# ENVIRONMENTAL CONCEPT PLAN
# TALBOTS LANDING
## 5227 TALBOTS LANDING ROAD
## LOT 13D
## HOWARD COUNTY, MD

## GENERAL NOTES

1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP, PERFORMED IN FEBRUARY, 2021. OFFSITE TOPOGRAPHY IS FROM HOWARD COUNTY GIS.
3. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP, DATED FEBRUARY 2021.
4. 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. 41EA AND 41EB WERE USED FOR THIS PROJECT.
5. THE SUBJECT PROPERTY IS ZONED "R-20 IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
6. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT AREAS.
7. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER FOR THIS PROJECT IS TO BE FROM 14-4098-D.
8. THERE ARE NO FLOODPLAIN ON THE PROPERTY.
9. THERE ARE NO STEEP SLOPES OVER 20,000 CONTIGUOUS SQUARE FEET ON THE PROPERTY.
10. THIS PROPERTY IS LESS THAN 40,000 SF. OF WOODS, THEREFOR FOREST CONSERVATION IS NOT REQUIRED FOR THIS PROPERTY.
11. THERE ARE WETLAND AND STREAM PRESENT IN THE REAR HALF OF THE SITE.
12. A GEOTECHNICAL STUDY WILL BE PROPOSED IN CONJUNCTION WITH FUTURE PLAN SUBMISSIONS.
13. TALBOTS LANDING IS LOCAL PUBLIC ROAD.
14. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES ON THIS PROPERTY. THE SITE IS NOT LISTED ON THE HISTORIC SITES INVENTORY.
15. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA SYSTEM. THE MICRO-SCALE PRACTICES USED ARE FIVE DRYWELLS (M-5) AND ALTERNATIVE SURFACES PERVIOUS PAVEMENTS (A-2) AND POROUS ASPHALT. THESE FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.
16. 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.
17. 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.
18. THE EXISTING DRIVEWAY VARIES 12 TO 16 FEET. THE DRIVEWAY WILL BE EXPANDED WHERE NEEDED TO PROVIDE CONSISTENT 16' WIDTH.
19. AN ALTERNATIVE COMPLIANCE WILL BE REQUIRED FOR SECTION 16.116(a)(2)(i) TO ALLOW DISTURBANCE TO THE 50' STREAM BUFFER TO ACCOMMODATE THE PROPOSED DRIVEWAY AND HOUSE.

## ENVIRONMENTAL SITE DESIGN NARRATIVE:

1. THE ENVIRONMENTAL AREAS FOR THIS SITE ARE LOCATED IN THE EASTERN PORTION OF THE SITE INCLUDING AN INTERMITTENT STREAM AND NON-TIDAL WETLANDS. MINOR DISTURBANCES TO THE STREAM BUFFER ARE REQUIRED FOR BUILDING CONSTRUCTION AND MINOR GRADING. THERE IS APPROXIMATELY 0.98 AC. OF FOREST ON SITE. DISTURBANCES TO ENVIRONMENTAL FEATURES AND NATURAL RESOURCES WILL BE MINIMIZED TO THE GREATEST EXTEND POSSIBLE.

2. THE SITE NATURALLY SLOPES FROM NORTH WEST TO SOUTH EAST. THE SITE HAS BEEN DESIGNED TO MAINTAIN THE NATURAL DRAINAGE PATTERNS, WITH NO DRAMATIC CHANGES TO THE NATURAL DRAINAGE.

3. THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT TO THE MAXIMUM EXTENT PRACTICABLE (MEP). THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION". THE ESD CONCEPT INCLUDES THE USE OF DRYWELLS (M-5), POROUS ASPHALT, AND PERVIOUS PAVING (A-2).

4. SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF SUPER SILT FENCE PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT DURING THE FUTURE SITE DEVELOPMENT PLAN PHASE OF THE PROJECT.

5. STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE MICRO-SCALE PRACTICE OF DRYWELLS (M-5), AND ALTERNATIVE SURFACES OF PERVIOUS PAVING (A-2) AND POROUS ASPHALT. THE PROPOSED PRACTICES HAVE BEEN MAXIMIZED TO THE EXTENT PRACTICAL. THE CALCULATED RAINFALL TARGET (PE) FOR THIS PROJECT IS 1.8", AND THE TOTAL RUNOFF VOLUME (ESDv) REQUIRED IS 776 C.F.

6. AN ALTERNATIVE COMPLIANCE REQUEST FOR STREAM BUFFER AND CRZ DISTURBANCES IS REQUIRED AND REQUESTED WITH ECP PHASE SUBMISSION IN ORDER FOR THE PROPOSED DESIGN TO BE DEVELOPED.

