#### **GENERAL NOTES**

- SUBJECT PROPERTY ZONED RC-DEO PER 10-06-2013 COMPREHENSIVE ZONING PLAN.
- 2. DEED REFERENCE: LIBER 18220, FOLIO 230. SUBJECT PROPERTY IS LOCATED ON EREDERICK ROAD, A SCENIC ROAD

DISPOSAL AREAS WITHIN THE CONDITIONAL USE AREAS.

- PREVIOUS HOWARD COUNTY FILE NUMBERS: HO-86-05, F-09-011, F-90-033, ECP-19-039, ECP-21-008, ECP-21-009 SUBJECT PROPERTY IS ENCUMBERED BY A HOWARD COUNTY AGRICULTURAL LAND PRESERVATION PROGRAM
- THE PROPOSED PROJECT ON AUGUST 26, 2019 AND PROVIDED ADVISORY COMMENTS.
- HE BOUNDARY SURVEY SHOWN HEREON BASED ON A CURRENT FIELD SURVEY BY GPI IN AUGUST OF 2020.

- EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS, HAVE BEEN LOCATED. THE CONTRACTORS SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5
- WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS: BGF (UNDERGROUND DAMAGE CONTROL
  - 410 787 9068 HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES
- 800.743.0033/410.224.9210
- CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK. 19 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF
- HOWARD COUNTY IN ADDITION TO MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE 20. THE PROJECT IS IN CONFORMANCE WITH THE CURRENT HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE
- 21. ALL HDPE PIPE SPECIFICATIONS AND INSTALLATIONS SHALL MEET AASHTO M-252 TYPE S, M-294 TYPE S AND

- INDICATING FLECTRICAL HAZARDS PRESENT, AND EMERGENCY CONTACT INFORMATION FOR THE SITE PROVIDED IN PDF FORMAT TO THE OFFICE OF THE FIRE MARSHALL.
- 26. A VEGETATION MANAGEMENT PLAN SHALL BE PROVIDED AND KEPT ON FILE WITH THE OFFICE OF THE FIR

- THE DEPARTMENT OF RECREATION AND PARKS AND THE ADMINISTRATOR OF THE OFFICE OF COMMUNITY SUSTAINABILITY, CONSIDERED AND APPROVED THE REQUEST FOR VARIANCE WITH RESPECT TO SECTION 16.1205(a)(3) OF THE FOREST CONSERVATION REGULATIONS. THE PURPOSE IS TO ALLOW THE REMOVAL OF ONE (1) SPECIMEN TREE. THE DIRECTORS DELIBERATED AND APPROVED THE APPLICATION IN A MEETING ON JUNE 17 2021. APPROVAL OF THE ALTERNATIVE COMPLIANCE OF SECTION 16.1205(a)(3) IS SUBJECT TO THE FOLLOWING
- THE SPECIMEN TREE REMOVAL IS SUBJECT ONLY TO THE REQUESTED TREE. SPECIMEN TREE #3 (ST-3 ANOTHER ALTERNATIVE COMPLIANCE REQUEST MUST BE SUBMITTED TO PROPOSE THE REMOVAL OF ANY ADDITIONAL SPECIMEN TREES ASSOCIATED WITH THE PROJECT. PROVIDE TWO (2) REPLACEMENT TREES A DBH OF AT LEAST 3" ON SITE IN ADDITION TO THE REQUIRED LANDSCAPING IN PLACE OF THE REMOVED

THE ALTERNATIVE COMPLIANCE FILE NUMBER, REQUESTED SECTIONS, DECISION DATE AND CONDITIONS

- OF APPROVAL SHALL BE INDICATED ON THE PLAT AS A GENERAL NOTE. 31. A WAIVER HAS BEEN APPROVED UNDER THIS SDP, MAKING THE PROJECT EXEMPT FROM FRONTAGE ROAD
- IMPROVEMENTS ALONG MARYLAND ROUTE-144. 32. THIS PROPERTY WAS APPROVED ON MAY 17, 2021 FOR A WAIVER TO HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 2.6B, THAT REQUIRES THE CULVERT WITHIN A 100-YEAR FLOODPLAIN TO BE DESIGNED TO PASS THE 100-YEAR STORM WITH NO MORE THAN 1 FOOT OF WATER OVER THE DRIVEWAY. THE CONDITIONS ARE AS
- THESE CULVERTS AND DRIVEWAYS ARE PRIVATELY OWNED AND MAINTAINED; THERE IS NO RESIDENTIAL USE BUT SOLAR MAINTENANCE AND FARMING INFREQUENT USE OF THE
- THE OVERTOPPING IS 2.33 FEET AT STUDY POINT #1 AND 1.24 FEET AT STUDY POINT #2;
- DPW, DPZDLD, FIRE & RESCUE APPROVED THE DESIGN MANUAL WAIVER. 33. THIS PROPERTY IS SUBJECT TO THE HOWARD COUNTY CASE BA-19-045C TO ALLOW THE CONDITIONAL USE FOR A COMMERCIAL SOLAR FACILITY AND WAS APPROVED ON DECEMBER 22, 2020 WITH THE FOLLOWING CONDITIONS:
- THE COMMERCIAL SOLAR FACILITY CONDITIONAL USE SHALL BE CONDUCTED IN CONFORMANCE WITH AND SHALL ONLY TO THE PETITION AS SUBMITTED AND AS SHOWN ON THE CONDITIONAL USE PLAN DATED APRIL 6, 2020 AND AMENDED AS OF NOVEMBER 23, 2020 AND NOT TO ANY OTHER ACTIVITIES USE, OR PETITIONER SHALL COMPLY WITH ALL CONDITIONAL USE STANDARDS;
- THE SITE DEVELOPMENT PLAN, OR ITS EQUIVALENT, SHALL INCLUDE A NOTE CONTAINING ALL
- PETITIONER SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS;
- THE SYSTEMS INSTALLED BY THE PETITIONER ON THE PROPERTY SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND PROVISIONS;
- ANY COMMERCIAL SOLAR FACILITY THAT IS NO LONGER USED SHALL BE REMOVED BY THE PROPERTY DWNER FROM THE SITE WITHIN ONE YEAR OF THE DATE THAT THE USE CEASES; THE PREMISES SHALL BE MAINTAINED AT ALL TIMES IN A CLEAN AND ORDERLY CONDITION, INCLUDING THE CARE OR REPLACEMENT OF PLANT MATERIALS REQUIRED IN THE LANDSCAPING PLAN. THE
- RESPONSIBILITY FOR COMPLIANCE WITH THIS PROVISION SHALL BE WITH ALL PARTIES HAVING A LEASE OR OWNERSHIP INTEREST IN THE COMMERCIAL SOLAR FACILITY; THE PETITIONER SHALL REGISTER ALL SOLAR COLLECTORS WITH THE DEPARTMENT OF FIRE AND RESCUE SERVICES. THE REGISTRATION SHALL INCLUDE A MAP OF THE SOLAR FACILITY NOTING THE
- RESCUE SERVICES. THE REGISTRATION SHALL INCLUDE A MAP OF THE SOALR FACILITY NOTING THE LOCATION OF THE SOLAR COLLECTORS AND THE PANEL DISCONNECT; TREE REMOVAL SHALL BE MINIMIZED, AND REFORESTATION SHALL BE DONE IN ACCORDANCE WITH
- SECTION 16.1026 OF THE HOWARD COUNTY CODE; THE PETITIONER SHALL COMPLY WITH HOWARD COUNTY CODE, SECTION 15.512, WHICH REQUIRES A
- CURRENT SOIL CONSERVATION AND WATER QUALITY PLAN FOR ANY AGRICULTURAL PRESERVATION
- ALL REQUIRED LANDSCAPING SHALL BE PROVIDED WITHIN SIX (6) MONTHS OF INSTALLATION OF THE SOLAR PANELS
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT, \$15,300,00 FOR THE REQUIRED FIFTY-ONE (51) LANDSCAPING SHADE TREES, AND \$57,450.00 FOR THE THREE HUNDRED AND EIGHTY THREE (383) ORNAMENTAL AND EVERGREEN TREES. FOR A TOTAL OF \$72,750.00.
- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1206 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AND THE FOREST CONSERVATION MANUAL BY THE ON-SITE RETENTION AND AFFORESTATION AND REFORESTATION OF 6.4 ACRES OF FOREST. FINANCIAL SURETY FOR THE 6.2 ACRES (270,072 SF) TO BE IN AFFORESTATION/REFORESTATION WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT AT \$0.50 PER SQUARE FOOT, OR \$135,036.00. 36. THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY SILL ENGINEERING GROUP, LLC, DATED MAY OF
- 2021, AND IS APPROVED UNDER ECP-21-008. 37. THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC
- DATED AUGUST OF 2020, AND IS APPROVED UNDER ECP-21-008. 38. A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, INC., DATED MAY OF 2021, AND AN APFO LETTER IS ON FILE WITH HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
- THE HEALTH DEPARTMENT HAS APPROVED A WAIVER ALLOWING THE SOLAR DEVELOPMENT SHOWN ON THIS PLAN TO PROCEED WITHOUT ESTABLISHING SEWAGE DISPOSAL AREAS FOR THE STRUCTURES ON THE PROPERTY THAT GENERATE WASTEWATER. ANY FUTURE BUILDING PERMITS OR DEVELOPMENT PLANS WILL REQUIRE PERC TESTING TO ESTABLISH SEWAGE DISPOSAL AREAS FOR EACH STRUCTURE THAT GENERATES WASTEWATER AND WILL REQUIRE THE SPRING WATER SYSTEM TO BE ABANDONED AND WELLS DRILLED.

5/12/2022

5/20/2022

5/12/2022

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN

COUNTY HEALTH OFFICER

HOWARD COUNTY HEALTH DEPARTMENT

ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

5/20/2022

APPROVED: HOWARD, SQUINTY DEPARTMENT OF PLANNING AND ZONING

(Hd1) Edmondson

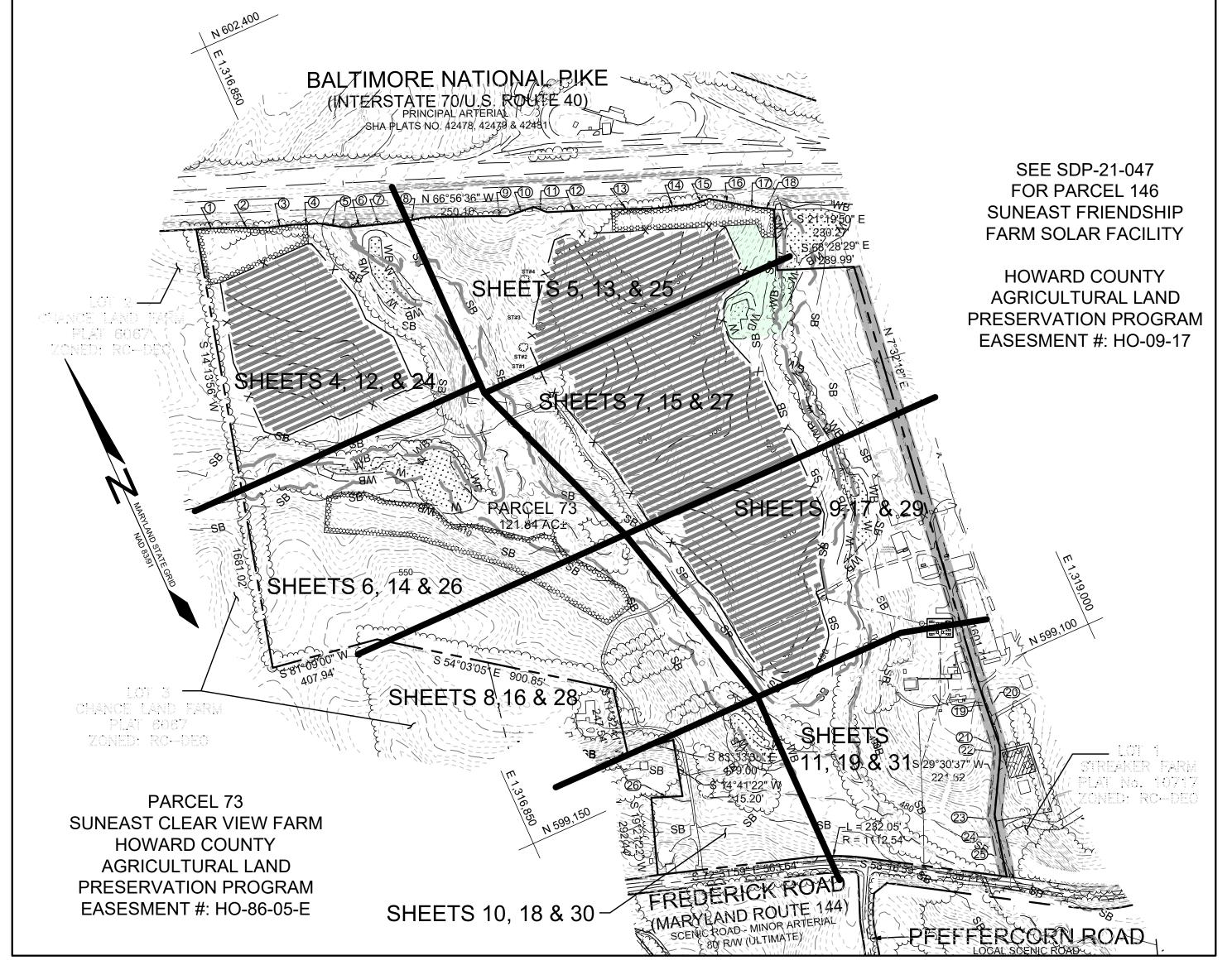
CHIEF. DEVELOPMENTSENGINEERING DIVISION

Amy Gonan

CHIEF, DIVISION OF DOLL TO THE COMMENT

# SITE DEVELOPMENT PLAN SUNEAST CLEAR VIEW FARM SOLAR FACILITY, COMMERCIAL

HOWARD COUNTY, MARYLAND TAX MAP 9 PARCEL 73



PERMIT INFORMATION CHART						
SUBDIVISION NAME SECTION/AREA N/A				PARCEL # 146		
DEED 18220 F. 230	GRID# 3	ZONING RC-DEO	TAX MAP # 15	ELECT. DIST. 3RD	CENSUS TRACT 6030.03	

	STORMWATER MANAGEMENT INFORMATION						
PARCEL NUMBER	FACILITY NAME & NUMBER	PRACTICE TYPE	PUBLIC	PRIVATE	PRIVATELY MAINTAINED		
73	BIORETENTION FACILITY #1	F-6	-	Х	YES		
73	BIORETENTION FACILITY #2	F-6	-	Х	YES		
73	BIORETENTION FACILITY #3	F-6	-	X	YES		
NO.	D. DESCRIPTION DATE						
	REVISIONS						

## **LOCATION MAP**

SITE ANALYSIS DATA SHEET ENVIRONMENTAL AREA SIZE OR USE (1)

TOTAL PROJECT AREA	119.88 ACRES ±
LIMIT OF DISTURBANCE	37.26 ACRES ±
GREEN OPEN AREA (LAWN)	36.91 ACRES ±
IMPERVIOUS AREA	0.35 ACRES ±
PROPOSED SITE USES	SOLAR FACILITY
WETLANDS	121,999 SQ FT± *
WETLAND BUFFERS	136,378 SQ FT± *
FLOODPLAINS	681,174 SQ FT± *
FLOODPLAIN BUFFERS	430,830 SQ FT± *
EXISTING FOREST	30,789 SQ FT±
SLOPES GREATER THAN 15%	144,379 SQ FT±
HIGHLY ERODIBLE SOILS (3)	3.31 ACRES±

# AREAS LISTED WITH AN ASTERISK ARE NOT WITHIN

THE DEVELOPMENT AREA. 2. SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE: NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY.

SLOPE GREATER THAN 15 PERCENT

3. HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A

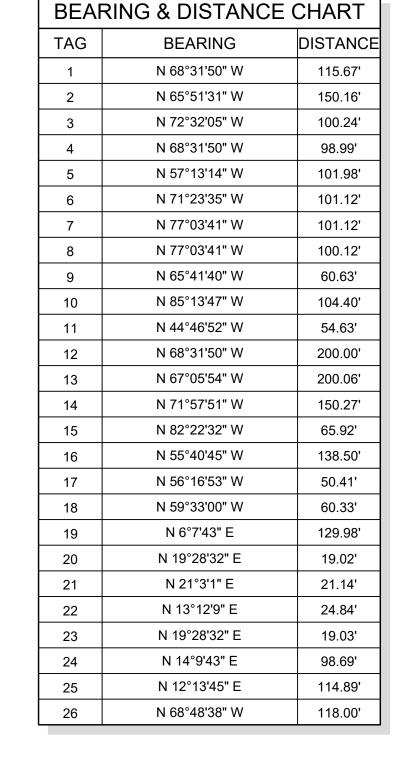
STORMWATER MANAGEMENT PRACTICES BIORETENTION FACILITY PARCEL F-6 (NUMBER) 13370 ROUTE 144 13370 ROUTE 144 13370 ROUTE 144

**GRAPHIC SCALE** 

1 INCH = 300 FEET

LEGEND **EXISTING CONTOUR** PROPOSED CONTOUR EXISTING SPOT FLEVATION DIRECTION OF FLOW  $\cdots \cdots \cdots \cdots \cdots$ EXISTING TREELINE m**EXISTING SPECIMEN TREE EXISTING WETLAND** EXISTING WETLAND BUFFER **EXISTING 100-YEAR FLOODPLAIN** PROPOSED SOLAR ARRAY ARE PROPOSED LEVEL SPREADER

**EXISTING 50' PRIVATE COMMON** USE RIGHT-OF-WAY MAINTENANCE AGREEMEN LIBER 2700 FOLIO 429



#### STORMWATER MANAGEMENT

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.

**NOTES & DESIGN NARRATIVE** 

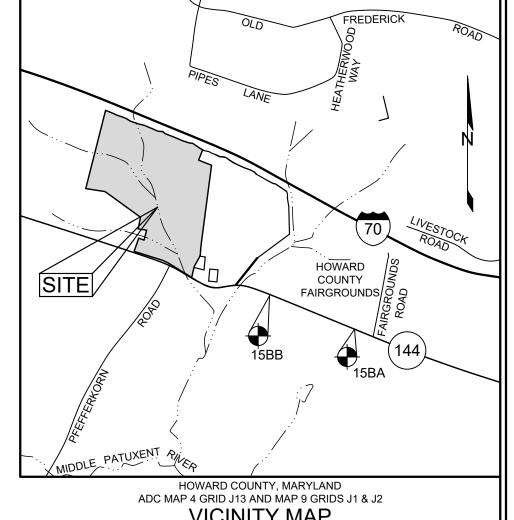
- 1. ENVIRONMENTALLY SENSITIVE AREAS HAVE BEEN AVOIDED. THERE IS AN EXISTING STREAM CROSSING SHOWN ON SHEET 6 WHICH WILL BE UTILIZED FOR ACCESS TO THE SOLAR ARRAY
- 2. TO THE GREATEST EXTENT PRACTICABLE THE NATURAL FLOW PATTERNS OF THE SITE HAVE BEEN MAINTAINED. THE DESIGN INCORPORATES THE LEAST IMPERVIOUS AREA
- 4. STABILIZED CONSTRUCTION ENTRANCES, SILT FENCES AND SUPER SILT FENCES ARE USED AS SEDIMENT AND EROSION
- 5. ESD PLANNING TECHNIQUES AND PRACTICES HAVE BEEN IMPLEMENTED, TO THE MAXIMUM EXTENT PRACTICABLE, THROUGH USE OF NON-ROOFTOP DISCONNECTS (N-2), SHEET FLOW TO CONSERVATION AREAS (N-3), AND BIORETENTION
- FACILITIES (F-6). 6. AN ALTERNATIVE COMPLIANCE, WP-21-098, HAS BEEN
- APPROVED FOR THE REMOVAL OF ONE (1) SPECIMEN TREE THE PROPOSED SOLAR AREAS WILL UTILIZE GRASSES,
- MEADOWS, AND POLLINATOR HABITATS FOR MOST OF THE COVER, WITH RUNOFF FLOWING OFF OF THE SOLAR PANELS INTO THE GRASSES.
- 8. THE TEE TURNAROUNDS AND EQUIPMENT PADS WILL BE TREATED VIA NON-ROOF DISCONNECTS.

## OWNER

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

#### DEVELOPER

KDC SOLAR MARYLAND, LLC 1420 US HIGHWAY 206, SUITE 120 BEDMINSTER, NJ 07921 WALTER SERAFYN 908-955-4360 WALTER.SERAFYN@CIRENEW.COM



VICINITY MAP

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'		

	SHEET INDEX
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS AND SLOPE DELINEATION PLAN
3	SOILS MAP
4	GRADING PLAN
5	GRADING PLAN
6	GRADING PLAN
7	GRADING PLAN
8	GRADING PLAN
9	GRADING PLAN
10	GRADING PLAN
11	GRADING PLAN
12	SEDIMENT AND EROSION CONTORL PLAN
13	SEDIMENT AND EROSION CONTORL PLAN
14	SEDIMENT AND EROSION CONTORL PLAN
15	SEDIMENT AND EROSION CONTORL PLAN
16	SEDIMENT AND EROSION CONTORL PLAN
17	SEDIMENT AND EROSION CONTORL PLAN
18	SEDIMENT AND EROSION CONTORL PLAN
19	SEDIMENT AND EROSION CONTORL PLAN
20	SEDIMENT AND EROSION CONTROL DETAILS
21	SEDIMENT AND EROSION CONTROL NOTES
22	SITE DETAILS AND BORING LOGS
23	SITE DETAILS
24	STORMWATER MANAGEMENT BIORETENTION FACILITY DRAINAGE AREA MAR
25	STORMWATER MANAGEMENT PLAN
26	STORMWATER MANAGEMENT PLAN
27	STORMWATER MANAGEMENT PLAN
28	STORMWATER MANAGEMENT PLAN
29	STORMWATER MANAGEMENT PLAN
30	STORMWATER MANAGEMENT PLAN
31	STORMWATER MANAGEMENT PLAN
32	STORMWATER MANAGEMENT PLAN
33	STORMWATER MANAGEMENT PROFILE, NOTES AND DETAILS
34	STORMWATER MANAGEMENT PROFILE, NOTES AND DETAILS
35	STORMWATER MANAGEMENT NOTES AND DETAILS
36	LANDSCAPING PLAN
37	LANDSCAPING PLAN
38	FOREST CONSERVATION PLAN

## **COVER SHEET**

SUNEAST CLEAR VIEW FARM SOLAR FACILITY

13370 ROUTE 144

TAX MAP 15 GRID 3 3RD ELECTION DISTRICT

> Phone: 443.325.5076 Fax: 410.696.2022



- Engineering GROUP, LLC

Civil Engineering for Land Development

ICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2023

CHECKED BY: PS SCALE: AS SHOWN DATE: MARCH 24, 2022 PROJECT #: 19-044 SHEET#: 1 of 38 ROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME . AND THAT I AM A DUI

