

**GENERAL NOTES**

- THE EXISTING TOPOGRAPHY SHOWN HEREON WAS TAKEN FROM HOWARD COUNTY GIS, 2 FT CONTOUR INTERVAL.
- THE PROJECT BOUNDARY IS BASED ON A FIELD SURVEY BY FISHER, COLLINS & CARTER, DATED JULY 2020.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 41BE AND 41ED WERE USED FOR THIS PROJECT.
- 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.
- THIS PROPERTY IS LOCATED OUTSIDE THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS FROM PRIVATE WELLS.  
-SEWER FOR THIS PROJECT IS BY PRIVATE SEWAGE DISPOSAL AREAS  
-A PERCOLATION CERTIFICATION PLAN WAS APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT, JULY 2022.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN UNLESS APPROVED AS PART OF AN ALTERNATIVE COMPLIANCE REQUEST.  
-AN ALTERNATIVE COMPLIANCE REQUEST FOR THE ENVIRONMENTAL DISTURBANCE SHOWN HEREON ASSOCIATED WITH THE TWO (2) STREAM CROSSINGS AND FOR THE REMOVAL OF SPECIMEN TREES SHALL BE SUBMITTED.
- EXISTING UTILITIES LOCATED FROM TOPOGRAPHIC SURVEY AND AS-BUILT DRAWINGS. 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.
- THE PROJECT IS LOCATED WITHIN THE MIDDLE PATUXENT RIVER WATERSHED KNOWN AS DNR 8-DIGIT BASIN CODE 02131106, 12-DIGIT 021311060959 DRAINING TOWARD THE SANNER ROAD TRIBUTARY. A FLOODPLAIN HAS BEEN DETERMINED NORTHEAST OF THE PROJECT SITE, KNOWN AS SANNER ROAD TRIBUTARY, AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) 24027C01450, EFFECTIVE NOVEMBER 6, 2013.
- STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE AND SHOWN HEREON.
- FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH A FUTURE SUBDIVISION PLAN.
- LANDSCAPE OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY FINAL LANDSCAPE PLAN SUBMITTED WITH A FUTURE SUBDIVISION PLAN.
- WETLANDS, STREAMS AND THEIR REQUIRED BUFFERS SHOWN ARE BASED ON THE PLAN TITLED "WETLAND AND FOREST STAND DELINEATION PLAN" DATED 10-23-2023 AND THE ASSOCIATED REPORT PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., C/O MR. JOHN CANOLES, DATED 10-18-2023.
- FOREST STAND DELINEATION AND SPECIMEN TREE IDENTIFICATION IS BASED ON THE PLAN TITLED "WETLAND AND FOREST STAND DELINEATION PLAN" DATED 04-18-2024 AND THE ASSOCIATED REPORT PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., AND SILVA, LLC C/O MR. BRODY MCALLISTER - ISA CERTIFIED ARBORIST, CERT. ID. MA6471A, MD DNR FCA QUALIFIED PROFESSIONAL, DATED 10-18-2023.
- GEOTECHNICAL INVESTIGATIONS SHALL COMPLETED AND SUBMITTED WITH THE FUTURE SUBDIVISION PLANS.
- NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- EXISTING SANNER ROAD IS CLASSIFIED AS A MAJOR COLLECTOR.  
EXISTING HALLMARK ROAD IS CLASSIFIED AS A LOCAL ROAD.  
-THE PROPOSED ACCESS WILL BE VIA:  
1. A USE-IN-COMMON DRIVEWAY CONNECTION TO SANNER ROAD  
2. A USE-IN-COMMON DRIVEWAY CONNECTION TO HALLMARK ROAD, AS EXTENDED.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES LOCATED ON THE SUBJECT PROPERTY OR THE COUNTY'S CEMETERY SITE MAP.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED IN ACCORDANCE WITH THE MARYLAND STORMWATER DESIGN MANUAL - VOLUMES 1 & 11, ENVIRONMENTAL SITE DESIGN AND CRITERIA OUTLINED IN CHAPTER 5 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME 1.  
A. STORMWATER FILTERING SYSTEMS INCLUDE: BIORETENTION (F-6). THESE SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.  
B. NON-STRUCTURAL PRACTICES:  
-DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) AND SHEET FLOW TO CONSERVATION AREAS (N-3). THESE SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND/OR INDIVIDUAL LOT OWNER.  
C. MICRO-SCALE PRACTICES:  
-ON-LOT DRYWELLS (M-5) AND MICRO-BIORETENTION (M-6) THESE SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE INDIVIDUAL LOT OWNER.  
-OFF-LOT MICRO-SWALE (M-8) AND MICRO-BIORETENTION (M-6) SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- THE SITE IS NOT LOCATED IN THE HISTORIC DISTRICT OR LISTED ON THE HISTORIC SITES INVENTORY.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
- APPROVAL OF THE ECP DOES NOT FORMALIZE THE LOCATION OF THE SPECIMEN TREES AS SHOWN ON THE ECP. GIVEN THE SIZE AND SCALE OF THE PROJECT, DPZ WILL CONTINUE TO EVALUATE THE LOCATION OF THE SPECIMEN TREES AS THE PROJECT PROGRESSES THROUGH THE DEVELOPMENT PROCESS. THERE ARE INSTANCES WHERE THE LOCATION OF THE TREES CHANGE OR NEW TREES ARE IDENTIFIED IN ACCORDANCE WITH FUTURE ONSITE MEETINGS OR DISCUSSIONS. THE NUMBER OF SPECIMEN TREES REQUIRED TO BE REMOVED WILL BE EVALUATED IN FURTHER DETAIL WITH THE INITIAL PLAN.  
1. ANTICIPATED ALTERNATIVE COMPLIANCE REQUEST INCLUDE: REMOVAL OF SPECIMEN TREES, DISTURBANCE TO FLOODPLAIN, ALLOW STEEP SLOPES ON-LOT, DRIVEWAY ACCESS TO MAJOR COLLECTOR ROADWAY.  
2. ANTICIPATED NECESSARY DISTURBANCE REQUESTS INCLUDE DISTURBANCE TO STREAM BUFFERS AND STEEP SLOPES FOR USE-IN-COMMON DRIVEWAY CONSTRUCTION. DISTURBANCE TO STREAM BUFFERS AND STEEP SLOPES FOR STORM DRAIN OUTFALLS AS REQUIRED BY THE HOWARD SOIL CONSERVATION DISTRICT (HSCD).  
3. ANTICIPATED DESIGN MANUAL WAIVERS INCLUDE: REQUEST TO ALLOW MORE THAN 6 USERS ON A USE-IN-COMMON DRIVEWAY

**ENVIRONMENTAL SITE DESIGN NARRATIVE:**

- THE PROJECT SITE IS ZONED RR-DEO, LOCATED IN CLARKSVILLE, MARYLAND ON THE WESTERN SIDE OF SANNER ROAD ACROSS FROM THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY COMPLEX. THE PROJECT CONSISTS OF 3 PARCELS.
  - THE NATURAL AREAS ON THE PROJECT SITE ARE LOCATED THROUGHOUT THE PROJECT SITE, FROM THE EASTERN VALLEYS CLOSEST TO THE SANNER ROAD CULVERT AND FROM THE WESTERN BOUNDARY VALLEY, BOTH EXITING THE NORTHERN BOUNDARY AND ENTERING THE SANNER ROAD TRIBUTARY OF THE MIDDLE PATUXENT RIVER. STREAM BUFFER DISTURBANCE SHALL BE PROTECTED VIA SEDIMENT CONTROLS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT AND MDE. NATURAL AREAS WILL BE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE.
  - NO DRAMATIC DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED. TWO (2) STREAM CROSSINGS ARE PROPOSED TO ACCESS THE BUILDABLE AREAS OF THE PROPERTY AS DEFINED BY THE HOWARD COUNTY HEALTH DEPARTMENT. PLEASE REFER TO THE PROPOSED CONCEPTUAL LAYOUT AND GRADING.
  - THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT INCLUDES THE USE OF FILTERING SYSTEM: BIORETENTION (F-6), NON-STRUCTURAL PRACTICES: DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) AND SHEET FLOW TO CONSERVATION AREAS (N-3), AND MICRO-SCALE PRACTICES: DRYWELLS (M-5), MICRO-BIORETENTION (M-6), AND AND BIOSWALES (M-8).
  - SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF STANDARD TRAPS AND PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
  - STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED IN ACCORDANCE WITH THE MARYLAND STORMWATER DESIGN MANUAL - VOLUMES 1 & 11, ENVIRONMENTAL SITE DESIGN AND CRITERIA OUTLINED IN CHAPTER 5 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME 1.  
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-OFF-LOT MICRO-BIORETENTION (M-6) AND BIOSWALE (M-8) THESE SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".
- TARGET PE = 1.0\*      PROVIDED PE = 1.16\*  
TARGET ESD = 14,431 CF(1)      PROVIDED = 16,751 CF(2)  
(1) ESTIMATED  
(2) MEASURED
- AT THIS CONCEPT STAGE OF DEVELOPMENT, WE ANTICIPATE ALTERNATIVE COMPLIANCE REQUESTS MAY BE REQUIRED FOR:  
A. SPECIMEN TREE REMOVAL.  
B. STREAM / STREAM BUFFER / STEEP SLOPES DISTURBANCE FOR THE TWO (2) STREAM CROSSINGS AND ASSOCIATED DRAINAGE / STORMWATER FEATURES.  
C. DRIVEWAY ACCESS TO MAJOR COLLECTOR.  
D. ENVIRONMENTAL FEATURES ON LOTS LESS THAN 10 ACRES.
  - DESIGN MANUAL WAIVER REQUIRED FOR THE STORMWATER DESIGN.  
A. TO ALLOW MORE THAN SIX (6) USERS ON A COMMON USE DRIVEWAY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

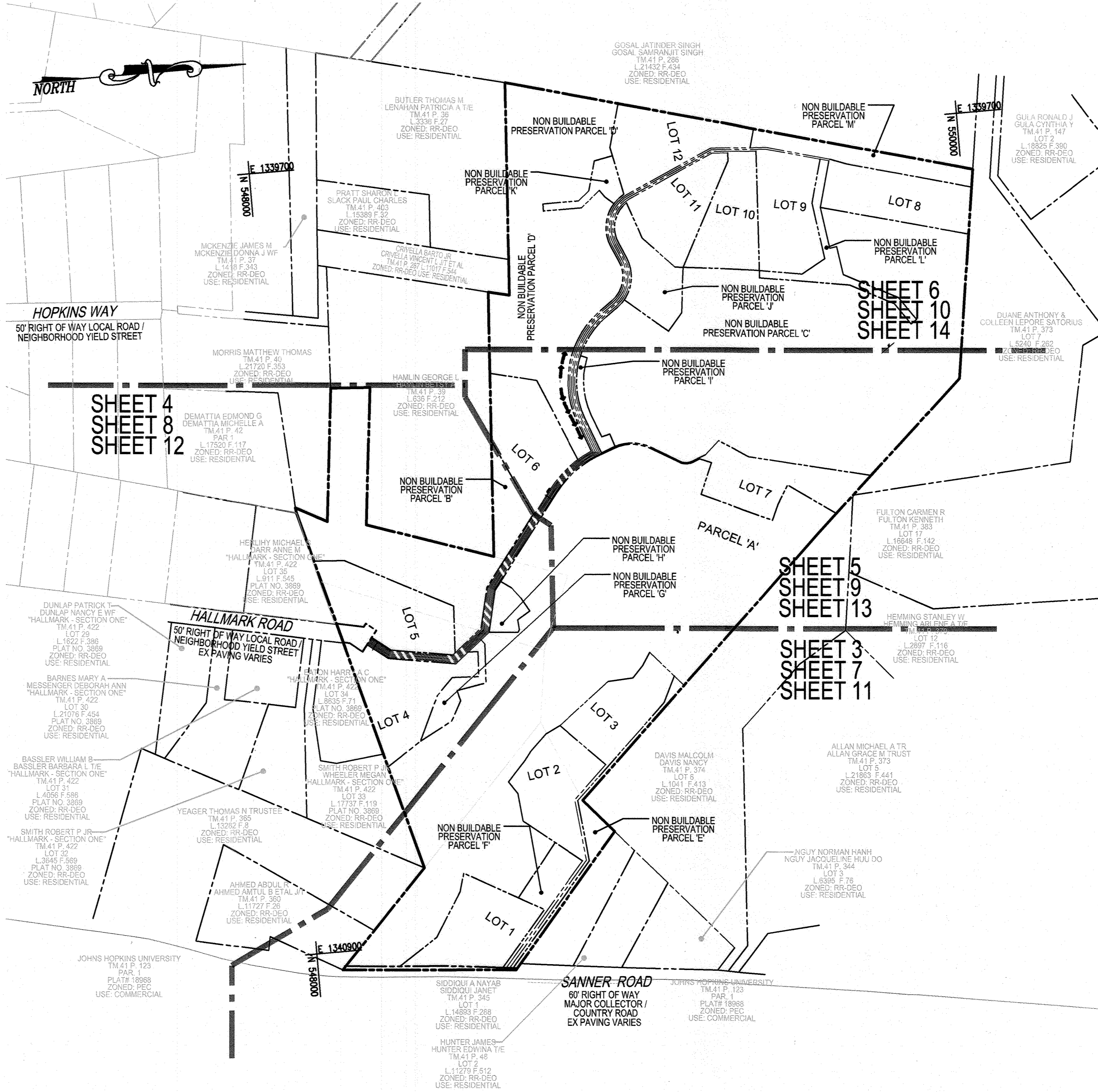
*Chad Clark* 8/18/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 9/17/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

# ENVIRONMENTAL CONCEPT PLAN

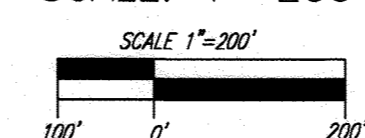
# SANNER ROAD COMMUNITY

LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND  
NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER RD, CLARKSVILLE, MD 21029  
HOWARD COUNTY, MD



LOCATION AND SHEET KEY MAP

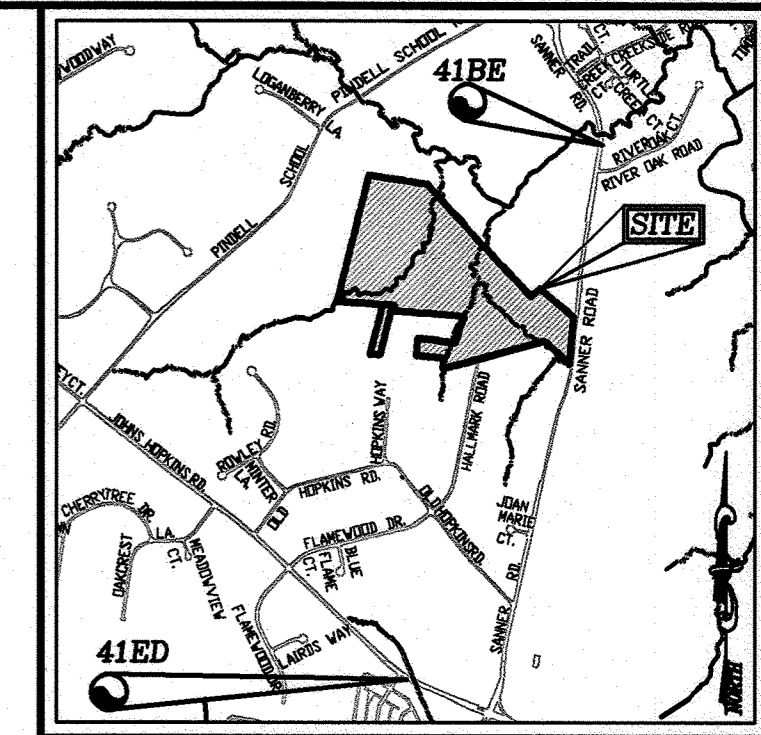
SCALE: 1"=200'



**BENCHMARKS**

HOWARD COUNTY BENCHMARK 41BE (CONC. MON.)  
N 550350.372 E 1341294.709 ELEV. 303.179  
LOCATION: EAST SIDE OF SANNER ROAD SOUTH OF  
BRIDGE, 0.25 MILES SOUTH OF GUILDFORD  
ROAD

HOWARD COUNTY BENCHMARK 41ED (CONC. MON.)  
N 544800.610 E 1339251.127 ELEV. 405.701  
LOCATION: SOUTH SIDE OF JOHNS HOPKINS ROAD  
EAST OF MIDDLETOWN ROAD INTERSECTION  
0.15 MILES WEST OF SANNER ROAD



VICINITY MAP

SCALE: 1"=2000'  
ADC MAP: PAGE: 32 BLOCK: B6, B7, C6 & C7

**LEGEND**

- EXISTING EDGE OF PAVING
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MATCH LINE

