

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
3. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING AT&T
BGE (CONSTRUCTION SERVICES) 410-637-8713
BGE (EMERGENCY) 410-685-0123
BUREAU OF UTILITIES 410-313-4900
COLONIAL PIPELINE CO 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-743-0033
4. PROJECT BACKGROUND:
LOCATION : CLARKSVILLE, MD; TAX MAP 35, BLOCK 20, PARCEL 68
SUBDIVISION : ROBERT C. COLE PROPERTY - LOT 1 (PLAT NO. 23328)
SECTION/AREA : N/A
DPZ REFERENCES : L16699/F.381, F-14-024, BA-21-008C, ECP-22-019, PLAT NO. 26249
5. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
6. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
7. THE SUBJECT PROPERTY IS ZONED "RR-DEO" IN ACCORDANCE WITH THE 10/6/13 ZONING REGULATIONS, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
8. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON THE SURVEY PERFORMED BY VOGEL ENGINEERING+TIMMONS GROUP ON FEBRUARY, 2021.
9. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY VOGEL ENGINEERING+TIMMONS GROUP, DATED AUGUST AND NOVEMBER, 2021. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
10. THE COORDINATE SYSTEM HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NOS. 356G AND 35GF WERE USED FOR THIS PROJECT.
11. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF NON-STRUCTURAL PRACTICES AND MICRO-SCALE PRACTICES IN ACCORDANCE WITH THE ENVIRONMENTAL SITE DESIGN CRITERIA. NON-STRUCTURAL PRACTICES INCLUDING MICRO-SCALE DISCONNECTION (N-2), MICRO-SCALE PRACTICES INCLUDE FOUR (4) MICRO-BIOTRETENTION (M-6). THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
12. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS, APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
13. ANY DAMAGE TO THE COUNTY'S RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
14. EXISTING STRUCTURES LOCATED ON-SITE ARE TO REMAIN, NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLINGS ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS.
15. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
B) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.)
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (25S LOADING)
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
F) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
16. ALL DRIVEWAY ENTRANCES SHALL UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6.06.
17. HALL SHOP ROAD IS CLASSIFIED AS A MAJOR COLLECTOR. ACCESS FROM HALL SHOP ROAD IS PERMITTED ONLY FOR THE PROPOSED COMMERCIAL SOLAR PROJECT (BA-21-008C).
18. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS, FOREST CONSERVATION EASEMENT AREAS, 100 YEAR FLOODPLAIN AND THE EXISTING POND.
19. THIS PROPERTY IS NOT WITHIN THE METROPOLITAN DISTRICT.
20. WATER FOR THIS PROJECT IS PRIVATE.
21. SEWER FOR THIS PROJECT IS PRIVATE. THE HEALTH DEPARTMENT HAS NOT APPROVED THIS PROPERTY FOR WASTEWATER DISCHARGE.
22. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS PROPERTY OR THE COUNTY'S CEMETERY SITE MAP.
23. WETLANDS, STREAMS, FOREST AND THEIR BUFFERS SHOWN ON-SITE WERE ONLY DELINEATED NEAR THE CONDITIONAL USE AREA AND ARE BASED ON ENVIRONMENTAL PLAN BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED MARCH 9, 2021. THE WETLANDS, STREAMS, FOREST AND THEIR BUFFERS ARE OUTSIDE OF THE LIMIT OF DISTURBANCE AND PROJECT AREA AND SHALL NOT BE DISTURBED.
24. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AND THE FOREST CONSERVATION MANUAL. THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IS 1.90 ACRES OF AFFORESTATION, WHICH SHALL BE SATISFIED BY THE ON-SITE RETENTION OF 3.82 ACRES OF EXISTING FOREST ON LOT 1 OUTSIDE OF THE PROJECT AREA.
TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY:
1) THE RETENTION OF 3.82 ACRES (3.82 / 2 = 1.91 ACRES) OF EXISTING FOREST; PLAT NO. 26249.
25. A TRAFFIC STUDY IS NOT REQUIRED.
26. A NOISE STUDY IS NOT REQUIRED.
27. REFERENCE TEST PIT REPORT PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP, INC. DATED DECEMBER 20, 2021 FOR SUBSURFACE EXPLORATION TESTING AT BORINGS P-1 TO P-4.
28. THE PRE-SUBMISSION COUNTY MEETING WAS HELD FOR THIS PROJECT ON AUGUST 6, 2020 VIA THE ZOOM VIDEO CONFERENCING PLATFORM.
29. THE ENVIRONMENTAL CONCEPT PLAN (ECP-22-019) WAS APPROVED PER LETTER DATED NOVEMBER 23, 2021.
30. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
A FINANCIAL SURETY IN THE AMOUNT OF \$24,750 SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
-PERIMETER PLANTINGS IN THE AMOUNT OF \$5,400 FOR THE REQUIRED 18 SHADE TREES, AND \$19,350 FOR THE REQUIRED 129 EVERGREEN TREES.
31. SOIL TYPES SHOWN HEREON ARE IN ACCORDANCE WITH THE USDA NRCS WEB SOIL SURVEY.
32. A 100-YR FLOODPLAIN IS LOCATED ON-SITE BUT NOT WITHIN THE PROJECT AREA.
33. STEEP SLOPES ARE NOT LOCATED ON-SITE OR WITHIN THE PROJECT AREA.
34. THIS PROJECT IS SUBJECT TO ZONING AND LAND USE BOARD OF APPEALS CASE BA-21-008C ON JULY 6, 2021. THE ZONING AND LAND USE BOARD OF APPEALS GRANTED THE PETITION OF THE TPE MD HO93, LLC PROVIDED THAT THE PETITIONER MEET CERTAIN CONDITIONS. THE PETITION IS GRANTED PROVIDED THAT THE PETITIONER MEET THE FOLLOWING CONDITIONS:
A. THE COMMERCIAL SOLAR FACILITY CONDITIONAL USE SHALL BE CONDUCTED IN CONFORMANCE WITH AND SHALL ONLY TO THE PETITION AS SUBMITTED AND AS SHOWN ON THE CONDITIONAL USE PLAN SUBMITTED WITH THE PETITION DATED MARCH 2020, AND NOT TO ANY OTHER ACTIVITIES USES, OR STRUCTURES ON THE PROPERTY.
B. PETITIONER SHALL COMPLY WITH ALL CONDITIONAL USE STANDARDS.
C. THE SITE DEVELOPMENT PLAN, OR ITS EQUIVALENT, SHALL INCLUDE A NOTE CONTAINING ALL CONDITIONS OF APPROVAL.
D. PETITIONER SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
E. THE SYSTEMS INSTALLED BY THE PETITIONER ON THE PROPERTY SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND PROVISIONS.
F. ANY COMMERCIAL SOLAR FACILITY THAT IS NO LONGER USED SHALL BE REMOVED BY THE PROPERTY OWNER FROM THE SITE WITHIN ONE YEAR OF THE DATE THAT THE USE CEASES.
G. THE PREMISES SHALL BE MAINTAINED AT ALL TIMES IN A CLEAN AND ORDERLY CONDITIONS, INCLUDING THE CARE OR REPLACEMENT OF PLANT MATERIALS REQUIRED IN THE LANDSCAPING PLAN. THE RESPONSIBILITY FOR COMPLIANCE WITH THIS PROVISION SHALL BE WITH ALL PARTIES HAVING A LEASE OR OWNERSHIP INTEREST IN THE COMMERCIAL SOLAR FACILITY.
H. THE PETITIONER SHALL REGISTER ALL SOLAR COLLECTORS WITH THE DEPARTMENT OF FIRE AND RESCUE SERVICES. THE REGISTRATION SHALL INCLUDE A MAP OF THE SOLAR FACILITY NOTING THE RESCUE SERVICES. THE REGISTRATION SHALL INCLUDE A MAP OF THE SOLAR FACILITY NOTING THE LOCATION OF THE SOLAR COLLECTORS AND THE PANEL DISCONNECT.
I. TREE REMOVAL SHALL BE MINIMAL AND RESTORATION SHALL BE DONE IN ACCORDANCE WITH SECTION 16.1026 OF THE HOWARD COUNTY CODE.
J. ALL REQUIRED LANDSCAPING SHALL BE PROVIDED WITHIN 6 MONTHS OF INSTALLATION OF THE SOLAR PANELS.
35. A KNOX LOCK SHALL BE LOCATED AT THE MAIN ENTRANCE.
36. ALL GATES SHALL NOT BE LOCATED CLOSER THAN 30 FT FROM AN INTERSECTION AND SHALL OPEN IN THE DIRECTION OF EMERGENCY VEHICLE TRAVEL.
37. PRIMARY ELECTRICAL DISCONNECT ARE THE SWITCHGEARS. THE SECONDARY DISCONNECT ARE THE TRANSFORMERS.
38. AN ELECTRICAL HAZARD SIGN AND EMERGENCY CONTACT INFORMATION FOR SITE REPRESENTATIVES SHALL BE LOCATED AT THE ENTRANCE.
39. PANEL LISTINGS AND FLAME SPREAD RATINGS SHALL BE LISTED AT THE ENTRANCE.
40. THE DEVELOPER SHALL PROVIDE TRAININGS TO THE FIRE DEPARTMENT FOR EVERY SOLAR SITE.
41. UPON DECOMMISSIONING OF THE SOLAR FACILITY THE PETITIONER/OPERATOR WILL REMOVE STORMWATER MANAGEMENT PRACTICES AND RESTORE ACCORDINGLY (AT THE REQUEST OF THE PROPERTY OWNER).
42. ALL ACCESS DRIVES FROM THE PUBLIC ROAD TO THE EQUIPMENT PAD TO BE 12' MINIMUM WIDTH AND CAPABLE OF SUPPORTING FIRE DEPARTMENT VEHICLES.
43. ISOLATED, SURFACE SMOOTHING AND/OR FINE GRADING MAY BE REQUIRED TO SUPPORT SOLAR EQUIPMENT INSTALLATION. HOWEVER, NO MASS GRADING WILL BE REQUIRED.
44. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
45. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
46. THIS PROJECT IS SUBJECT TO A DESIGN MANUAL WAIVER APPROVED ON JUNE 3, 2022 OF DESIGN MANUAL, VOLUME III, SECTION 1.3.3 STREET TYPES-COUNTRY ROAD. A PAYMENT OF A FEE-IN-LIEU OF CONSTRUCTION OF THE ROAD SECTION REQUIRED WAS REQUESTED AND APPROVED. THE APPROVED FEE-IN-LIEU AMOUNT IS \$30,702 FOR COMPLETING THE IMPROVEMENTS DIRECTLY FRONTING THE PROJECT SITE.
47. THIS PROJECT IS SUBJECT TO A DESIGN MANUAL WAIVER APPROVED ON JUNE 3, 2022 OF VOLUME III, SECTION 2.4.10 WHICH REQUIRES INTERSECTION SIGHT REQUIREMENTS FOR DRIVEWAYS ACCESSING ROAD CLASSIFICATIONS GREATER THAN A MAJOR COLLECTOR.
48. THIS PROJECT IS SUBJECT TO WP-23-059 ON JANUARY 17, 2023 THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING APPROVED THE REQUEST FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.156(N) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO EXTEND THE DEADLINE TO SUBMIT THE SITE DEVELOPMENT PLAN ORIGINALS ASSOCIATED WITH SDP-22-022. APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. THE DEVELOPER SHALL SUBMIT THE SITE DEVELOPMENT PLAN ORIGINALS FOR SDP-22-022 WITHIN 60 DAYS OF THE DATE OF THIS LETTER (ON OR BEFORE MARCH 19, 2023).
2. PLEASE PROVIDE A GENERAL NOTE REGARDING THIS ALTERNATIVE COMPLIANCE STATING THE SECTION, DATE APPROVED AND CONDITIONS OF APPROVAL.

SITE ANALYSIS:

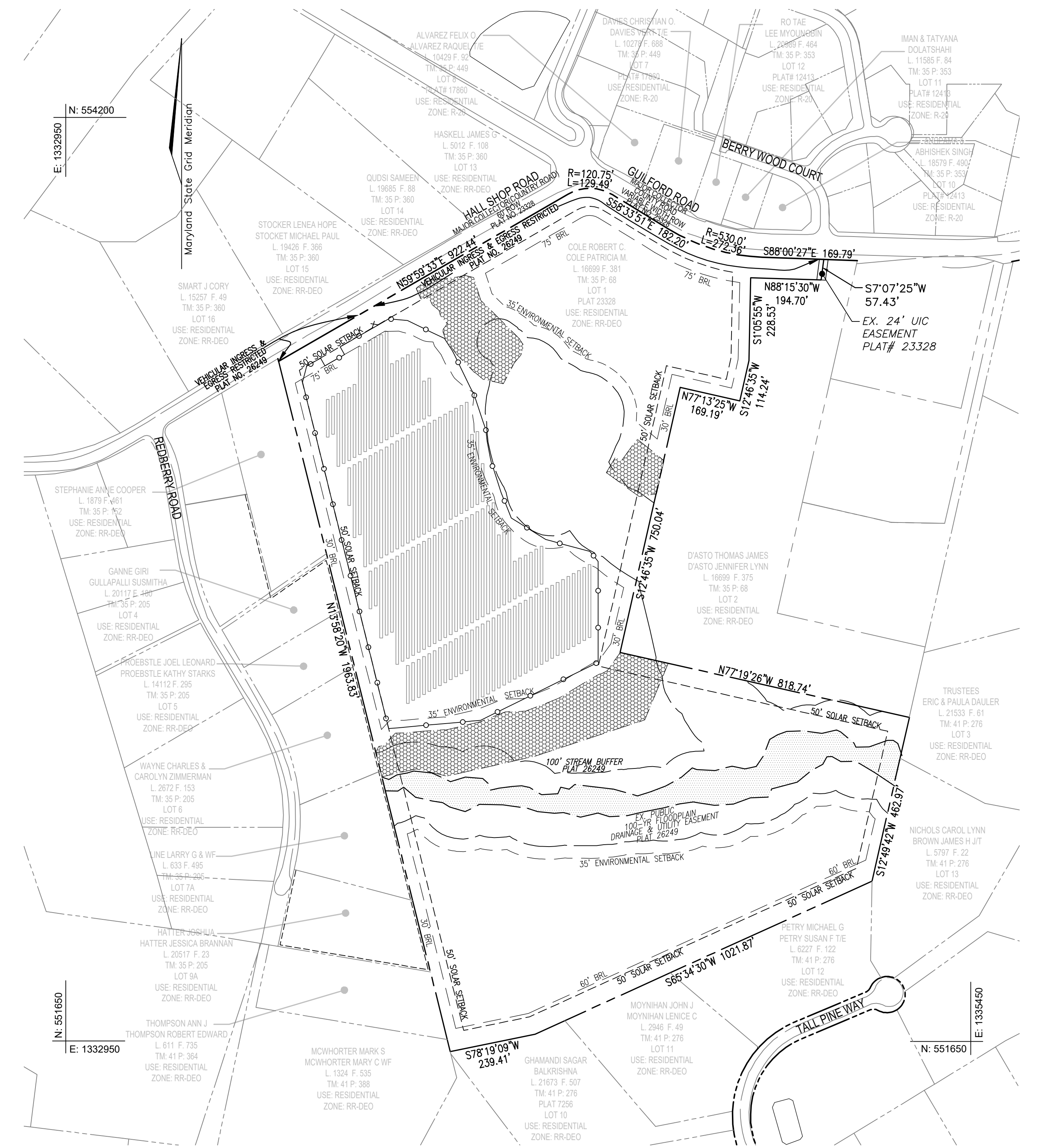
TOTAL PARCEL AREA: 53.10 AC.
PRESENT ZONING: RR-DEO
USE OF STRUCTURE: SOLAR FACILITY, COMMERCIAL
TOTAL PROPOSED COVERAGE (IMPERVIOUS AREA): 0.08 AC. OR (0.59% OF LOD)
*AREA OF WETLAND AND BUFFERS: 107,482 SF OR 2.47 AC.
*AREA OF STREAM AND BUFFERS: 582,920 SF OR 13.38 AC.
*AREA OF EXISTING FOREST: 1,129,380 SF OR 25.93 AC.
*AREA OF MODERATE SLOPES (15%-24.99%): 199,216 SF OR 4.57 AC.
*AREA OF STEEP SLOPES (25% OR GREATER): 0.00 SF OR 0.00 AC.
*AREA OF FLOODPLAIN: 110,597 SF OR 2.54 AC.
CONDITIONAL USE AREA: 12.80 AC. (12.77 AC. FENCE AREA + 0.03 AC. NEW ACCESS ROAD)
LIMIT OF DISTURBANCE: 13.06 AC.
CUT: 1,108 CY FILL: 270 CY

NOTE:
*NO ENVIRONMENTAL FEATURES ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE.

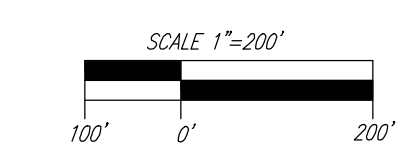
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Designed by: [Signature] 4/13/2023
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
4/14/2023
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
4/17/2023
DIRECTOR DATE

NOTE:
1. LIMIT OF DISTURBANCE, SUPER SILT FENCE AND TREE PROTECTION FENCE ARE OFFSET ON PLAN FOR CLARITY.
2. CONTRACTOR TO INSTALL LIMIT OF DISTURBANCE OFFSET 0-4' FROM SOLAR FENCE AND PROPOSED DRIVEWAY PAVEMENT. SUPER SILT FENCE TO BE OFFSET 1-2' FROM THE LIMIT OF DISTURBANCE. TREE PROTECTION FENCE TO BE OFFSET 0.0-0.5' FROM LIMIT OF DISTURBANCE.
3. CONTRACTOR SHALL NOT DISTURB WETLANDS, STREAMS THEIR BUFFERS, FOREST OR THE EXISTING POND.

SITE DEVELOPMENT PLAN
GUILFORD SOLAR
TPE MD HO93, LLC
11911 HALL SHOP ROAD
CLARKSVILLE, MARYLAND 21029



LOCATION MAP
SCALE: 1"=200'



STORMWATER MANAGEMENT PRACTICES

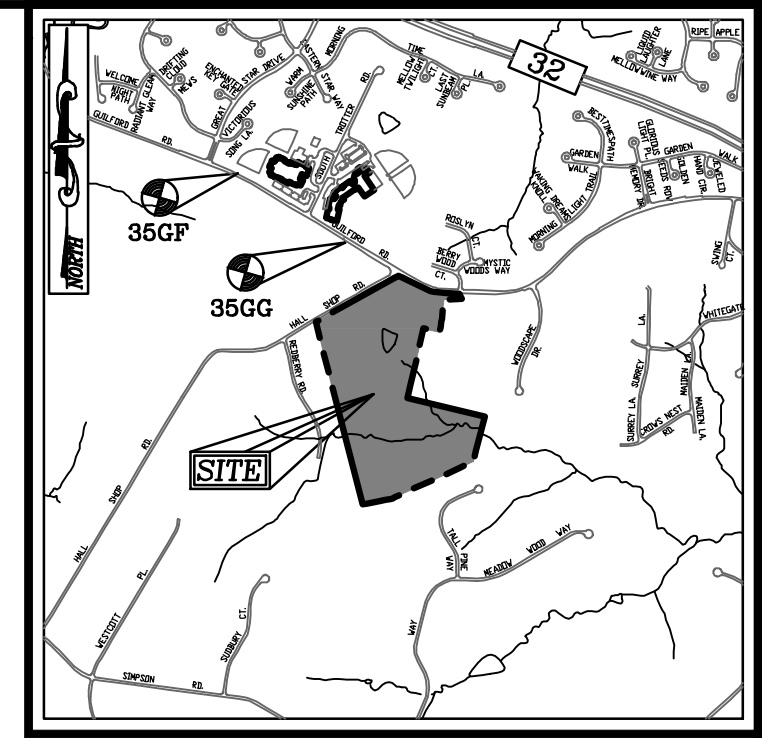
Table with 5 columns: PARCEL NO., STREET ADDRESS, FACILITY TYPE & MIDE NO., PUBLIC, PRIVATE, MAINTENANCE BY. Row 1: 68, 11911 HALL SHOP ROAD, NON-ROOFTOP DISCONNECT (N-2), MICRO-BIOTRETENTION (M-6), x, OWNER.

ADDRESS CHART table with columns BUILDING NO., STREET ADDRESS. Row 1: 11911, HALL SHOP ROAD.

PERMIT INFORMATION CHART table with columns SUBDIVISION NAME, SECTION/AREA, LOT/PARCEL NUMBER, PLAT OR L/F, GRID NO., ZONING, TAX MAP NO., ELEC. DIST., CENSUS TR. Row 1: ROBERT C. COLE PROPERTY, -, LOT 1 / PARCEL 68, L16699/F.381, 20, RR-DEO, 35, 5TH, 605102.