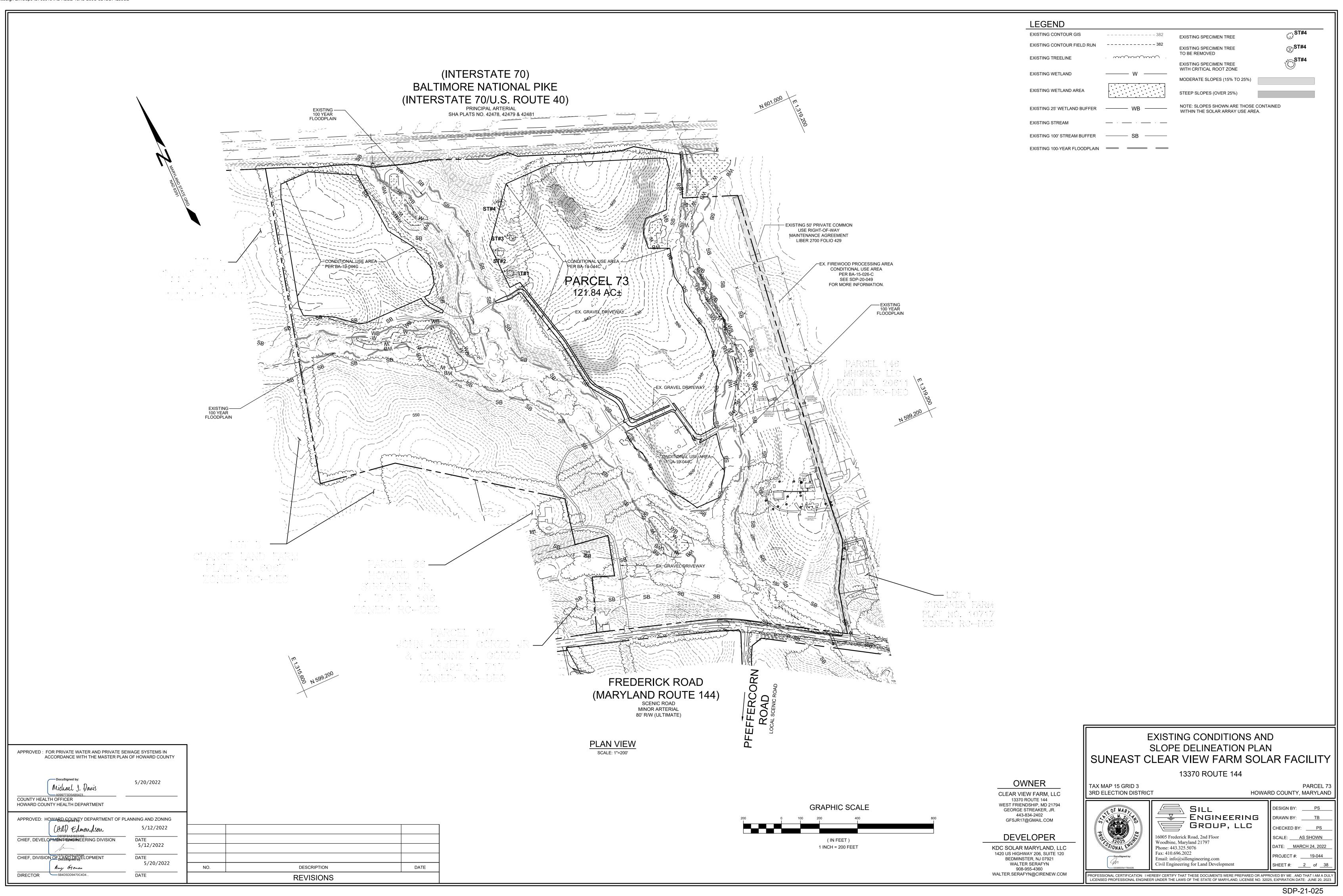
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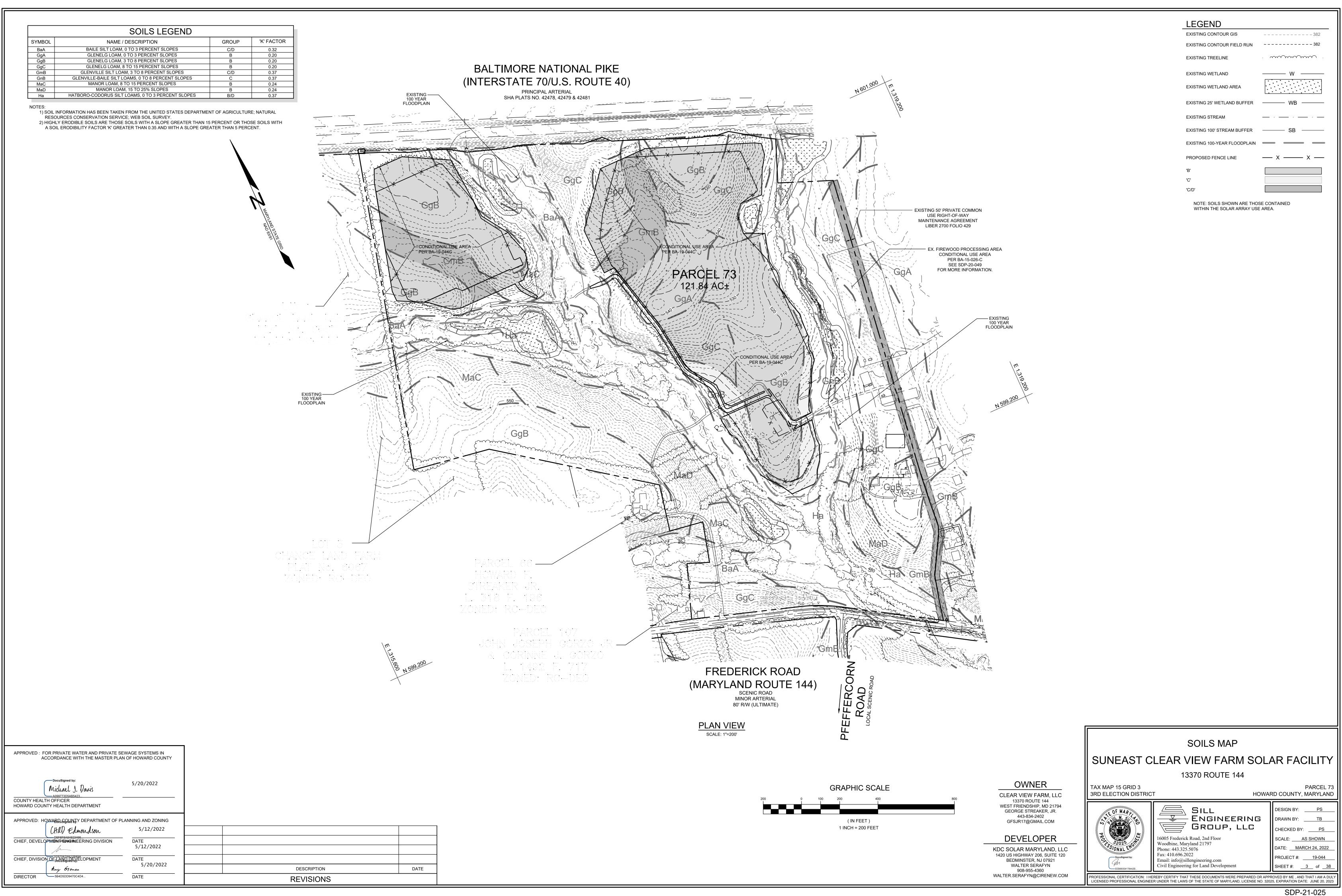
HOWARD COUNTY, MARYLAND

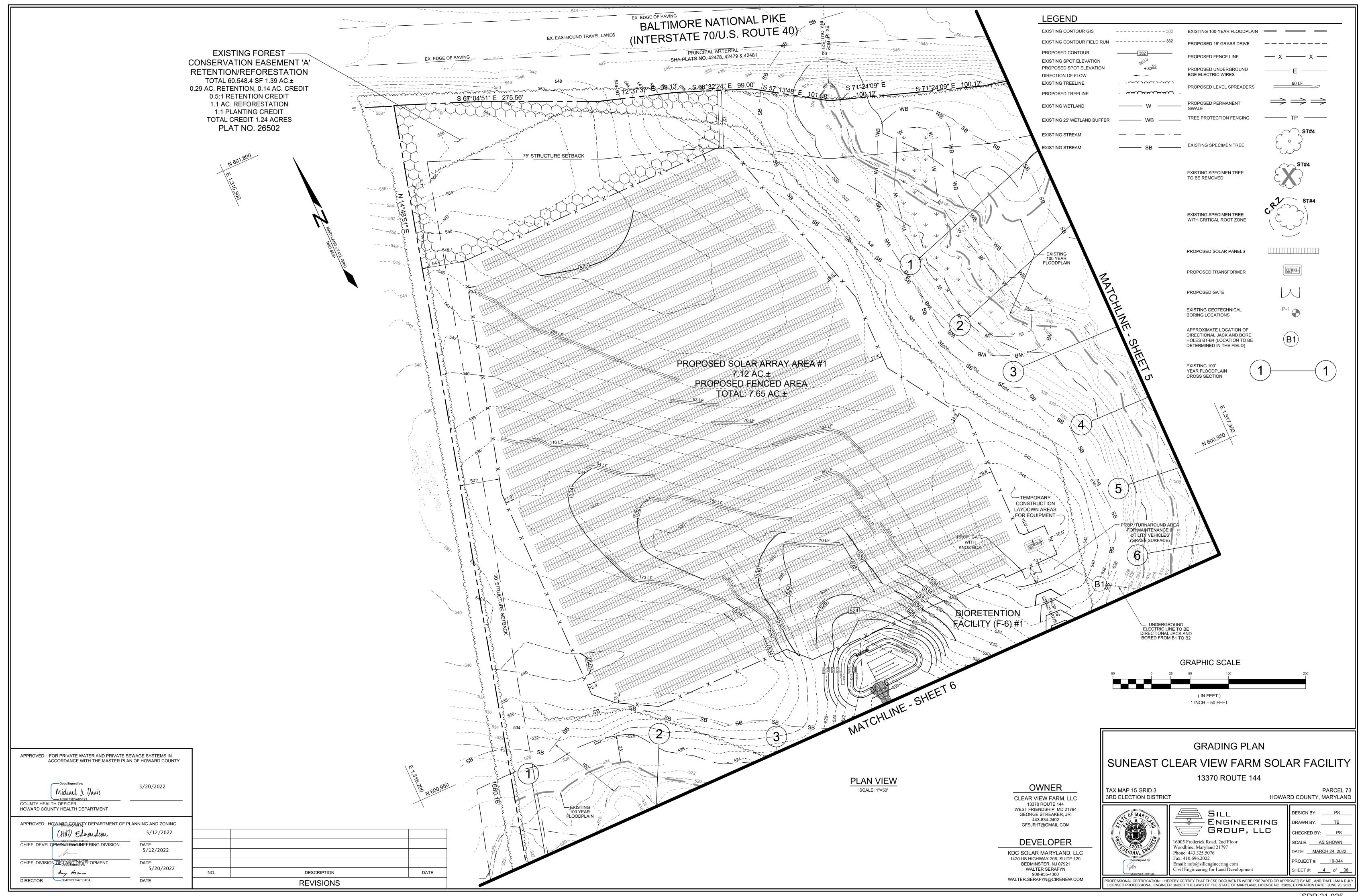
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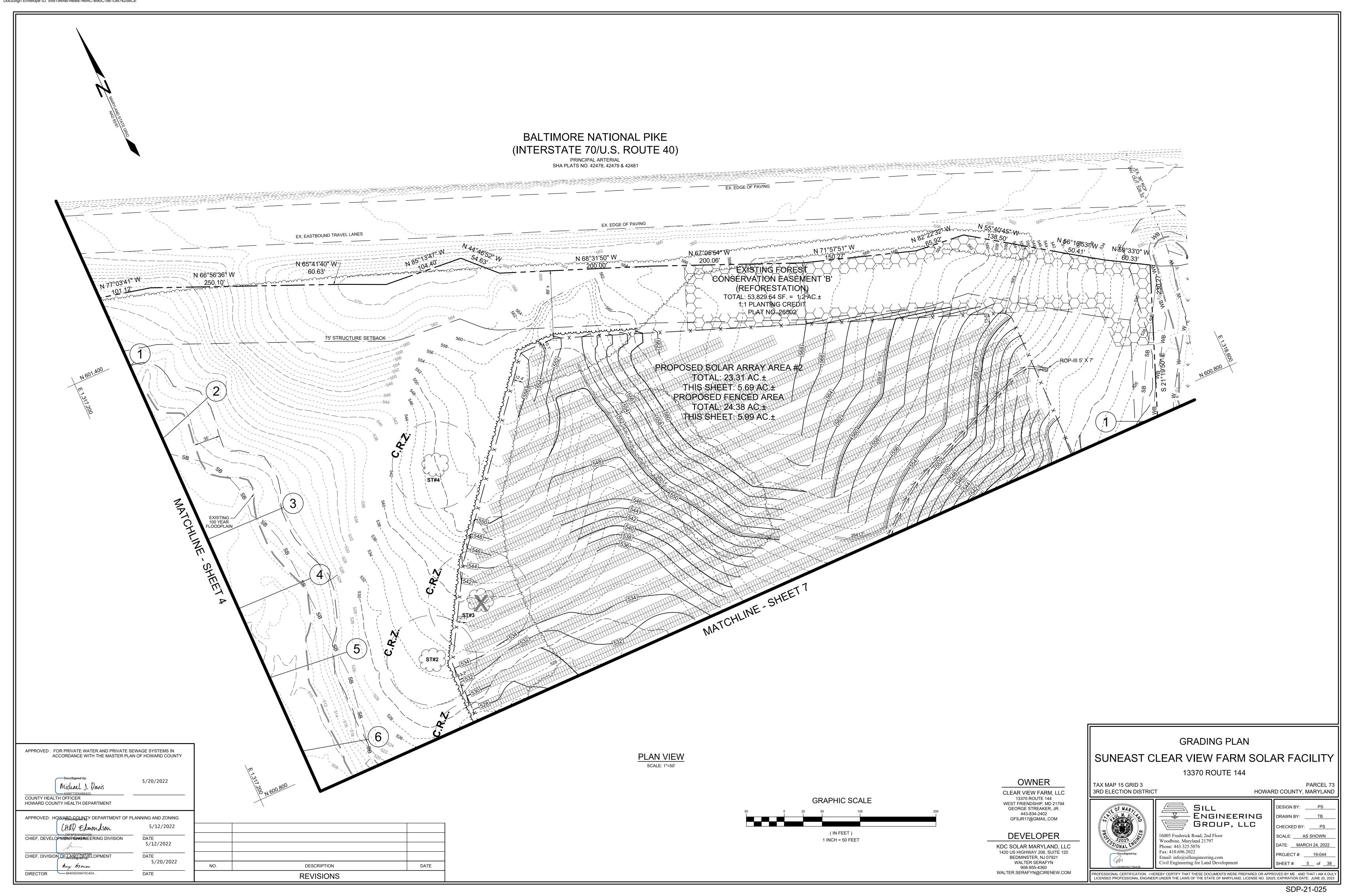
PARCEL 73

