	ELEVATION
15BA	597,228.1254	1,321,719.2760	590.296'
15BB	597,926.9029	1,319,949.8262	527.586'

LINE CHART

TAG	BEARING	DISTANCE
1	N 72°37'37' W	99.13'
2	N 68°32'24" W	99.00'
3	N 57°13'48" W	101.98'
4	N 71°24'9" W	100.12'
5	N 71°24'9" W	100.12'
6	N 77°4'15" W	101.12'
7	N 65°42'14" W	60.63'
8	N 71°35'34" W	150.21'
9	N 68°32'24" W	200.00'
10	N 67°6'28" W	200.06'
11	N 71°58'25" W	150.27'
12	N 64°50'54" W	193.57'
13	S 56°17'27" E	50.41'
14	S 59°43'44" E	60.17'
15	S 59°45'9" E	14.16'
16	S 67°10'36" E	24.67'
17	N 78°18'37" E	100.78'
18	S 58°25'37" E	49.91'
19	S 68°25'56" E	98.90'
20	S 64°27'18" E	98.85'
21	S 84°35'21" E	104.98'
22	S 64°44'21" E	49.56'
23	S 50°52'20" E	50.97'
24	S 56°37'51" E	99.82'
25	S 61°25'24" E	49.49'
26	S 64°51'5" E	197.92'
27	S 70°17'7" E	150.03'
28	S 61°49'21" E	16.60'
29	S 61°46'53" E	81.15'
30	S 40°38'9" E	55.40'
31	S 61°47'45" E	150.00'
32	S 78°29'42" E	52.20'
33	S 56°5'7" E	100.50'
34	S 56°5'7" E	178.78'
35	S 18°47'3" E	56.64'
36	S 0°28'53" E	94.97'
37	S 9°43'15" E	164.83'
38	N 13°7'20" E	30.98'
39	N 2°33'53" W	18.80'
40	N 70°33'53" W	136.00'
41	S 70°48'53" E	118.00'
42	S 84°30'57" E	172.40'
43	S 84°30'57" E	172.40'
44	S 75°50'58" E	214.66'
45	S 80°45'16" E	113.12'
46	N 12°13'45" E	114.89'
47	N 14°9'43" E	98.69'
48	N 13°12'9" E	24.84'
49	N 21°3'1" E	21.14'
50	N 19°28'32" E	19.03'
51	N 4°55'7" E	158.57'
52	N 6°7'43" E	129.98'

ADDRESS CHART

PARCEL	STREET ADDRESS
73	13370 FREDERICK ROAD
146	13300 FREDERICK ROAD

1 2

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GRADING PLAN
3	REVISED GRADING PLAN
4	GRADING AND FOREST CONSERVATION PLAN
5	SEDIMENT AND EROSION CONTROL PLAN
6	SEDIMENT AND EROSION CONTROL PLAN, DETAILS, & DRAINAGE AREA MAP
7	SEDIMENT AND EROSION CONTROL DRAINAGE AREA MAP - BIO 1
8	SEDIMENT AND EROSION CONTROL DETAILS
9	BIORETENTION FACILITY DETAILS

PAVING SECTIONS

SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	≥7	3 TO <5	5 TO <7	≥7
		PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0

NOTES :
1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN TO 4.0" MAX), 12.5 MM SURFACE (1.5" MIN TO 3.0" MAX), AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX)
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL / INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CRB VALUE FOR EACH ROADWAY.

▢	HMA SUPERPAVE FINAL SURFACE
▨	HMA SUPERPAVE INTERMEDIATE SURFACE
▨	HMA SUPERPAVE BASE
▩	GRADED AGGREGATE BASE (GAB)

PERMIT INFORMATION CHART

PROJECT NAME			SECTION		PARCEL #
STREAKER FIREWOOD			N/A		73 & 176
LIBER/FOLIO	GRID #	ZONING	TAX MAP #	ELECT. DIS.	CENSUS TRACT
18220/230 & 3999/580	3	RC-DEO	9 & 15	3RD	603003
WATER CODE			SEWER CODE		
N/A			N/A		

STORMWATER MANAGEMENT INFORMATION

PARCEL NUMBER	FACILITY NAME & NUMBER	PRACTICE TYPE	PUBLIC	PRIVATE	PRIVATELY MAINTAINED
73	BIORETENTION FACILITY #1	F-6	-	X	YES

SITE ANALYSIS DATA SHEET

ENVIRONMENTAL AREA	SIZE OR USE (1)
TOTAL PROJECT AREA	2.97 ACRES ± (4)
LIMIT OF DISTURBANCE	4.09 ACRES ±
GREEN OPEN AREA (LAWN)	0 ACRES ±
IMPERVIOUS AREA	0.07 ACRES ±
PROPOSED SITE USES	BULK FIREWOOD PROCESSING
WETLANDS	237,978 SQ FT±*
WETLAND BUFFERS	200,908 SQ FT±*
FLOODPLAINS	612,319 SQ FT±*
FLOODPLAIN BUFFERS	447,901 SQ FT±*
EXISTING FOREST	0 SQ FT±
SLOPES GREATER THAN 15%	10,321 SQ FT±
HIGHLY ERODIBLE SOILS (3)	0.51 ACRES±

NOTES:
1. AREAS LISTED WITH AN ASTERICK ARE NOT WITHIN OUR CONDITIONAL USE AREA.
2. SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY.
3. HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT.
4. TOTAL PROJECT ACREAGE REFLECTS THE CONDITIONAL USE AREA ONLY.

STORMWATER MANAGEMENT NOTES & DESIGN NARRATIVE

BELOW IS A LIST TO DESCRIBE THE STORMWATER MANAGEMENT REQUIREMENTS AND ACHIEVEMENTS FOR THE SITE PER THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II, AS AMENDED BY THE STORMWATER MANAGEMENT ACT OF 2007.

1. ENVIRONMENTALLY SENSITIVE AREAS HAVE BEEN AVOIDED.
2. TO THE GREATEST EXTENT PRACTICABLE THE NATURAL FLOW PATTERNS OF THE SITE HAVE BEEN MAINTAINED.
3. THE DESIGN INCORPORATES THE LEAST IMPERVIOUS AREA POSSIBLE.
4. SILT FENCES AND A SEDIMENT TRAP ARE USED AS SEDIMENT AND EROSION CONTROL.
5. ESD PLANNING TECHNIQUES AND PRACTICES HAVE BEEN IMPLEMENTED TO THE MAXIMUM EXTENT PRACTICABLE, THROUGH USE OF A BIO RETENTION FACILITY (M-6) AND ROOFTOP (N-1) & NON-ROOFTOP (N-2) DISCONNECTS.
6. A DESIGN MANUAL WAIVER AND WAIVER PETITION HAVE BEEN REQUESTED. SEE GENERAL NOTES 33 AND 34.

STORMWATER MANAGEMENT PRACTICES

PARCEL	ADDRESS	BIORETENTION FACILITY F-6 (NUMBER)
73	13370 ROUTE 144	1

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
443-834-2402
GFSJR17@GMAIL.COM

MHGH&S, LLC
13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: CHAD Edmondson 7063E754EF41499 — 10/24/2022
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: [illegible] 1EB7547A42B49A — 10/24/2022
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: [illegible] 5B4D5DD9470C4D4... — 10/26/2022
DIRECTOR — DATE

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

DocuSigned by: Michael J. Davis A099773D5AB5423... — 10/26/2022
COUNTY HEALTH OFFICER — DATE
HOWARD COUNTY HEALTH DEPARTMENT

NO.	DESCRIPTION	DATE
2	REVISE SHEETS 2 & 3 TITLE IN THE SHEET INDEX	12/21/23
1	REVISE SHEET INDEX (SHEET 3)	

REVISIONS

COVER SHEET
STREAKER FIREWOOD
13370 & 13300 FREDERICK ROAD

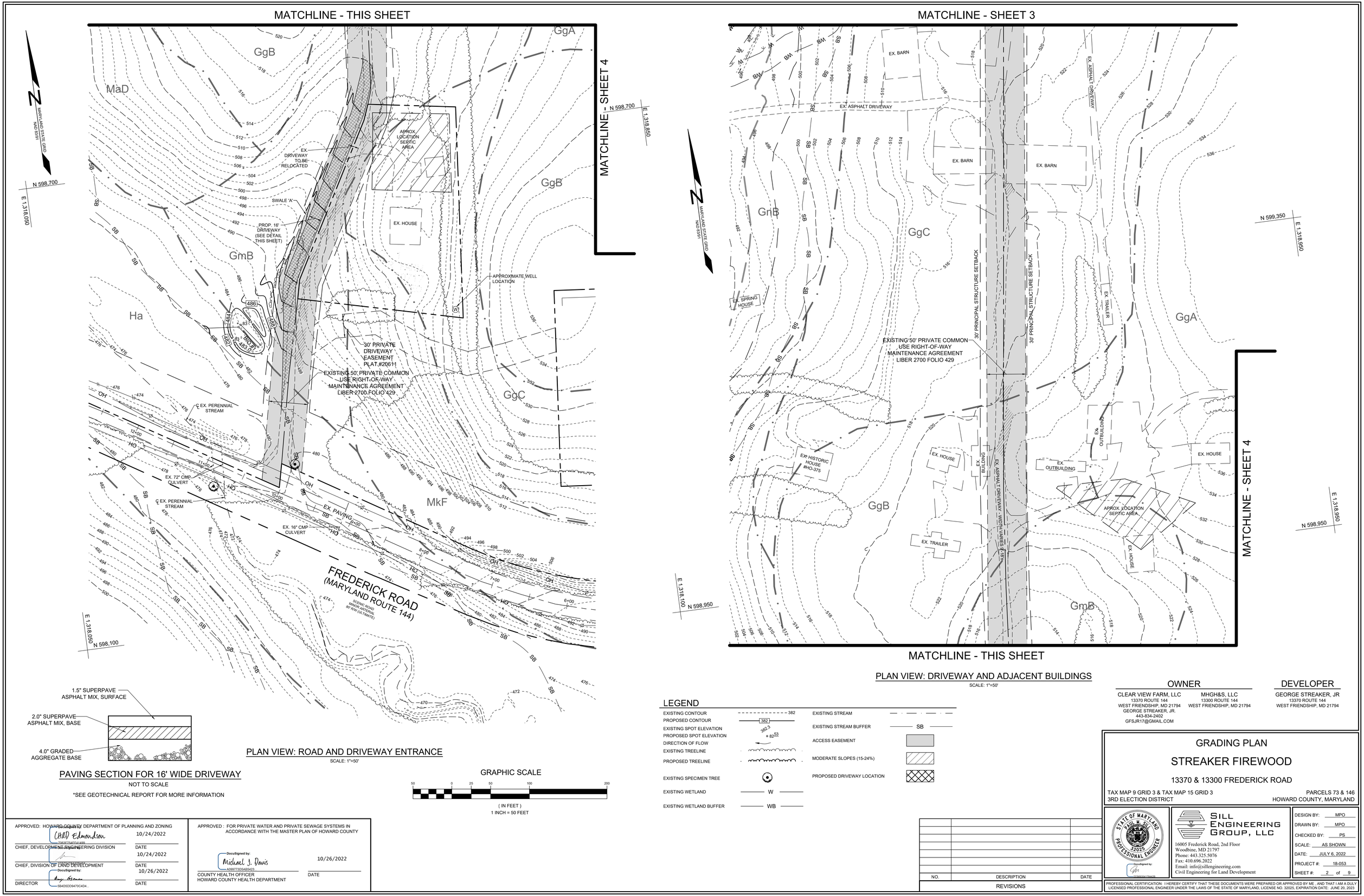
TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND PAUL M. SILL 32025 PROFESSIONAL ENGINEER
DocuSigned by: [illegible] EEB69354178442B...