LEGENDS:

- PARCEL BOUNDARY
--- RIGHT-OF-WAY
--- ADJACENT BOUNDARY
--- 50' SOLAR SETBACK
--- BUILDING RESTRICTION LINE
--- EXISTING PAVEMENT
--- PROPOSED FENCE
--- STREAM BUFFER
--- EX. PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
--- FOREST CONSERVATION EASEMENT



VICINITY MAP
SCALE: 1"=2000'
ADC MAP: 5052 PAGE: 27 GRID: C1

BENCHMARKS
HOWARD COUNTY BENCHMARK 356G
N 554,358.86 E 1,333,834.18 ELEV.: 477.96'
HOWARD COUNTY MONUMENT
HOWARD COUNTY BENCHMARK 356F
N 555,080.17 E 1,332,716.63 ELEV.: 466.90'
HOWARD COUNTY MONUMENT

SHEET INDEX

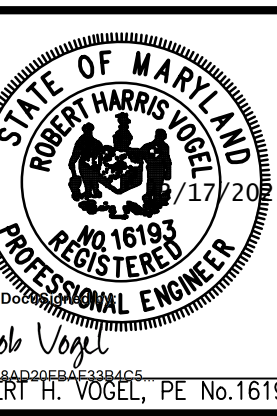
Table with 2 columns: DESCRIPTION, SHEET NO. Lists various sheets including COVER SHEET, LAYOUT PLAN, SITE DETAILS, GRADING, EROSION AND SEDIMENT CONTROL PLAN, etc.

OWNER: JENNIFER DASTO, 6840 GUILFORD ROAD, CLARKSVILLE, MD 21029
DEVELOPER: TPE MD HO93, LLC, 3820 S. DEHLIA STREET, DENVER, CO 80237, PHONE: 970-379-3937

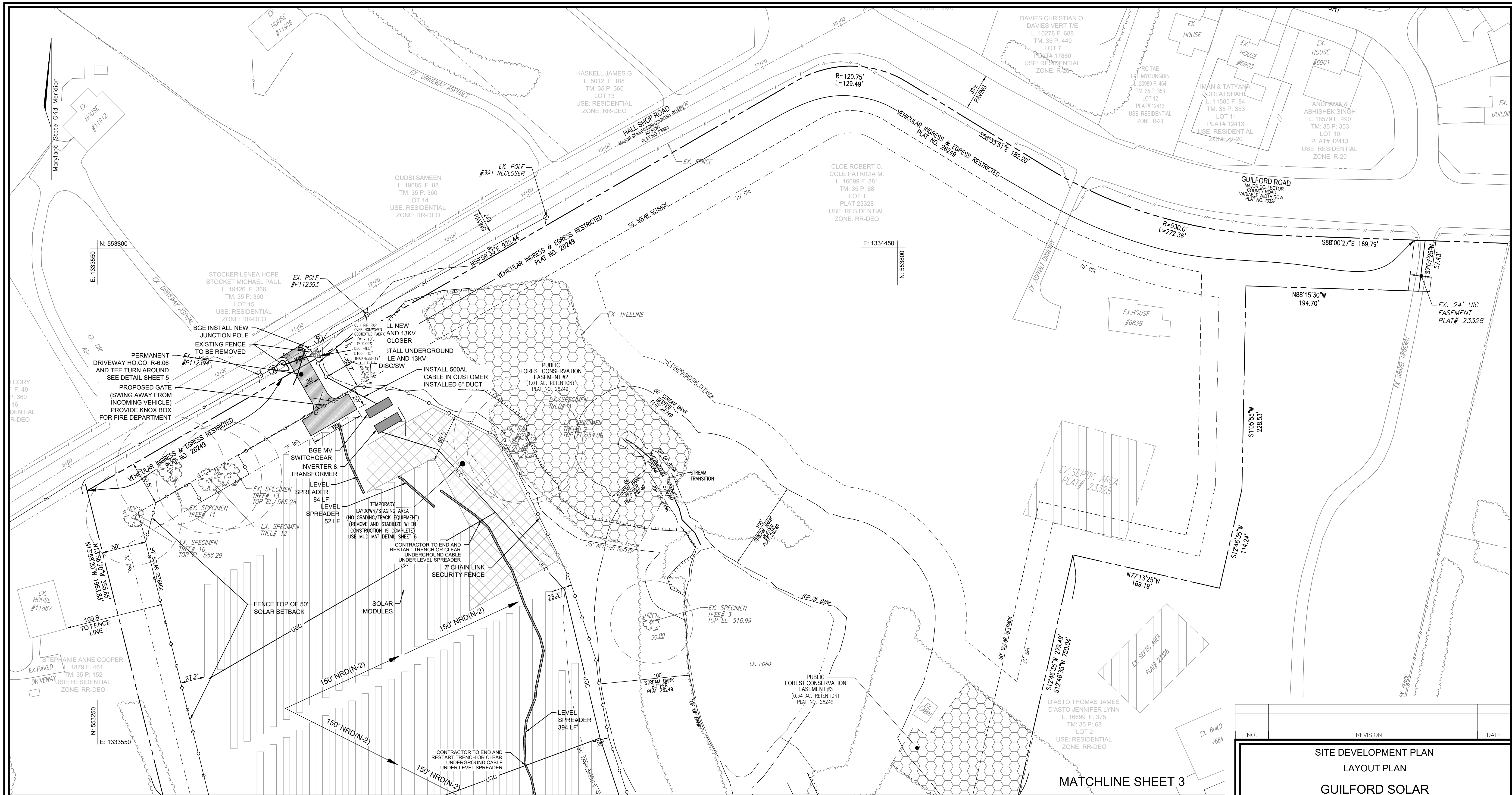
Table with 3 columns: NO., REVISION, DATE. Shows revision history.

SITE DEVELOPMENT PLAN
COVER SHEET
GUILFORD SOLAR
TPE MD HO93, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L16699/F.381
ROBERT C. COLE PROPERTY - LOT 1
TAX MAP 35 BLOCK 20 5TH ELECTION DISTRICT
ZONED RR-DEO PARCEL 68 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024.
DESIGN BY: RHV.
DRAWN BY: IMH.
CHECKED BY: RHV.
DATE: FEBRUARY 2023.
SCALE: AS SHOWN.
W.O. NO.: 45912.



MATCHLINE SHEET 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

LAYOUT PLAN
 SCALE: 1" = 50'
 SCALE 1" = 50'

- LEGENDS:**
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
 - EXISTING PAVEMENT
 - 100-YR FLOODPLAIN
 - STREAM BUFFER
 - STREAM CENTERLINE
 - WETLAND BUFFER
 - EXISTING TREELINE
 - TEMPORARY LAYDOWN / STAGING AREA
 - EQUIPMENT PAD
 - PROPOSED FENCE
 - DUCT BANK
 - SPECIMEN TREE
 - FOREST CONSERVATION EASEMENT PLAT NO. 26249

OWNER
 JENNIFER DASTO
 6840 GUILFORD ROAD
 CLARKSVILLE, MD 21029

DEVELOPER
 TPE MD H093, LLC
 3820 S. DEHLIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

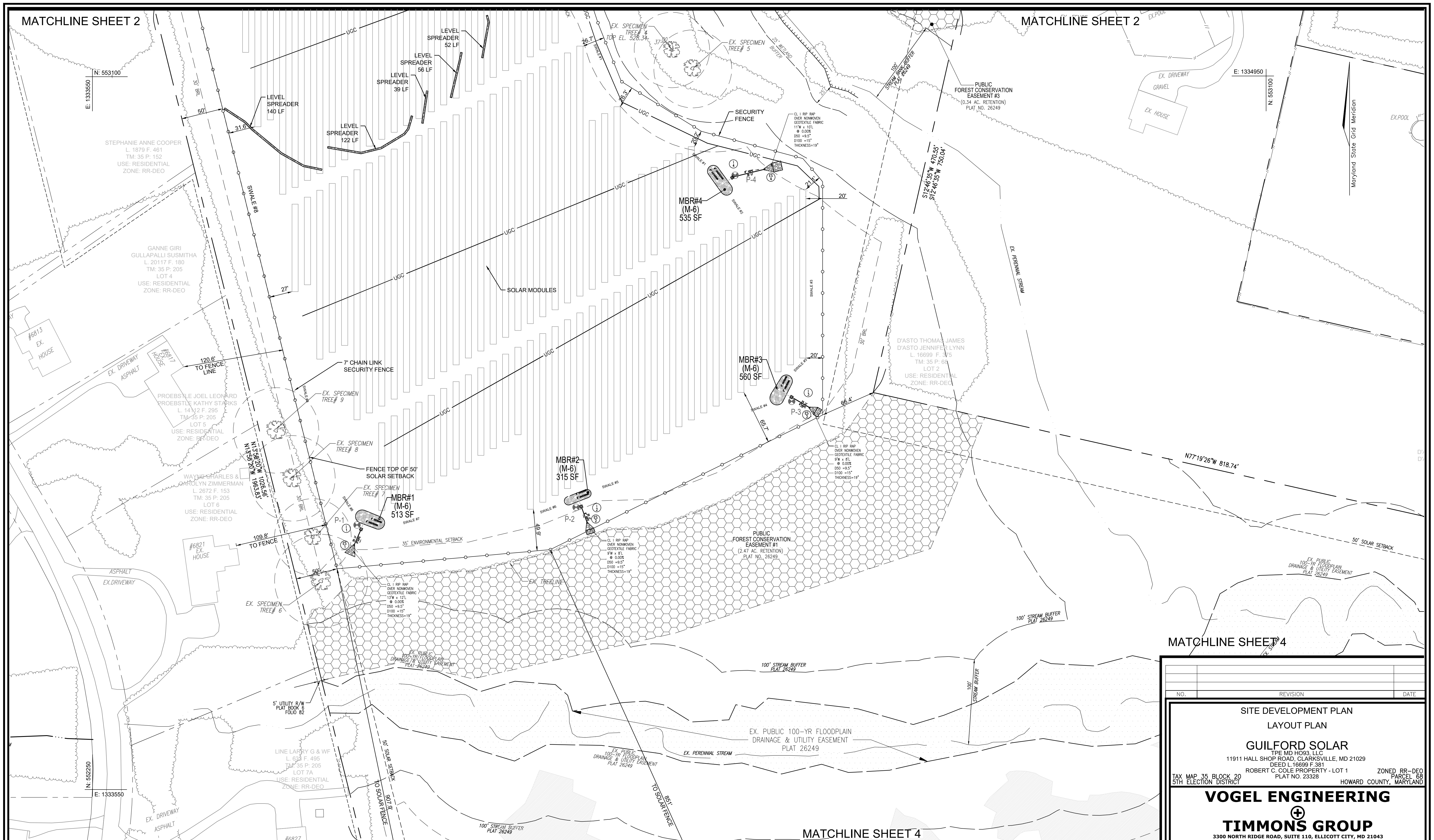
SITE DEVELOPMENT PLAN
LAYOUT PLAN
GUILFORD SOLAR
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L. 16699 F. 381
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328
 ZONED RR-DEO
 PARCEL 68
 TAX MAP 35 BLOCK 20
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
 TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE CARE OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 10-27-2024

DESIGN BY: RHV
 DRAWN BY: IMH
 CHECKED BY: RHV
 DATE: FEBRUARY 2023
 SCALE: AS SHOWN
 W.O. NO.: 45912

2 OF 18



MATCHLINE SHEET 2

MATCHLINE SHEET 2

MATCHLINE SHEET 4

MATCHLINE SHEET 4

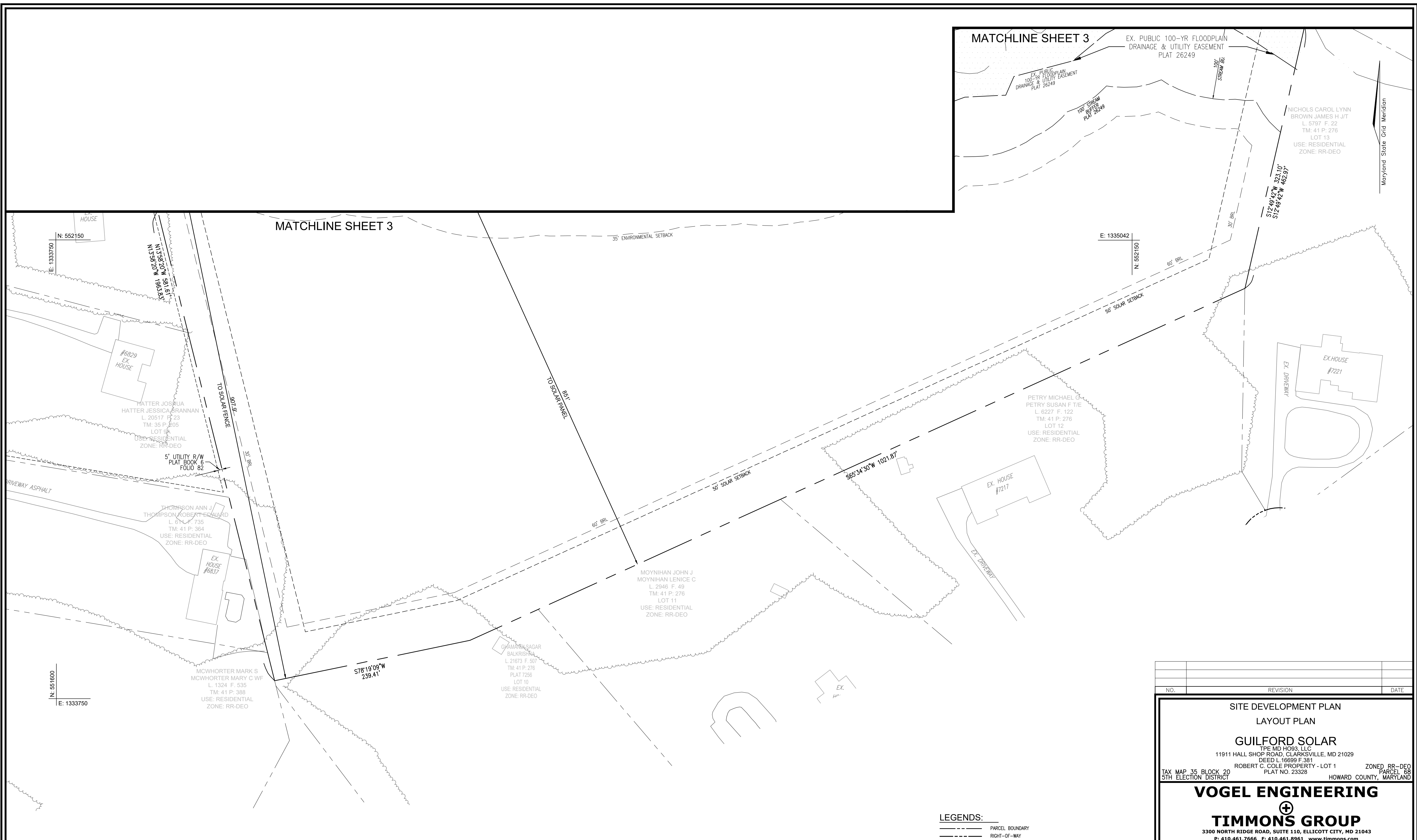
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 03/13/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 4/14/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 4/17/2023
 DIRECTOR DATE

LAYOUT PLAN
 SCALE: 1"=50'
 SCALE 1"=50'
 25' 0' 50'

- LEGENDS:
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
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 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
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 - EX. PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
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 - TEMPORARY LAYDOWN / STAGING AREA
 - EQUIPMENT PAD
 - PROPOSED FENCE
 - DUCT BANK
 - MICRO-BIORETENTION (M-6)
 - RIPRAP
 - STORM DRAIN PIPE
 - STORM DRAIN INLET
 - STORM DRAIN END SECTION
 - SPECIMEN TREE
 - FOREST CONSERVATION EASEMENT PLAT NO. 26249

OWNER
 JENNIFER DASTO
 6840 GUILFORD ROAD
 CLARKSVILLE, MD 21029
 DEVELOPER
 TPE MD H093, LLC
 3820 S. DEHLIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE
SITE DEVELOPMENT PLAN LAYOUT PLAN GUILFORD SOLAR TPE MD H093, LLC 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029 DEED L.16699 F.381 ROBERT C. COLE PROPERTY - LOT 1 PLAT NO. 23328 ZONED RR-DEO PARCEL 66 HOWARD COUNTY, MARYLAND		
VOGEL ENGINEERING TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com		
DESIGN BY:	RHV	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 10-27-2024 3 SHEET OF 18
DRAWN BY:	IMH	
CHECKED BY:	RHV	
DATE:	FEBRUARY 2023	
SCALE:	AS SHOWN	
W.O. NO.:	45912	



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edmondson 4/13/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Robert Timmons 4/17/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR DATE

LAYOUT PLAN
 SCALE: 1"=50'

SCALE 1"=50'
 25' 0' 50'

- LEGENDS:**
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
 - EXISTING PAVEMENT
 - EX. PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT PLAT NO. 26249
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 3820 S. DEHLIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
LAYOUT PLAN**

GUILFORD SOLAR
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L.16699 F.381
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328

TAX MAP 35 BLOCK 20
 5TH ELECTION DISTRICT

ZONED RR-DEO
 PARCEL 68
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

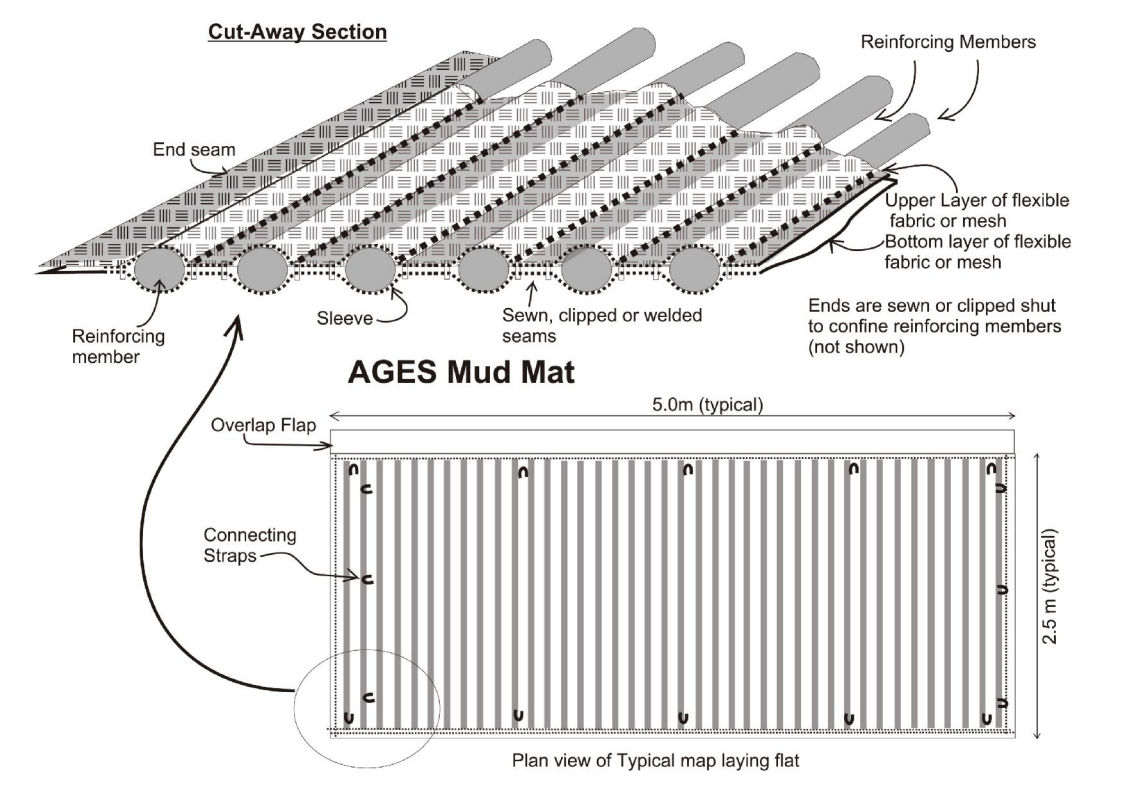
DESIGN BY: RHV	<p>PROFESSIONAL CERTIFICATE</p> <p>HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 02-27-2024.</p>
DRAWN BY: IMH	
CHECKED BY: RHV	
DATE: FEBRUARY 2023	
SCALE: AS SHOWN	<p align="center">4 SHEET 18</p>
W.O. NO.: 45912	

Robert H. Vogel, PE No. 16193



LEGENDS:

	PARCEL BOUNDARY
	RIGHT-OF-WAY
	ADJACENT BOUNDARY
	50' SOLAR SETBACK
	BUILDING RESTRICTION LINE
	EXISTING PAVEMENT
	STREAM BUFFER
	STREAM CENTERLINE
	EXISTING CONTOUR (10')
	EXISTING CONTOUR (2')
	SOILS BOUNDARY
	WETLAND
	WETLAND BUFFER
	EXISTING TREELINE
	ERODIBLE SOILS
	TEMPORARY LAYDOWN / STAGING AREA
	EQUIPMENT PAD
	PROPOSED FENCE
	DUCT BANK
	UGC
	PROPOSED CONTOUR (10')
	PROPOSED CONTOUR (2')
	LIMIT OF DISTURBED AREA
	SUPER SILT FENCE
	SPECIMEN TREE
	FOREST CONSERVATION EASEMENT PLAT NO. 26249
	TREE PROTECTION FENCE
	STABILIZED CONSTRUCTION ENTRANCE



AGES, A Division of Brock White Canada Company
 285270, 61 Ave. S.E. #185 Calgary, Alberta
 PH: (403) 298-3322 Fax: (403) 298-3328
 www.brockwhite.com
 AGES Mud Mat - Plan view and 3-D cut-away section detail
 Drawn: M. Banting March 15/05

MATCHLINE SHEET 7

MATCHLINE SHEET 7

SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=50'
 SCALE 1"=50'

NOTE:
 - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE IN THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTE:
 1. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN DITCHES AFTER CONSTRUCTION OF SOLAR ARRAY.
 2. CONTRACTOR SHALL MAINTAIN THAT RUNOFF IS DIRECTED TO THE MICRO-BIORETENTION FACILITIES.