### SPECIMEN TREE CHART

| KEY | SIZE | CONDITION | COMMENTS |
|---|---|---|---|
| 1 | 43" | GOOD | TO REMAIN |
| 2 | 33" | GOOD | TO REMAIN |

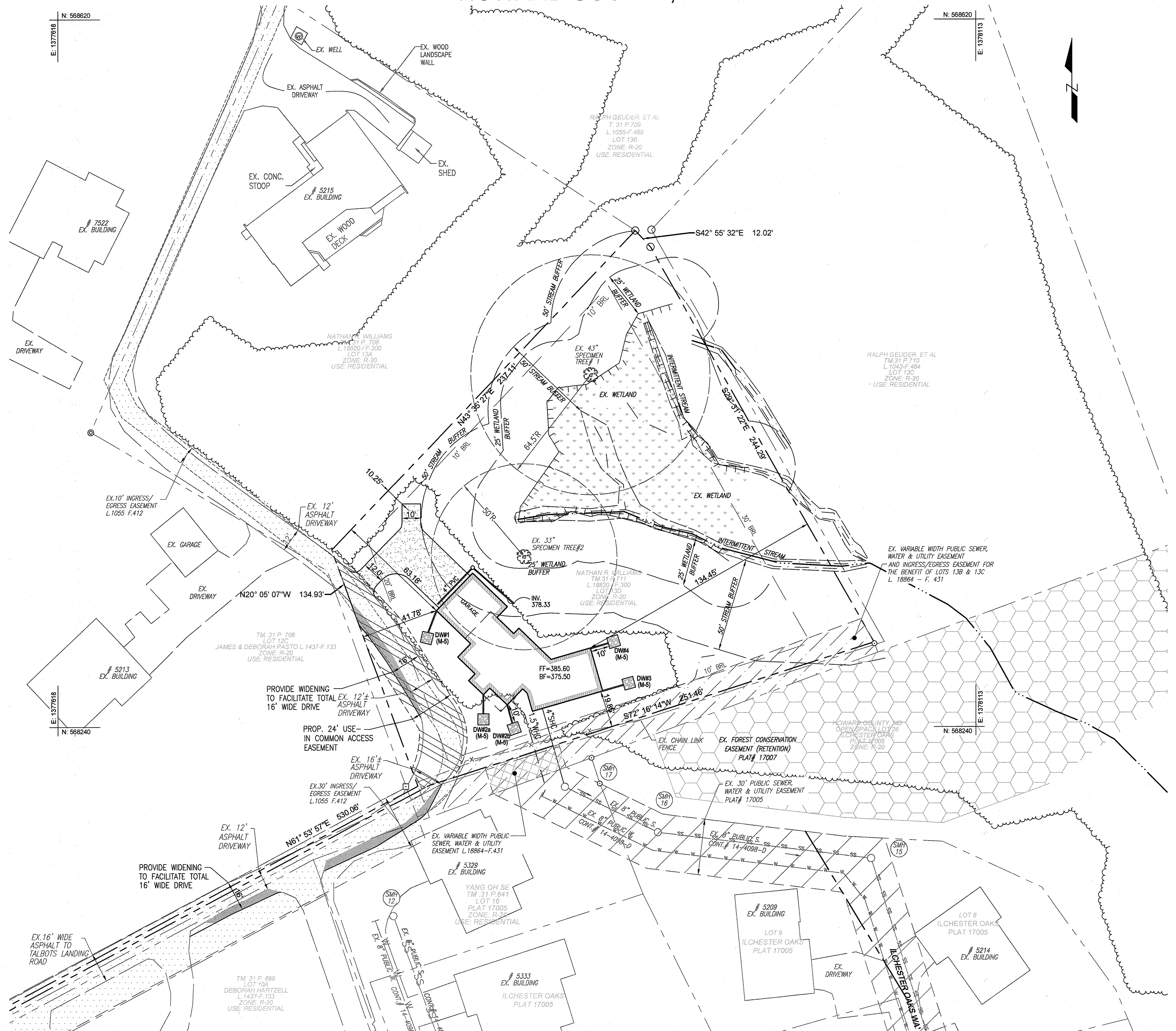
### SITE ANALYSIS DATA CHART

| | |
|---|---|
| TOTAL PROJECT AREA: | 1.11 AC. |
| NET AREA OF PROJECT: | 1.11 AC. |
| AREA OF WETLANDS AND WETLAND BUFFERS: | 0.46 AC. |
| AREA OF FLOODPLAIN: | 0.00 AC. |
| AREA OF FOREST: | 0.98 AC. |
| AREA OF MODERATE SLOPES (15% TO 24.99%): | 0.00 AC. |
| AREA OF STEEP SLOPES (25% OR GREATER): | 0.00 AC. |
| ERODIBLE SOILS: | 0.00 AC. |
| LIMIT OF DISTURBED AREA: | 0.30 AC. |
| PROPOSED USES FOR SITE AND STRUCTURES: | RESIDENTIAL |
| GREEN OPEN AREA: | 1.00 AC. |
| PROPOSED IMPERVIOUS AREA: | 0.11 AC. |
| PRESENT ZONING DESIGNATION: | R-20 |
| DPZ FILE REFERENCES: | 14-4098-D, PLAT 17005 |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3-16-22