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY: MPO
DRAWN BY: MPO
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 6, 2022
PROJECT #: 18-053
SHEET #: 1 of 9

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, 2023



PLAN VIEW: DRIVEWAY AND ADJACENT BUILDINGS

SCALE: 1"=50'

LEGEND

EXISTING CONTOUR	382	EXISTING STREAM	
PROPOSED CONTOUR	382	EXISTING STREAM BUFFER	SB
EXISTING SPOT ELEVATION	383.3	ACCESS EASEMENT	
PROPOSED SPOT ELEVATION	+ 82.53	MODERATE SLOPES (15-24%)	
DIRECTION OF FLOW		PROPOSED DRIVEWAY LOCATION	
EXISTING TREELINE			
PROPOSED TREELINE			
EXISTING SPECIMEN TREE			
EXISTING WETLAND	W		
EXISTING WETLAND BUFFER	WB		

PAVING SECTION FOR 16' WIDE DRIVEWAY

NOT TO SCALE

*SEE GEOTECHNICAL REPORT FOR MORE INFORMATION

PLAN VIEW: ROAD AND DRIVEWAY ENTRANCE

SCALE: 1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 INCH = 50 FEET

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
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GFSJR17@GMAIL.COM

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13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10/24/2022

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/24/2022

DIRECTOR — DATE 10/26/2022

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT — DATE 10/26/2022

NO.	DESCRIPTION	DATE

REVISIONS

GRADING PLAN

STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

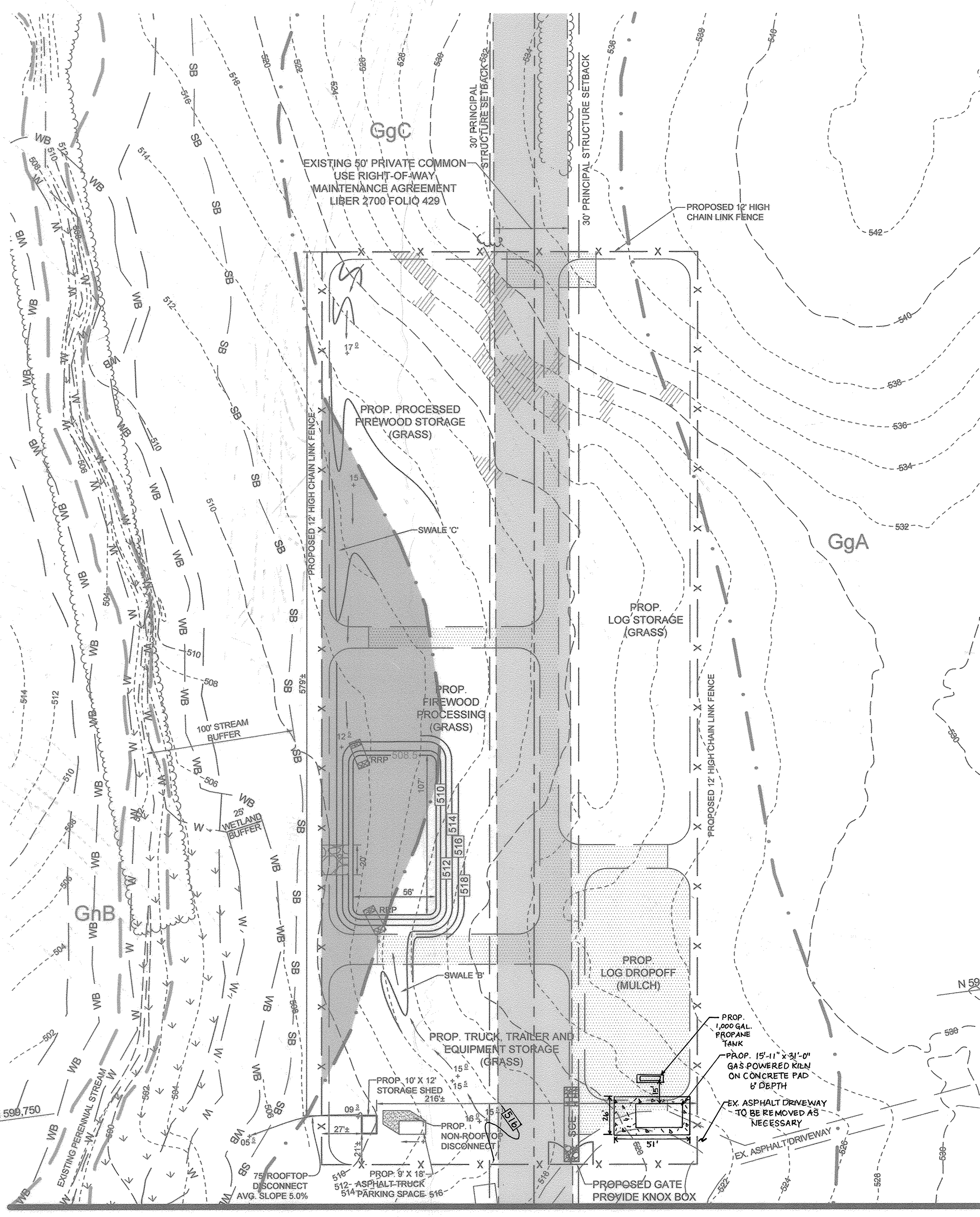
STATE OF MARYLAND — PAUL M. SILL — 32025 — PROFESSIONAL ENGINEER

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5976
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY:	MPO
DRAWN BY:	MPO
CHECKED BY:	PS
SCALE:	AS SHOWN
DATE:	JULY 6, 2022
PROJECT #:	18-053
SHEET #:	2 of 9

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, 2023

SDP-20-049



MATCHLINE - SHEET 2

PLAN VIEW: CONDITIONAL USE AREA

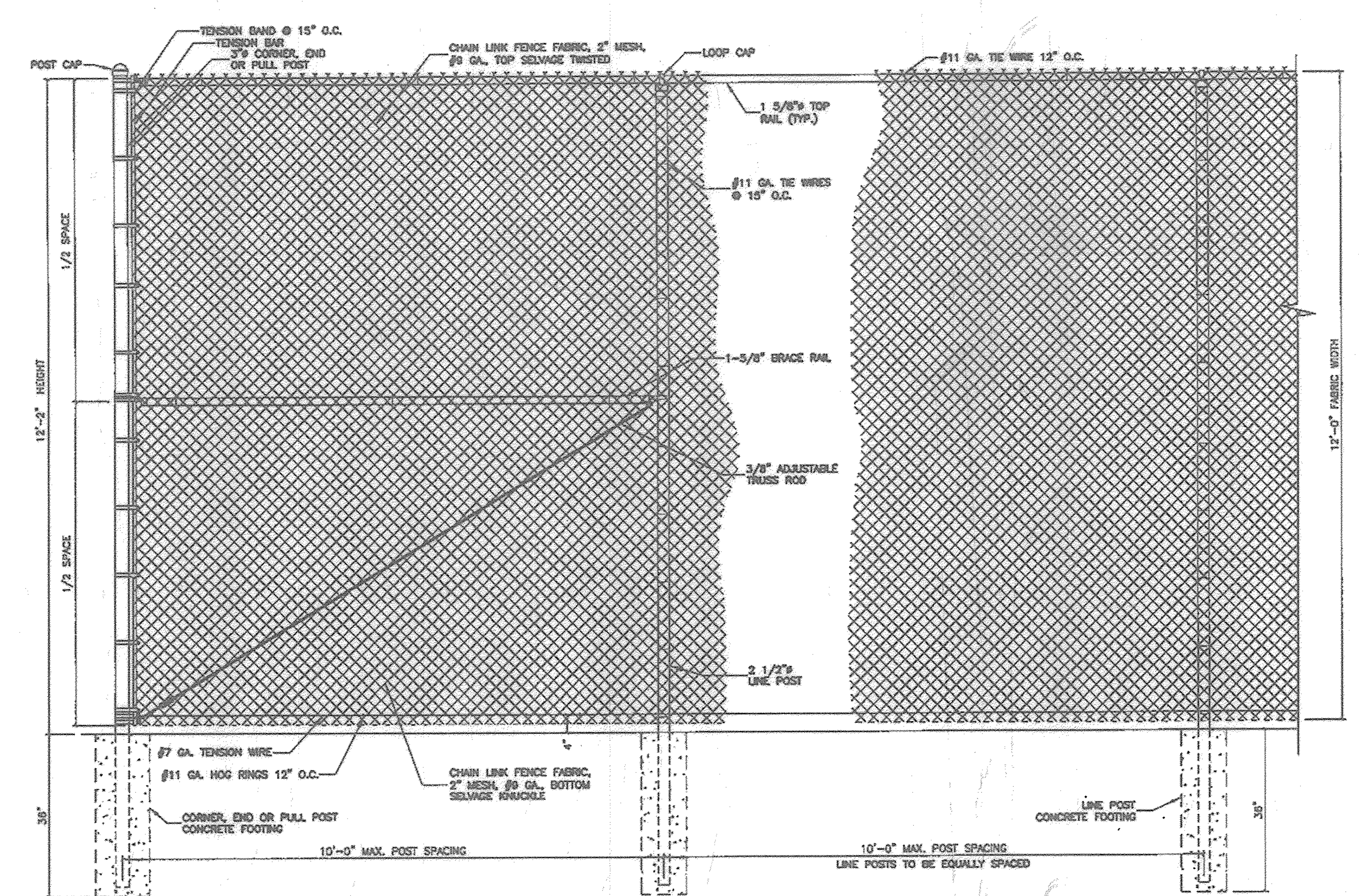
⚠1 ⚠2

SCALE: 1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FEET



ELEVATION – 12' HIGH CHAIN-LINK FENCE
SCALE: 1/2" = 1'-0"

CAD #: 00230101C
DRAWN BY: Glenn Calhoun
CKD. BY: Scott Slawson
DATE: 01-09-23
SCALE: AS SHOWN
SHEET NO. 1 / 2

PROJECT NO. N/A
STATUS SHOP DRAWING
PROJECT MANAGER SCOTT SLAWSON

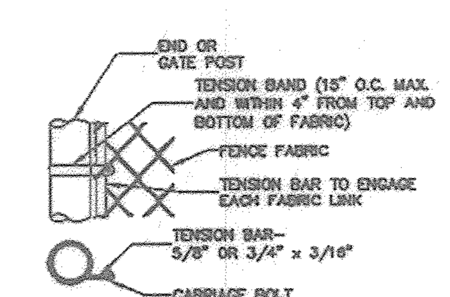
LONG FENCE
www.longfence.com
1910 BETSON COURT
ODENTON, MD. 21113
(410) 793-0600

PROJECT CLEAR VIEW FARM
DRAWING TITLE 12' HIGH CHAIN LINK FENCE

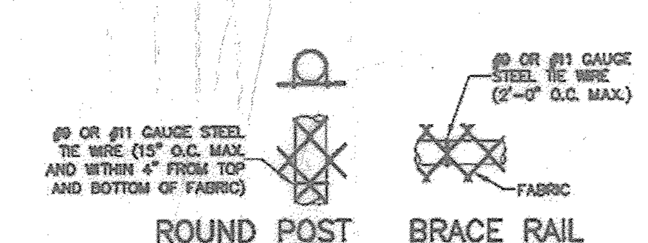
CLIENT: CLEAR VIEW FARM
PHONE:(O) N/A
PHONE:(C) N/A

⚠1

END & CORNER POST TOP	TOP SALVAGE	BOTTOM SALVAGE
DOME	TWIST	KNUCKLE



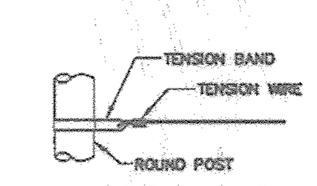
TENSION BAR CLAMP
SCALE : 1" = 1'-0"



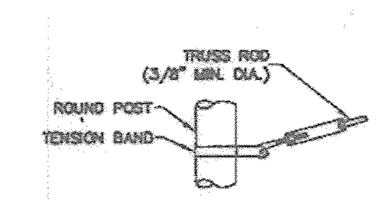
ROUND POST BRACE RAIL
TIE WIRE DETAILS
SCALE : 1" = 1'-0"

GENERAL NOTES:
1.) All dimensions to be verified in the field.

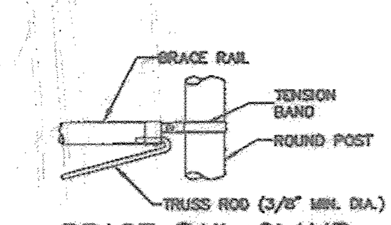
MATERIAL SPECIFICATIONS:
- Fence fabric – #9 gauge, galvanized, 2" mesh.
- End and corner posts – 3" OD galvanized steel pipe, WT-40 @ 4.64 lbs./pf.
- Line posts – 2 1/2" OD galvanized steel pipe, WT-20 @ 2.32 lbs./pf.
- Top and brace rails – 1 5/8" OD galvanized steel pipe, WT-20 @ 1.43 lbs./pf.
- Tension wire – #7 gauge coil spring galvanized tension wire attached to bottom of fence fabric with #12 gauge steel hogs rings, spaced 12" on center.
- Tie wire – 8 1/4" #11 gauge galvanized steel tie wire spaced 15" on center for line posts & 12" on center for rails.
- Footing – End or corner posts: 12" diameter x 36" deep and line posts: 10" diameter x 36" deep, filled with concrete.
- Hardware – All parts to be galvanized.



