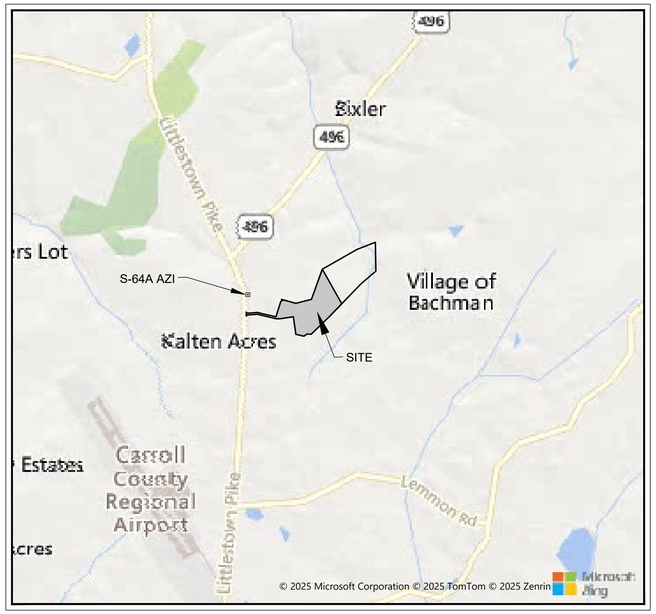
BEAR BRANCH SOLAR - SITE DEVELOPMENT CONCEPT PLAN

VICINITY MAP:



SCALE: 1" = 2,000'

⊗ CARROLL COUNTY CONTROL MONUMENT

SITE DATA:

TYPE OF USAGE:	AGRICULTURAL
SITE AREA ACREAGE:	27.174 ± ACRES
ZONING:	AGRICULTURAL DISTRICT
PHYSICAL ADDRESS:	LITTLESTOWN PIKE WESTMINSTER, MD
PROPERTY INFORMATION:	PARCEL# 0249 TAX MAP #0031 GRID# 0014

PROJECT CONTACTS:

OWNER:	DONALD E. MILLER FAMILY, LLC 1656 BULLOCK CIRCLE OWINGS MILLS, MD 21117
DEVELOPER:	BEAR BRANCH SOLAR LLC ATTN: JOHN FORGASH 30 SOUTH MAPLE AVENUE, SUITE 205 MARLTON, NJ 08053

SHEET INDEX:

1. COVER SHEET SDCP.1.0
2. PROPERTY BOUNDARIES SDCP.2.0
3. EXISTING CONDITIONS SDCP.2.1
4. CONCEPTUAL SITE PLAN / SWM / EROSION SEDIMENT CONTROL PLAN/ GRADING PLAN SDCP.3.0
5. EROSION AND SEDIMENT CONTROL NOTES SDCP.3.1
6. EROSION AND SEDIMENT CONTROL DETAILS SDCP.3.2
7. DRAINAGE AREA MAP SDCP.4.0
8. CONCEPTUAL LANDSCAPE PLAN SDCP.5.0
9. CONCEPTUAL LANDSCAPE PLAN NOTES AND DETAILS SDCP.5.1

PROJECT NOTES:

1. A GEOTECHNICAL EXPLORATION REPORT HAS BEEN PERFORMED BY TRIAD ENGINEERING, INC. FOR THE PROJECT.
2. EXISTING UTILITY INFORMATION SHOWN HEREON IS FROM NUMEROUS SOURCES INCLUDING, BUT NOT LIMITED TO PROPERTY OWNER, UTILITY OWNER, PAST SITE PLANS AND DRAWINGS AND LOCATION OF SURFACE FEATURES. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AND ANY OTHER UTILITY AND SUBSURFACE INVESTIGATIVE SERVICES AT (1-800-257-7777) A MINIMUM OF 48 HOURS BEFORE BEGINNING ANY WORK SHOWN ON THESE DRAWINGS.ANY DAMAGE TO UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE UTILITY OWNER. HAND PIT EXCAVATION SHALL BE PROVIDED AS NEEDED BY CONTRACTOR TO LOCATE EXISTING UNDERGROUND UTILITIES.
3. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE MUNICIPAL, COUNTY AND/OR STATE AUTHORITIES AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK WITHIN PUBLIC RIGHT (S) OF WAY.
4. THE CONTRACTOR SHALL VERIFY ALL SURFACE AND SUBSURFACE CONDITIONS (LOCATIONS AND ELEVATIONS) PRIOR TO BIDDING AND START OF CONSTRUCTION. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER BEFORE PROCEEDING IF THEY AFFECT THE DESIGN FEASIBILITY OF THIS PROJECT. ANY DAMAGE TO FACILITIES, STRUCTURES, PAVEMENT OR OTHER MAN-MADE ITEMS ON OR ADJACENT TO THE SITE OR NOT SPECIFICALLY INDICATED FOR DEMOLITION SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE LEGAL AND REGULATORY REQUIREMENTS. CONTRACTOR SHALL OBTAIN ANY BONDS REQUIRED BY COUNTY/ STATE FOR WORK WITHIN COUNTY/ STATE RIGHT-OF-WAYS.
6. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT ARE UNFORESEEN DURING THE DESIGN STAGE OR THAT ARE NEEDED TO TEMPORARILY CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PRACTICES.
7. TRIAD ENGINEERING, INC. WILL NOT BE RESPONSIBLE FOR ANYTHING TO DO WITH CONSTRUCTION UNLESS CONTRACTED BY THE OWNER OR CONTRACTOR TO PERFORM A SPECIFIC SERVICE.
8. JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. NO TITLE REPORT HAS BEEN PROVIDED TO TRIAD ENGINEERING FOR THE PROJECT.
10. IT SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER AND/OR DEVELOPER TO OBTAIN ALL NECESSARY EASEMENTS AND/OR RIGHT OF WAYS NECESSARY IN ORDER TO COMPLETE THE PROJECT SHOWN ON THESE PLANS. TRIAD ENGINEERING, INC. WILL ASSUME NO RESPONSIBILITY OR LIABILITY ASSOCIATED WITH THE ACQUIRING OF OFFSITE EASEMENTS AND RIGHT OF WAYS.
11. FINAL APPROVAL OF A STORMWATER MANAGEMENT STRUCTURE MUST BE GRANTED BY THE APPROPRIATE GOVERNMENT AGENCY/AGENCIES. APPROVAL BY THE INSPECTING ENGINEER DOES NOT GUARANTEE THAT ADDITIONAL WORK WILL NOT HAVE TO BE PERFORMED ON A STORMWATER MANAGEMENT STRUCTURE IN ORDER FOR IT TO COMPLY WITH THE STANDARDS OF THE GOVERNMENT AGENCY OR AGENCIES THAT ARE RESPONSIBLE FOR APPROVING THE STRUCTURE. TRIAD ENGINEERING, INC., ITS PERSONNEL AND ITS SUBCONTRACTORS WILL NOT BE LIABLE FOR ANY ADDITIONAL WORK ASSOCIATED WITH A STORMWATER MANAGEMENT STRUCTURE IN ORDER TO HAVE IT CONFORM TO NECESSARY STANDARDS.
12. ALL SPECIFICATIONS SHOWN HEREIN SHALL BE USED AND LOCAL, STATE AND FEDERAL SPECIFICATIONS SHALL BE MINIMUM STANDARD.
13. IF SITE THIRD PARTY CONSTRUCTION INSPECTIONS ARE REQUIRED BY CARROLL COUNTY,MARYLAND, THEN THE INSPECTION/CERTIFYING ENGINEER SHOULD BE CONTACTED ONE (1) WEEK IN ADVANCE TO START OF WORK.

GENERAL NOTES:

1. OWNER: DONALD E. MILLER FAMILY, LLC
   1656 BULLOCK CIRCLE
   OWINGS MILLS, MD. 21117
2. TAX MAP 0031, GRID 0014, PARCEL 0249
3. TAX ACCOUNT: #07044038
4. TOTAL AREA OF PROPERTY =63.8 AC.
5. SITE DEVELOPMENT AREA =27.174± AC. / 1,183,699 S.F.
6. ELECTION DISTRICT: 07 / COUNTY COUNCIL DISTRICT: 2
7. DEED REFERENCE: BEING THE LANDS CONVEYED TO DONALD E. MILLER FAMILY, LLC BY DEED DATED DECEMBER 5, 2002 AND RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY, MARYLAND AT LIBER 3168 FOLIO 343,
8. THE HORIZONTAL DATUM IS NAD83(2011) AND THE VERTICAL DATUM IS NAVD88, BOTH OF WHICH BASED UPON GNSS OBSERVATIONS.
9. WATERSHED: DOUBLE PIPE CREEK.
10. LOCATION OF THE NEAREST WATER SUPPLY AVAILABLE FOR FIRE PROTECTION IS A HYDRANT AT THE SOUTH EAST INTERSECTION OF INDEPENDENCE WAY AND ARTHUR PECK DRIVE.
11. THERE ARE NO EXISTING WETLANDS AND THEIR ASSOCIATED BUFFERS ON PROJECT SITE. THERE ARE NO STREAMS AND ASSOCIATED FLOODPLAIN ON PROJECT SITE. THERE ARE LIMITED OR NO STEEP SLOPES IN EXCESS OF 25% ON THE PROJECT SITE.
12. NO KNOWN ZONING APPEALS CASES ON SITE PROPERTY.
13. THE SITE IS ZONED- "A" AGRICULTURAL
14. EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS).
15. PROPOSED PANEL HEIGHT = 15 FT. MAX.
16. NO FREE STANDING SIGNS ARE PROPOSED ON SITE.
17. THERE IS NO WATER OR SEWER PROPOSED FOR THIS SITE.
18. THIS SITE IS NOT AFFECTED BY THE 100-YEAR FLOOD PLAIN AS SHOWN ON F.E.M.A. COMMUNITY PANEL NO. 24013C0201D DATED OCTOBER 2, 2015. SITE IS IN ZONE 'X'.
19. THERE ARE NO KNOWN STREAMS, OR WETLANDS AT THIS SITE.
20. THERE ARE NO BUILDINGS EXISTING OR PROPOSED ON SITE.
21. THE SITE DOES NOT LIE WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
22. THERE ARE NO AGRICULTURAL PRESERVATION EASEMENTS, RURAL LEGACY EASEMENTS OR ENVIRONMENTAL PROTECTION EASEMENT WITHIN THE SITE DEVELOPMENT AREA.
23. MINIMUM BUILDING SETBACKS LIMITS (MBSL) PER CARROLL COUNTY ZONING ORDINANCE SECTION 158.70(H):

FRONT	SIDE	REAR	MAX. HEIGHT
40'	30'	50'	25'

24. THERE IS A DEVELOPER IMPOSED EFFECTIVE SOLAR BUILDING RESTRICTION LINE (**SBRL**) INCREASED TO 50' ON THE FRONT, SIDE, AND REAR PROPERTY LINES AS INDICATED ON PLAN THAT ARE SPECIFIC TO THE BEAR BRANCH SOLAR PROJECT BEING PROPOSED.
25. THE PROJECT SITE IS DEVOID OF FOREST COVER AS DEMONSTRATED BY THE SIMPLIFIED FOREST STAND DELINEATION. CHAPTER 541 (HOUSE BILL 723) CREATES A CATEGORICAL EXEMPTION TO ALL AFFORESTATION REQUIREMENTS FOR SOLAR PV FACILITIES. SINCE THE PROJECT WILL NOT AFFECT FOREST COVER, THE PROJECT IS EXEMPT FROM THE MARYLAND FOREST CONSERVATION ACT (FCA).

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1656 BULLOCK CIRCLE
OWINGS MILLS, MD. 21117
PHONE:410-459-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
30 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
PHONE: 856-985-0080

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND - OHIO - PENNSYLVANIA - VIRGINIA - WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

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. 34688 EXPIRATION DATE:07-08-2025

STATE OF MARYLAND
BRUCE JON SWATZER
No. 34688
REGISTERED
PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS).