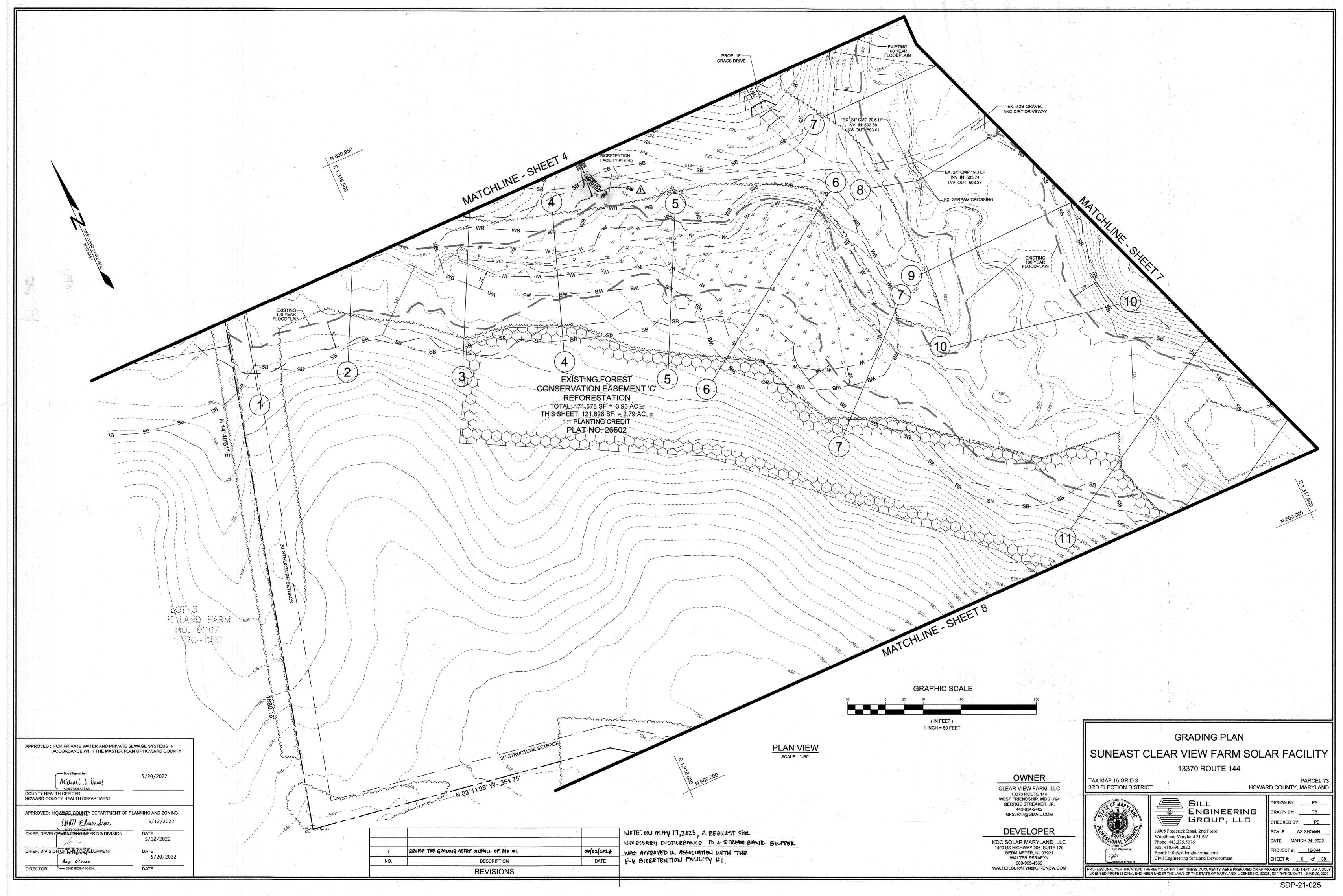
SDP-21-025

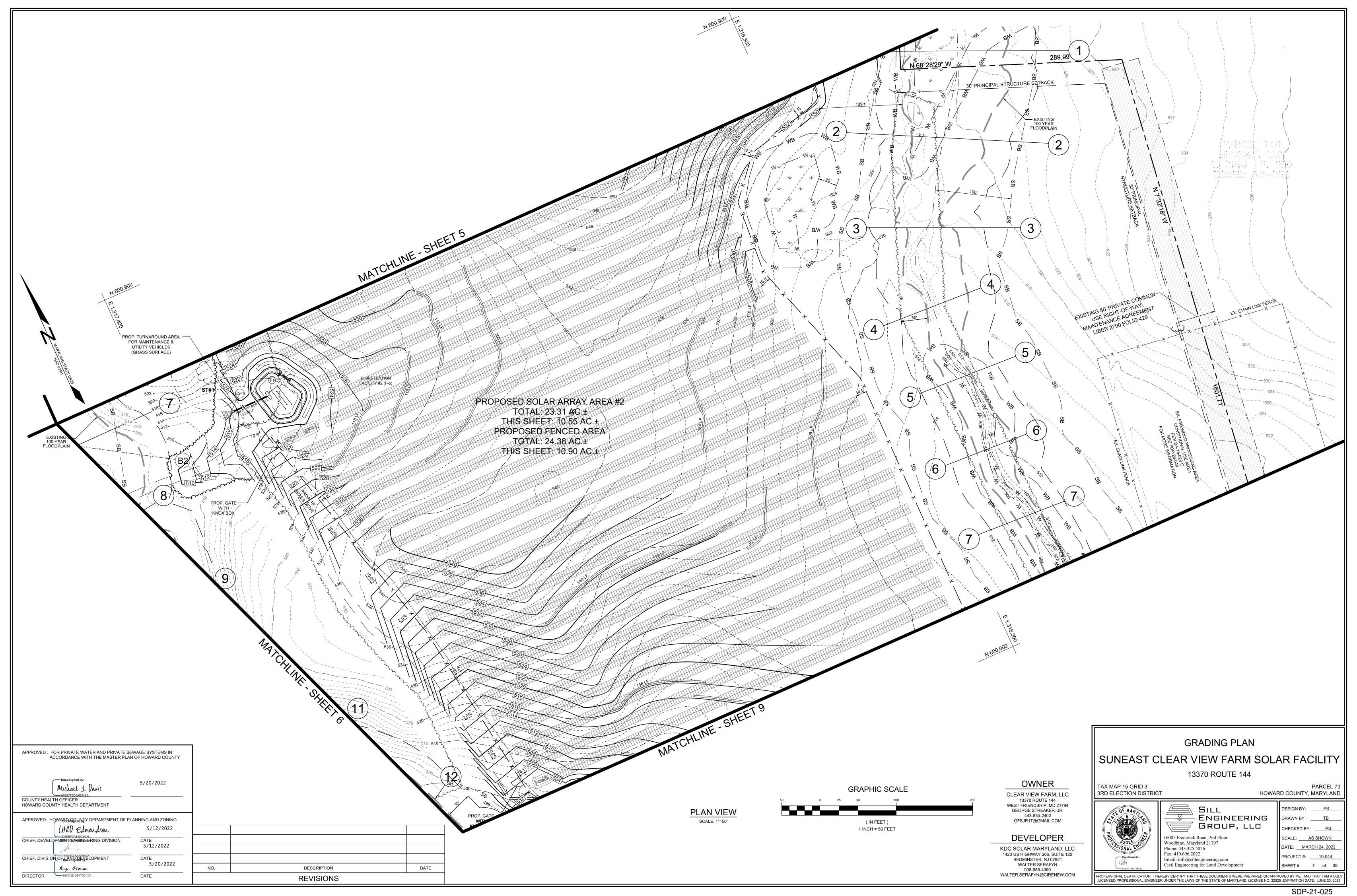


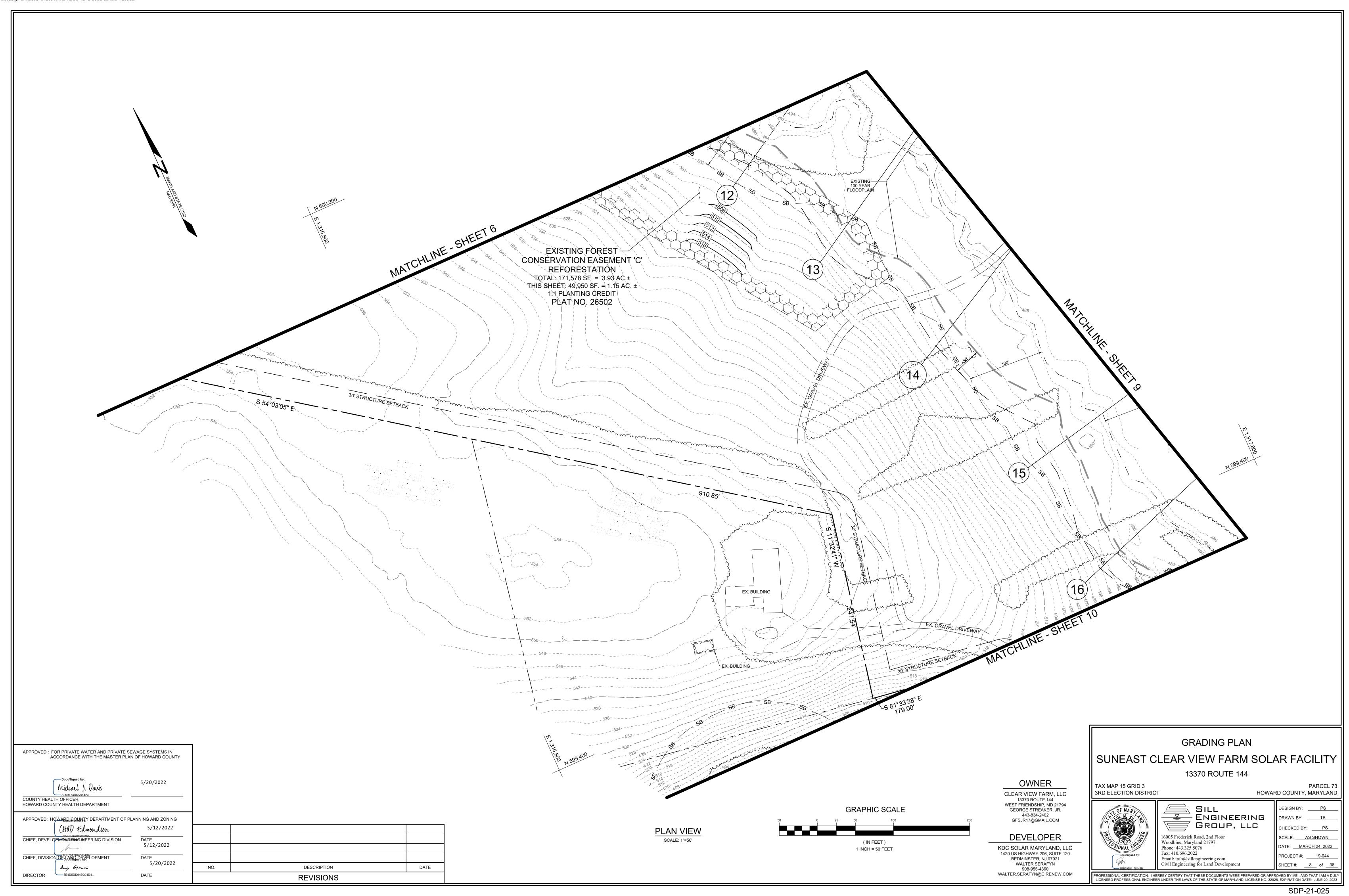


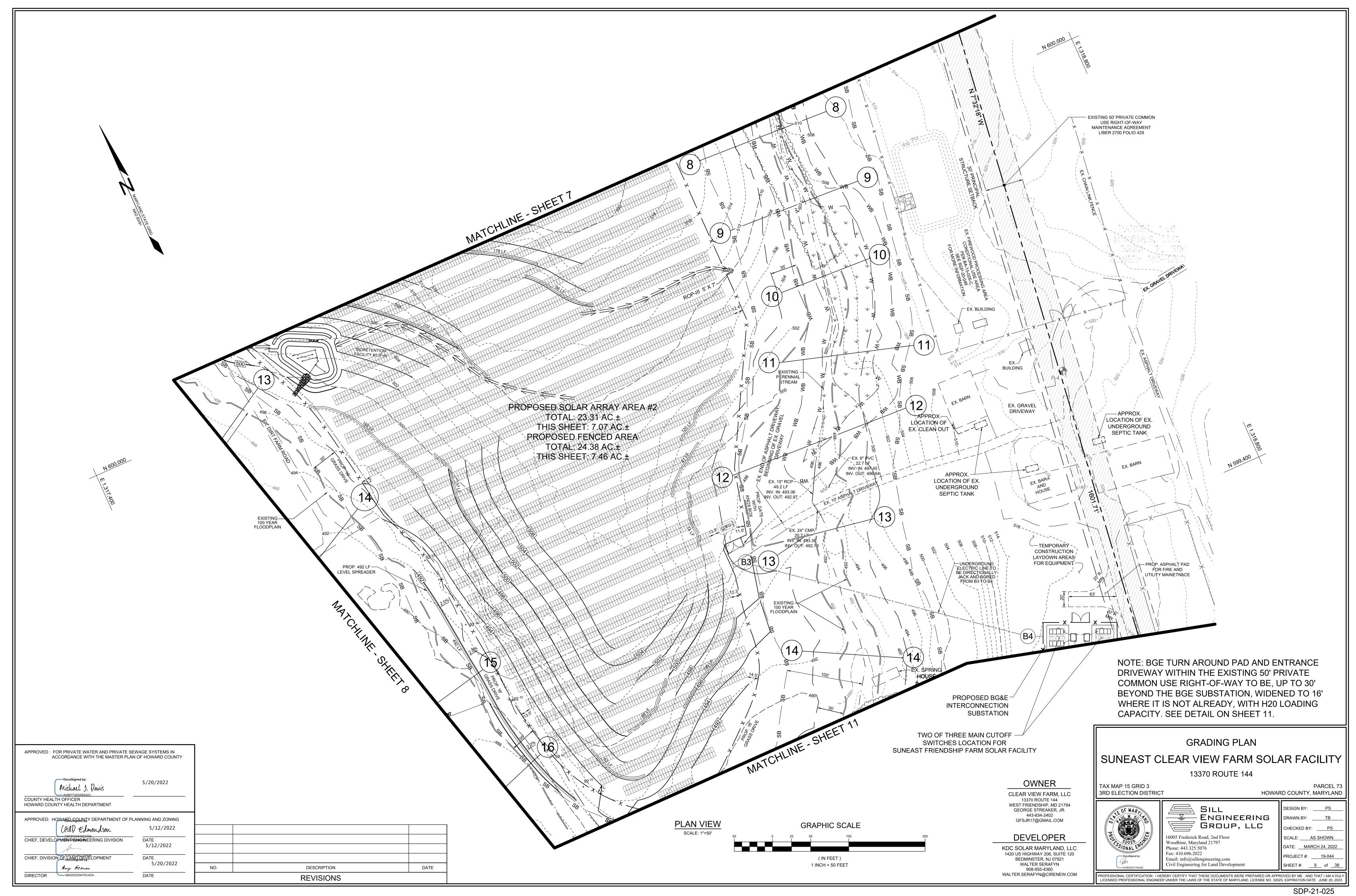


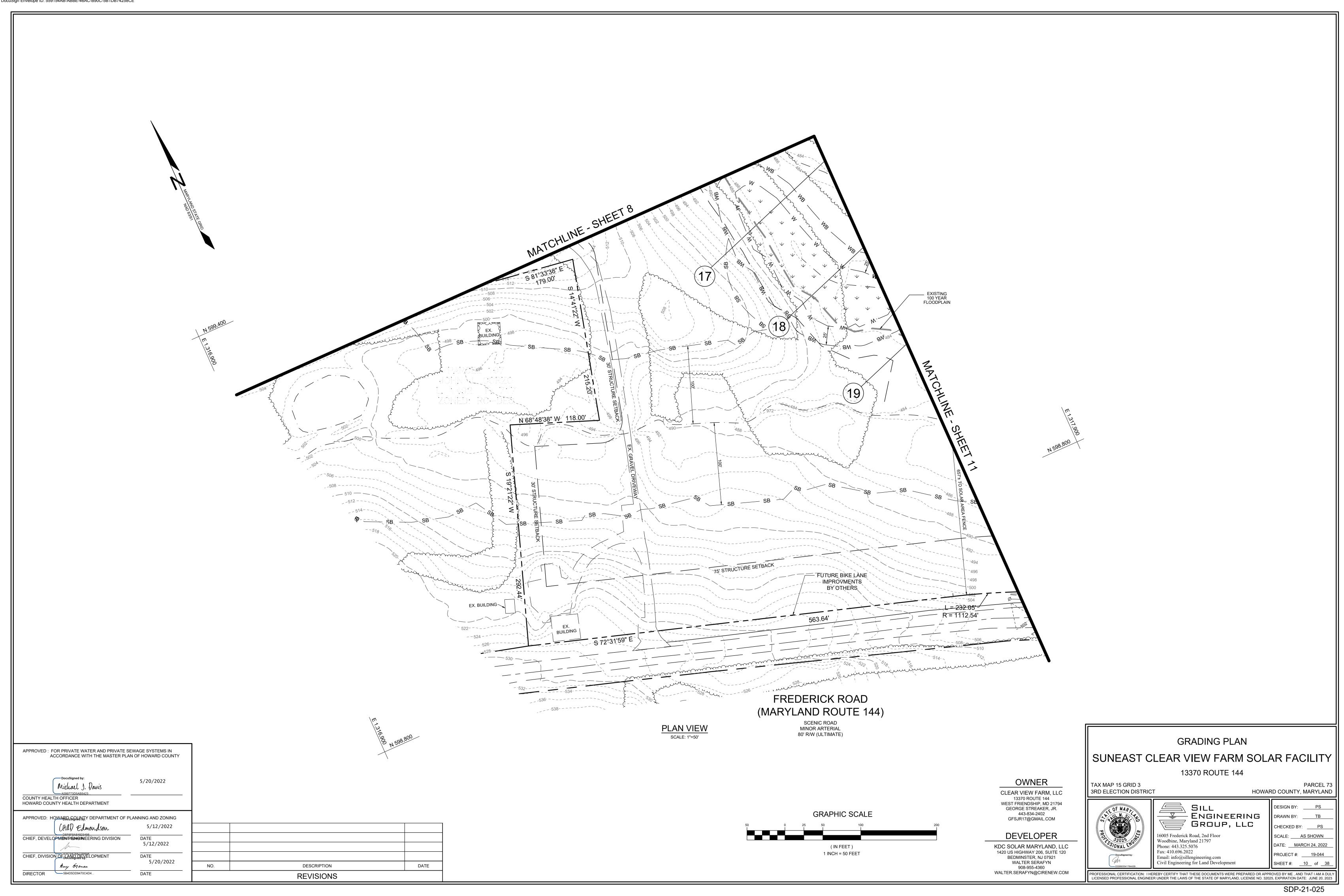


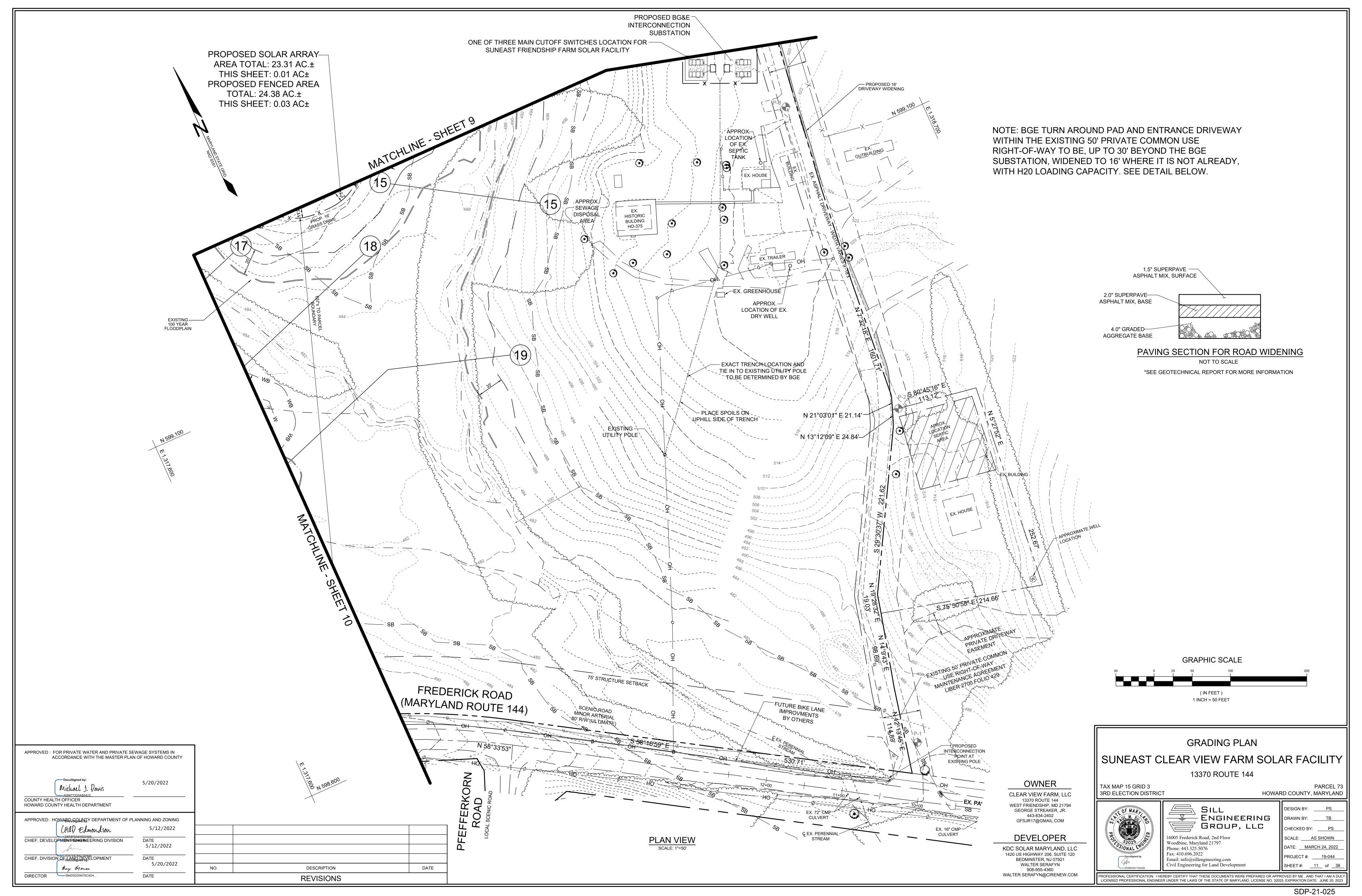


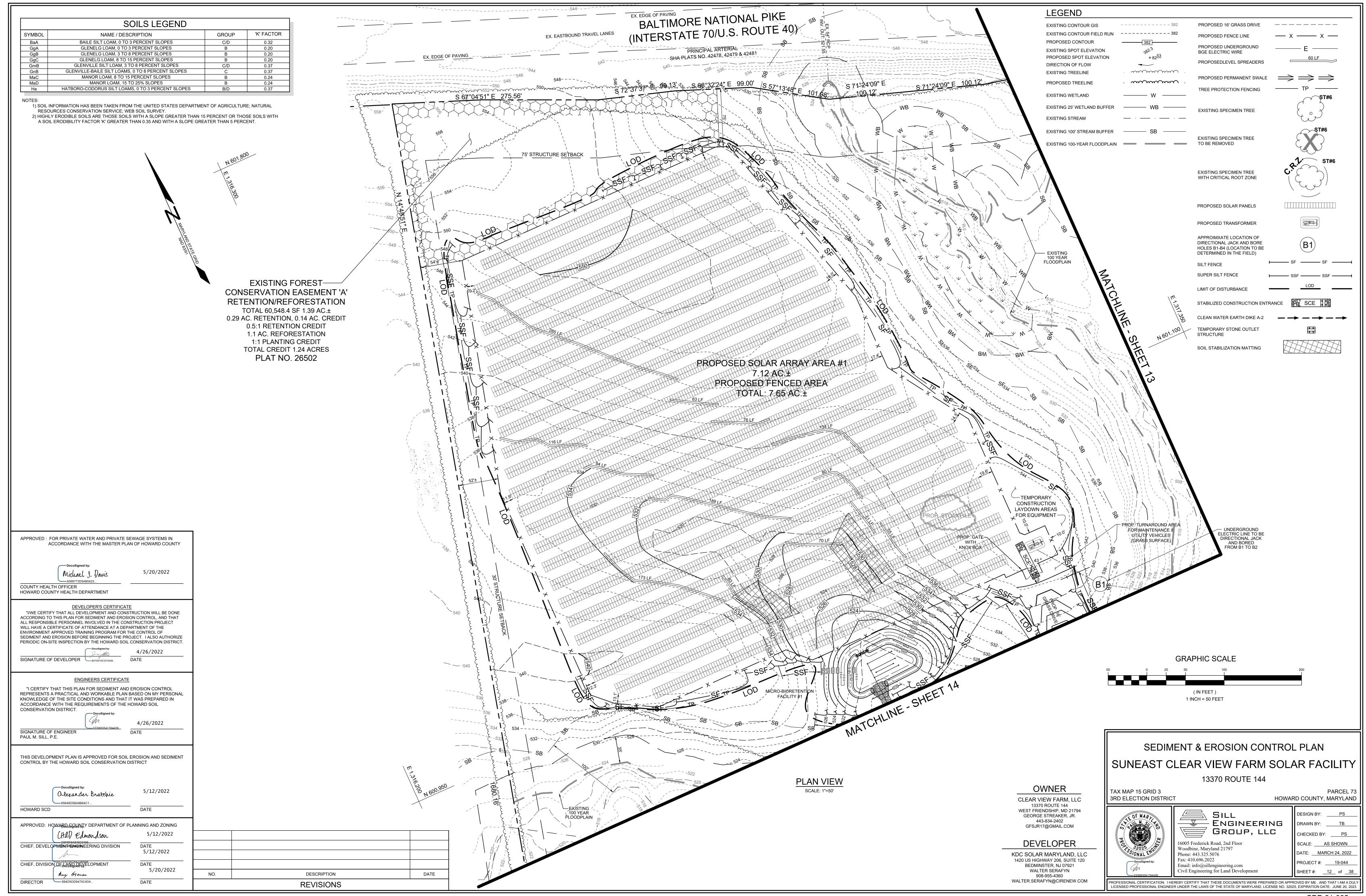


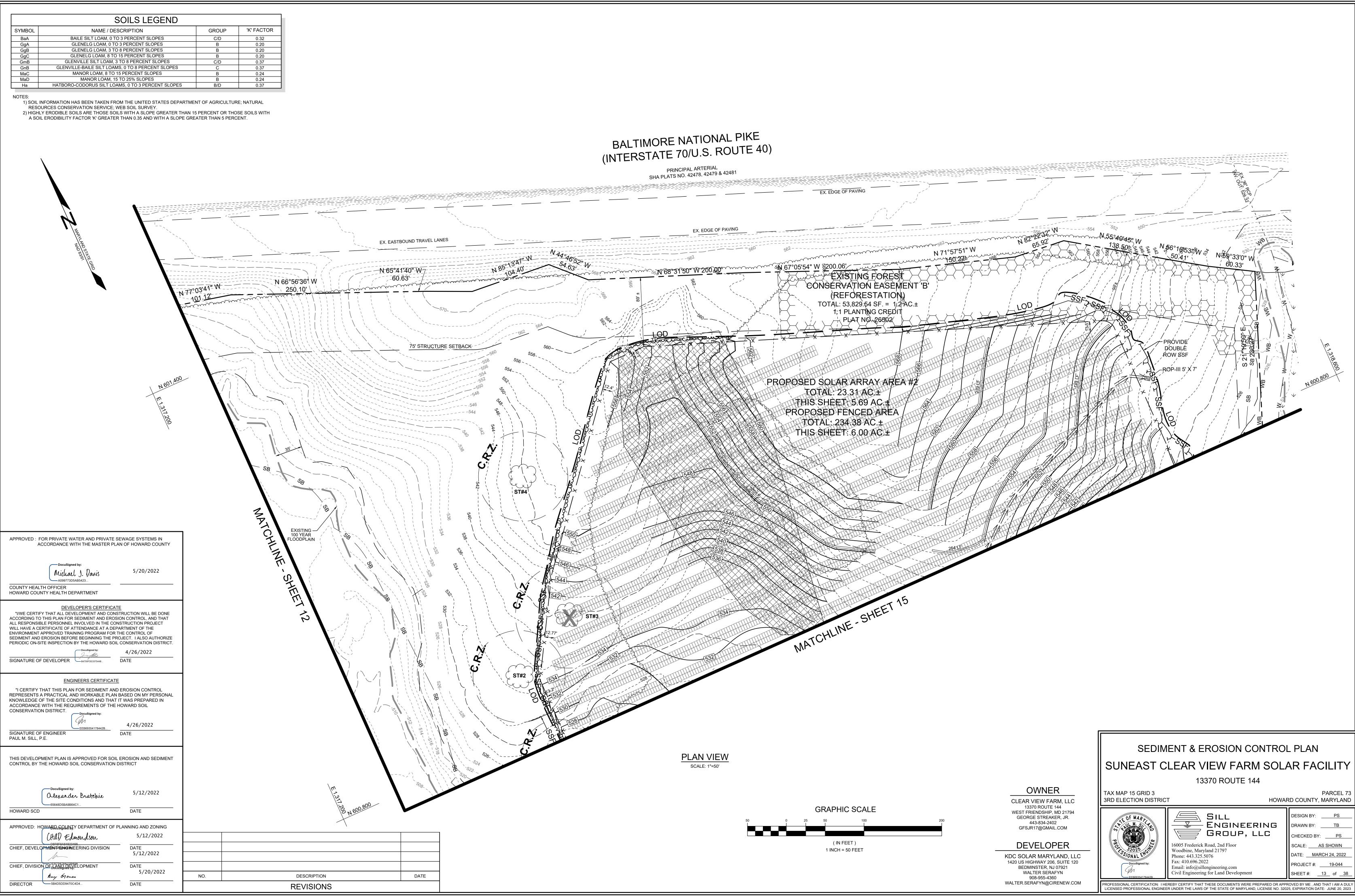


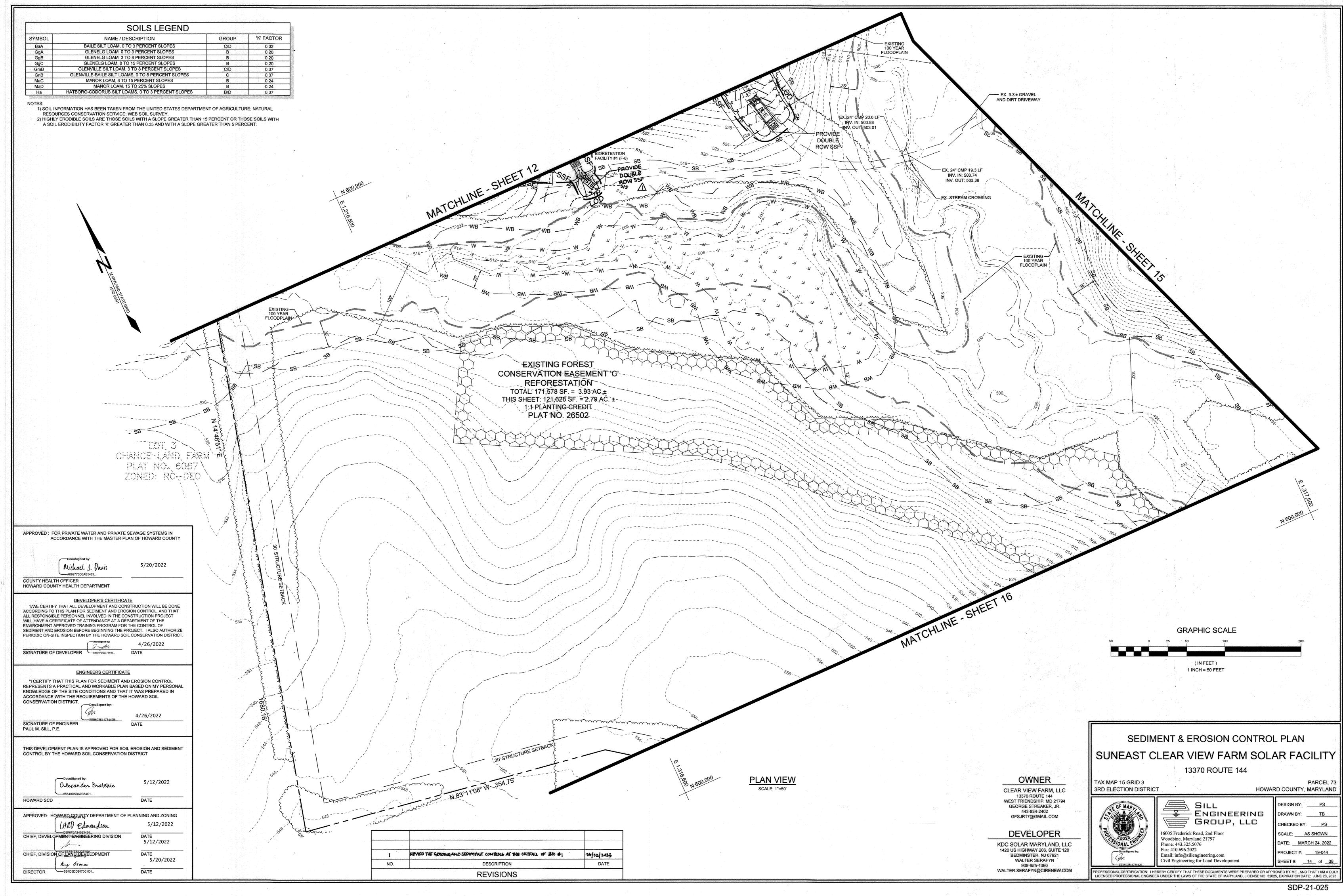


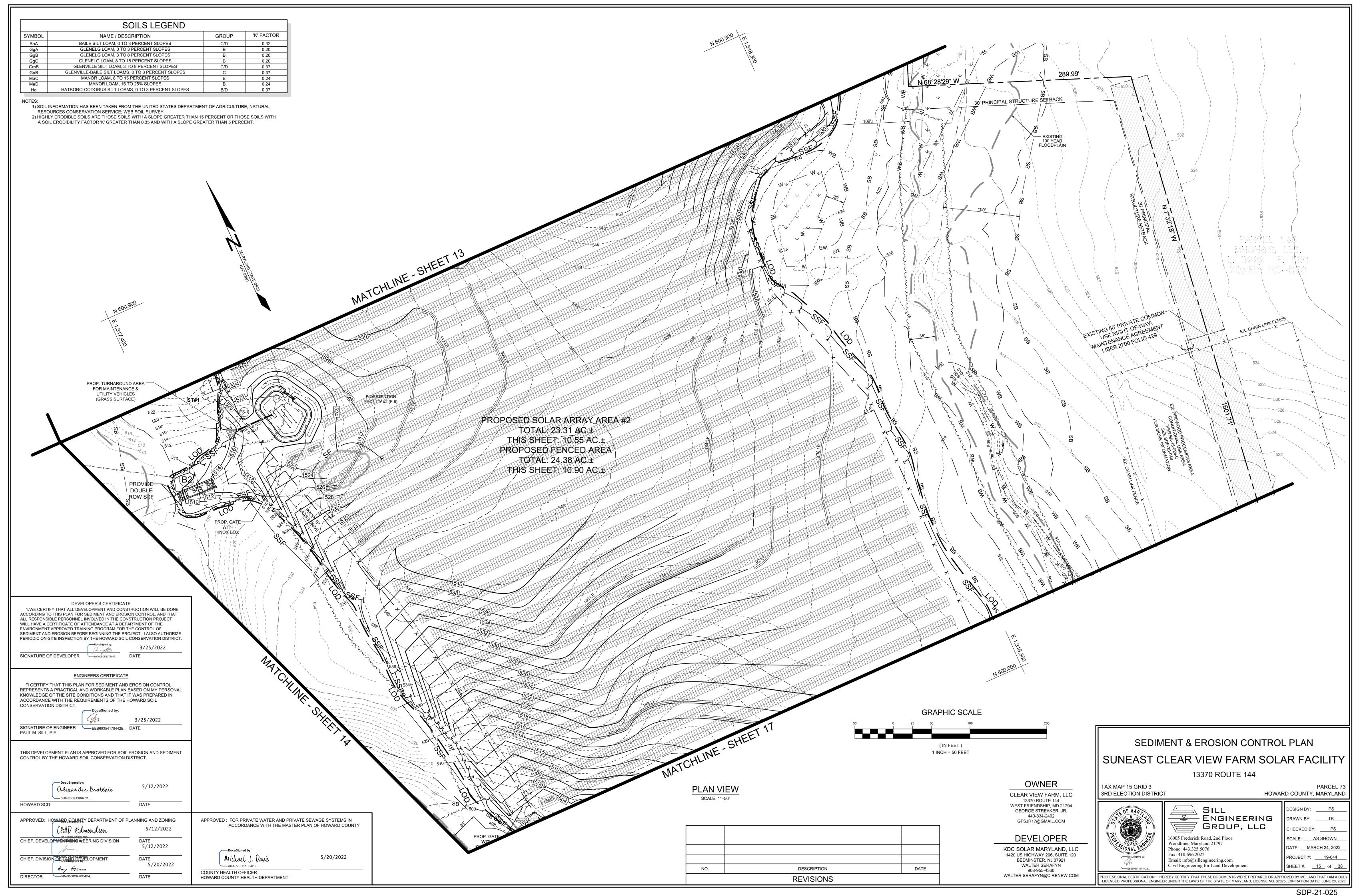


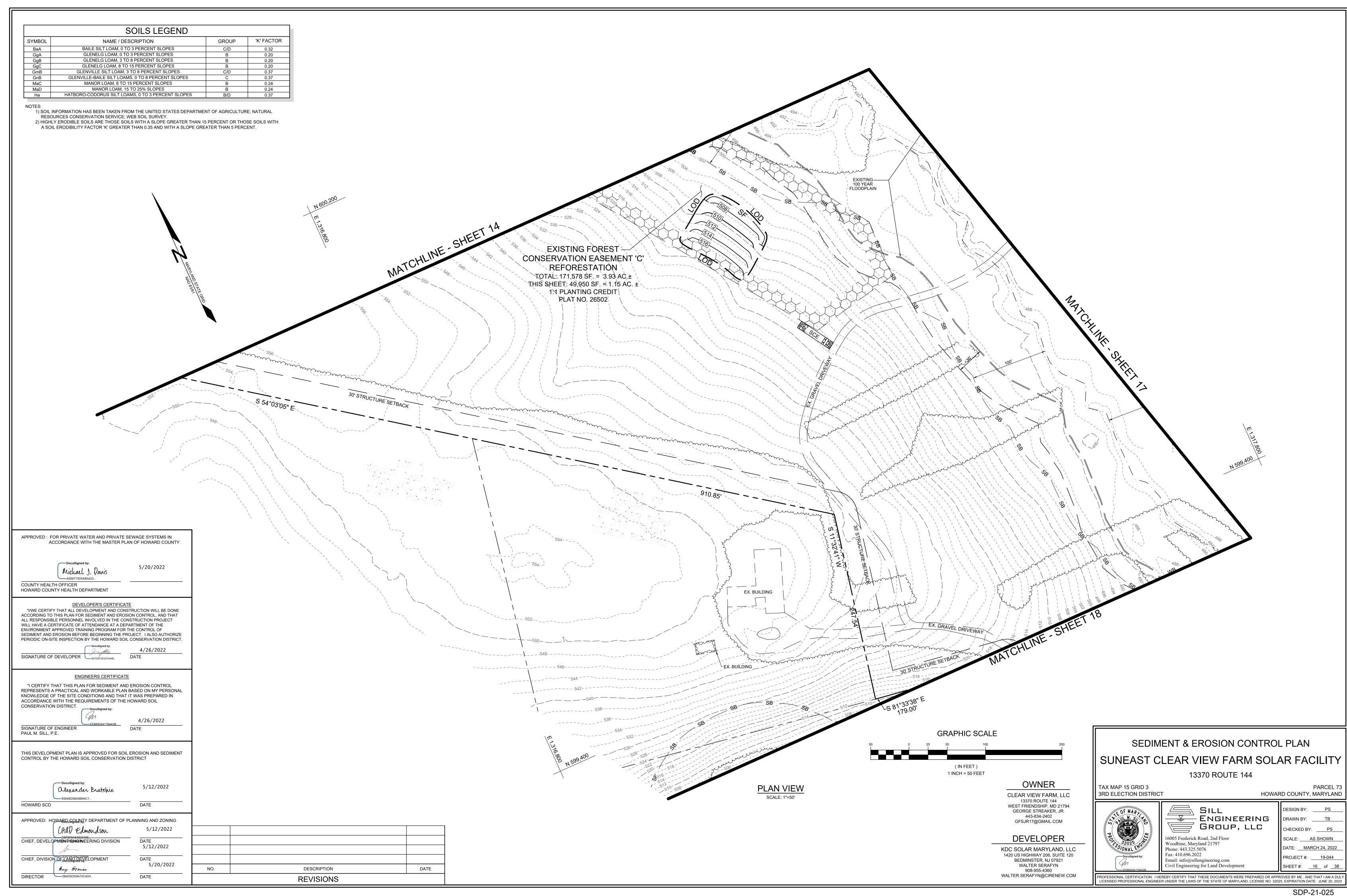


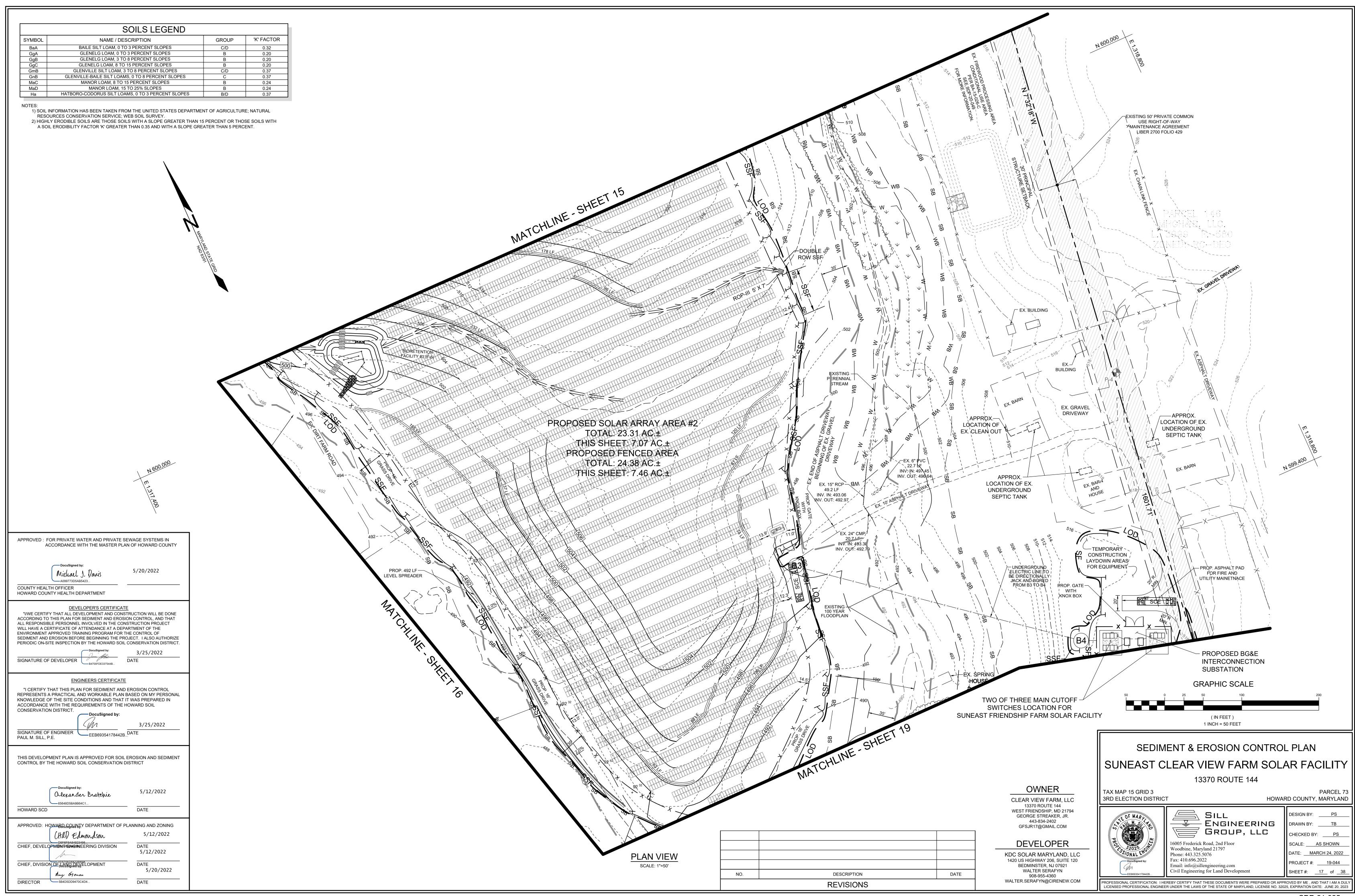


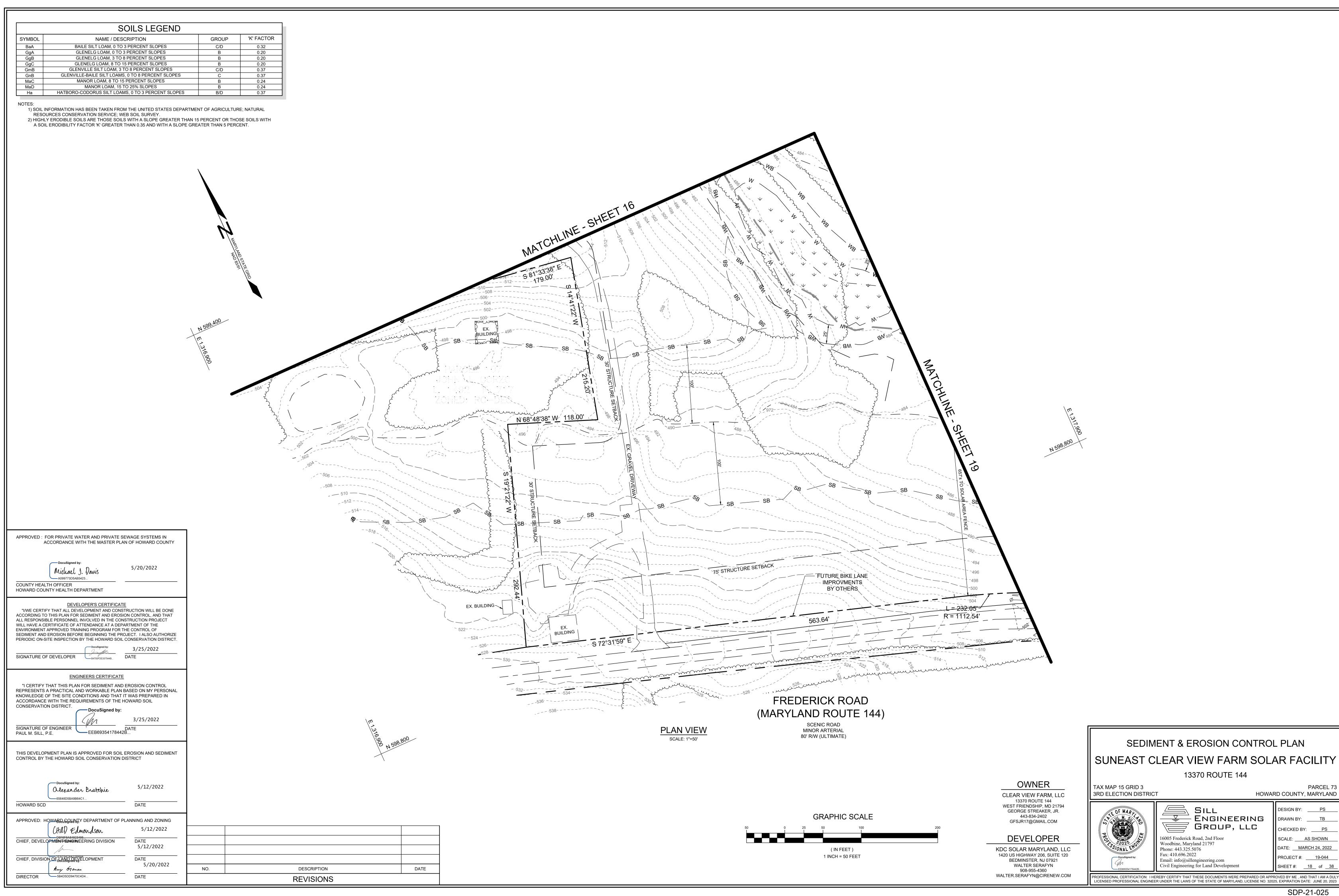


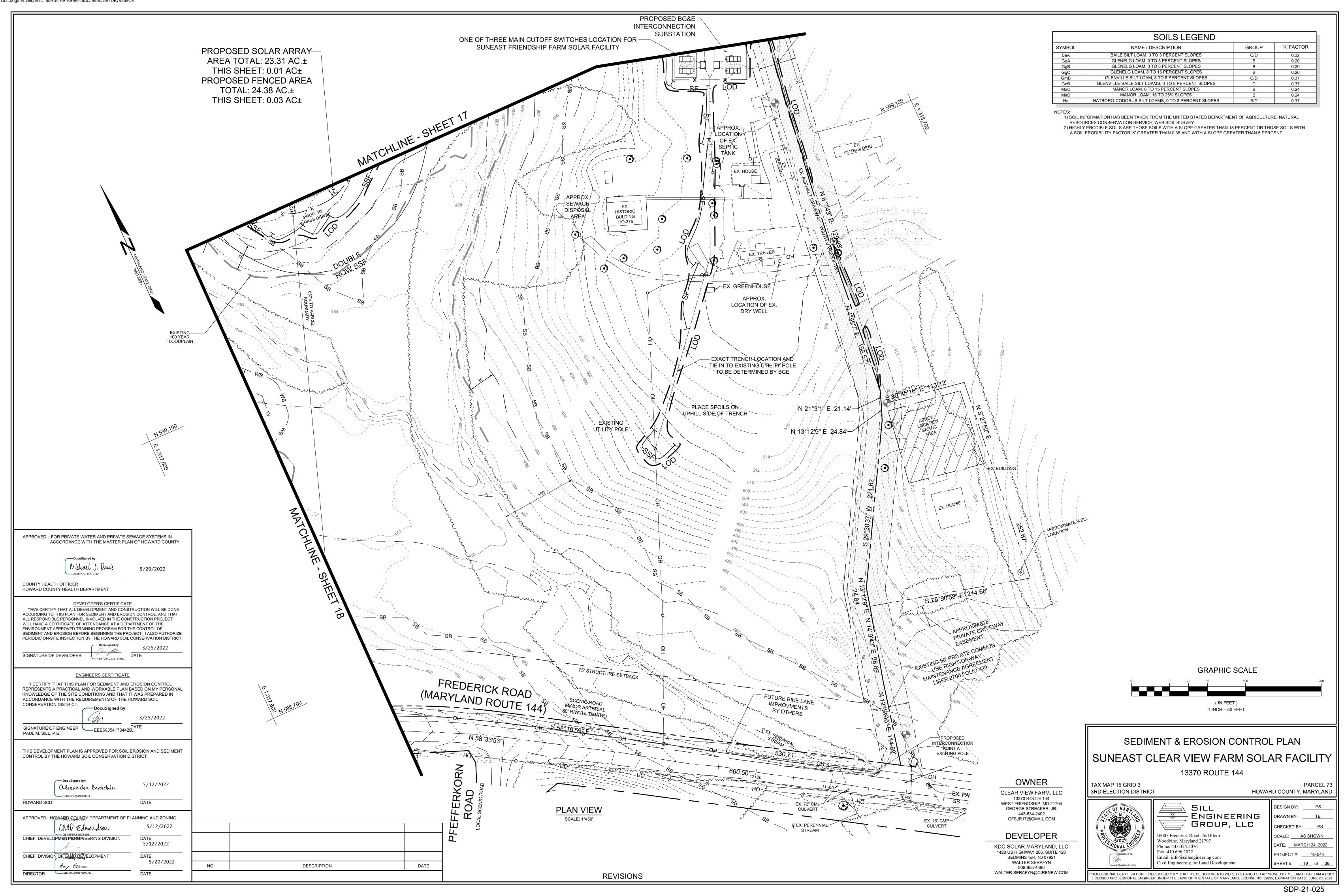


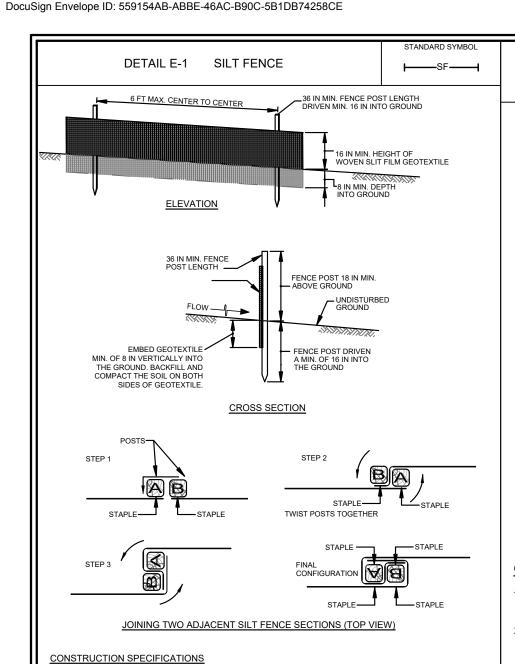












USE WOOD POSTS 11/4 X 11/4 ± 1/6 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE O WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER

USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY

O UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION

- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN
- SECTION H-1 MATERIALS. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE

45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT

SCE DETAIL E-3 SUPER SILT FENCE **ENTRANCE** ├──SSF ── 50 FT MIN. 10 FT MAX. MOUNTABLE BERM EXISTING PAVEMENT EXISTING GROUND --34 IN MIN NONWOVEN **GEOTEXTILE** AGGREGATE OVER LENGTH AND WIDTH OF ENTRANCE -PIPE (SEE NOTE 2) SURFACE-**PROFILE** —36 IN MIN. 50 FT MIN. LENGTH - GALVANIZED CHAIN LINK FENCE WITH 2% IN DIAMETER — GALVANIZED STEEL WOVEN SLIT FILM GEOTEXTILE OR ALUMINUM POSTS **ELEVATION** EXISTINGPAVEMENT CHAIN LINK FENCING -WOVEN SLIT FILM GEOTEXTILE -<u>PLAN VIEW</u> EMBED GEOTEXTILE AND -CHAIN LINK FENCE 8 IN MIN. INTO GROUND CROSS SECTION

STANDARD SYMBO

#### CONSTRUCTION SPECIFICATIONS

DETAIL B-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.

STANDARD SYMBOL

- 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 O CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.

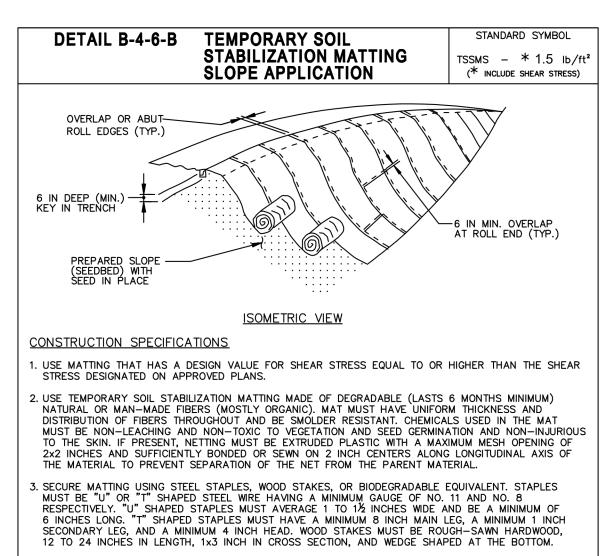
STABILIZED CONSTRUCTION

- I. 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.
- 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

MARYLAND DEPARTMENT OF ENVIRONMENT

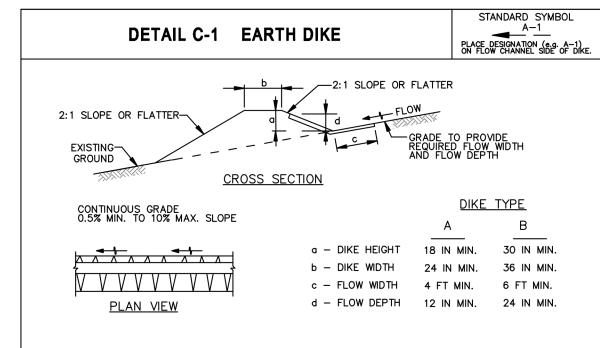
WATER MANAGEMENT ADMINISTRATION



- I. 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 &
