GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO PER 10-06-2013 COMPREHENSIVE ZONING PLAN.
- PROPERTY IS LOCATED ON FREDERICK ROAD, A SCENIC ROAD. PROPERTY IS SUBJECT TO PRESERVATION EASEMENT HO-90-17-E
- DEED REFERENCE: LIBER 3999, FOLIO 580
- NUMBERS BA-15-026C, BA-19-044C, AND BA-19-045C PRIVATE WELL AND SEWAGE DISPOSAL AREAS ARE USED WITHIN THIS SITE. THERE ARE NO WELLS OF
- SEWAGE DISPOSAL AREAS WITHIN THE ONDITIONAL USE AREAS. THE BOUNDARY SHOWN WAS FIELD RUN BY SILL, ADCOCK & ASSOCIATES ON OR ABOUT MAY, 2006.
- THE CONTOURS ARE SHOWN AT TWO-FOOT CONTOUR INTERVALS. ALL OTHER TOPOGRAPHY IS BASED
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE. NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE. HOWARD COUNTY SOILS GRID 8
- 10. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES WITHIN THE CONDITIONAL USE AREA
- PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
- THIS PROPERTY IS SUBJECT TO THE HOWARD COUNTY CASE BA-19-044C TO ALLOW THE CONDITIONAL USE FOR A COMMERCIAL SOLAR FACILITY AND WAS APPROVED ON DECEMBER 22, 2020 WITH THE
- OTHER ACTIVITIES USE, OR STRUCTURES ON THE PROPERTY:
- 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
- ANY COMMERCIAL SOLAR FACILITY THAT IS NO LONGER USED SHALL BE REMOVED BY THE

- 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 EASEMENT PROPERTY:
- DEVELOPMENT PLANS, SUBDIVISION PLANS, GRADING OR BUILDING PERMITS, PLAN REVISIONS OR FOREST CONSERVATION PLANS, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL
- SHAPE, AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE, ALTERING THE NUMBER OF UNITS ALLOCATED FOR THIS DEVELOPMENT.

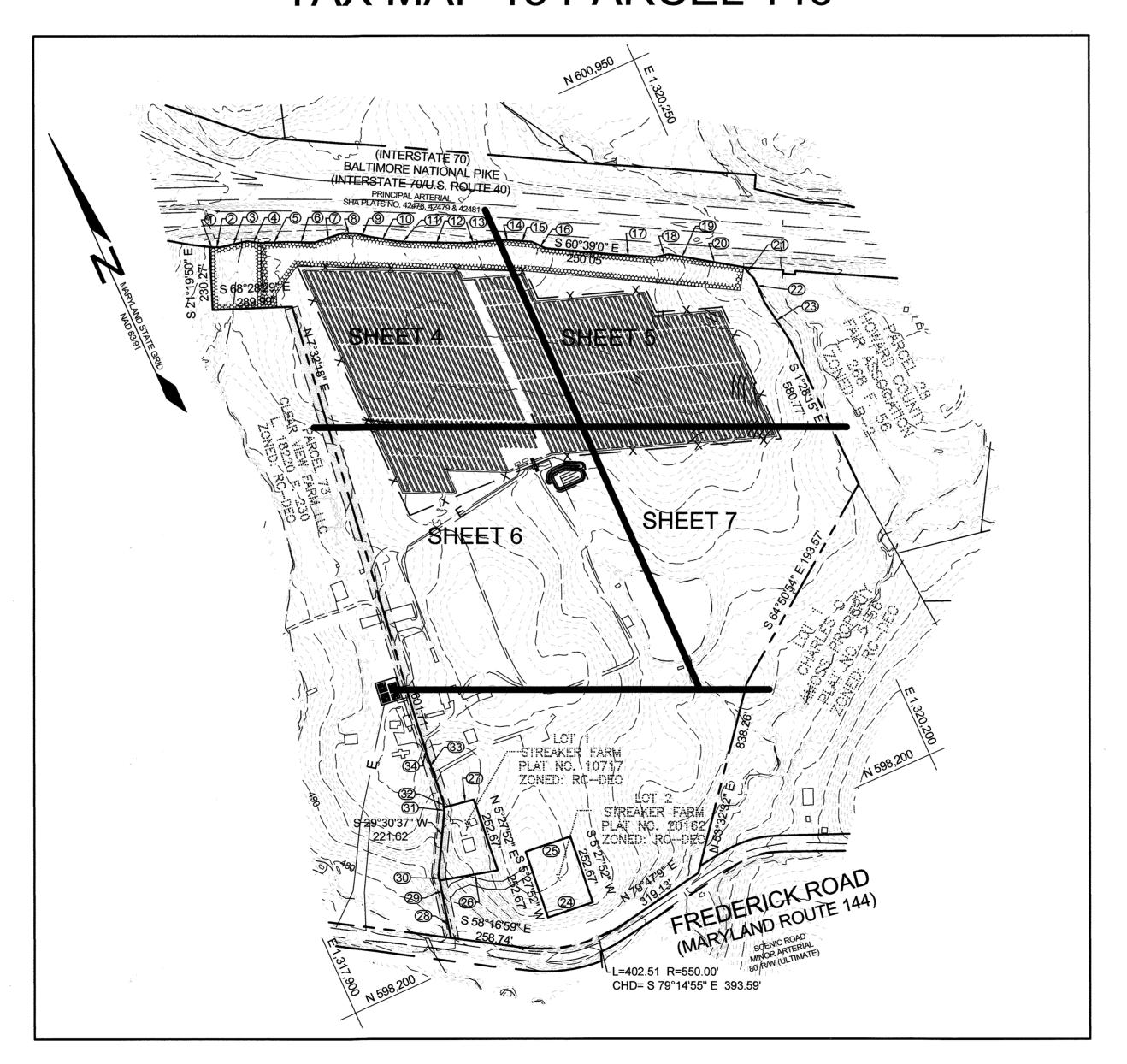
| BEARING & DISTANCE CHART | | | | |
|--------------------------|-------------------|----------|--|--|
| TAG | BEARING | DISTANCE | | |
| 1 | S 59°45'9" E | 14.16' | | |
| 2 | S 67°10'36" E | 24.67' | | |
| 3 | N 78°18'37" E | 100.78' | | |
| 4 | S 58°25'37" E | 49.91' | | |
| 5 | S 68°25'56" E | 98.90' | | |
| 6 | S 64°27'18" E | 98.85' | | |
| 7 | S 84°35'21" E | 104.98' | | |
| 8 | S 64°44'21" E | 49.56' | | |
| 9 | S 50°52'20" E | 50.97' | | |
| 10 | S 56°37'51" E | 99.82' | | |
| 11 | S 61°25'24" E | 49.49' | | |
| 12 | S 64°51'5" E | 197.92' | | |
| 13 | S 70°17'7" E | 150.03' | | |
| 14 | S 61°49'21" E | 16.60' | | |
| 15 | S 61°46'53" E | 81.15' | | |
| 16 | S 40°38'9" E | 55.40' | | |
| 17 | S 61°47'45" E | 150.00' | | |
| 18 | S 78°29'42" E | 52.20' | | |
| 19 | S 56°5'7" E | 100.50' | | |
| 20 | S 56°5'7" E | 178.78' | | |
| 21 | S 18°47'3" E | 56.64' | | |
| 22 | S 0°28'53" E | 94.97' | | |
| 23 | S 9°43'15" E | 164.83' | | |
| 24 | S 84°30'57" E | 172.40' | | |
| 25 | S 84°30'57" E | 172.40' | | |
| 26 | S 75°50'58" E | 214.66' | | |
| 27 | S 80°45'16" E | 113.12' | | |
| 28 | N 12°13'45" E 114 | | | |
| 29 | N 14°9'43" E | 98.69' | | |
| 30 | N 13°12'9" E | 24.84' | | |
| 31 | N 21°3'1" E | 21.14' | | |
| 32 | N 19°28'32" E | 19.03' | | |
| 33 | N 4°55'7" E | 158.57' | | |
| 34 | N 6°7'43" E | 129.98' | | |
| | I . | L | | |