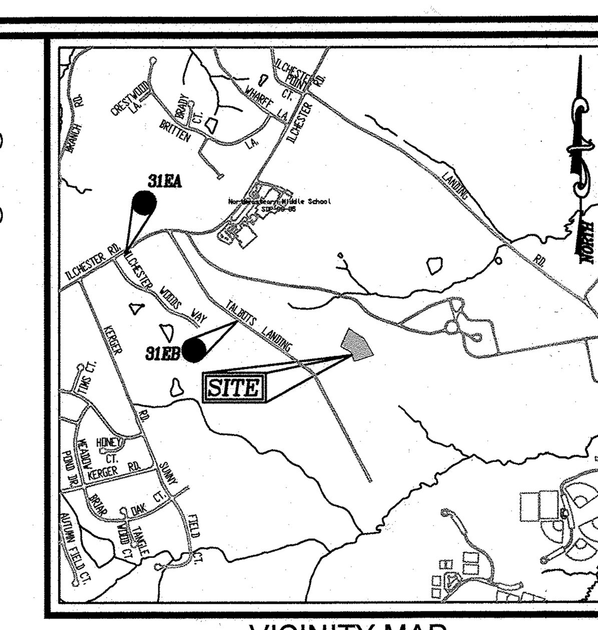
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/3/22




## ESDv CONCEPT PLAN
SCALE: 1"=30'

### BENCHMARKS
HOWARD COUNTY BENCHMARK – 31EA
N 569641.12 E 1374815.93 ELEV.: 469.60

HOWARD COUNTY BENCHMARK – 31EB
N 568730.99 E 1376273.57 ELEV.: 452.70




### VICINITY MAP
SCALE: 1"=2,000'
ADC MAP = 28 7D-E

### LEGEND:
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED PAVING
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EX. WETLANDS
- EX. WETLAND BUFFER
- EX. STREAM
- EX. STREAM BUFFER
- EX. INGRESS/EGRESS EASEMENT L. 1055-F.412
- EX. 30' SEWER, WATER, AND UTILITY EASEMENT PLAT 17005
- EX. VARIABLE WIDTH PUBLIC SEWER, WATER & UTILITY EASEMENT L. 18864-F .431
- EX. VARIABLE WIDTH PUBLIC SEWER, WATER & UTILITY EASEMENT AND INGRESS/EGRESS EASEMENT FOR THE BENEFIT OF LOTS 13B & 13C L. 18864 – F. 431
- EX. FOREST CONSERVATION EASEMENT PLAT# 17007
- POROUS ASPHALT ROAD WIDENING
- PERVIOUS PAVEMENT (A-2)
- PROP. 24' USE IN COMMON ACCESS EASEMENT

### SHEET INDEX

| DESCRIPTION | SHEET NO. |
|---|---|
| COVER SHEET AND ESDv CONCEPT PLAN | 1 OF 2 |
| STORMWATER MANAGEMENT DRAINAGE AREA MAP & DETAILS | 2 OF 2 |

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

**DEVELOPER**
TIM KEANE
3675 PARK AVENUE
SUITE 301
ELLICOTT CITY, MD 21043
PHONE: 443-324-9806

**OWNER**
NATHAN R. WILLIAMS
5215 TALBOTS LANDING
ELLICOTT CITY, MD 21043
PHONE: 509-951-1781

ENVIRONMENTAL CONCEPT PLAN
COVER SHEET
AND ESDv CONCEPT PLAN
TALBOTS LANDING
5227 TALBOTS LANDING ROAD
LOT 13D
LIBER 18820, FOLIO 300
TAX MAP 31 BLOCK 16 — PARCEL 711, ZONE R-20
1ST 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