**SHEET INDEX**

| DESCRIPTION  | SHEET NO.   |
|--|-------------|
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| LAYOUT PLAN  | 3-6 OF 15   |
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| ESD - STORMWATER MANAGEMENT DRAINAGE AREA MAP              | 11-14 OF 15 |
| ESD - STORMWATER MANAGEMENT NOTES AND DETAILS              | 15 OF 15    |

**SITE ANALYSIS DATA CHART**

|   |  |
|---|--|
| A. TOTAL AREA:                            | 55.89 AC.±                               |
| PARCEL 42:                                | 4.284 AC.±                               |
| PARCEL 47:                                | 45.891 AC.± (P.1)<br>5.715 AC.± (P.2)    |
| B. AREA OF PLAN SUBMISSION:               | 17.0 AC.±                                |
| C. AREA OF WETLANDS AND BUFFERS:          | 0.67 SF                                  |
| D. AREA OF FLOODPLAIN:                    | TO BE DETERMINED                         |
| E. AREA OF FOREST:                        | 56.0 AC. (FSD)                           |
| F. AREA OF STEEP SLOPES (25% & GREATER):  |  |
| ON SITE                                   | 4.53 AC.                                 |
| INSIDE OF LOD                             | 1.15 AC.                                 |
| G. AREA OF ERODIBLE SOILS:                |  |
| ON SITE                                   | 31.27 AC.                                |
| INSIDE OF LOD                             | 3.60 AC.                                 |
| H. LIMIT OF DISTURBED AREA:               | 17.60 AC.                                |
| I. PROPOSED USES FOR SITE AND STRUCTURES: | RESIDENTIAL SINGLE FAMILY DETACHED (SFD) |
| J. GREEN OPEN AREA:                       | 52.6 AC. (WITHIN PROJECT AREA)           |
| K. PROPOSED IMPERVIOUS AREA:              | 3.3 AC.± (WITHIN PROJECT AREA)           |
| L. PRESENT ZONING DESIGNATION:            | RR-DEO                                   |
| M. OPEN SPACE REQUIRED:                   | N/A                                      |
| N. TOTAL NUMBER OF UNITS ALLOWED:         | 13 SFD (55.89/4.25 = 13.15 OR 13 UNITS)  |
| O. TOTAL NUMBER OF UNITS PROPOSED:        | 13 (12 + BUILDABLE PRESERVATION PARCEL)  |
| P. DPZ FILE REFERENCES:                   | N/A                                      |

| NO. | REVISION | DATE |
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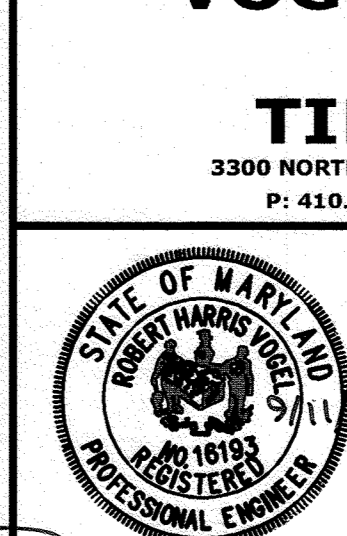
ENVIRONMENTAL CONCEPT PLAN

COVER SHEET

**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029

PARCELS: 42, 47, 267      ZONED: RR-DEO  
TAX MAP: 41 GRD: 10      VINCENT CIRVELLA  
5TH ELECTION DISTRICT      VCRIVELLA@JVSCLAW.COM      WWW.TIMMONSGROUP.COM

**VOGEL ENGINEERING**



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

DESIGN BY: RHV  
DRAWN BY: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

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: 09-27-2024

1 SHEET OF 15

OWNER/DEVELOPER  
VINBAR INVESTMENTS, LLC  
VINCENT CIRVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847



**LEGEND:**

- EXISTING CONTOURS MAJOR
- EXISTING CONTOURS MINOR
- EXISTING EDGE OF PAVING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EX. WETLANDS AREA
- EXISTING TREELINE
- EXISTING TREE
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EX. SEPTIC AREA
- EX. WATER WELL
- EX. STREAM
- EX. STREAM BUFFER
- STEEP SLOPES (25%)
- MODERATE SLOPES (15%-24.99%)

**SOILS LEGEND**

| SYMBOL | NAME/DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GcC    | Gaia loam, 8 to 15 percent slopes                           | B     | 0.35     | YES      |
| GcB    | Glenelg loam, 3 to 8 percent slopes                         | B     | 0.24     | NO       |
| GcA    | Glenelg-urban land complex, 0 to 8 percent slopes           | B     | 0.24     | NO       |
| GmA    | Glenelg silt loam, 0 to 3 percent slopes                    | C/D   | 0.37     | NO       |
| GcB    | Glenelg-Balle silt loams, 0 to 8 percent slopes             | C     | 0.43     | YES      |
| MuS    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| MuC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| MaD    | Manor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| MdD    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MuF    | Manor-Brinklow complex, 25 to 85 percent slopes, very rocky | B     | 0.32     | YES      |
| UuD    | Urban land-urban land complex, 8 to 25 percent slopes       | D     | -        | YES      |

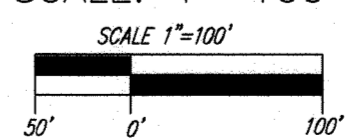
-K VALUES FROM USDA WEB SOIL SURVEY WEBSITE  
-K VALUES PER <https://www.howardad.org/documents> - "K" FACTORS (USE KW)  
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 8 PERCENT \* LIMITS OF PROJECT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 9/19/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**EXISTING CONDITIONS PLAN**  
SCALE: 1"=100'



**OWNER/DEVELOPER**  
VIMBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSOLAW.COM  
(301) 922-3847

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|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**EXISTING CONDITIONS PLAN**  
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AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
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5TH ELECTION DISTRICT  
ZONED: RR-DEO  
HOWARD COUNTY, MARYLAND

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**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: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

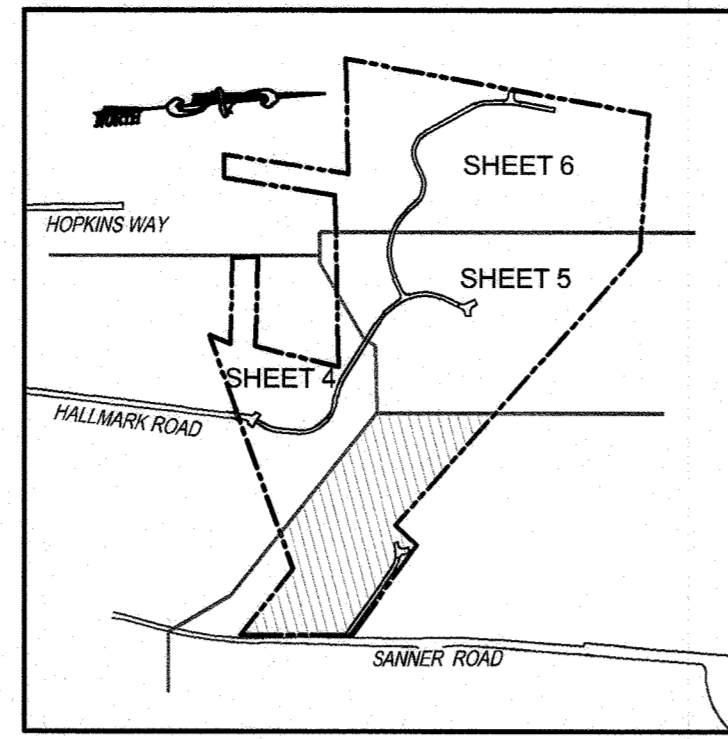
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ROBERT H. VOGEL, PE No.16193

2 SHEET OF 15

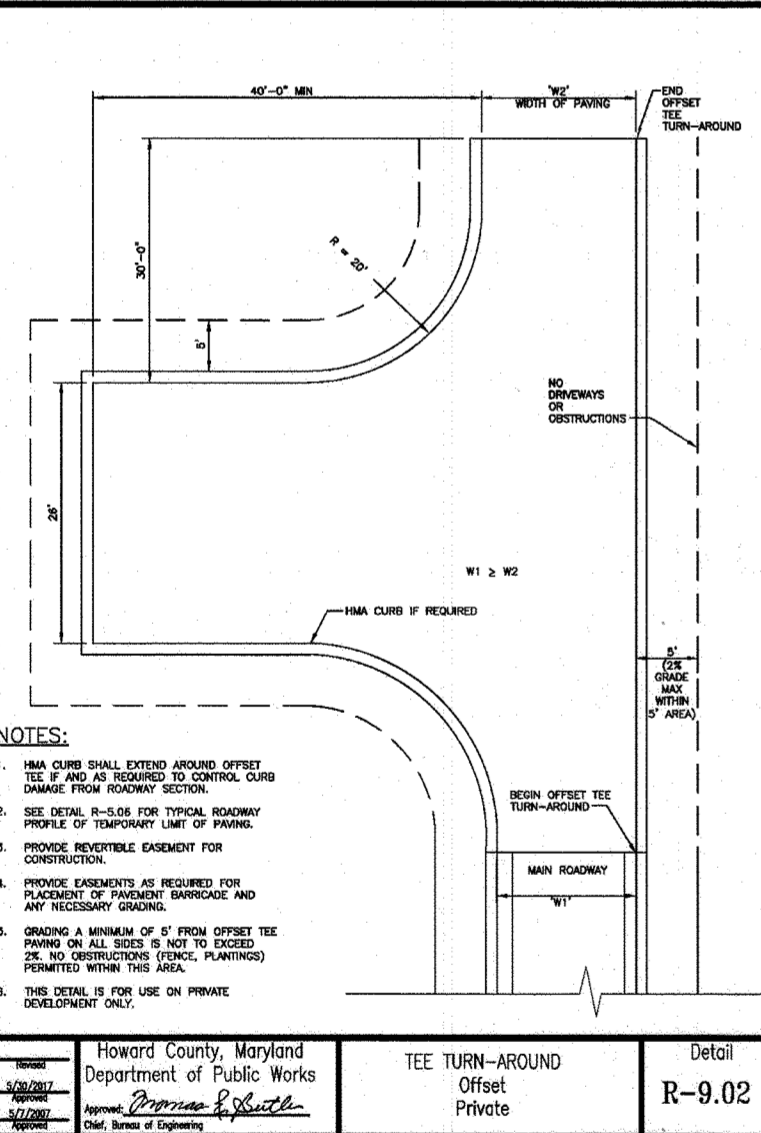
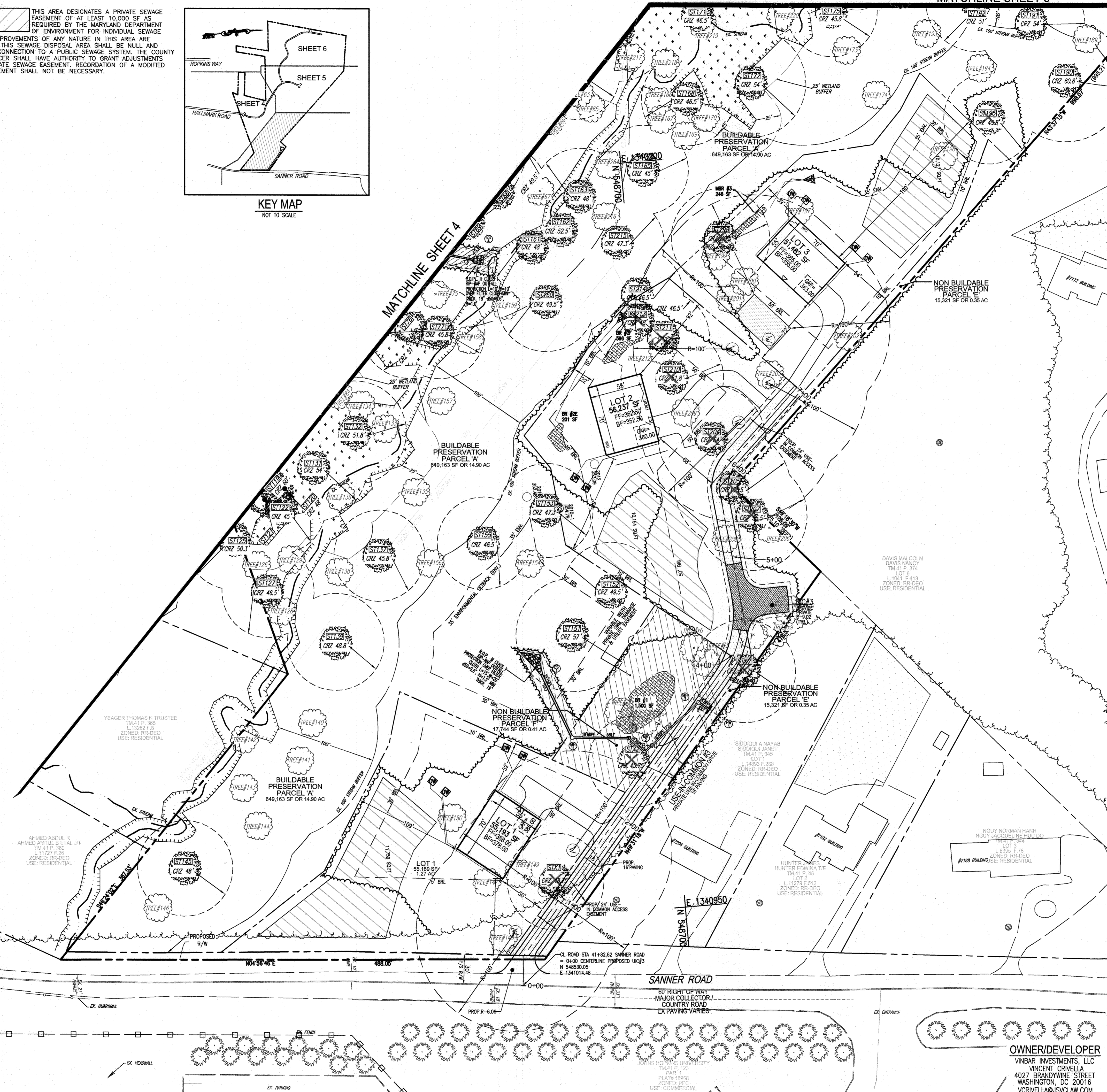
- LEGEND:**
- EXISTING EDGE OF PAVING
  - PROPOSED EDGE OF PAVING
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  - EX. SEPTIC AREA
  - EX. WATER WELL
  - EX. STREAM
  - EX. STREAM BUFFER
  - PROPOSED TREELINE
  - PROP. STORM DRAIN
  - PROP. STORM DRAIN INLET
  - PROP. STORM DRAIN MANHOLE
  - PROP. MICRO-BIOTENTION AND BIOTENTION FILTER AREA
  - PROP. LEVEL SPREADER
  - PROP. DRY WELL
  - PROP. WATER WELL

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.