WIRE CLAMP
SCALE : 1" = 1'-0"



TRUSS ROD AND BAND
SCALE : 1" = 1'-0"



BRACE RAIL CLAMP
SCALE : 1" = 1'-0"

CAD #: 00230101C
DRAWN BY: Glenn Calhoun
CKD. BY: Scott Slawson
DATE: 01-09-23
SCALE: AS SHOWN
SHEET NO. 2 / 2

PROJECT NO. N/A
STATUS SHOP DRAWING
PROJECT MANAGER SCOTT SLAWSON

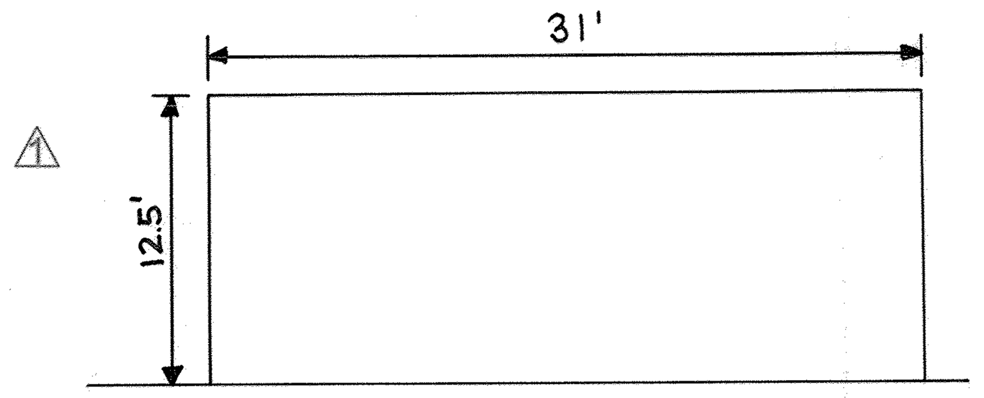
LONG FENCE
www.longfence.com
1910 BETSON COURT
ODENTON, MD. 21113
(410) 793-0600

PROJECT CLEAR VIEW FARM
DRAWING TITLE CHAIN LINK FENCE DETAILS

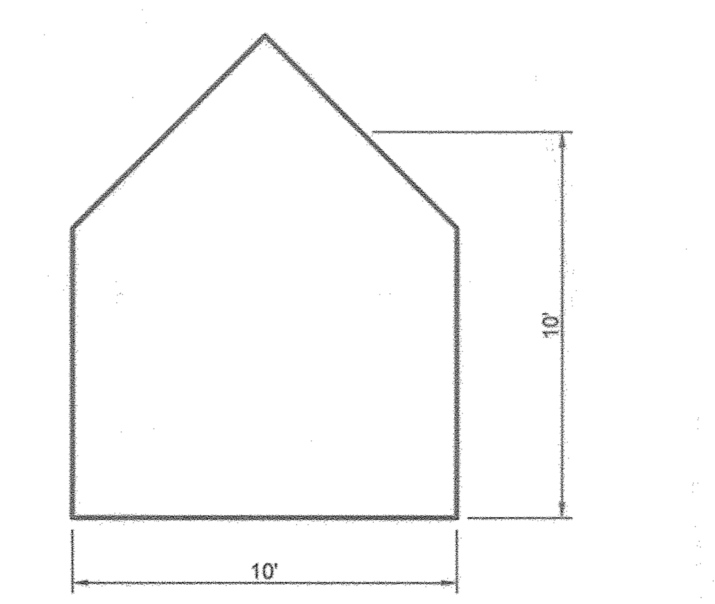
CLIENT: CLEAR VIEW FARM
PHONE:(O) N/A
PHONE:(C) N/A

LEGEND

EXISTING CONTOUR	- - - - - - 382
PROPOSED CONTOUR	—382—
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 82 53
DIRECTION OF FLOW	←
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING SPECIMEN TREE	●
EXISTING WETLAND	—— W ——
EXISTING WETLAND BUFFER	—— WB ——
EXISTING STREAM	— · — · —
EXISTING STREAM BUFFER	—— SB ——
ACCESS EASEMENT	▨
HIGHLY ERODIBLE SOILS	▨
MODERATE SLOPES	▨
PROPOSED SWALE	⇒ ⇒ ⇒
PROPOSED MULCH TRAFFIC AREA	▨

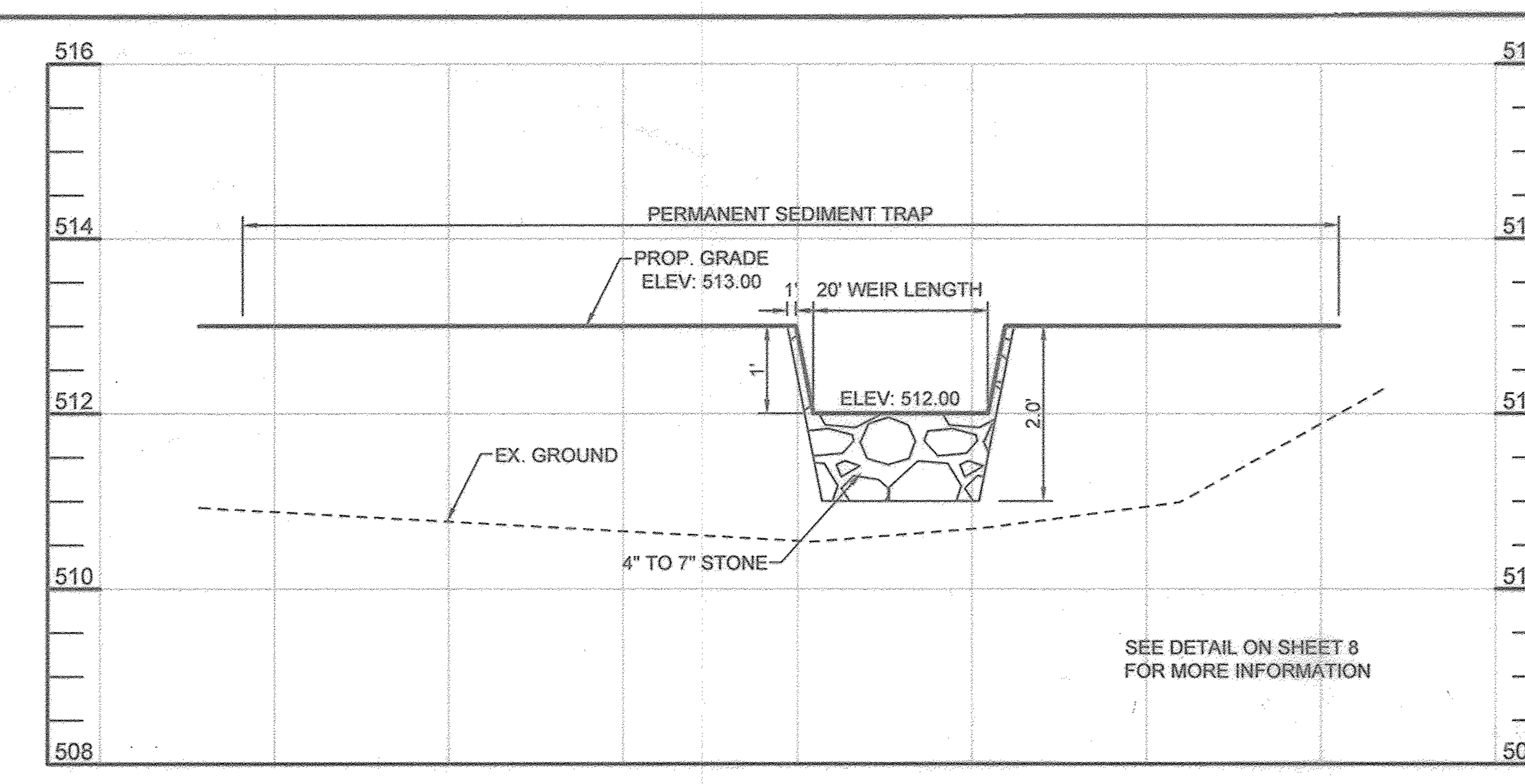


PROPOSED KILN ELEVATION
NOT TO SCALE
⚠2



PROPOSED SHED ELEVATION
NOT TO SCALE

THE PURPOSE OF THIS SHEET IS TO UPDATE THE FENCE DETAIL ⚠1



PERMANENT SEDIMENT TRAP EMBANKMENT PROFILE
SCALE: HORIZ. 1"=20'
VERT. 1"=2'

⚠1

OWNER		DEVELOPER
CLEAR VIEW FARM, LLC 13370 ROUTE 144 WEST FRIENDSHIP, MD 21794 GEORGE STREAKER, JR. 443-834-2402 GFSJR17@GMAIL.COM	MHGH&S, LLC 13300 ROUTE 144 WEST FRIENDSHIP, MD 21794	GEORGE STREAKER, JR 13370 ROUTE 144 WEST FRIENDSHIP, MD 21794

⚠1

REVISED GRADING PLAN

STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ★ PAUL M. SILL ★ No. 32025 PROFESSIONAL ENGINEER

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, Maryland 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY:	MPO
DRAWN BY:	MPO
CHECKED BY:	PS
SCALE:	AS SHOWN
DATE:	FEBRUARY 7, 2023
PROJECT #:	18-053
SHEET #:	3 of 9

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, 2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[illegible] — 2.24.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION NY — DATE

[illegible] — 3/9/23
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[illegible] — 3/9/23
DIRECTOR — DATE

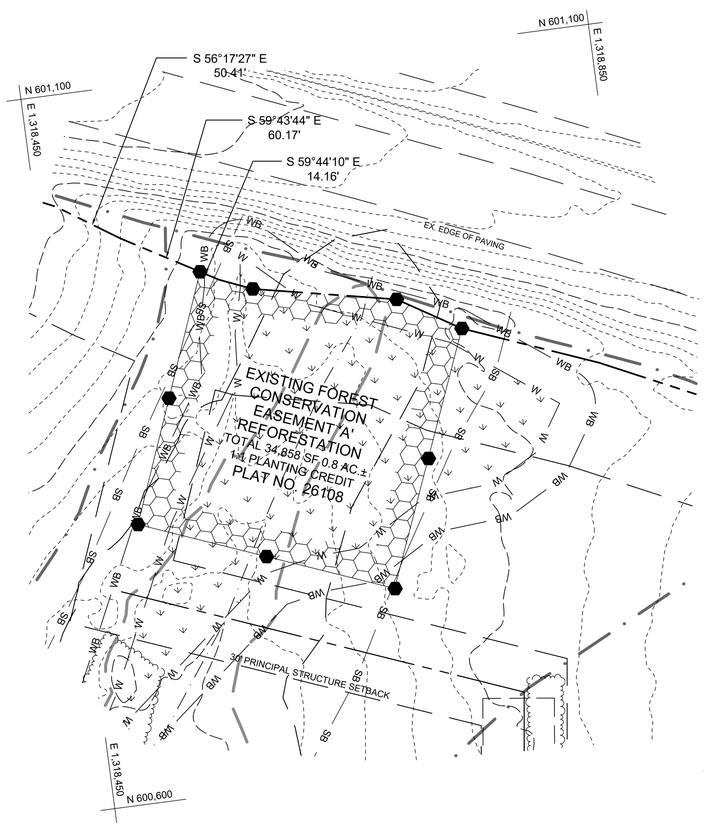
APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

for [illegible] — 3/21/23
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT — DATE

NO.	DESCRIPTION	DATE
2	ADD KILN AND PROPANE TANK TO THE PLAN VIEW. KILN ELEVATION ADDED.	12/21/2023
1	REVISE FENCE HEIGHT AND FENCE DETAIL	1/9/2023

REVISIONS

SDP-20-049



PLAN VIEW: FOREST CONSERVATION EASEMENT

SCALE: 1"=50'

FOREST CONSERVATION NOTE

1. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AND THE FOREST CONSERVATION MANUAL BY THE ON-SITE AFFORESTATION/REFORESTATION OF 0.8 ACRES OF FOREST. FINANCIAL SURETY WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT AT $0.50 PER SQUARE FOOT, (34,858 SF X $0.50), OR $17,429.00.
2. NO RARE, THREATENED OR ENDANGERED SPECIES, OR THEIR HABITATS, WERE OBSERVED ON THE PROPERTY.
3. SURROUNDING LAND USE IS PRIMARILY RURAL RESIDENTIAL DEVELOPMENT.
4. FOREST IS PRESENT WITHIN THE LIMITS OF THE SUBJECT PROPERTY.
5. THE SITE IS LOCATED WITHIN THE MIDDLE PATUXENT WATERSHED (02-12-09). THIS SECTION OF THE WATERSHED IS CLASSIFIED AS A USE IV-P.
6. THERE ARE NO KNOWN HISTORIC STRUCTURES AND NO CEMETERIES ARE KNOWN TO OCCUR ON THE PROPERTY.
7. A 100-YEAR FLOODPLAIN IS PRESENT ON THE PROPERTY.
8. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS ALTERNATIVE COMPLIANCE HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
9. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION WITH AREAS DEFINED AS FOREST CONSERVATION EASEMENTS.
10. NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS NON-DISTURBANCE AREAS.
11. TEMPORARY FENCING AND SUPER SILT FENCE, SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. SUPER SILT FENCE SHALL BE INSTALLED ALONG LIMITS OF DISTURBANCE OCCURRING WITHIN 50 FEET OF THE PROPOSED FOREST RETENTION LIMITS. PERMANENT SIGNAGE SHALL BE INSTALLED ALONG THE FOREST CONSERVATION EASEMENT BOUNDARY TO PREVENT FUTURE ENCROACHMENT INTO THE AREA. SIGNAGE SHALL BE PLACED AT 50-100 FOOT INTERVALS ALONG THE BOUNDARY.

11" MIN.

FOREST CONSERVATION AREA

DO NOT DISTURB

MACHINERY, DUMPING, OR STORAGE OF ANY MATERIALS IS

PROHIBITED

VIOLATERS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

15" MIN.