| SITE ANALYSIS I | DATA SHEET |
|---------------------------|-----------------|
| ENVIRONMENTAL AREA | SIZE OR USE (1) |
| TOTAL PROJECT AREA | 82.22 ACRES ± |
| LIMIT OF DISTURBANCE | 30.04 ACRES ± |
| GREEN OPEN AREA (LAWN) | 29.28 ACRES ± |
| IMPERVIOUS AREA | 0.76 ACRES ± |
| PROPOSED SITE USES | SOLAR FACILITY |
| WETLANDS | 0 SQ FT±* |
| WETLAND BUFFERS | 0 SQ FT±* |
| FLOODPLAINS | 0 SQ FT± |
| FLOODPLAIN BUFFERS | 0 SQ FT± |
| EXISTING FOREST | 0 SQ FT± |
| SLOPES GREATER THAN 15% | 719 SQ FT± |
| HIGHLY ERODIBLE SOILS (3) | 0.51 ACRES+ |

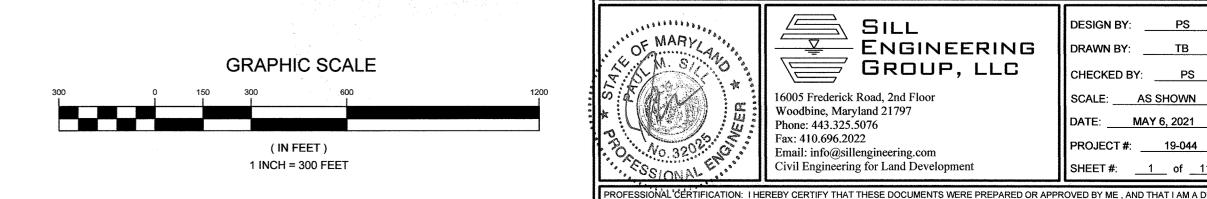
- AREAS LISTED ABOVE ARE WITHIN THE AREA OF DEVELOPMENT ONLY.
- 2. SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE
- 3. HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT

ENVIRONMENTAL CONCEPT PLAN SED PJM HOLDINGS LLC MHGH&S FARM SOLAR FACILITY, COMMERCIAL

TAX MAP 15 PARCEL 146



LOCATION MAP



LEGEND **EXISTING CONTOUR** _____382 PROPOSED CONTOUR **EXISTING SPOT ELEVATION** PROPOSED SPOT ELEVATION DIRECTION OF FLOW mEXISTING TREELINE **EXISTING SPECIMEN TREE EXISTING WETLAND** COUNTY **EXISTING STREAM BUFFE** PROPOSED 7' HIGH CHAIN HOWARD COUNTY, MARYLAND ADC MAP 17 GRIDS F1 & F2 AND MAP 18 GRIDS A1 & A2 VICINITY MAP

> **BENCHMARKS** NUMBER | NORTHING | EASTING | ELEVATION 597,228.1254 1,321,719.2760 597.926.9029 1.319.949.8262

| SHEET INDEX | | | |
|-------------|---|--|--|
| SHEET NO. | DESCRIPTION | | |
| 1 | COVER SHEET | | |
| 2 | EXISTING CONDITIONS AND SLOPE DELINEATION PLAN | | |
| 3 | SOILS MAP | | |
| 4 | SEDIMENT & EROSION CONTROL AND STORMWATER MANAGEMENT PLAN | | |
| 5 | SEDIMENT & EROSION CONTROL AND STORMWATER MANAGEMENT PLAN | | |
| 6 | SEDIMENT & EROSION CONTROL AND STORMWATER MANAGEMENT PLAN | | |
| 7 | SEDIMENT & EROSION CONTROL AND STORMWATER MANAGEMENT PLAN | | |
| 8 | STORMWATER MANAGEMENT DRAINAGE AREA MAP | | |
| 9 | SITE DETAILS | | |
| 10 | LANDSCAPE PLAN | | |
| 11 | LANDSCAPE PLAN | | |

STORMWATER MANAGEMENT **NOTES & DESIGN NARRATIVE**

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

- ENVIRONMENTALLY SENSITIVE AREAS HAVE BEEN AVOIDED.
- TO THE GREATEST EXTENT PRACTICABLE THE NATURAL FLOW PATTERNS OF THE SITE HAVE BEEN MAINTAINED.
- THE DESIGN INCORPORATES THE LEAST IMPERVIOUS AREA POSSIBLE. SILT FENCES ARE USED AS SEDIMENT AND EROSION CONTROL DEVICES
- ESD PLANNING TECHNIQUES AND PRACTICES HAVE BEEN IMPLEMENTED, TO THE MAXIMUM EXTENT PRACTICABLE, THROUGH USE OF NON-ROOFTOP (N-2) DISCONNECTS. NO DESIGN MANUAL WAIVERS OR WAIVER PETITIONS ARE BEING REQUESTED
- 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. THE TEE TURNAROUNDS AND EQUIPMENT PADS WILL BE TREATED VIA NON-ROOF DISCONNECT.

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

GEORGE STREAKER, JR.