MATCHLINE SHEET 4

MATCHLINE SHEET 5



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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 9/17/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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|     |          |      |
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN

**SITE LAYOUT PLAN**

**SANNER ROAD COMMUNITY**

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AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'

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ZONED: RR-DEO  
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**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. 18193, EXPIRATION DATE: 09-27-2024

DESIGN BY: RHV  
DRAWN BY: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

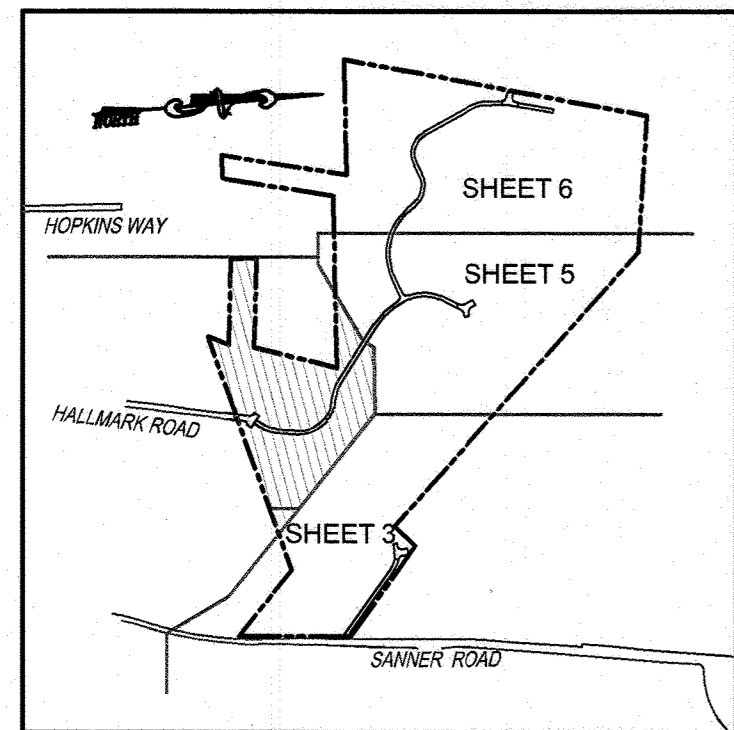
OWNER/DEVELOPER  
VINBAR INVESTMENTS, LLC  
VINCENT GRIVELA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELA@JVCVLA.COM  
(301) 922-3847

STATE OF MARYLAND  
VINCENT GRIVELA  
PROFESSIONAL ENGINEER

3 SHEET OF 15

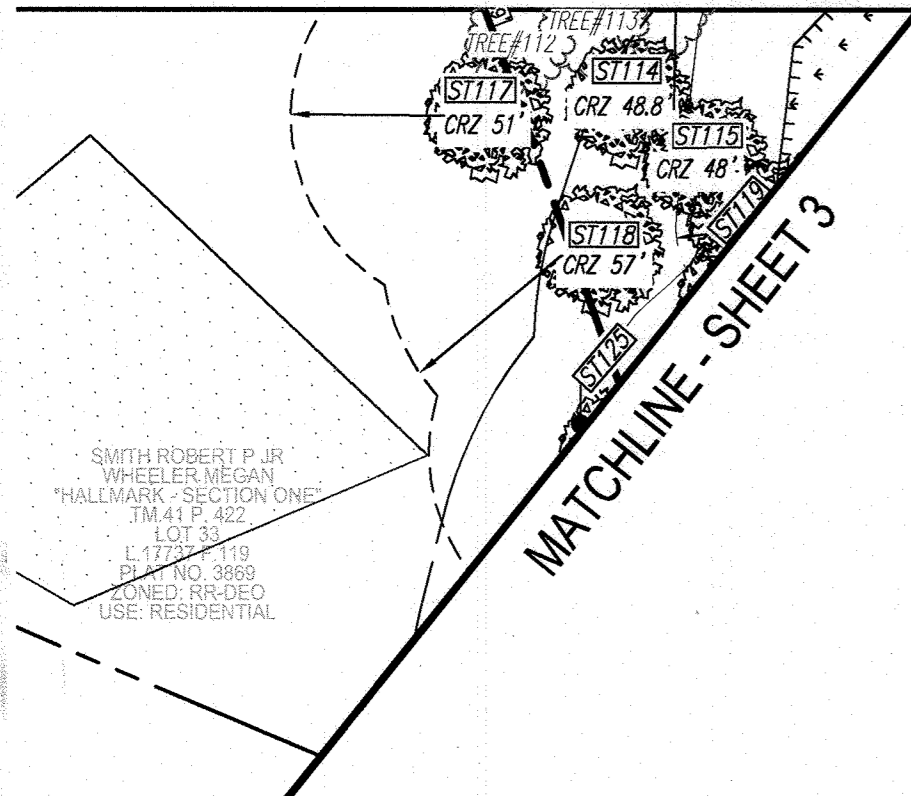
**LEGEND:**

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- PROPOSED EDGE OF PAVING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EX. WETLANDS AREA
- EXISTING TREELINE
- EXISTING TREE
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EXISTING SPECIMEN TREE TO BE REMOVED
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EX. SEPTIC AREA
- EX. WATER WELL
- EX. STREAM
- EX. STREAM BUFFER
- PROPOSED TREELINE
- PROP. STORM DRAIN
- PROP. STORM DRAIN INLET
- PROP. STORM DRAIN MANHOLE
- PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
- PROP. LEVEL SPREADER
- PROP. DRY WELL
- PROP. WATER WELL



**KEY MAP**  
NOT TO SCALE

**MATCHLINE - THIS SHEET**

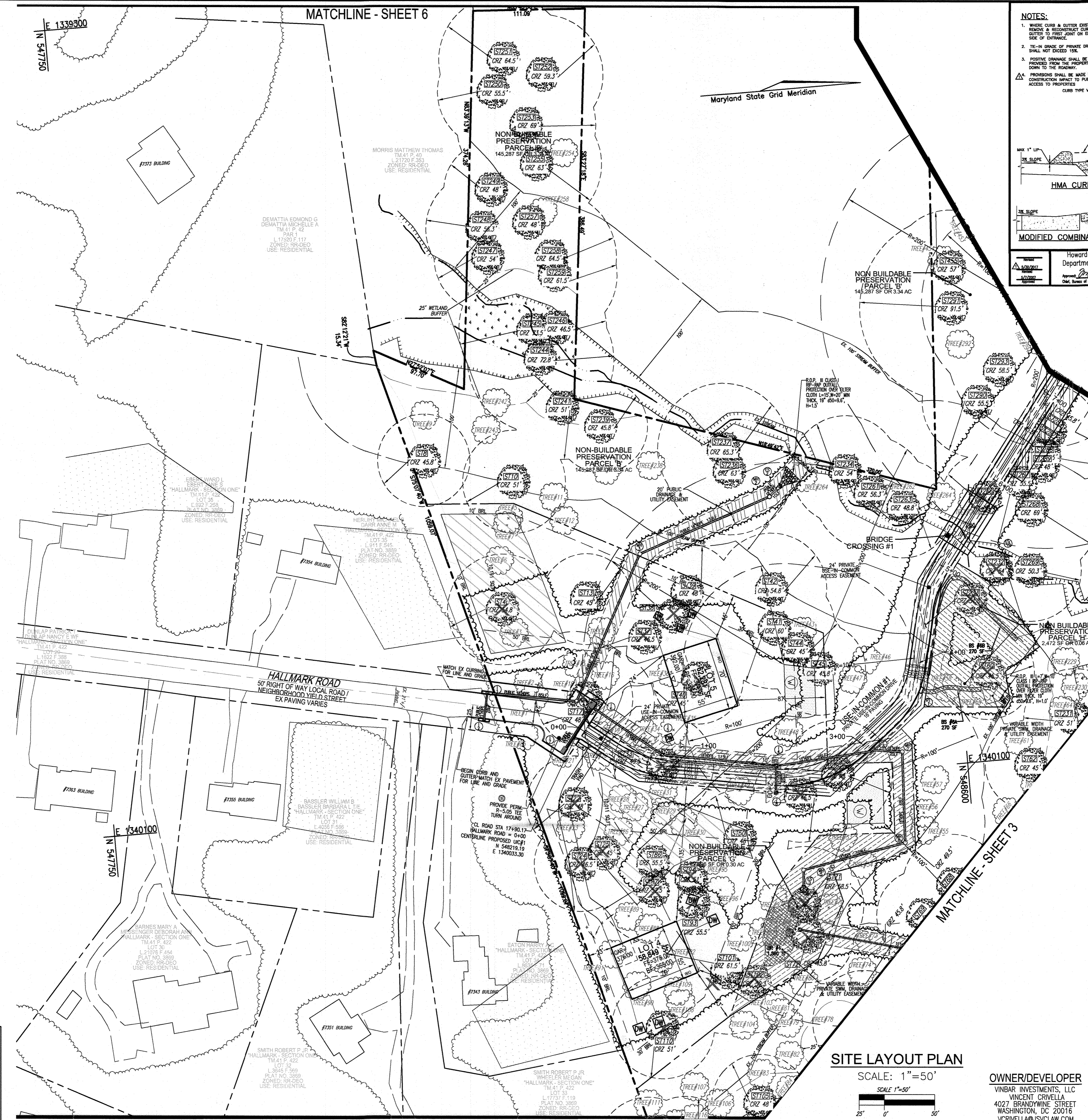


**MATCHLINE - SHEET 3**

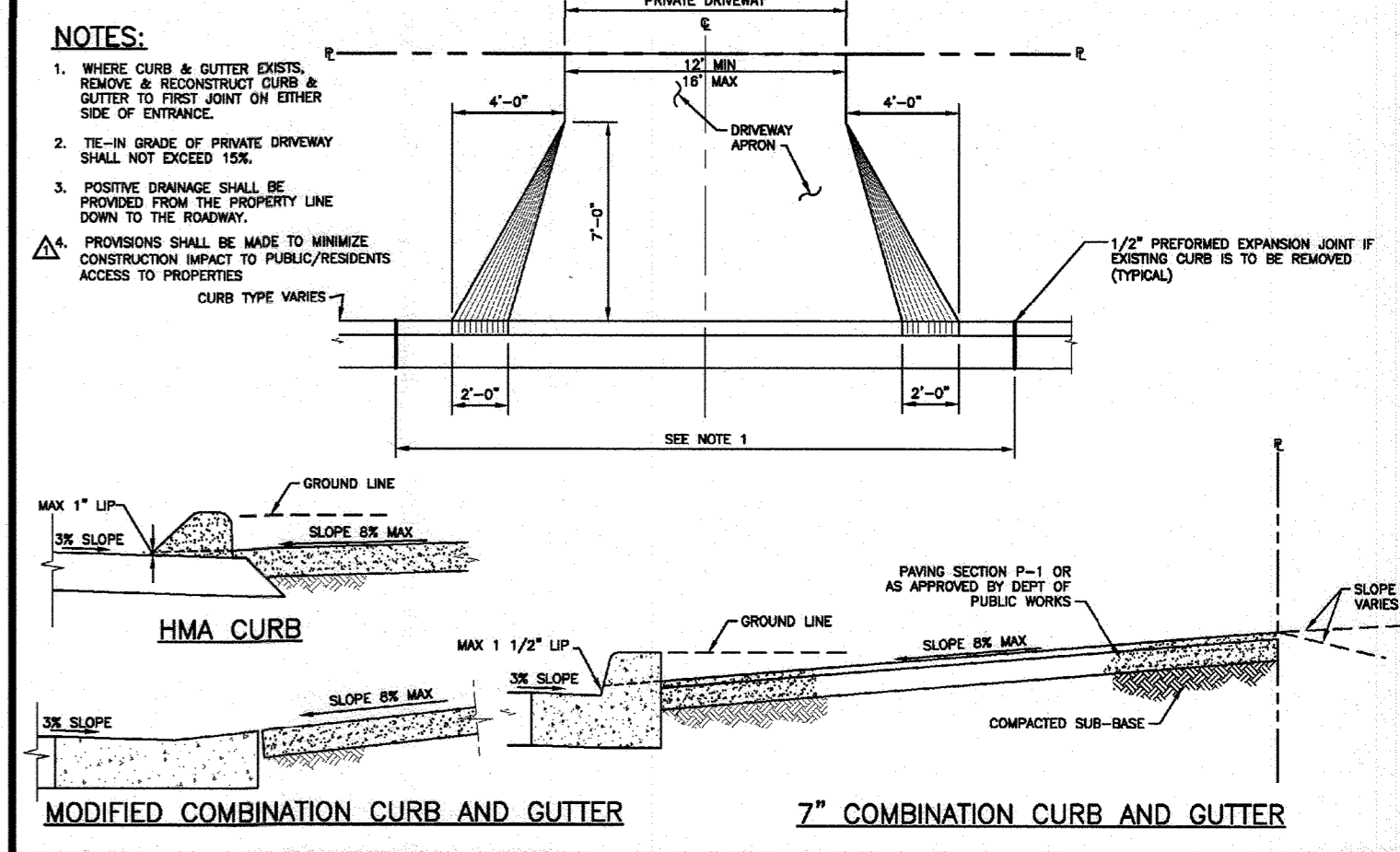
**MATCHLINE - SHEET 5**

**MATCHLINE - SHEET 6**

**MATCHLINE - SHEET 6**



Maryland State Grid Meridian



Howard County, Maryland  
Department of Public Works  
RESIDENTIAL DRIVEWAY ENTRANCE  
Closed Section Roadway  
without Sidewalk  
Detail R-6.05

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**SITE LAYOUT PLAN**  
**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029  
ZONED: RR-DEO  
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: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

4 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 9/19/24

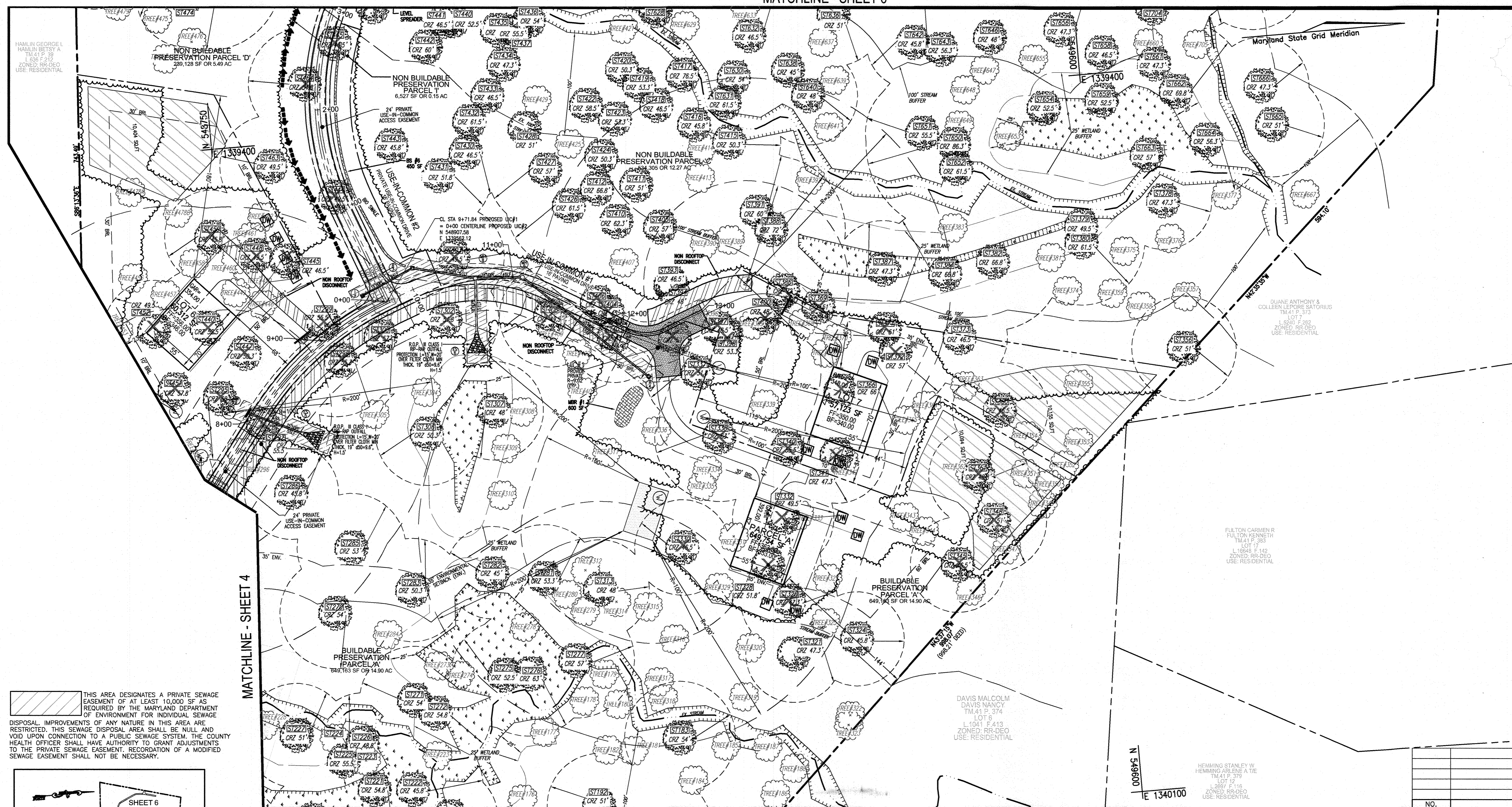
*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 9/17/24

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

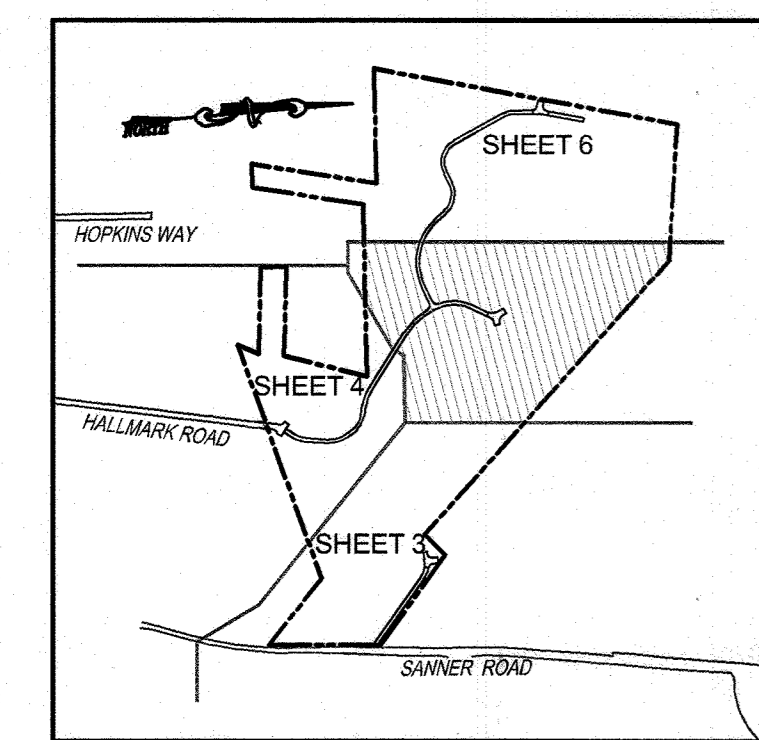
OWNER/DEVELOPER  
VINBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847