COVER SHEET

SCALE: N.T.S

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
1 OF 9

SDCP.1.0

JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-1-0-COVER.DWG

ADJOINERS:

LANDOWNER NAME	ADDRESS				TAX ACCT. #	DEED REFERENCE	ZONING
DONALD E MILLER FAMILY LLC	1656 BULLOCK CIRCLE	OWINGS MILL	MD	21117	44046	03168/00343	AG
KRISTIAN & STEFANIE WESTFALL	111 BACHMANS VALLEY ROAD	WESTMINSTER	MD	21158	30428	11054/00492	AG
LIPPY BROTHERS FARMS	334 LEES MILL ROAD	HAMPSTEAD	MD	21074	46634	06767/00001	AG
JOHN D MYERS JR	460 OLD BACHMANS VALLEY RD	WESTMINSTER	MD	21157	24886	07571/00107	AG
MICHELLE M PARRISH & TRACIE M BLACKSTEN	461 OLD BACHMANS VALLEY RD	WESTMINSTER	MD	21157	30231	07455/00255	AG
MAPLES INC	1601 LITTLESTOWN PIKE	WESTMINSTER	MD	21158	4575	02215/00102	INDUSTRIAL
BOKEH IV LLC	75 LAMB DRIVE	WESTMINSTER	MD	21157	114419	08672/00202	COMMERCIAL
JMDL ASSOCIATES LLC	1731 LITTLESTOWN PIKE	WESTMINSTER	MD	21157	52871	06728/00127	COMMERCIAL
LAWRENCE E & GENEVIA L MEEKS	4800 ARTERS MILL DRIVE	WESTMINSTER	MD	21158	52898	11078/00168	AG
AMERICAN TELEPHONE & TELEGRAPH COMPANY	PO BOX 7207	BEDMISTER	NJ	07921	405	00328/00525	COMMERCIAL

GENERAL NOTES:

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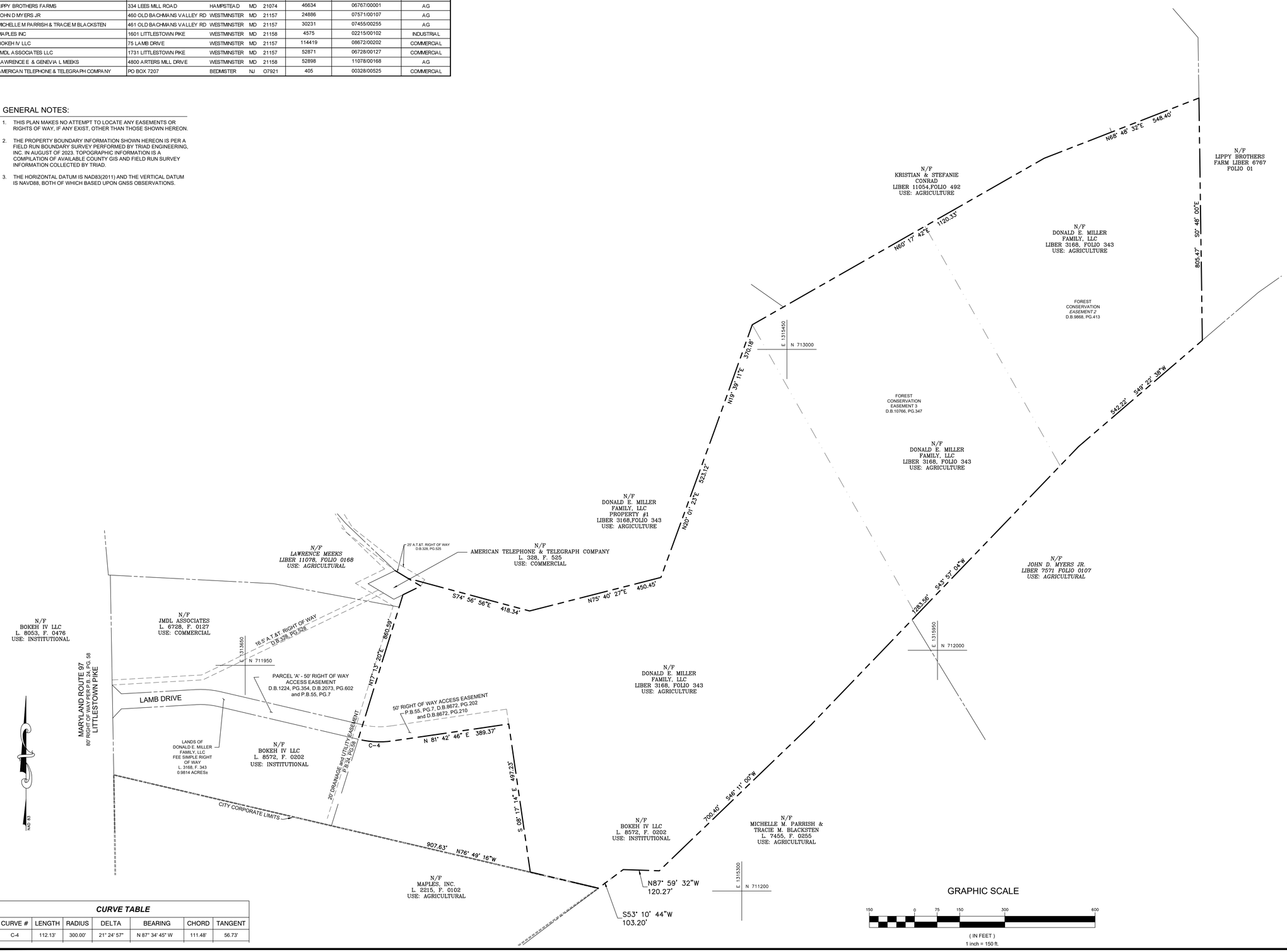
2. THE PROPERTY BOUNDARY INFORMATION SHOWN HEREON IS PER A FIELD RUN BOUNDARY SURVEY PERFORMED BY TRIAD ENGINEERING, INC. IN AUGUST OF 2023. TOPOGRAPHIC INFORMATION IS A COMPILATION OF AVAILABLE COUNTY GIS AND FIELD RUN SURVEY INFORMATION COLLECTED BY TRIAD.
3. THE HORIZONTAL DATUM IS NAD83(2011) AND THE VERTICAL DATUM IS NAVD88, BOTH OF WHICH BASED UPON GNSS OBSERVATIONS.



CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA	BEARING	CHORD	TANGENT
C-4	112.13'	300.00'	21° 24' 57"	N 87° 34' 45" W	111.48'	56.73'

COUNTY FILE # S-25-0010

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PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
35 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
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STATE OF MARYLAND BILLIE JON SWATZES No. 34688 REGISTERED PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED SOLAR ELECTRIC GENERATING SYSTEM (GSEGS)

PROPERTY BOUNDARIES

SCALE: 1"=150'

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
2 OF 9

SDCP.2.0

JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-2.0-PLAT.DWG

TABLE 5.1 NATURAL RESOURCES AND THE CORRESPONDING REGULATORY AUTHORITIES		
LOCAL	STEEP SLOPES	SEE MAPPING AND NOTES
	HIGHLY ERODIBLE SOILS	NONE FOUND WITHIN PROJECT LIMITS
	ENHANCED STREAM BUFFERS	NONE FOUND WITHIN PROJECT LIMITS
	TOPOGRAPHY/SLOPES	SEE MAPPING AND NOTES
	SPRINGS	NONE FOUND WITHIN PROJECT LIMITS
	SEEPS	NONE FOUND WITHIN PROJECT LIMITS
	DRAINAGE DEPRESSIONS	NONE FOUND WITHIN PROJECT LIMITS
	VEGETATIVE COVER	SEE MAPPING AND NOTES
	SOILS	SEE MAPPING AND NOTES
	BEDROCK/GEOLOGY	SEE GEO. EXPLORATION REPORT
	EXISTING DRAINAGE AREAS	SEE MAPPING AND NOTES
STATE	TIDAL AND NON-TIDAL WETLANDS	NONE FOUND WITHIN PROJECT LIMITS
	WETLANDS OF SPECIAL STATE CONCERN	NONE FOUND WITHIN PROJECT LIMITS
	WETLAND BUFFERS	NONE FOUND WITHIN PROJECT LIMITS
	STREAM BUFFERS	NONE FOUND WITHIN PROJECT LIMITS
	MAJOR WATERWAYS	NONE FOUND WITHIN PROJECT LIMITS
	FLOODPLAINS	NONE FOUND WITHIN PROJECT LIMITS
	FORESTS	SEE MAPPING AND NOTES
	FOREST BUFFERS	SEE MAPPING AND NOTES
	CRITICAL AREAS	NONE FOUND WITHIN PROJECT LIMITS
FEDERAL	WETLANDS	NONE FOUND WITHIN PROJECT LIMITS
	MAJOR WATERWAYS	NONE FOUND WITHIN PROJECT LIMITS
	FLOODPLAINS	NONE FOUND WITHIN PROJECT LIMITS

SPECIMENT TREE LIST			
TREE ID	COMMON NAME	SIZE	CONDITION
ST-1	BLACK LOCUST	35	POOR
ST-2	BLACK LOCUST	36	FAIR - VINES
ST-3	BLACK LOCUST	36	FAIR
ST-4	BLACK LOCUST	32	FAIR
ST-5	BLACK LOCUST	34	POOR - VINES
ST-6	BLACK LOCUST	30	FAIR
ST-7	BLACK LOCUST	37	GOOD
ST-8	BLACK LOCUST	38	POOR - VINES
ST-9	BLACK LOCUST	32	FAIR
ST-10	BLACK WALNUT	34	FAIR - VINES
ST-11	BLACK WALNUT	50	GOOD
ST-12	BLACK WALNUT	33	POOR - VINES

SOIL TYPES ON SITE					
MAP UNIT SYMBOL	MAP UNIT NAME	FARMLAND CLASS	K FACTOR, WHOLE SOIL	HYDRIC RATING	HYDROLOGIC SOIIL GROUP
BaB	BAILE SILT LOAM, 3 to 8 PERCENT SLOPES	NOT PRIME FARMLAND	0.37	0	C/D
BrC	BRINKLOW CHANNERY LOAM, 8 to 15 PERCENT SLOPES	FARMLAND OF STATEWIDE IMPORTANCE	0.20	0	C
BrD	BRINKLOW CHANNERY LOAM, 15 to 25 PERCENT SLOPES	NOT PRIME FARMLAND	0.20	0	C
CaC	CATOCTIN CHANNERY LOAM, 8 to 15 PERCENT SLOPES	FARMLAND OF STATEWIDE IMPORTANCE	0.20	0	B
GdB	GLENELG LOAM, 3 to 8 PERCENT SLOPES	ALL AREAS ARE PRIME FARMLAND	0.24	0	B
GhB	GLENVILLE SILT LOAM, 3 to 8 PERCENT SLOPES	ALL AREAS ARE PRIME FARMLAND	0.37	10	C/D
HaH	HATBORO SILT LOAM, 0 to 3 PERCENT SLOPES	NOT PRIME FARMLAND	0.43	0	B/D
MtB	MT. ZION GRAVELLY SILT LOAM, 3 to 8 PERCENT SLOPES	ALL AREAS ARE PRIME FARMLAND	0.20	5	C
MyB	MYERSVILLE SILT LOAM, 3 to 8 PERCENT SLOPES	ALL AREAS ARE PRIME FARMLAND	0.32	0	B
MyC	MYERSVILLE SILT LOAM, 8 to 15 PERCENT SLOPES	FARMLAND OF STATEWIDE IMPORTANCE	0.32	0	B

SENSITIVE AREA NOTES

TRIAD ENGINEERING, INC. PERFORMED A WETLAND/WATERWAY EVALUATION AT THE SITE IN GENERAL ACCORDANCE WITH THE ROUTINE WETLAND DETERMINATION METHODS AS OUTLINED IN THE CORPS WETLANDS DELINEATION MANUAL (Y-87-1), DATED JANUARY 1987, AND THE INTERIM REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: ATLANTIC AND GULF COASTAL PLAIN REGION 9ERDC/EL TR-10-20), DATED NOVEMBER 2010. AS A RESULT, THERE ARE NO KNOWN STREAMS, OR WETLANDS AT THIS SITE.