- 5. UNROLL MATTING DOWNSLOPE, LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- 6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
- 7. KEY IN THE UPSLOPE 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.
- B. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE

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

B.39



CONSTRUCTION SPECIFICATIONS

AND GEOTEXTILE

U.S. DEPARTMENT OF AGRICULTURE

AND STAPLED TO PREVENT SEDIMENT BY PASS

SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.

GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH

FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED,

45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT

SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

## FLOW CHANNEL STABILIZATION

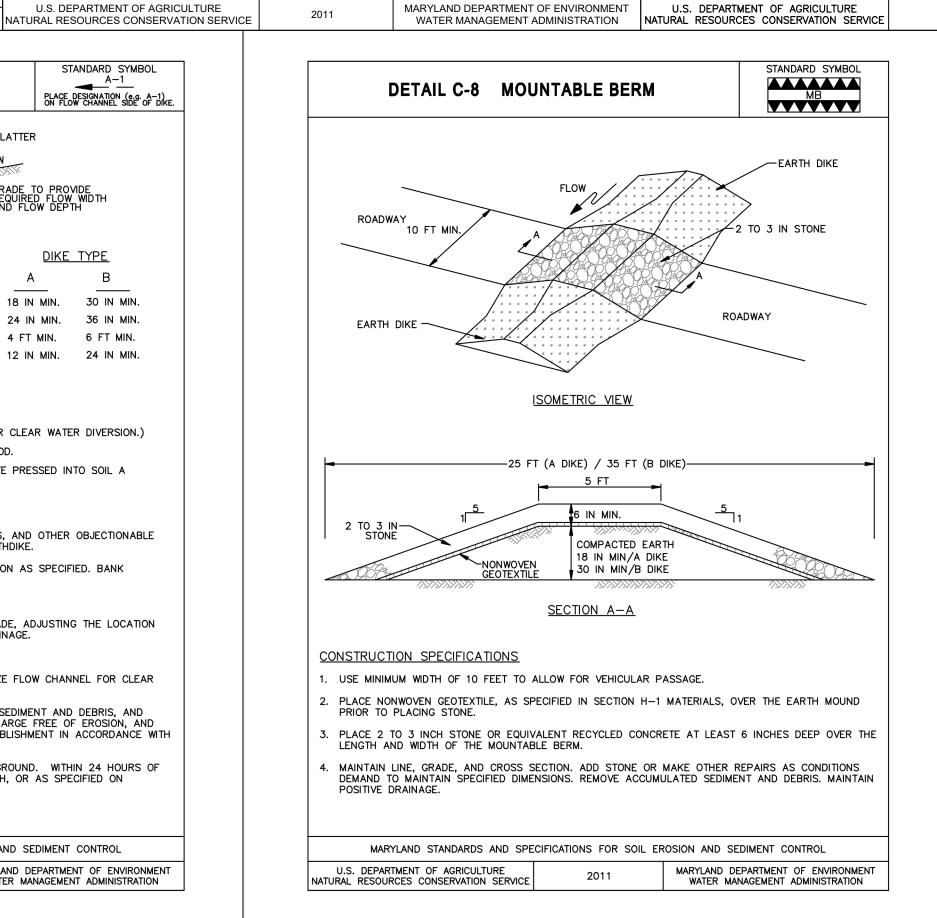
SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.) A-2/B-2SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.

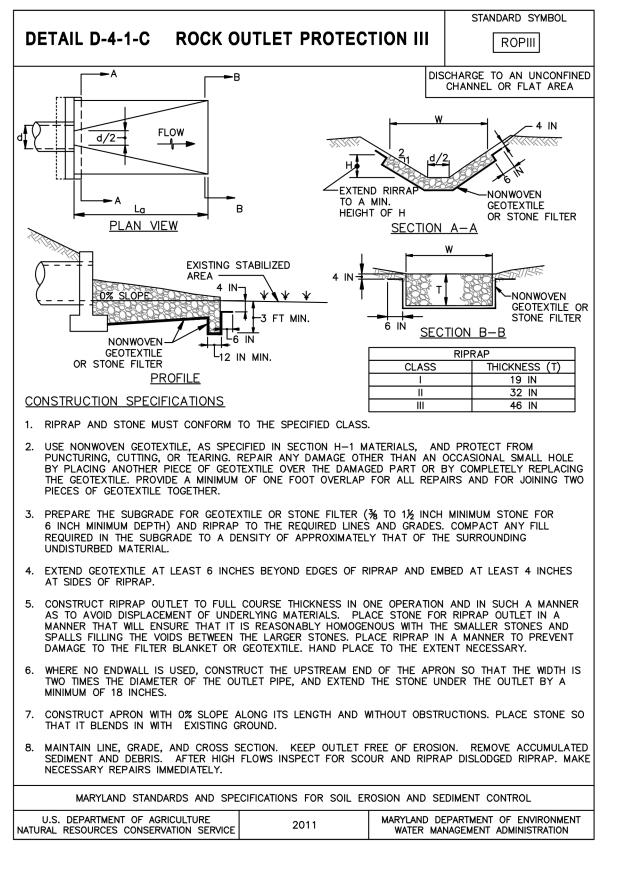
4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

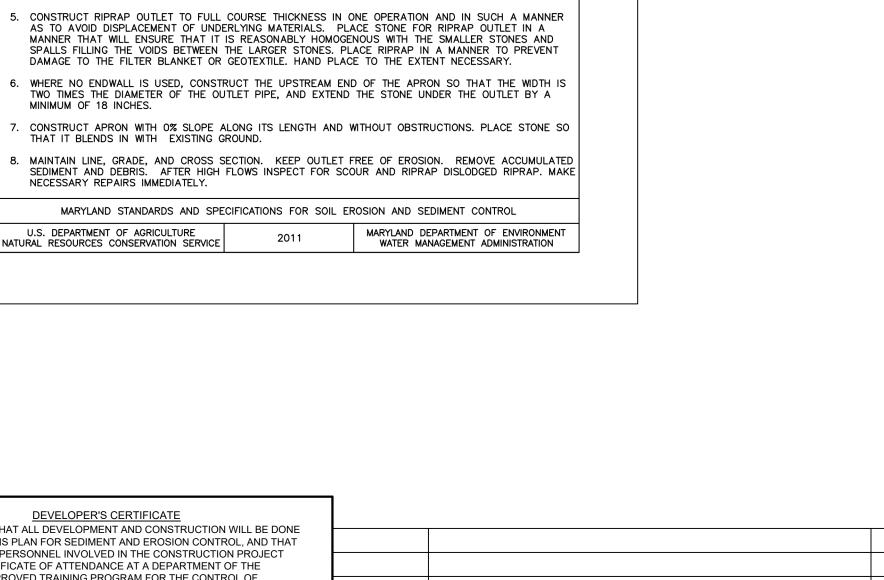
#### CONSTRUCTION SPECIFICATIONS

- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
- EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- 4. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- 5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- :. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE, KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF FROSION AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- B. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON

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







## SEDIMENT AND EROSION CONTROL DETAILS SUNEAST CLEAR VIEW FARM SOLAR FACILITY

13370 ROUTE 144

TAX MAP 15 GRID 3 3RD ELECTION DISTRICT

OWNER

CLEAR VIEW FARM, LLC 13370 ROUTE 144 WEST FRIENDSHIP, MD 21794

GEORGE STREAKER, JR. 443-834-2402

GFSJR17@GMAIL.COM

DEVELOPER

KDC SOLAR MARYLAND, LLC

1420 US HIGHWAY 206. SUITE 120

BEDMINSTER, NJ 07921

WALTER SERAFYN

908-955-4360

WALTER.SERAFYN@CIRENEW.COM

APPROVED: HOWARD GOLINTY DEPARTMENT OF PLANNING AND ZONING 5/12/2022 (Hdl) Edmondson CHIEF, DEVELOPMENTSENGINEERING DIVISION 5/12/2022 CHIEF, DIVISION OF DOLL TO THE COMMENT 5/20/2022

Amy Glonan

DIRECTOR

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

5/12/2022 Olexander Bratchie HOWARD SCD

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.