LEGEND:

- EXISTING EDGE OF PAVING
- PROPOSED EDGE OF PAVING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
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- EX. WETLANDS AREA
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- EXISTING TREE
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
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- EXISTING FENCE
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- EX. SEPTIC AREA
- EX. WATER WELL
- EX. STREAM
- EX. STREAM BUFFER
- PROPOSED TREELINE
- PROP. STORM DRAIN
- PROP. STORM DRAIN INLET
- PROP. STORM DRAIN MANHOLE
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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 9/17/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SITE LAYOUT PLAN

SCALE: 1" = 50'

SCALE 1" = 50'

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |
|     |          |      |
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN

SITE LAYOUT PLAN  
SANNER ROAD COMMUNITY  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029

PARCELS: 42, 47, 267  
TAX MAP: 41 GRD: 10  
5TH ELECTION DISTRICT

ZONED: RR-DEO  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
+  
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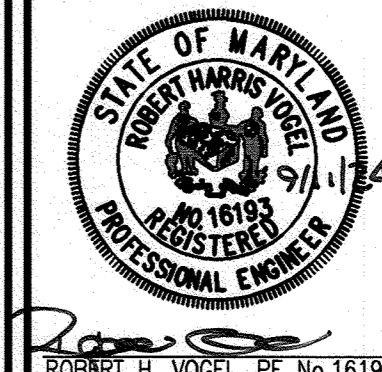
PROFESSIONAL CERTIFICATE

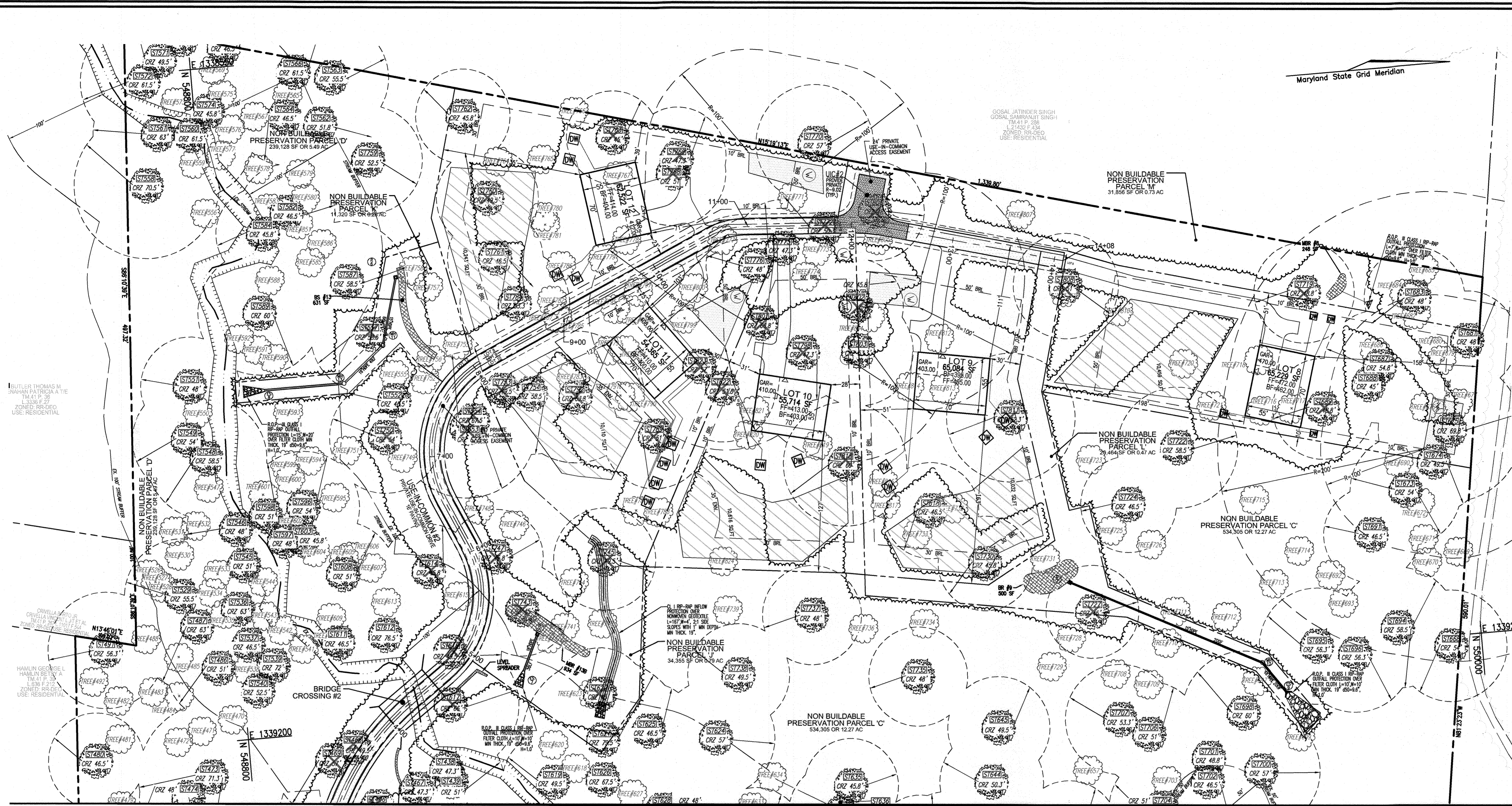
DESIGN BY: RHV  
DRAWN BY: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

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5 SHEET OF 15

OWNER/DEVELOPER  
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VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847





- LEGEND:**
- EXISTING EDGE OF PAVING
  - PROPOSED EDGE OF PAVING
  - EXISTING UTILITY POLE
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  - EXISTING MAILBOX
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  - PROP. WATER WELL

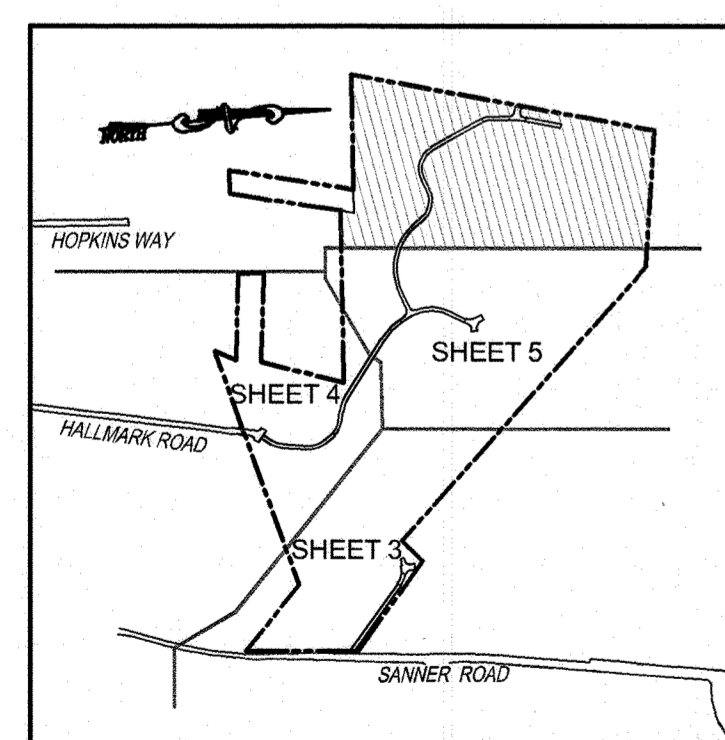
BUTLER THOMAS M.  
JURAHAN PATRICIA A.  
TM 41 P. 38  
L 3336 P. 27  
ZONED RR-DEO  
USE: RESIDENTIAL

HAMLIN GEORGE L.  
HAMLIN BETSY K.  
TM 41 P. 33  
L 3336 P. 27  
ZONED RR-DEO  
USE: RESIDENTIAL

ALL 1/2" OR MORE BELOW PROTECTION OVER NON-BUILDABLE PRESERVATION PARCEL 'J' SHALL BE 12" MIN THICK, 18" MIN DEPTH, AND 18" MIN SPACING.

SATORIUS DUANE ANTHONY  
SATORIUS CELIA L.  
TM 41 P. 37  
L 3336 P. 27  
ZONED RR-DEO  
USE: RESIDENTIAL

MATCHLINE SHEET 5



**KEY MAP**  
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chad Plank* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 9/17/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN

**SITE LAYOUT PLAN**

**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'

7290 SANNER ROAD, CLARKSVILLE, MD 21029

PARCELS: 42, 47, 267  
TAX MAP: 41 GRID: 10  
5TH ELECTION DISTRICT

ZONED: RR-DEO  
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: RHY  
DRAWN BY: ONB  
CHECKED BY: RHY  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

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. 16183, EXPIRATION DATE: 09-27-2024.

6 SHEET OF 15

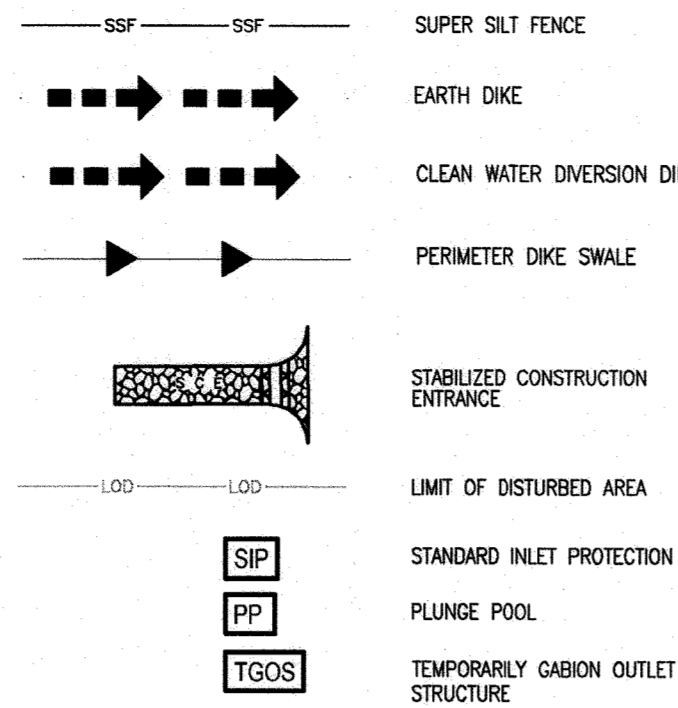
**OWNER/DEVELOPER**  
VINBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@VJCLAW.COM  
(301) 922-3847

NOTE:  
LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE:  
- SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT 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:  
EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

**SEDIMENT CONTROL LEGEND:**



**HSCD NOTES:**

1. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING.
2. THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS AS APPLICABLE.
3. THE FINAL PLAN SUBMISSION SHALL PROVIDE A DRAINAGE AREA MAP SPECIFIC TO CHOSEN SEDIMENT CONTROLS.
4. THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.

**SOILS LEGEND**

| SYMBOL | NAME / DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GcC    | Galla loam, 8 to 15 percent slopes                          | B     | 0.55     | YES      |
| GcB    | Glenala loam, 3 to 8 percent slopes                         | B     | 0.24     | NO       |
| GcB    | Glenala-Urban land complex, 0 to 8 percent slopes           | B     | -        | NO       |
| GmB    | Glenville silt loam, 0 to 3 percent slopes                  | C/D   | 0.37     | NO       |
| GmB    | Glenville-Bale silt loams, 0 to 8 percent slopes            | C     | 0.43     | YES      |
| MgB    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| MgC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| MgD    | Manor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| MgD    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MkF    | Manor-Brinklow complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UdD    | Urban land-Udorthents complex, 8 to 25 percent slopes       | D     | -        | YES      |

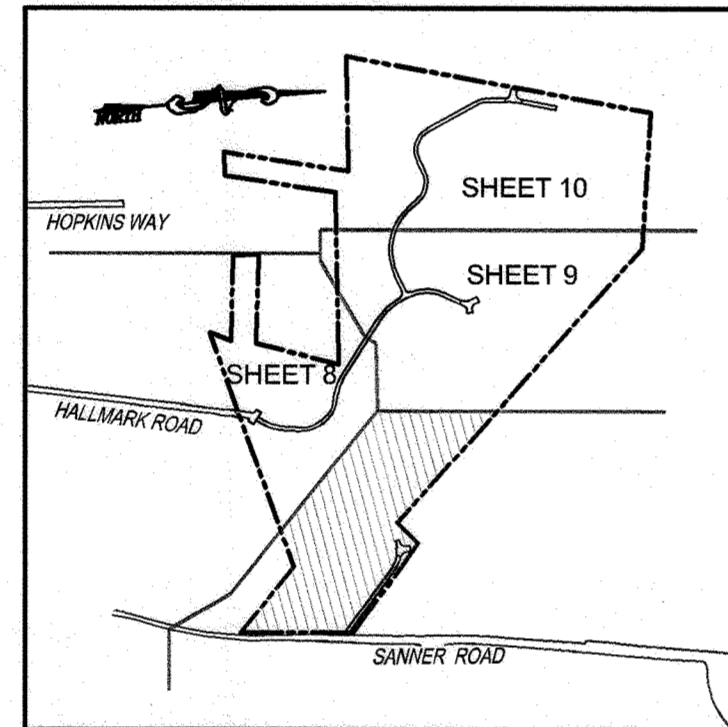
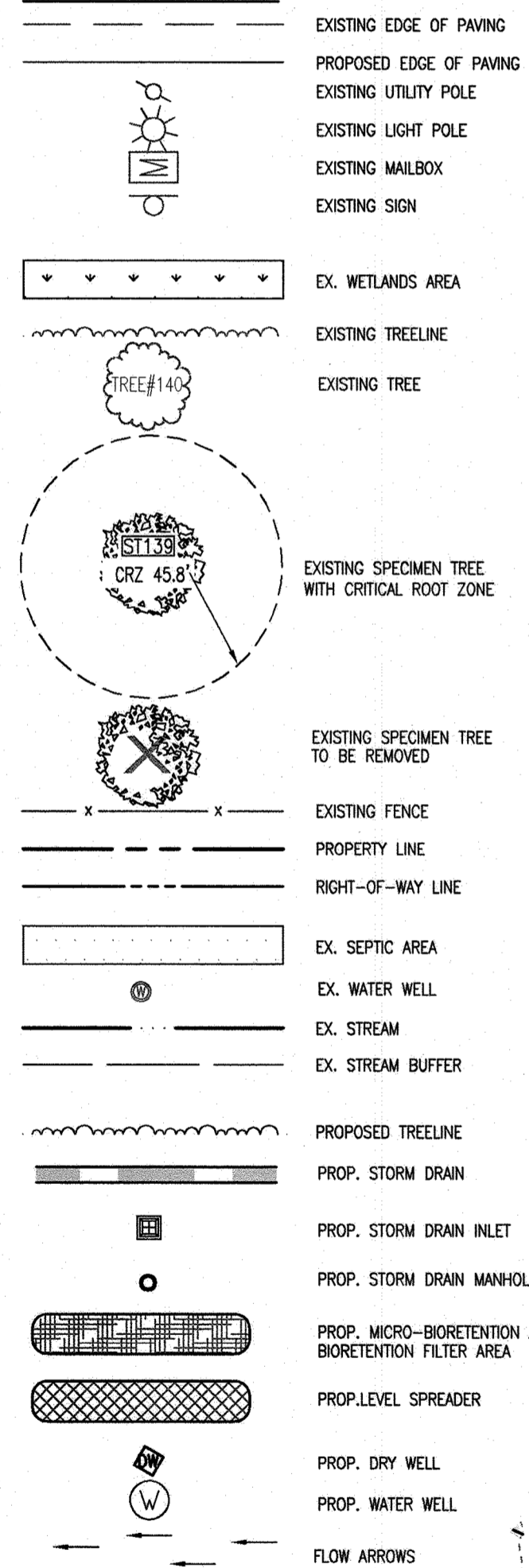
-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE

-K VALUES PER <https://www.howardsd.org/documents> - \*K FACTORS (USE KW)

NOTE:  
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL EROSION FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT \* LIMITS OF PROJECT