NOTE:
 1. LIMIT OF DISTURBANCE, SUPER SILT FENCE AND TREE PROTECTION FENCE ARE OFFSET ON PLAN FOR CLARITY.
 2. CONTRACTOR TO INSTALL LIMIT OF DISTURBANCE OFFSET 0-4' FROM SOLAR FENCE AND PROPOSED DRIVEWAY PAVEMENT. SUPER SILT FENCE TO BE OFFSET 1-2' FROM THE LIMIT OF DISTURBANCE. TREE PROTECTION FENCE TO BE OFFSET 0.0-0.5' FROM LIMIT OF DISTURBANCE.
 3. CONTRACTOR SHALL NOT DISTURB WETLANDS, STREAMS THEIR BUFFERS, FOREST OR THE EXISTING POND.

NOTE:
 1. NO GRADING SHALL BE PERFORMED IN THE TEMPORARY LAYDOWN/STAGING AREA.
 2. NO HEAVY OR TRACK EQUIPMENT SHALL BE LOCATED WITHIN THE TEMPORARY LAYDOWN/STAGING AREA. CONTRACTOR SHALL USE MUD MATS OR EQUIVALENT MATERIAL TO REDUCE DISTURBANCE WITHIN THE TEMPORARY LAYDOWN/STAGING AREA.
 3. CONTRACTOR SHALL COMPLY WITH 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL DETAIL B-4-7 HEAVY USE AREA PROTECTION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Designated by: *Chad Edmondson* 4/13/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/14/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4/17/2023
 DIRECTOR
 DATE:

OWNER/DEVELOPER CERTIFICATION:
 I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.
 Owner/Developer Signature: *Adam Beal* 2/24/2023
 Adam Beal
 PRINTED NAME & TITLE

DESIGN CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Designated by: *Rob Vogel*
 Rob Vogel 3/17/2023
 DESIGNER'S SIGNATURE
 ROBERT H. VOGEL MD REGISTRATION NO. 16193
 PRINTED NAME DATE
 R.L.S., OR R.L.A. (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D. DATE

OWNER
 JENNIFER DASTO
 6840 GUILFORD ROAD
 CLARKSVILLE, MD 21029
DEVELOPER
 TPE MD H093, LLC
 3820 S. DEHLIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
 SOILS MAP, GRADING, EROSION
 AND SEDIMENT CONTROL PLAN
 GUILFORD SOLAR**
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L 16699 F 381
 .LOT 2
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328
 ZONED RR-DEO PARCEL 68
 HOWARD COUNTY, MARYLAND
 TAX MAP 35 BLOCK 20
 5TH ELECTION DISTRICT

VOGEL ENGINEERING
 TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
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 DESIGN BY: RHV
 DRAWN BY: IMH
 CHECKED BY: RHV
 DATE: FEBRUARY 2023
 SCALE: AS SHOWN
 W.O. NO.: 45912
 6 SHEET OF 18

MATCHLINE SHEET 6

MATCHLINE SHEET 6



NOTE:
 1. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN DITCHES AFTER CONSTRUCTION OF SOLAR ARRAY.
 2. CONTRACTOR SHALL MAINTAIN THAT RUNOFF IS DIRECTED TO THE MICRO-BIORETENTION FACILITIES.

NOTE:
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 3. CONTRACTOR SHALL NOT DISTURB WETLANDS, STREAMS THEIR BUFFERS, FOREST OR THE EXISTING POND.

LEGENDS:

- PARCEL BOUNDARY
- - - RIGHT-OF-WAY
- - - ADJACENT BOUNDARY
- - - 50' SOLAR SETBACK
- - - BUILDING RESTRICTION LINE
- - - EXISTING PAVEMENT
- - - EX. PUBLIC 100-YR FLOODPLAIN
- - - EX. UTILITY EASEMENT
- - - STREAM BUFFER
- - - STREAM CENTERLINE
- - - EXISTING CONTOUR (10')
- - - EXISTING CONTOUR (2')
- - - M152
- - - M155
- - - SOILS BOUNDARY
- - - WETLANDS
- - - WETLAND BUFFER
- - - EXISTING TREELINE
- - - MODERATE SLOPES (15%-24.99%)
- - - ERODIBLE SOILS
- - - TEMPORARY LAYDOWN / STAGING AREA
- - - EQUIPMENT PAD
- - - PROPOSED FENCE
- - - DUCT BANK
- - - UGC
- - - PROPOSED CONTOUR (10')
- - - PROPOSED CONTOUR (2')
- - - LOD
- - - LIMIT OF DISTURBED AREA
- - - SUPER SILT FENCE
- - - MICRO-BIORETENTION (M-6)
- - - RIPRAP
- - - STORM DRAIN PIPE
- - - STORM DRAIN INLET
- - - STORM DRAIN END SECTION
- - - SPECIMEN TREE
- - - FOREST CONSERVATION EASEMENT
- - - PLAT NO. 26249
- - - TPF
- - - TREE PROTECTION FENCE
- - - TEMPORARY SOIL STABILIZATION MATTING

SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50'
 25' 0' 50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

OWNER/DEVELOPER CERTIFICATION:
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 Adam Beal
 OWNER/DEVELOPER SIGNATURE
 Adam Beal
 PRINTED NAME & TITLE

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 Robert H. Vogel
 Designer's Signature
 ROBERT H. VOGEL
 PRINTED NAME
 MD REGISTRATION NO. 16193
 R.L.S., OR R.L.A. (circle one)
 HOWARD S.C.D.
 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Alexander Bratchie
 Designer's Signature
 DATE

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRIC
Mac	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	0.32	NO	NO
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	A	0.32	NO	NO
GbB	GLENNVILLE-CODORUS SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.49	YES	NO
GbB	GLENNVILLE-BALE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.49	YES	YES
GbB	GLENEIG LOAM, 3 TO 8 PERCENT SLOPES	B	0.37	YES	NO

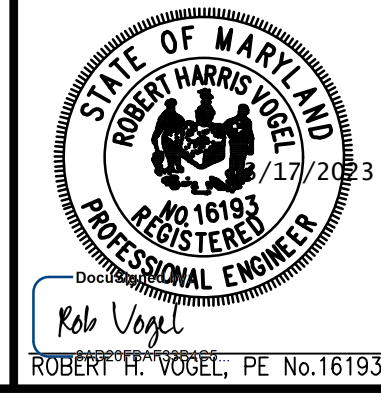
SOILS NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

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 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
 SOILS MAP, GRADING, EROSION
 AND SEDIMENT CONTROL PLAN
 GUILFORD SOLAR**
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L. 16699 F. 361
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328
 ZONED RR-DEO
 PARCEL 68
 HOWARD COUNTY, MARYLAND

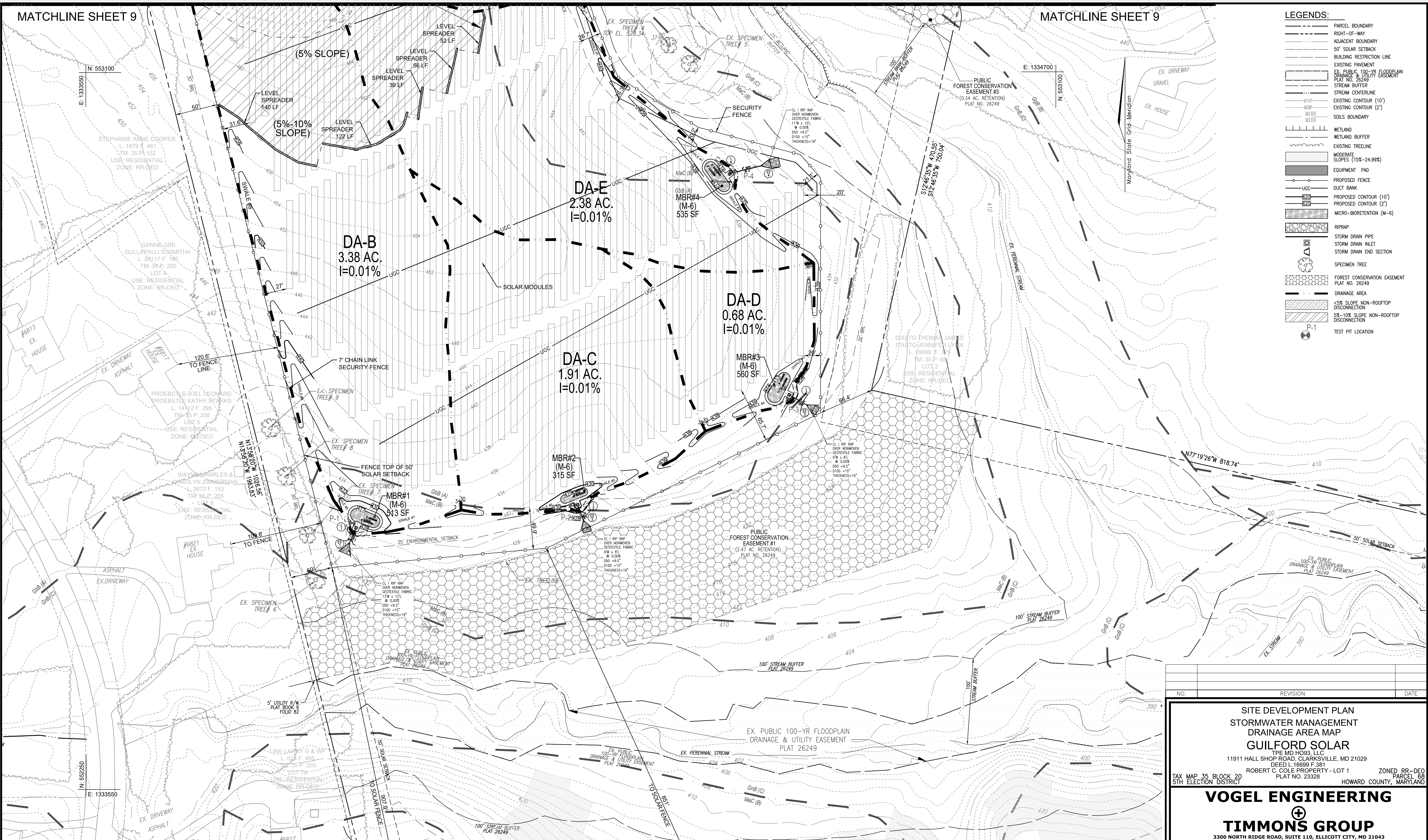
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 7 SHEET OF 18

MATCHLINE SHEET 9

MATCHLINE SHEET 9



- LEGENDS:**
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
 - EXISTING PAVEMENT
 - EX. PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT PLAT NO. 26249
 - STREAM BUFFER
 - STREAM CENTERLINE
 - -610 EXISTING CONTOUR (10')
 - -608 EXISTING CONTOUR (2')
 - M102 SOILS BOUNDARY
 - M103
 - WETLAND
 - WETLAND BUFFER
 - EXISTING TREELINE
 - MODERATE SLOPES (15%-24.99%)
 - EQUIPMENT PAD
 - PROPOSED FENCE
 - DUCT BANK
 - -620 PROPOSED CONTOUR (10')
 - -620 PROPOSED CONTOUR (2')
 - MICRO-BOREMENTATION (M-6)
 - RIPRAP
 - STORM DRAIN PIPE
 - STORM DRAIN INLET
 - STORM DRAIN END SECTION
 - SPECIMEN TREE
 - FOREST CONSERVATION EASEMENT PLAT NO. 26249
 - DRAINAGE AREA
 - <5% SLOPE NON-ROOFTOP DISCONNECTION
 - 5%-10% SLOPE NON-ROOFTOP DISCONNECTION
 - P-1 TEST PIT LOCATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edmondson 4/13/2023

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

4/14/2023

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

4/17/2023

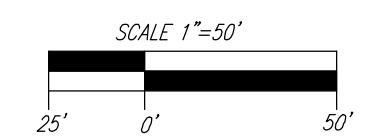
DIRECTOR DATE

NOTE:

RIPRAP PADS PROPOSED WILL REDUCE VELOCITY OF THE DISCHARGE FROM THE OUTFALL TO A NON-EROSIVE STATE. SEE RIPRAP LABELS THIS SHEET AND RIPRAP DETAIL ON SHEET 8.

STORMWATER MANAGEMENT DRAINAGE AREA MAP

SCALE: 1"=50'



OWNER

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CLARKSVILLE, MD 21029

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NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT
DRAINAGE AREA MAP
GUILFORD SOLAR**

TPE MD H093, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L.16699 F.381

ROBERT C. COLE PROPERTY - LOT 1 ZONED RR-DEO
PLAT NO. 23328 PARCEL 66
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

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SCALE: AS SHOWN	W.O. NO.: 45912	10 SHEET OF 18

N-2. DISCONNECTION OF NON-ROOFTOP RUNOFF

CONSTRUCTION CRITERIA: THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH PLANNED NON-ROOFTOP DISCONNECTIONS: -EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN VEGETATED AREAS RECEIVING DISCONNECTED RUNOFF

INSPECTION: A FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT SIZING FOR TREATMENT AREAS HAS BEEN MET AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

MAINTENANCE CRITERIA:

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER).

HOWARD COUNTY - OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

A. MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA.

SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

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

2. FILTERING MEDIA OR PLANTING SOIL THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STAMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES.

3. COMPACTION IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL.

4. PLANT MATERIAL RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS.

6. UNDERDRAINS UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA: -PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F756, TYPE PS 28, OR AASHTO M-278)

8. EARTH FILL MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6" DIAMETER, OR OTHER OBSTRUCTIVE MATERIALS.

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-B) AND BIORETENTION (B-B)

1. THE OPERATOR SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT.

2. THE OPERATOR SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR.

3. THE OPERATOR SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS.

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 4/13/2023

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 4/17/2023

DIRECTOR DATE

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-BioRetention, Rain Gardens & Landscape Infiltration. Columns: Material, Specification, Size, Notes.

"MICRO-BIORETENTION/BIORETENTION" PLANTING SCHEDULE NOTES:

- 1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.

BIORETENTION PLANTING SCHEDULE (SHRUB/ORNAMENTAL GRASSES). Columns: LEGEND, QTY, BOTANICAL NAME/COMMON NAME, SIZE, REMARKS.

BIORETENTION PERENNIALS/GROUND COVER PLANTING SCHEDULE. Columns: LEGEND, QTY, BOTANICAL NAME/COMMON NAME, SIZE, REMARKS.

MICRO-BIORETENTION PLANTING REQUIREMENTS. Columns: MBR# LF, AREA, STEMS REQUIRED, STEMS PROVIDED, IG, IV, HQ, LR, PV, BA, AG, TOTAL.

Appendix A. Landscaping Guidelines for Stormwater BMPs - Specific Landscaping Criteria

Table A.4 Commonly Used Species for BioRetention Areas. Columns: Tree, Shrub, Herbaceous Species.

1. TABLE A.4 IS TAKEN FROM THE "2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II - APPENDIX A.

2. CONTRACTOR SHALL BE FAMILIAR WITH APPENDIX B.4.C CONSTRUCTION SPECIFICATIONS AND TABLE B.4.1 MATERIAL SPECIFICATIONS.

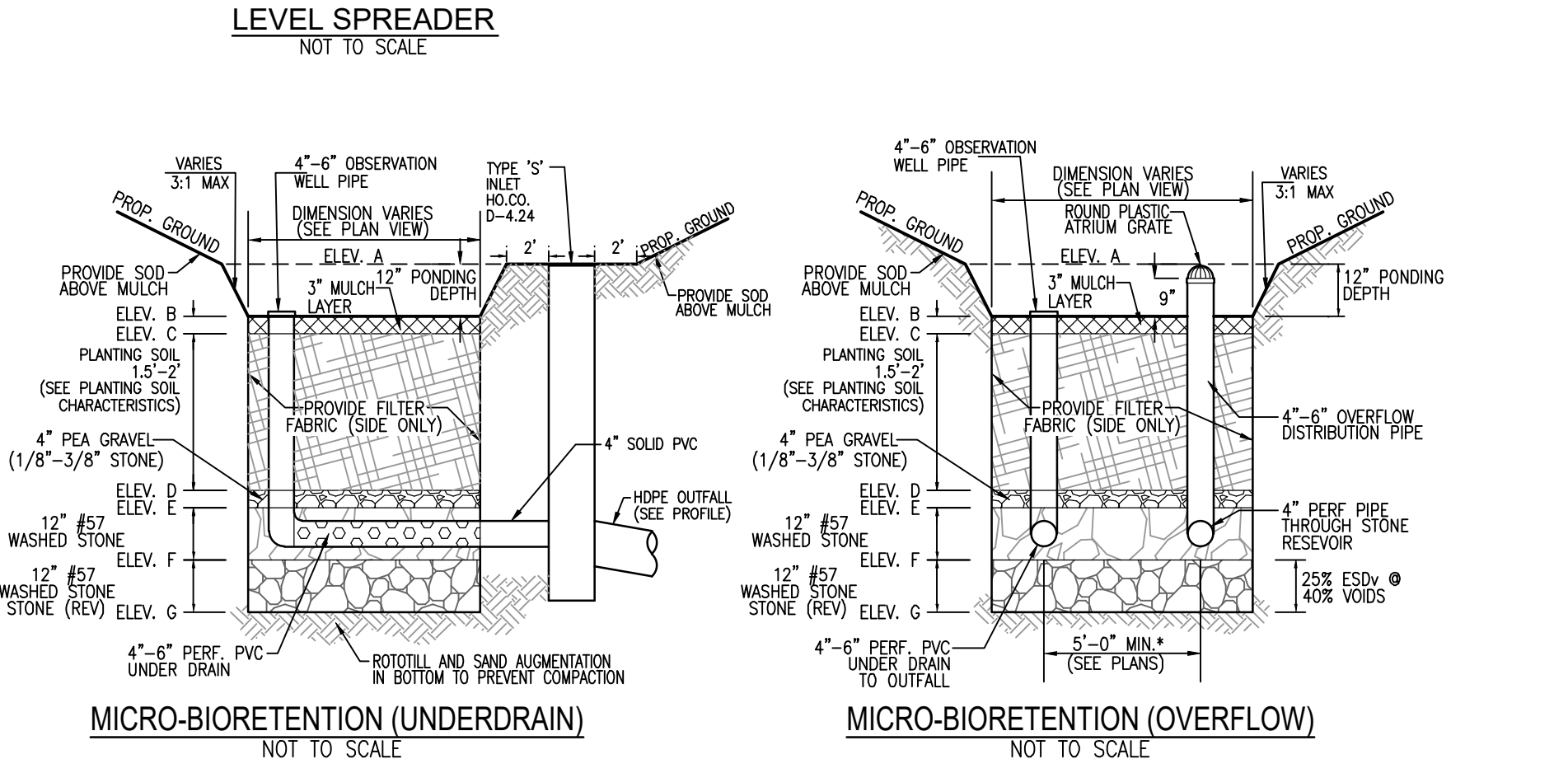
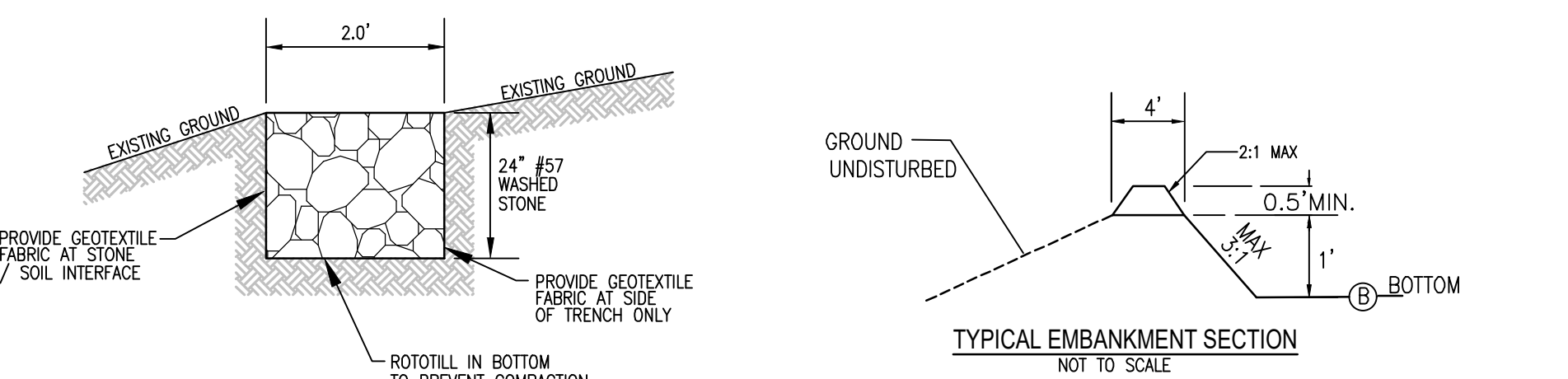
3. NO TREES SHALL BE PLANTED WITHIN A MICRO-BIORETENTION FACILITY. USE ONLY SHRUB OR HERBACEOUS SPECIES.