1. THERE ARE NO SLOPES OF 15% OR GREATER WHERE THE SOIL ERODIBILITY COEFFICIENT OR K FACTOR IS 0.35 OR GREATER IN THE PROJECT REVIEW AREA. THERE ARE NO STEEP SLOPES GREATER THAN 25% (ON AREAS > 10,000 SQUARE FEET) IN THE PROJECT REVIEW AREA.
2. THERE ARE NO AREAS OF KNOWN HABITATS OF THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE AS PER 50 CFR 17.
3. THERE ARE NO KNOWN CHESAPEAKE BAY CRITICAL AREAS WITHIN THE PROJECT FOOTPRINT.
4. THERE ARE NO KNOWN BOG AREAS WITHIN MILES OF THE PROJECT FOOTPRINT.
5. SITE AREA DOES NOT LIE WITHIN THE TIER II WATERSHED AS INDICATED ON THE MDE WEBSITE FOR MD.'S TEIR II HIGH QUALITY WATERS.

IMPAIRED WATER BODY WITH TMDL LOCATED ON PROPERTY BUT NOT WITHIN PROJECT SITE:

WATER TYPE: RIVER
LISTING CATEGORY: 4A - IMPAIRED, TMDL COMPLETED
POLLUTANTS: TOTAL SUSPENDED SOLIDS (TSS), PHOSPHORUS, TOTAL; ESCHERICHA COLI

WATER TYPE: RIVER
LISTING CATEGORY: 5 - IMPAIRED, TMDL COMPLETED
POLLUTANTS: TEMPERATURE

GENERAL NOTES:

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2. THE PROPERTY BOUNDARY INFORMATION SHOWN HEREON IS PER A FIELD RUN BOUNDARY SURVEY PERFORMED BY TRIAD ENGINEERING, INC. IN AUGUST OF 2023. TOPOGRAPHIC INFORMATION IS A COMPILATION OF AVAILABLE COUNTY GIS AND FIELD RUN SURVEY INFORMATION COLLECTED BY TRIAD.
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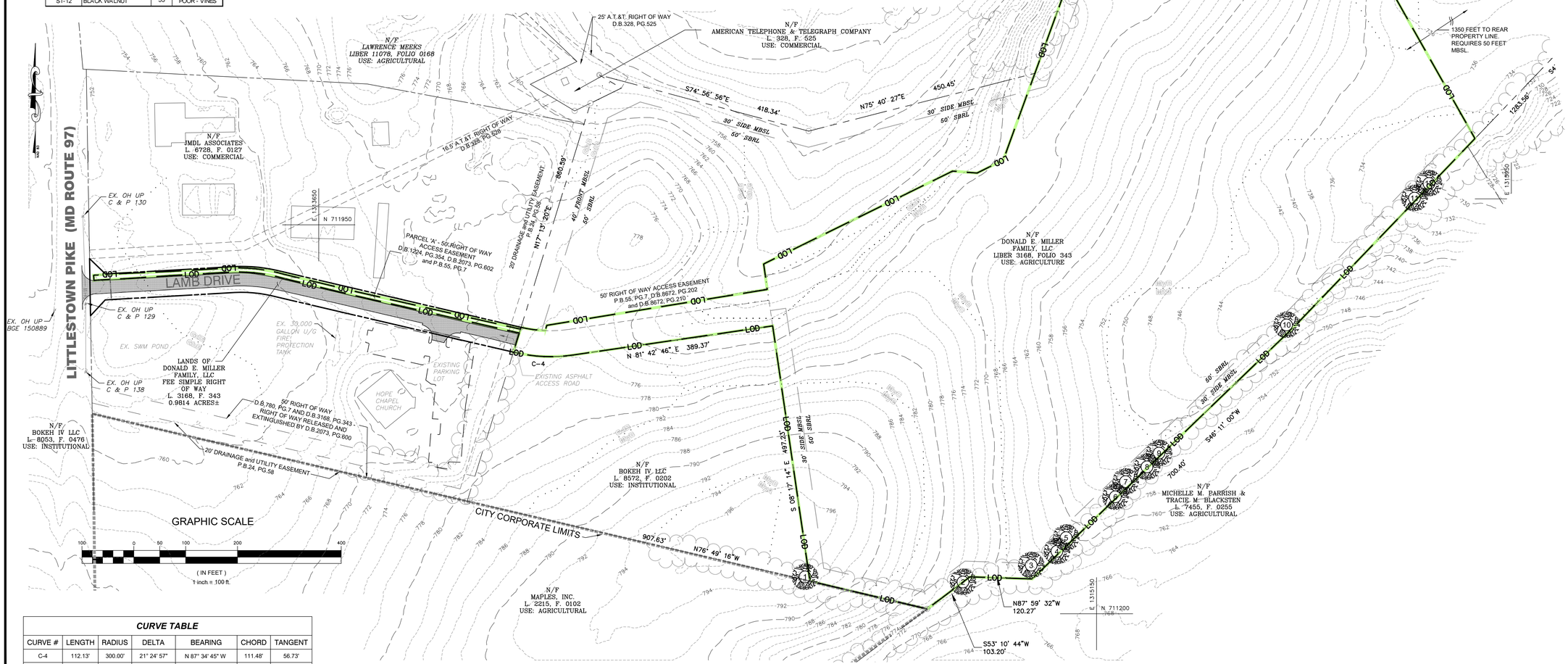
LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- ADJOINER PROPERTY LINE
- EXISTING TREE LINE
- SPECIMEN TREE
- SOIL TYPE & DESIGNATION BOUNDARY
- EXISTING MEADOW



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COUNTY FILE # S-25-0010

Y:\EAST_HG_03\2023_2__03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-2-1-EX COND.DWG

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OWINGS MILLS, MD. 21117
PHONE:410-499-5769

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STATE OF MARYLAND BILLIE JON SWATZELL No. 34688 REGISTERED PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS).

EXISTING CONDITIONS & RESOURCE MAPPING

SCALE: 1'=100'

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER: 3 OF 9
SDCP.2.1
JOB NO.: 03230290

SITE FINGERPRINTING AND DEVELOPMENT LAYOUT

The project proposes the following strategies for site layout:

1. Plan the building footprint and layout to protect conservation areas.
   - Existing Forest Conservation areas are maintained with this development.
2. Evaluate opportunities to enhance/expand forested, wetland, and stream buffers.
   - There are no opportunities to enhance/expand forested, wetlands or stream buffers as a part of this development.
3. Grade the site so that runoff will flow from impervious areas directly to pervious areas or other natural conveyance systems.
   - Proposed design incorporates impervious area flows directly to pervious areas.
4. Maintain natural flow paths between the site and upstream and downstream systems.
   - Site design incorporates proposed grading to maintain current upstream and downstream flow paths.
5. Maintain sheet flow and natural overland flow processes where feasible.
   - Existing site sheet flow patterns and natural overland flow processes are maintained to the maximum extent practical.
6. Provide stable conveyance of runoff off-site.
   - Design demonstrates stable conveyance of runoff off-site.
7. Additional Strategies

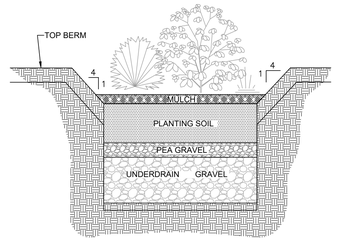
In accordance with the design process micro-scale practices are proposed to treat impervious areas.

IMPERVIOUS AREA SUMMARY

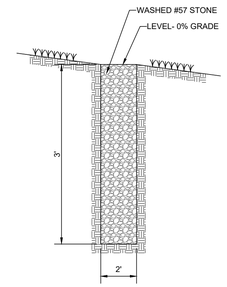
IMPERVIOUS AREA	AREA (SF)	QUANTITY	TOTAL AREA (SF)
CONCRETE EQUIPMENT PADS	-	5	370
AGGREGATE ROADS	58,000	1	58,000
RACKING POST	0.09	2,200	200
TOTAL IMPERVIOUS			58,570

PROJECT DATA

PARCEL AREA	64.5 ACRES
BUILDABLE AREA	19.5 ACRES
FENCED AREA	21.6 ACRES
SYSTEM SIZE	4 MW-AC
PROPOSED MODULE	Q.PEAK DUO XL-G11
MODULE POWER	585Wp
INVERTER POWER	125kW-AC
DC/AC RATIO	1.45
RACKING SYSTEM	SINGLE AXIS TRACKING
ESTIMATED GCR	45%

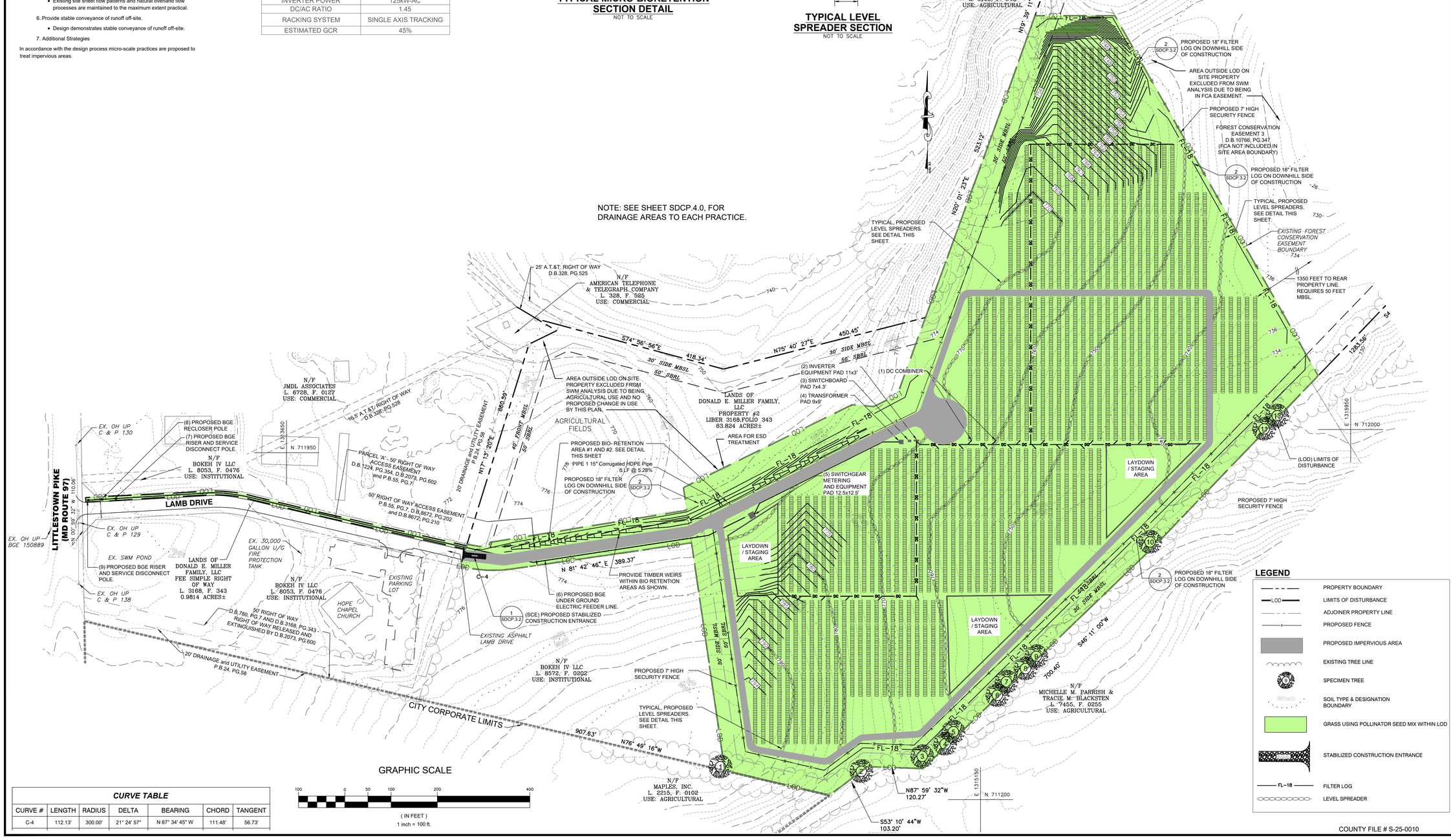


TYPICAL MICRO-BIORETENTION SECTION DETAIL
NOT TO SCALE



TYPICAL LEVEL SPREADER SECTION
NOT TO SCALE

NOTE: SEE SHEET SDCP.4.0, FOR DRAINAGE AREAS TO EACH PRACTICE.



CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA	BEARING	CHORD	TANGENT
C-4	112.13'	300.00'	21° 24' 57"	N 87° 34' 45" W	111.48'	56.73'

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- ADJOINER PROPERTY LINE
- PROPOSED FENCE
- PROPOSED IMPERVIOUS AREA
- EXISTING TREE LINE
- SPECIMEN TREE
- SOIL TYPE & DESIGNATION BOUNDARY
- GRASS USING POLLINATOR SEED MIX WITHIN LOD
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER LOG
- LEVEL SPREADER

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1938 BULLOCK CIRCLE
OWINGS MILLS, MD. 21117
PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
30 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
PHONE: 856-988-0800

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND - OHIO - PENNSYLVANIA - VIRGINIA - WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

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. 34688 EXPIRATION DATE: 07-08-2025

STATE OF MARYLAND — BILLIE JON SWATZLEE — No. 34688 — PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS).

CONCEPTUAL SITE PLAN/ EROSION SEDIMENT CONTROL PLAN/ GRADING PLAN

SCALE: 1"=100

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
4 OF 9

SDCP.3.0

JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-3-0-PROPOSED.DWG

SEDIMENT AND EROSION CONTROL NOTES

1. ALL SOIL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION IN ASSOCIATION WITH THE NATURAL RESOURCES CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS (REFERENCED AS THE 2011 STANDARDS AND SPECS).
2. AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THAN 5 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES AND FOR STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION. ANY AREAS THAT ARE IN TEMPORARY VEGETATION FOR OVER 6 MONTHS WILL NEED TO BE PERMANENTLY VEGETATED.
3. FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION, SEE B-4-4 AND B-4-5.
4. MULCHING ONLY IS RESTRICTED TO USE ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS. FOR SPECIFICATIONS SEE B-4-3, A.1.B.
5. FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1.
6. THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATION IN B-4-2.
7. THE REQUIRED SEQUENCE OF CONSTRUCTION MUST BE FOLLOWED DURING SITE DEVELOPMENT. ANY CHANGES IN THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
8. ANY REVISIONS TO THE SEDIMENT CONTROL PLAN, NOT COVERED UNDER THE LIST OF PLAN MODIFICATIONS THAT CAN BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR, NEED BE SUBMITTED TO THE SOIL CONSERVATION DISTRICT.
9. NO PROPOSED SLOPE THAT IS REQUIRED TO BE SEEDED AND/OR MULCHED SHALL BE STEEPER THEN 2:1. SLOPES STEEPER THEN 2:1 SHALL REQUIRE A ENGINEERED DESIGN FOR STABILIZATION.
10. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED, SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE 2011 STANDARDS AND SPECS.
11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
12. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NO STARTED, THE PLAN WILL NEED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT AREA CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR.

STANDARD UTILITY NOTES

1. CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS.
2. CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAUL TO AN APPROVED LOCATION.
3. CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORKING DAY.
4. IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING TRAIL OR ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.
5. IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.
6. CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION.
7. CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH OR APPROPRIATE GRAVEL/ASPHALT REPAIR.

FOR SITES 1.0 ACRE OR MORE, THE FOLLOWING ARE REQUIRED:

A. MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH A CONSTRUCTION ACTIVITY, NPDES PERMIT NUMBER MDRC, STATE DISCHARGE PERMIT NUMBER 14GP, OR AN INDIVIDUAL PERMIT.

B. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT- NOI) APPLICATION AND PERMIT SHALL BE POSTED AND/OR AVAILABLE ON-SITE AT ALL TIMES.

C. DURING CONSTRUCTION, ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) SHALL BE INSPECTED AND RECORDED ON THE "STANDARD INSPECTION FORM", "GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY" PER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT - NOI).

D. FOLLOWING CONSTRUCTION AND RELEASE OF THE SIGHT FOR SOIL EROSION AND SEDIMENT CONTROL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, I.E., ALL PORTIONS OF A SITE HAVE BEEN PERMANENTLY STABILIZED, AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES, THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE AUTHORIZED PERMITTEE SHALL SUBMIT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL/INDIVIDUAL PERMIT - NOTICE OF TERMINATION-NOT.

UTILITY NOTIFICATION

THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NONEXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. THE LAW REQUIRES PRIOR TO EXCAVATION THAT MISS UTILITY BE CONTACTED AT: PHONE NO. **1-800-257-7777.**

TEMPORARY SEEDING NOTES

SCOPE: PLANTING SHORT TERM (NO MORE THAN 6 MONTHS) VEGETATION TO TEMPORARILY STABILIZE ANY AREAS WHERE SOIL DISTURBANCE HAS OCCURRED, UNTIL THE AREA CAN BE PERMANENTLY STABILIZED WITH VEGETATIVE OR NON-VEGETATIVE PRACTICES.

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE"2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS

THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2

FOR TEMPORARY STABILIZATION, FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT A RATE OF 436 LB. PER ACRE (10 LB. PER 1000 SQ. FT.) AND WILL MEET THE REQUIREMENTS IN SECTION B-4-2. LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER SQ. FT.) AND SHALL MEET THE REQUIREMENTS IN SECTION B-4-2 AND B-4-4

SEED TYPE AND APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-3 SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND RATE OF SEED USED.
MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C AND WILL BE APPLIED ALONG WITH THE SEED OR IMMEDIATELY AFTER SEEDING

SEEDING MIXTURES SHALL BE SELECTED FROM OR WILL BE EQUAL TO THOSE ON TABLE B.1 (PAGE B.20).

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): 6-b **SEED MIXTURE** (FROM TABLE B.1):					**FERTILIZER RATE** (10-20-20)	**LIME RATE**
No.	**SPECIES**	**APPLICATION RATE** (LB. / AC.)	**SEEDING DATES**	**SEEDING DEPTHS** (inches)		
	BARLEY (HORDEUM VULGARE)	96 lb/ac. 2.2 lb/1000 s.f.	MAR. 15 - MAY 31 AUG. 1 - SEPT. 30	1.0	436 lb./ac. (10 lb./1,000 sq.ft.)	2 tons/ac. (90 lb./1,000 sq.ft.)

PERMANENT SEEDING NOTES

SCOPE: PLANTING PERMANENT, LONG LIVED VEGETATIVE COVER ON GRADED AND/OR CLEARED AREAS AND AREAS THAT HAVE BEEN IN TEMPORARY VEGETATION FOR MORE THAN 6 MONTHS.

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.

THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2.

FOR SITES OVER 5 AC. SOIL TESTS WILL BE PERFORMED. SOIL TESTS WILL BE CONDUCTED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. MINIMUM SOIL CONDITIONS SHALL MEET THE REQUIREMENTS OF SECTION B-4-2-A-2-A, OTHERWISE SOIL AMENDMENTS OR TOPSOIL WILL NEED TO BE APPLIED. TOPSOILING MAY OCCUR WHEN SOIL CONDITIONS MEET THE MINIMUM REQUIREMENTS AS STATED IN SECTION B-4-2-B. SOIL AMENDMENTS MUST MEET THE REQUIREMENTS AS SET FORTH IN SECTION B-4-2-C AND MUST BE APPLIED AS INDICATED BY THE SOILS TESTS.

FOR SITES OF 5 AC. OR LESS OF DISTURBANCE, THE FOLLOWING FERTILIZER AND LIME RATES SHALL APPLY.
FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT THE FOLLOWING RATES:
N = 45 LB. PER ACRE (1 LB. PER 1000 SQ.FT.) P205 = 90 LB. PER ACRE (2 LB. PER 1000 SQ.FT.)
K20 = 90 LB. PER ACRE (2 LB. PER 1000 SQ.FT.)
LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER 1000 SQ.FT.)

SEED TYPE, TURFGRASS OR SOD APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-5. SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND APPLICATION RATE OF SEED USED. MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C, AND WILL BE APPLIED ALONG WITH SEED OR IMMEDIATELY AFTER SEEDING.

PANEL ARRAY AREA PERMANENT SEEDING SPECIFICATION

Mesic to Dry Native Pollinator Mix - ERNMX-105

	Botanical Name	**Common Name**
29.40 %	Schizachyrium scoparium, Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown
18.50 %	Elymus virginicus, PA Ecotype	Virginia Wildrye, PA Ecotype
12.00 %	Sorghastrum nutans, PA Ecotype	Indiangrass, PA Ecotype
8.00 %	Echinacea purpurea	Purple Coneflower
5.00 %	Panicum clandestinum, Tioga	Deertongue, Tioga
3.00 %	Chamaecrista fasciculata, PA Ecotype	Partridge Pea, PA Ecotype
3.00 %	Coreopsis lanceolata	Lanceleaf Coreopsis
3.00 %	Rudbeckia hirta	Blackeyed Susan
2.50 %	Verbena hastata, PA Ecotype	Blue Vervain, PA Ecotype
2.00 %	Heliopsis helianthoides, PA Ecotype	Oxeye Sunflower, PA Ecotype
2.00 %	Zizia aurea, PA Ecotype	Golden Alexanders, PA Ecotype
1.50 %	Lespedeza capitata, RI Ecotype	Roundhead Lespedeza, RI Ecotype
1.50 %	Penstemon digitalis, PA Ecotype	Tall White Beardtongue, PA Ecotype
1.00 %	Asclepias tuberosa, PA Ecotype	Butterfly Milkweed, PA Ecotype
1.00 %	Pycnanthemum tenuifolium	Narrowleaf Mountainmint
1.00 %	Senna hebecarpa, VA & WV Ecotype	Wild Senna, VA & WV Ecotype
0.90 %	Aster pilosus, PA Ecotype	Heath Aster, PA Ecotype
0.80 %	Aster novae-angliae, PA Ecotype	New England Aster, PA Ecotype
0.70 %	Asclepias incarnata, PA Ecotype	Swamp Milkweed, PA Ecotype
0.50 %	Baptisia australis, Southern WV Ecotype	Blue False Indigo, Southern WV Ecotype
0.50 %	Geum canadense, PA Ecotype	White Avens, PA Ecotype
0.50 %	Rudbeckia triloba, WV Ecotype	Browneyed Susan, WV Ecotype
0.40 %	Monarda fistulosa, Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ec
0.30 %	Asclepias syriaca, PA Ecotype	Common Milkweed, PA Ecotype
0.30 %	Solidago nemoralis, PA Ecotype	Gray Goldenrod, PA Ecotype
0.20 %	Aster prenanthoides, PA Ecotype	Zigzag Aster, PA Ecotype
0.20 %	Eupatorium perfoliatum, PA Ecotype	Boneset, PA Ecotype
0.20 %	Solidago bicolor, PA Ecotype	White Goldenrod, PA Ecotype
0.10 %	Solidago juncea, PA Ecotype	Early Goldenrod, PA Ecotype

Seeding Rate: 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either grain oats (1 Jan to 31 Jul) or grain rye (1 Aug to 31 Dec).

Herbaceous Flowering Species - Herbaceous Perennial, Pollinator Favorites; Uplands & Meadows
The native wildflowers and grasses in this mix provide an attractive display of color from spring to fall. Designed for mesic to upland sites and full sun to lightly shaded areas. This mix will attract a variety of pollinators and songbirds. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

CONCEPTUAL SEQUENCE OF CONSTRUCTION

I. NOTIFICATION

A. CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR (1-410-386-2210) TWENTY-FOUR (24) HOURS PRIOR TO DOING ANYTHING ON THE SITE TO SET UP A PRE-CONSTRUCTION MEETING AND TO MAKE SURE ALL LOCAL ORDINANCE ITEMS HAVE BEEN SATISFIED.
B. CONTRACTOR SHALL NOTIFY MISS UTILITY AT (800) 257-7777 A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
C. NOTIFY TRIAD ENGINEERING, INC. OF PRE-CONSTRUCTION MEETING TIME AND DATE AT (301) 797-6400, FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.

II. PHASE I-PERIMETER STABILIZATION

A. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
B. INSTALL PERIMETER CONTROLS FILTER LOGS AS SHOWN PER PLAN.

NOTE: SEDIMENT CONTROL MEASURES TO BE INSPECTED AFTER EVERY RAIN EVENT OR EVERY FOUR DAYS MINIMUM BY THE RESPONSIBLE SITE PERSONNEL.