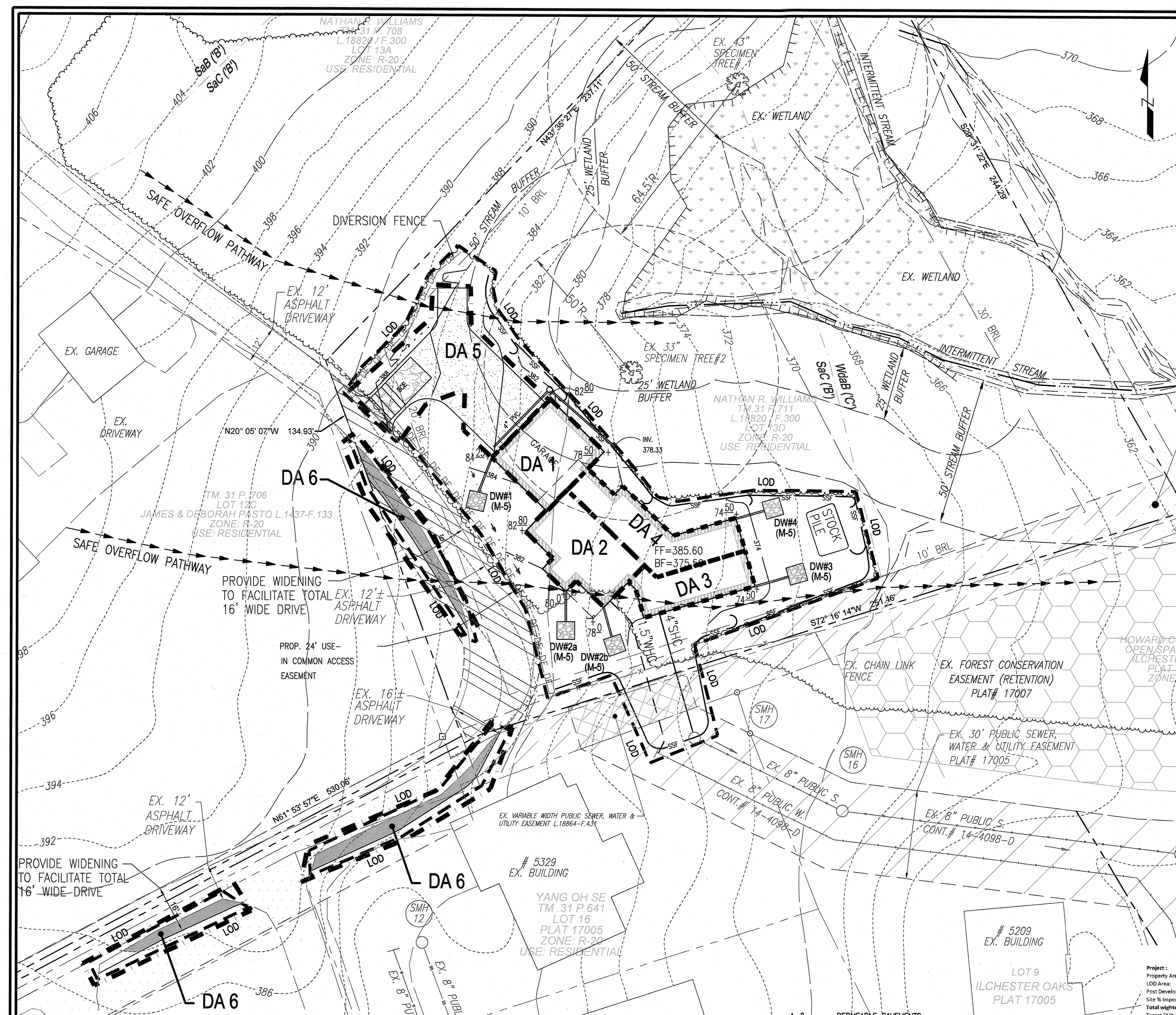

STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO. 16193 — REGISTERED PROFESSIONAL ENGINEER — 2/18/22
ROBERT H. VOGEL, PE No.16193

| | |
|---|---|
| DESIGN BY: | RHV |
| DRAWN BY: | KG |
| CHECKED BY: | RHV |
| DATE: | FEBRUARY 2022 |
| SCALE: | AS SHOWN |
| W.O. NO.: | 47647 |

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: 09-27-2022



ECP-21-058

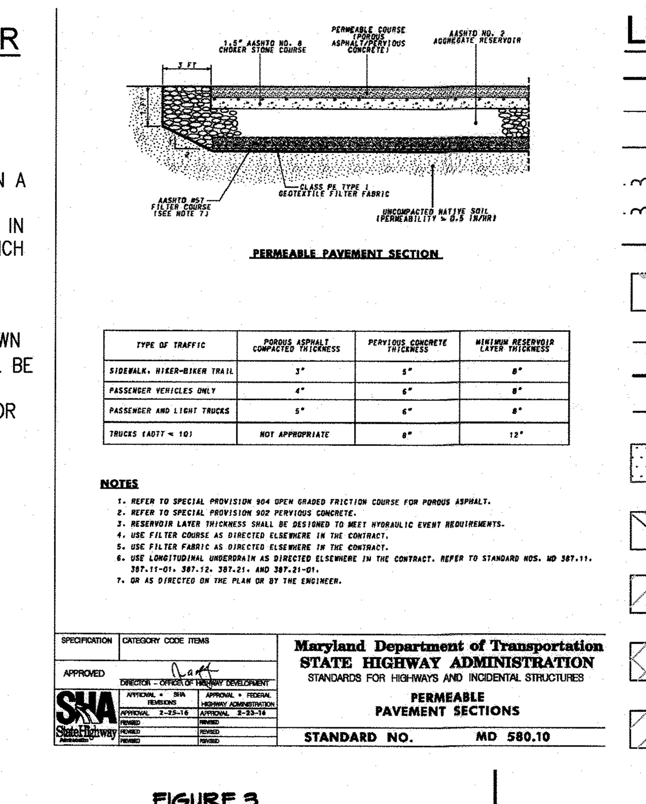



## STORMWATER MANAGEMENT DRAINAGE AREA MAP

SCALE: 1"=20'

## OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER INFILTRATION TRENCHES (I-1), AND DRY WELLS (M-5)

1. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.
2. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
3. THE OWNER SHALL MAINTAINED A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
5. THE MAINTENANCE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.




## LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED PAVING
- EX. WETLANDS
- EX. WETLAND BUFFER
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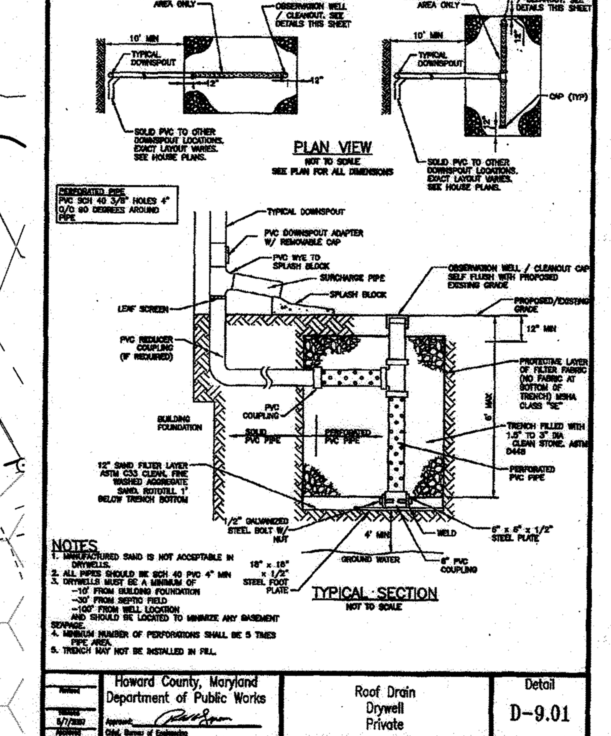
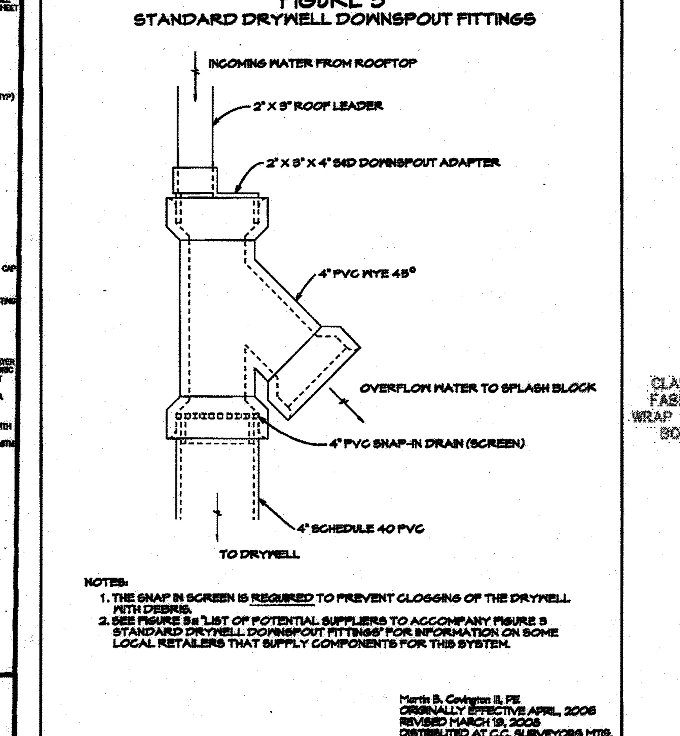
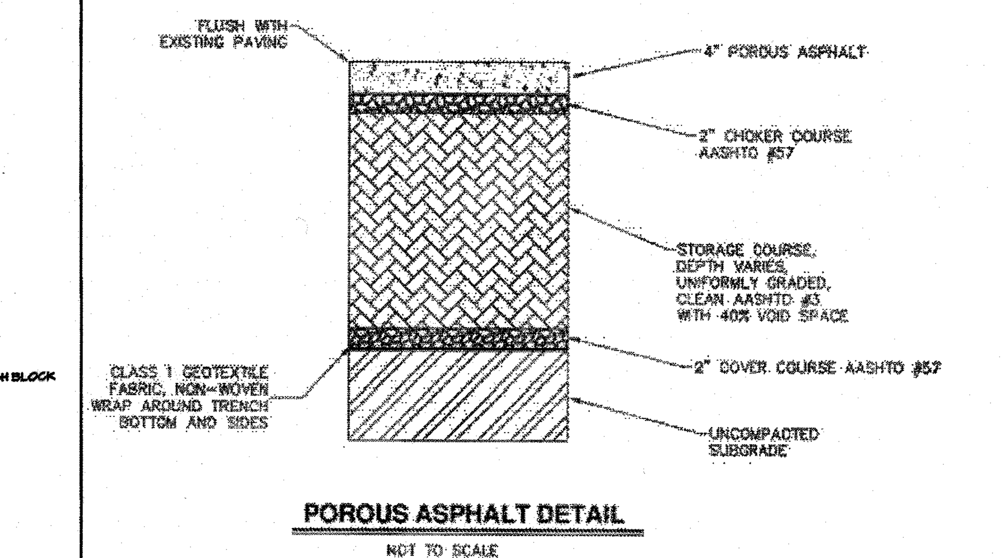
- EX. VARIABLE WIDTH PUBLIC SEWER, WATER & UTILITY EASEMENT L.18864-F.431
- EX. VARIABLE WIDTH PUBLIC SEWER, WATER & UTILITY EASEMENT AND INGRESS/EGRESS EASEMENT FOR THE BENEFIT OF LOTS 13B & 13C L.18864-F.431
- 330 EXISTING 10' CONTOUR
- 328 EXISTING 2' CONTOUR
- SsE / SfC2 SOILS
- LOD LIMIT OF DISTURBED AREA
- DRAINAGE AREA
- PERVIOUS PAVEMENT (A-2)
- SSF SUPER SILT FENCE
- DF DIVERSION FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- POROUS ASPHALT ROAD WIDENING
- SAFE OVERFLOW PATHWAY
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE

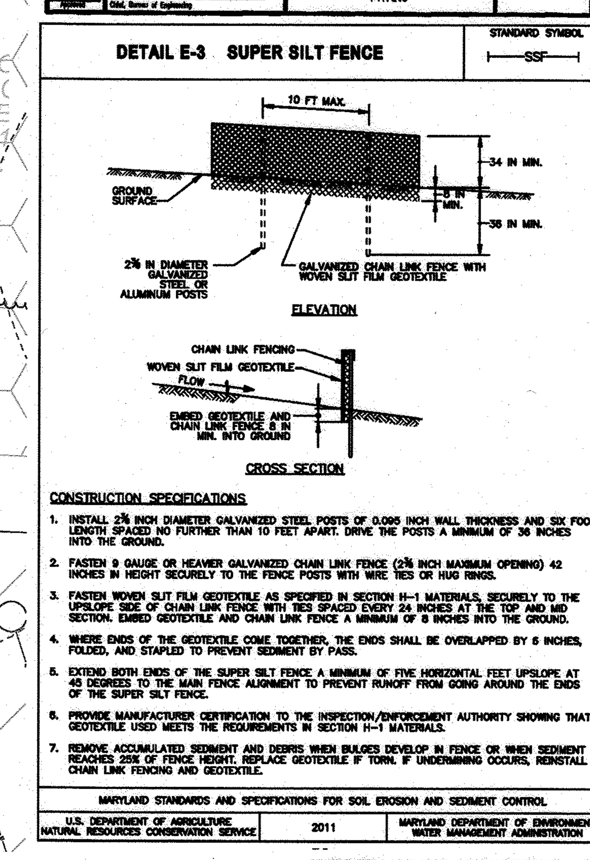


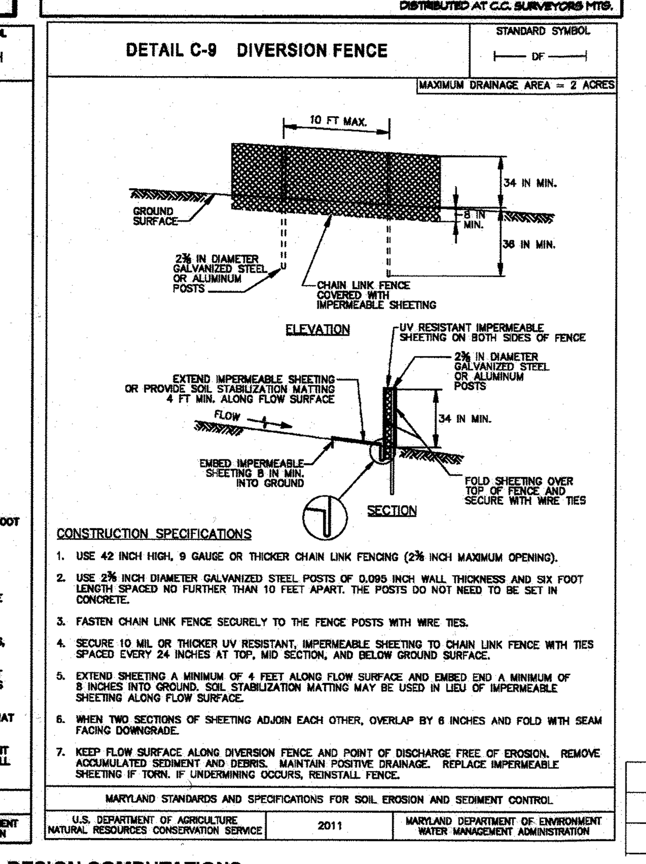



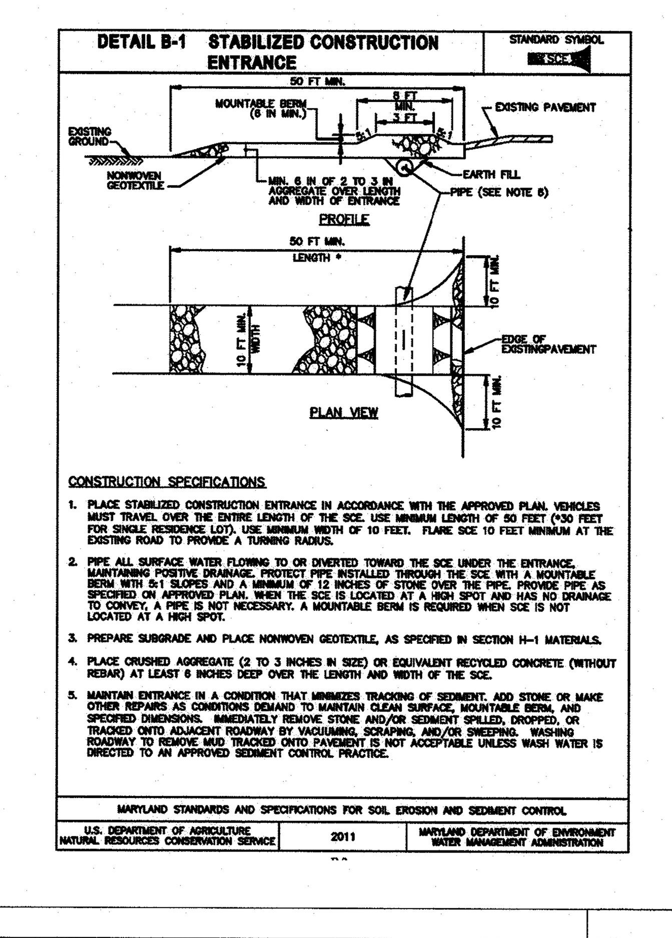




## POROUS ASPHALT DETAIL

NOT TO SCALE




| MAPPED SOILS TYPES - HOWARD COUNTY, MARYLAND | | | | | HIGHLY ERODIBLE |
|---|---|---|---|---|---|
| SYMBOL | NAME / DESCRIPTION | GROUP | HYDRIC | Kw RANGE | |
| SaC | SASSAFRAS LOAM, 5 TO 10% SLOPES | B | NO | 0.28 | NO |
| WdaB | WOODSTOWN SANDY LOAM, 2 TO 5% SLOPES | C | YES | 0.24 | NO |

NOTE:
TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, AND HOWARD COUNTY SOIL CONSERVATION DISTRICT WEBSITE DOCUMENTS HTTS://WWW.HOWARDSCD.ORG/DOCUMENTS

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.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3.16.22

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/3/22

### ENVIRONMENTAL CONCEPT PLAN NOTES:

1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT.
2. REVIEW OF THIS PLAN FOR COMPLETE COMPLIANCE WITH ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SITE DEVELOPMENT STAGE AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE SITE DEVELOPMENT PROCESS.

### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

1. THE OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
2. THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
3. THE OWNER SHALL USE DEICERS IN MODERATION. DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
4. THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE-INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