4. ABOVE TABLE A.4 IS FOR INFORMATIONAL PURPOSES ONLY. LANDSCAPE CONTRACTOR SHALL INSTALL PLANTINGS SPECIFIED OR USE APPROVED EQUAL SPECIES WHICH ARE TOLERANT TO FLUCTUATING WATER LEVELS.

5. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THIS FINAL PLAN.

Guilford Solar - SDP - ESDv COMPUTATIONS

Table with columns: DRAINAGE #, % IMPERV, Rv, DA (SF), DA (AC), 1.0" VOLUME, MAXIMUM VOLUME PROVIDED, Rev PROVIDED, IMPERV (SF), IMPERV (AC), GREEN AREA, REMARKS, CF, SF, Depth, Porosity.

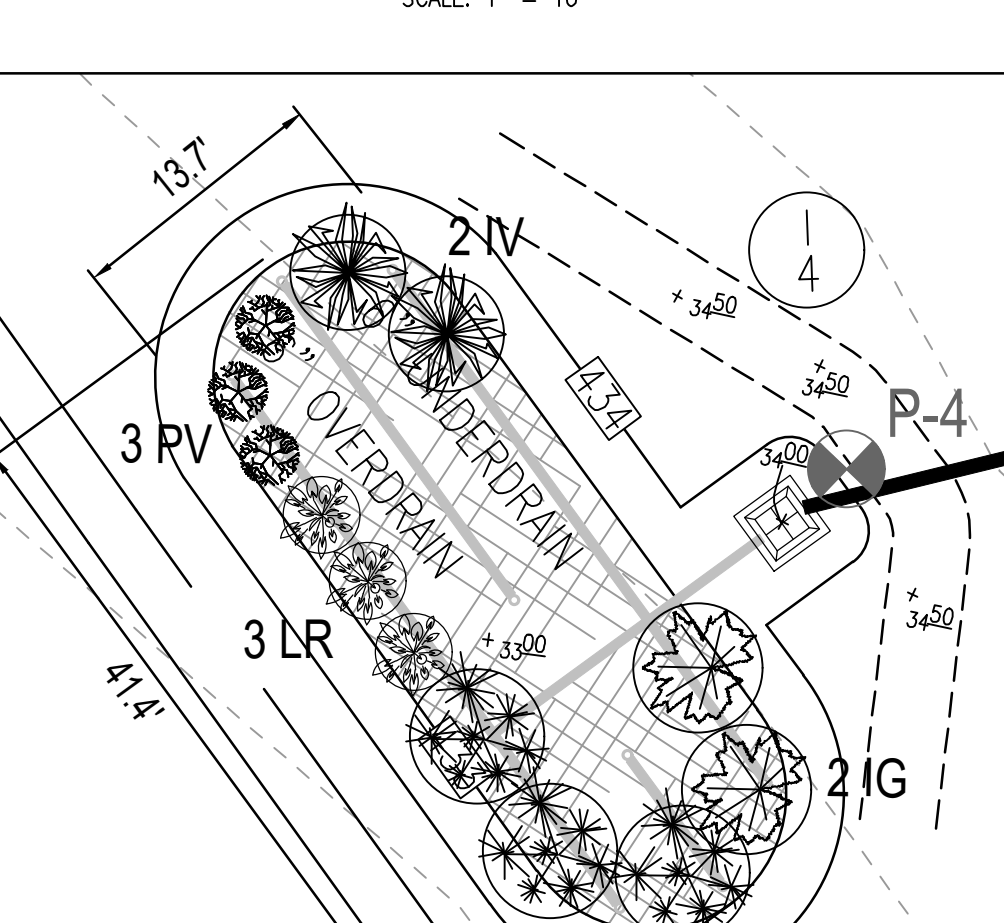
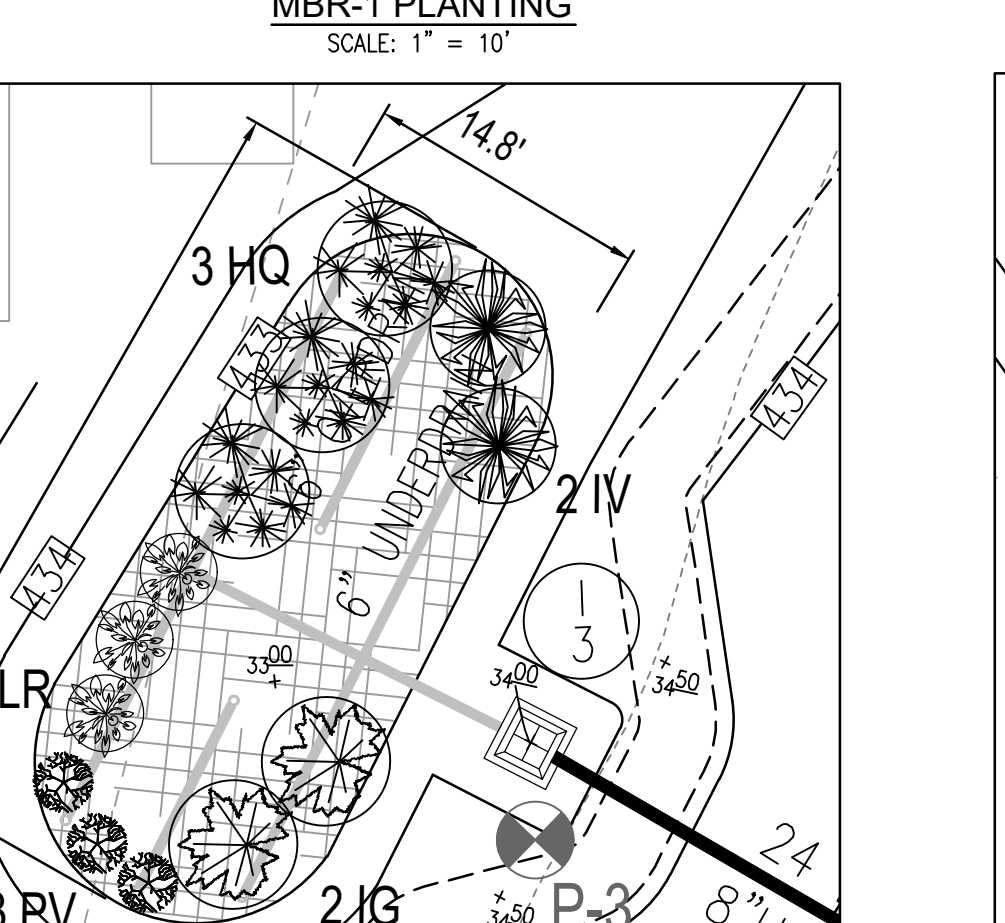
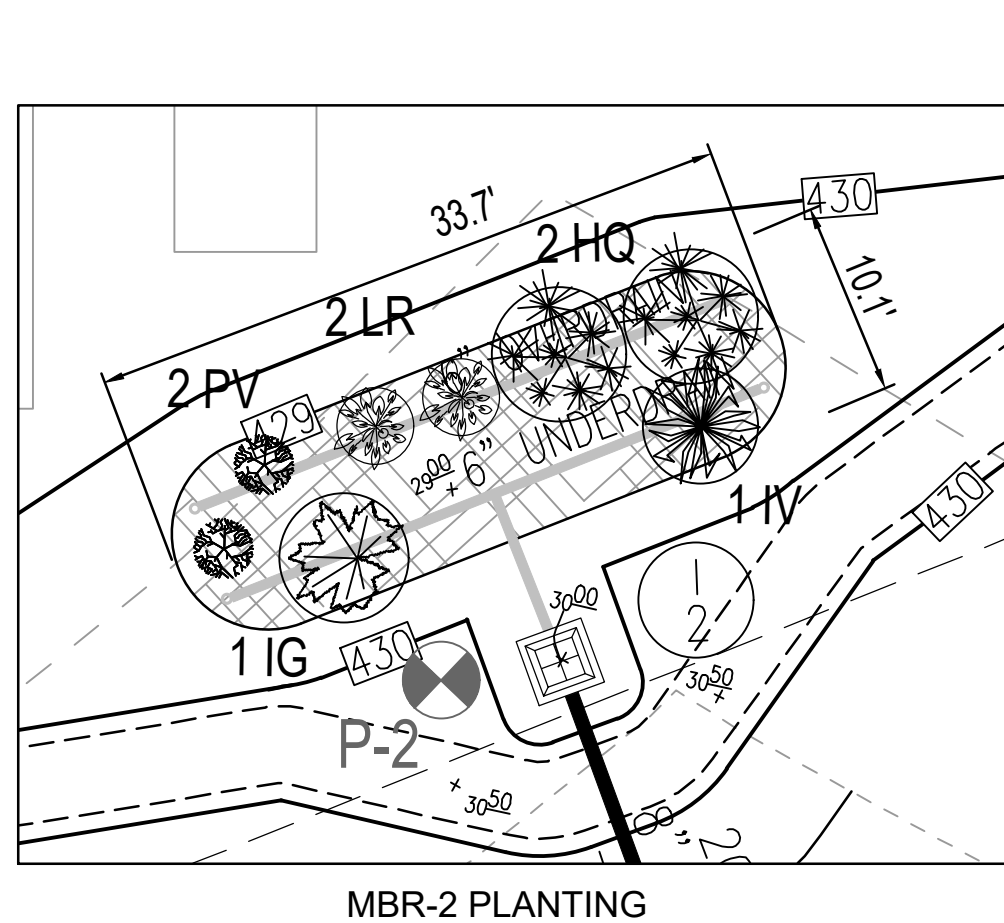
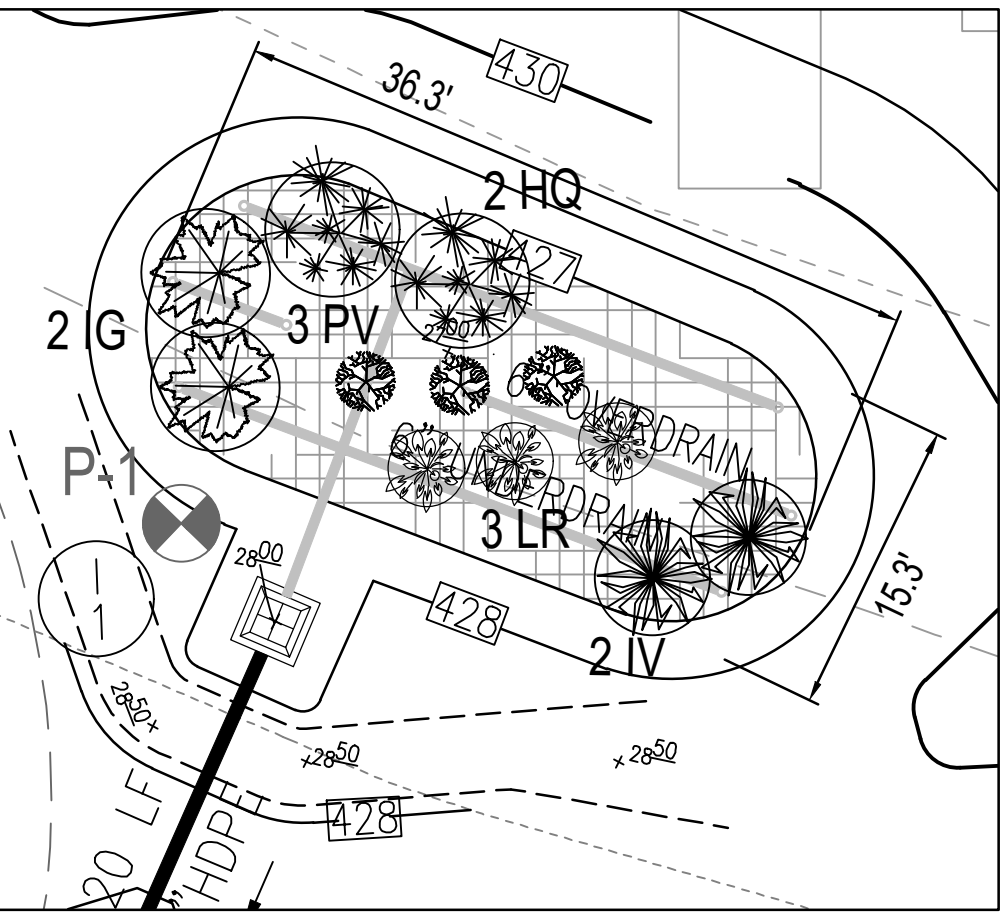


MICROBIORRETENTION NOTES:

- 1. ONLY THE SIDES OF MICROBIORRETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORRETENTION WILL CAUSE THE MBR TO FAIL.

MICRO-BIORETENTION FACILITY - DESIGN ELEVATION CHART

Table with columns: MBR/BR FACILITY #, ESD WSEL, TOP MULCH, TOP PLANT SOIL, BOTTOM PLANT SOIL, BOTTOM PEA GRAVEL, INV PIPE (1), INV STONE, SURFACE AREA SF, OUTFALL ELEV., APPROX DIM.



TEST PIT DATA

Table with columns: BORING #, APPROX EXIST GROUND ELEV, APPROX PROP GROUND ELEV, INVERT FACILITY / PRACTICE, DEPTH TO GROUNDWATER, BOTTOM PIT, PIT DEPTH, NOTES**.

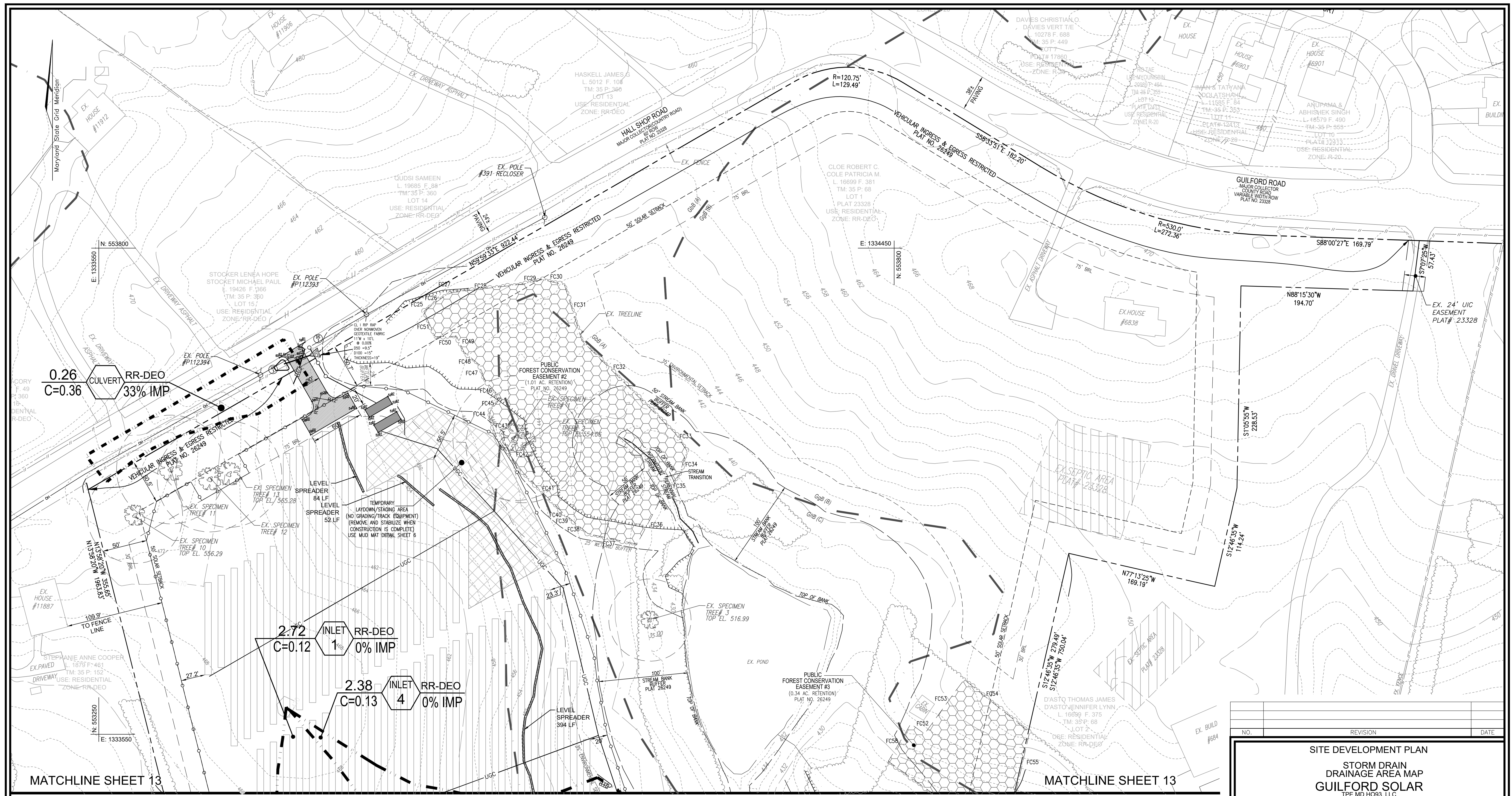
OWNER: JENNIFER DASTO, 6840 GUILFORD ROAD, CLARKSVILLE, MD 21029. DEVELOPER: TPE MD H093, LLC, 3820 S. DEHUA STREET, DENVER, CO 80237.

Table with columns: NO., REVISION, DATE.

SITE DEVELOPMENT PLAN, STORMWATER MANAGEMENT NOTES AND DETAILS, GUILFORD SOLAR. 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029.

VOGEL ENGINEERING & TIMMONS GROUP. 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043.

PROFESSIONAL CERTIFICATE. DESIGN BY: RHV, DRAWN BY: MMH, CHECKED BY: RHV, DATE: FEBRUARY 2023, SCALE: AS SHOWN, W.O. NO.: 45912.