PAUL M. SILL, P.E.

3/25/2022 SIGNATURE OF ENGINEER EEB69354178442BDATE

"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 DISTRIC 3/25/2022 SIGNATURE OF DEVELOPER

B4700FDE337544B...

NO. DESCRIPTION DATE REVISIONS

ROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME . AND THAT I AM A DUI LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2023

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: DRAWN BY: MOB CHECKED BY: PS SCALE: AS SHOWN DATE: MARCH 24, 2022 PROJECT #: 19-044 SHEET#: <u>20</u> of <u>38</u>

HOWARD COUNTY, MARYLAND

PARCEL 73

#### TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE		SEEDING DEPTH	RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE			
LAIVI OI LOILO	LB/AC	LB/1000 FT <sup>2</sup>	(INCHES)	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	
	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	
	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	
	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 (10-0-20): 436 LB/AC (10LB/1000SF) LIME RATE: 2 TONS/AC (90LB/1000SF)

FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE

#### 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

THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

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

PLANT HARDINESS ZONES				
5b & 6a	6b	7a & 7b		
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+		
MAR 15 TO MAY 31++	MAR 1 TO MAY 15++	FEB 15 TO APR 30++		
JUN 1 TO JUN 15*	MAY 16 TO JUN 15*	MAY 1 TO MAY 31*		
MAR 15 TO MAY 31	MAR 1 TO MAY 15	FEB 15 TO APR 30		
JUN 1 TO AUG 31*	MAY 16 TO SEP 14*	MAY 1 TO SEP 30*		
SEP 1 TO NOV 1*	SEP 15 TO NOV 15*	OCT 1 TO DEC 1*		
MARCH 15 TO MAY 31	MARCH 1 TO MAY 15	FEB 15 TO APR 30		
JUN 1 TO JUN 30*	MAY 16 TO JUN 30*	MAY 1 TO JUN 30*		
MAR 15 TO MAY 31	MAR 1 TO MAY 15	FEB 15 TO APR 30		
JUN 1 TO JUN 30*	MAY 16 TO JUN 30*	MAY 1 TO JUN 30*		
SEP 1 TO NOV 15*	SEP 15 TO NOV 30*	OCT 1 TO DEC 15*		
	5b & 6a  MAR 15 TO MAY 31 AUG 1 TO SEP 30  MAR 15 TO MAY 31 JUN 1 TO JUN 15*  MAR 15 TO MAY 31 JUN 1 TO AUG 31* SEP 1 TO NOV 1*  MARCH 15 TO MAY 31 JUN 1 TO JUN 30*  MAR 15 TO MAY 31 JUN 1 TO JUN 30*	5b & 6a 6b  MAR 15 TO MAY 31		

CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

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

<u>DEFINITION</u> THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

<u>CONDITIONS WHERE PRACTICE APPLIES</u>
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

- 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
- 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 INOCULAN
- d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR EED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- 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
- 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 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
- :. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER). LIF 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: P205 (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 BYHYDROSEEDING) 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 SOI

#### 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 DYF 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
- 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

APPROVED: HOWARD COLINTY DEPARTMENT OF PLANNING AND ZONING

(Hd1) Edmondson

CHIEF, DEVELOPMENTS IN BINEERING DIVISION

Amy Gonas

- 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
- 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

#### 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

- 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
- 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.

	PERMANENT SEEDING SUMMARY							
SEED MIXTURE (HARDINESS ZONE 7A AND 6B)  FERTILIZER RATE (10-20-20)						LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	Р	К	
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

5/12/2022

5/12/2022

## STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

- TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.
- 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. CRITFRIA

#### 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,

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 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
- 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.
- I. 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
- 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

RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE

- 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 11/2 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 (1/2 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.
- 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 1/4 INCH. PLUS OR MINUS 1/4
  - 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
  - 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  $\frac{1}{3}$  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.
- . 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 •• 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.

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL

KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN

ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL

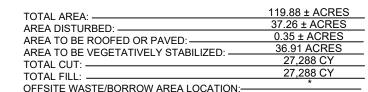
CONSERVATION DISTRICT

REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL

#### 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 HOURS NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING
- 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
- ALL VEGETATION 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
- 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
- 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), RMANENT 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
- 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 CID.
- 6. SITE ANALYSIS:

ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.



- 7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST
- BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 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
- 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 PIPES LENGTHS OR THAT WHICH CAN AND SHALL BE BACKFILLED 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 BE 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 HSCD. UNLESS OTHERWISE SPECIFIED AND
- APPROVED BY THE HSCD, 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):
- USET AND IP MARCH 1 JUNE 15 USE III AND IIIP OCTOBER 1 - APRIL 30
- USEIV 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
- \*\* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

# B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE

- 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. 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 RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
- 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-FROSIVE 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.
- 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. 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
- 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

#### STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

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

COVERED WITH IMPERMEABLE SHEETING.

 TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES:

4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

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

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR

- 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. 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

SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS.

#### STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

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

• TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES

• WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

THE RESULTS OF A SOIL TEST.

#### 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.
- APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. 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. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
- 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 d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY
- 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

#### 1 TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE

LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

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. 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 THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. 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

- 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 11/2 INCHES IN DIAMETER. 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 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 EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING
- 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 CORRE
- FORMATION OF DEPRESSIONS OR WATER POCKETS. 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.
- 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

FINISH SOLAR PANEL CONSTRUCTION. (2 MONTHS)

C SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

SEQUENCE OF CONSTRUCTION

**OWNER** 

CLEAR VIEW FARM, LLC

13370 ROUTE 144 WEST FRIENDSHIP, MD 21794

GEORGE STREAKER, JR. 443-834-2402

GFSJR17@GMAIL.COM

908-955-4360

- OBTAIN GRADING PERMIT.
- 2. NOTIFY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION, (410)-313-4400) AT LESAT 48 HOURS BEFORE STARTING WORK. 3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, AND EARTHDIKE. THE DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR. (2 WEEK)

GRADE PER PLANS AND BEGIN SOLAR PANEL CONSTRUCTION. THE CONTRACTOR IS HEREBY NOTIFIED THAT MASS GRADING SHALL NOT

- EXCEED 20 ACRES AT ANY GIVEN TIME. CONTRACOTR MUST STABLIZE DISTURBED AREAS BEFORE PROCEEDING TO NEXT GRADED AREA. ALL DISTURBANCE FROM SOLAR PANEL INSTALLATION SHALL BE STABILIZED BEFORE MOVING ON TO THE NEXT BANK OF PANELS. (1 5. EXISTING COMMON USE GRAVEL DRIVEWAY, OFF OF ROUTE 144, TO BE WIDENED TO 16 FEET. AREA OF DRIVEWAY WIDENING SHOWN ON PLAN (SEE SHEET 11) CONTRACTOR TO WIDEN DRIVEWAY AND IMMEDIATELY STABLIZE DISTURBDED AREA WITH 2" TOPSOIL , SEED, AND
- 6. INSTALL PERMANENT SWALES AND LEVEL SPREADERS. THIS CAN BE DONE CONCURRENTLY WITH SITE GRADING. INSTALLATION SHALL BE DONE AFTER THE CONTRIBUTING AREA HAS BEEN STABILIZED TO PREVENT SEDIMENT FROM ENTERING THESE DEVICES. (1 MONTH)
- 8. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, CONSTRUCT BIO-RETENTION FACILITIES, ENSURING NO SEDIMENT LADEN RUNOFF ENTERS THIS FACILITY. (1 WEEK)

#### 9. 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 AREAS. (1 WEEK)

## SUNEAST CLEAR VIEW FARM SOLAR FACILITY

TAX MAP 15 GRID 3

HOWARD COUNTY, MARYLAND DESIGN BY:

16005 Frederick Road, 2nd Floor Woodbine, Maryland 21797 Phone: 443.325.5076 Fax: 410.696.2022

SILL

SEDIMENT AND EROSION CONTROL NOTES

13370 ROUTE 144

ICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2023

#### DEVELOPER KDC SOLAR MARYLAND, LLC 1420 US HIGHWAY 206, SUITE 120 BEDMINSTER, NJ 07921 WALTER SERAFYN DATE WALTER.SERAFYN@CIRENEW.COM

3RD ELECTION DISTRICT

- ENGINEERING GROUP, LLC Email: info@sillengineering.com Civil Engineering for Land Development

ROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME , AND THAT I AM A DU

SDP-21-025

PARCEL 73

DRAWN BY:

CHECKED BY:

SCALE: AS SHOWN

DATE: MARCH 24, 2022

PROJECT #: 19-044

SHEET#: <u>21</u> of <u>38</u>

#### Olexander Bratchie CHIEF, DIVISION OF TO AND THE COPMENT 5/12/2022 5/20/2022 SIGNATURE OF ENGINEER ---EEB69354178442BATE **HOWARD SCD** PAUL M. SILL, P.E.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRIC 3/25/2022 NO. DESCRIPTION SIGNATURE OF DEVELOPER **REVISIONS** 

**DEVELOPER'S CERTIFICATE** 

ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL. AND THAT

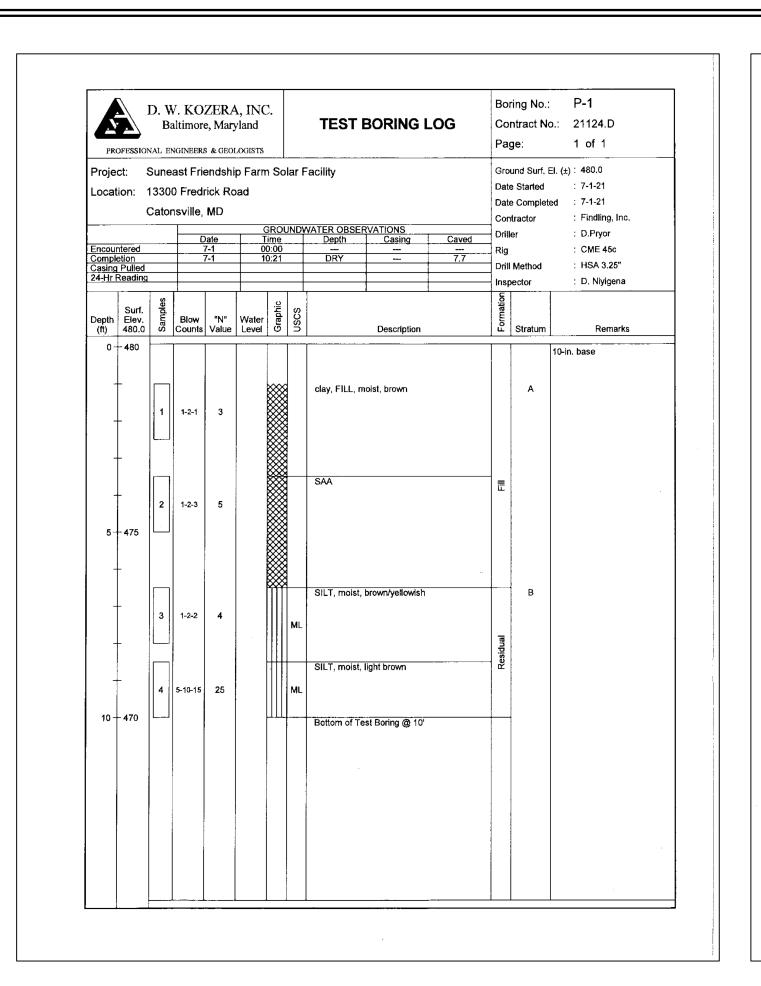
SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE

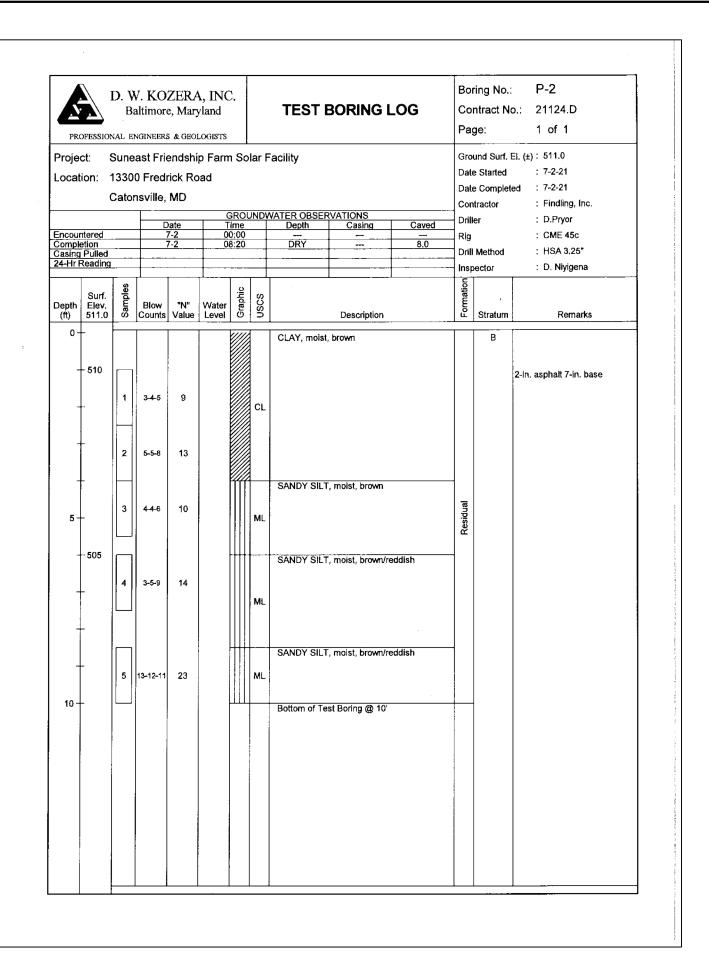
ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT

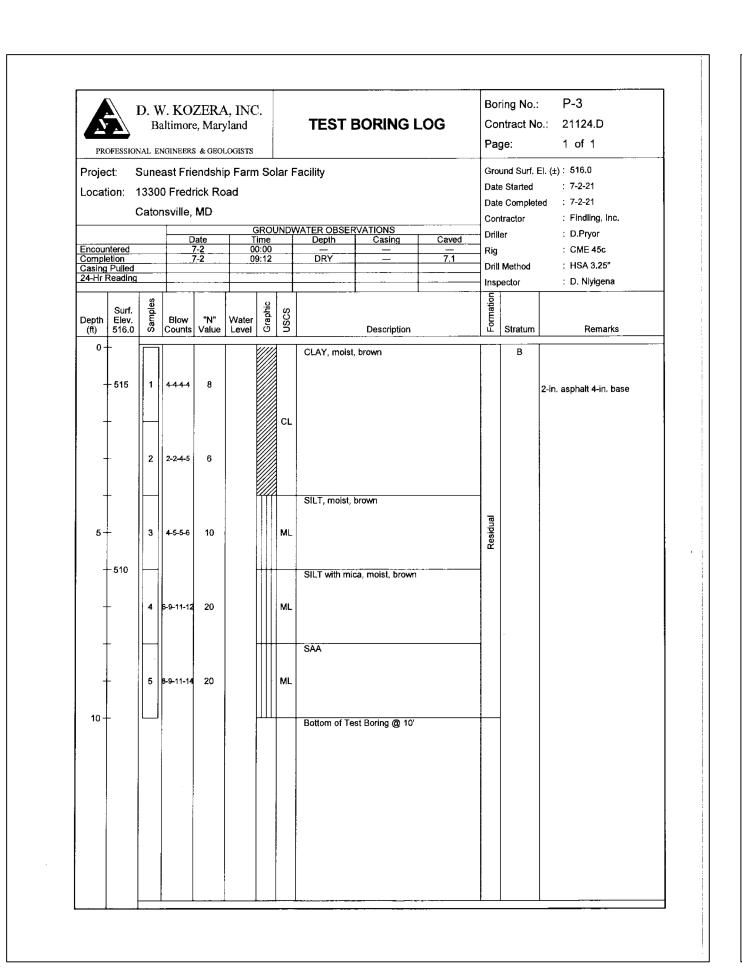
WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE

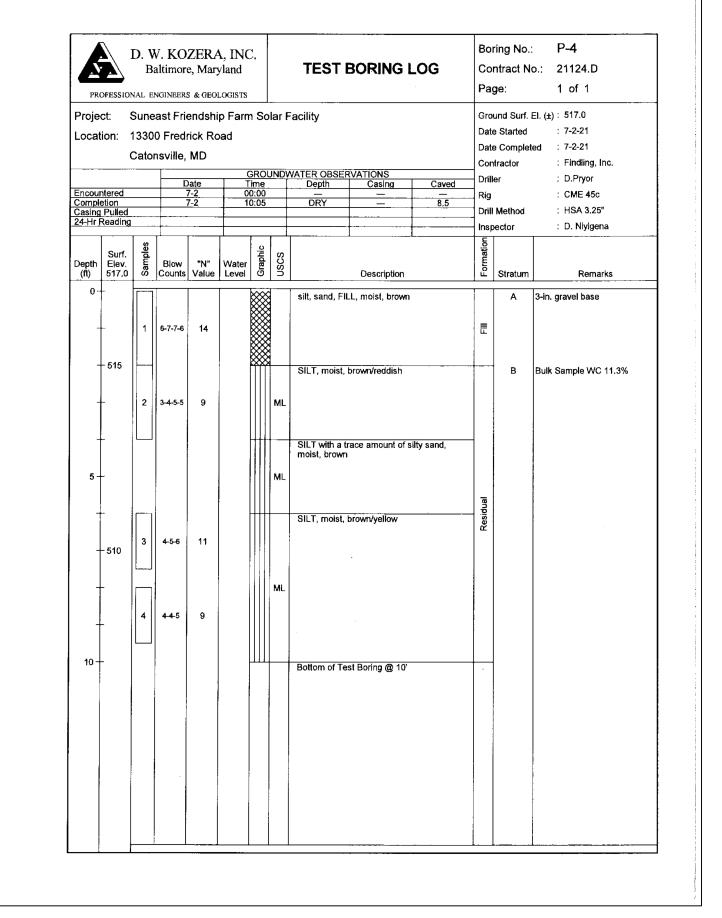
ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF

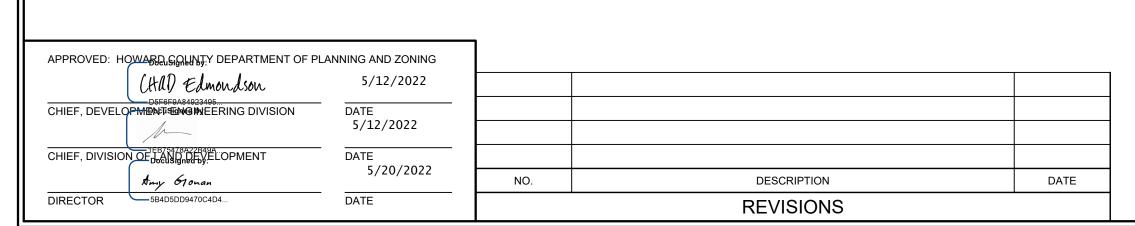
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE

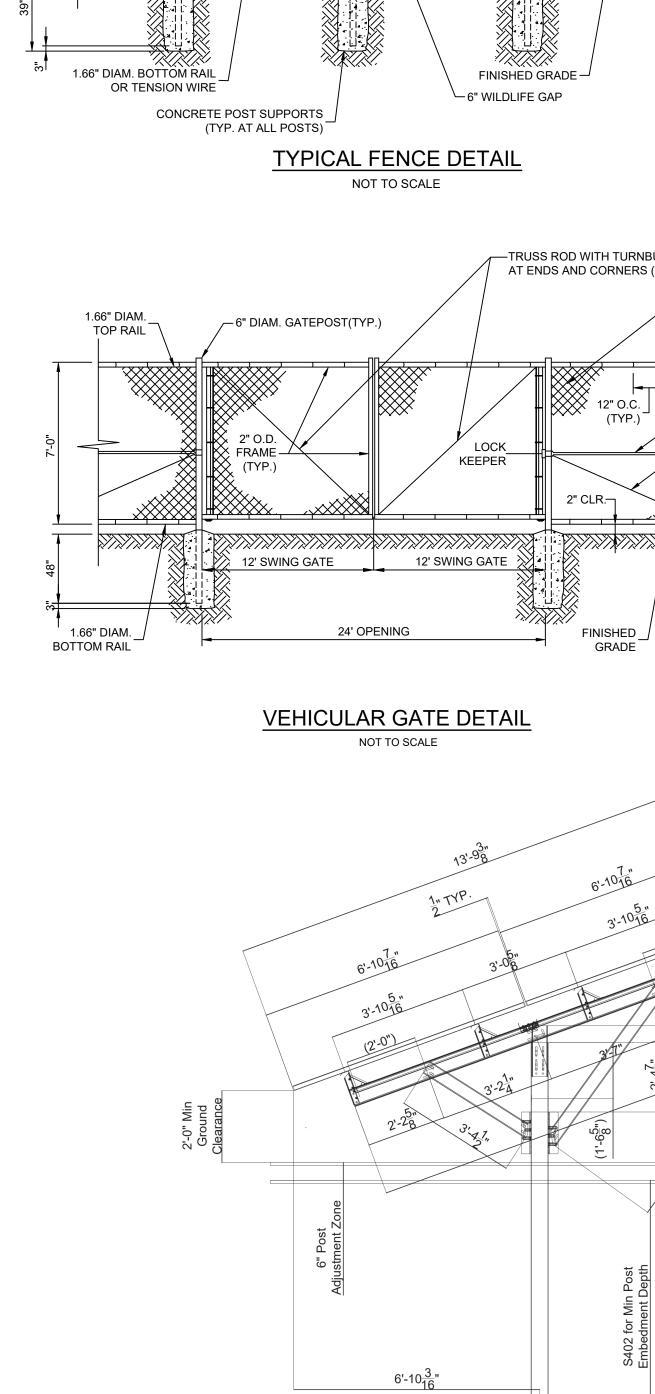


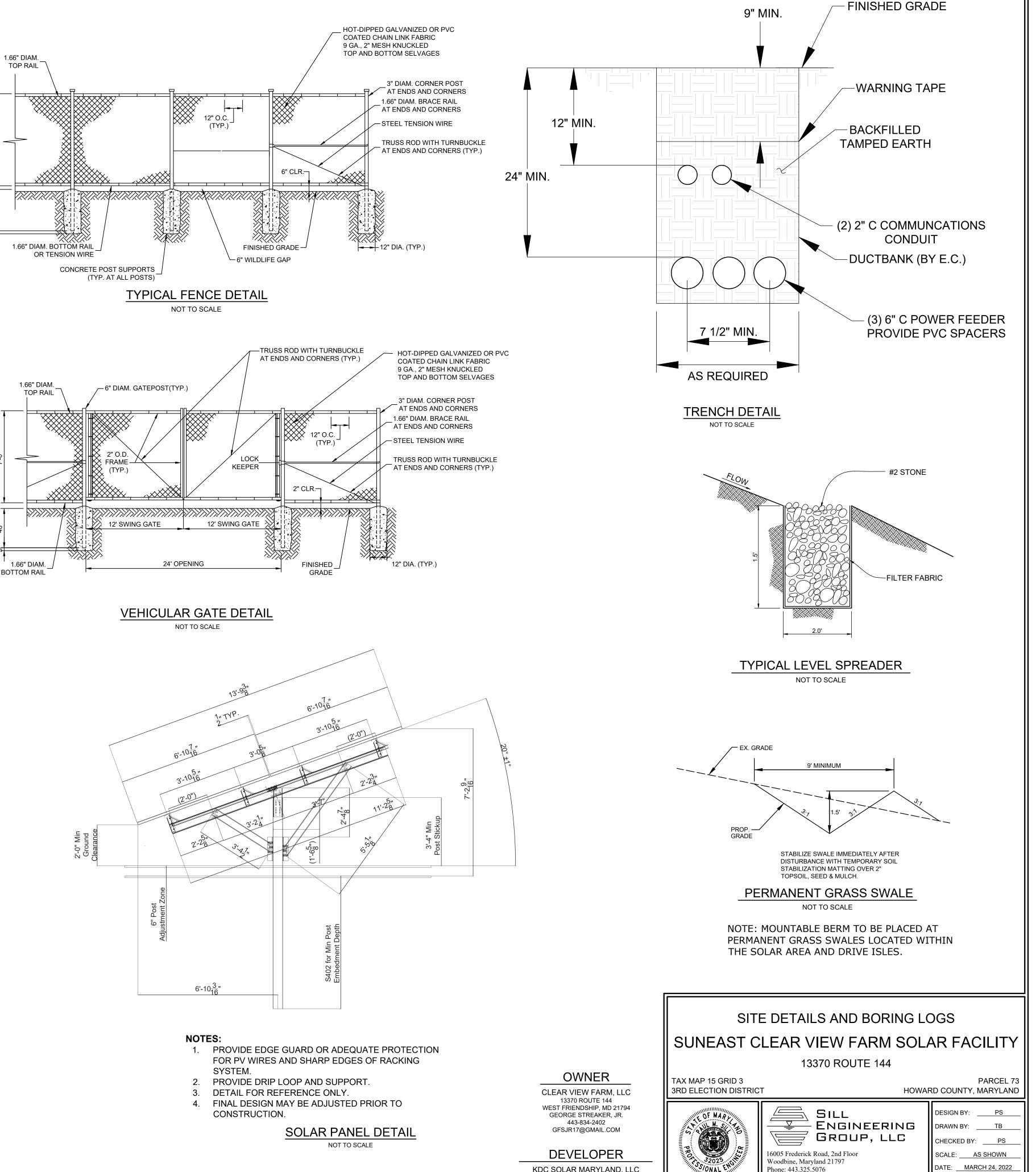












KDC SOLAR MARYLAND, LLC

1420 US HIGHWAY 206, SUITE 120

BEDMINSTER, NJ 07921

WALTER SERAFYN

908-955-4360 WALTER.SERAFYN@CIRENEW.COM PROJECT #: 19-044

SHEET #: 22 of 38

Phone: 443.325.5076

Email: info@sillengineering.com

Civil Engineering for Land Development

ROFESSIONAL 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

Fax: 410.696.2022

APPROVED: HOWARD GOLINTY DEPARTMENT OF PLANNING AND ZONING

5/12/2022

5/12/2022

5/20/2022

NO.