### A-2. PERMEABLE PAVEMENTS

CONSTRUCTION CRITERIA:

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING CONSTRUCTION OF PROJECTS WITH PERMEABLE PAVEMENT:
- EROSION AND SEDIMENT CONTROL: FINAL GRADING FOR INSTALLATION SHOULD NOT TAKE PLACE UNTIL THE SURROUNDING SITE IS STABILIZED. IF THIS CANNOT BE ACCOMPLISHED, RUNOFF FROM DISTURBED AREAS SHALL BE DIVERTED AROUND PROPOSED PAVEMENT LOCATIONS.
- SOIL COMPACTION: SUB SOILS SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHTWEIGHT, WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTION. EXCAVATED MATERIALS SHOULD BE PLACED IN A CONTAINED AREA.
- DISTRIBUTION SYSTEMS: OVERDRAIN, UNDERDRAIN, AND DISTRIBUTION PIPES SHALL BE CHECKED TO ENSURE THAT BOTH THE MATERIAL AND PERFORATIONS MEET SPECIFICATIONS (SEE APPENDIX B. 4). THE UPSTREAM ENDS OF PIPES SHOULD BE CAPPED PRIOR TO INSTALLATION. ALL UNDERDRAIN OR DISTRIBUTION PIPES USED SHOULD BE INSTALLED FLAT ALONG THE BED BOTTOM.
- SUBBASE INSTALLATION: SUBBASE AGGREGATE SHALL BE CLEAN AND FREE OF FINES. THE SUBBASE SHALL BE PLACED IN LIFTS AND LIGHTLY ROLLED ACCORDING TO THE SPECIFICATIONS (SEE APPENDIX B.4).

INSPECTION:

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUB GRADE.
- DURING PLACEMENT AND BACKFILL OF ANY DRAINAGE OR DISTRIBUTION SYSTEM(S).
- DURING PLACEMENT OF THE CRUSHED STONE SUBBASE MATERIAL.
- DURING PLACEMENT OF THE SURFACE MATERIAL.
- UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

MAINTENANCE CRITERIA:

THE FOLLOWING PROCEDURES SHOULD BE CONSIDERED ESSENTIAL FOR MAINTAINING PERMEABLE PAVEMENT SYSTEMS:
- PAVEMENTS SHOULD BE USED ONLY WHERE REGULAR MAINTENANCE CAN BE PERFORMED. MAINTENANCE AGREEMENTS SHOULD CLEARLY SPECIFY HOW TO CONDUCT ROUTINE TASKS TO ENSURE LONG-TERM PERFORMANCE.
- PAVEMENT SURFACES SHOULD BE SWEPT AND VACUUMED TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING SYSTEMS AND COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
- DRAINAGE PIPES, INLETS, STONE EDGE DRAINS, AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE SHOULD BE CLEANED OUT AT REGULAR INTERVALS.
- TRUCKS AND OTHER HEAVY VEHICLES CAN GRIND DIRT AND GRIT INTO THE POROUS SURFACES, LEADING TO CLOGGING AND PREMATURE FAILURE. THESE VEHICLES SHOULD BE PREVENTED FROM TRACKING AND SPILLING MATERIAL ONTO THE PAVEMENT.
- DEICERS SHOULD BE USED IN MODERATION. WHEN USED, DEICERS SHOULD BE NON-TOXIC AND ORGANIC AND CAN BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT. SNOW PLOWING SHOULD BE DONE CAREFULLY WITH BLADES SET ONE-INCH HIGHER THAN NORMAL. PLOWED SNOW PILES AND SNOW MELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

### INDIVIDUAL PRACTICE ESDv DESIGN COMPUTATIONS

**Project:** TALBOTS LANDING

Designed by: KG
Date: 1/6/2022
Checked By: RHV

| | |
|---|---|
| Property Area: | 1.11 Ac. |
| LOD Area: | 0.30 Ac. |
| Post Development Impervious: | 0.11 Ac. |
| Site % Impervious: | 37 % |
| **Total wighted Pe:** | 1.80 Inches |
| Target ESDv Reguired: | 776 c.f. |
| **ESDv Provided:** | 783 c.f. |

ESDv=(PexRvxA)/12 Rev =((Sw)(Rv)(A))/12)*43560
Rv=0.05+0.009xI
Vmin 1yr rainfall = 1" (1.0x0.95xA)/12
Vmax 1yr rainfall = 2.6" (2.6x0.95xA)/12

| PRACTICE DA # | PRACTICE DA (SF) | PRACTICE DA (AC) | IMPERV (SF) | IMPERV (AC) | PERV (SF) | PERV AREA | PRACTICE % IMPERV | PRACTICE Rv | PRACTICE 1" TARGET VOLUME | PRACTICE 2.6" MAX VOLUME | Rev REQUIRED | Rev PROVIDED (Rv=0.95 Area=Practice DA) | TOTAL VOLUME PROVIDED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DA #1 DW#1 | 725 | 0.02 | 725 | 0.02 | 0 | 0.00 | 100 | 0.95 | 57 | 149 | NA | 15 | 128 | MICROSCALE DRYWELL (M-5) 8 8 5 (8' X 8' X 5') X 0.4 |
| DA #2 DW#2a | 789 | 0.02 | 789 | 0.02 | 0 | 0.00 | 100 | 0.95 | 62 | 162 | NA | 16 | 128 | MICROSCALE DRYWELL (M-5) 8 8 5 (8' X 8' X 5') X 0.4 |
| DW#2b | | | | | | | | | | | NA | 16 | 128 | 8 8 5 (8' X 8' X 5') X 0.4 |
| DA #3 DW#3 | 508 | 0.01 | 508 | 0.01 | 0 | 0.00 | 100 | 0.95 | 40 | 105 | NA | 11 | 102 | MICROSCALE DRYWELL (M-5) 8 8 4 (8' X 8' X 4') X 0.4 |
| DA #4 DW#4 | 810 | 0.02 | 810 | 0.02 | 0 | 0.00 | 100 | 0.95 | 64 | 167 | NA | 17 | 128 | MICROSCALE DRYWELL (M-5) 8 8 5 (8' X 8' X 5') X 0.4 |
| DA #5 Pervious pavement | 1,435 | 0.03 | 1,435 | 0.03 | 0 | 0.00 | 100 | 0.95 | 114 | 295 | NA | 30 | 114 | Pe Provided=1" |
| DA #6 Porous Asphalt | 700 | 0.02 | 700 | 0.02 | 0 | 0.00 | 100 | 0.95 | 55 | 144 | NA | 14 | 55 | Pe Provided=1" |
| | | | | | | | | | | TOTALS | *110 | 119 | 783 | |
| | | | | | | | | | | | Remaining ESDv: | | 7 | |

* See Page 2 Of ESDv Computations.

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

**DEVELOPER**
TIM KEANE
3675 PARK AVENUE
SUITE 301
ELLICOTT CITY, MD 21043
PHONE: 443-324-9806

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ELLICOTT CITY, MD 21043
PHONE: 509-951-1781

# ENVIRONMENTAL CONCEPT PLAN
## STORMWATER MANAGEMENT DRAINAGE AREA MAP & DETAILS
# TALBOTS LANDING
5227 TALBOTS LANDING ROAD
LOT 13D
LIBER 18820, FOLIO 300

TAX MAP 31 BLOCK 16 — PARCEL 711, ZONE R-20
1ST 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

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No.16193 — REGISTERED PROFESSIONAL ENGINEER — 2/18/22
ROBERT H. VOGEL, PE No.16193

| | |
|---|---|
| DESIGN BY: | RHV |
| DRAWN BY: | KG |
| CHECKED BY: | RHV |
| DATE: | FEBRUARY 2022 |
| SCALE: | AS SHOWN |
| W.O. NO.: | 47647 |

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: 09-27-2022



ECP-21-058