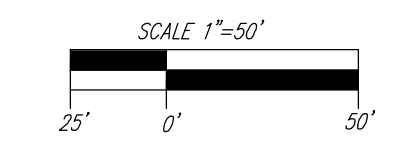


MATCHLINE SHEET 13

MATCHLINE SHEET 13

- LEGENDS:**
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
 - EXISTING PAVEMENT
 - STREAM BUFFER
 - STREAM CENTERLINE
 - EXISTING CONTOUR (10')
 - EXISTING CONTOUR (2')
 - M102
 - M103
 - SOILS BOUNDARY
 - WETLAND
 - WETLAND BUFFER
 - EXISTING TREELINE
 - TEMPORARY LAYDOWN / STAGING AREA
 - EQUIPMENT PAD
 - PROPOSED FENCE
 - UCC
 - DUCT BANK
 - 820 PROPOSED CONTOUR (10')
 - 820 PROPOSED CONTOUR (2')
 - SPECIMEN TREE
 - FOREST CONSERVATION EASEMENT PLAT NO. 26249
 - DRAINAGE AREA
 - 1.00 INLET R-20 C=0.19 2 8%IMP

STORM DRAIN DRAINAGE AREA MAP
SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 4/13/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 4/14/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 4/17/2023
 DIRECTOR DATE

OWNER
 JENNIFER DASTO
 8840 GUILFORD ROAD
 CLARKSVILLE, MD 21029
DEVELOPER
 TPE MD H093, LLC
 3820 S. DEHLIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP
GUILFORD ROAD
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L.16699 F.375
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328
 ZONED RR-DEO
 PARCEL 65
 TAX MAP 35, BLOCK 20
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

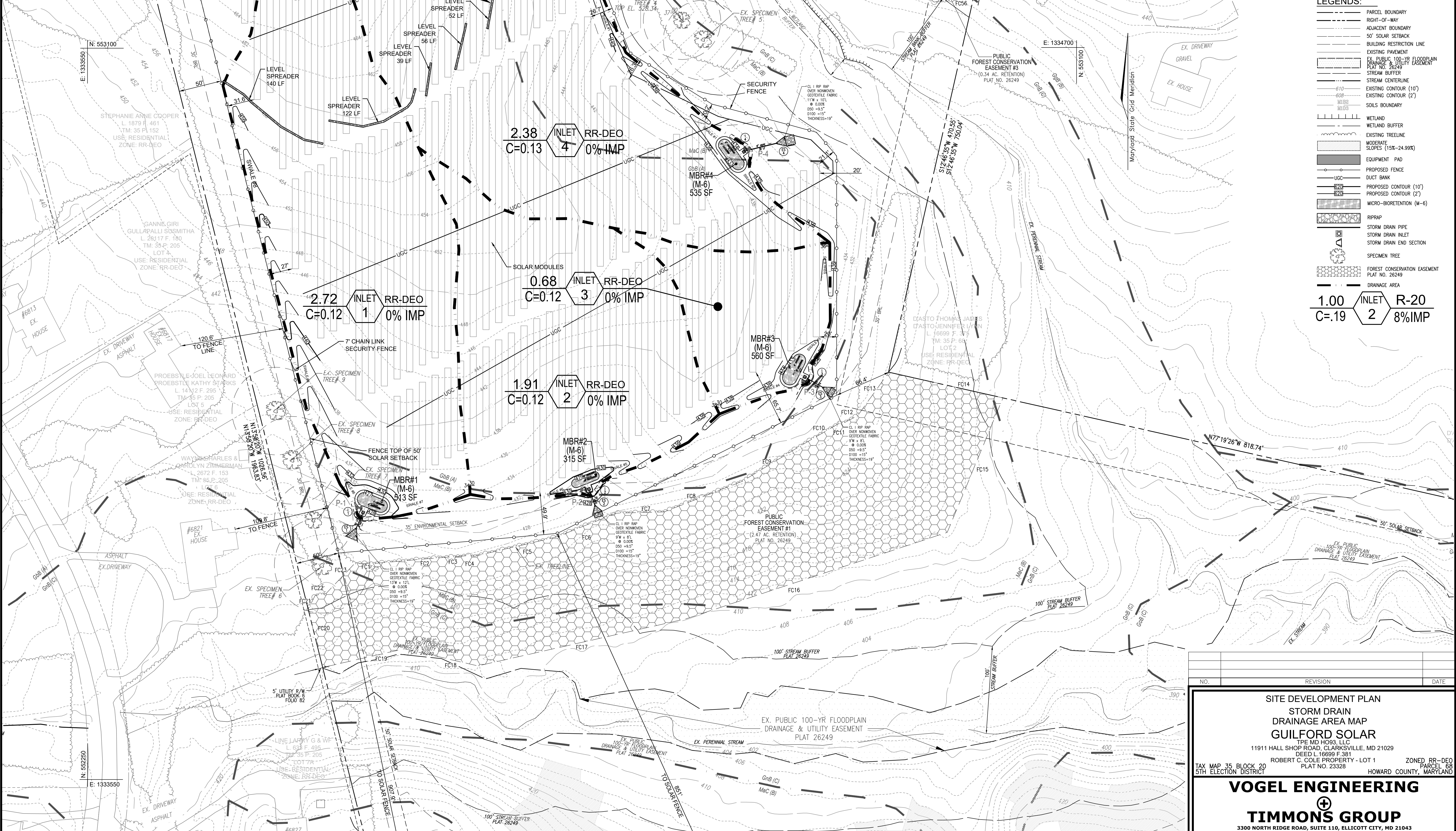
PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 12-31-2024

DESIGN BY: RHW
 DRAWN BY: IMH
 CHECKED BY: RHW
 DATE: FEBRUARY 2023
 SCALE: AS SHOWN
 W.D. NO.: 4591.2

12 SHEET OF 18

MATCHLINE SHEET 12

MATCHLINE SHEET 12



LEGENDS:

- PARCEL BOUNDARY
- RIGHT-OF-WAY
- ADJACENT BOUNDARY
- 50' SOLAR SETBACK
- BUILDING RESTRICTION LINE
- EXISTING PAVEMENT
- EX. PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT PLAT NO. 26249
- STREAM BUFFER
- STREAM CENTERLINE
- EXISTING CONTOUR (10')
- EXISTING CONTOUR (2')
- MLB2
- MLB3
- SOILS BOUNDARY
- WETLAND
- WETLAND BUFFER
- EXISTING TREELINE
- MODERATE SLOPES (15%-24.99%)
- EQUIPMENT PAD
- PROPOSED FENCE
- UGC
- DUCT BANK
- PROPOSED CONTOUR (10')
- PROPOSED CONTOUR (2')
- MICRO-BIORETENTION (M-6)
- RIPRAP
- STORM DRAIN PIPE
- STORM DRAIN INLET
- STORM DRAIN END SECTION
- SPECIMEN TREE
- FOREST CONSERVATION EASEMENT PLAT NO. 26249
- DRAINAGE AREA

1.00 INLET R-20
C=.19 2 8%IMP

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Child Edmondson 4/13/2023
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE 4/14/2023

CHIEF, DIVISION OF LAND DEVELOPMENT 4/17/2023

DIRECTOR DATE

STORM DRAIN DRAINAGE AREA MAP

SCALE: 1"=50'

OWNER
JENNIFER DASTO
6840 GUILFORD ROAD
CLARKSVILLE, MD 21029

DEVELOPER
TPE MD H093, LLC
3820 S. DEHLIA STREET
DENVER, CO 80237
PHONE: 970-379-3937

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP
GUILFORD SOLAR
TPE MD H093, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L.16699 F.381
ROBERT C. COLE PROPERTY - LOT 1 ZONED RR-DEO
5TH ELECTION DISTRICT PLAT NO. 23328 PARCEL 66 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

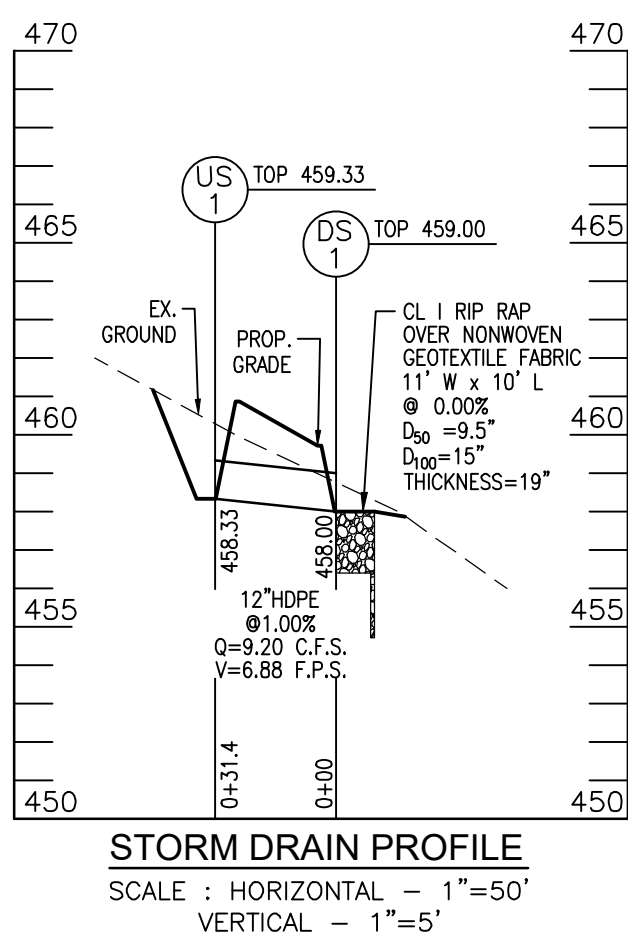
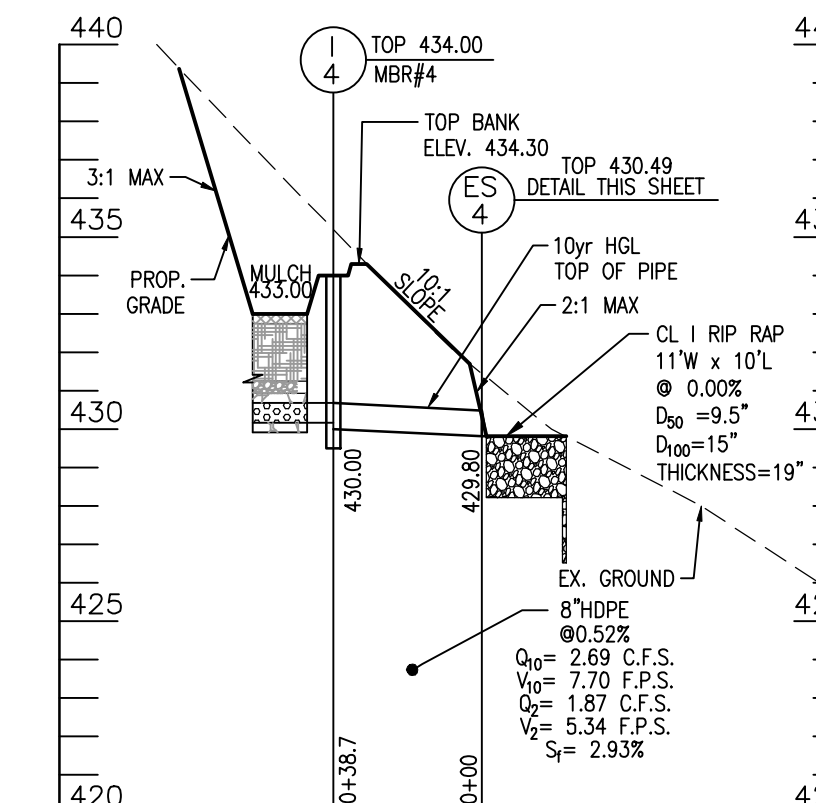
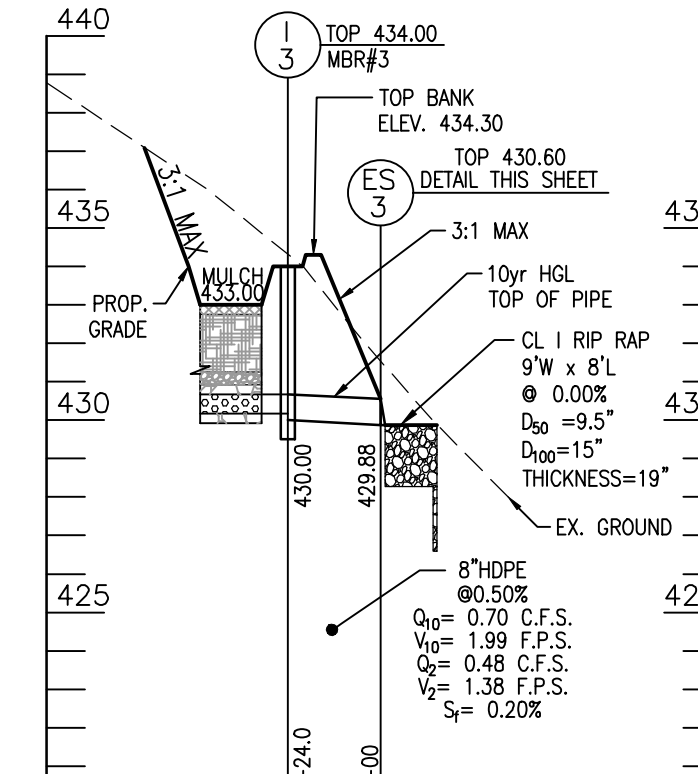
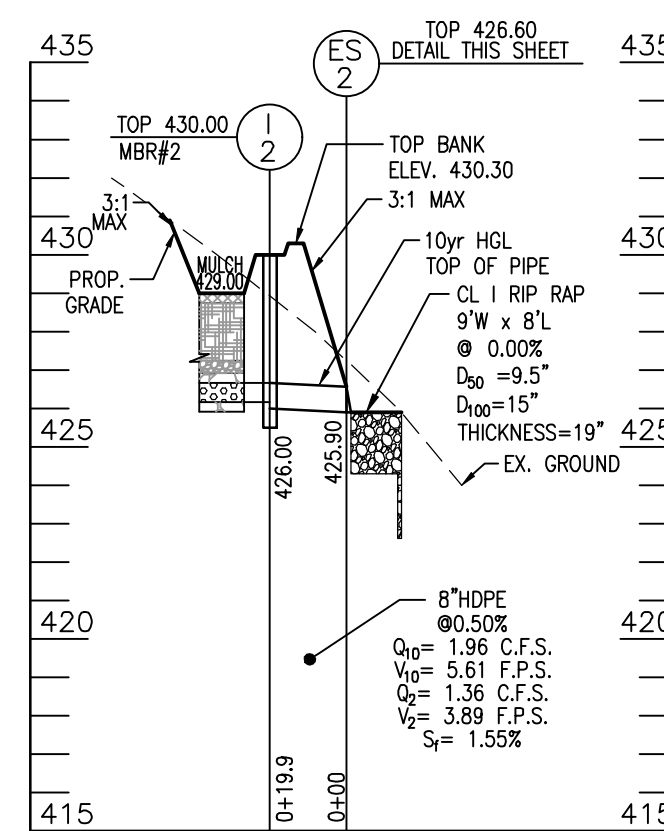
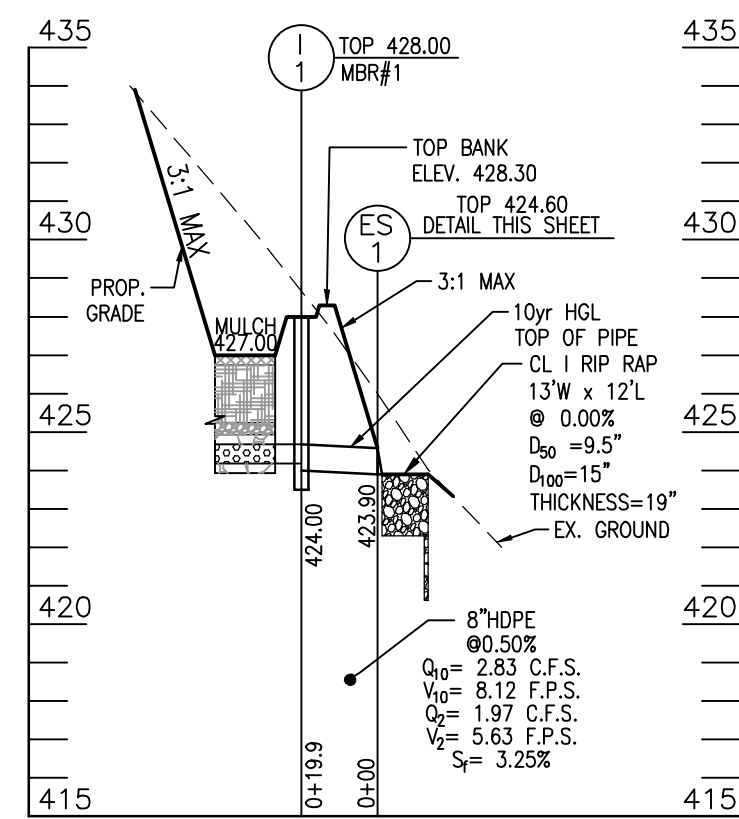
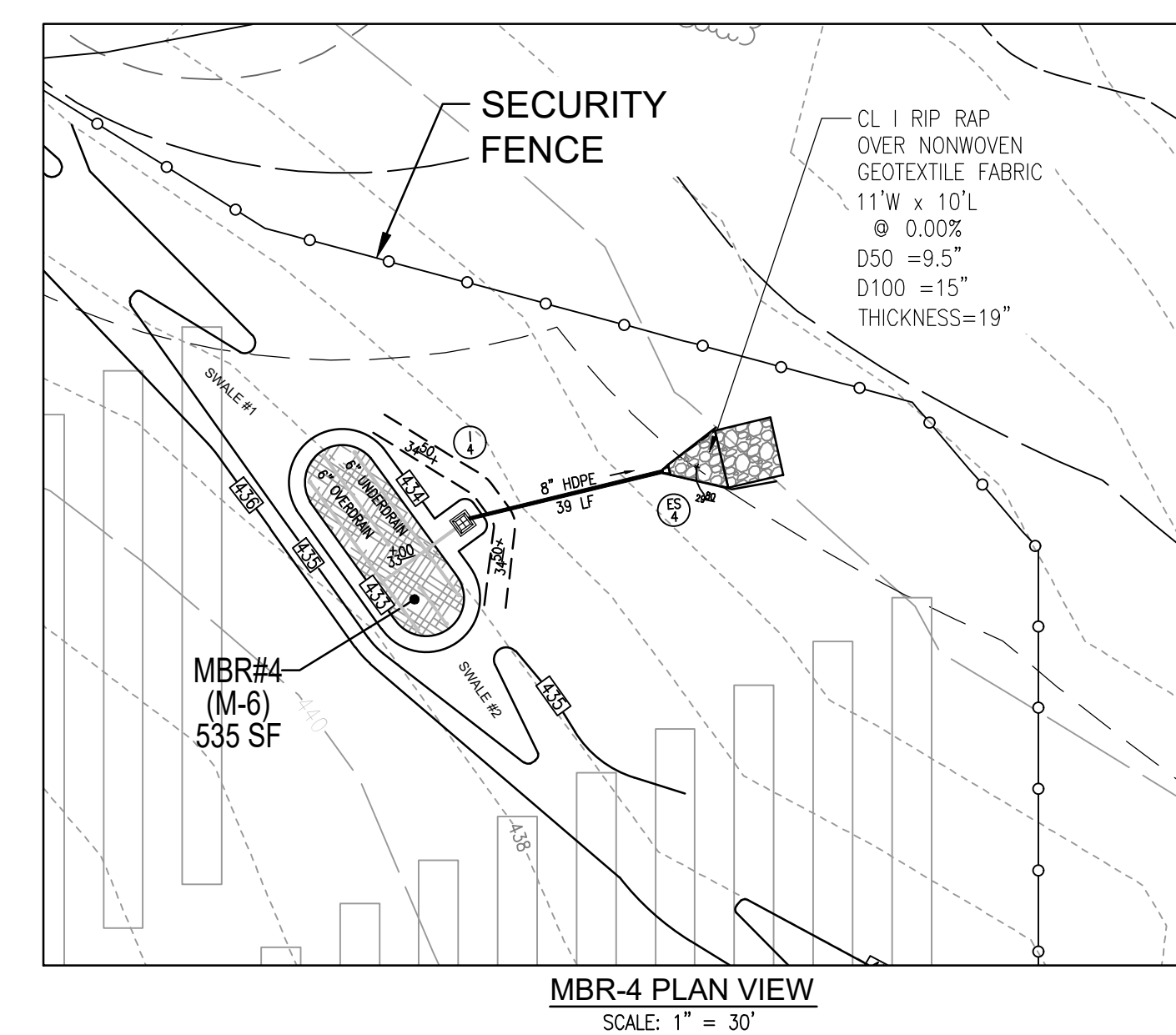
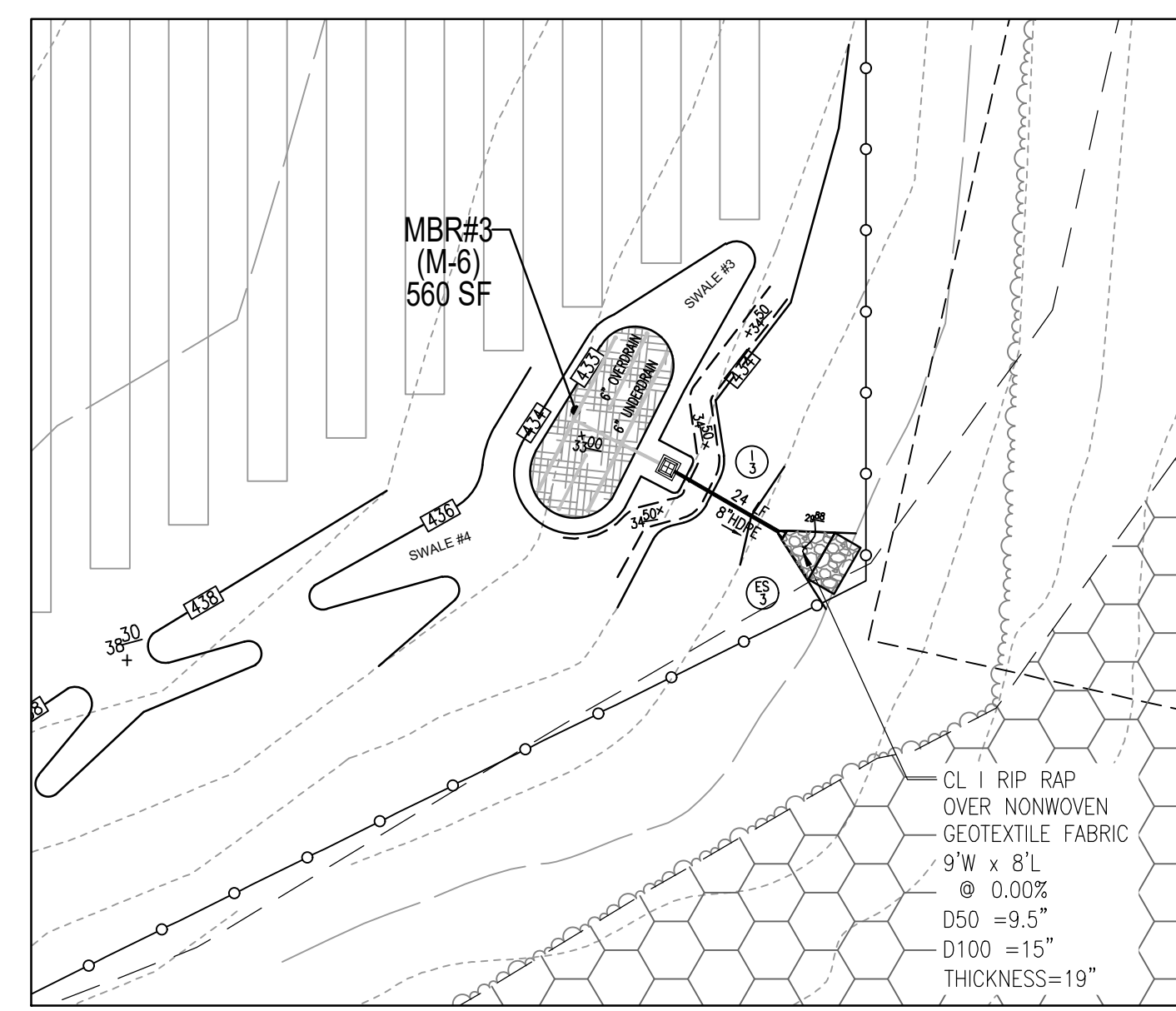
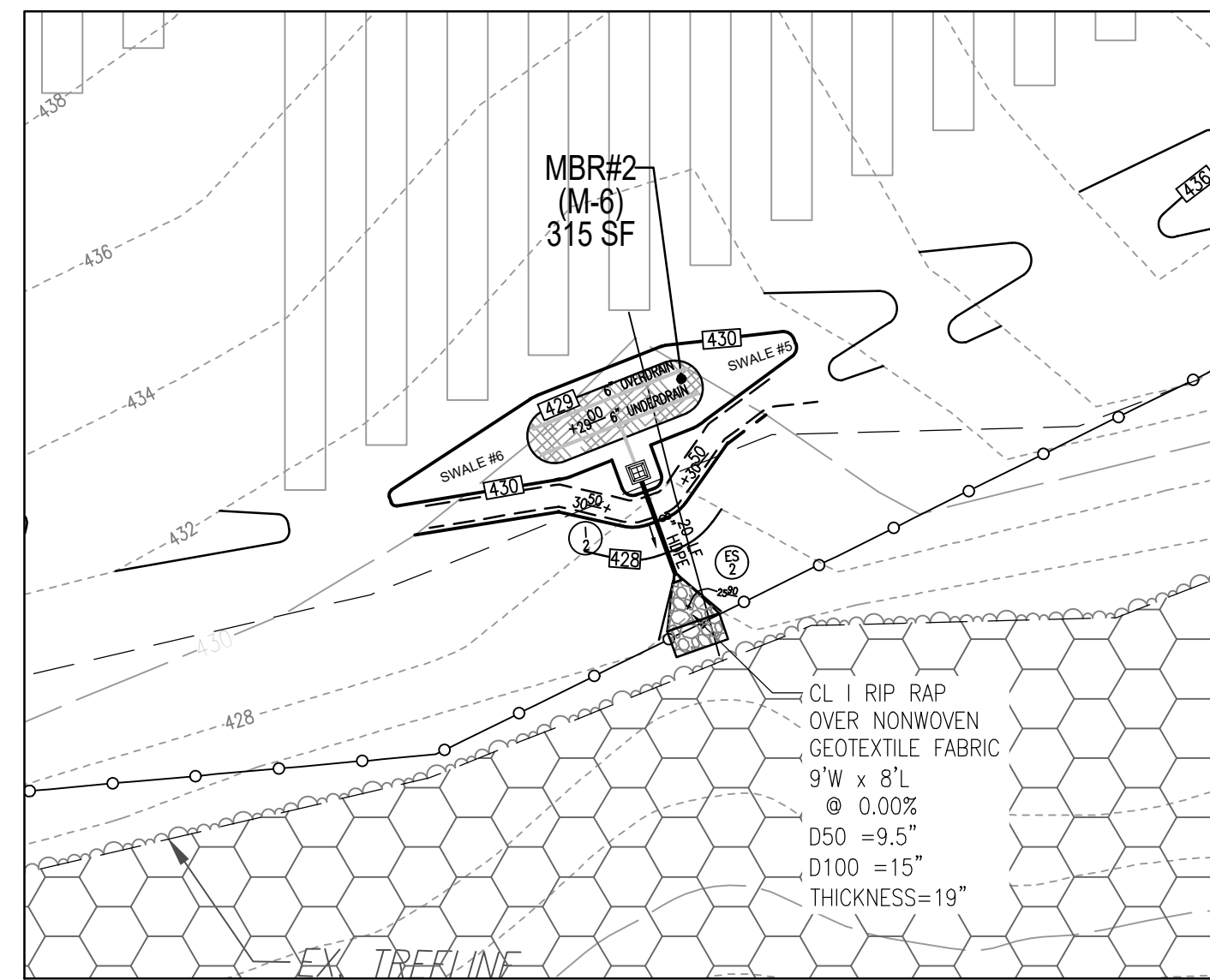
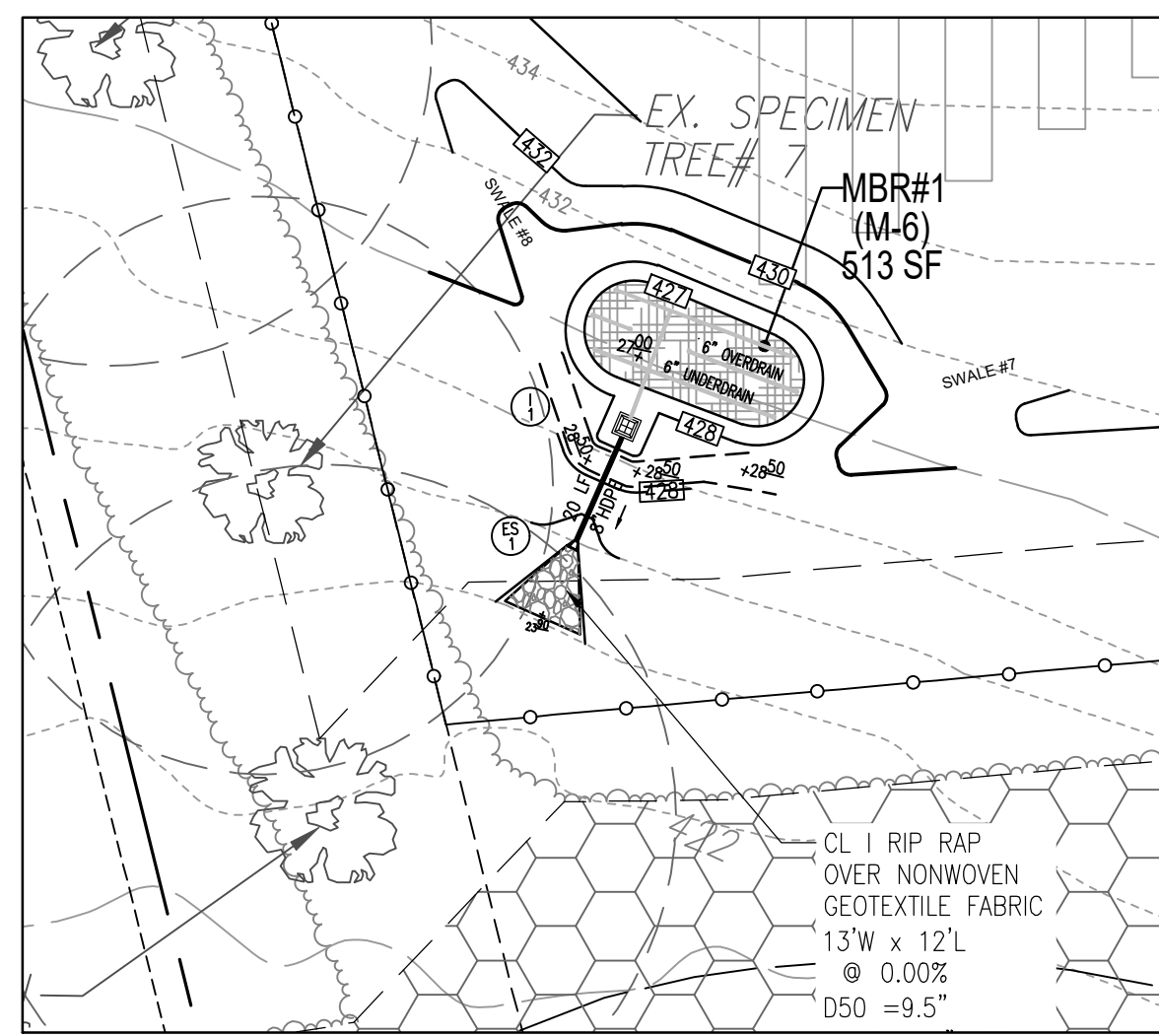
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