DESCRIPTION

REVISIONS

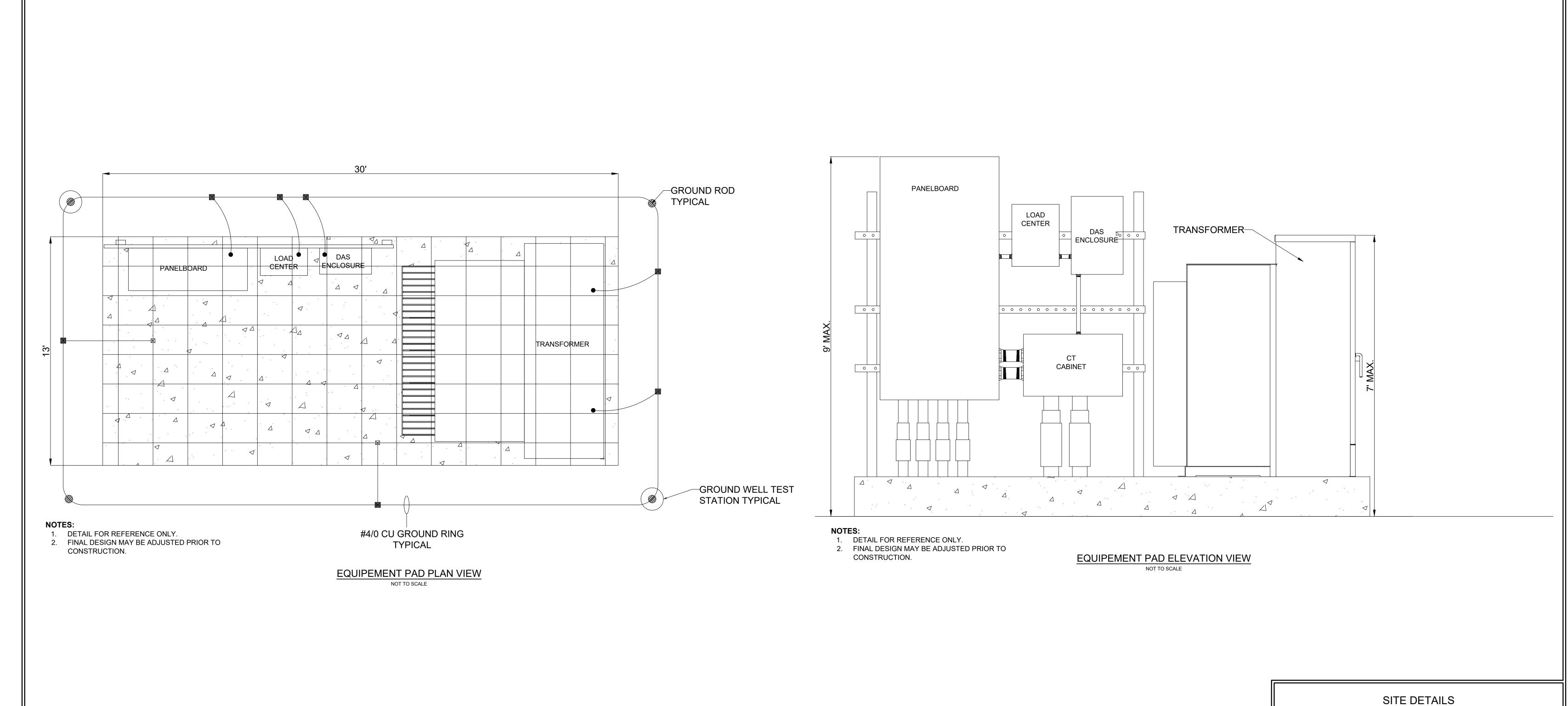
DATE

CHAD Edmondson

CHIEF, DEVELOPMENTS SING DIVISION

Amy Glonan

CHIEF, DIVISION OF DOUBLE OF THE CHIEF



PARCEL 73

HOWARD COUNTY, MARYLAND

DESIGN BY: PS

DRAWN BY: \_\_\_\_\_TB

CHECKED BY: PS

SCALE: AS SHOWN

DATE: MARCH 24, 2022

PROJECT #: 19-044

SHEET #: 23 of 38

SUNEAST CLEAR VIEW FARM SOLAR FACILITY

13370 ROUTE 144

SILL ENGINEERING GROUP, LLC

16005 Frederick Road, 2nd Floor Woodbine, Maryland 21797

Email: info@sillengineering.com Civil Engineering for Land Development

Phone: 443.325.5076 Fax: 410.696.2022

TAX MAP 15 GRID 3 3RD ELECTION DISTRICT

OWNER

CLEAR VIEW FARM, LLC 13370 ROUTE 144 WEST FRIENDSHIP, MD 21794 GEORGE STREAKER, JR.

443-834-2402 GFSJR17@GMAIL.COM

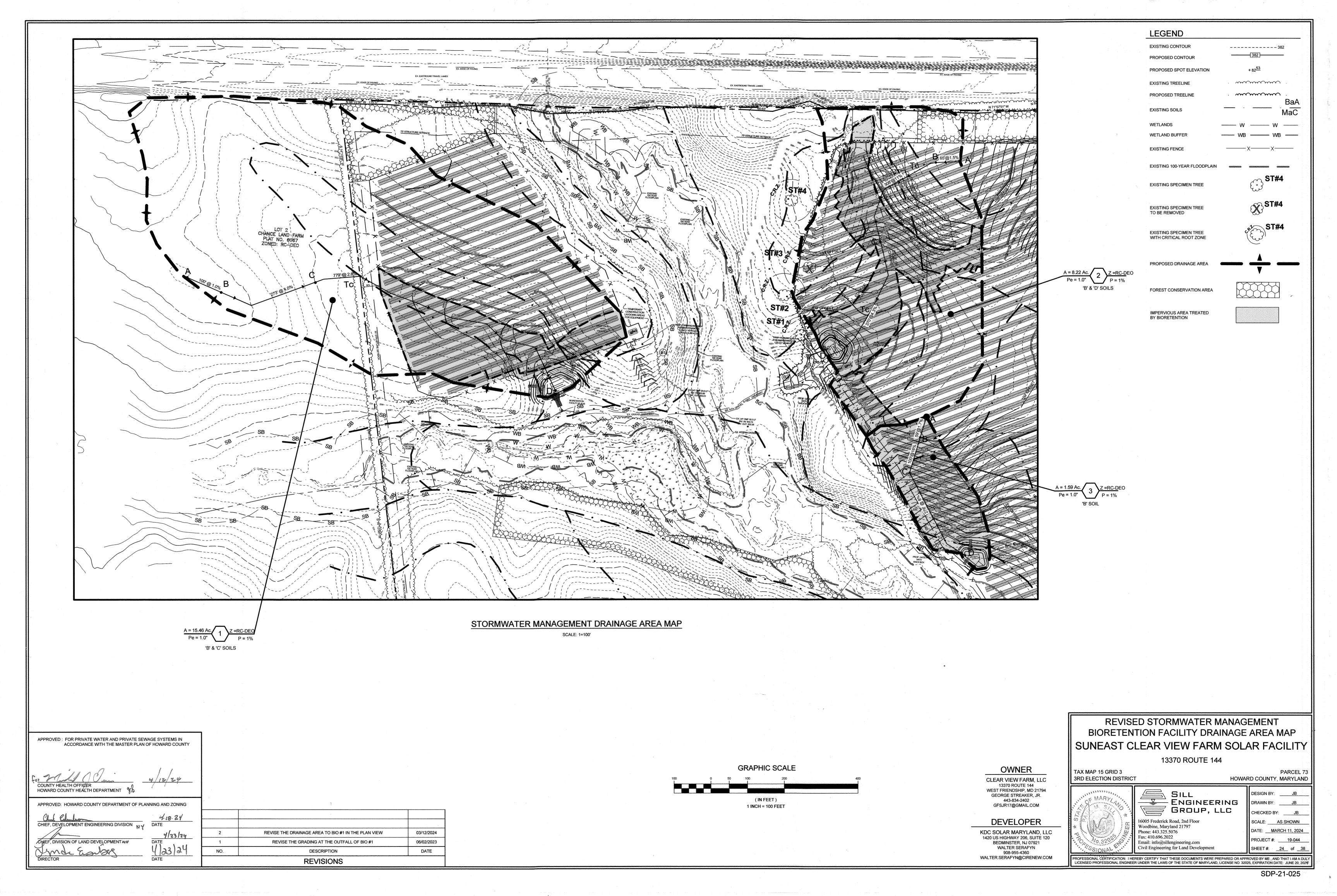
DEVELOPER

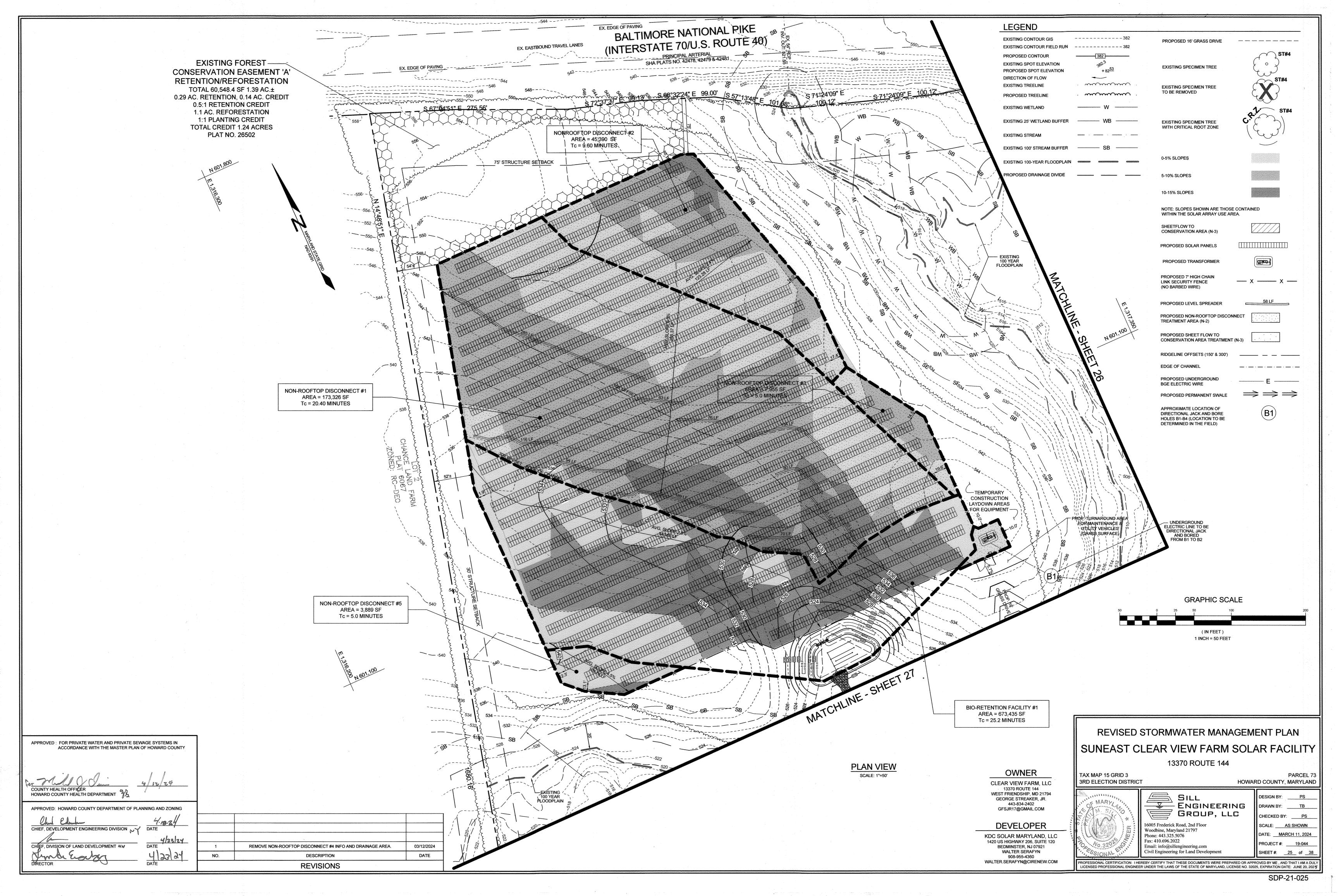
KDC SOLAR MARYLAND, LLC 1420 US HIGHWAY 206, SUITE 120