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

**LEGEND:**

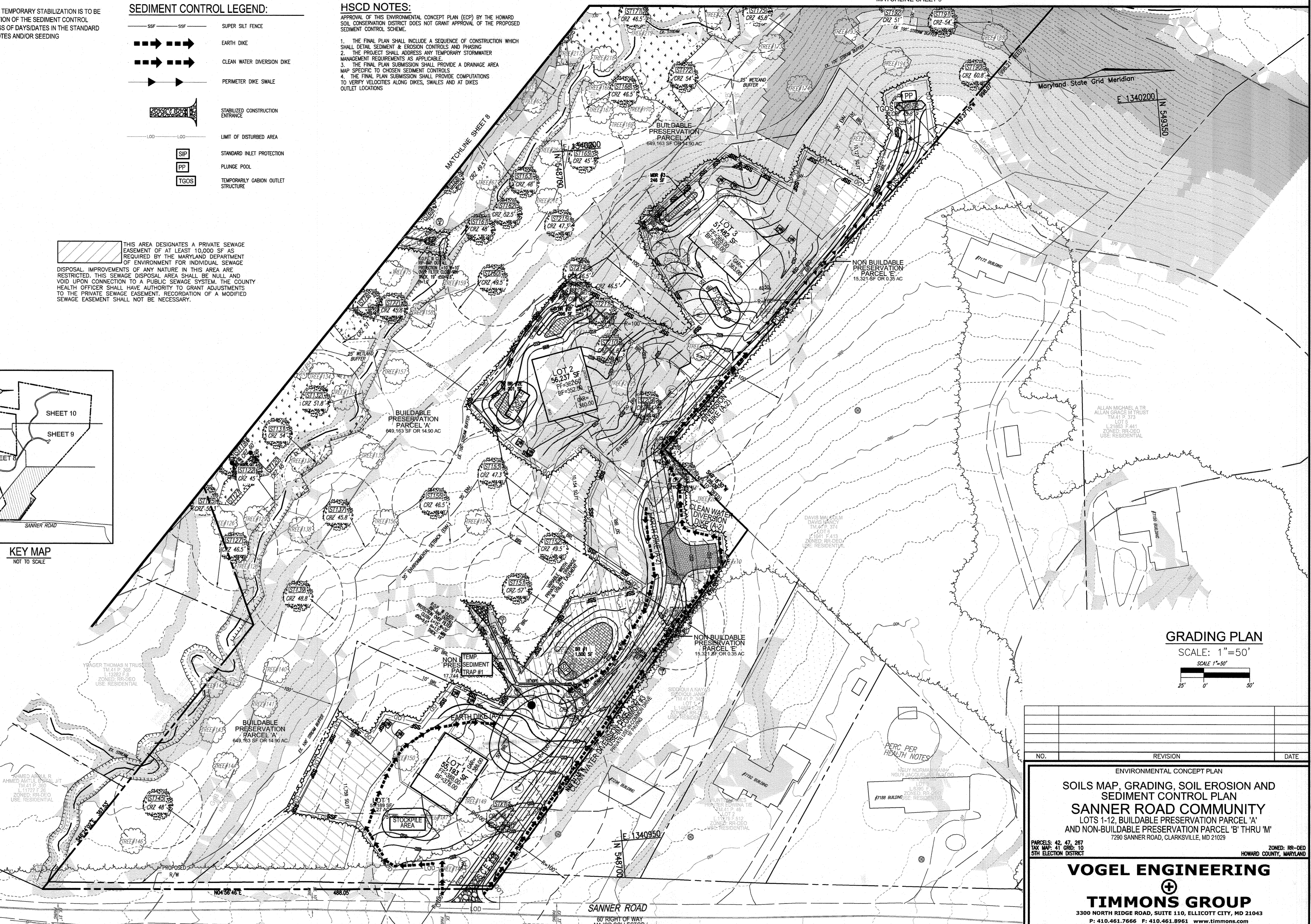


KEY MAP  
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9/19/24

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9/17/24



**GRADING PLAN**  
SCALE: 1"=50'  
SCALE 1"=50'

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**SOILS MAP, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**SANNER ROAD COMMUNITY**  
 LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
 7290 SANNER ROAD, CLARKSVILLE, MD 21029

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
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DESIGN BY: RHV  
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7 SHEET OF 15

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 VINCENT ORNELLA  
 4027 BRANDYWINE STREET  
 WASHINGTON, DC 20016  
 VCRIVELLA@JVSCLAW.COM  
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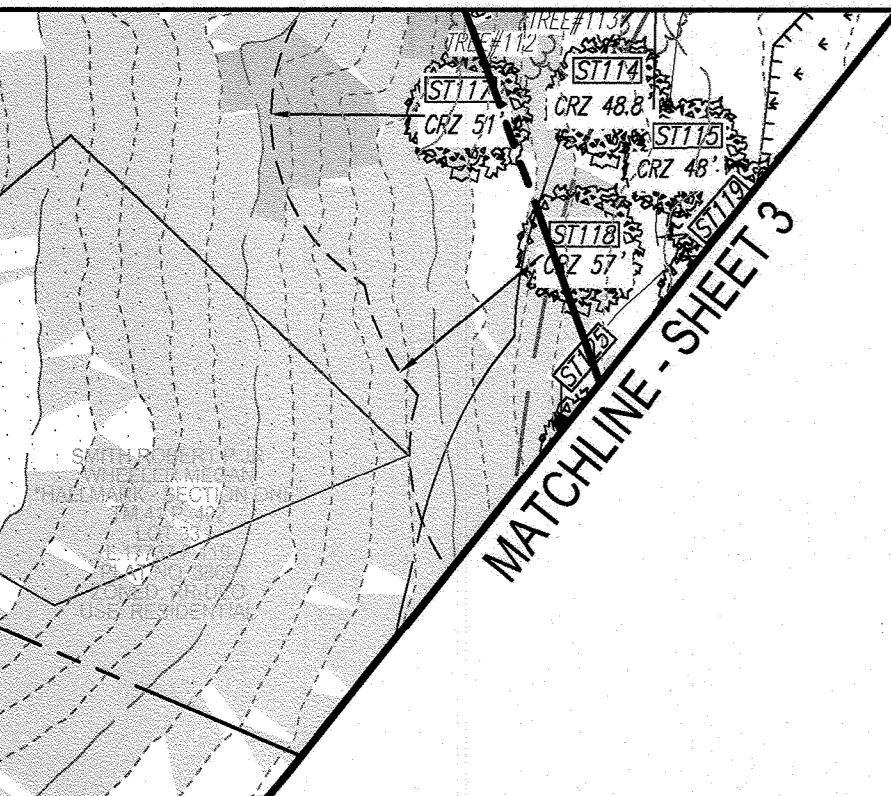
**LEGEND:**

- EXISTING EDGE OF PAVING
- PROPOSED EDGE OF PAVING
- EXISTING UTILITY POLE
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- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EXISTING SPECIMEN TREE TO BE REMOVED
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EX. SEPTIC AREA
- EX. WATER WELL
- EX. STREAM
- EX. STREAM BUFFER
- PROPOSED TREELINE
- PROP. STORM DRAIN
- PROP. STORM DRAIN INLET
- PROP. STORM DRAIN MANHOLE
- PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
- PROP. LEVEL SPREADER
- PROP. DRY WELL
- PROP. WATER WELL
- FLOW ARROWS

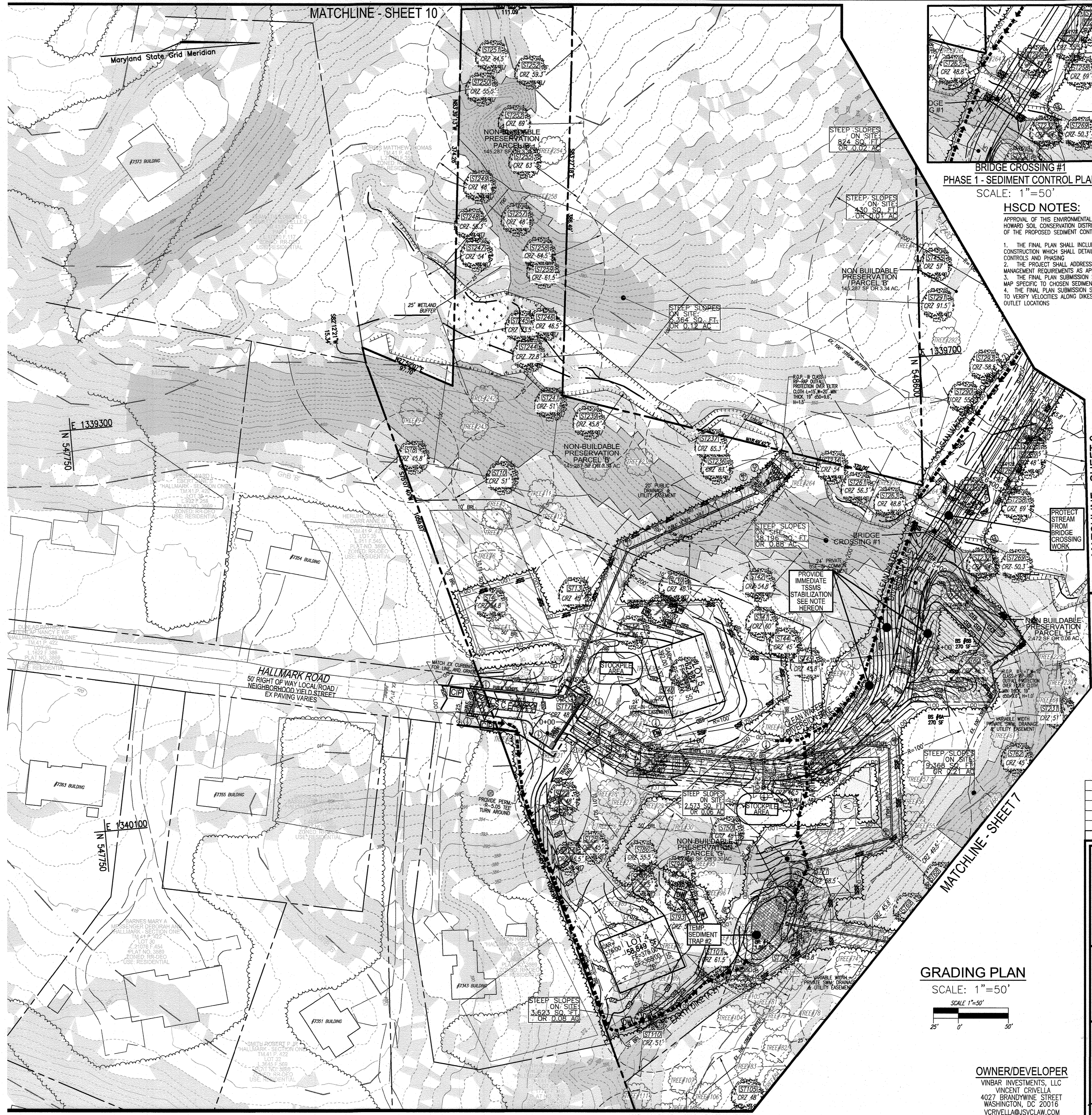
**SEDIMENT CONTROL LEGEND:**

- SSF SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- LOD LIMIT OF DISTURBED AREA
- SIP STANDARD INLET PROTECTION
- CIP CURB INLET PROTECTION
- EARTH DIKE
- CLEAN WATER DIVERSION DIKE
- STOCKPILE AREA

**MATCHLINE - THIS SHEET**

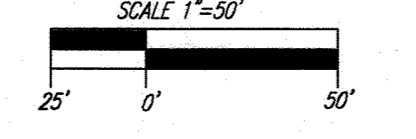


**MATCHLINE - SHEET 10**



**GRADING PLAN**

SCALE: 1"=50'



**SOILS LEGEND**

| SYMBOL | NAME / DESCRIPTION                               | GROUP | K-FACTOR | ERODIBLE |
|--------|--|-------|----------|----------|
| GcC    | Coll. loam, 8 to 15 percent slopes               | B     | 0.55     | YES      |
| GcB    | Coll. loam, 3 to 8 percent slopes                | B     | 0.24     | NO       |
| GcB    | Gen. Urban land complex, 0 to 8 percent slopes   | B     | -        | NO       |
| GmA    | Gentle silt loam, 0 to 3 percent slopes          | C/D   | 0.37     | NO       |
| GcB    | Gentle silt loam, 0 to 8 percent slopes          | C     | 0.43     | YES      |
| MdB    | Minor loam, 3 to 8 percent slopes                | B     | 0.24     | NO       |
| MdC    | Minor loam, 8 to 15 percent slopes               | B     | 0.28     | NO       |
| MdD    | Minor loam, 15 to 25 percent slopes              | B     | 0.28     | YES      |
| MdD    | Minor loam, 15 to 25 percent slopes, very rocky  | B     | 0.28     | YES      |
| MdF    | Minor loam, 15 to 25 percent slopes, very rocky  | B     | 0.32     | YES      |
| UdD    | Urban land-urban complex, 8 to 25 percent slopes | D     | -        | YES      |

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
NOTE: VALUES PER <https://www.howardcount.org/documents> - "K" FACTORS (USE KM)  
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 \* LIMITS OF PROJECT

**BRIDGE CROSSING #1  
PHASE 1 - SEDIMENT CONTROL PLAN**  
SCALE: 1"=50'

**HSCD NOTES:**

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**NOTE:**  
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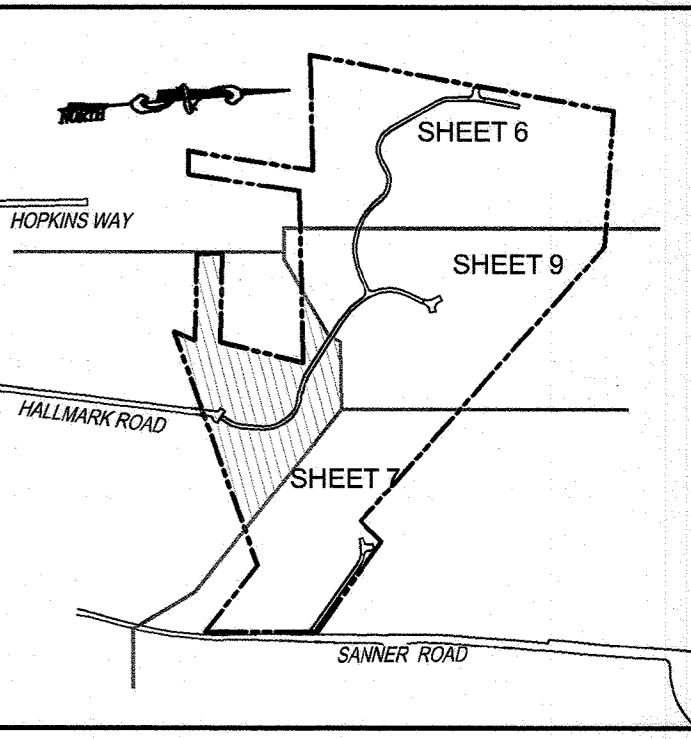
**NOTE:**  
LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

**NOTE:**  
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THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

**IMMEDIATE STABILIZATION NOTE:**  
TSSMS PROTECTION SHALL BE PROVIDED IMMEDIATELY AFTER SLOPE PLACED TO GRADE.

ON A DAILY BASIS, CONTRACTOR SHALL ONLY DISTURB THE USE-IN-COMMON DRIVEWAY AREA WHICH CAN BE IMMEDIATELY STABILIZED.