443-834-2402

GFSJR17@GMAIL.COM

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C/O REED WILLS 302-540-2696 REED.WILLS@SUNEASTPOWER.COM SUNEAST FRIENDSHIP ANEM SOLAR, LLC 110 PHOENIXVILLE PIKE

> MALVERN, PA 19355 C/O REED WILLS 302-540-2696 REED.WILLS@SUNEASTPOWER.COM

COVER SHEET MHGH&S SOLAR FACILITY

13300 FREDERICK ROAD

TAX MAP 15 GRID 3 3RD ELECTION DISTRICT

- ENGINEERING 6005 Frederick Road, 2nd Floor Woodbine, Maryland 21797 Phone: 443.325.5076 Fax: 410 696 2022 Email: info@sillengineering.com

LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2021

Civil Engineering for Land Development

DRAWN BY: _____TB_ CHECKED BY: PS SCALE: AS SHOWN DATE: MAY 6, 2021 PROJECT#: 19-044

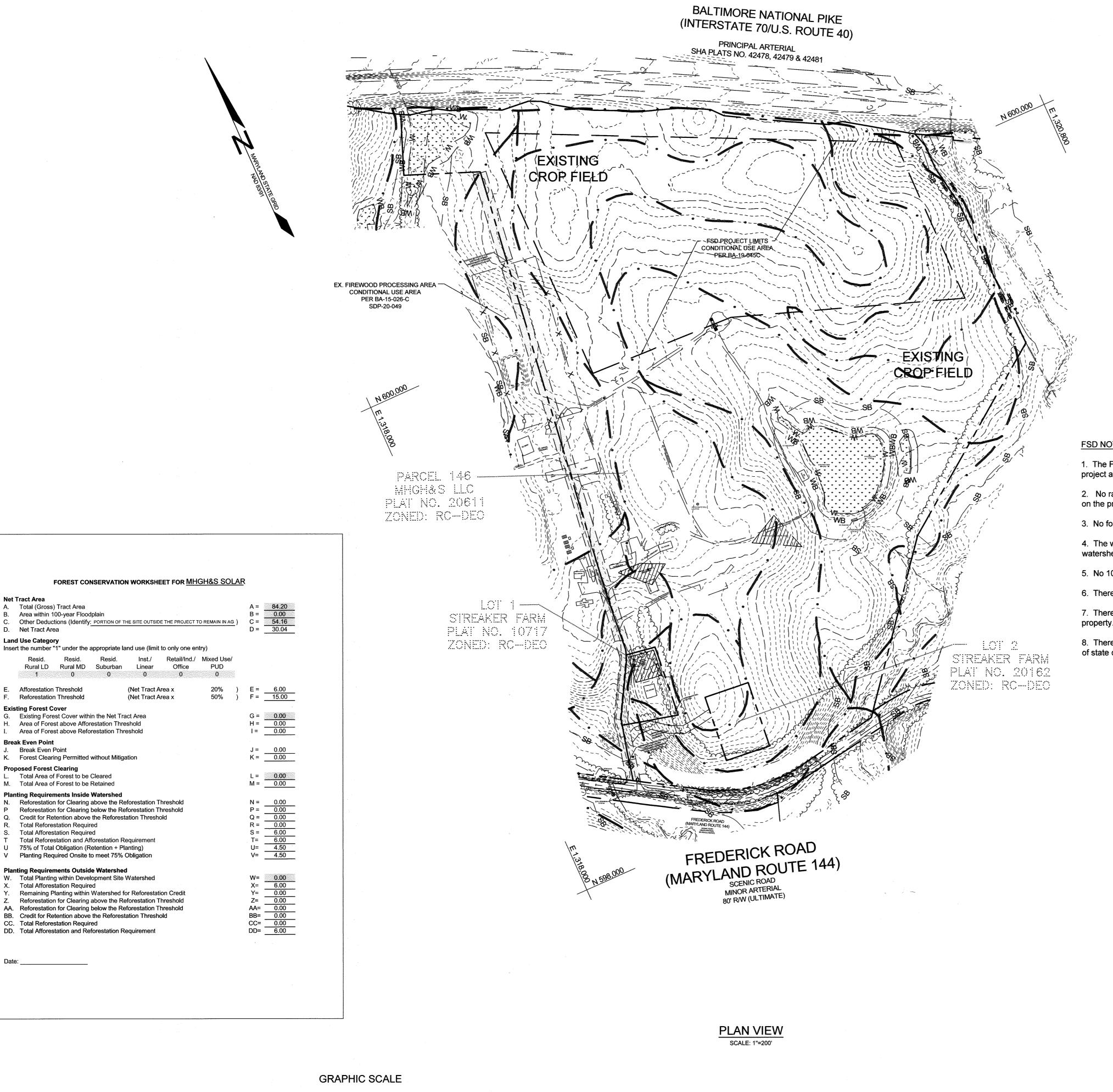
HOWARD COUNTY, MARYLAND

PARCEL 146

ECP-21-009

CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/17/21

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION VY DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

6.14.21

1 INCH = 200 FEET

LEGEND -----382 EXISTING CONTOUR mEXISTING TREELINE EXISTING SPECIMEN TREE **EXISTING WETLAND** EXISTING WETLAND BUFFE EXISTING STREAM **EXISTING STREAM BUFFER**

FSD NOTES:

- 1. The FSD and wetland delineation have been prepared for the proposed
- 2. No rare, threatened or endangered species or their habitats were observed on the property.
- 3. No forest is present within the project limits.
- 4. The wetlands and streams on/adjacent to the site are part of an the Use IV-P watershed of the Middle Patuxent River (02-12-09).
- 5. No 100 year floodplain is present within the project limits.
- 6. There are no steep slopes (25% or greater) in the development area.
- 7. There is no known historic structures, and no known cemeteries on the
- 8. There are no specimen trees, MD State Champion trees or trees 75 percent of state champions on the property.

SLOPES LEGEND

MODERATE SLOPES (15% TO 25%) STEEP SLOPES (OVER 25%)

NOTE: SLOPES SHOWN ARE THOSE CONTAINED

WITHIN THE DEVELOPMENT AREA.

Existing Condition/Simplified FSD Narrative

The subject property is located at 13266 and 13300 Frederick Road in the West Friendship section of Howard County, Maryland. This property encompasses approximately 84.2 acres of land that is zoned RC-DEO. The surrounding land uses include low density residential, agricultural land, forest and Interstate 70.

The subject property includes a mix of uses that include residential, crop land, barns, firewood processing facility, forest and wetland/stream resources. The residential uses are concentrated in the southwestern portion of the site. Two homes and associated outbuildings are present in this area.

The crop fields have been used corn and soybean production in recent years. The majority of the property has been used for crop production. A portion of the crop area had previously been used for firewood production. This activity has been removed from the southern end of the site and is now confined within a designated Firewood Processing Area that straddles the western edge of the property. This area has been created within a former crop field. The facility includes storage of uncut timber, cut firewood and associated processing machinery and equipment. The facility straddles the property boundary and extends onto the property to the west.

The forest on the property occurs on steep slopes in the southern edge of the site. The eastern boundary of the property abuts offsite forest that is part of a riparian valley but the forest does not extend into the site. A hedgerow separates the property from the I-70 right of way and a riparian hedgerow is present in the far northwestern corner of the site. No specimen trees were observed on the

The forest on the site is dominated by a mixed oak/tulip poplar community that includes tulip poplar, white oak, black oak, red maple, black cherry, sycamore, and american beech. The forest is narrow and impacted by invasive species including multiflora rose, Japanese honeysuckle, Oriental bittersweet, Japanese barberry, and Autumn olive.