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DESIGN BY: RHV
DRAWN BY: JMH
CHECKED BY: RHV
DATE: FEBRUARY 2023
SCALE: AS SHOWN
W.O. NO.: 45912

13 SHEET OF 18



END SECTIONS FOR HDPE PIPE

Dia	Gauge	Weight	A	H	L	W	Slope	Overall Width
8"	18	10	4	3	8	12	2	20"
8"	18	14	5 3/4	4	14 1/2	18	2 1/4	27 1/2"
10"	18	17	7 5/8	6	14 1/2	20	2 1/2	35 1/4"
12"	18	20	7	6	21	24	2 1/2	38"
15"	16	33	8	6	28	30	2 1/2	46"
18"	16	42	8	6	31	36	2 1/2	52"
24"	16	49	8	6	36	42	2 1/2	60"
30"	14	65	10	6	41	48	2 1/2	68"
36"	14	84	12	8	51	60	2 1/2	84"
42"	12	104	14	9	60	72	2 1/2	100"
48"	12	123	16	11	69	84	2 1/2	116"
54"	12	142	18	12	78	96	2 1/4	128"
60"	12/10	161	18	12	87	114	2	150"

TYPE 2 CONNECTIONS (12" & Larger)

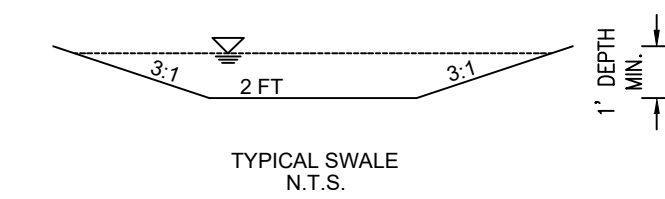
TYPE 2 ATTACHMENT DETAILS

STANDARD END SECTION FOR HDPE PIPES

J & J DRAINAGE PRODUCTS CO.
Hutchinson, Kansas
1-800-831-7465
JJDrainage.com

SWALE SECTION DATA

ID	Q10 CFS	VELOCITY FPS	DEPTH FT	SLOPE FT/FT
SWALE #1	1.85	2.81	0.24	0.040
SWALE #2	0.20	1.22	0.08	0.024
SWALE #3	0.38	1.60	0.10	0.029
SWALE #4	0.12	1.30	0.04	0.051
SWALE #5	0.20	1.64	0.06	0.060
SWALE #6	0.28	1.74	0.07	0.050
SWALE #7	0.44	2.22	0.09	0.066
SWALE #8	2.29	3.42	0.24	0.058



PIPE SCHEDULE

SIZE	PUBLIC/PRIVATE	MATERIAL	LENGTH
8"	PRIVATE	HDPE	103
12"	PRIVATE	HDPE	34

STRUCTURE SCHEDULE

STR#	TYPE	INV. IN	INV. OUT	TOP ELEV.	DETAIL	LOCATION	REMARKS
I-1	S INLET	---	424.00	428.00	D-4.24	N: 552,580.01 E: 1,333,870.58	(1) PRIVATE
I-2	S INLET	---	426.00	430.00	D-4.24	N: 552,587.17 E: 1,334,133.08	(1) PRIVATE
I-3	S INLET	---	430.00	434.00	D-4.24	N: 552,717.59 E: 1,334,383.76	(1) PRIVATE
I-4	S INLET	---	430.00	434.00	D-4.24	N: 552,979.36 E: 1,334,313.19	(1) PRIVATE
ES-1	8" HDPE	---	423.90	424.60	THIS SHEET	N: 552,541.82 E: 1,333,862.56	(2) PRIVATE
ES-2	8" HDPE	---	425.90	426.60	THIS SHEET	N: 552,568.43 E: 1,334,139.93	(2) PRIVATE
ES-3	8" HDPE	---	429.88	430.60	THIS SHEET	N: 552,705.49 E: 1,334,404.54	(2) PRIVATE
ES-4	8" HDPE	---	429.80	430.49	THIS SHEET	N: 552,989.03 E: 1,334,350.65	(2) PRIVATE
US-1	12" HDPE	---	458.33	459.33	THIS SHEET	N: 553,668.64 E: 1,333,759.64	(2) PRIVATE
DS-1	12" HDPE	---	458.00	459.00	THIS SHEET	N: 553,679.16 E: 1,333,791.35	(2) PRIVATE

(1) COORDINATE FOR PROPOSED STRUCTURE = CENTERLINE OF STRUCTURE
(2) COORDINATE FOR END SECTION = CENTERLINE OF PIPE @ DOWNSTREAM FACE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Disciplined by: **Chad Edmondson** 4/13/2023
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 4/14/2023

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 4/17/2023

DIRECTOR
DATE:

OWNER
JENNIFER DASTO
6840 GUILFORD ROAD
CLARKSVILLE, MD 21029

DEVELOPER
TPE MD H093, LLC
3820 S. DEHLIA STREET
DENVER, CO 80237
PHONE: 970-379-3937

SITE DEVELOPMENT PLAN
STORM DRAIN PROFILES & DETAILS

GUILFORD SOLAR
TPE MD H093, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L16699 F.381
ROBERT C. COLE PROPERTY - LOT 1
PLAT NO. 23328
ZONED RR-DEO
PARCEL 6B
HOWARD COUNTY, MARYLAND

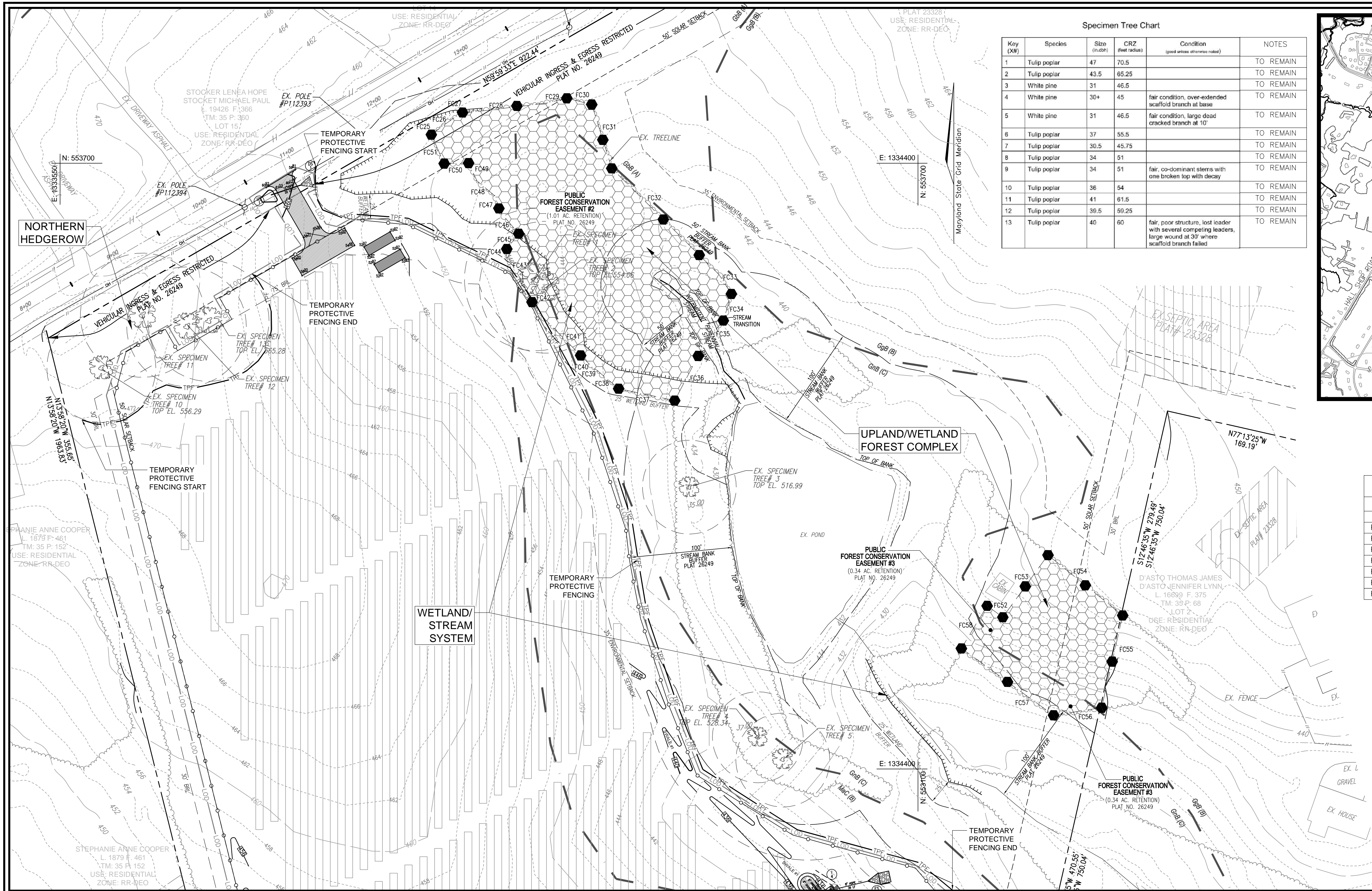
TAX MAP 35 BLOCK 20
5TH ELECTION DISTRICT

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

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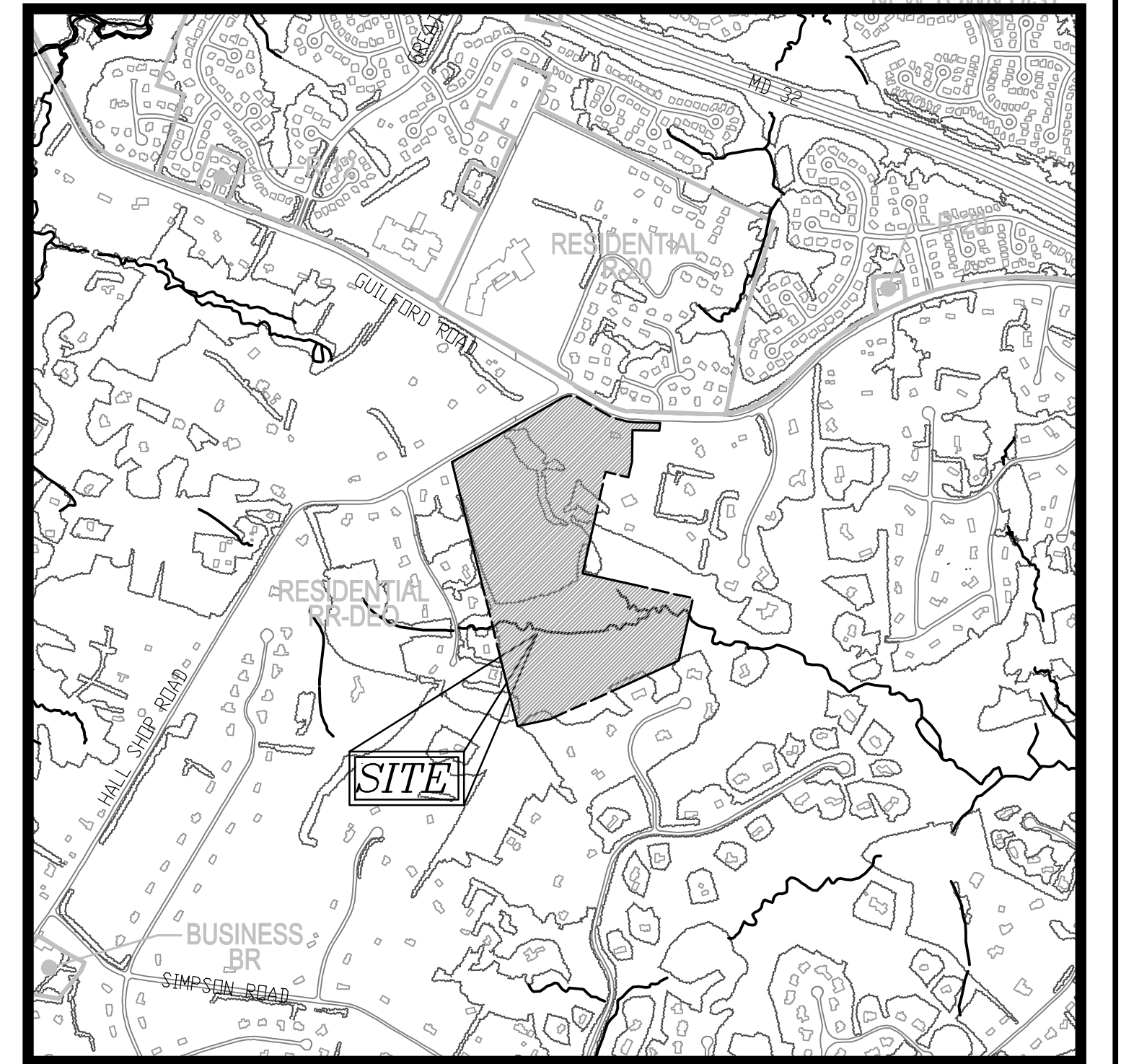
DESIGN BY: RHV
DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2023
SCALE: AS SHOWN
W.O. NO.: 45912