FOREST CONSERVATION SIGN DETAIL

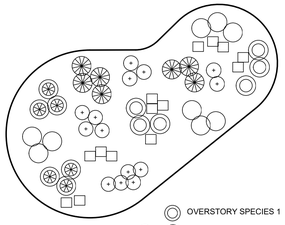
NOT TO SCALE

NOTES:
1. BOTTOM OF SIGN TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
2. SIGNS TO BE PLACED APPROXIMATELY 50' - 100' APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
4. SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.

REFORESTATION PLANTING SCHEDULE

FCE - 34,858 SF OR 0.8 ACRES
PLANTING UNITS REQUIRED: 320.0
PLANTING UNITS PROVIDED: 320.0

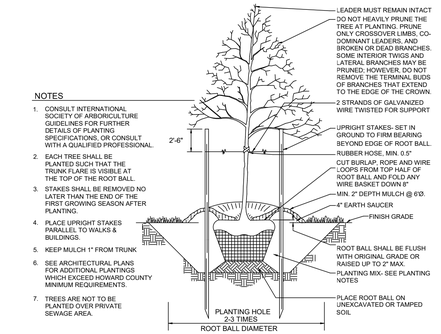
QUANTITY	SPECIES	SIZE	SPACING	EQUIVALENT AREA/TREE	TOTAL FCA
80	ACER RUBRUM - RED MAPLE	1 GAL.	10' x 10'	108.9 sf/tree	8,712.0
80	LIRIODENDRON TULIPIFERA - TULIP POPLAR	1 GAL.	10' x 10'	108.9 sf/tree	8,712.0
80	LIQUIDAMBER STYRACIFLUA - SWEETGUM	1 GAL.	10' x 10'	108.9 sf/tree	8,712.0
80	QUERCUS BICOLOR - SWAMP WHITE OAK	1 GAL.	10' x 10'	108.9 sf/tree	8,712.0
320	TOTAL 1 GAL. TREES				
				TOTAL CREDIT	34,848 SF.



THIS DIAGRAM SHOWS A TYPICAL DISPERSAL OF SPECIES WITHIN PLANTING AREA. THE SPACING SHALL BE IN ACCORDANCE WITH THE APPROVED PLANTING SCHEDULE. WHERE THE SIZE OF THE PLANTING STOCK VARIES, THE PLANTING UNITS SHALL INSTALLED AT AVERAGED SPACING TO PROVIDE APPROXIMATELY UNIFORM COVERAGE.

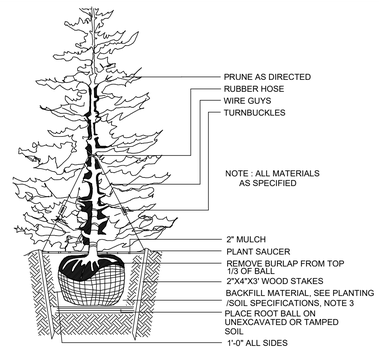
REFORESTATION RANDOM PLANTING DISTRIBUTION PLAN

NOT TO SCALE



TYPICAL TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

LEGEND

EXISTING CONTOUR 382
PROPOSED CONTOUR 382
EXISTING SPOT ELEVATION 382.3
PROPOSED SPOT ELEVATION +82.63
DIRECTION OF FLOW
EXISTING TREELINE
PROPOSED TREELINE
EXISTING SPECIMEN TREE
EXISTING WETLAND W
EXISTING WETLAND BUFFER WB
EXISTING STREAM
EXISTING STREAM BUFFER SB
LIMIT OF DISTURBANCE LOD

PLANTING/SOIL SPECIFICATIONS

1. INSTALLATION OF B&B / CONTAINER STOCK SHALL BE PERFORMED MARCH 15 - MAY 30 OR SEPTEMBER 15 - NOVEMBER 15
2. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
3. BAREROOT PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP EXISTING GRADE. ROOTS SHALL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL AND 1 PART PINE FINES OR EQUIVALENT.
4. FERTILIZER SHALL CONSIST OF AGRIFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURERS' SPECIFICATIONS, FOR WOODY PLANTS. HERBACEOUS PLANTS SHALL BE FERTILIZED WITH OSMOCOTE 8-6-12.
5. PLANTS SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
6. ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

FOREST CONSERVATION WORKSHEET FOR STREAKER FIREWOOD

Net Tract Area

A.	Total (Gross) Tract Area	A =	4.0
B.	Area within 100-year Floodplain	B =	
C.	Other Deductions (Identify:)	C =	0.0
D.	Net Tract Area	D =	4.0

Land Use Category
Insert the number "1" under the appropriate land use (limit to only one entry)

Resid. Rural LD	Resid. Rural MD	Resid. Suburban	Inst./ Linear	Retail/Ind./ Office	Mixed Use/ PUD
1	0	0	0	0	0

E.	Afforestation Threshold	(Net Tract Area x	20%	)	E = 0.8
F.	Reforestation Threshold	(Net Tract Area x	50%	)	F = 2.0

Existing Forest Cover

G.	Existing Forest Cover within the Net Tract Area	G =	0.0
H.	Area of Forest above Afforestation Threshold	H =	0.0
I.	Area of Forest above Reforestation Threshold	I =	0.0

Break Even Point

J.	Break Even Point	J =	0.0
K.	Forest Clearing Permitted without Mitigation	K =	0.0

Proposed Forest Clearing

L.	Total Area of Forest to be Cleared	L =	0.0
M.	Total Area of Forest to be Retained	M =	0.0

Planting Requirements Inside Watershed

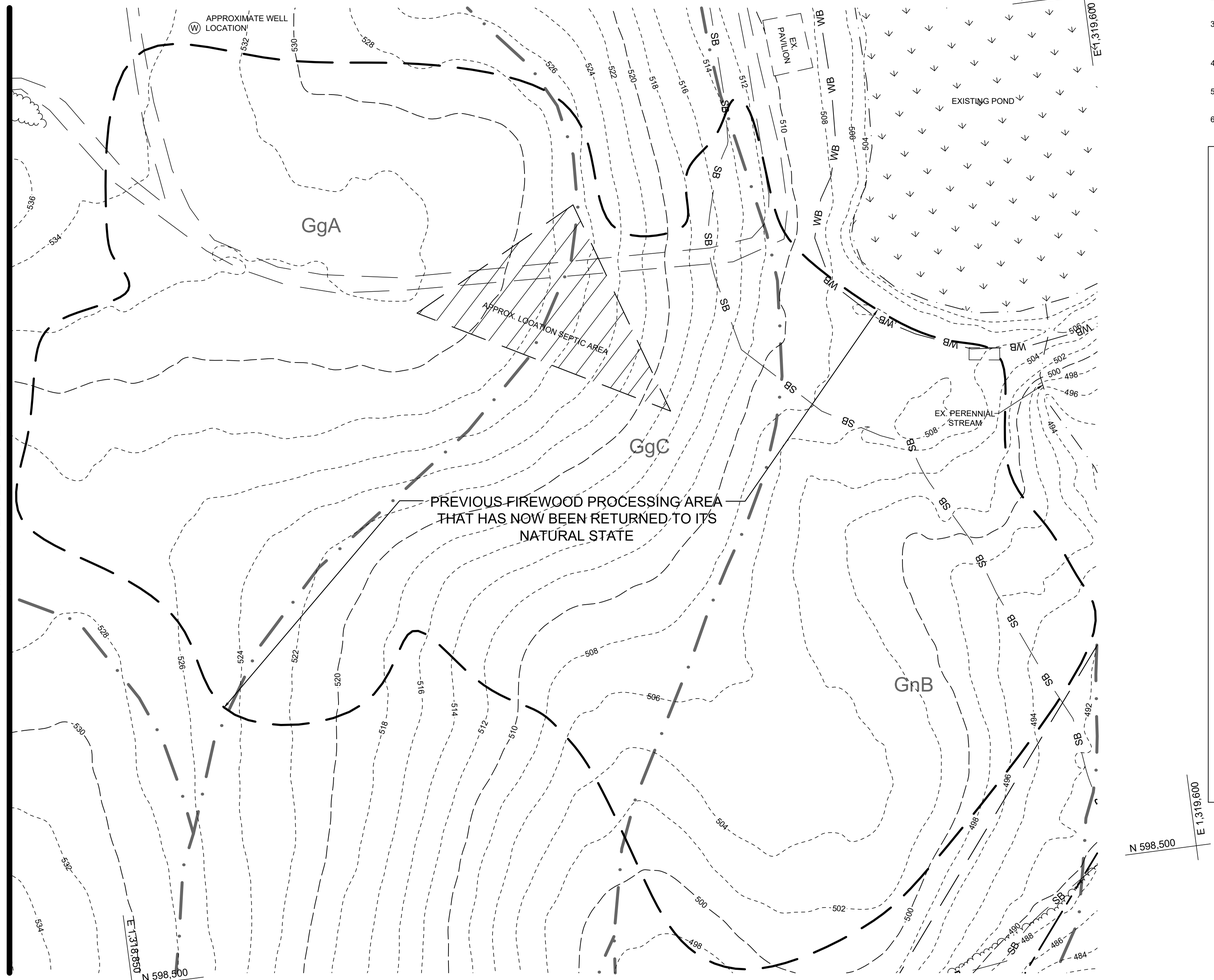
N.	Reforestation for Clearing above the Reforestation Threshold	N =	0.0
P.	Reforestation for Clearing below the Reforestation Threshold	P =	0.0
Q.	Credit for Retention above the Reforestation Threshold	Q =	0.0
R.	Total Reforestation Required	R =	0.0
S.	Total Afforestation Required	S =	0.8
T.	Total Reforestation and Afforestation Requirement	T=	0.8
U.	75% of Total Obligation (Retention + Planting)	U=	0.6
V.	Planting Required Onsite to meet 75% Obligation	V=	0.6

Planting Requirements Outside Watershed

W.	Total Planting within Development Site Watershed	W=	0.0
X.	Total Afforestation Required	X=	0.8
Y.	Remaining Planting within Watershed for Reforestation Credit	Y=	0.0
Z.	Reforestation for Clearing above the Reforestation Threshold	Z=	0.0
AA.	Reforestation for Clearing below the Reforestation Threshold	AA=	0.0
BB.	Credit for Retention above the Reforestation Threshold	BB=	0.0
CC.	Total Reforestation Required	CC=	0.0
DD.	Total Afforestation and Reforestation Requirement	DD=	0.8

Date: 03/10/2021

MATCHLINE - SHEET 2



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FEET

PLAN VIEW: EXISTING FIREWOOD PROCESSING AREA (TO BE RELOCATED)

SCALE: 1"=50'

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
443-834-2402
GFSJR17@GMAIL.COM

MHGH&S, LLC
13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

GRADING AND FOREST CONSERVATION PLAN

STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND JOANNE CAREY 4148 LANDSCAPE ARCHITECT

DocuSigned by: Joanne Carey A4057083BCA145D... 7/6/2022

JOANNE CAREY, RLA 4148
MD DNR QUALIFIED PROFESSIONAL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10/24/2022

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/24/2022

DIRECTOR — DocuSigned by: 584D5DD9470C4D4... — DATE 10/26/2022

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SCD — DocuSigned by: Alexander Bratchie 656485D8A9B64C1... — DATE 10/24/2022

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER — DocuSigned by: 22AFEEF5114404... — DATE 7/6/2022

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DocuSigned by: E6B8B5947784428... — DATE 7/6/2022
PAUL M. SILL, P.E.

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DocuSigned by: A09973D5AB5423... — DATE 10/26/2022
HOWARD COUNTY HEALTH DEPARTMENT

NO.	DESCRIPTION	DATE
	REVISIONS	

STATE OF MARYLAND PAUL M. SILL 32025 PROFESSIONAL ENGINEER — DocuSigned by: E6B8B5947784428...