No forest or specimen trees are present within the project limits.

A second order stream flows just off the eastern property boundary. The stream is well incised and supports only limited wetland development. A small wetland finger is present in the north eastern corner of the site. This wetland does not extend onto the property, but its buffer does. A wetland/pond complex is present in the southeastern corner of the site. The pond has been historically created by excavating a basin and construction a berm in a natural stream valley. Outfall from the pond is conveyed to the main channel by a perennial stream channel that is well confined. Additional wetland development was noted along the southern edge of the pond in a former crop field.

Forest Conservation Act Compliance

No forest is present within the project area therefore the afforestation requirements of the FCA will be generated for the project. Per the Forest Conservation Worksheet the afforestation obligation for the site is 6.0 acres. This obligation can be addressed with on or offsite planting/retention, FCA bank credit purchase or, if no other options exist, payment of the County fee-in-lieu.

OWNER

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EXISTING CONDITIONS AND FOREST STAND & SLOPE DELINEATION PLAN MHGH&S SOLAR FACILITY

13300 FREDERICK ROAD

TAX MAP 15 GRID 3 3RD ELECTION DISTRICT

PARCEL 146 HOWARD COUNTY, MARYLAND



16005 Frederick Road, 2nd Floor Woodbine, Maryland 21797 Phone: 443.325.5076 Fax: 410.696.2022 Email: info@sillengineering.com

SILL DESIGN BY: PS ENGINEERING DRAWN BY: _____TB GROUP, LLC

CENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2021

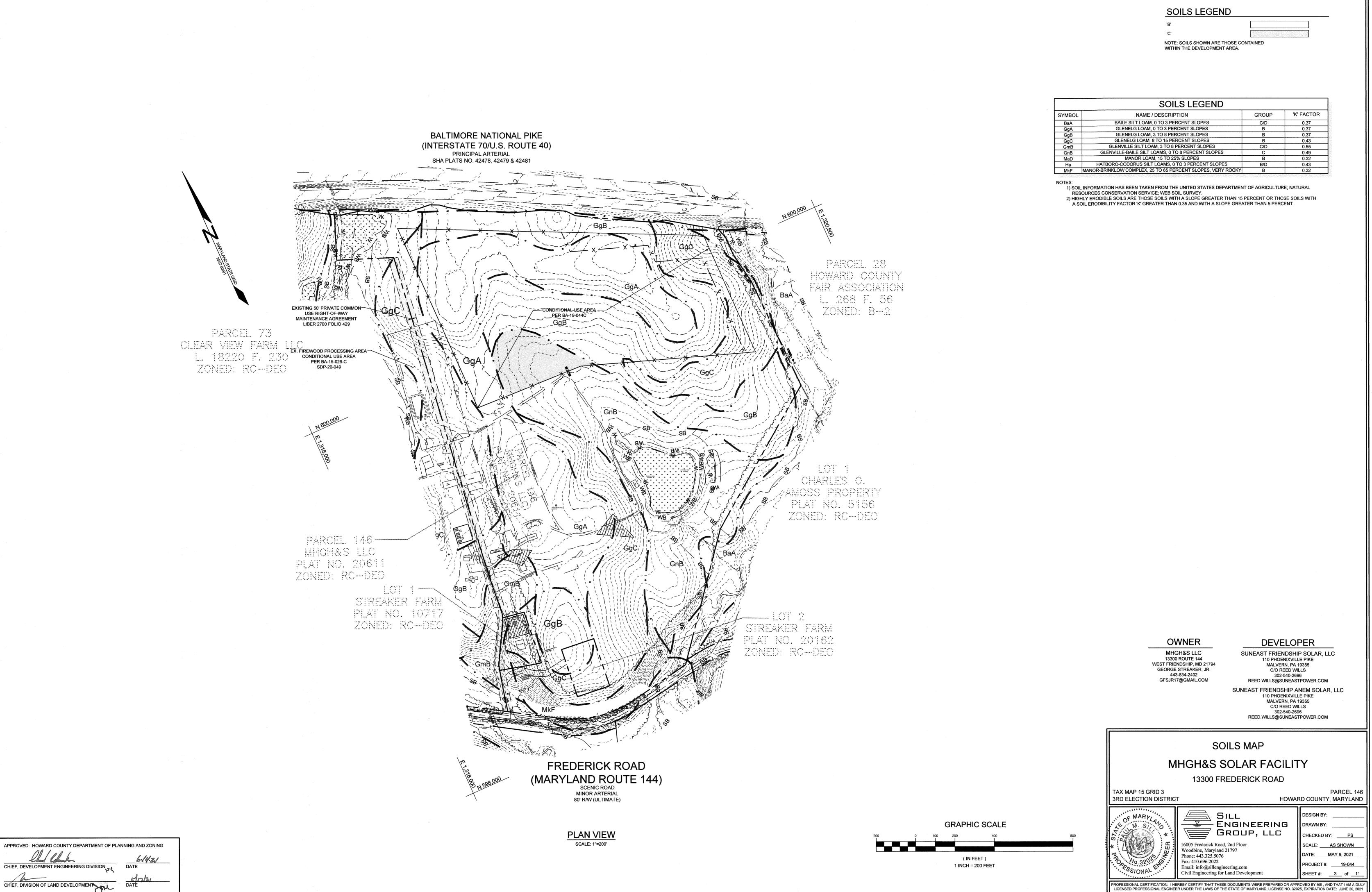
CHECKED BY: PS SCALE: AS SHOWN DATE: MAY 6, 2021 PROJECT#: 19-044 Civil Engineering for Land Development SHEET #: 2 of 11 PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME , AND THAT I AM A DUL