III. GRADING AND SOLAR PANEL ARRAY CONSTRUCTION

(THERE WILL BE NO MORE THAN 20 ACRES OF DISTURBANCE AT ANY ONE TIME)
A. STRIP TOPSOIL AND EXCAVATE AS NECESSARY AT PROPOSED ROADWAY AND GRADING AREAS. PLACE TOPSOIL IN TEMPORARY SOILS STOCKPILE WITH FILTER LOG ALONG DOWNGRADE SIDE OF STOCKPILE. TEMPORARILY SEED STOCKPILE IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS WITHIN 3 CALENDAR DAYS. PLACE STABILIZATION FABRIC AND STONE FOR EACH RESPECTIVE ROADWAYS.
B. TEMPORARILY SEED ANY DISTURBED AREAS NOT STABILIZED WITH STONE IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS WITHIN 3 CALENDAR DAYS.
C. BEGIN PLACING SOLAR PANELS PER MANUFACTURER'S RECOMMENDATIONS. TRENCHING FOR THE ASSOCIATED UNDERGROUND ELECTRIC CONNECTIONS FOR THE SOLAR PANELS MUST BE BACKFILLED WITH THE EXCAVATED MATERIAL AND SEED AND MULCHED FOR STABILIZATION AS THE WORK PROGRESSES. INSTALL THE STABILIZATION MATTING FOR THE SOLAR PANELS IN THE LOCATIONS SHOWN PER PLAN.
D. INSTALL ALL CONCRETE PADS AND ELECTRICAL APPARATUSES INCLUDING NEW UTILITY POLES AND UNDERGROUND WIRING. BACKFILL UNDERGROUND ELECTRICAL RUNS WITH EXISTING EXCAVATED SOIL AND PERMANENTLY SEED TO STABILIZE.
B. PLACE 6 INCHES OF TOPSOIL ON ALL DISTURBED AREA, FINAL GRADE AND SEED AND MULCH PER THE PERMANENT SEEDING AND MULCHING NOTES THIS SHEET. PLACE TEMPORARY SLOPE STABILIZATION MATTING ON SLOPES INDICATED. ANY EXCESS MATERIAL TAKEN OFF SITE MUST GO TO SITE WITH AN APPROVED EROSION SEDIMENT CONTROL PLAN.
C. PLACE SECURITY FENCE PER PLANS.
D. PLANT THE PROPOSED PLANTINGS AS SHOWN ON THE LANDSCAPE PLAN.

IV. PHASE III-SITE CLOSEOUT

A. WITH ENTIRE SITE FINAL GRADED AND STABILIZED WITH VEGETATIVE COVER IN PLACE, CONTACT CARROLL COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO REMOVING ANY SEDIMENT CONTROL MEASURES. APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR IS REQUIRED.
B. WITH NOTICE TO PROCEED FROM SEDIMENT CONTROL INSPECTOR, REMOVE PERIMETER CONTROLS. STABILIZE ANY DISTURBED AREAS WITH SEED & MULCH AS PER STABILIZATION SPECIFICATIONS.

PROPOSED START - FINISH CONSTRUCTION
NOVEMBER 2026 - MARCH 2027

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1938 BULLOCK CIRCLE
OWINGS MILLS, MD. 21117
PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
30 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
PHONE: 856-596-8080

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND - OHIO - PENNSYLVANIA - VIRGINIA - WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

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. 34688 EXPIRATION DATE: 07-08-2025

STATE OF MARYLAND · BILLIE JON SWATZES · No. 34688 · REGISTERED PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS)

EROSION SEDIMENT CONTROL NOTES

SCALE: N/A

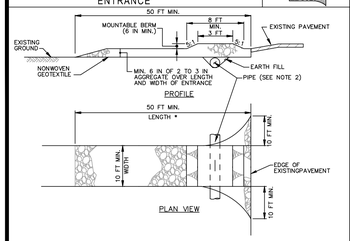
TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
5 OF 9
SDCP.3.1
JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-3-1-E-S-NOTES.DWG

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

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

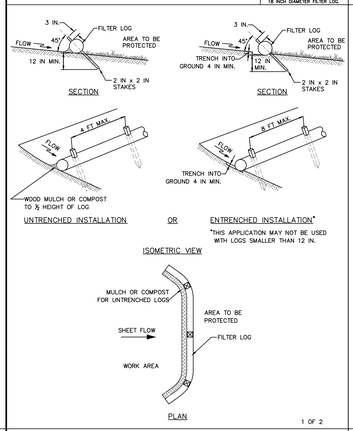
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

1 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

DETAIL E-6 FILTER LOG

STANDARD SYMBOL —FL-18— DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

2 FILTER LOG
NOT TO SCALE

DETAIL E-6 FILTER LOG

STANDARD SYMBOL —FL-18— DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG

CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

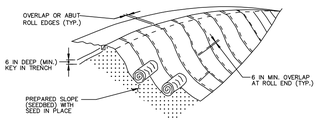
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U"-SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
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.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

2 OF 2

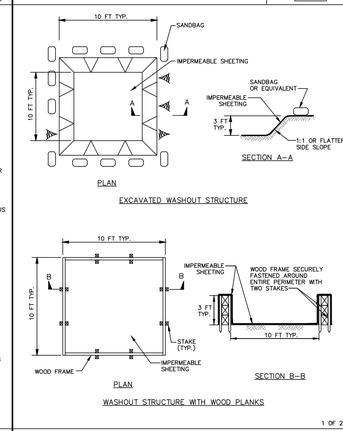
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

3 TEMPORARY SOIL STABILIZATION MATTING
NOT TO SCALE

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



1 OF 2

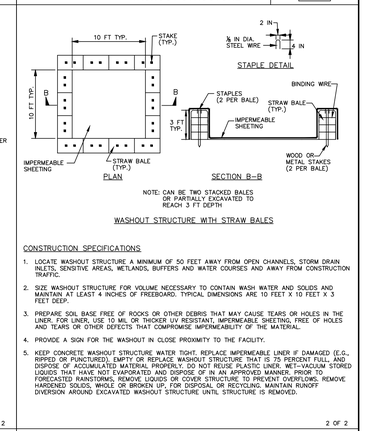
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

4 ONSITE CONCRETE WASHOUT STRUCTURE
NOT TO SCALE

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. METHODICALLY STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1608 BULLOCK CIRCLE
OWINGS MILLS, MD. 21117
PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR, LLC
30 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
PHONE: 856-988-0500

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND • OHIO • PENNSYLVANIA • VIRGINIA • WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

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. 34688 EXPIRATION DATE: 07-08-2025

STATE OF MARYLAND — BILLIE JON SWATZES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (GSEGS)

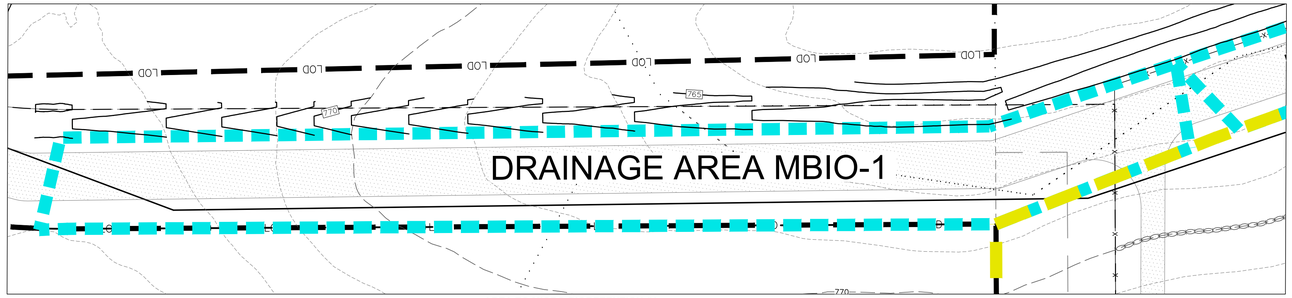
EROSION SEDIMENT CONTROL DETAILS

SCALE: N/A

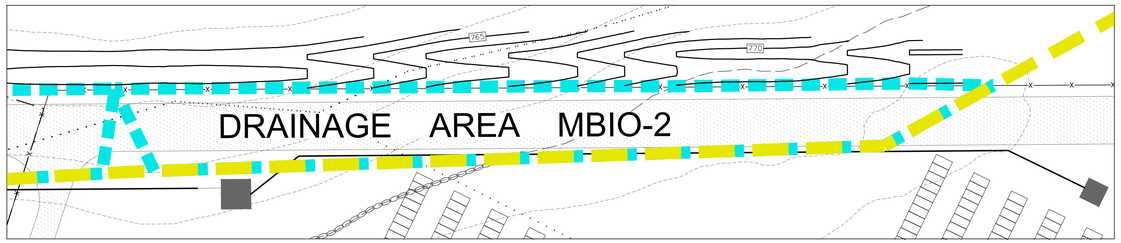
TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER: 6 OF 9
SDCP.3.2
JOB NO.: 03230290

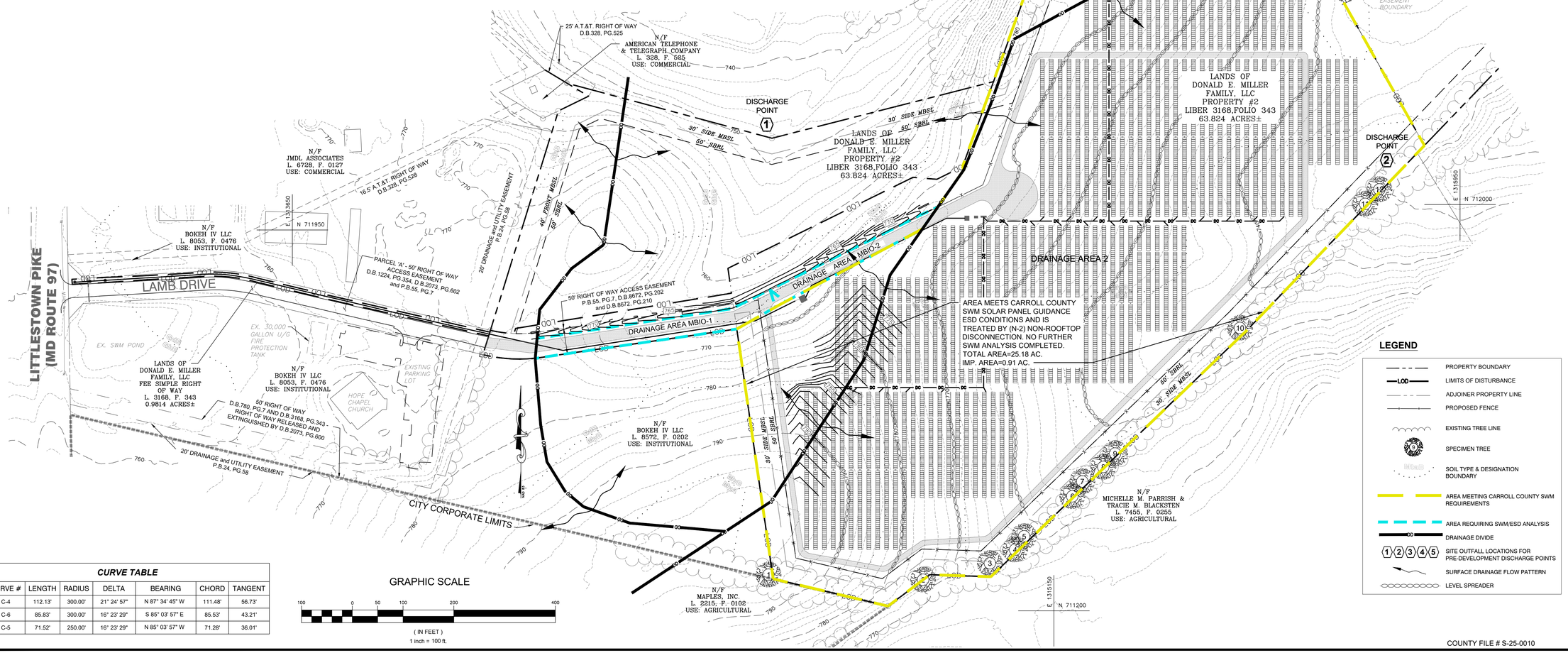
Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-3-2-E-S-DETAILS.DWG



AREA TO MICRO BIORETENTION #1
SCALE: 1"=30'



AREA TO MICRO BIORETENTION #2
SCALE: 1"=30'



LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- ADJOINER PROPERTY LINE
- PROPOSED FENCE
- EXISTING TREE LINE
- SPECIMEN TREE
- SOIL TYPE & DESIGNATION BOUNDARY
- AREA MEETING CARROLL COUNTY SWM REQUIREMENTS
- AREA REQUIRING SWM/ESD ANALYSIS
- DRAINAGE DIVIDE
- 1 2 3 4 5 SITE OUTFALL LOCATIONS FOR PRE-DEVELOPMENT DISCHARGE POINTS
- SURFACE DRAINAGE FLOW PATTERN
- LEVEL SPREADER

CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA	BEARING	CHORD	TANGENT
C-4	112.13'	300.00'	21° 24' 57"	N 87° 34' 45" W	111.48'	56.73'
C-6	85.83'	300.00'	16° 23' 29"	S 85° 03' 57" E	85.53'	43.21'
C-5	71.52'	250.00'	16° 23' 29"	N 85° 03' 57" W	71.28'	36.01'

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1036 BULLOCK CIRCLE
OWINGS MILLS, MD. 21117
PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
30 SOUTH MAPLE AVENUE
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OFFICE LOCATIONS
MARYLAND ◦ OHIO ◦ PENNSYLVANIA ◦ VIRGINIA ◦ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

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STATE OF MARYLAND
BILLIE JON SWARTZ
No. 34688
REGISTERED
PROFESSIONAL ENGINEER

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS)

PROPOSED DRAINAGE AREA MAP

SCALE: 1"=100

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
7 OF 9

SDCP.4.0

JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-4-0-DRAINAGE.DWG

SOIL INFORMATION

MAP UNIT SYMBOL	MAP UNIT NAME	FARMLAND CLASS	K FACTOR, WHOLE SOIL	HYDRIC RATING	HYDRIC CATEGORY
BrC	BRINKLOW CHANNERY LOAM, 8 TO 15 PERCENT SLOPES	FARMLAND OF STATEWIDE IMPORTANCE	.20	0	PREDOMINANTLY NON-HYDRIC
BrD	BRINKLOW CHANNERY LOAM 15 TO 25 PERCENT SLOPES	NOT PRIME FARMLAND	.20	0	
GdB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	PRIME FARMLAND	.24	0	
GhB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	PRIME FARMLAND	.37	10	
MtB	MT. ZION GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES	PRIME FARMLAND	.32	5	
MyA	MYERSVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	PRIME FARMLAND	.32	0	
MyB	MYERSVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES	PRIME FARMLAND	.32	0	
MyC	MYERSVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	FARMLAND OF STATEWIDE IMPORTANCE	.32	0	
RhB	ROHRERSVILLE SILT LOAM, 3 TO 8 PERCENT SLOPE	FARMLAND OF STATEWIDE IMPORTANCE	.37	5	

NOTE:
THE PROJECT WILL OBTAIN THE POLLINATOR - FRIENDLY DESIGNATION FOR SOLAR GENERATION FACILITIES.

LANDSCAPE BUFFER WIDTH TABLE	
BUFFER AREA	WIDTH
#1	50'
#2	50'

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- FOREST CONSERVATION EASEMENT
- TREE LINE
- SOIL TYPE & DESIGNATION BOUNDARY
- LEVEL SPREADER

Final Landscape Plan Owner Certification Form

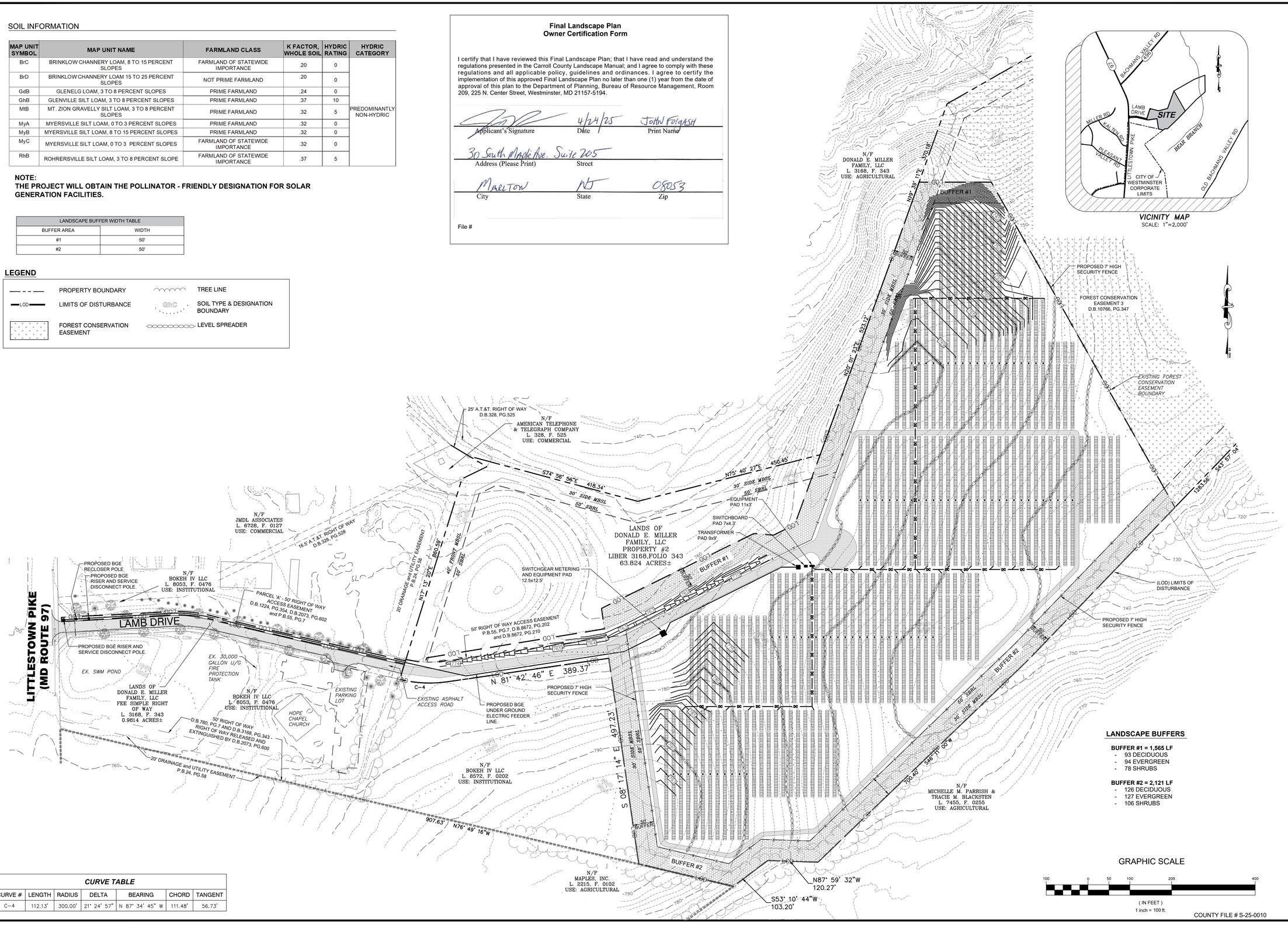
I certify that I have reviewed this Final Landscape Plan; that I have read and understand the regulations presented in the Carroll County Landscape Manual; and I agree to comply with these regulations and all applicable policy, guidelines and ordinances. I agree to certify the implementation of this approved Final Landscape Plan no later than one (1) year from the date of approval of this plan to the Department of Planning, Bureau of Resource Management, Room 209, 225 N. Center Street, Westminster, MD 21157-5194.

Applicant's Signature	Date	Print Name
	4/24/25	John Folgash

Address (Please Print)	Street	
30 South Maple Ave.	Suite 205	

City	State	Zip
Marlton	NJ	08053

File #



LANDSCAPE BUFFERS

BUFFER #1 = 1,565 LF
- 93 DECIDUOUS
- 94 EVERGREEN
- 78 SHRUBS

BUFFER #2 = 2,121 LF
- 126 DECIDUOUS
- 127 EVERGREEN
- 106 SHRUBS

CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	BEARING	CHORD	TANGENT
C-4	112.13'	300.00'	21° 24' 57"	N 87° 34' 45" W	111.48'	56.73'

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
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OFFICE LOCATIONS
MARYLAND - OHIO - PENNSYLVANIA - VIRGINIA - WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3566
EXPIRATION DATE: 03-17-2026

STATE OF MARYLAND · BRIAN S. ARMSTRONG · LANDSCAPE ARCHITECT

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS).

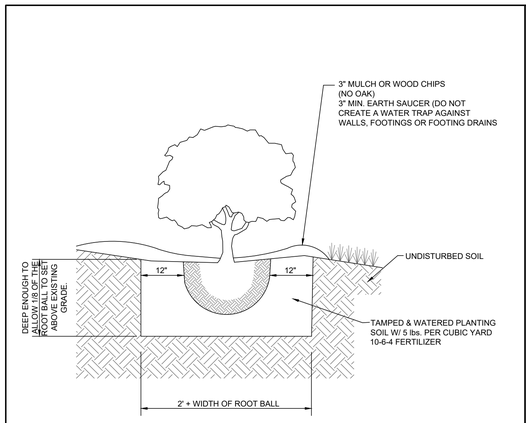
CONCEPTUAL LANDSCAPE PLAN

SCALE: 1"=100'

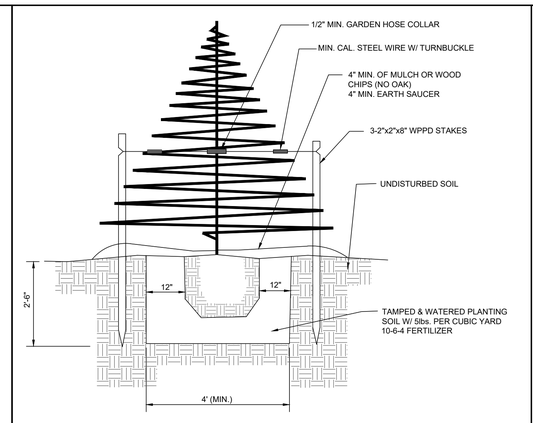
TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
8 OF 9
SDCP.5.0
JOB NO.: 03230290

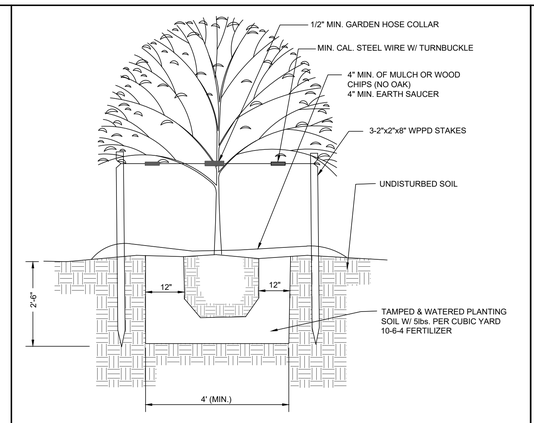
Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-5-0-LANDSCAPE.DWG



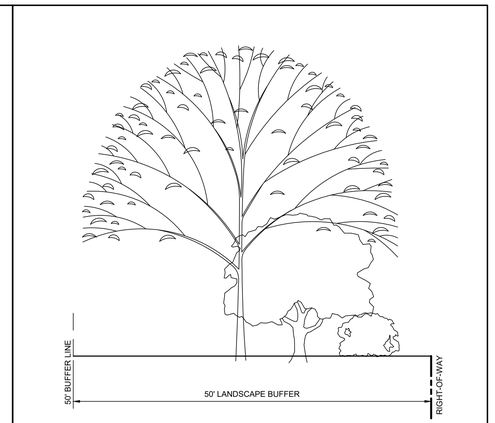
TYPICAL SHRUB PLANTING DETAIL
N.T.S



TYPICAL CONIFEROUS TREE DETAIL
N.T.S



TYPICAL DECIDUOUS TREE DETAIL (LESS THAN 8')
N.T.S



TYPICAL LANDSCAPE BUFFER CROSS SECTION
N.T.S

VEGETATIVE MANAGEMENT FOR LANDSCAPE BUFFER AND SOLAR ARRAY GROUND COVER

SITE PREPARATION

1. Soil testing shall be performed to determine the necessary soil amendments. The application rates of fertilizer and lime will be determined by the results of the onsite soil tests.
2. Prior to planting, mow the existing vegetative cover and disc/harrow the planting area.