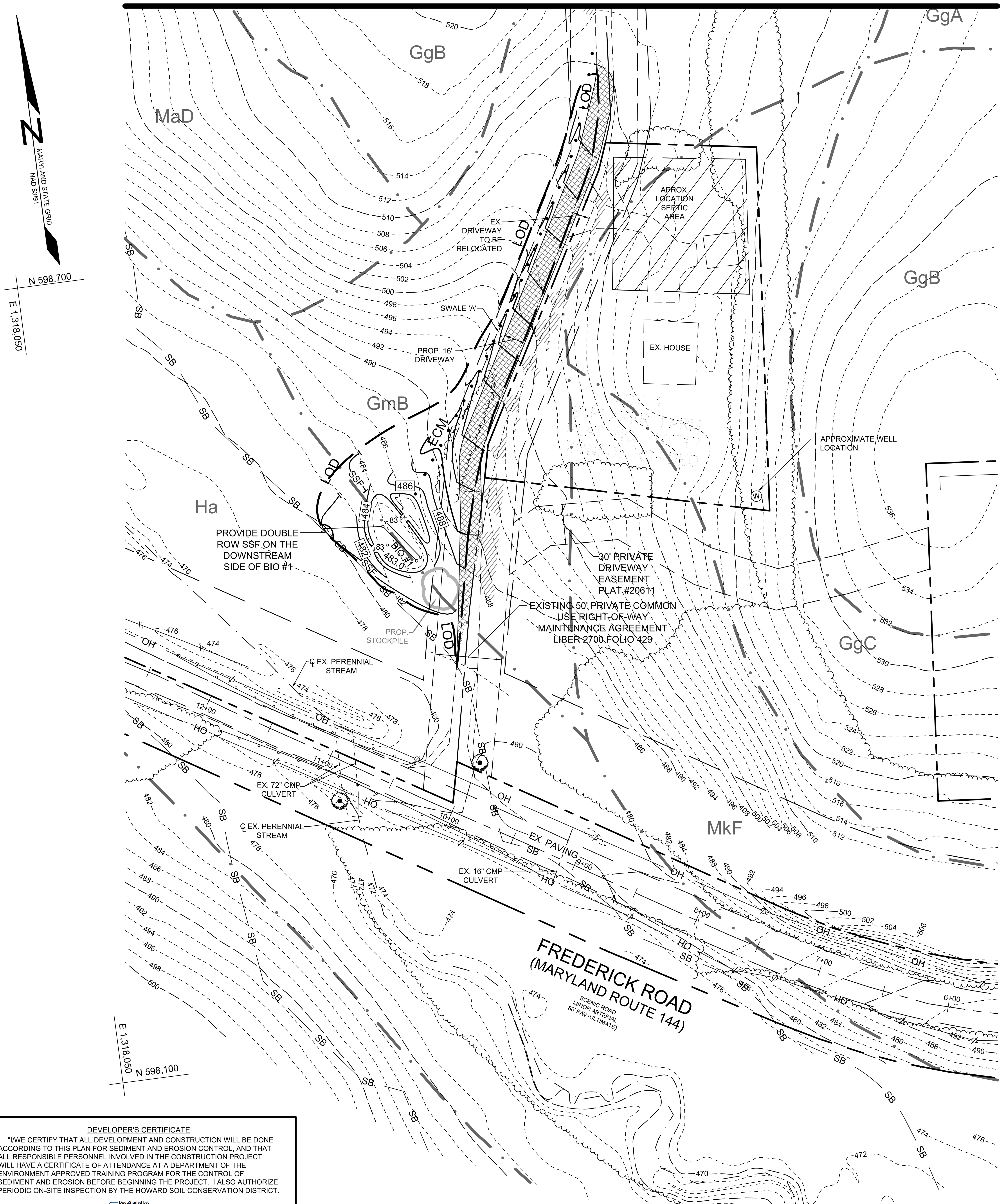
SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY: MPO
DRAWN BY: MPO
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 6, 2022
PROJECT #: 18-053
SHEET #: 4 of 9

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, 2023

SDP-20-049

MATCHLINE - THIS SHEET



MATCHLINE - SHEET 6

MATCHLINE - THIS SHEET

PLAN VIEW: ROAD AND DRIVEWAY ENTRANCE

SCALE: 1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FEET

PLAN VIEW: DRIVEWAY AND ADJACENT BUILDINGS

SCALE: 1"=50'

LEGEND

EXISTING CONTOUR	- - - - 382	EXISTING STREAM	— · — · —
PROPOSED CONTOUR	—382—	EXISTING STREAM BUFFER	—— SB ——
EXISTING SPOT ELEVATION	382.3	SUPER SILT FENCE	├——SSF——┤
PROPOSED SPOT ELEVATION	+ 82^{53}	LIMIT OF DISTURBANCE	— LOD —
DIRECTION OF FLOW	←	MODERATE SLOPES (OVER 15%)	▨
EXISTING TREELINE		PROPOSED DRIVEWAY LOCATION	▩
PROPOSED TREELINE		EROSION CONTROL MATTING	• • • ECM • • •
EXISTING SPECIMEN TREE	⊙		
EXISTING WETLAND	—— W ——		
EXISTING WETLAND BUFFER	—— WB ——		

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DocuSigned by: [illegible] 22A0FEF07140434... 7/6/2022

SIGNATURE OF DEVELOPER DATE

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DocuSigned by: [illegible] EEB69354178442B... 10/21/2022

SIGNATURE OF ENGINEER DATE
PAUL M. SILL, P.E.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: CHAD Edmondson 7063F754EF41499 10/24/2022

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DocuSigned by: [illegible] 10/24/2022

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DocuSigned by: Amy Gowan 5B4D5DD9470C4D4... 10/26/2022

DIRECTOR DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie 65648D5BA9B64C1... 10/24/2022

HOWARD SCD DATE

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

DocuSigned by: Michael J. Davis A099773D5AB5423... 10/26/2022

COUNTY HEALTH OFFICER DATE
HOWARD COUNTY HEALTH DEPARTMENT

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
443-834-2402
GFSJR17@GMAIL.COM

MHGH&S, LLC
13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

NO.	DESCRIPTION	DATE

REVISIONS

SEDIMENT AND EROSION CONTROL PLAN

STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 PARCELS 73 & 146
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND PAUL M. SILL 32025 PROFESSIONAL ENGINEER

DocuSigned by: [illegible] EEB69354178442B...

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

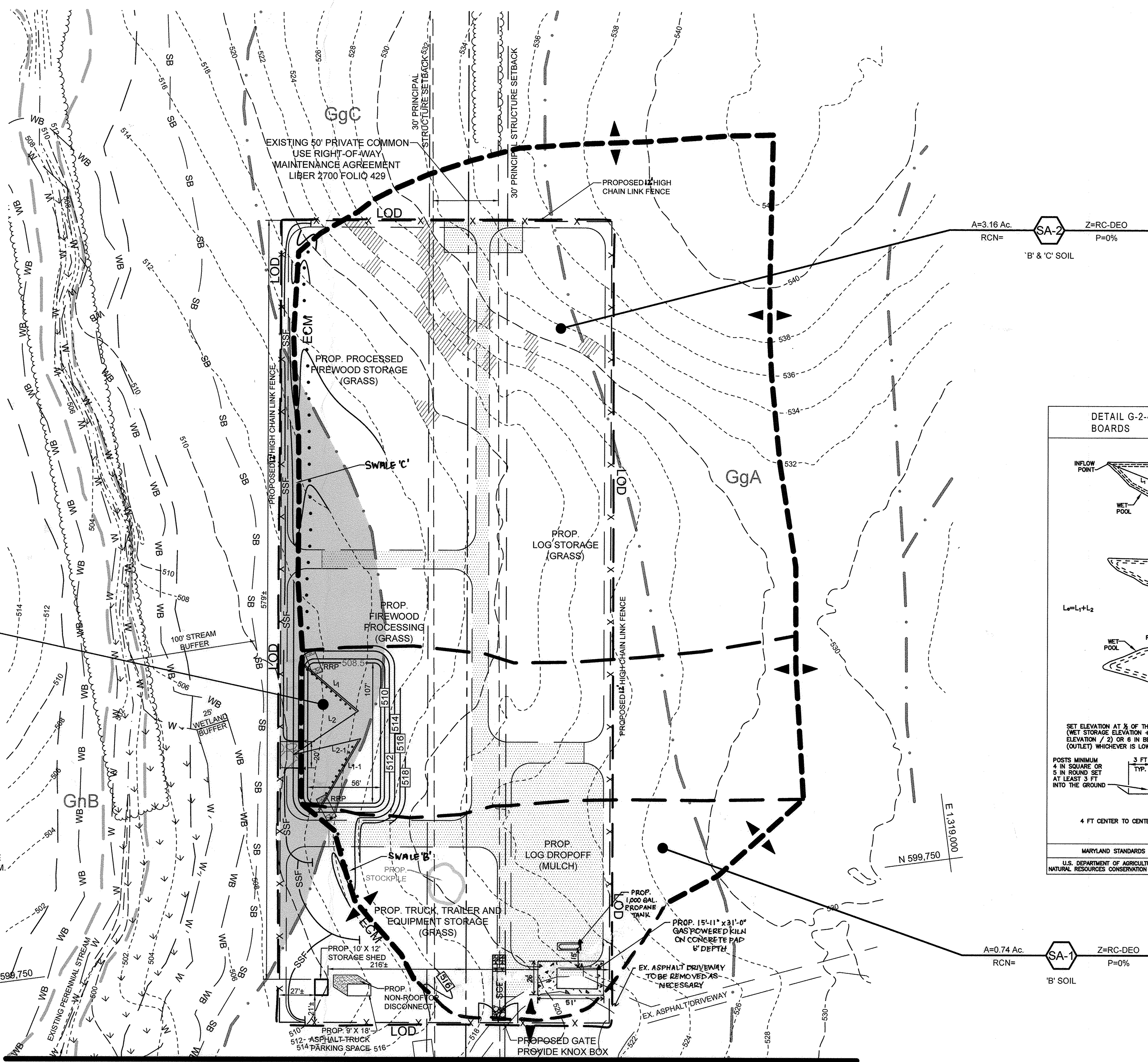
DESIGN BY: MPO
DRAWN BY: MPO
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 6, 2022
PROJECT #: 18-053
SHEET #: 5 of 9

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, 2023

SHEAR STRESS VALUES FOR SOIL STABILIZATION			
SWALE	TYPE OF STABILIZATION	AVERAGE VELOCITY FT/S	SHEAR STRESS LB/FT^2
SWALE A	PERMANENT STABILIZATION MATTING	6.5358	3.1876
SWALE B	TEMPORARY STABILIZATION MATTING	3.0113	0.6930
SWALE C	TEMPORARY STABILIZATION MATTING	4.1486	1.0986

LEGEND

EXISTING CONTOUR	- - - - - - - - - - 382
PROPOSED CONTOUR	382
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 82.53
DIRECTION OF FLOW	←
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING SPECIMEN TREE	⊙
EXISTING WETLAND	—— W ——
EXISTING WETLAND BUFFER	—— WB ——
EXISTING STREAM	— · — · —
EXISTING STREAM BUFFER	—— SB ——
SUPER SILT FENCE	——SSF——
LIMIT OF DISTURBANCE	— LOD —
MODERATE SLOPES (OVER 15%)	▨
HIGHLY ERODIBLE SOILS	▩
PROPOSED SWALE	⇒ ⇒ ⇒
PROPOSED DRAINAGE DIVIDE	
PROPOSED DRAINAGE SUB-DIVIDE	
EROSION CONTROL MATTING	• • • ECM • • •
RIPRAP INFLOW PROTECTION	RRP
PROPOSED BAFFLE BOARDS	



PERMANENT SEDIMENT TRAP #1 (ST-II)

EXISTING DRAINAGE AREA: 0.34AC±
FINAL DRAINAGE AREA: 4.9AC±
TOTAL STORAGE REQUIRED: 18,000CF
TOTAL STORAGE PROVIDED: 25,115CF*
1-YEAR STORAGE REQUIRED: 14,872CF
1-YEAR STORAGE PROVIDED: 14,872CF
WET STORAGE REQUIRED: 9,000CF
WET STORAGE PROVIDED: 9,063CF
DRY STORAGE REQUIRED: 9,000CF
DRY STORAGE PROVIDED: 14,872CF
EXISTING GROUND AT OUTLET: 510.00
TRAP BOTTOM ELEVATION: 508.50
TRAP BOTTOM DIMENSIONS: 107'x56'
WEIR LENGTH: 20.0'
WEIR CREST ELEVATION: 512.00
CLEANOUT ELEVATION: 509.25
SIDE SLOPE: 2:1
EMBANKMENT TOP WIDTH: 4.0'
EMBANKMENT ELEVATION: 513.00
OUTLET PROTECTION - LENGTH: 10.0'
OUTLET PROTECTION - DEPTH: 19.0"

*TOTAL STORAGE PROVIDED INCLUDES THE VOLUME REQUIRED FOR THE 1-YEAR STORM.