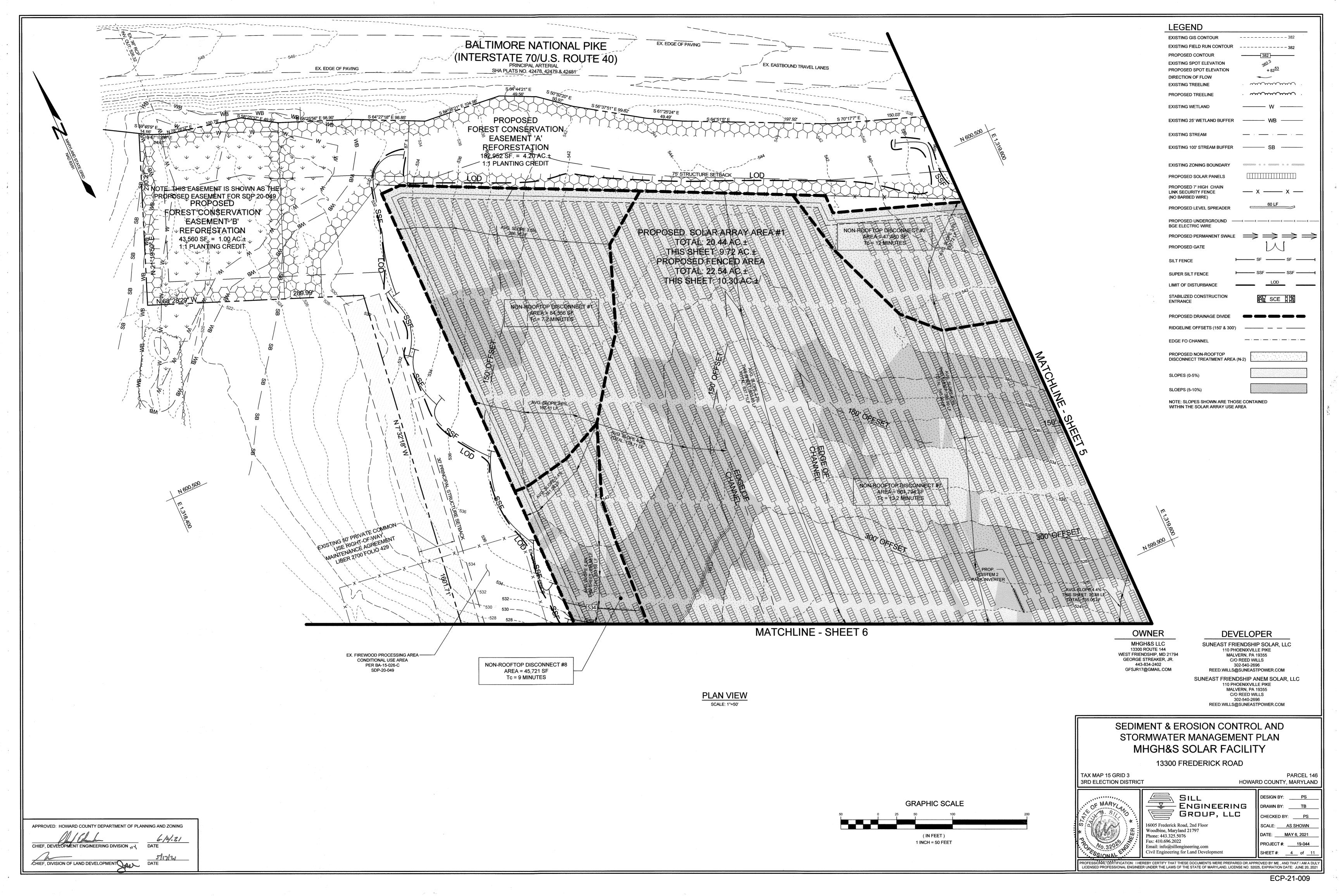
ECP-21-009

JOANNE CAREY RLA 4148 MD DNR QUALIFIED PROFESSIONAL

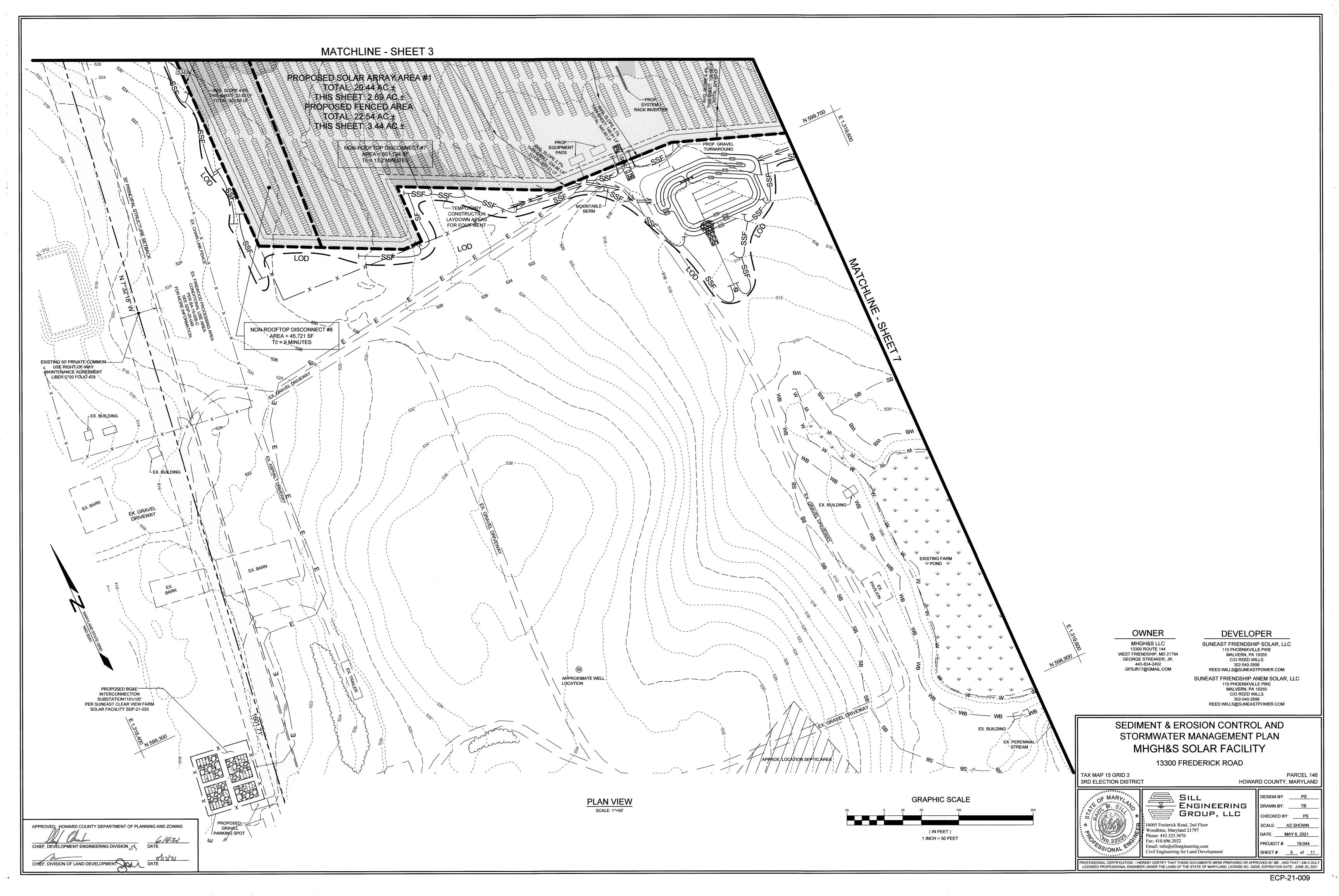
Eco-Science Professionals, Inc. Consulting Ecologists Telephone (410) 832-2480 Fax (410) 832-2488 P.O. Box 5006 Glen Arm, Maryland 21057