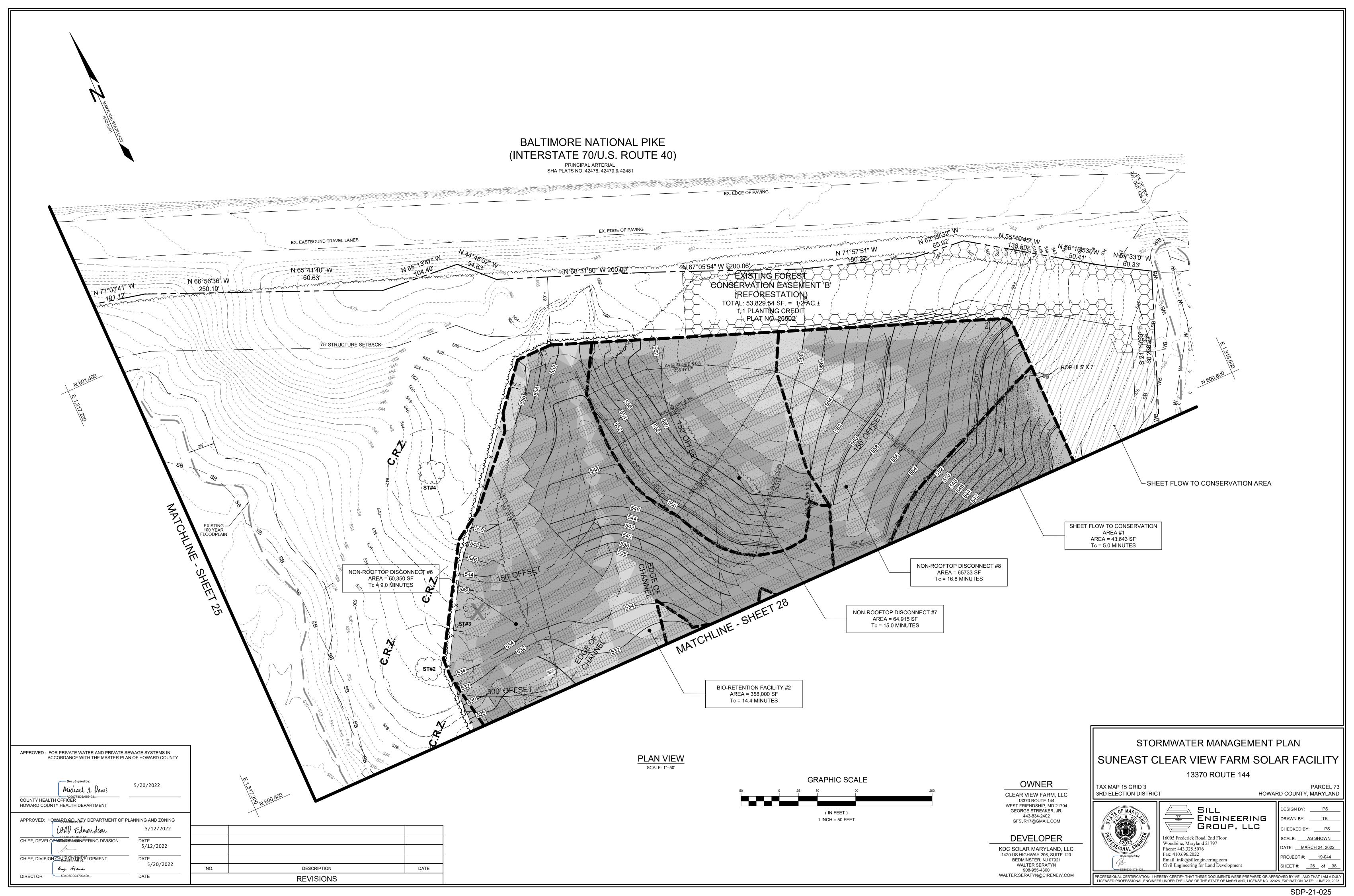
BEDMINSTER, NJ 07921

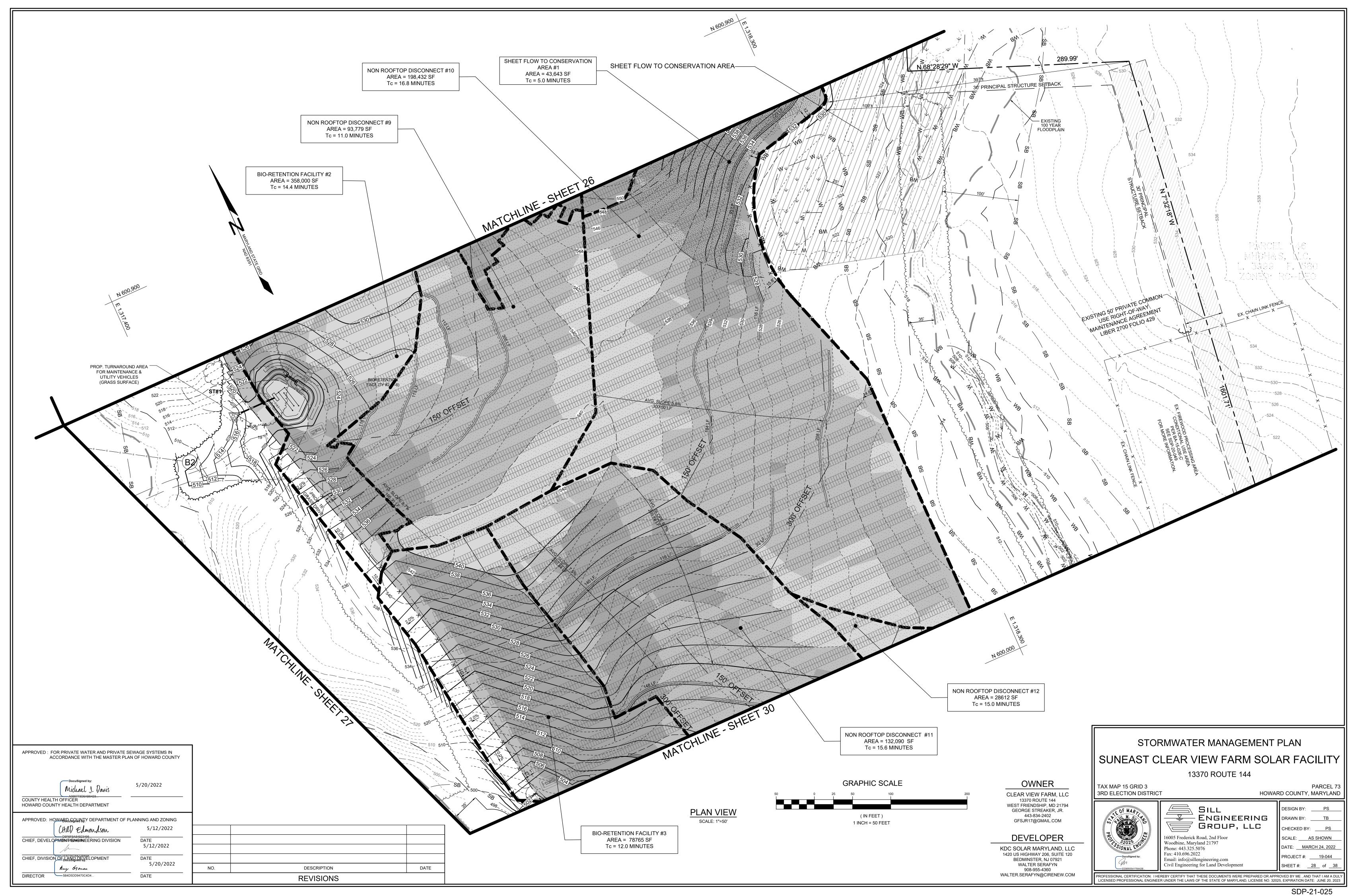
WALTER SERAFYN

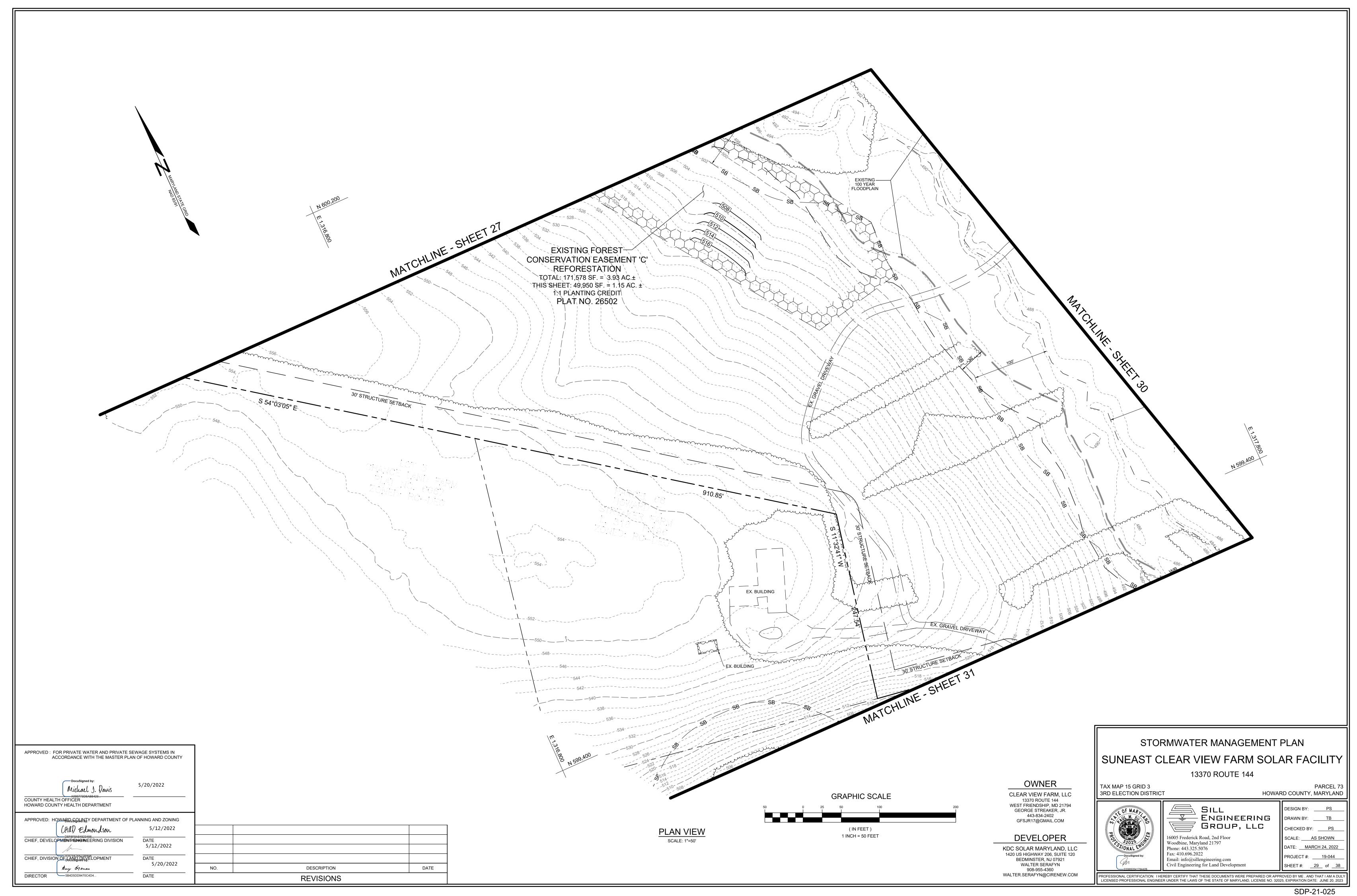
908-955-4360 WALTER.SERAFYN@CIRENEW.COM

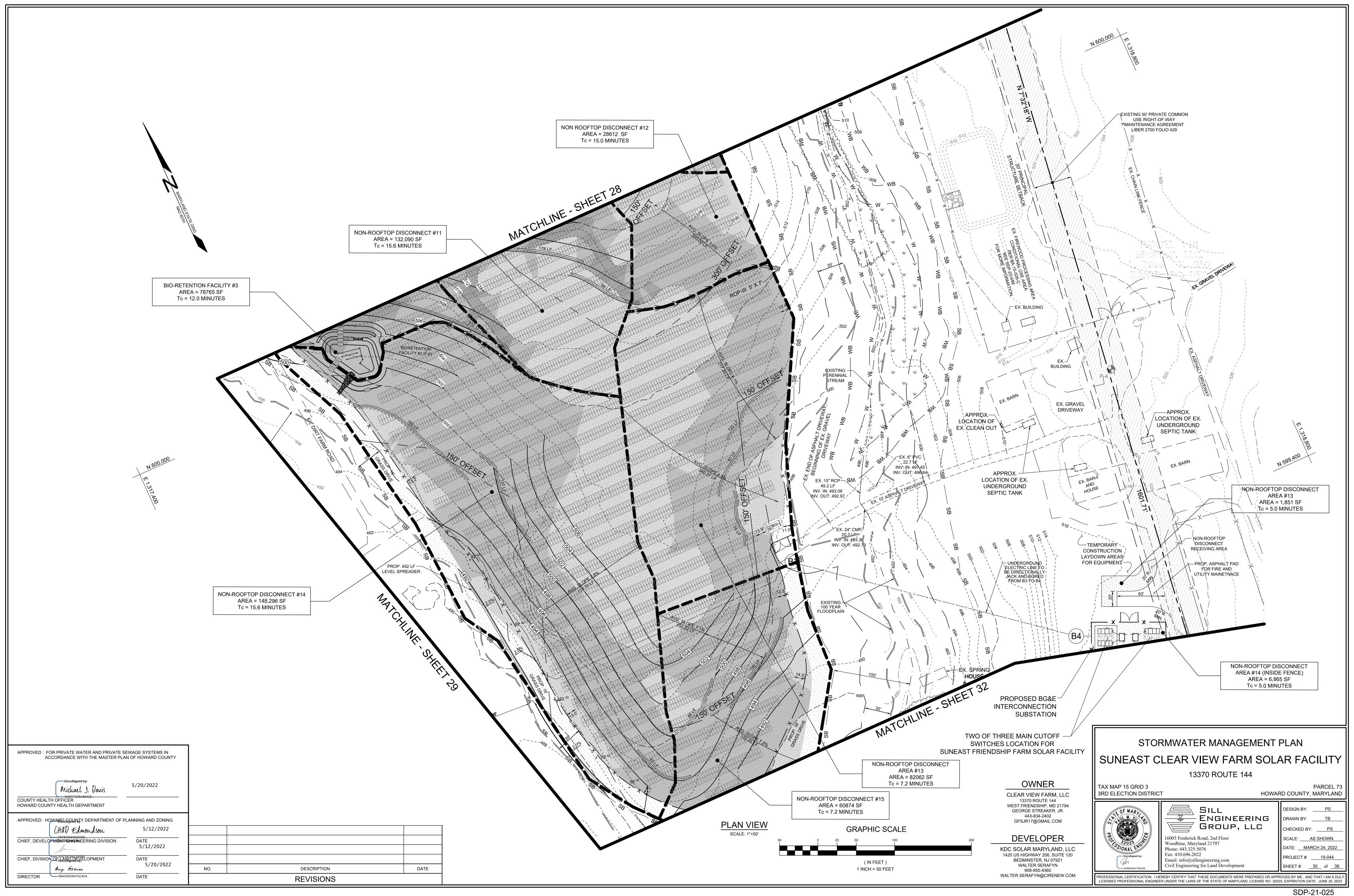


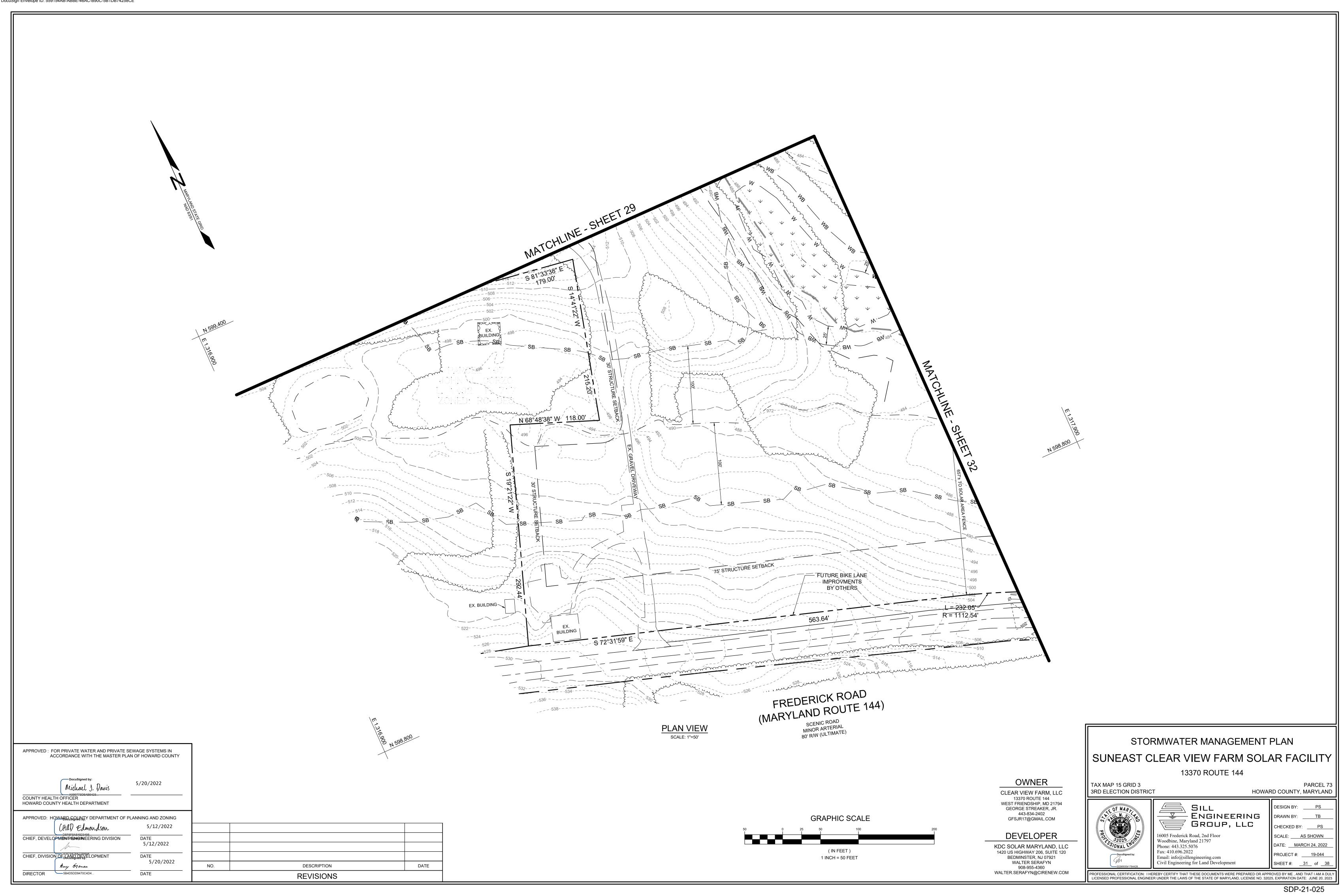


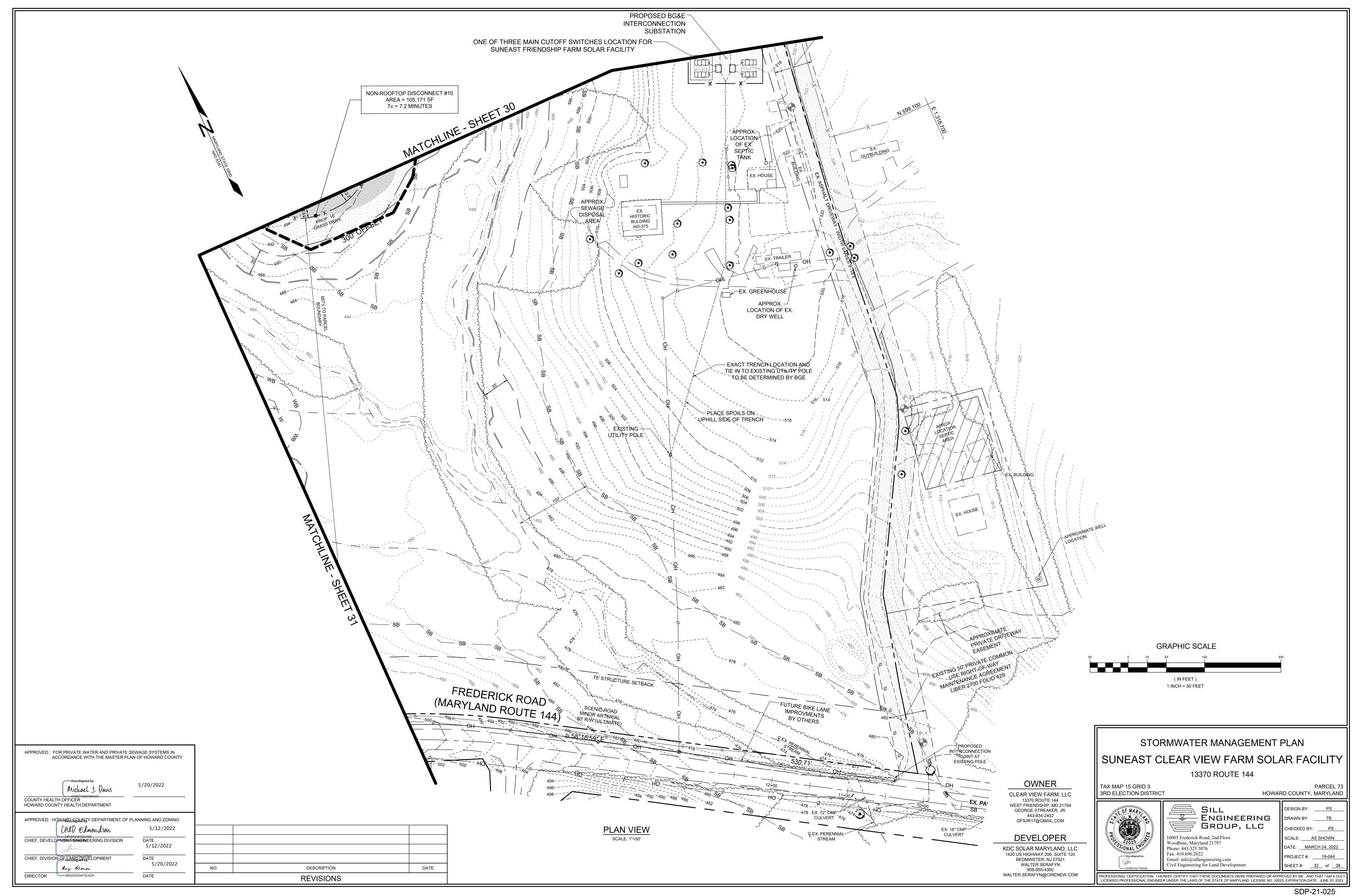


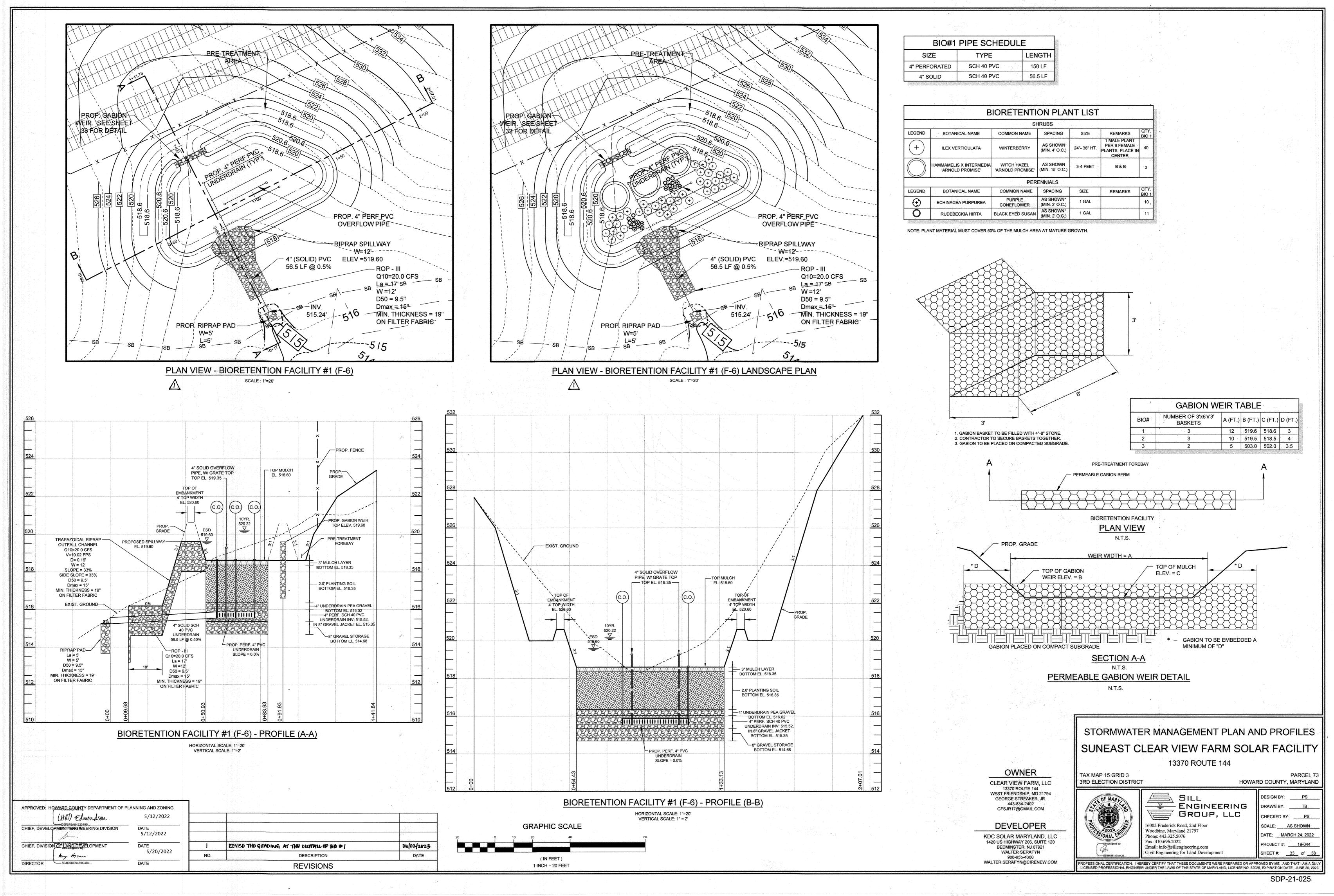


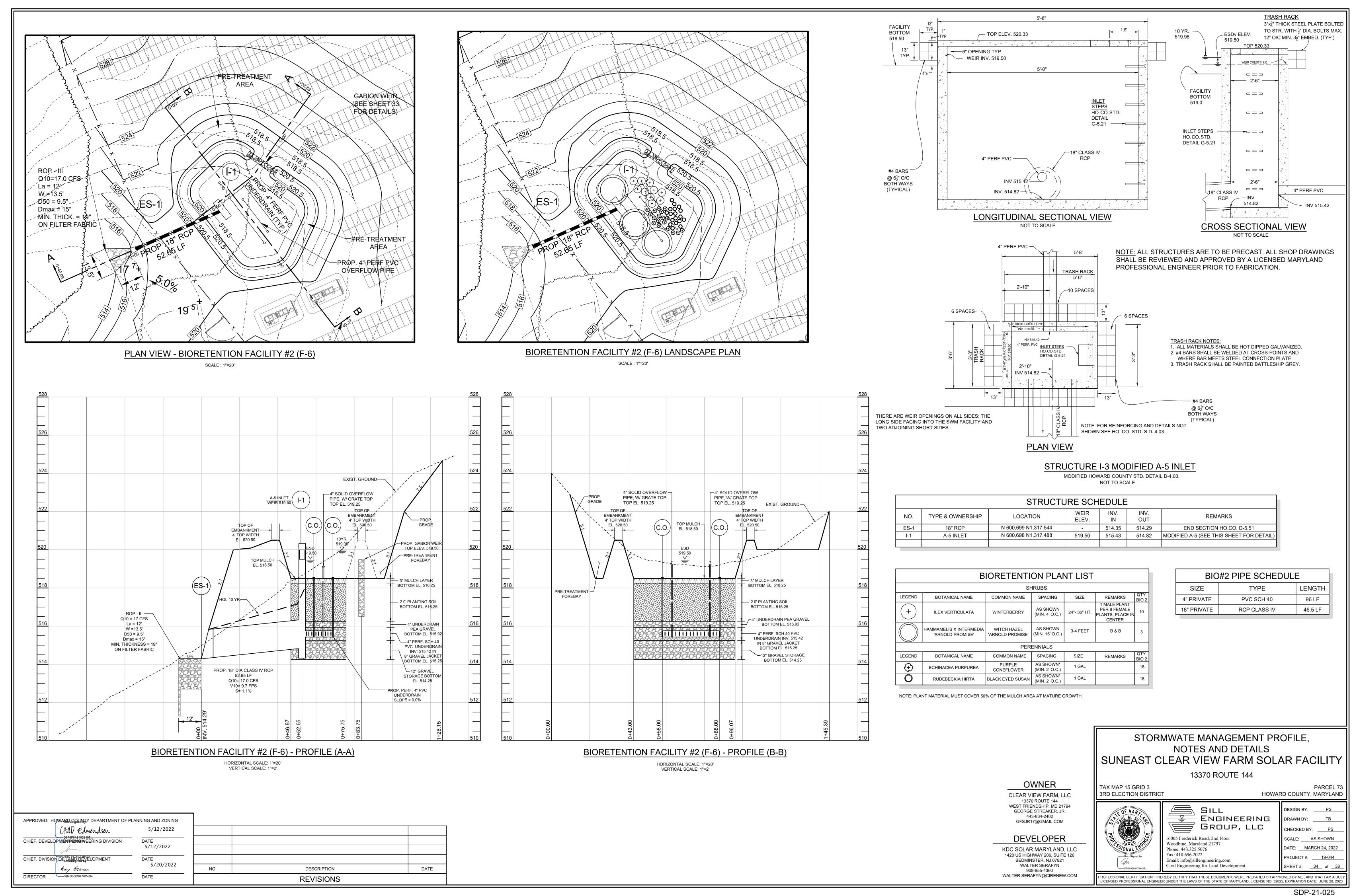












B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS, LANDSCAPE **INFILTRATION & INFILTRATION BERMS** 

1. MATERIAL SPECIFICATIONS

THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL

THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA: SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)

- ORGANIC CONTENT MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%).
- AND COMPOST (40%). • CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
- PH RANGE SHOULD BE BETWEEN 5.5 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO INCREASE OR DECREASE PH.

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPS OIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER. THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR

EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE.

COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION

5. PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON. ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND

LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS. OR AT A MINIMUM. IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR

MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE

6. UNDERDRAINS

- UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA: • PIPE- SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTMF 758, TYPE PS28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR
- PERFORATIONS IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/6" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4)
- GALVANIZED HARDWARE CLOTH. GRAVEL – THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN
- THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
- A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,0000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER. A 4" LAYER OF PEA GRAVEL (1/6" TO 3/6" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND
- UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

(Hd) Edmondson

CHIEF, DEVELOPMENTS IN OUN SERING DIVISION

Amy Glonan

CHIEF, DIVISION OF DOCUMENT

DIRECTOR

THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED

#### 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.
- B. 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
- 4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

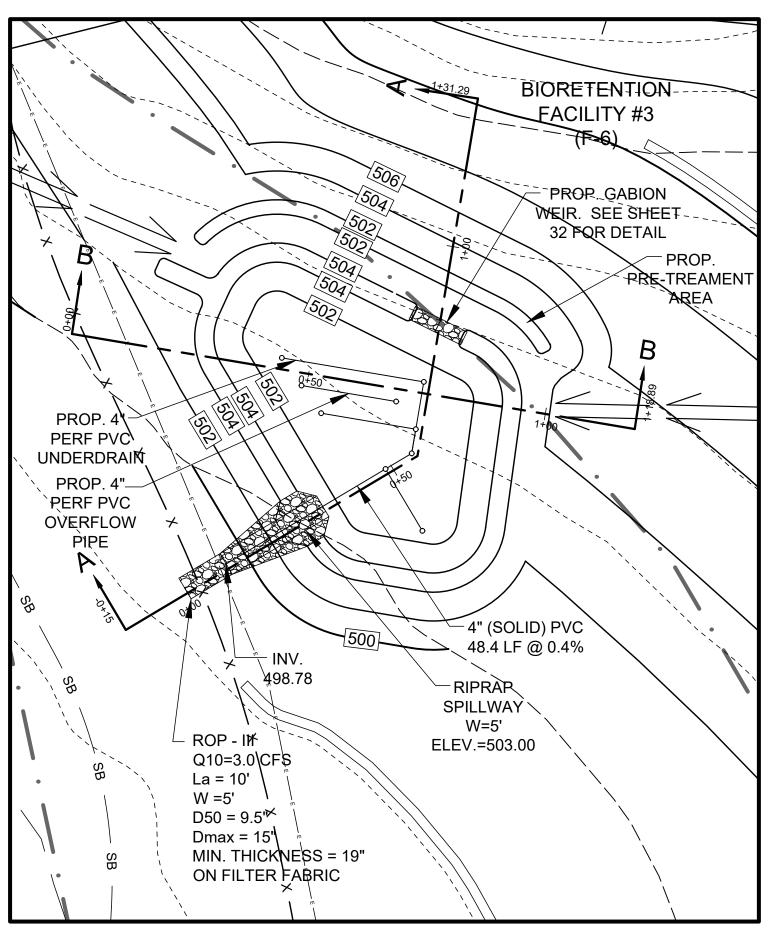
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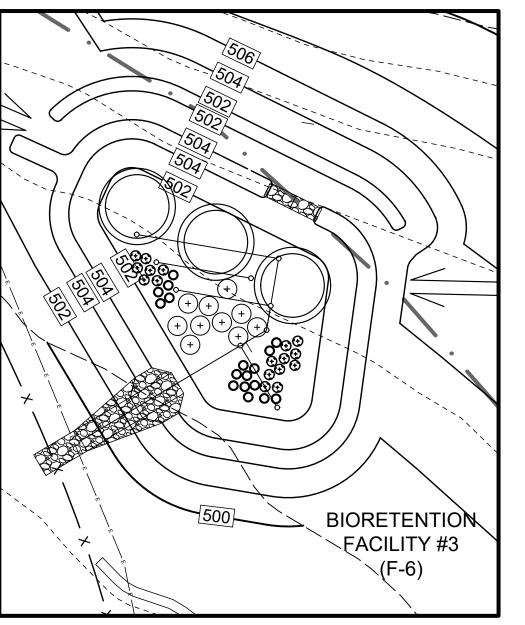
**REVISIONS** 

5/12/2022



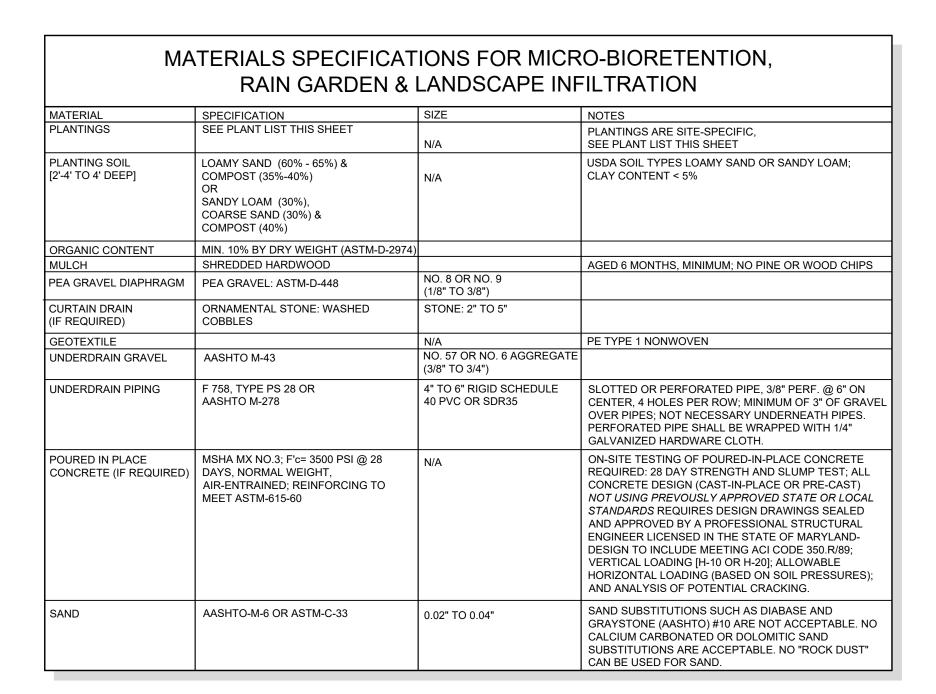
PLAN VIEW - BIORETENTION FACILITY #3 (F-6)

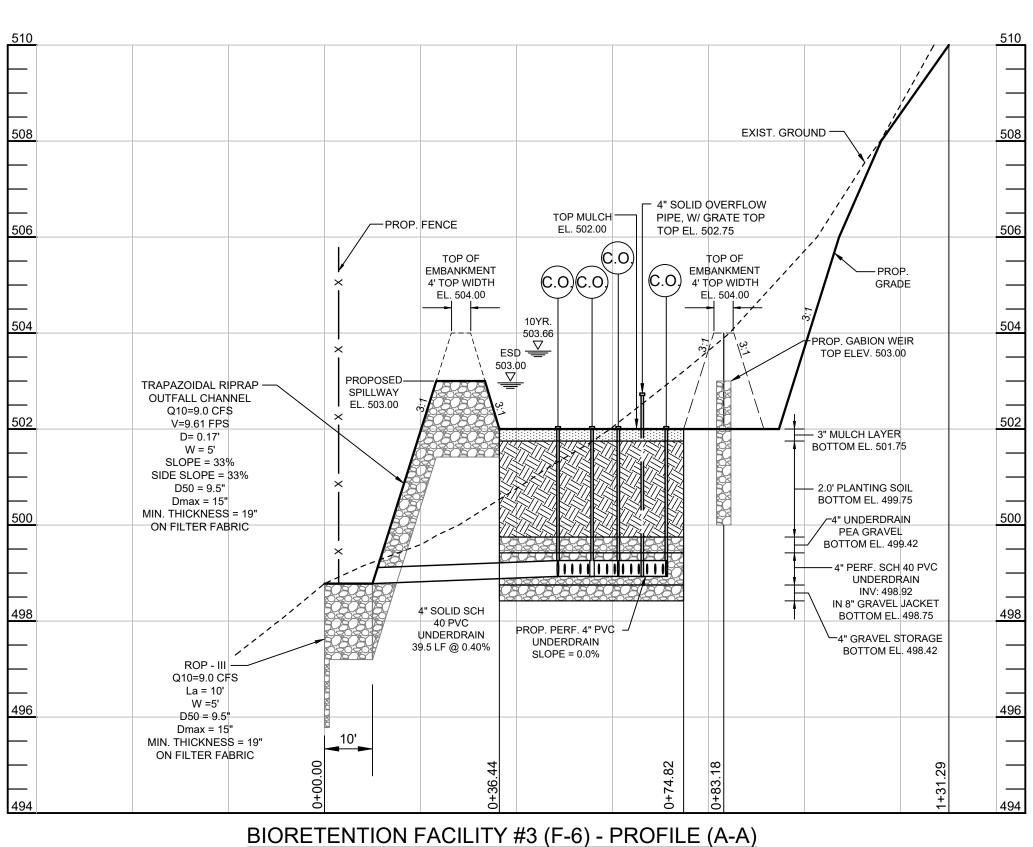
SCALE: 1"=20'