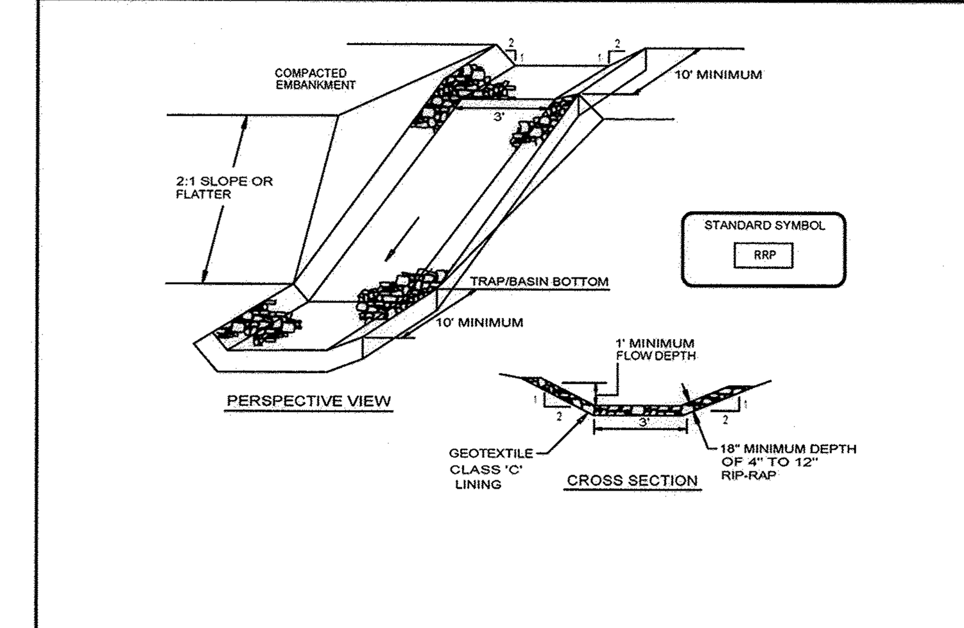
1 2

MATCHLINE - SHEET 5

PLAN VIEW: CONDITIONAL USE AREA

SCALE: 1"=50'

DETAIL 5 - RIP-RAP INFLOW PROTECTION



CONSTRUCTION SPECIFICATIONS

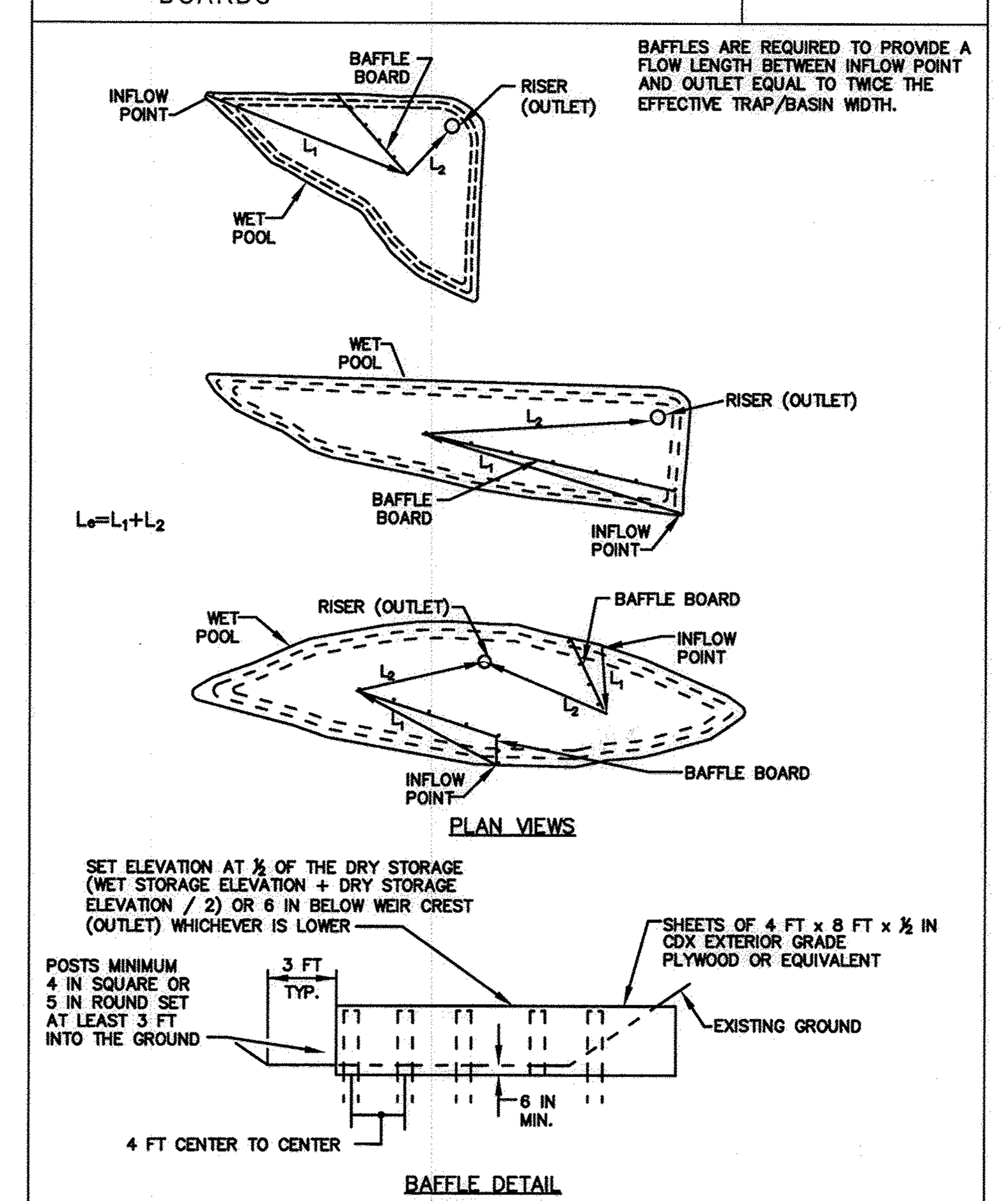
1. Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width. The channel shall be lined with 4" to 12" rip- rap to a depth of 18".
2. Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
3. Entrance and exit sections shall be installed as shown on the detail section.
4. Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
5. Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
6. Rip-rap should blend into existing ground.
7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE B - 6 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL G-2-4 BAFFLE BOARDS

STANDARD SYMBOL BB

BAFFLES ARE REQUIRED TO PROVIDE A FLOW LENGTH BETWEEN INFLOW POINT AND OUTLET EQUAL TO TWICE THE EFFECTIVE TRAP/BASIN WIDTH.

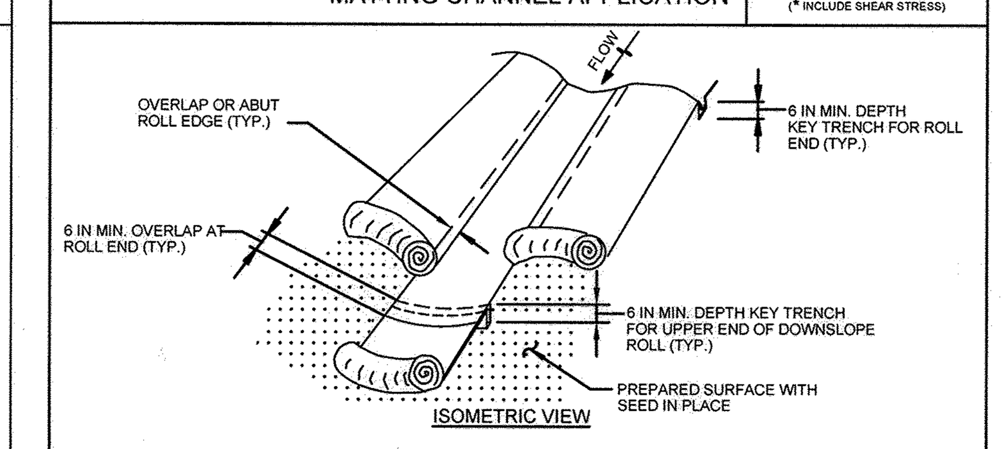


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL
TSSMC - *1.099 lb/ft²
(* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

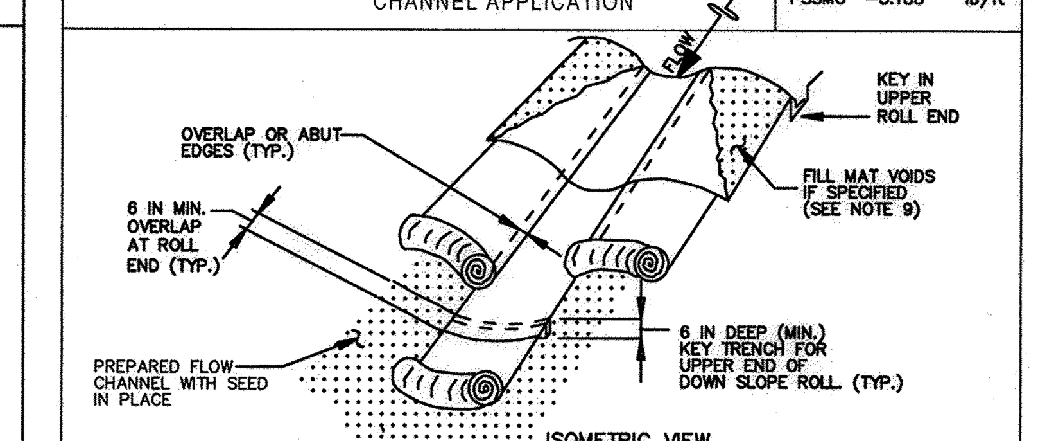
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
7. OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL
PSSMC -3.188 lb/ft²



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

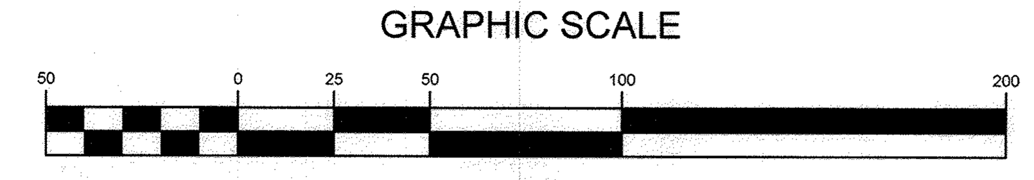
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL

BAFFLE BOARDS		
TRAP	FLOW LENGTHS	BAFFLE ELEVATION
1	(L1 = 58.04') + (L2 = 59.96') = 118.00'	510.95
	(L1-1 = 64.86') + (L2-1 = 53.14') = 118.00'	

NOTE: EFFECTIVE WIDTH OF SEDIMENT TRAP IS 59.00', REQUIRING A MINIMUM FLOW LENGTH OF 118.00' FOR THE PERMANENT SEDIMENT TRAP.

GRAPHIC SCALE



(IN FEET)
1 INCH = 50 FEET

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
443-834-2402
GFSJR17@GMAIL.COM

MHGH&S, LLC
13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

SEDIMENT AND EROSION CONTROL PLAN, DETAILS, AND DRAINAGE AREA MAP
STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: Chad Edmondson 7063E754FE41499... CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/24/2022 DATE
DocuSigned by: [illegible] 1FB75478A22B49A... CHIEF, DIVISION OF LAND DEVELOPMENT	10/24/2022 DATE
DocuSigned by: Amy Gowan 5B4D5DD9470C4D4... DIRECTOR	10/26/2022 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie 65648D5BA9B64C1... — 10/24/2022
HOWARD SCD — DATE

DEVELOPER'S CERTIFICATE

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DocuSigned by: [illegible] EEB69354178442B... — 7/6/2022
SIGNATURE OF ENGINEER PAUL M. SILL, P.E. — DATE

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

DocuSigned by: Michael J. Davis A099773D5AB5423... — 10/26/2022
COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT — DATE

NO.	DESCRIPTION	DATE
2	ADD KILN AND PROPANE TANK TO THE PLAN VIEW.	12/21/2023
1	REVISE FENCE HEIGHT TO BE 12'	2/7/2023

REVISIONS

STATE OF MARYLAND PAUL M. SILL 32025 PROFESSIONAL ENGINEER
DocuSigned by: [illegible] EEB69354178442B...

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY:	MPO
DRAWN BY:	MPO
CHECKED BY:	PS
SCALE:	AS SHOWN
DATE:	JULY 6, 2022
PROJECT #:	18-053
SHEET #:	6 of 9

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, 2023

LEGEND

EXISTING CONTOUR	- - - - - - 382
PROPOSED CONTOUR	382
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 82^53
DIRECTION OF FLOW	←
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING SPECIMEN TREE	⊙
EXISTING WETLAND	W
EXISTING WETLAND BUFFER	WB
EXISTING STREAM	— · — · —
EXISTING STREAM BUFFER	SB

PLAN VIEW: ROAD AND DRIVEWAY ENTRANCE

SCALE: 1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FEET

OWNER

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DEVELOPER

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SEDIMENT AND EROSION CONTROL DRAINAGE AREA MAP - BIO RETENTION FACILITY 1
STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND
PAUL M. SILL
32025
PROFESSIONAL ENGINEER
DocuSigned by:
EEB69354178442B...