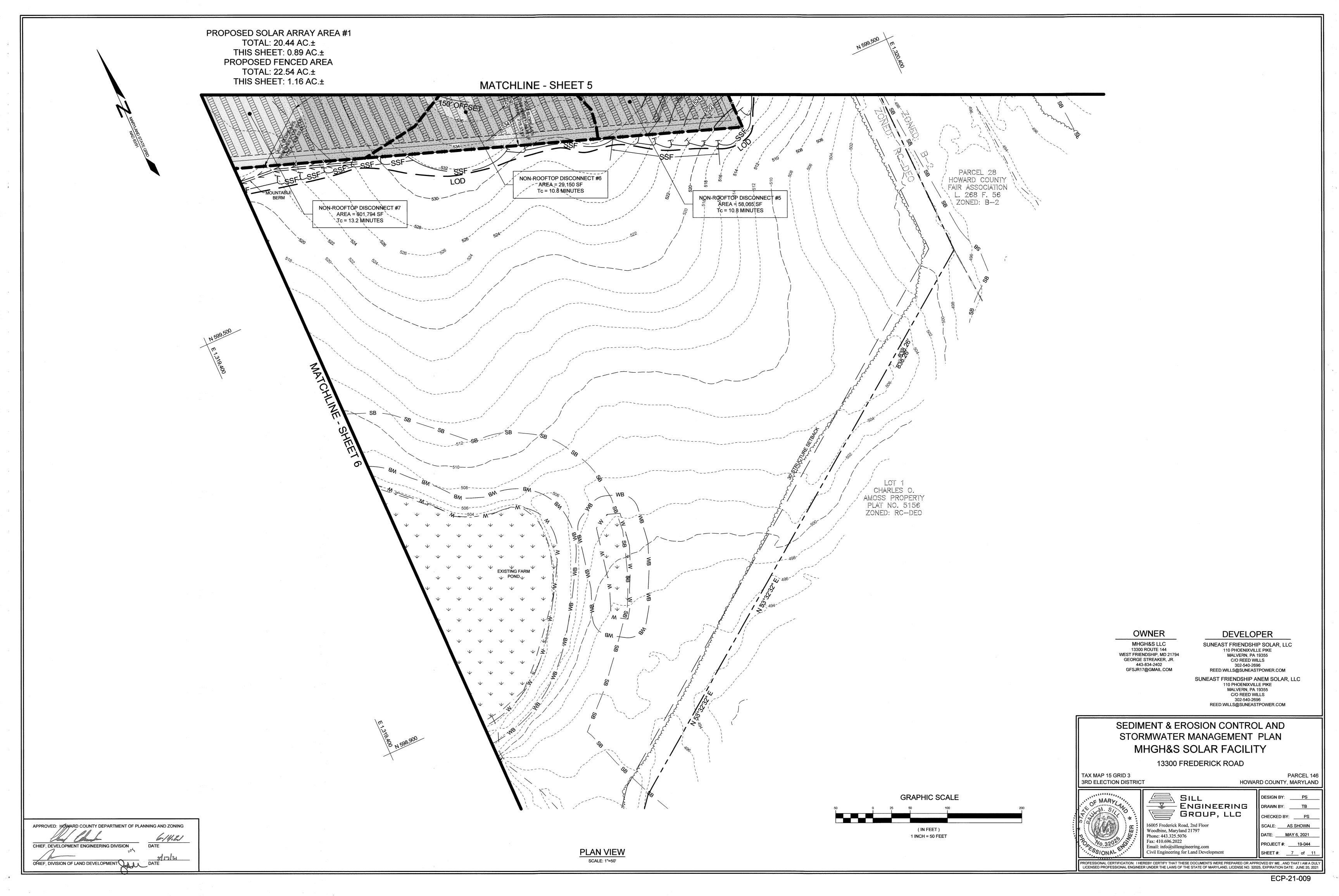
MD DNR Qualified Professional USACOE Wetland Delineator Certification # WDCP93MD0610044B