SEED MIX

1. Ernst Conservation Seeds offers a Mesic to Dry Native Pollinator Seed Mix - ERNMX 105 that provides a variety of native wildflowers and grasses. Seeding should be at a rate of 20 lbs./acre with 30 lbs./acre of a cover crop. Multiple seeding times may be necessary to establish an acceptable level of coverage. Seeding should be done as soon as possible after construction to properly stabilize the site and prevent weed infestation. The seed mix will provide wildflowers that will promote the health of honeybees and other pollinators as well as attract a variety of songbirds. While minimizing maintenance of the site, this project design feature will also improve the quality and quantity of overall acreage for pollinators.

SEEDING

1. Seeding shall ideally occur within the following dates: March 1 - June 1 or September 1 - November 1.

MULCHING

1. Unless hydroseeded, mulch shall be applied to all seeded areas immediately after seeding. Apply 2 tons per acre of straw over all seeded areas. If a mulch anchoring tool is to be used, the rate shall be increased to 2.5 tons per acre. Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind and water.

WATERING

1. Planting shall include a thorough initial watering with weekly watering thereafter or as necessary for the first month after planting.

MAINTENANCE SCHEDULE

1. The landscape buffer and solar array ground cover should be mowed in early spring before the onset of new growth, but not to a height of less than 6 inches.

HERBICIDES AND PESTICIDES

1. Herbicides and pesticides may be applied to control invasive plant species in accordance with State Law, but only as spot treatments. If required, the project will use a Licensed Herbicide Applicator and apply only herbicides deemed 'pollinator friendly', containing no neonicotinoids with reduced mobility in soil conditions (e.g., little movement/spread to root systems beyond where directly applied). These chemicals will be EPA-registered at the time of application and will be applied to control invasive species in accordance with applicable law. Examples of recommended products that may be used, but not limited to, post-emergent: 2, 4-D, MCPP, Dicamba and Triclopyr. Pre-emergent: Benefin + trifluralin, dithiopyr, Prodiamine, Siduron or equivalent.

RESEEDING/OVERSEEING

1. The landscape buffer and solar array ground cover should be reseeded/overseeded if less than 75 percent coverage after the first growing season.

LANDSCAPE BUFFER AND SOLAR ARRAY GROUND COVER SEED MIX

Mesic to Dry Native Pollinator Mix - ERNMX-105

	Botanical Name	Common Name
29.40 %	Schizachyrium scoparium, Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown
18.50 %	Elymus virginicus, PA Ecotype	Virginia Wildrye, PA Ecotype
12.00 %	Sorghastrum nutans, PA Ecotype	Indiangrass, PA Ecotype
8.00 %	Echinacea purpurea	Purple Coneflower
5.00 %	Panicum clandestinum, Tioga	Deertongue, Tioga
3.00 %	Chamaecrista fasciculata, PA Ecotype	Partridge Pea, PA Ecotype
3.00 %	Coreopsis lanceolata	Lanceleaf Coreopsis
3.00 %	Rudbeckia hirta	Blackeyed Susan
2.50 %	Verbena hastata, PA Ecotype	Blue Vervain, PA Ecotype
2.00 %	Helopsis helianthoides, PA Ecotype	Oxeye Sunflower, PA Ecotype
2.00 %	Zizia aurea, PA Ecotype	Golden Alexanders, PA Ecotype
1.50 %	Lespedeza capitata, RI Ecotype	Roundhead Lespedeza, RI Ecotype
1.50 %	Penstemon digitalis, PA Ecotype	Tall White Beardtongue, PA Ecotype
1.00 %	Asclepias tuberosa, PA Ecotype	Butterfly Milkweed, PA Ecotype
1.00 %	Pycnanthemum tenuifolium	Narrowleaf Mountainmint
1.00 %	Senna hebecarpa, VA & WV Ecotype	Wild Senna, VA & WV Ecotype
0.90 %	Aster pilosus, PA Ecotype	Heath Aster, PA Ecotype
0.80 %	Aster novae-angliae, PA Ecotype	New England Aster, PA Ecotype
0.70 %	Asclepias incarnata, PA Ecotype	Swamp Milkweed, PA Ecotype
0.50 %	Baptisia australis, Southern WV Ecotype	Blue False Indigo, Southern WV Ecotype
0.50 %	Geum canadense, PA Ecotype	White Avens, PA Ecotype
0.50 %	Rudbeckia triloba, WV Ecotype	Browneyed Susan, WV Ecotype
0.40 %	Monarda fistulosa, Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ec
0.30 %	Asclepias syriaca, PA Ecotype	Common Milkweed, PA Ecotype
0.30 %	Solidago nemoralis, PA Ecotype	Gray Goldenrod, PA Ecotype
0.20 %	Aster prenanthoides, PA Ecotype	Zigzag Aster, PA Ecotype
0.20 %	Eupatorium perfoliatum, PA Ecotype	Boneset, PA Ecotype
0.20 %	Solidago bicolor, PA Ecotype	White Goldenrod, PA Ecotype
0.10 %	Solidago juncea, PA Ecotype	Early Goldenrod, PA Ecotype

Seeding Rate: 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either grain oats (1 Jan to 31 Jul) or grain rye (1 Aug to 31 Dec).

Herbaceous Flowering Species - Herbaceous Perennial; Pollinator Favorites; Uplands & Meadows
The native wildflowers and grasses in this mix provide an attractive display of color from spring to fall. Designed for mesic to upland sites and full sun to lightly shaded areas. This mix will attract a variety of pollinators and songbirds. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

WEED CONTROL PLAN

IF INVASIVE PLANT SPECIES ARE FOUND TO BE PRESENT, A LICENSED APPLICATOR MAY BE RETAINED TO PREPARE AND IMPLEMENT A SITE-SPECIFIC CONTROL TREATMENT PLAN. POTENTIAL TREATMENT METHODS INCLUDE:

- MANUAL CONTROLS - SMALL POPULATIONS OF INVASIVE PLANTS MAY BE PULLED AND DISPOSED OF.
- MOWING - DURING THE ESTABLISHMENT OF GRASSES WITHIN THE ARRAYS, MOWING MAY BE AN EFFECTIVE METHOD OF CONTROLLING INVASIVE BROADLEAF WEEDS THAT ARE PRESENT IN THE SEED BANK OF FARMED SOILS. CARE WILL BE TAKEN TO DISPOSE OF CUT MATERIALS SO AS NOT TO SPREAD PROPAGULES ACROSS THE PROJECT SITE.
- HERBICIDE APPLICATION - APPLICATIONS OF HERBICIDE MUST BE APPLIED BY A STATE-LICENSED PROFESSIONAL. A LIST OF LICENSED APPLICATORS WILL BE PROVIDED TO THE PROJECT OWNER/CONTRACTOR. THE SELECTED APPLICATORS WILL BE PROVIDED WITH A COPY OF THE INVASIVE SPECIES INVENTORY AND BE REQUESTED TO PREPARE A PLAN TO TARGET THE SPECIFIC SPECIES AND INFECTED AREAS OF THE PROJECT SITE. THE PROJECT OWNER/CONTRACTOR WILL REVIEW AND APPROVE THE PLAN PRIOR TO IMPLEMENTATION. ALL STATE AND FEDERAL LAWS WILL BE ADHERED TO DURING THE TREATMENT PROCESS. TREATMENT MAY INCLUDE FOLIAR APPLICATIONS WITH SPRAYERS, CUT AND TREAT, AND STEM INJECTION. THE PLAN WILL INCLUDE MONITORING AND REPORTING ON THE NEED TO REPEAT TREATMENT. HERBICIDES WILL BE APPLIED ACCORDING TO THE LABEL.
- ONGOING MONITORING - FUTURE INVASIVE PLANT SPECIES CONTROL WILL BE CARRIED OUT WHEN SPECIES ARE DETECTED DURING INSPECTIONS OF THE VEGETATION. IT IS ANTICIPATED THAT COUNTERMEASURES TO CONTROL INVASIVE PLANT SPECIES MAY BE REQUIRED ONCE EVERY THREE TO FIVE YEARS DURING THE OPERATION OF THE PROJECT.

VEGETATION MAINTENANCE DURING OPERATIONS & MAINTENANCE

MOWING WITHIN THE SOLAR ARRAY AREA MAY BE CONDUCTED BY THE PROJECT OWNER'S MAINTENANCE CREW ONE OR MORE TIMES PER YEAR, DEPENDING ON GROWING CONDITIONS BUT NOT TO A HEIGHT LESS THAN 6 INCHES.

LANDSCAPE BUFFER SCHEDULE

	SYMBOL	COMMON NAME	BOTANICAL NAME	MIN. PLANT SIZE	HEIGHT AT TIME OF PLANTING	HEIGHT AT MATURITY (APPROX. RANGE)	MINIMUM SPACING	REQUIRED PLANTS PER SECTION (100 LF)	PROVIDED PLANTS PER SECTION (100 LF)	TOTAL REQUIRED PLANTS	TOTAL PROVIDED PLANTS
MAJOR DECIDUOUS TREE	1	RED MAPLE	ACER RUBRUM	2 TO 2 1/2" CAL. & B&B	8-10'	60'-90'	10'	2	2	73	73
		BLACK GUM	NYSSA SYLVATICA		8-10'	30'-50'	10'				
	2	AMERICAN LINDON	TILIA AMERICANA		8-10'	50'-80'	10'	2	2	73	73
		RED OAK	QUERCUS RUBRA		8-10'	60'-70'	10'				
MINOR DECIDUOUS TREE	3	EASTERN REDBUD	CERCIS CANADENSIS		7-10'	20'-30'	10'	2	2	73	73
		DOWNY SERVICEBERRY	AMELANCHIER ARBOREA		7-10'	15'-25'	10'				
EVERGREEN	4	AMERICAN HOLLY	ILEX OPACA CULTIVARS	6' HT. & B&B	6'	15'-30'	10'	6	6	221	221
		EASTERN RED CEDAR	JUNIPERUS VIRGINIANA		6'	40'-50'	10'				
SHRUBS	5	SILKY DOGWOOD	CORNUS AMOMUM	18" - 30"	18-30"	6'-10'	10'	5	5	184	184
		ARROWWOOD VIBURNUM	VIBURNUM DENTATUM		18-30"	6'-10'	10'				
		BLACKHAW	VIBURNUM PRUNIFOLIUM		18-30"	5'-10'	10'				
TOTAL PLANTS								17	17	624	624

*** ONE PLANT SPECIES SHALL BE USED PER SYMBOL INDICATED. MULTIPLE SPECIES HAVE BEEN PROVIDED TO ALLOW FOR MORE CHOICES BASED ON AVAILABILITY. IF PLANT STOCK IS UNAVAILABLE, AN ALTERNATE SPECIES SHALL BE CHOSEN AND APPROVED FROM THE ENGINEER.**

TREE AND SHRUB PLANTING SPECIFICATIONS

A. MATERIALS

(1) PLANTS SHALL BE NURSERY GROWN. IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. THEY SHALL HAVE BEEN ROOT PRUNED WITHIN THE LAST TWO YEARS.

THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, PEST, EGGS OR LARVAE, AND SHALL HAVE A HEALTHY, DEVELOPED ROOT SYSTEM. TREES AND SHRUBS SHALL NOT BE PRUNED BEFORE DELIVERY. ALL PLANTS WITH A DAMAGED OR CROOKED LEADER OR MULTIPLE LEADERS, ABRASIONS ON THE BARK, SUNSCALD, DISFIGURING KNOTS OR FRESH CUTS. OVER 1 1/2" WILL BE REJECTED, THE OWNER RESERVES THE RIGHT TO HAVE THE PLANT MATERIAL INSPECTED AND TAGGED AT THE GROWING SITE AND TO REJECT ANY DEFICIENT MATERIAL AT THE JOB SITE. THE LANDSCAPE ARCHITECT OR PLAN PREPARER SHALL REJECT ANY AND ALL PLANT MATERIAL THAT DOES NOT MEET SPECIFICATIONS, IS DISEASED, OR IS OTHERWISE UNHEALTHY.

NO CHANGE IN QUANTITY, SIZE, KIND OR QUALITY OF PLANT SPECIFIED WILL BE PERMITTED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT/DESIGNER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE PLANT COUNT AND IN ANY INSTANCE WHERE THERE IS A DISCREPANCY BETWEEN THE PLAN VIEW AND THE LANDSCAPE SCHEDULE, THE PLAN VIEW SHALL PRESIDE.