14 SHEET OF 18



Specimen Tree Chart

Key (X#)	Species	Size (inches)	CRZ (feet radius)	Condition	NOTES
1	Tulip poplar	47	70.5		TO REMAIN
2	Tulip poplar	43.5	65.25		TO REMAIN
3	White pine	31	46.5		TO REMAIN
4	White pine	30+	45	fair condition, over-extended scaffold branch at base	TO REMAIN
5	White pine	31	46.5	fair condition, large dead cracked branch at 10'	TO REMAIN
6	Tulip poplar	37	55.5		TO REMAIN
7	Tulip poplar	30.5	45.75		TO REMAIN
8	Tulip poplar	34	51		TO REMAIN
9	Tulip poplar	34	51	fair, co-dominant stems with one broken top with decay	TO REMAIN
10	Tulip poplar	36	54		TO REMAIN
11	Tulip poplar	41	61.5		TO REMAIN
12	Tulip poplar	39.5	59.25		TO REMAIN
13	Tulip poplar	40	60	fair, poor structure, lost leader with several competing leaders, large wound at 30' where scaffold branch failed	TO REMAIN



VICINITY MAP
SCALE: 1"=1,000'
ADC MAP: 5052 PAGE: 27 GRID: C1

FOREST CONSERVATION EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
FOREST CONSERVATION EASEMENT #3		
FC52	S53°59'57"E	19.22'
FC53	N36°00'03"E	76.03'
FC54	S51°05'29"E	95.11'
FC55	S12°50'10"W	93.70'
FC56	S81°02'53"W	48.24'
FC57	N54°02'40"W	112.76'
FC58	N31°08'47"E	49.29'

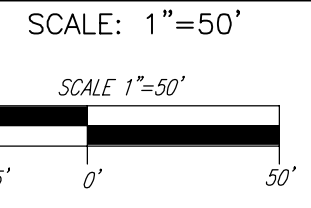
- ### LEGENDS:
- PARCEL BOUNDARY
 - RIGHT-OF-WAY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE
 - EXISTING PAVEMENT
 - STREAM BUFFER
 - STREAM CENTERLINE
 - EXISTING CONTOUR (10')
 - EXISTING CONTOUR (2')
 - MUDS
 - MUDS
 - SOILS BOUNDARY
 - WETLAND
 - WETLAND BUFFER
 - EXISTING TREELINE
 - SLOPES (15%-24.99%)
 - EQUIPMENT PAD
 - PROPOSED FENCE
 - DUCT BANK
 - PROPOSED CONTOUR (10')
 - PROPOSED CONTOUR (2')
 - MICRO-BIORETENTION (M-6)
 - SPECIMEN TREE
 - FOREST CONSERVATION EASEMENT PLAT NO. 26249
 - FOREST CONSERVATION AREA SIGN
 - LOD
 - TPT

OWNER
JENNIFER DASTO
6840 GUILFORD ROAD
CLARKSVILLE, MD 21029

DEVELOPER
TPE MD H093, LLC
3820 S. DEHLIA STREET
DENVER, CO 80237
PHONE: 970-379-3937

MATCHLINE - SEE SHEET 16

FOREST CONSERVATION PLAN



FOREST CONSERVATION EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
FOREST CONSERVATION EASEMENT #2		
FC25	N51°25'25"E	6.44'
FC26	N54°27'43"E	22.66'
FC27	N62°38'33"E	8.56'
FC28	N83°07'31"E	83.29'
FC29	N76°28'05"E	21.01'
FC30	S76°05'48"E	25.45'
FC31	S17°27'06"E	66.30'
FC32	S45°14'50"E	149.35'
FC33	S32°52'19"E	22.84'
FC34	S16°49'17"W	27.51'
FC35	S39°38'39"W	27.83'
FC36	S27°47'01"W	65.37'

FOREST CONSERVATION EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
FOREST CONSERVATION EASEMENT #2		
FC37	N78°00'34"W	56.70'
FC38	N49°44'38"W	28.41'
FC39	N65°50'15"W	3.14'
FC40	N44°39'25"W	9.82'
FC41	N44°39'25"W	59.30'
FC42	N36°56'12"W	50.16'
FC43	N19°41'29"W	23.65'
FC44	N03°07'15"E	7.17'
FC45	N38°00'08"E	19.25'
FC46	N40°48'54"W	28.60'
FC47	N16°11'21"W	15.88'
FC48	N50°02'33"W	23.75'
FC49	N25°16'40"W	19.58'
FC50	S88°49'51"W	24.11'
FC51	N24°02'53"W	31.37'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Designated by: *Chad Edmondson* 4/13/2023

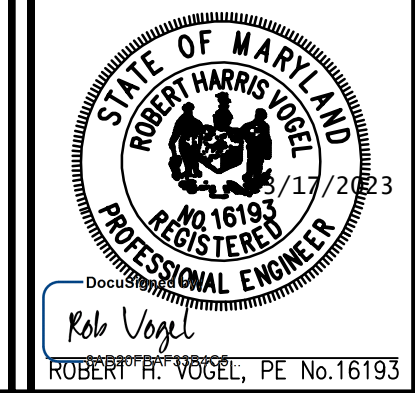
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 4/14/2023

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 4/17/2023

DIRECTOR DATE

J. Brody McAllister
J. Brody McAllister
ISA Certified Arborist
Cert ID: 184871A
MD DNR FQA Certified Professional

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
P.O. BOX 1086 CLEYS ADE, MARYLAND 21047



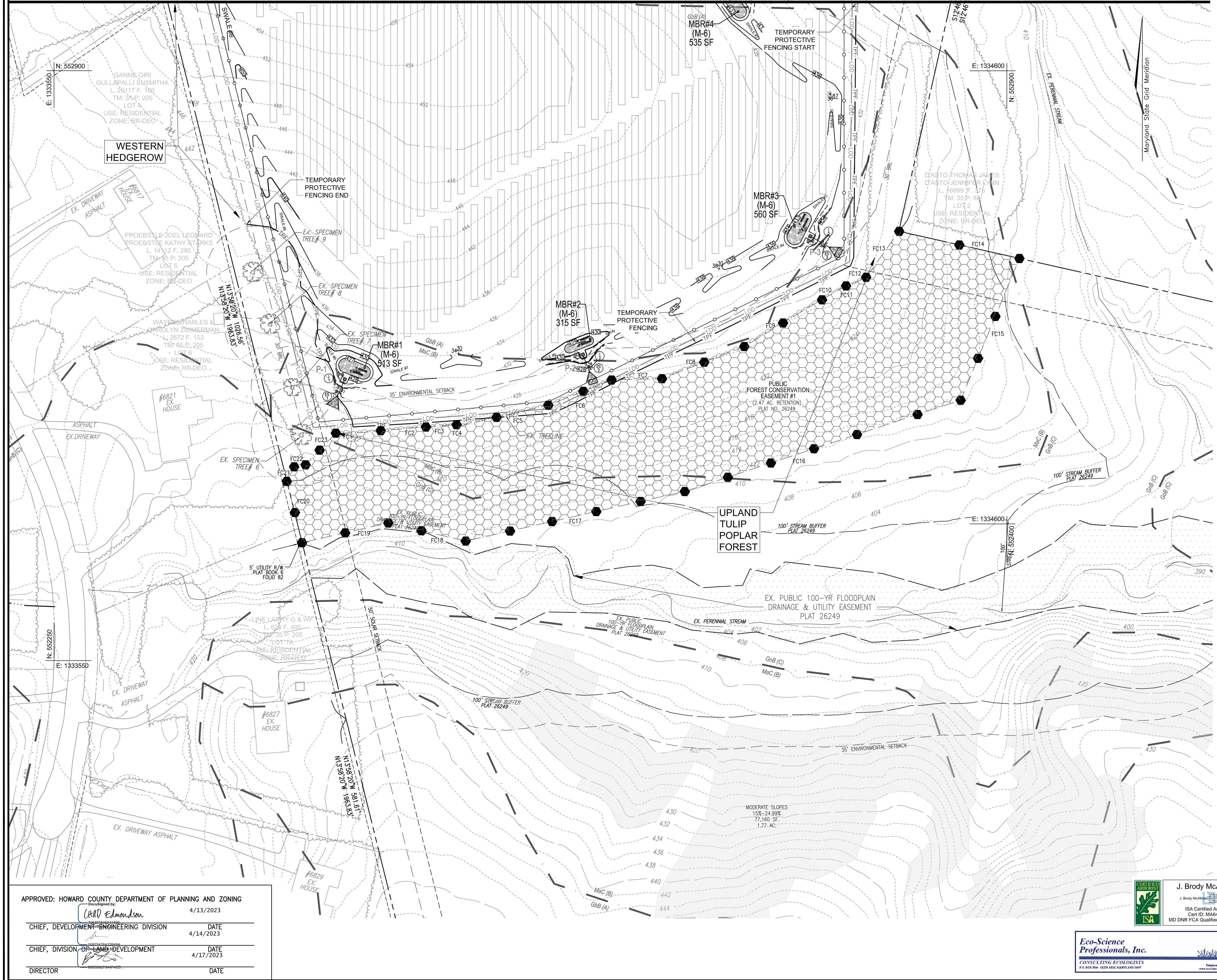
PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
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15 SHEET OF 18

MATCHLINE - SEE SHEET 15



FOREST CONSERVATION EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
FOREST CONSERVATION EASEMENT #1		
FC1	N89°20'56"E	24.90'
FC2	N84°49'49"E	59.65'
FC3	N85°43'04"E	48.93'
FC4	S83°10'35"E	6.40'
FC5	N76°47'56"E	97.40'
FC6	N68°14'24"E	75.00'
FC7	N88°29'32"E	55.63'
FC8	N68°40'41"E	97.39'
FC9	N58°38'54"E	81.56'
FC10	N59°54'58"E	49.04'
FC11	N78°13'56"E	7.17'
FC12	N62°33'34"E	17.15'
FC13	N35°44'09"E	62.27'
FC14	S77°19'26"E	135.86'
FC15	S22°31'16"W	169.17'
FC16	S71°41'08"W	320.29'
FC17	S77°15'17"W	247.62'
FC18	N76°51'09"W	87.52'
FC19	S77°08'47"W	97.50'
FC20	N13°58'20"W	69.74'
FC21	N26°49'58"E	17.90'
FC22	N80°13'42"E	12.76'
FC23	N43°40'24"E	48.28'

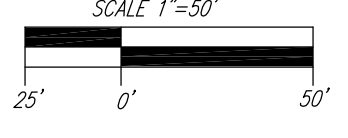
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 - - - ADJACENT BOUNDARY
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 - - - BUILDING RESTRICTION LINE
 - - - EXISTING PAVEMENT
 - - - EX. PUBLIC 100-YR FLOODPLAIN PLAT NO. 26249
 - - - STREAM BUFFER
 - - - STREAM CENTERLINE
 - - - EXISTING CONTOUR (10')
 - - - EXISTING CONTOUR (2')
 - - - MBR
 - - - MDRS
 - - - SOILS BOUNDARY
 - - - WETLAND
 - - - WETLAND BUFFER
 - - - EXISTING TREELINE
 - - - MODERATE SLOPES (15%-24.99%)
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 - - - PROPOSED FENCE
 - - - PROPOSED CONTOUR (10')
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 - - - MICRO-BIORETENTION (M-6)
 - - - RIPRAP
 - - - STORM DRAIN PIPE
 - - - STORM DRAIN INLET
 - - - STORM DRAIN END SECTION
 - - - SPECIMEN TREE
 - - - FOREST CONSERVATION EASEMENT PLAT NO. 26249
 - - - FOREST CONSERVATION AREA SIGN
 - - - LOD
 - - - TPF

Specimen Tree Chart

Key (X#)	Species	Size (in, dbh)	CRZ (feet radius)	Condition (good unless otherwise noted)	NOTES
1	Tulip poplar	47	70.5		TO REMAIN
2	Tulip poplar	43.5	65.25		TO REMAIN
3	White pine	31	46.5		TO REMAIN
4	White pine	30+	45	fair condition, over-extended scaffold branch at base	TO REMAIN
5	White pine	31	46.5	fair condition, large dead cracked branch at 10'	TO REMAIN
6	Tulip poplar	37	55.5		TO REMAIN
7	Tulip poplar	30.5	45.75		TO REMAIN
8	Tulip poplar	34	51		TO REMAIN
9	Tulip poplar	34	51	fair, co-dominant stems with one broken top with decay	TO REMAIN
10	Tulip poplar	36	54		TO REMAIN
11	Tulip poplar	41	61.5		TO REMAIN
12	Tulip poplar	39.5	59.25		TO REMAIN
13	Tulip poplar	40	60	fair, poor structure, lost leader with several competing leaders, large wound at 30' where scaffold branch failed	TO REMAIN

FOREST CONSERVATION PLAN

SCALE: 1"=50'



OWNER
JENNIFER DASTO
6840 GUILFORD ROAD
CLARKSVILLE, MD 21029

DEVELOPER
TPE MD H093, LLC
3820 S. DEHLIA STREET
DENVER, CO 80237
PHONE: 970-379-3937

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
FOREST CONSERVATION PLAN**

GUILFORD SOLAR

TPE MD H093, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L. 16699 F. 381
ROBERT C. COLE PROPERTY - LOT 1
PLAT NO. 23328
ZONED RR-DEO
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND. EXPIRES: 06-27-2024

DESIGN BY: RHV
DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2023
SCALE: AS SHOWN
W.O. NO.: 45912

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Disseminated by: *Chad Edmondson* 4/13/2023
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE 4/14/2023
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE 4/17/2023
DIRECTOR
DATE

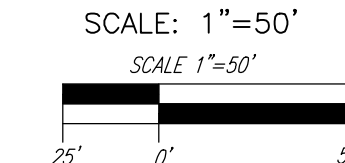
J. Brody McAllister
ISA Certified Arborist
Cert ID: MA6471A
MD DNR FCA Qualified Professional

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
P.O. BOX 104 2025 WILSON AVENUE WOODBRIDGE, VA 22191



- LEGENDS:**
- PARCEL BOUNDARY
 - - - - RIGHT-OF-WAY
 - - - - ADJACENT BOUNDARY
 - - - - 50' SOLAR SETBACK
 - - - - BUILDING RESTRICTION LINE
 - - - - EXISTING PAVEMENT
 - - - - EX. PUBLIC 100'-15' EASEMENT
 - - - - EX. PUBLIC UTILITY EASEMENT
 - - - - STREAM BUFFER
 - - - - STREAM CENTERLINE
 - - - - 610 EXISTING CONTOUR (10')
 - - - - 608 EXISTING CONTOUR (2')
 - - - - SOILS BOUNDARY
 - - - - MIDS
 - - - - WETLAND
 - - - - WETLAND BUFFER
 - - - - EXISTING TREELINE
 - - - - EQUIPMENT PAD
 - - - - PROPOSED FENCE
 - - - - UGC
 - - - - DUCT BANK
 - - - - 520 PROPOSED CONTOUR (10')
 - - - - 520 PROPOSED CONTOUR (2')
 - - - - MICRO-BIORETENTION (M-6)
 - - - - RIPRAP
 - - - - STORM DRAIN PIPE
 - - - - STORM DRAIN INLET
 - - - - STORM DRAIN END SECTION
 - - - - SPECIMEN TREE
 - - - - PROPOSED LANDSCAPING
 - - - - 0-20' GREEN ZONE
 - - - - 20-45' YELLOW ZONE
 - - - - 45-60' RED ZONE
 - - - - FOREST CONSERVATION EASEMENT
 - - - - PLAT NO. 26249

LANDSCAPING PLAN



OWNER
 JENNIFER DASTO
 6840 GUILFORD ROAD
 CLARKSVILLE, MD 21029

DEVELOPER
 TPE MD H093, LLC
 3820 S. DELHIA STREET
 DENVER, CO 80237
 PHONE: 970-379-3937

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
LANDSCAPING PLAN
GUILFORD SOLAR
 TPE MD H093, LLC
 11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
 DEED L 16699 F 381
 ROBERT C. COLE PROPERTY - LOT 1
 PLAT NO. 23328
 ZONED RR-DEO
 PARCEL 68
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
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PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
 DRAWN BY: IMH
 CHECKED BY: RHV
 DATE: FEBRUARY 2023
 SCALE: AS SHOWN
 W.O. NO.: 45912

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRES DATE: 09-27-2024.

17 SHEET OF **18**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DocuSigned by:

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/13/2023

DocuSigned by:

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4/17/2023

DIRECTOR
 DATE:

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DocuSigned by:

 SIGNATURE OF DEVELOPER
 DATE: 2/24/2023

GENERAL NOTES

WATERSHED NAME: MIDDLE PATUXENT RIVER
WATERSHED NUMBER: 02131106
A. GROSS SITE AREA: 12.80 AC. (PER CONDITIONAL USE PLAN)
NET SITE AREA: 12.80 AC. (PER CONDITIONAL USE PLAN)
B. *AREA OF 100-YEAR FLOODPLAIN: 2.54 AC. DFRM
C. *AREA OF WETLANDS AND BUFFERS (ON PROPERTY): 2.47 AC.
*AREA OF STREAM AND BUFFERS (ON PROPERTY): 12.99 AC.
D. *AREA OF 25% STEEP SLOPES: 0.00 AC.
E. *EXISTING FOREST: 25.93 AC.
F. ZONED: RR-DEO
G. EXISTING USE: AGRICULTURE
H. PROPOSED USE: SOLAR PANEL FARM

- NOTE: NO ENVIRONMENTAL FEATURES ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE.
1. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED OR HAVE BEEN REPORTED TO OCCUR ON THE PROJECT AREA.
2. THE WETLANDS AND STREAMS ON THE SITE ARE WITHIN THE USE IV WATERSHED OF THE MIDDLE PATUXENT RIVER (02-13-11). NO WETLANDS, STREAMS OR BUFFER OCCUR WITHIN THE PROPOSED PROJECT AREA.
3. NO 100 YEAR FLOODPLAIN IS PRESENT ON THE PROJECT AREA.
4. STEEP SLOPES ARE NOT PRESENT WITHIN THE PROJECT AREA.
5. NO HISTORIC ELEMENTS OF CEMETERIES ARE KNOWN TO OCCUR ON THE PROJECT AREA.
6. NO FOREST OCCURS WITHIN THE PROJECT AREA. SPECIMEN TREES ARE PRESENT WITHIN THE PROJECT AREA AND ARE TO REMAIN.
7. NO MARYLAND STATE CHAMPION TREES OR TREES 75% OF STATE CHAMPION TREES EXIST ONSITE.

FOREST CONSERVATION WORKSHEET BASED ON COUNCIL BILL CB62-2019

FOREST CONSERVATION WORKSHEET FOR GUILFORD SOLAR

Table with 2 columns: Category (A-D) and Value (e.g., 12.80, 0.00, 0.00, 12.80)

Table with 2 columns: Category (E-F) and Value (e.g., 1.90, 1.90)

Table with 2 columns: Category (G-I) and Value (e.g., 0.00, 0.00, 0.00)

Table with 2 columns: Category (J-K) and Value (e.g., 0.00, 0.00)

Table with 2 columns: Category (L-M) and Value (e.g., 0.00, 0.00)

Table with 2 columns: Category (N-V) and Value (e.g., 0.00, 0.00, 1.90, 1.40)

Table with 2 columns: Category (W-Z) and Value (e.g., 0.00, 1.90, 0.00, 0.00)

* PER POLICY 3.2.5, COMMERCIAL USE ON AN AGRICULTURAL PROPERTY, OF THE FOREST CONSERVATION MANUAL ADOPTED BY CR12-2021, THE NET TRACT AREA IS DEFINED AS THE AREA UNDERGOING THE LAND USE CHANGE.

THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IS 1.90 ACRES OF AFFORESTATION, WHICH SHALL BE SATISFIED BY ON-SITE RETENTION OF EXISTING FOREST ON LOT 1 OUTSIDE THE PROJECT AREA AT A 2:1 RATIO.

THE FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY:
1) THE RETENTION OF 3.82 ACRES (3.82 / 2 (OUT SIDE PROJECT AREA) = 1.91 ACRES CREDIT) OF EXISTING FOREST ON LOT 1 OUTSIDE OF PROJECT AREA. PLAT NO. 26249.

FOREST CONSERVATION EASEMENT TABLE with columns: EASEMENT, RETENTION, CREDITED, NON-CREDITED, REFORESTATION, TOTAL

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- 1. PRECONSTRUCTION MEETING /SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
2. STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.
3. INSTALL TREE PROTECTION FENCING: FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS-CONSTRUCTION INSPECTION DIVISION.
4. PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS-CONSTRUCTION INSPECTION DIVISION.
5. TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS-CONSTRUCTION INSPECTION DIVISION.