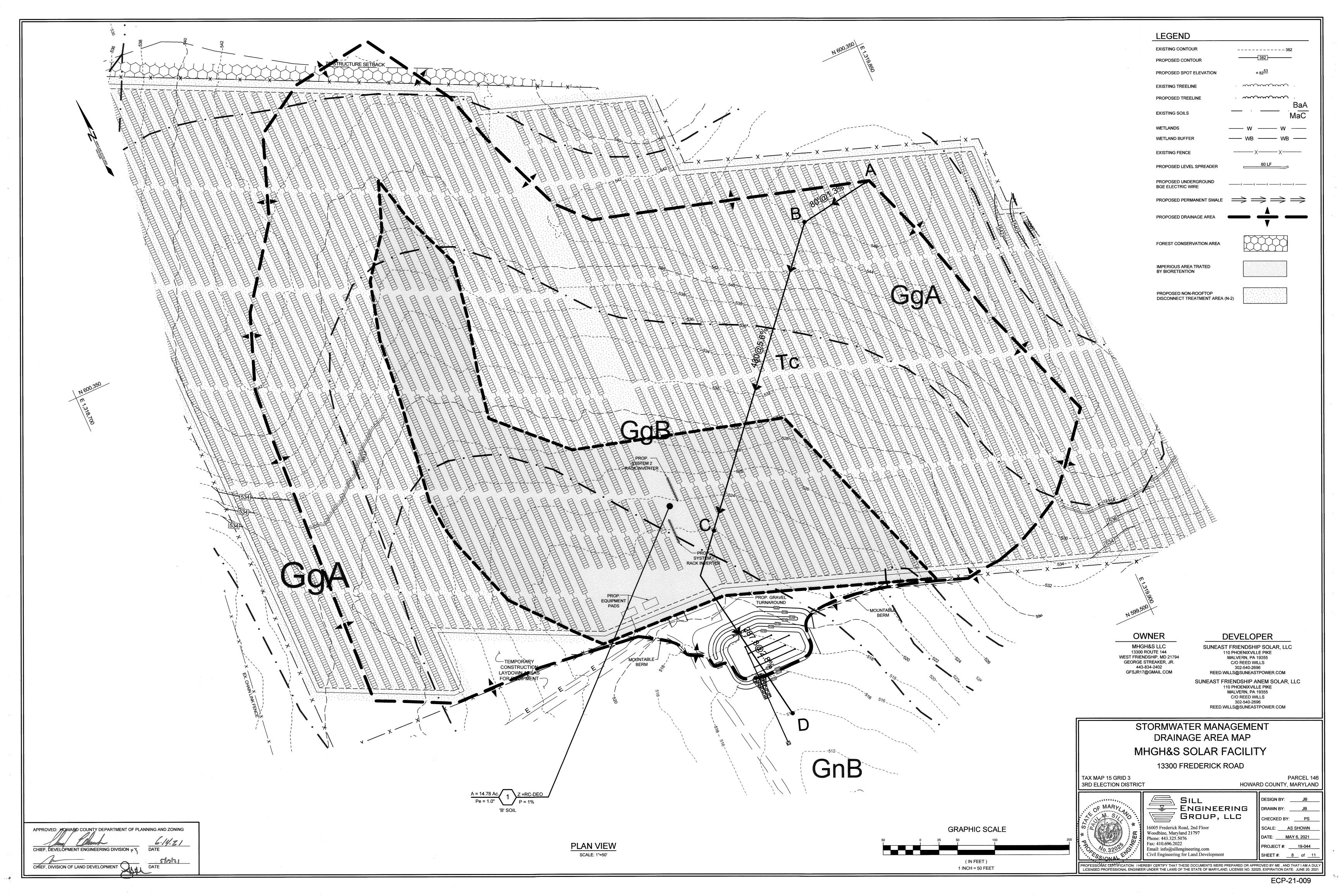


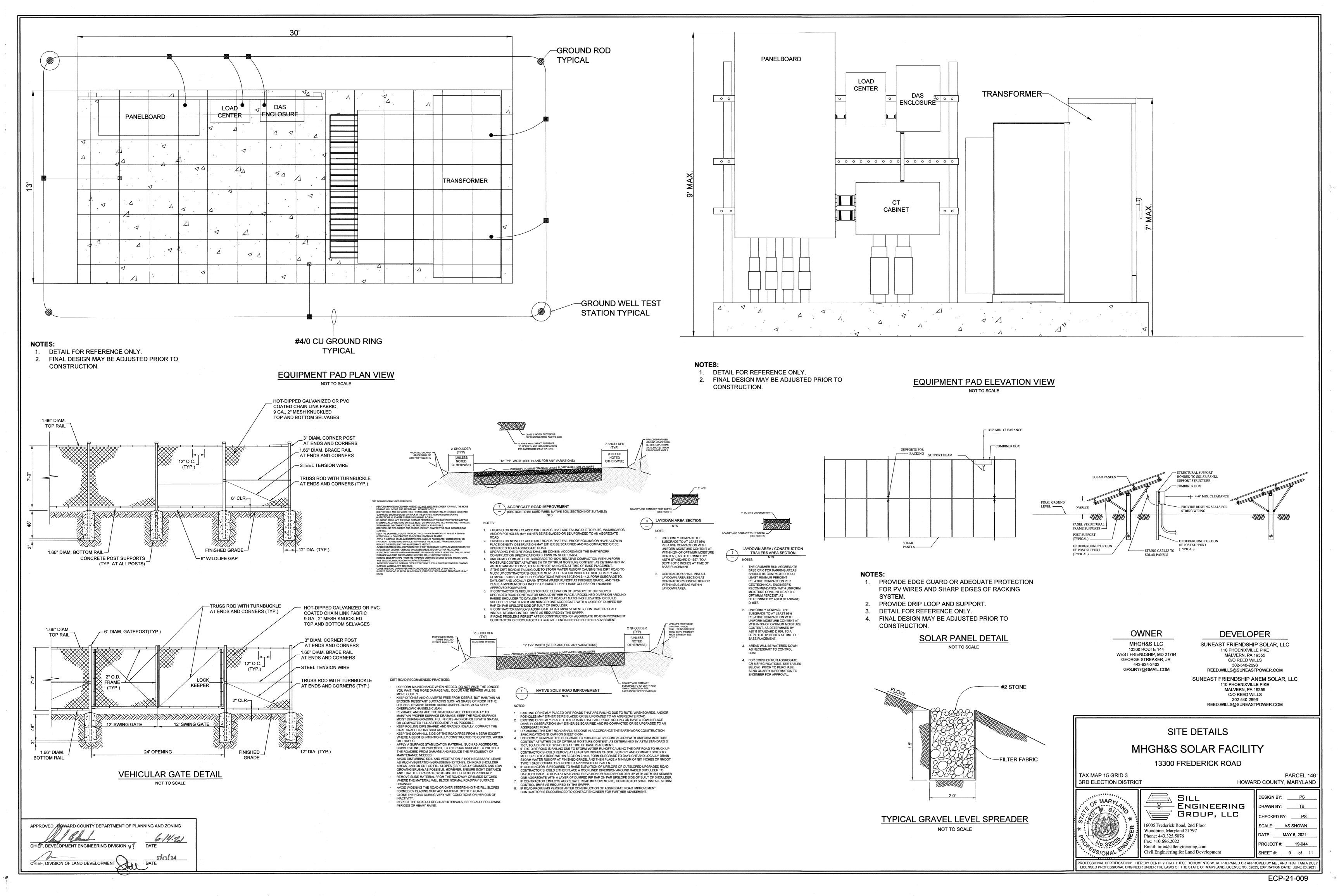


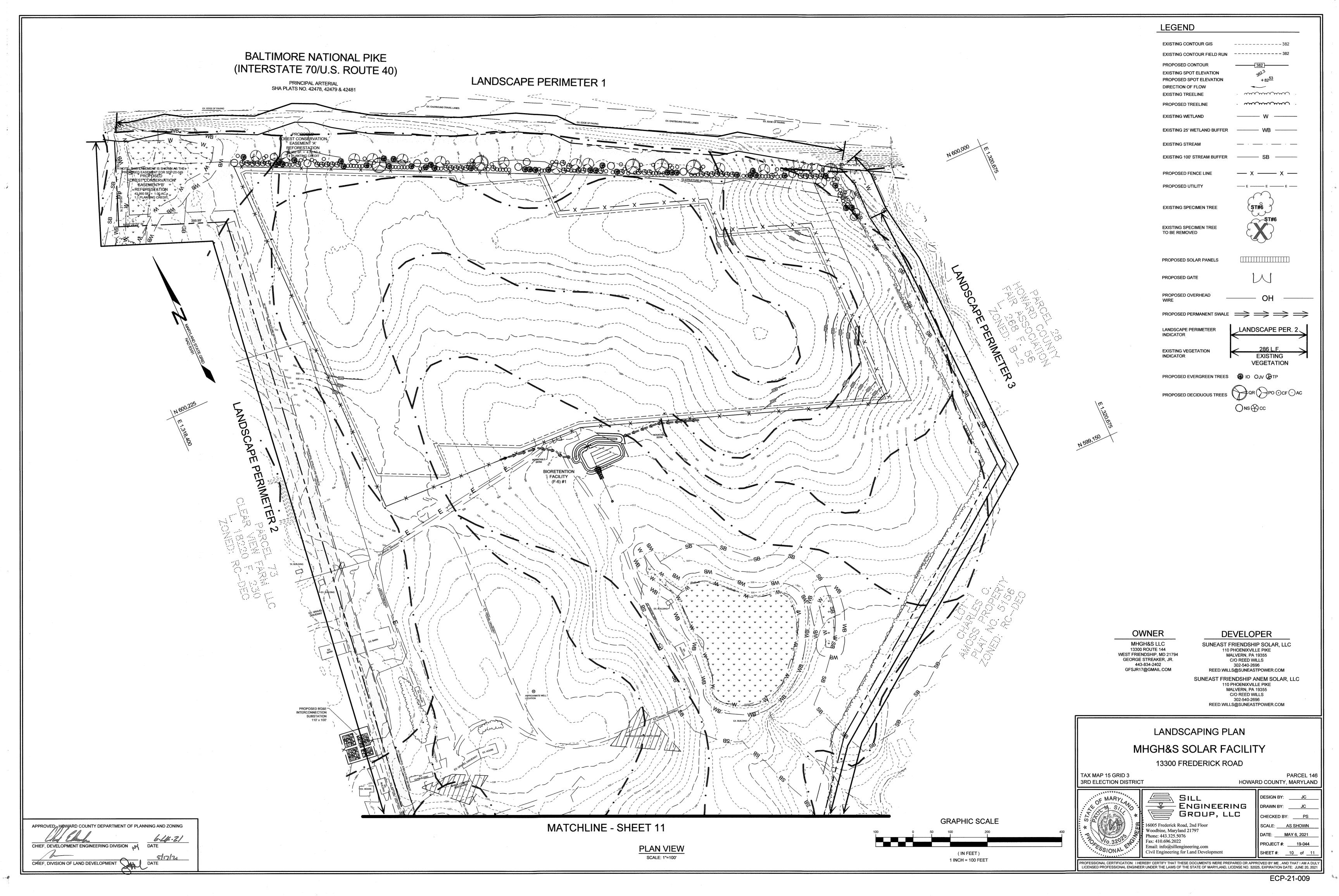












MATCHLINE - SHEET 10 STREAKER FARM PLAT NO. 20162 ZONED: RC-DEO 980.4' LF EXISTING PRESERVATION PROGRAM EASEWENT#: HO-09-17

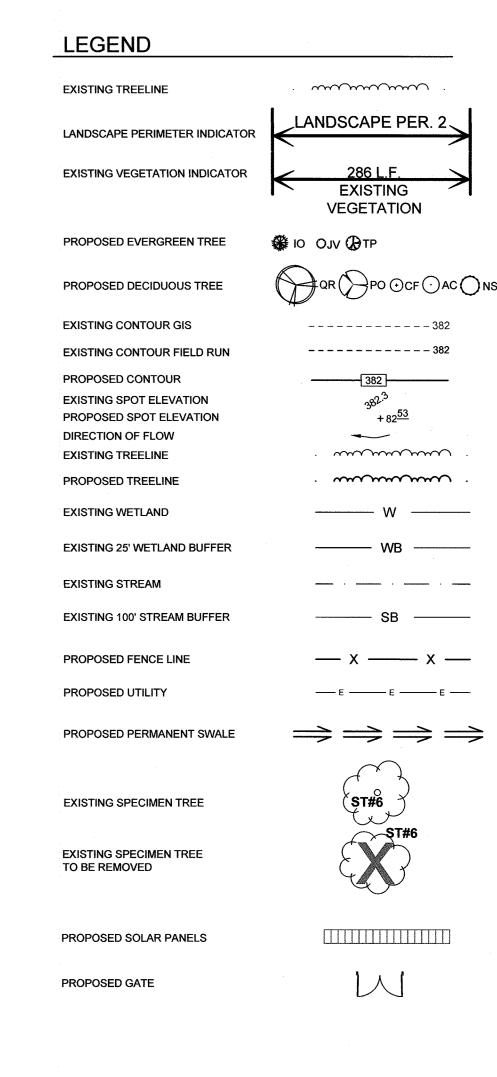
> **PLAN VIEW** SCALE: 1"=100'

| LAND | SCAPE I | PLANT LIST | | | |
|-------------|----------|-----------------------|------------------------|----------------|---------------|
| KEY | QUANTITY | BOTANICAL NAME | COMMON NAME | SIZE | NOTE |
| SHADE TREE | S | , | | | |
| РО | 16 | PLATANUS OCCIDENTALIS | AMERICAN SYCAMORE | 2 1/2"-3" CAL. | B&B FULL HEAD |
| ○ NS | 11 | NYSSA SYLVATICA | BLACK TUPELO | 2 1/2"-3" CAL. | B&B |
| QR QR | 6 | QUERCUS RUBRA | NORTHERN RED OAK | 2 1/2" CAL. | B&B |
| EVERGREEN | TREES | | | | |
| % 10 | 36 | ILEX OPACA | AMERICAN HOLLY | 5'-6' HT. | B & B, FULL |
| O JV | 100 | JUNIPERUS VIRGINIANA | EASTERN REDCEDAR | 6'-8' HT. | B & B, FULL |
| ⊘ тР | 42 | THUJA PLICATA | GREEN GIANT ARBORVITAE | 5'-6' HT. | B & B, FULL |

| | SCHEDULE | ΞA | | | |
|---|-------------|-----------|----------------------|------|---|
| PERIME | TER LANDS | CAPE EDGI | Ξ | | |
| CATECORY | ADJACENT TO | | ADJACENT TO | | |
| CATEGORY | ROADWAYS | | PERIMETER PROPERTIES | | ŝ |
| PERIMETER/FRONTAGE DESIGNATION LANDSCAPE TYPE | 1 | 4 | 3 | 2 | |
| LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER | 1724.67(D) | 980.4 (D) | 2639.05(D) | N/A* | |
| CREDIT FOR EXISTING VEGETATION | NO | YES | YES | | |
| (YES, NO, LINEAR FEET) | - | 980.4 LF | 2486.05 LF | | |
| REMAINING PERIMETER LENGTH | - | 0 LF | 153 LF | | |
| CREDIT FOR WALL, FENCE OR BERM | | | - | | |
| (YES, NO, LINEAR FEET) | NO | NO | NO | | |
| REMAINING PERIMETER LENGTH | , | | | | |
| NUMBER OF PLANTS REQUIRED | | | | | |
| SHADE TREES | 1:60=29 | 1:60=0 | 1:60=3 | | |
| EVERGREEN TREES | 1:10=173 | 1:40=0 | 1:10=14 | | |
| SHRUBS | - | - | - | | |
| NUMBER OF PLANTS PROVIDED | | | | | |
| SHADE TREES | 1:60=29 | 1:60=0 | 1:60=3 | | |
| EVERGREEN TREES | 1:10=173 | 1:40=0 | 1:10=14 | | |
| SHRUBS | - | | - | | |

PER BA-19-045C, ALL PERIMETERS TO BE A TYPE 'D' *NO PERIMETER PLANTING REQUIRED FOR PERIMETER 2, SINCE THIS IS A JOINT DEVELOPMENT WITH PARCEL 73, SDP-18-014.

> **GRAPHIC SCALE** 1 INCH = 100 FEET



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LANDSCAPING PLAN MHGH&S SOLAR FACILITY

Email: info@sillengineering.com

13300 FREDERICK ROAD

TAX MAP 15 GRID 3

3RD ELECTION DISTRICT

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

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2021

DRAWN BY: _____JC CHECKED BY: PS SCALE: AS SHOWN DATE: MAY 6, 2021 PROJECT #: 19-044 Civil Engineering for Land Development

HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

PARCEL 146