**KEY MAP**

NOT TO SCALE

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**SOILS MAP, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029

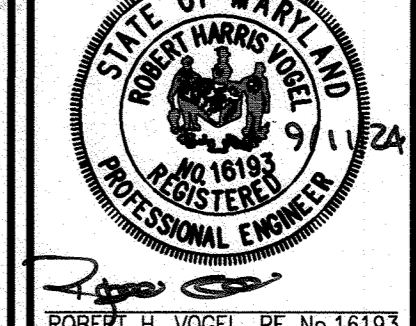
PARCELS: 42, 47, 287  
TAX MAP: 41 GRD: 10  
5TH ELECTION DISTRICT

**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



DESIGN BY: RHV  
DRAWN BY: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

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: 08-27-2024

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Paul Clark* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 9/17/24  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER/DEVELOPER  
VINBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847



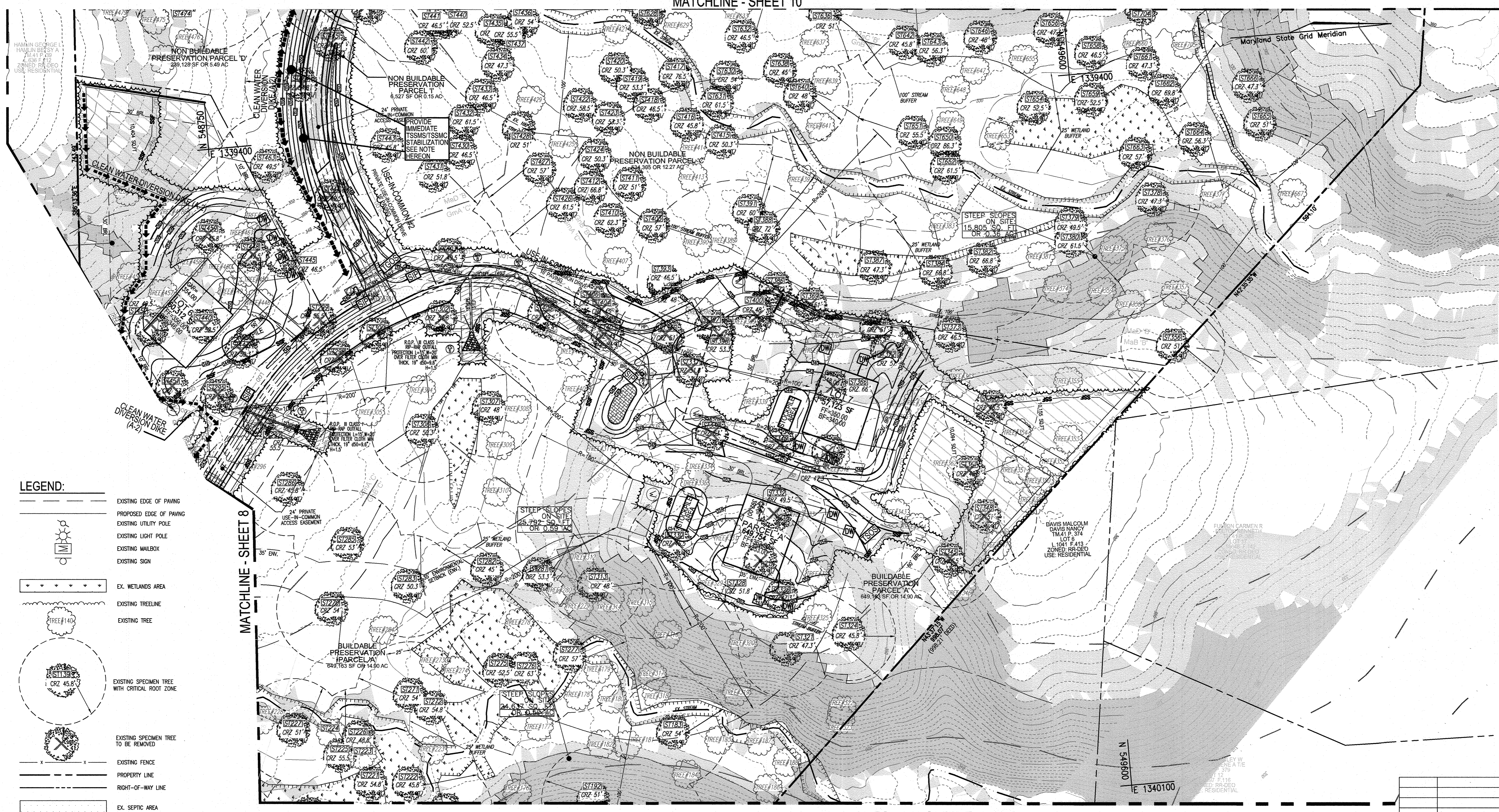
NOTE:  
 - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.  
 - SILT FENCE SHALL BE CURLED UPHILL. NO MORE THAN 35 FEET APART  
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

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IMMEDIATE STABILIZATION NOTE:  
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ON A DAILY BASIS, CONTRACTOR SHALL ONLY DISTURB THE USE-IN-COMMON DRIVEWAY AREA WHICH CAN BE IMMEDIATELY STABILIZED.



- LEGEND:**
- EXISTING EDGE OF PAVING
  - PROPOSED EDGE OF PAVING
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - EXISTING MAILBOX
  - EXISTING SIGN
  - EX. WETLANDS AREA
  - EXISTING TREELINE
  - EXISTING TREE
  - EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
  - EXISTING SPECIMEN TREE TO BE REMOVED
  - EXISTING FENCE
  - PROPERTY LINE
  - RIGHT-OF-WAY LINE
  - EX. SEPTIC AREA
  - EX. WATER WELL
  - EX. STREAM
  - EX. STREAM BUFFER
  - PROPOSED TREELINE
  - PROP. STORM DRAIN
  - PROP. STORM DRAIN INLET
  - PROP. STORM DRAIN MANHOLE
  - PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
  - PROP. LEVEL SPREADER
  - PROP. DRY WELL
  - PROP. WATER WELL
  - FLOW ARROWS

MATCHLINE - SHEET 8

MATCHLINE SHEET 7

**SEDIMENT CONTROL LEGEND:**

- SSF SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- L.O.D. LIMIT OF DISTURBED AREA
- SIP STANDARD INLET PROTECTION
- CIP CURB INLET PROTECTION
- EARTH DIKE
- CLEAN WATER DIVERSION DIKE
- STOCKPILE AREA
- T.S.O.S. TEMPORARY STONE OUTLET STRUCTURE
- T.G.O.S. TEMPORARY GABION OUTLET STRUCTURE

**HSCD NOTES:**

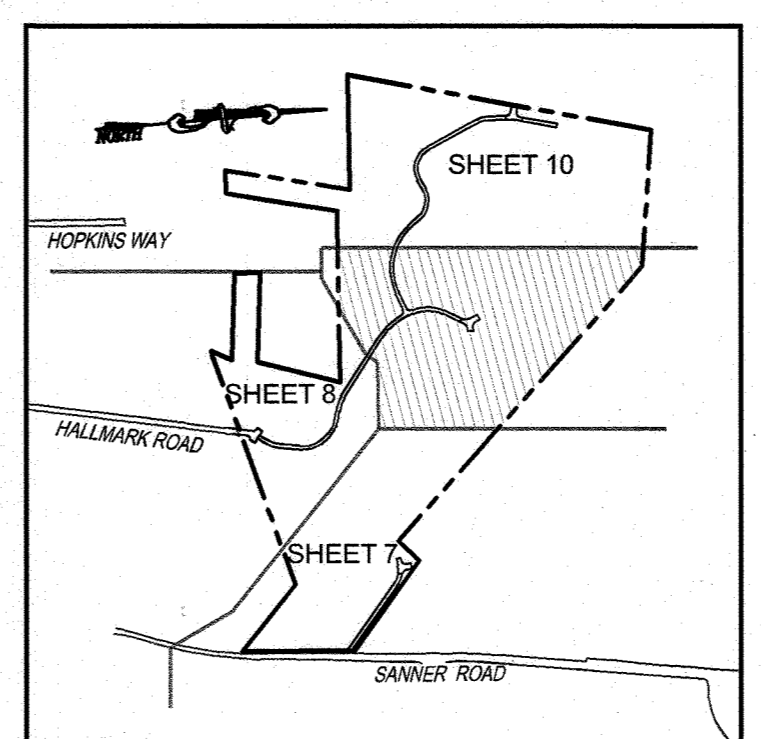
APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.

- THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING.
- THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS AS APPLICABLE.
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- THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.

**SOILS LEGEND**

| SYMBOL | NAME/DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GcC    | Goldsboro loam, 8 to 15 percent slopes                      | B     | 0.55     | YES      |
| GcB    | Goldsboro loam, 3 to 8 percent slopes                       | B     | 0.24     | NO       |
| GcB    | Genesee-Urban land complex, 0 to 8 percent slopes           | B     | -        | NO       |
| GmA    | Glenville silt loam, 0 to 3 percent slopes                  | C/D   | 0.37     | NO       |
| GnB    | Glenville-Balle silt loams, 0 to 8 percent slopes           | C     | 0.43     | YES      |
| MdB    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| MdC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| MdD    | Manor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| MdD    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MkF    | Manor-Brinklow complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UdD    | Urban land-Urban/Thrifts complex, 8 to 25 percent slopes    | D     | -        | YES      |

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
 \* K VALUES PER <https://www.howarddcd.org/documents> - "Y" FACTORS (USE KW)  
 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 \* LIMITS OF PROJECT



**GRADING PLAN**

SCALE: 1"=50'  
 SCALE: 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9/19/24

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9/17/24

OWNER/DEVELOPER  
 VINBAR INVESTMENTS, LLC  
 VINCENT CRIVELLA  
 4027 BRANDYWINE STREET  
 WASHINGTON, DC 20016  
 VORVELLA@VJCLAW.COM  
 (301) 922-3847

| NO. | REVISION | DATE |
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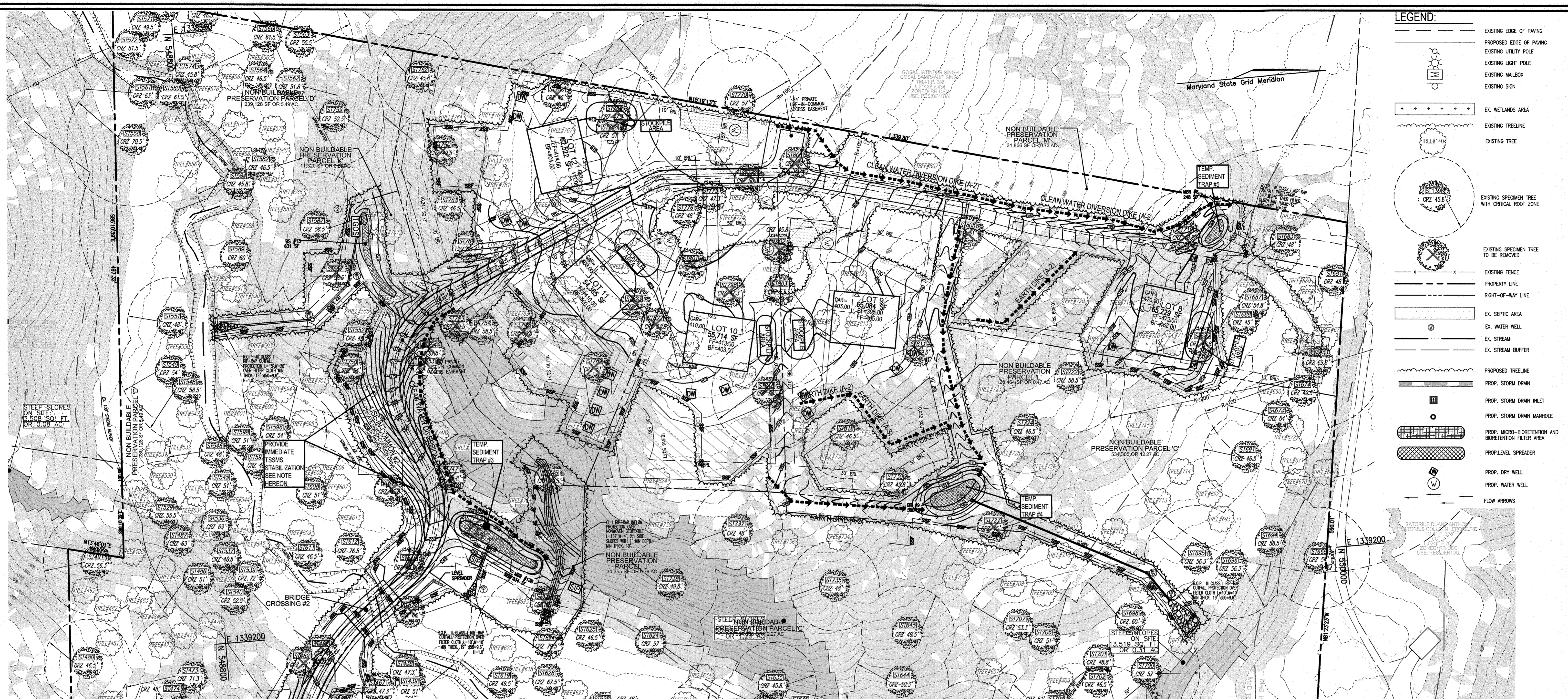
ENVIRONMENTAL CONCEPT PLAN  
**SOILS MAP, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**SANNER ROAD COMMUNITY**  
 LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
 7290 SANNER ROAD, CLARKSVILLE, MD 21029

**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 DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

DESIGN BY: RHV  
 DRAWN BY: ONB  
 CHECKED BY: RHV  
 DATE: JULY 2024  
 SCALE: AS SHOWN  
 W.O. NO.: 58692

9 SHEET OF 15

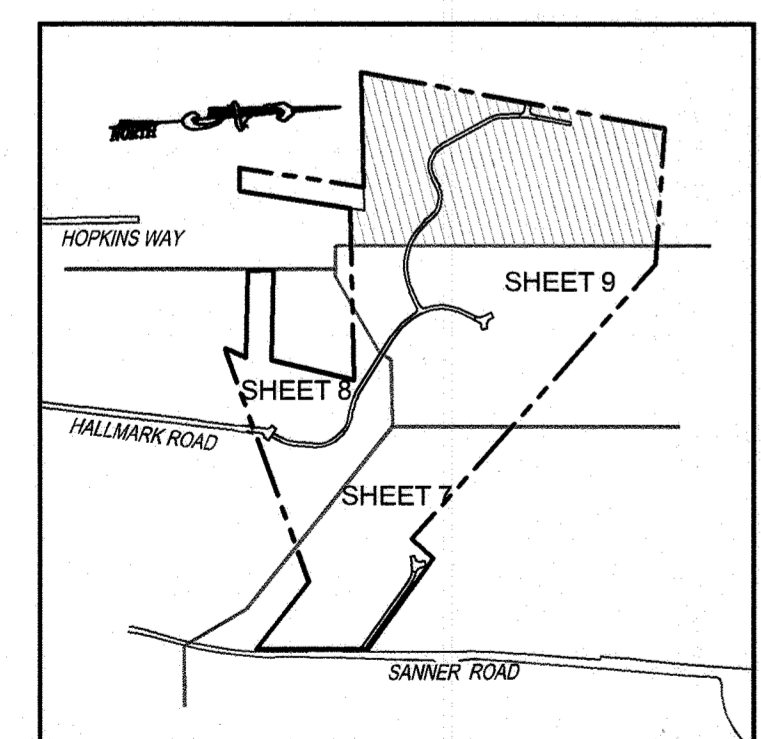
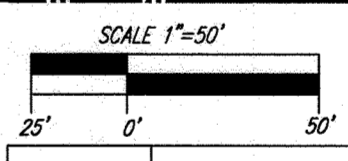


**LEGEND:**

|  |   |
|--|---|
|  | EXISTING EDGE OF PAVING                                   |
|  | PROPOSED EDGE OF PAVING                                   |
|  | EXISTING UTILITY POLE                                     |
|  | EXISTING LIGHT POLE                                       |
|  | EXISTING MAILBOX  |
|  | EXISTING SIGN   |
|  | EX. WETLANDS AREA   |
|  | EXISTING TREELINE   |
|  | EXISTING TREE   |
|  | EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE            |
|  | EXISTING SPECIMEN TREE TO BE REMOVED                      |
|  | EXISTING FENCE  |
|  | PROPERTY LINE   |
|  | RIGHT-OF-WAY LINE   |
|  | EX. SEPTIC AREA   |
|  | EX. WATER WELL  |
|  | EX. STREAM  |
|  | EX. STREAM BUFFER   |
|  | PROPOSED TREELINE   |
|  | PROP. STORM DRAIN   |
|  | PROP. STORM DRAIN INLET                                   |
|  | PROP. STORM DRAIN MANHOLE                                 |
|  | PROP. MICRO-BORE-INJECTION AND BORE-INJECTION FILTER AREA |
|  | PROP. LEVEL SPREADER                                      |
|  | PROP. DRY WELL  |
|  | PROP. WATER WELL  |
|  | FLOW ARROWS   |

MATCHLINE - SHEET 9

**GRADING PLAN**  
SCALE: 1"=50'



KEY MAP  
NOT TO SCALE

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTIVE. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECOORDINATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

**SOILS LEGEND**

| SYMBOL | NAME / DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| Gc     | Colla loam, 8 to 15 percent slopes                          | B     | 0.55     | YES      |
| GcB    | Glenns loam, 3 to 8 percent slopes                          | B     | 0.24     | NO       |
| GcB    | Glenns-Urban land complex, 0 to 8 percent slopes            | B     | -        | NO       |
| GmA    | Glennville silt loam, 0 to 3 percent slopes                 | C/D   | 0.37     | NO       |
| GcB    | Glennville-Belle silt loams, 0 to 8 percent slopes          | C     | 0.43     | YES      |
| McB    | Monor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| McC    | Monor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| McD    | Monor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| McD    | Monor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MkF    | Monor-Britains complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UdD    | Urban land-Udorthensis complex, 8 to 25 percent slopes      | D     | -        | YES      |

-K- VALUES PER <https://www.howardsd.org/documents> - "K" FACTORS (USE "KW")  
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 \* LIMITS OF PROJECT

**SEDIMENT CONTROL LEGEND:**

|  |                                   |
|--|-----------------------------------|
|  | SUPER SILT FENCE                  |
|  | STABILIZED CONSTRUCTION ENTRANCE  |
|  | LIMIT OF DISTURBED AREA           |
|  | STANDARD INLET PROTECTION         |
|  | CURB INLET PROTECTION             |
|  | EARTH DIKE                        |
|  | CLEAN WATER DIVERSION DIKE        |
|  | STOCKPILE AREA                    |
|  | TEMPORARY STONE OUTLET STRUCTURE  |
|  | TEMPORARY GABION OUTLET STRUCTURE |

IMMEDIATE STABILIZATION NOTE:  
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**HSCD NOTES:**

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- THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS

**OWNER/DEVELOPER**  
VINBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 9.19.24

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 9/19/24

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |
|     |          |      |
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**SOILS MAP, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029  
ZONED: RR-DEO  
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: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.O. NO.: 58692