(2) TOPSOIL SHALL BE FERTILE, FRIABLE AND TYPICAL OF THE LOCALITY. IT SHALL BE FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS AND SHALL NOT BE DELIVERED IN A FROZEN OR MUDDY CONDITION. COMPACTED SOILS THAT CANNOT BE RESTORED TO A REASONABLE PLANTING SOIL SHALL BE REMOVED AND REPLACED WITH FRIABLE NATIVE SOILS.

(3) PLANTING SOIL (BACKFILL MIX) SHALL BE FIVE PARTS NATIVE TOPSOIL AND ONE PART WET LOOSE PEATMOSS.

(4) STAKING MATERIALS: GUY WIRE SHALL BE PLIABLE 12 GAUGE GALVANIZED TWISTED TWO STRAND WIRE. HOSE SHALL BE A SUITABLE LENGTH OF TWO-PLY, REINFORCED BLACK RUBBER HOSE **3/4"** INCH IN DIAMETER.

(5) MULCH: MULCH SHALL BE ORGANIC DOUBLE SHREDDED HARDWOOD BARK FREE OF HERBICIDES, LARGE CHUNKS AND WEEDS AND SEED AND AGED A MINIMUM OF 6 MONTHS.

B. APPLICABLE SPECIFICATIONS AND STANDARDS:

(1) "STANDARDIZED PLANT NAMES," LATEST EDITION AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.

(2) "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, AMERICAN ASSOCIATION OF NURSERYMEN.

C. PRE-DELIVERY DIGGING AND HANDLING OF PLANT MATERIALS:

(1) IMMEDIATELY BEFORE DIGGING, SPRAY ALL EVERGREEN OR DECIDUOUS PLANT MATERIAL IN FULL LEAF WITH ANTI-DESICCANT, APPLYING AN ADEQUATE FILM OVER TRUNKS, BRANCHES, TWIGS, AND/ OR FOLIAGE.

(2) DIG BALL AND BURLAP (B&B) PLANTS WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER NOT LESS. THAN THAT RECOMMENDED BY AMERICAN STANDARD FOR NURSERY STOCK, AND OF SUFFICIENT DEPTH TO INCLUDE THE FIBROUS AND FEEDING ROOTS. PLANTS MOVED WITH A BALL WILL NOT BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATIONS.

(3) THE LANDSCAPE CONTRACTOR SHALL PLAN DELIVERY AND PLANT INSTALLATION TO MINIMIZE STRESS ON PLANT MATERIAL. MATERIAL TO BE STAGED ON OR OFF THE JOB SITE SHALL BE LOCATED TO MAXIMIZE PROTECTION FROM HOT SUN AND DRYING WINDS AND SHALL BE WATERED TO MAINTAIN A STRESS FREE CONDITION. THE LACK OF AVAILABLE WATER SHALL NOT RELIEVE THE CONTRACTOR OF ADEQUATE MAINTENANCE.

D. SITE PREPARATION:

PLANTING AREAS THAT ARE OVERGROWN IN WEEDS OR NOXIOUS PLANTS SHALL BE SPRAYED WITH ROUNDUP AND THEN DISKED AFTER THREE (3) WEEKS AND THEN PLANTED.

PLANTING AREAS THAT ARE VEGETATED AND STABLE WITH MINIMAL WEEDS SHALL BE MOWED TO 8" OR AS REQUIRED FOR PLANTING.

E. EXCAVATION OF PLANTING AREAS;

THE CONTRACTOR. SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK. COORDINATE WITH OTHER CONTRACTORS ON SITE AND MISS UTILITY TO VERIFY UTILITY LOCATIONS. ANY REPAIRS TO EXISTING UNDERGROUND. UTILITIES REQUIRED AS A RESULT OF ACTIONS OF THE CONTRACTOR AND/OR HIS ASSIGNS SHALL BE BORNE BY THE CONTRACTOR.

STAKE OUT ON THE GROUND LOCATIONS FOR PLANTS AND OUTLINES OF AREA TO BE PLANTED AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT/DESIGNER BEFORE EXCAVATION IS BEGUN.; CONTRACTOR IS TO CAUTIOUSLY TEST PIT AREAS WHERE UNDERGROUND UTILITIES (ELECTRIC, GAS, CABLE/COMMUNICATIONS LINES, WATER LINES, SEWER, ROOF LEADERS, STORM DRAIN PIPE, ETC.) ARE SUSPECTED TO EXIST AND WHERE PROPOSED TO BE PLACED ACCORDING TO PLAN TO AVOID ANY DAMAGE OR DISRUPTIONS TO SERVICES. DO NOT PLACE PLANTS DIRECTLY OVER ANY EXISTING UNDERGROUND UTILITIES. OFFSET A REASONABLE AND PRACTICAL DISTANCE TO AVOID ANY IMMINENT OR FUTURE CONFLICT.

F. PLANTING OPERATIONS:

DO NOT MIX OR PLACE SOILS AND SOIL AMENDMENTS IN FROZEN, WET OR MUDDY CONDITION. SUSPEND SOIL SPREADING, GRADING AND TILLING OPERATIONS DURING PERIODS OF EXCESS SOIL MOISTURE UNTIL MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE AND TOO DUSTY.

TREE PITS SHALL BE EXCAVATED TO A DEPTH SO THAT ALLOWS FOR THE PLANTS TO BE SET AT THE SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. USE PLANTING SOIL TO BACKFILL APPROXIMATELY 2/3 FULL. WATER THOROUGHLY BEFORE INSTALLING REMAINDER OF THE PLANTING SOIL TO TOP OF PIT, ELIMINATING ALL AIR POCKETS. SET PLANTS PLUMB AND BRACE RIGIDLY IN POSITION UNTIL THE PLANTING SOIL HAS BEEN STAMPED SOLIDLY AROUND THE BALL AND ROOTS. CUT ROPES OR STRINGS FROM TOP OF BALL AFTER PLANT HAS BEEN SET. LEAVE BURLAP OR CLOTH WRAPPING INTACT AROUND BALLS. TURN UNDER AND BURY PORTIONS OF BURLAP AT TOP OF BALL. FOR CONTAINER GROWN PERENNIALS, CAREFULLY REMOVE FROM CONTAINERS WITHOUT BREAKING APART PLANTS OR ROOT SYSTEMS AND GENTLY LOOSEN SOIL. PLACE IN PIT EXCAVATED TO THE DEPTH THAT ALLOWS FOR THE PLANT TO BE SET AT ITS FORMER GRADE. BACKFILL TO 2/3 FULL AND WATER THOROUGHLY. BACKFILL WITH REMAINING PLANTING SOIL TO TOP OF PIT, ELIMINATING ALL AIR POCKETS.

PROTECT PLANTS AT ALL TIMES FROM SUN OR DRYING WINDS. PLANTS THAT CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE KEPT IN THE SHADE, WELL PROTECTED WITH SOIL, WET MOSS OR OTHER ACCEPTABLE MATERIAL AND SHALL BE KEPT WELL WATERED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN THREE DAYS AFTER DELIVERY. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE BALL ONLY.

MULCH ALL PITS WITH A THREE-INCH LAYER OF BARKMULCH IMMEDIATELY AFTER PLANTING. PROVIDE AN 5-FOOT DIAMETER MULCH CIRCLE AROUND THE BASE OF ALL LARGE TREES. *IN* NO. INSTANCE IS MULCH TO BE PILED AGAINST THE BASE OF TREE AND SHRUB TRUNKS. MULCH AREAS AROUND BASE OF EACH PLANT. WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.

G. STAKING AND PRUNING:

GENERALLY STAKING OF TREES IS NOT RECOMMENDED, HOWEVER IN AREAS OF HIGH WIND AND TREES TALLER THAN 8 FT, SHOULD BE STAKED IMMEDIATELY AFTER PLANTING. PLANTS SHALL STAND PLUMB AFTER STAKING. STANDARD TREE PLANTING STAKES AND GUY WIRES SHALL BE UTILIZED. THEY SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD AND DISPOSED OF OFF SITE BY THE CONTRACTOR.

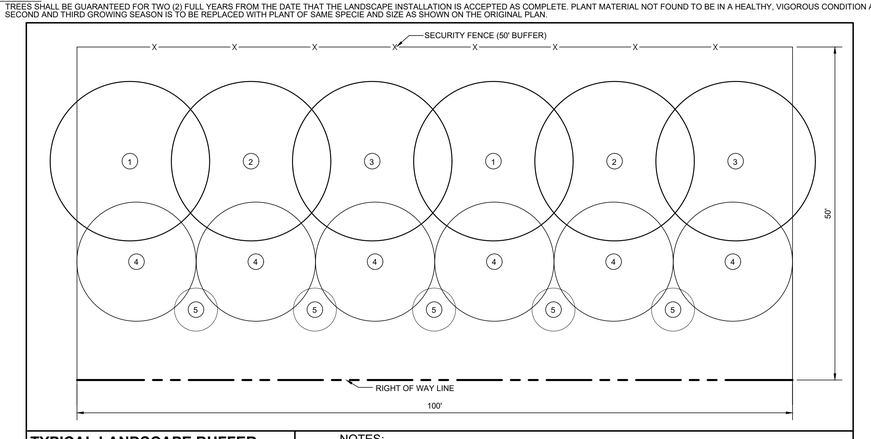
REMOVE ALL DEAD WOOD, SUCKERS, OR BROKEN BRANCHES AND PRESERVE THE NATURAL CHARACTER OF THE PLANT.

H. POST PLANTING RESPONSIBILITIES:

THE OWNER/DEVELOPER THROUGH HIS/HER CONTRACT WITH THE LANDSCAPE CONTRACTOR IS RESPONSIBLE AND SHALL INSURE ADEQUATE MAINTENANCE IS PROVIDED THROUGH THE INSTALLATION AND WARRANTY PERIOD AND FINAL INSPECTION BY THE COUNTY.

H. GUARANTEE:

TREES SHALL BE GUARANTEED FOR TWO (2) FULL YEARS FROM THE DATE THAT THE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETE. PLANT MATERIAL NOT FOUND TO BE IN A HEALTHY, VIGOROUS CONDITION AT THE BEGINNING OF THE SECOND AND THIRD GROWING SEASON IS TO BE REPLACED WITH PLANT OF SAME SPECIE AND SIZE AS SHOWN ON THE ORIGINAL PLAN.



TYPICAL LANDSCAPE BUFFER PLANTING PLAN (100'x 50')
SCALE:1"=10'

NOTES:

1. THE OVERALL PLAN SHOWS A TOTAL OF 3,686 LF OF BUFFER.
2. TYPICAL BUFFER SECTION SHALL BE REPEATED AS SHOWN ON THE TYPICAL LANDSCAPE BUFFER PLANTING PLAN DETAIL.

COUNTY FILE # S-25-0010

OWNER: DONALD E. MILLER FAMILY, LLC
1038 BULLOCK CIRCLE
OWINGS MILLS, MD 21117
PHONE:410-499-5769

DEVELOPER: BEAR BRANCH SOLAR LLC
30 SOUTH MAPLE AVENUE
SUITE 205
MARLTON, NEW JERSEY 08053
PHONE: 856-988-0850

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND - OHIO - PENNSYLVANIA - VIRGINIA - WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

DRAWN BY: STAFF
CHECKED BY: BJS
DATE: 04/25/25

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3566
EXPIRATION DATE: 05-17-2026

STATE OF MARYLAND · BRIAN J. SMITH · LICENSED · LANDSCAPE ARCHITECT · 3566

SITE DEVELOPMENT CONCEPT PLAN
BEAR BRANCH SOLAR
LITTLESTOWN PIKE
WESTMINSTER, MARYLAND
CARROLL COUNTY / ELECTION DISTRICT: 7
EXISTING USAGE IS AGRICULTURAL FIELD. PROPOSED USAGE IS GROUND MOUNTED COMMUNITY SOLAR ENERGY GENERATION SYSTEM (CSEGS)

CONCEPTUAL LANDSCAPE PLAN DETAILS

SCALE: N/A

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
9 OF 9
SDCP.5.1
JOB NO.: 03230290

Y:\EAST_HG_03\2023_2__\03-23-0290 BEAR BRANCH SOLAR\CADD\03230290\PRODUCTION DRAWINGS\SITE DEVELOP CONCEPT PLAN\03230290-SDCP-5-1-L-NOTES-DETAILS.DWG