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16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY: MPO
DRAWN BY: MPO
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 6, 2022
PROJECT #: 18-053
SHEET #: 7 of 9

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: Chad Edmondson 7063E754EE41499 — 10/24/2022
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: [illegible] 1EB75479A22B49A — 10/24/2022
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: [illegible] 5B4D5DD9470C4D4... — 10/26/2022
DIRECTOR — DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie 65648D5BA9B64C1... — 10/24/2022
HOWARD SCD — DATE

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SIGNATURE OF ENGINEER
PAUL M. SILL, P.E. — DATE

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

DocuSigned by: Michael J. Davis A099773D5AB5423... — 10/26/2022
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT — DATE

NO.	DESCRIPTION	DATE

REVISIONS

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION
- THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
- TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
- WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
   a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
   b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
   c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
   a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
      I. SOIL PH BETWEEN 6.0 AND 7.0.
      II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
      III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
      IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
      V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
   b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
   c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
   d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
   e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS 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.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
   a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
   b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
   c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
   d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
   a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS,GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER.
   b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
   c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
   a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
   b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
   c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL 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.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

DEFINITION
- A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

PURPOSE
- TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES:
- STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

CRITERIA
1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

MAINTENANCE
- THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20) N	P	K	LIME RATE
	SEED MIXTURE (HARDINESS ZONE 7A AND 6B)							
9	TALL FESCUE KENTUCKY BLUE GRASS	60 40	3/1 - 5/15 8/15 - 11/15	0.5 IN.	1.0 LB/ 1000 SF	2.0 LB/ 1000 SF	2.0 LB/ 1000 SF	90 LB/ 1000SF

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.
CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.
CRITERIA

A. SEEDING
1. SPECIFICATIONS

a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

2. APPLICATION

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
   I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
   II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
   I. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
   II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
   I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
   II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
   III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
   IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
   I. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
   II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
   III. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
   IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
   V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. APPLICATION

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

3. ANCHORING

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
   I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS,BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND,THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
   II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
   III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
   IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

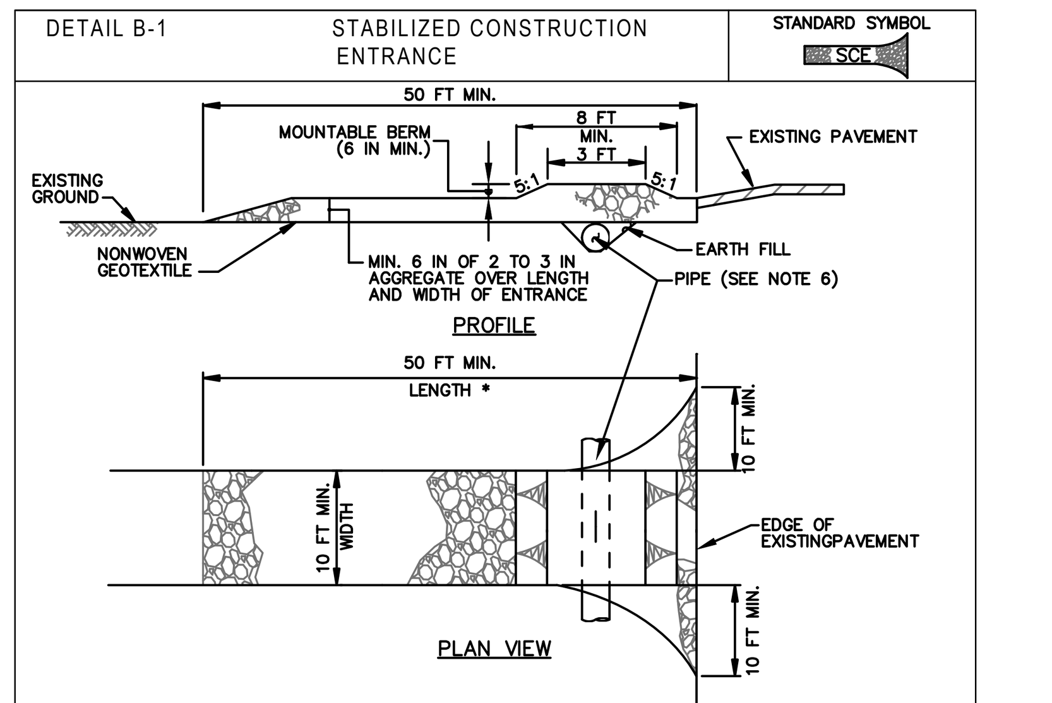
PURPOSE
- TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES:
- EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
- TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
- EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

A. SEED MIXTURES
1. GENERAL USE
   A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
   B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
   C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
   D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 ½ POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY .
2. TURFGRASS MIXTURES
   A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
   B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
      I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
      II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE B.22 RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
      III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
      IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1½ TO 3 POUNDS PER 1000 SQUARE FEET.
         NOTES: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE
   C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES:
      WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
      CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
      SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
   D. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1½ INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
   E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (½ TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).
1. GENERAL SPECIFICATIONS
   A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
   B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF ¾ INCH, PLUS OR MINUS ¼ INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
   C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
   D. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
   E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
2. SOD INSTALLATION
   A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
   B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
   C. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
   D. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
3. SOD MAINTENANCE
   A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
   B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
   C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN ⅓ OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

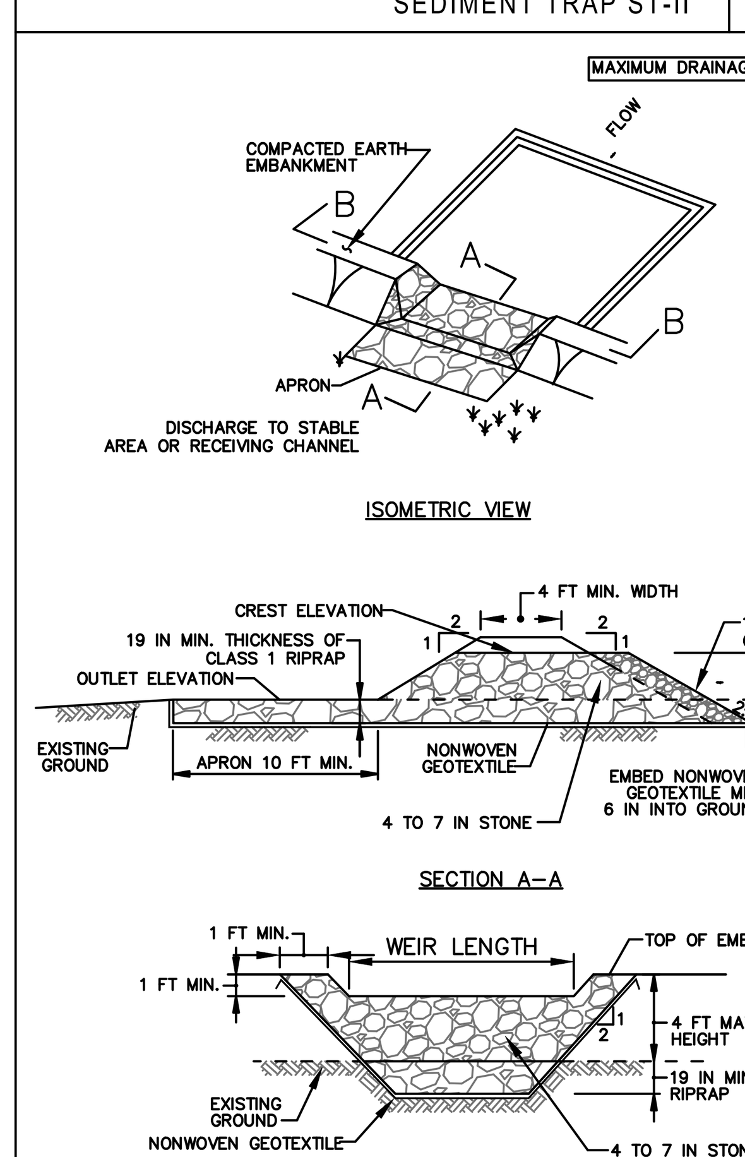
STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.

DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STANDARD SYMBOL: ST–II



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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
   A. PRIOR TO THE START OF EARTH DISTURBANCE,
   B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING,
   C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,
   D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
6. SITE ANALYSIS:

TOTAL AREA:	4.08 ACRES
AREA DISTURBED:	4.08 ACRES
AREA TO BE ROOFED OR PAVED:	0.1152 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	3.9648 ACRES
TOTAL CUT:	* 926 CY
TOTAL FILL:	* 145 CY
OFFSITE WASTE/BORROW AREA LOCATION:	**

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY; AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
   - INSPECTION DATE
   - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
   - NAME AND TITLE OF INSPECTOR
   - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
   - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
   - EVIDENCE OF SEDIMENT DISCHARGES
   - IDENTIFICATION OF PLAN DEFICIENCIES IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
   - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
   - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
   - PHOTOGRAPHS
   - MONITORING/SAMPLING MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
   - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
   - USE I AND IP MARCH 1 - JUNE 15
   - USE III AND IIIP OCTOBER 1 - APRIL 30
   - USE IV MARCH 1 - MAY 31
16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

* EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION.
** TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STANDARD SYMBOL: ST–II

CONSTRUCTION SPECIFICATIONS
1. CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
2. CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
3. USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
4. CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
5. MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
6. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
7. USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS I RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
8. PLACE 1 FOOT OF CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
9. CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
10. STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
11. REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
12. WHEN DEWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
13. UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY DEPARTMENT OF DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND SUPER SILT FENCE. (1 WEEK)
4. CONSTRUCT SEDIMENT TRAP #1 AND SWALES 'B' AND 'C'. (1 WEEK)
5. CONSTRUCT SWALE 'A' AND STABILIZE. (1 WEEK)
6. CONSTRUCT PROPOSED 16' DRIVEWAY. (1 WEEK)
7. UPON STABILIZATION OF THE DRAINAGE AREA , AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, INSTALL BIO-RETENTION #1
8. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA. (1 WEEK)

TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE LB/AC	SEEDING RATE LB/1000 FT^2	SEEDING DEPTH (INCHES)	RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE: 5b & 6a	6b	7a & 7b
COOL-SEASON GRASSES						
ANNUAL RYEGRASS (*LOLIUM PERENNE SSP. MULTIFLORUM*)	40	1.0	0.5	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
BARLEY (*HORDEUM VULGARE*)	96	2.2	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
OATS (*AVENA SATIVA*)	72	1.7	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
WHEAT (*TRITICUM AESTIVUM*)	120	2.8	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
CEREAL RYE (*SECALE CEREALE*)	112	2.8	1.0	MARCH 15 TO MAY 31; AUG 1 TO OCT 31	MARCH 1 TO MAY 15; AUG 1 TO NOV 15	FEB 15 TO APR 30; AUG 15 TO DEC 15
WARM-SEASON GRASSES						
FOXTAIL MILLET (*SETARIA ITALICA*)	30	0.7	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14
PEARL MILLET (*PENNISETUM GLAUCUM*)	20	0.5	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14

FERTILIZER RATE (10-20-20): 436 LB/AC (10LB/1000SF) LIME RATE: 2 TONS/AC (90LB/1000SF)

NOTES:
1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES. SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.
2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

*THIS SITE LIES WITHIN U.S.D.A. PLANT HARDINESS ZONE 6B.

TABLE B.5: RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND

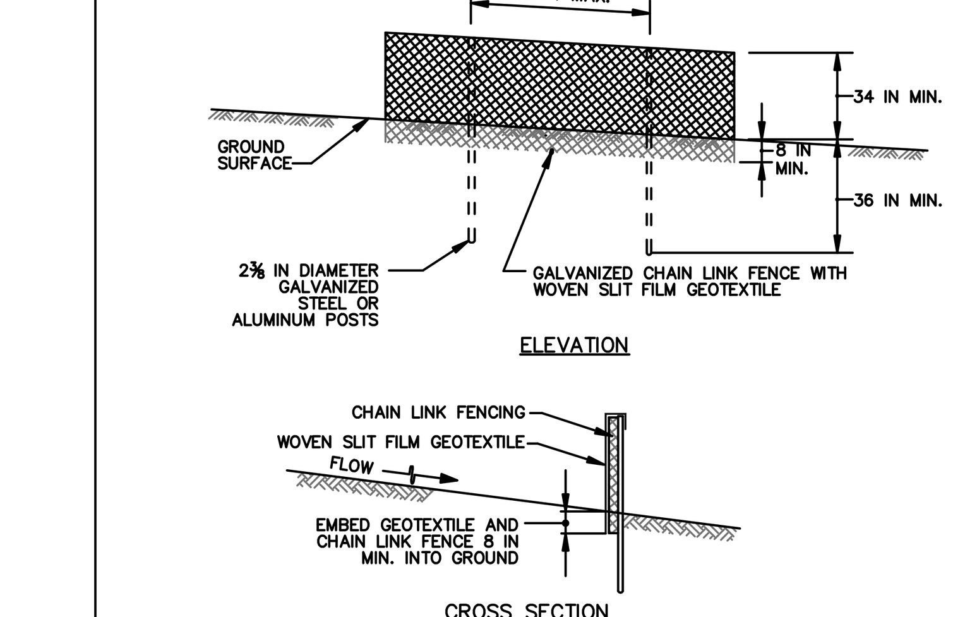
TYPE OF PLANT MATERIAL	PLANT HARDINESS ZONES: 5b & 6a	6b	7a & 7b
SEEDS- COOL-SEASON GRASSES (*INCLUDES MIXES WITH FORBS AND/OR LEGUMES*)	MAR 15 TO MAY 31 AUG 1 TO SEP 30	MAR 1 TO MAY 15 AUG 1 TO OCT 15	FEB 15 TO APR 30 AUG 15 TO OCT 31 NOV 1 TO NOV 30♦
SEEDS- WARM-SEASON/ COOL-SEASON GRASS MIXES (*INCLUDES MIXES WITH FORBS AND/OR LEGUMES*)	MAR 15 TO MAY 31♦♦ JUN 1 TO JUN 15*	MAR 1 TO MAY 15♦♦ MAY 16 TO JUN 15*	FEB 15 TO APR 30♦♦ MAY 1 TO MAY 31*
SOD - COOL-SEASON	MAR 15 TO MAY 31 JUN 1 TO AUG 31* SEP 1 TO NOV 1*	MAR 1 TO MAY 15 MAY 16 TO SEP 14* SEP 15 TO NOV 15*	FEB 15 TO APR 30 MAY 1 TO SEP 30* OCT 1 TO DEC 1*
UNROOTED WOODY MATERIALS; BARE-ROOT PLANTS; BULBS, RHIZOMES, CORMS AND TUBERS [2]	MARCH 15 TO MAY 31 JUN 1 TO JUN 30*	MARCH 1 TO MAY 15 MAY 16 TO JUN 30*	FEB 15 TO APR 30 MAY 1 TO JUN 30*
CONTAINERIZED STOCK; BALLED-AND-BURLAPPED STOCK	MAR 15 TO MAY 31 JUN 1 TO JUN 30* SEP 1 TO NOV 15*	MAR 1 TO MAY 15 MAY 16 TO JUN 30* SEP 15 TO NOV 30*	FEB 15 TO APR 30 MAY 1 TO JUN 30* OCT 1 TO DEC 15*

NOTES:
1. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.
2. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS.