STATE OF MARYLAND  
ROBERT H. VOGEL, PE No. 16193  
PROFESSIONAL ENGINEER

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

10 SHEET OF 15

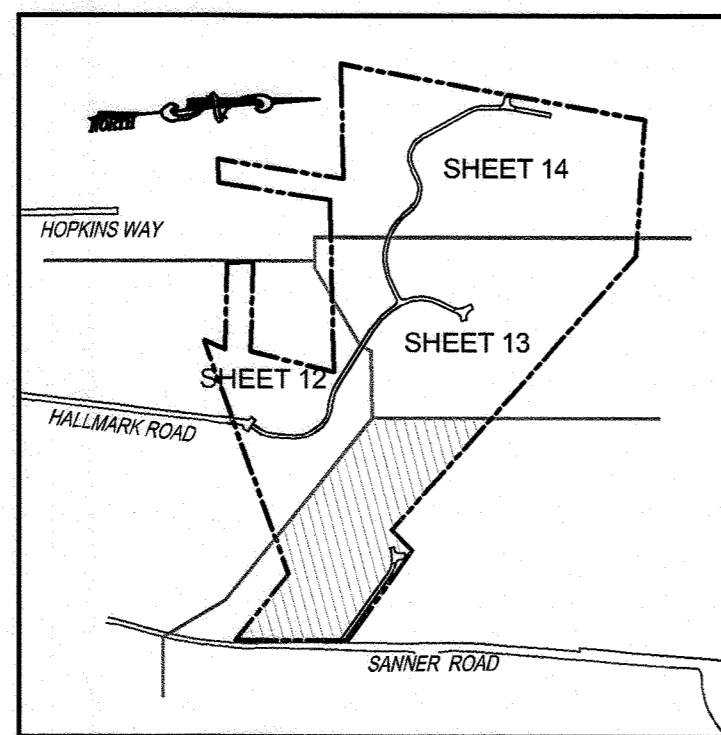
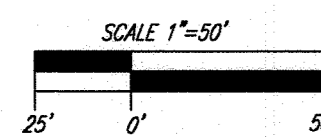
**LEGEND:**

- EXISTING CONTOURS MAJOR
- EXISTING CONTOURS MINOR
- EXISTING EDGE OF PAVING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
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- EXISTING SPECIMEN TREE TO BE REMOVED
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- EX. SEPTIC AREA
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- EX. STREAM
- EX. STREAM BUFFER
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- PROP. STORM DRAIN
- PROP. STORM DRAIN INLET
- PROP. STORM DRAIN MANHOLE
- PROP. MICRO-BIOTRETENTION AND BIOTRETENTION FILTER AREA
- PROP. LEVEL SPREADER
- PROP. DRY WELL
- PROP. WATER WELL
- FLOW ARROWS
- PROP. SWM DRAINAGE DIVIDE
- PROP. OFFSITE SWM DRAINAGE DIVIDE

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

**ESD STORMWATER DRAINAGE AREA MAP**

SCALE: 1"=50'



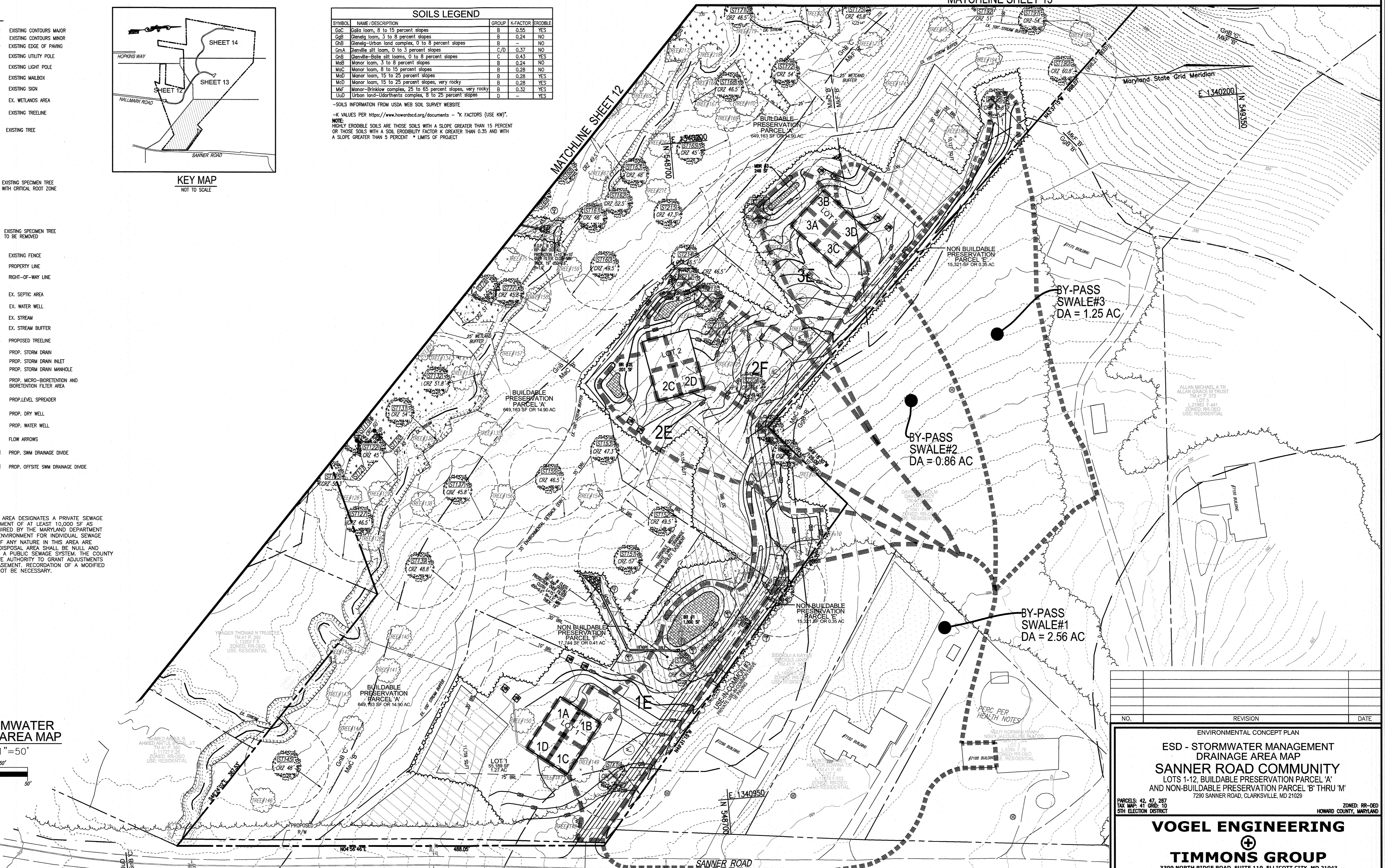
**KEY MAP**  
NOT TO SCALE

**SOILS LEGEND**

| SYMBOL | NAME/DESCRIPTION  | GROUP | K FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GcC    | Clay loam, 8 to 15 percent slopes                           | B     | 0.55     | YES      |
| GcB    | Clay loam, 3 to 8 percent slopes                            | B     | 0.24     | NO       |
| GcB    | Clay loam, 0 to 3 percent slopes                            | B     | -        | NO       |
| GmA    | Clay silt loam, 0 to 3 percent slopes                       | C/D   | 0.37     | NO       |
| GcB    | Clay loam, 8 to 15 percent slopes                           | C     | 0.43     | YES      |
| MdB    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| MdC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| MdD    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MdF    | Manor-Brinklow complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UdD    | Urban land-Udorthents complex, 8 to 25 percent slopes       | D     | -        | YES      |

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
-K VALUES PER <https://www.howardcd.org/documents> - \*K FACTORS (USE KW)  
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MATCHLINE SHEET 13



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9/19/24  
  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9/19/24

OWNER/DEVELOPER  
 VINBAR INVESTMENTS, LLC  
 VINCENT CRIVELLA  
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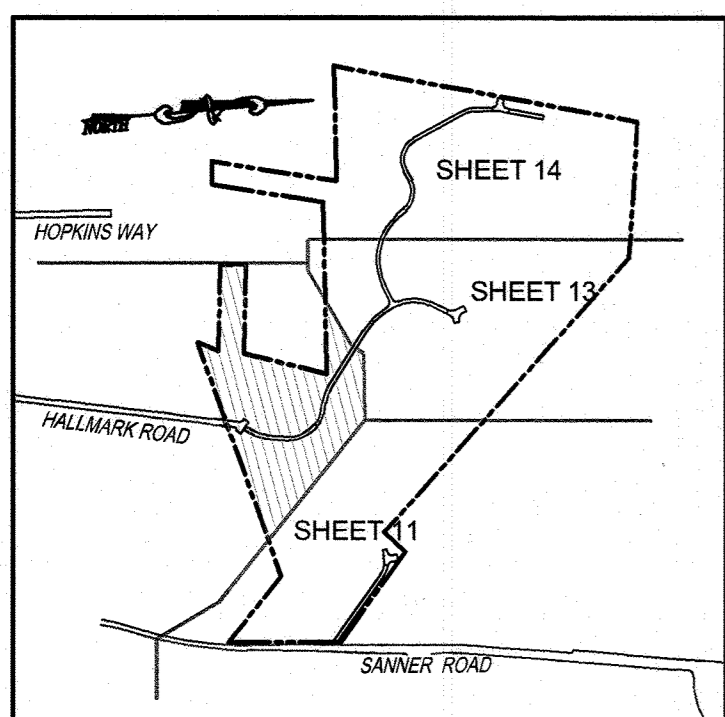
ENVIRONMENTAL CONCEPT PLAN  
**ESD - STORMWATER MANAGEMENT DRAINAGE AREA MAP**  
**SANNER ROAD COMMUNITY**  
 LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
 AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
 7290 SANNER ROAD, CLARKSVILLE, MD 21029  
 PARCELS: 42, 47, 287  
 TAX MAP: 41 GRID: 10  
 5TH ELECTION DISTRICT  
 ZONED: RR-DEO  
 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: RHY  
 DRAWN BY: ONB  
 CHECKED BY: RHY  
 DATE: JULY 2024  
 SCALE: AS SHOWN  
 W.O. NO.: 58692  
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 11 SHEET OF 15

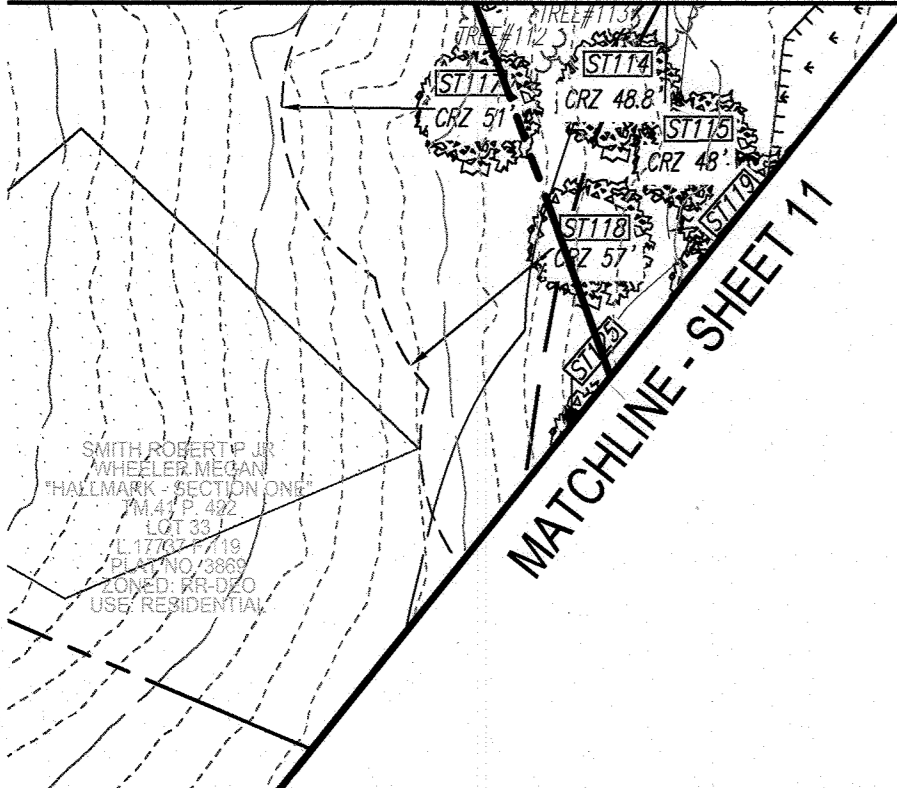
**LEGEND:**

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- EXISTING CONTOURS MINOR
- EXISTING EDGE OF PAVING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
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- EX. WETLANDS AREA
- EXISTING TREELINE
- EXISTING TREE
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EXISTING SPECIMEN TREE TO BE REMOVED
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EX. SEPTIC AREA
- EX. WATER WELL
- EX. STREAM
- EX. STREAM BUFFER
- PROPOSED TREELINE
- PROP. STORM DRAIN
- PROP. STORM DRAIN INLET
- PROP. STORM DRAIN MANHOLE
- PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
- PROP. LEVEL SPREADER
- PROP. DRY WELL
- PROP. WATER WELL
- FLOW ARROWS
- PROP. SWM DRAINAGE DIVIDE



**KEY MAP**  
NOT TO SCALE

**MATCHLINE - THIS SHEET**



MATCHLINE - SHEET 11

MATCHLINE - SHEET 14



THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA. RESTRICTED THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

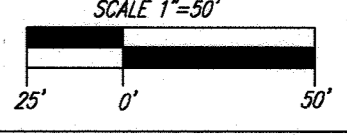
**SOILS LEGEND**

| SYMBOL | NAME/DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GoC    | Golla loam, 8 to 15 percent slopes                          | B     | 0.55     | YES      |
| GcB    | Gennig loam, 3 to 8 percent slopes                          | B     | 0.24     | NO       |
| GnB    | Gennig-Urban land complex, 0 to 8 percent slopes            | B     | -        | NO       |
| GnA    | Genville silt loam, 0 to 3 percent slopes                   | C/D   | 0.37     | NO       |
| GnB    | Genville-Balle silt loams, 0 to 8 percent slopes            | C     | 0.43     | YES      |
| MdB    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| MdC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| MdB    | Manor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| MdC    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MkF    | Manor-Brinklow complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UdU    | Urban land-Udorthents complex, 8 to 25 percent slopes       | D     | -        | YES      |

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
-K VALUES PER <https://www.howardscl.org/documents> - \*K FACTORS (USE KW)  
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 \* LIMITS OF PROJECT

**ESD STORMWATER DRAINAGE AREA MAP**

SCALE: 1"=50'

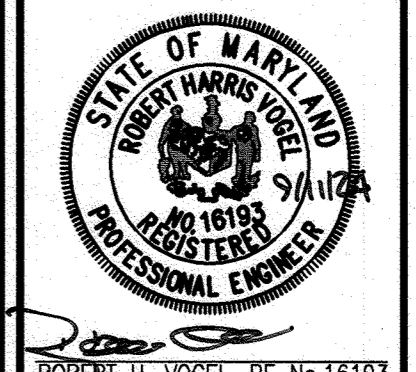


| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**ESD - STORMWATER MANAGEMENT DRAINAGE AREA MAP**  
**SANNER ROAD COMMUNITY**  
LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
7290 SANNER ROAD, CLARKSVILLE, MD 21029

PARCELS: 42, 43, 287  
TAX MAP: 41 GRID: 10  
5TH ELECTION DISTRICT  
ZONED: RR-DEO  
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