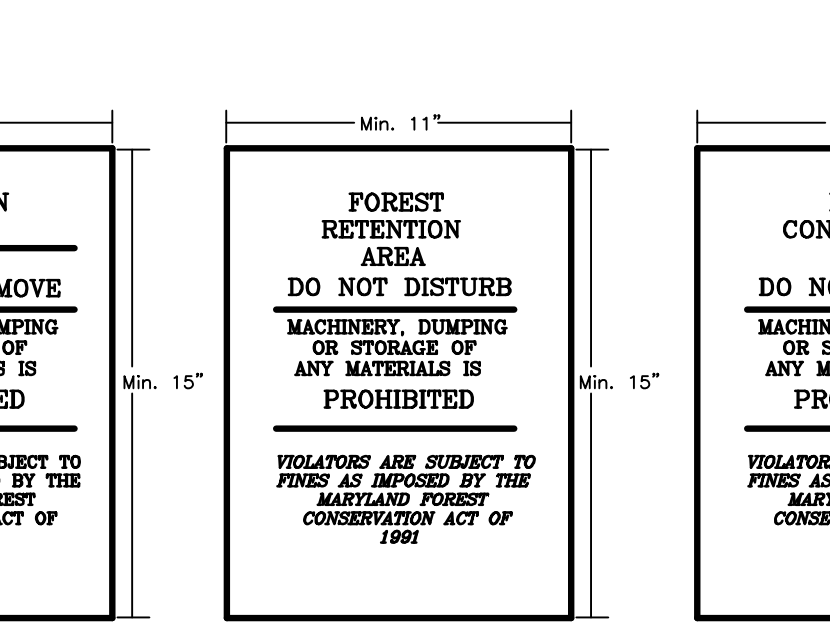
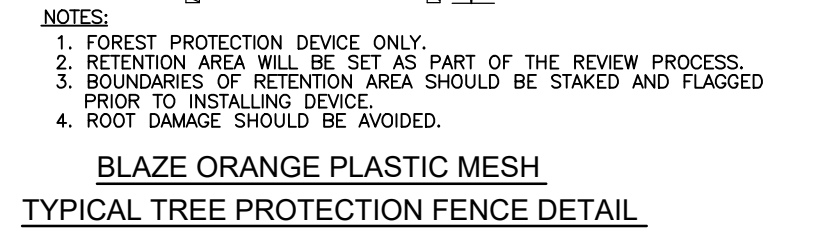
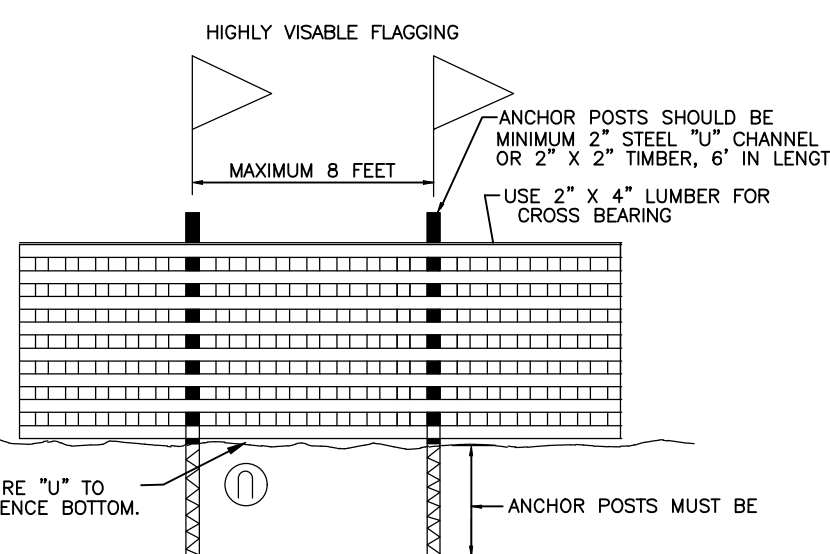
FOREST RETENTION AREAS AND NOTES

- 1. THERE ARE WETLANDS AND WETLAND BUFFERS LOCATED ONSITE.
2. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.
3. FORESTED AREAS ADJACENT TO FLOODPLAINS AND STREAM BUFFERS ARE SUBSTANTIALLY RETAINED IN FOREST CONSERVATION EASEMENTS.
4. CHANGES IN GRADING AND RUNOFF WITHIN CONSTRUCTION/INSTALLATION AREAS WILL NOT ADVERSELY AFFECT THE SOILS WITHIN THE FOREST RETENTION AREA. SEDIMENT CONTROL MEASURES WILL REDIRECT CONCENTRATED FLOW RUNOFF TO STORMWATER MANAGEMENT FACILITIES, RETAIN SEDIMENT WITHIN THE CONSTRUCTION SITE, AND/OR REDIRECT CLEAN WATER AWAY FROM CONSTRUCTION AREAS.
5. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Signature: Chad Edmondson, Date: 4/13/2023
Signature: [Redacted], Date: 4/14/2023
Signature: [Redacted], Date: 4/17/2023

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Signature: Alan Beal, Date: 2/24/2023



NOTE: 1. BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE. 2. SIGNS TO BE PLACED APPROXIMATELY 50-100 FEET APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART. WHERE SIGNS ARE TO BE PLACED AT THE REAR OF PROPOSED LOTS, SPACING SHALL BE APPROX. 25-30'. 3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED. 4. ALL FOREST CONSERVATION SIGNAGE SHALL BE IN PLACE FOR PERPETUITY. 5. SIGN LOCATION SYMBOL = ●

FOREST CONSERVATION AREA SIGNS

SPECIMEN TREE PROTECTION NOTES FOR FENCING AND LANDSCAPING INSTALLATION

FENCING AND LANDSCAPE PLANTINGS WILL OCCUR WITHIN THE CRITICAL ROOT ZONE OF SPECIMEN TREES THAT ARE PRESENT AROUND THE PERIMETER OF THE PROPERTY. THE LOCATION OF THE FENCING AND LANDSCAPING HAS BEEN MODIFIED TO MINIMIZE ROOT ZONE IMPACTS.

INSTALLATION OF THESE FEATURES SHALL BE PERFORMED IN A MANNER THAT WILL MINIMIZE IMPACTS TO THE ROOT ZONES OF THE TREE.

LANDSCAPING INSTALLATION - TREE AND SHRUBS TO BE INSTALLED WITHIN THE CRITICAL ROOT ZONE OF A SPECIMEN TREE SHALL BE INSTALLED BY HAND WITH NO MECHANIZED EQUIPMENT BEING PERMITTED WITHIN THE ROOT ZONE. WHEN EXCAVATING THE PLANTING PIT FOR THE LANDSCAPE PLANTINGS THE INSTALLER SHALL BE CAREFUL TO AVOID ANY MAJOR ROOTS. ANY ROOT 1 INCH OR LARGER DIAMETER SHALL BE ROOT PRUNED WITH SHARP HAND PRUNING SAW. IF ROOTS LARGER THAN 2" DIAMETER ARE ENCOUNTERED DURING INSTALLATION THE EXCAVATION SHALL BE MOVED TO AVOID IMPACT TO THAT ROOT. THE PLANTING PITS WITHIN THE CRITICAL ROOT ZONE OF A SPECIMEN TREE SHALL BE LIMITED TO ONLY THE MINIMUM AREA REQUIRED TO PLANT THE TREE/SHRUB. TYPICAL EXCAVATION OF A PLANTING PIT 2X THE WIDTH OF THE BALL SHALL BE AVOIDED.

FENCING INSTALLATION - WHERE FENCE POST INSTALLATION IS REQUIRED WITHIN THE CRITICAL ROOT ZONE OF A SPECIMEN TREE THE POSTS SHALL BE SPACED AT MAXIMUM DISTANCES FROM THE TRUNK AS POSSIBLE AND SHOULD AVOID ANY ROOTS 2 INCHES AND GREATER. IF POSSIBLE, POSTS MAY BE HAND DRIVEN. ANY ROOT 1 INCH OR GREATER IN DIAMETER SHALL BE ROOT PRUNED WITH A SHARP HAND PRUNING SAW. THERE SHALL BE NO USE OF A ROTARY DRILL WITHIN THE CRITICAL ROOT ZONE.

CONSTRUCTION PERIOD PROTECTION AND MANAGEMENT NOTES FOR FOREST CONSERVATION

- PRE-CONSTRUCTION PHASE: 1. FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.
2. FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS THE SITUATION WARRANTS.
3. A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNING SHALL BE REQUIRED. WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.
CONSTRUCTION PHASE: 1. NO DISTURBANCE OR DUMPING IS ALLOWED INSIDE THE TREE RETENTION AREA. 2. NO EQUIPMENT SHALL BE OPERATED INSIDE THE TREE RETENTION AREA. 3. IN THE EVENT OF DROUGHT, THE PROTECTED TREES SHALL BE MONITORED FOR SIGNS OF STRESS AND WATERED AS NEEDED.
POST-CONSTRUCTION PHASE: 1. AT THE DIRECTION OF A QUALIFIED TREE CARE EXPERT, DAMAGES TO RETAINED TREES SHALL BE REPAIRED BY THE CONTRACTOR. 2. FENCING REMOVAL AND STABILIZATION SHALL BE AS PER THE SEDIMENT AND EROSION CONTROL PLAN. 3. DO NOT REMOVE SIGNS.

FOREST CONSERVATION PLAN:

J. Brody McAllister
ISA Certified Arborist
Cert ID: MA6471A
MD DNR FCA Qualified Professional



GENERAL NOTES

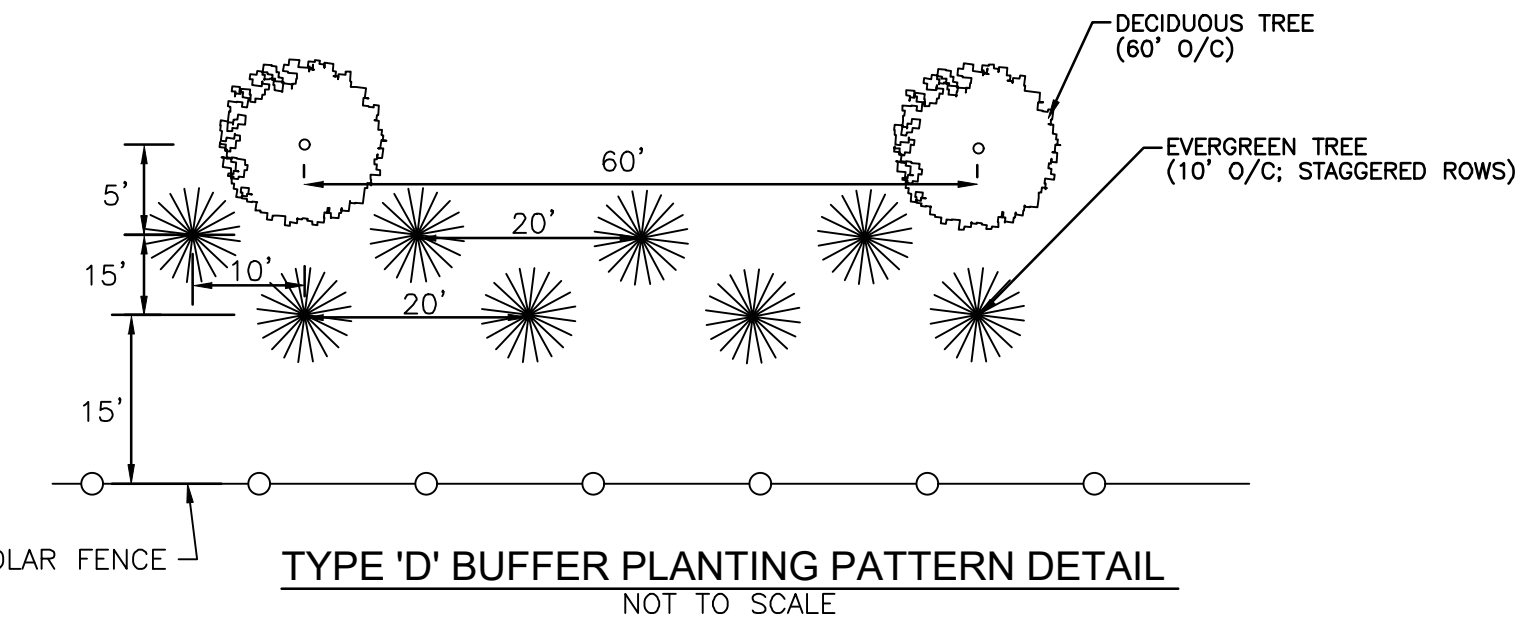
- 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
A FINANCIAL SURETY IN THE AMOUNT OF \$24,750 FOR THE REQUIRED LANDSCAPING (REQUIRED 18 SHADE TREES @ \$5,400, AND 129 EVERGREEN TREES @ \$19,350) SHALL BE POSTED WITH THE FINAL DEVELOPERS AGREEMENT.
2. IN A PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED MARCH, 2021 AND MR. JOHN GANGLIOS IDENTIFIED THE ONSITE FOREST, WETLANDS AND STREAMS. NO FOREST OCCURS WITHIN THE PROJECT AREA. SPECIMEN TREES ARE PRESENT WITHIN THE PROJECT AREA AND ARE TO REMAIN.
3. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAWING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.

LANDSCAPE NOTES

- 1. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
2. THE FACILITY OPERATOR AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMIS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
3. SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, BE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
4. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE SITE DEVELOPMENT PLAN.
5. SURETY FOR THE PROPOSED LANDSCAPING SHALL BE BASED ON THE NUMBER OF PLANTINGS REQUIRED.

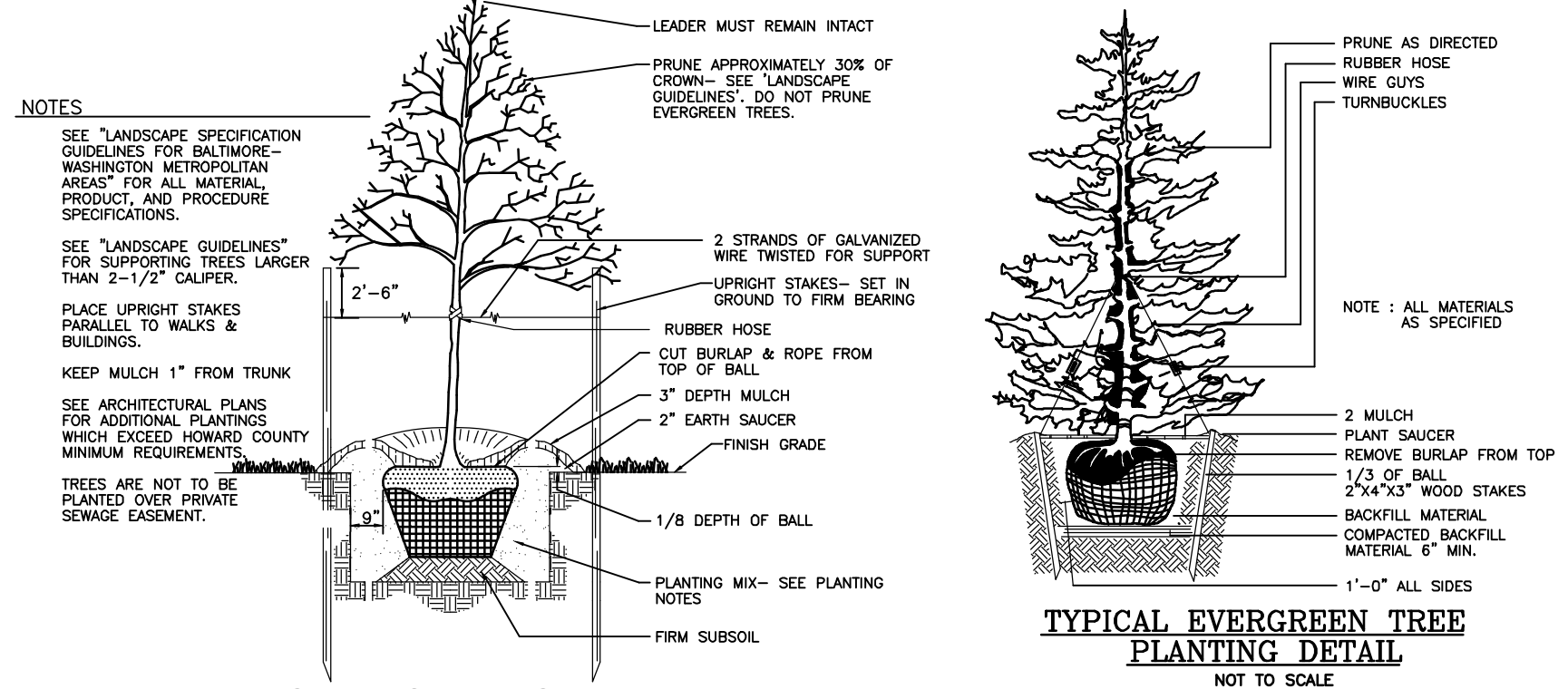
PERIMETER LANDSCAPE EDGE LANDSCAPE SCHEDULE table with columns: KEY, QUAN, BOTANICAL NAME, SIZE, REM.

NOTE: WITH PERMISSION FROM HOWARD COUNTY, PLANTINGS SPECIFIED HEREON MAY BE SUBSTITUTED WITH APPROVED SPECIES LISTED IN APPENDIX C OF THE HOWARD COUNTY LANDSCAPE MANUAL.



NOTES:

- 1. FENCE SHALL BE WOVEN WIRE FABRIC INSTALLED AT A MAXIMUM OF 7' IN HEIGHT OR EQUIVALENT.
2. TYPE 'D' BUFFER TREES SHALL CONSIST OF A DOUBLE ROW OF OFFSET EVERGREEN TREES PLANTED AT INTERVALS OF 20' ON CENTER, ROWS OFFSET 15', AND DECIDUOUS TREES PLANTED AT 60' ON CENTER.
3. EVERGREEN TREE SPECIES MAY INCLUDE:
a. CYPRESS OCYPARIS LEYLAND / LEYLAND CYPRESS (5'-6' HGT.)
b. ILEX OPECA / AMERICAN HOLLY (5'-6' HGT.)
c. PINUS STROBUS / EASTERN WHITE PINE (6'-8' HGT.)
d. JUNIPERUS VIRGINIANA CULTIVARS / RED CEDAR (6'-8' HGT.)
4. DECIDUOUS TREE SPECIES MAY INCLUDE:
a. QUERCUS PALUSTRIS / PIN OAK (2-1/2" - 3" CAL.)
b. BETULA NIGRA HERITAGE / HERITAGE CLUMP BIRCH (10'-12' HGT.)
c. ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE (2 1/2"-3 1/2" CAL.)
5. IN ADDITION TO THOSE SPECIES IDENTIFIED ON NOTES # 3 & 4, OTHER SPECIES, TO BE APPROVED, MAY BE SUBSTITUTED OR UTILIZED.



TREE PLANTING AND STAKING

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

NOTE: PLANTING SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD FROM THE LANDSCAPE CONTRACTORS ASSOCIATION OF MD, DC AND VA.

SCHEDULE A PERIMETER LANDSCAPE EDGE

Table with columns: CATEGORY, ADJACENT TO ROADWAYS AND PERIMETER PROPERTIES, TOTAL.

*INCLUDES 4 EXISTING SPECIMEN TREES TO REMAIN

LANDSCAPE SCHEDULE NOTES:

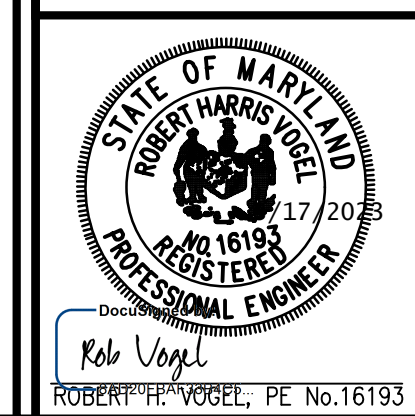
- 1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AM SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

OWNER: JENNIFER DASTO, 6840 GUILFORD ROAD, CLARKSVILLE, MD 21029
DEVELOPER: TPE MD H093, LLC, 3820 S. DEHLIA STREET, DENVER, CO 80237, PHONE: 970-379-3937

Table with columns: NO, REVISION, DATE

SITE DEVELOPMENT PLAN
FOREST CONSERVATION & LANDSCAPE NOTES AND DETAILS
GUILFORD SOLAR
TPE MD H093, LLC
11911 HALL SHOP ROAD, CLARKSVILLE, MD 21029
DEED L-16699 F.381
ROBERT C. COLE PROPERTY - LOT 1
PLAT NO. 23328
ZONED RR-DEO PARCE 68
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE
DESIGN BY: RHV
DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2023
SCALE: AS SHOWN
W.O. NO.: 45912
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. MY LICENSE NO. IS 16193 AND MY EXPIRATION DATE IS 12-31-2023.
18 SHEET OF 18