♦ ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRENDS. RECOMMEND ADDING A NURSE CROP, AS NOTED ABOVE, IF PLANTING DURING THIS PERIOD.
♦♦ WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS, ESPECIALLY ON DROUGHTY SITES.
* ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT.
FREQUENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN LATE FALL, IF PLANTS HAVE NOT SUFFICIENTLY ROOTED IN PLACE. SOD USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENTLY ROOTED. LARGE CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE.

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



CONSTRUCTION SPECIFICATIONS
1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OWNER

CLEAR VIEW FARM, LLC
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
443-834-2402
GFSJR17@GMAIL.COM

MHGH&S, LLC
13300 ROUTE 144
WEST FRIENDSHIP, MD 21794

DEVELOPER

GEORGE STREAKER, JR
13370 ROUTE 144
WEST FRIENDSHIP, MD 21794

SEDIMENT AND EROSION CONTROL DETAILS

STREAKER FIREWOOD

13370 & 13300 FREDERICK ROAD

TAX MAP 9 GRID 3 & TAX MAP 15 GRID 3 — PARCELS 73 & 146
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — PAUL M. SILL — 32025 — PROFESSIONAL ENGINEER
DocuSigned by: EEB69354178442B...

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

DESIGN BY: MPO
DRAWN BY: MPO
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JULY 6, 2022
PROJECT #: 18-053
SHEET #: 8 of 9

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, 2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: CHAD Edmondson — 7063F754EF41499... — 10/24/2022
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: [signature] — 1EB7547BA22B49A... — 10/24/2022
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Amy Gowan — 5B4D5DD9470C4D4... — 10/26/2022
DIRECTOR — DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie — 65648D5BA9B64C1... — 10/24/2022
HOWARD SCD — DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DocuSigned by: [signature] — 22A0FEF07140434... — 7/6/2022
SIGNATURE OF DEVELOPER — DATE

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

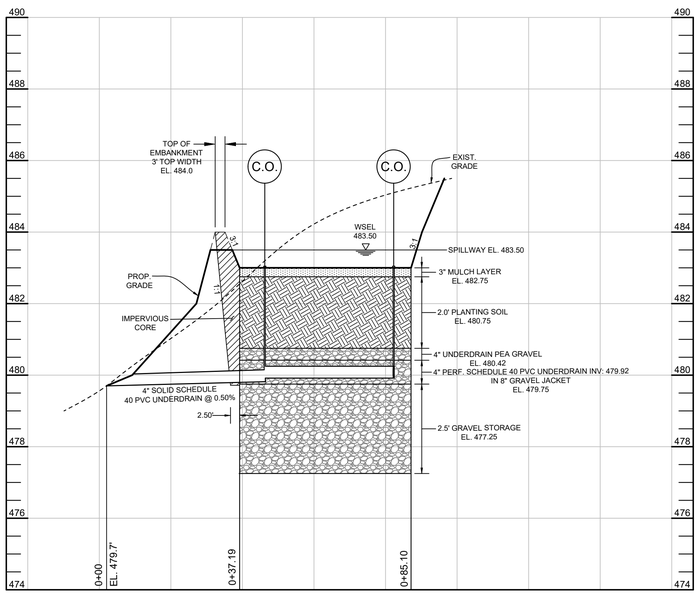
DocuSigned by: [signature] — EEB69354178442B... — 7/6/2022
SIGNATURE OF ENGINEER — DATE
PAUL M. SILL, P.E.

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

DocuSigned by: Michael J. Davis — A099773D5AB5423... — 10/26/2022
COUNTY HEALTH OFFICER — DATE
HOWARD COUNTY HEALTH DEPARTMENT

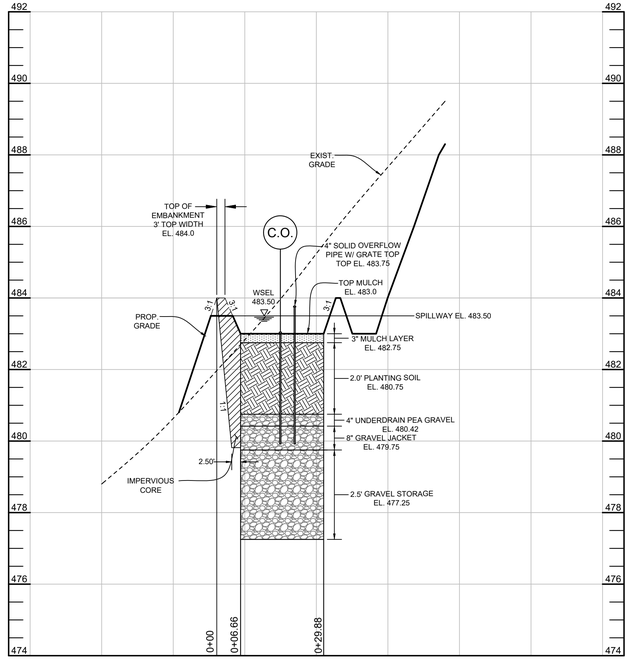
NO.	DESCRIPTION	DATE

REVISIONS



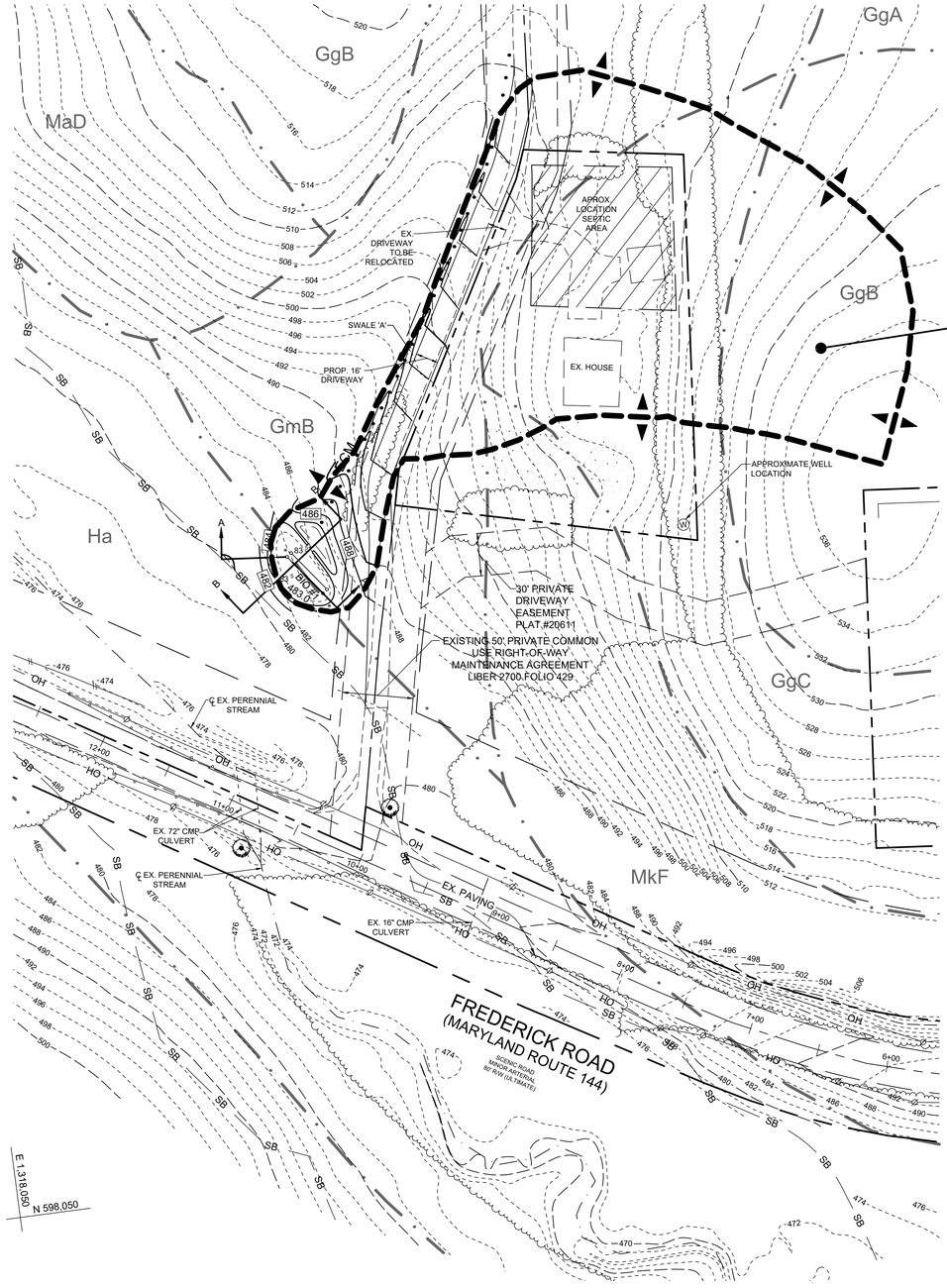
BIO RETENTION FACILITY SECTION AA

SCALE: 1"=10'



BIO RETENTION FACILITY SECTION BB

SCALE: 1"=10'



BIO RETENTION FACILITY #1 DRAINAGE AREA MAP

SCALE: 1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FEET

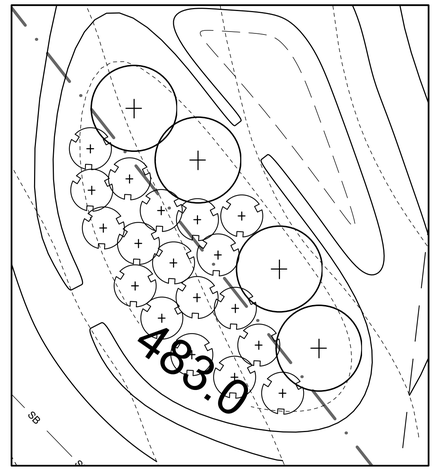
LEGEND

- EXISTING CONTOUR — 382
- PROPOSED CONTOUR — 382
- EXISTING SPOT ELEVATION — 383.3
- PROPOSED SPOT ELEVATION — +82.53
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREE
- EXISTING WETLAND — W
- EXISTING WETLAND BUFFER — WB
- EXISTING STREAM
- EXISTING STREAM BUFFER — SB
- EROSION CONTROL MATTING — ECM

BIORETENTION PLANT LIST

SYMBOL	SHRUBS					
	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	QUANTITY BIO 1	NOTES
+	HAMAMELIS X INTERMEDIA 'JELENA'	WITCH HAZEL 'JELENA'	AS SHOWN (MIN. 15' O.C.)	36"-48" HT.	4	
	ILEX VERTICULATA	WINTERBERRY	AS SHOWN (MIN. 5' O.C.)	18"-24" HT.	18	TWO MALE SPECIES PLANTED IN CENTER OF GROUP

NOTE: PLANT MATERIAL MUST COVER 50% OF THE MULCH AREA AT MATURE GROWTH.
BIO 1 - BIORETENTION AREA = 1,072.17 S.F.
PROVIDED: 22 SHRUBS



BIO RETENTION FACILITY PLANTING PLAN

SCALE: 1"=10'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITIES (F-6)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD OR DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

OWNER

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WEST FRIENDSHIP, MD 21794
GEORGE STREAKER, JR.
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GFSJR17@GMAIL.COM

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10/24/2022

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/24/2022

DIRECTOR — DATE 10/26/2022

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT — DATE 10/26/2022

NO.	DESCRIPTION	DATE

REVISIONS

STORMWATER MANAGMENT DRAINAGE AREA MAP AND BIO RETENTION FACILITY DETAILS
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STATE OF MARYLAND · PAUL M. SILL · 32025 · PROFESSIONAL ENGINEER

SILL ENGINEERING GROUP, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Phone: 443.325.5076
Fax: 410.696.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

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SDP-20-049