PLAN VIEW - BIORETENTION FACILITY #3 (F-6) LANDSCAPE PLAN SCALE: 1"=20'

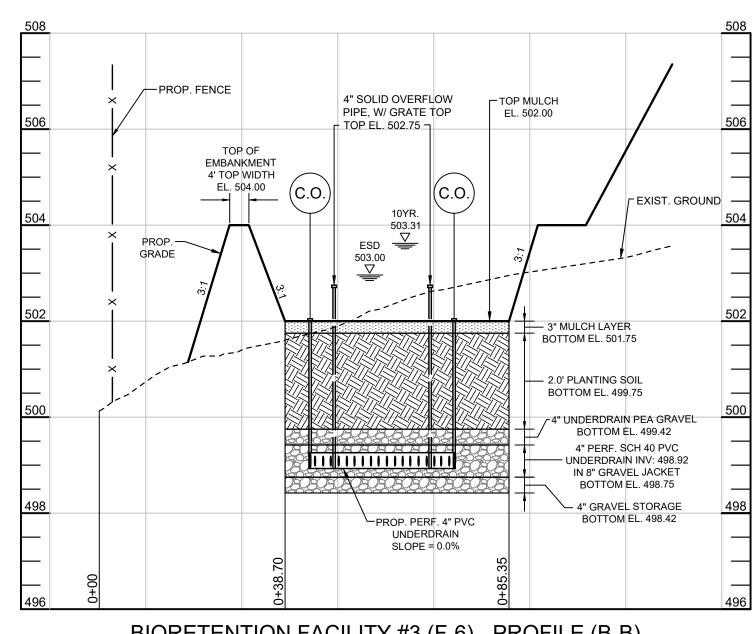
BIO#3 PIPE SCHEDULE					
SIZE	TYPE	LENGTH			
4" PERFORATED	SCH 40 PVC	100 LF			
4" SOLID	SCH 40 PVC	39.5 LF			





DATE

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=2'



BIORETENTION FACILITY #3 (F-6) - PROFILE (B-B)

HORIZONTAL SCALE: 1"=20" VERTICAL SCALE: 1" = 2'

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

DEVELOPER

KDC SOLAR MARYLAND, LLC 1420 US HIGHWAY 206, SUITE 120 BEDMINSTER, NJ 07921 WALTER SERAFYN 908-955-4360 WALTER.SERAFYN@CIRENEW.COM

	BIORETENTION PLANT LIST							
	SHRUBS							
LEGEND	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QTY. BIO 3		
+	ILEX VERTICULATA	WINTERBERRY	AS SHOWN (MIN. 4' O.C.)	24"- 36" HT.	1 MALE PLANT PER 9 FEMALE PLANTS, PLACE IN CENTER	10		
	HAMMAMELIS X INTERMEDIA 'ARNOLD PROMISE'	WITCH HAZEL 'ARNOLD PROMISE'	AS SHOWN (MIN. 15' O.C.)	3-4 FEET	B & B	3		
		PER	ENNIALS					
LEGEND	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QTY. BIO 3		
( <del>+</del> )	ECHINACEA PURPUREA	PURPLE CONEFLOWER	AS SHOWN* (MIN. 2' O.C.)	1 GAL		17		
0	RUDEBECKIA HIRTA	BLACK EYED SUSAN	AS SHOWN* (MIN. 2' O.C.)	1 GAL		17		

NOTE: PLANT MATERIAL MUST COVER 50% OF THE MULCH AREA AT MATURE GROWTH.

## ΓAX MAP 15 GRID 3 3RD ELECTION DISTRICT

SILL GROUP, LLC 16005 Frederick Road, 2nd Floor Woodbine, Maryland 21797

STORMWATER MANAGEMENT

NOTES AND DETAILS

SUNEAST CLEAR VIEW FARM SOLAR FACILITY

13370 ROUTE 144

- Engineering Phone: 443.325.5076 Fax: 410.696.2022

Email: info@sillengineering.com Civil Engineering for Land Development

ROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME , AND THAT I AM A DUI CENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2023

SDP-21-025

PARCEL 73

HOWARD COUNTY, MARYLAND

DESIGN BY: PS

DRAWN BY: TB

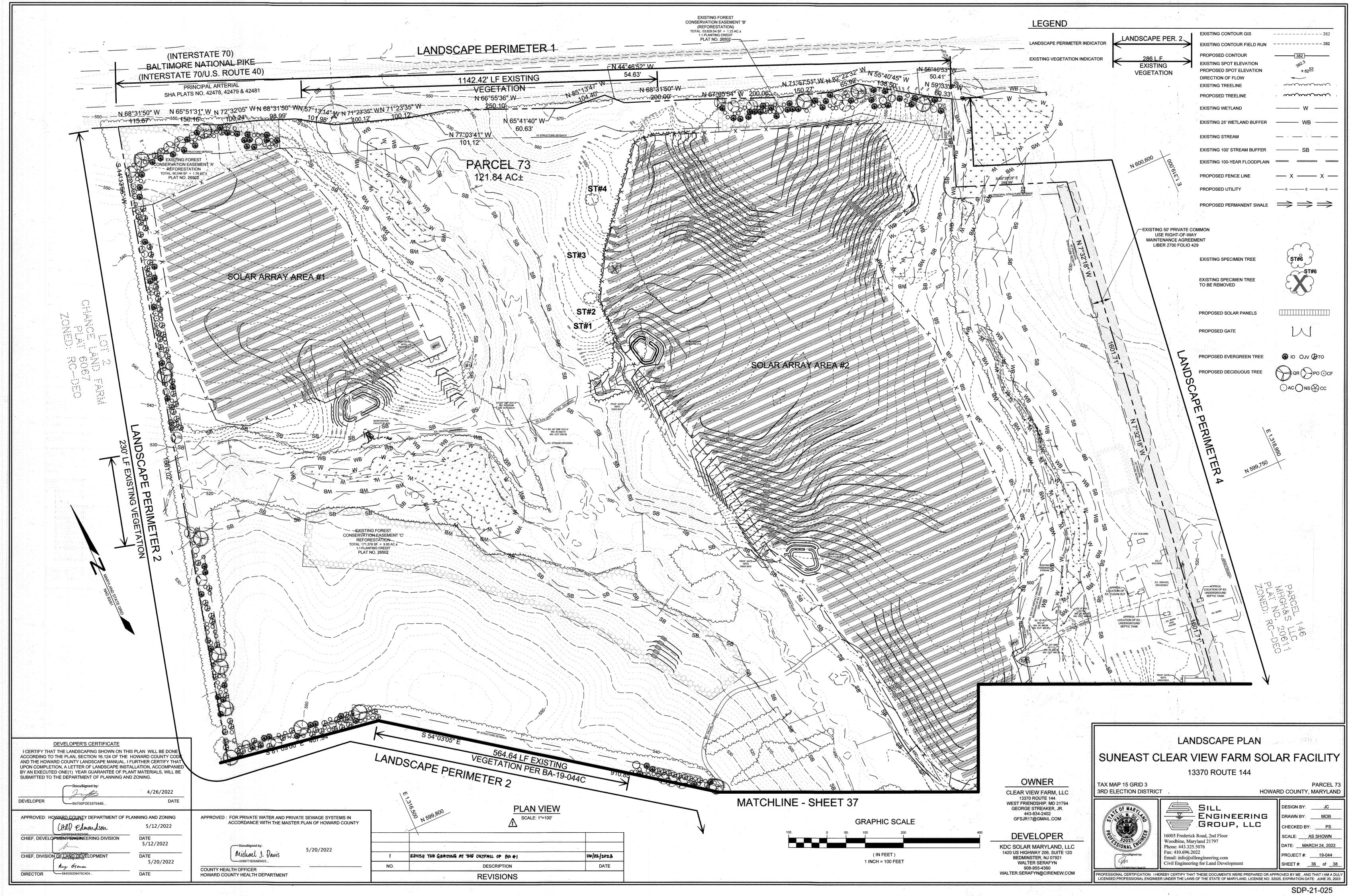
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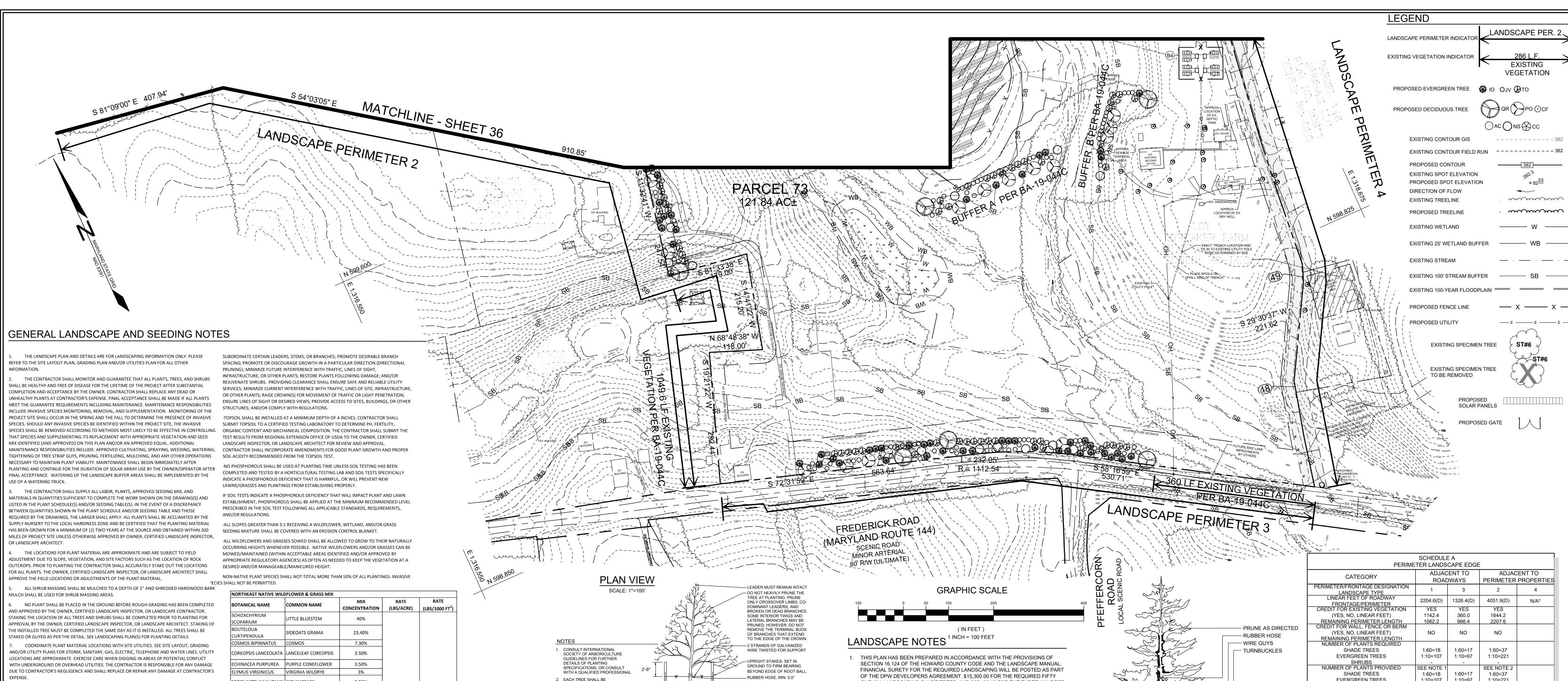
SCALE: AS SHOWN

DATE: MARCH 24, 2022

PROJECT #: \_\_\_\_\_19-044

SHEET#: <u>35</u> of <u>38</u>





LANDSCAPE PLANTING PITS MUST BE FREE DRAINING, PAVEMENT, COMPACTED SUBGRADE,

AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL

#### PLANTING SOIL MIXTURE:

#### 2 PARTS PEAT MOSS **5 PARTS TOPSOIL**

MYCORHIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANAYLSIS

·TREES, AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH, THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT UNLESS OTHERWISE STATED. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, LANDSCAPE ARCHITECT, HOWARD COUNTY PLANNING AND ZONING BOARD SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED.

THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAIL(S) PROVIDED IN THE LANDSCAPING PLAN.

ALL PRUNING SHALL CONFORM TO THE TREE CARE INDUSTRY ASSOCIATION (TCIA) ANSI A300

-2017 PRUNING STANDARDS. PRUNING STANDARDS SHALL RECOGNIZE BUT. ARE NOT LIMITED TO, THE FOLLOWING PRUNING OBJECTIVES: MANAGE RISK, MANAGE HEALTH, DEVELOP STRUCTURE, PROVIDE CLEARANCE, MANAGE SIZE OR SHAPE, IMPROVE AESTHETICS, MANAGE PRODUCTION OF FRUIT, FLOWERS, OR OTHER PRODUCTS, AND/OR MANAGE WILDLIFE HABITAT. DEVELOPING STRUCTURE SHALL IMPROVE BRANCH AND TRUNK ARCHITECTURE, PROMOTE OR

SORGHASTRUM NUTANS INDIANGRASS 2.50% JPINUS POLYPHYLLUS BIGLEAF LUPINE 2.20% CHAMAECRISTA PARTRIDGE PEA 2% ASCICULATA LPHINIUM AJACI AILLARDIA ARISTATA BLANKET FLOWER TALL WHITE ENSTEMON DIGITALIS 1% BEARDTONGUE SHIRLEY MIX (CORN PAVER RHOEAS 0.60% OPPY, SHIRLEY MIX) 0.46 NDROPOGON GERARDII BIG BLUESTEM 0.50% YMUS CANADENSIS CANADA WILDRYE 0.50%

**SLAZING STAR** SCLEPIAS SYRIACA COMMON MILKWEED 0.40% SCLEPIAS TUBEROSA BUTTERFLY MILKWEED 0.40% IZIA AUREA GOLDEN ALEXANDERS 0.30% SWAMP MILKWEED SCLEPIAS INCARNATA 0.30% WILD BERGAMONT 0.20% APPALACHIAN 0.20% AFVIGATUS BEARDTONGUE MARYLAND SENNA 0.20% OLIDAGO NEMORALIS GRAY GOLDENROD 0.10% RADESCANTIA OHIENSIS OHIO SPIDERWORT 0.10% SMOOTH BLUE ASTER 0.10% STER NOVAE-ANGLIAE | NEW ENGLAND ASTER 0.10%

DXEYE SUNFLOWER NOTE: NATIVE POLLINATOR SEED MIXES ARE INTENDED TO PROVIDE AN EXCELLENT WILDLIFE FOOD AND SHELTER THAT WILL ATTRACT A VARIETY OF POLLINATORS AND SONGBIRDS. THE NATIVE WILDFLOWERS AND GRASSES IN THIS MIX PROVIDE AN ATTRACTIVE DISPLAY OF COLOR FROM SPRING TO FALL. POLLINATOR SEED MIXES ARE INTENDED TO PROVIDE NECTAR AND FOOD SOURCES FOR A VARIETY OF POLLINATORS AND LARVA. THESE MIXES ARE COMPRISED

0.10%

APPROVED: HOWARD, SOLINT: Y DEPARTMENT OF PLANNING AND ZONING					
CHA	D Edmondson	5/12/2022			
	F9A84923495 亞內國內EERING DIVISION	DATE 5/12/2022			
CHIEF, DIVISION OF	ND DEVELOPMENT	DATE			

Amy Glonan

5/20/2022

**DEVELOPER'S CERTIFICATE** I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING. 3/25/2022 DEVELOPER DATE

ZIGZAG ASTER

B4700FDE337544B..

OF A FAIRLY EVEN MIX OF NATIVE AND/OR INDIGENOUS WILDFLOWERS.

SCALE: 1"=100'			LEADER MUST REMAIN INTACT  DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO- DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
1. CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL. 21.	-6"		2 STRANDS OF GALVANIZED WIRE TWISTED FOR SUPPORT  UPRIGHT STAKES- SET IN GROUND TO FIRM BEARING BEYOND EDGE OF ROOT BALL.
2. EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.			— RUBBER HOSE, MIN. 0.5"  CUT BURLAP, ROPE AND WIRE  LOOPS FROM TOP HALF OF  ROOT BALL AND FOLD ANY
STAKES SHALL BE REMOVED NO     LATER THAN THE END OF THE     FIRST GROWING SEASON AFTER     PLANTING.			WIRE BASKET DOWN 8"  —MIN. 2" DEPTH MULCH @ 6'Ø.  —4" EARTH SAUCER
4. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.			FINISH GRADE
5. KEEP MULCH 1" FROM TRUNK  6. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.			ROOT BALL SHALL BE FLUSH WITH ORIGINAL GRADE OR RAISED UP TO 2" MAX.  PLANTING MIX- SEE PLANTING NOTES
7. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE AREA.	PLANTING 2-3 TIME ROOT BALL DIA	S V	PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL

TYPICAL TREE PLANTING AND STAKING DECIDUOUS TREES UP TO 2-1/2" CALIPER

LANDSCAPE PLANT LIST KEY QUANTITY BOTANICAL NAME COMMON NAME SIZE NOTE SHADE TREES PLATANUS OCCIDENTALIS AMERICAN SYCAMORE 2 1/2"- 3"\*\* CAL. B & B FULL HEAD 22 NYSSA SYLVATICA BLACK TUPELO 2 1/2"- 3" CAL. B & B QUERCUS RUBRA NORTHERN RED OAK 2 1/2" CAL. B & B ORNAMENTAL / UNDERSTORY TREES AMELANCHIER CANADENSIS SERVICEBERRY 2 1/2"-3" CAL. | B & B, MULTI STEM ⊗cc CERCIS CANADENSIS EASTERN REDBUD 2 1/2"-3" CAL. | B & B, MULTI STEM (+)CF CORNUS FLORIDA FLOWERING DOGWOOD 2 1/2" CAL. B & B EVERGREEN TREES AMERICAN HOLLY B & B, FULL 131 **ILEX OPACA** 5'-6' HT.\* O JV 223 JUNIPERUS VIRGINIANA EASTERN REDCEDAR 6'-8' HT. B & B, FULL **⊘**то THUJA OCCIDENTALIS 127 ARBORVITAE 5'-6' HT. B & B, FULL

NOTE: IF THERE IS A CONFLICT BETWEEN THE PLANT LIST AND THE PLANS, THE LARGER NUMBER PREVAILS. \*NOTE: PER THE FOREST CONSERVATION MANUAL, 6-8' HT. AT LOCATIONS WITHIN THE FOREST CONSERVATION EASMENTS. \*\*NOTE: PER WP-21-098 TWO 3" CALIPER SHADE TREES ARE REQUIRED TO REPLACE ST-3. THESE HAVE BEEN ADDED TO BUFFER A

ONE (51) LANDSCAPING SHADE TREES, AND \$57,450.00 FOR THE THREE HUNDRED AND EIGHTY THREE(383) ORNAMENTAL AND EVERGREEN TREES. FOR A TOTAL OF \$72,750.00.

2. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND

CERTIFICATES. 3. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS, ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY. REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR

4. PER BA-19-044C, ALL PERIMETER LANDSCAPE PLANTING HAS BEEN APPROVED AND IS TO BE A TYPE 'D' PERIMETER.

2" MULCH PLANT SAUCER REMOVE BURLAP FROM TOP 1/3 OF BALL 2"X4"X3' WOOD STAKES BACKFILL MATERIAL, SEE PLANTING /SOIL SPECIFICATIONS, NOTE 3 PLACE ROOT BALL ON UNEXCAVATED OR TAMPED · 1'-0" ALL SIDES

NOTE: ALL MATERIALS

AS SPECIFIED

TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

BOTANICAL NAME	COMMON NAME	MIX CONCENTRATION	RATE (LBS/ACRE)	RATE (LBS/1000 FT <sup>2</sup> )
FESTUCA RUBRA	CREEPING RED FESCUE	34%		6
FESTUCA OVINA	SHEEP FESCUE	33%		
FESTUCA BREVIPILA 'BEACON'	HARD FESCUE 'BEACON'	10%		
FESTUCA OVINA VAR. DURIUSCULA 'RHINO'	HARD FESCUE 'RHINO'	5%		
FESTUCA OVINA VAR. GLAUCA (F. ARVERNENSIS) (F. GLAUCA), 'BLUE RAY'	BLUE FESCUE 'BLUE RAY'	5%	262	
POA PRATENSIS 'ARGYLE'	KENTUCKY BLUEGRASS 'ARGYLE'	5%		
POA PRATENSIS 'SHAMROCK'	KENTUCKY BLUEGRASS 'SHAMROCK'	5%		
AGROSTIS PERENNANS, ALBANY PINE BUSH-NY ECOTYPE	AUTUMN BENTGRASS, ALBANY PINE BUSH-NY ECOTYPE	3%		

GRASS SEED MIXES ARE COMPRISED OF GRASSES THAT ARE NATIVE AND/OR INDIGENOUS TO THE AREA

PLANTINGS AROUND SOLAR ARRAY FIELDS AND SHALL BE UTILIZED ACCORDINGLY. THESE GRASSES

AND/OR CONSIDERED FAVORABLE FOR WILDLIFE HABITAT AND SUSTAINABLE GROWTH.

ADDITIONALLY, THE SOLAR FARM SEED MIX WAS DEVELOPED ESPECIALLY FOR NATIVE GRASS

WILL MATURE OUT TO A HEIGHT OF APPROXIMATELY 2 TO 2 1/2 FEET HIGH. THERE ARE NO

WILDFLOWER OR POLLINATOR SEED SPECIES CONTAINED IN THESE NATIVE GRASS SEED MIXES.

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

OWNER

DEVELOPER

KDC SOLAR MARYLAND, LLC 1420 US HIGHWAY 206, SUITE 120 BEDMINSTER, NJ 07921 WALTER SERAFYN 908-955-4360 WALTER.SERAFYN@CIRENEW.COM

PERIMETER/FRONTAGE DESIGNATION LANDSCAPE TYPE	1	3	2	4
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	2204.6(D)	1326.4(D)	4051.9(D)	N/A*
CREDIT FOR EXISTING VEGETATION	YES	YES	YES	
(YES, NO, LINEAR FEET)	1142.4	360.0	1844.2	
REMAINING PERIMETER LENGTH	1062.2	966.4	2207.6	
CREDIT FOR WALL, FENCE OR BERM				
(YES, NO, LINEAR FEET)	NO	NO	NO	
REMAINING PERIMETER LENGTH				
NUMBER OF PLANTS REQUIRED				
SHADE TREES	1:60=18	1:60=17	1:60=37	
EVERGREEN TREES	1:10=107	1:10=97	1:10=221	
SHRUBS	-	-	-	
NUMBER OF PLANTS PROVIDED	SEE NOTE 1		SEE NOTE 2	
SHADE TREES	1:60=18	1:60=17	1:60=37	
EVERGREEN TREES	1:10=107	1:10=97	1:10=221	
SHRUBS	-			

1. 4 UNDER STORY TREES SUBSTITUTED FOR 2 SHADE TREES 2. 12 UNDER STORY TREES SUBSTITUTED FOR 6 SHADE TREES. 3. THERE ARE 11 SHADE TREES AND 56 EVERGREEN TREES IN BUFFERS A AND B PER BA-19-044C. (SEE NOTE 5 FOR AN

4. 22 SHADE TREES AND 114 EVERGREEN/ORNAMENTAL TREES ARE EXEMPT FROM LANDSCAPING SURETY AS THEY ARE IN THE FOREST CONSERVATION SURETY. 5 AS PART OF THE REQUIRMENT OF WP-21-098 TWO SHADE

TREES HAVE BEEN ADDED. THEY ARE LOCATED IN BUFFER A, FOR A TOTAL OF 13 SHADE TREES.

\*NO PERIMETER PLANTING REQUIRED FOR PERIMETER 4, SINCE THIS IS A JOINT DEVELOPMENT WITH PARCEL 146, SDP-21-047. PER BA-19-044C, ALL PERIMETERS TO BE A TYPE 'D'

# LANDSCAPE PLAN SUNEAST CLEAR VIEW FARM SOLAR FACILITY

13370 ROUTE 144 TAX MAP 15 GRID 3

Email: info@sillengineering.com

Civil Engineering for Land Development

Fax: 410.696.2022

3RD ELECTION DISTRICT

SILL - Engineering GROUP, LLC 16005 Frederick Road, 2nd Floor Woodbine, Maryland 21797 Phone: 443.325.5076

ROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME . AND THAT I AM A DUI

DESIGN BY: PS\_ DRAWN BY: MOB CHECKED BY: PS SCALE: AS SHOWN DATE: MARCH 24, 2022 PROJECT #: 19-044 SHEET#: <u>37</u> of <u>38</u>

HOWARD COUNTY, MARYLAND

PARCEL 73

ICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2023 SDP-21-025