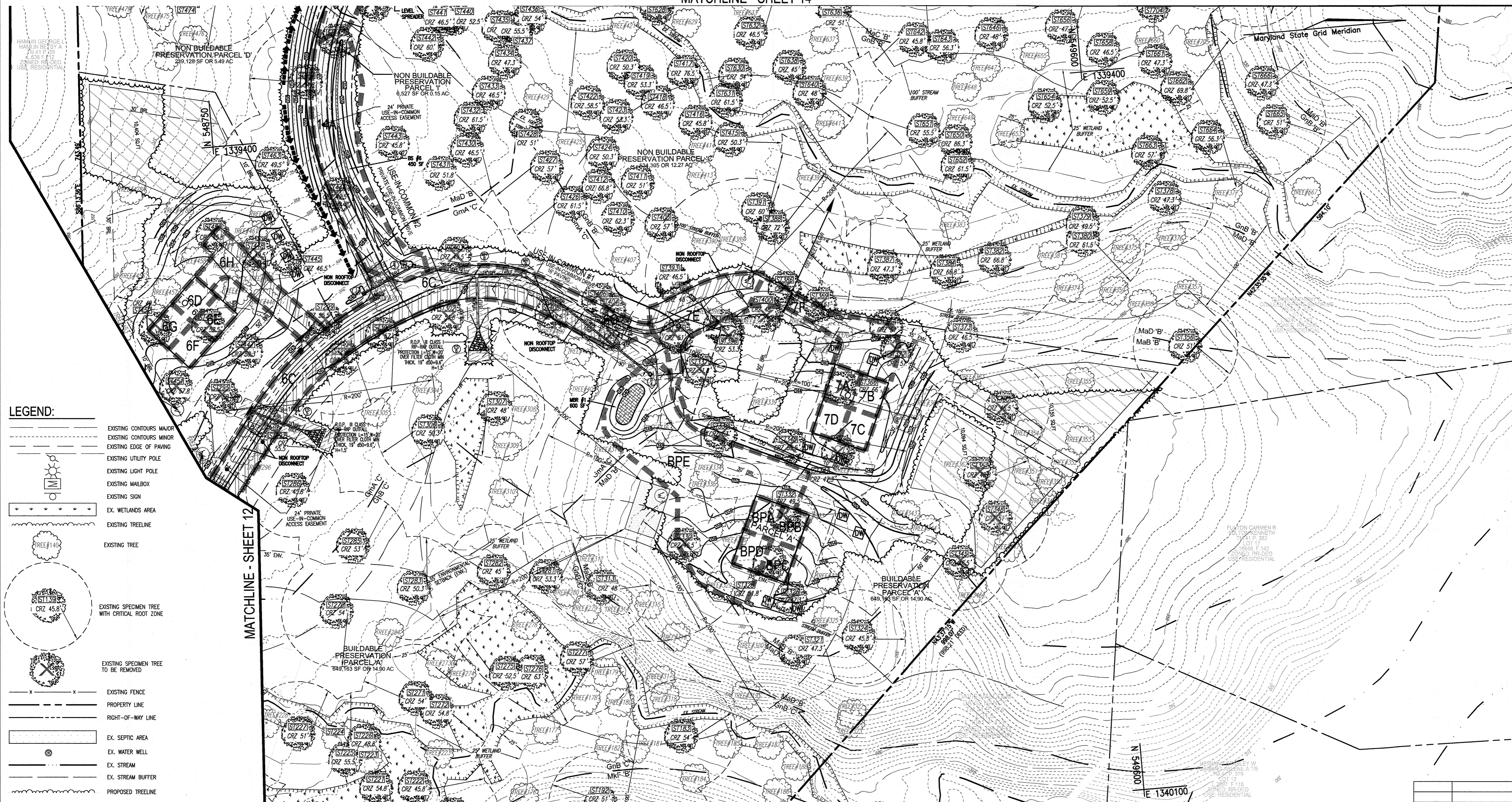
DESIGN BY: RHV  
DRAWN BY: ONB  
CHECKED BY: RHV  
DATE: JULY 2024  
SCALE: AS SHOWN  
W.D. NO.: 58692

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: 08-27-2024

12 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Chad Edwards* 9/19/24  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE  
*[Signature]* 9/12/24  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE

OWNER/DEVELOPER  
VINBAR INVESTMENTS, LLC  
VINCENT CRIVELLA  
4027 BRANDYWINE STREET  
WASHINGTON, DC 20016  
VCRIVELLA@JVSCLAW.COM  
(301) 922-3847



- LEGEND:**
- EXISTING CONTOURS MAJOR
  - EXISTING CONTOURS MINOR
  - EXISTING EDGE OF PAVING
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - EXISTING MAILBOX
  - EXISTING SIGN
  - EX. WETLANDS AREA
  - EXISTING TREELINE
  - EXISTING TREE
  - EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
  - EXISTING SPECIMEN TREE TO BE REMOVED
  - EXISTING FENCE
  - PROPERTY LINE
  - RIGHT-OF-WAY LINE
  - EX. SEPTIC AREA
  - EX. WATER WELL
  - EX. STREAM
  - EX. STREAM BUFFER
  - PROPOSED TREELINE
  - PROP. STORM DRAIN
  - PROP. STORM DRAIN INLET
  - PROP. STORM DRAIN MANHOLE
  - PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
  - PROP. LEVEL SPREADER
  - PROP. DRY WELL
  - PROP. WATER WELL
  - FLOW ARROWS
  - PROP. SWM DRAINAGE DIVIDE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/10/24  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 9/17/24  
 CHIEF, DIVISION OF LAND DEVELOPMENT

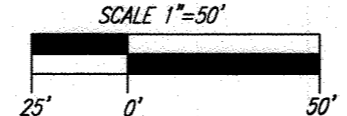
**SOILS LEGEND**

| SYMBOL | NAME / DESCRIPTION  | GROUP | K-FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| GcC    | Collin loam, 8 to 15 percent slopes                         | B     | 0.55     | YES      |
| GcB    | Glenns loam, 3 to 8 percent slopes                          | B     | 0.24     | NO       |
| GcB    | Glenns-Urban land complex, 0 to 8 percent slopes            | B     | -        | NO       |
| GmA    | Glennville silt loam, 0 to 3 percent slopes                 | C/D   | 0.37     | NO       |
| GcB    | Glennville-Balle silt loams, 0 to 8 percent slopes          | C     | 0.43     | YES      |
| MdD    | Manor loam, 3 to 8 percent slopes                           | B     | 0.24     | NO       |
| McC    | Manor loam, 8 to 15 percent slopes                          | B     | 0.28     | NO       |
| McD    | Manor loam, 15 to 25 percent slopes                         | B     | 0.28     | YES      |
| McD    | Manor loam, 15 to 25 percent slopes, very rocky             | B     | 0.28     | YES      |
| MdF    | Manor-Briklow complex, 25 to 65 percent slopes, very rocky  | B     | 0.32     | YES      |
| UdD    | Urban land-Urban/industrial complex, 8 to 25 percent slopes | D     | -        | YES      |

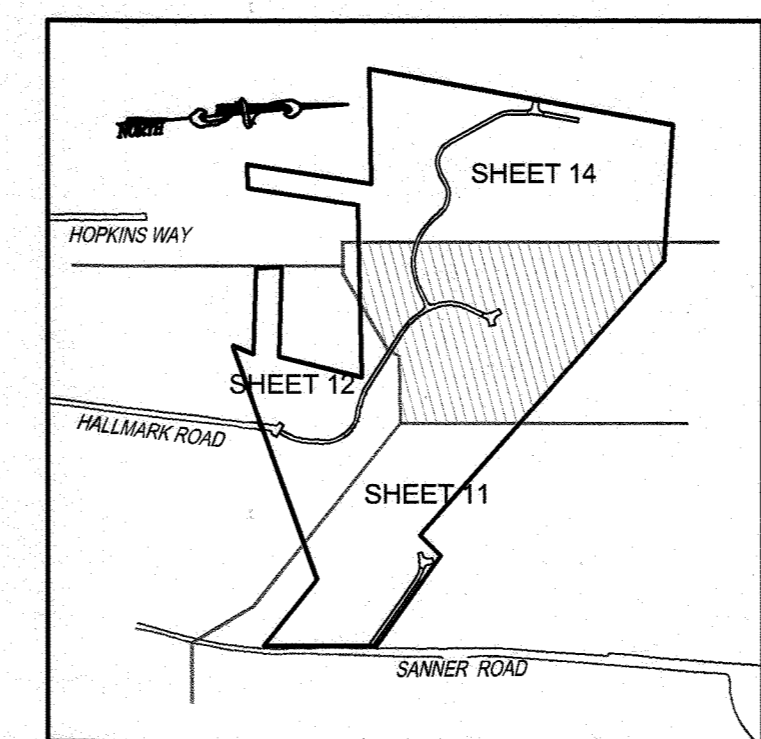
-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
 -K VALUES PER <https://www.howardocd.org/documents> - \*K FACTORS (USE KW)\*  
 NOTE:  
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT - LIMITS OF PROJECT

**ESD STORMWATER DRAINAGE AREA MAP**

SCALE: 1"=50'



MATCHLINE SHEET 11



KEY MAP  
NOT TO SCALE

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**ESD - STORMWATER MANAGEMENT DRAINAGE AREA MAP**  
**SANNER ROAD COMMUNITY**  
 LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A'  
 AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
 7290 SANNER ROAD, CLARKSVILLE, MD 21029

**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

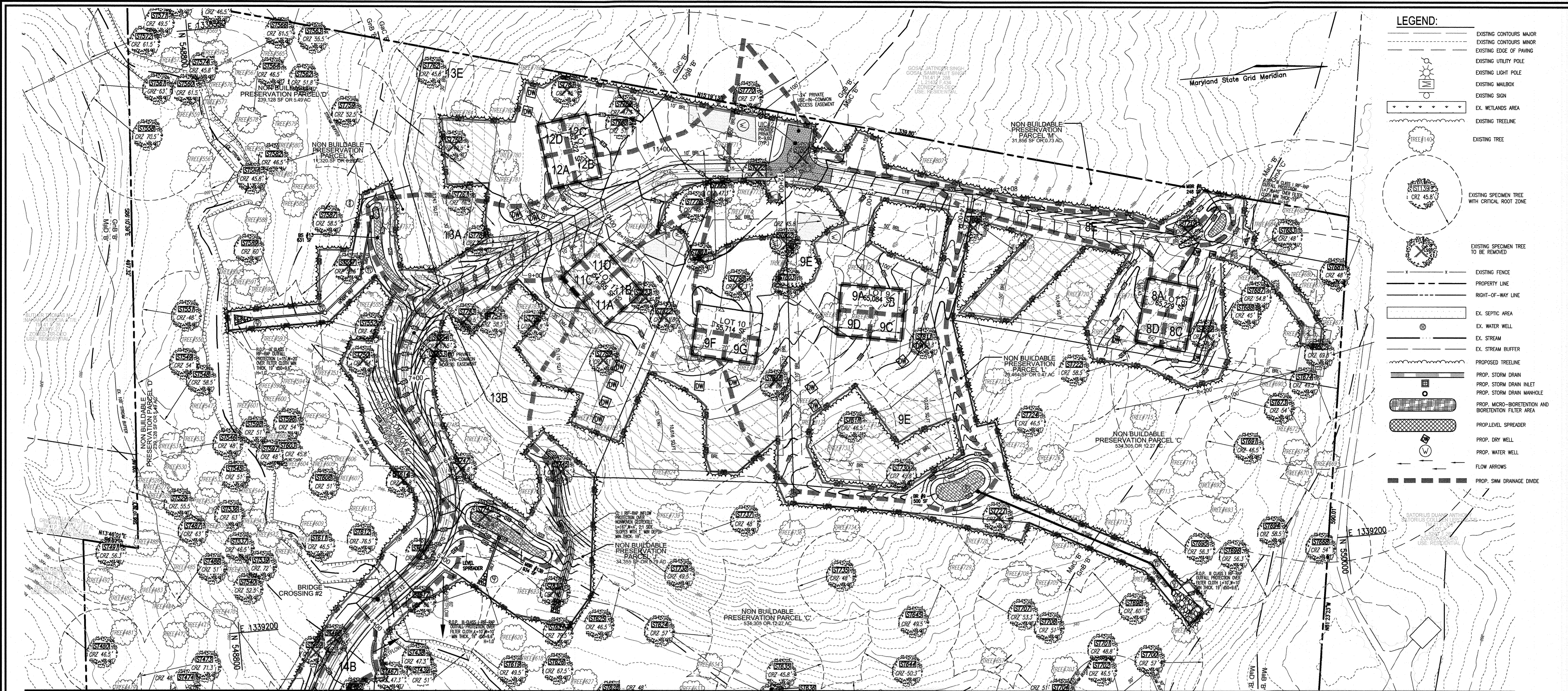
PROFESSIONAL CERTIFICATE

DESIGN BY: RHV  
 DRAWN BY: ONB  
 CHECKED BY: RHV  
 DATE: JULY 2024  
 SCALE: AS SHOWN  
 W.O. NO.: 58692

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. 16163, EXPIRATION DATE: 09-27-2024

ROBERT H. VOGEL, PE No.16193

OWNER/DEVELOPER  
 VINBAR INVESTMENTS, LLC  
 VINCENT CRIVELLA  
 4027 BRANDYWINE STREET  
 WASHINGTON, DC 20016  
 VCRIVELLA@JVSCLAW.COM  
 (301) 922-3847

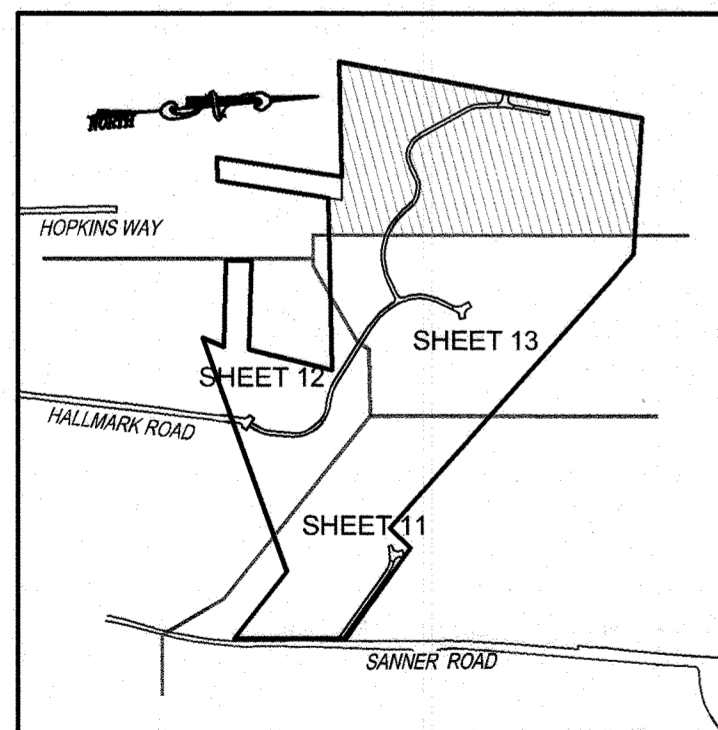
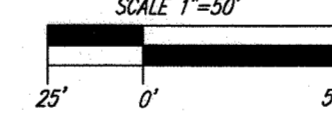


- LEGEND:**
- EXISTING CONTOURS MAJOR
  - EXISTING CONTOURS MINOR
  - EXISTING EDGE OF PAVING
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - EXISTING MAILBOX
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  - PROP. STORM DRAIN INLET
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  - PROP. MICRO-BIORETENTION AND BIORETENTION FILTER AREA
  - PROP. LEVEL SPREADER
  - PROP. DRY WELL
  - PROP. WATER WELL
  - FLOW ARROWS
  - PROP. SWM DRAINAGE DIVIDE

MATCHLINE - SHEET 12

**ESD STORMWATER DRAINAGE AREA MAP**

SCALE: 1"=50'



KEY MAP  
NOT TO SCALE

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

| SOILS LEGEND |  |       |          |          |
|--------------|--|-------|----------|----------|
| SYMBOL       | NAME/DESCRIPTION   | GROUP | K-FACTOR | ERODIBLE |
| GaC          | Gaika loam, 8 to 15 percent slopes                         | B     | 0.55     | YES      |
| GaB          | Gienelig loam, 3 to 8 percent slopes                       | B     | 0.24     | NO       |
| GaH          | Gienelig-Urban land complex, 0 to 8 percent slopes         | B     | -        | NO       |
| GmA          | Gienville silt loam, 0 to 3 percent slopes                 | C/D   | 0.37     | NO       |
| GnD          | Gienville-Silt loam, 0 to 8 percent slopes                 | C     | 0.43     | YES      |
| MsB          | Manor loam, 3 to 8 percent slopes                          | B     | 0.24     | NO       |
| MoC          | Manor loam, 8 to 15 percent slopes                         | B     | 0.28     | NO       |
| MoD          | Manor loam, 15 to 25 percent slopes                        | B     | 0.28     | YES      |
| MfC          | Manor-drinkow complex, 25 to 65 percent slopes, very rocky | B     | 0.28     | YES      |
| MfE          | Manor-drinkow complex, 25 to 65 percent slopes, very rocky | B     | 0.32     | YES      |
| UoD          | Urban land-Udorthents complex, 8 to 25 percent slopes      | D     | -        | YES      |

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
 -K VALUES PER <https://www.howarddcd.org/documents> - \*K FACTORS (USE KW)  
 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 \* LIMITS OF PROJECT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9.19.24  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 9/19/24  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |

ENVIRONMENTAL CONCEPT PLAN  
**ESD - STORMWATER MANAGEMENT DRAINAGE AREA MAP**  
**SANNER ROAD COMMUNITY**  
 LOTS 1-12, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B' THRU 'M'  
 7290 SANNER ROAD, CLARKSVILLE, MD 21029  
 PARCELS: 42, 47, 287 TAX MAP: 41 GRID: 10 5TH ELECTION DISTRICT  
 ZONED: RR-DED 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. 161813 EXPIRATION DATE: 06-27-2024

DESIGN BY: RHY  
 DRAWN BY: ONB  
 CHECKED BY: RHY  
 DATE: JULY 2024  
 SCALE: AS SHOWN  
 W.O. NO.: 58692

14 SHEET OF 15

OWNER/DEVELOPER  
 VINBAR INVESTMENTS, LLC  
 VINCENT CRIVELLA  
 4027 BRANDYWINE STREET  
 WASHINGTON, DC 20016  
 VCRIVELLA@JUSVCLAW.COM  
 (301) 922-3847

