

SOIL DESCRIPTION:

SYMBOL	RATING	NAME	AREA	K FACTOR	MAP NO.	COMMENTS
C&B	(B)	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	0.344 AC±	.32	28	

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-SWALE PROFILE (M-8)

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

OPERATION AND MAINTENANCE SCHEDULE FOR DRY WELLS (M-5)

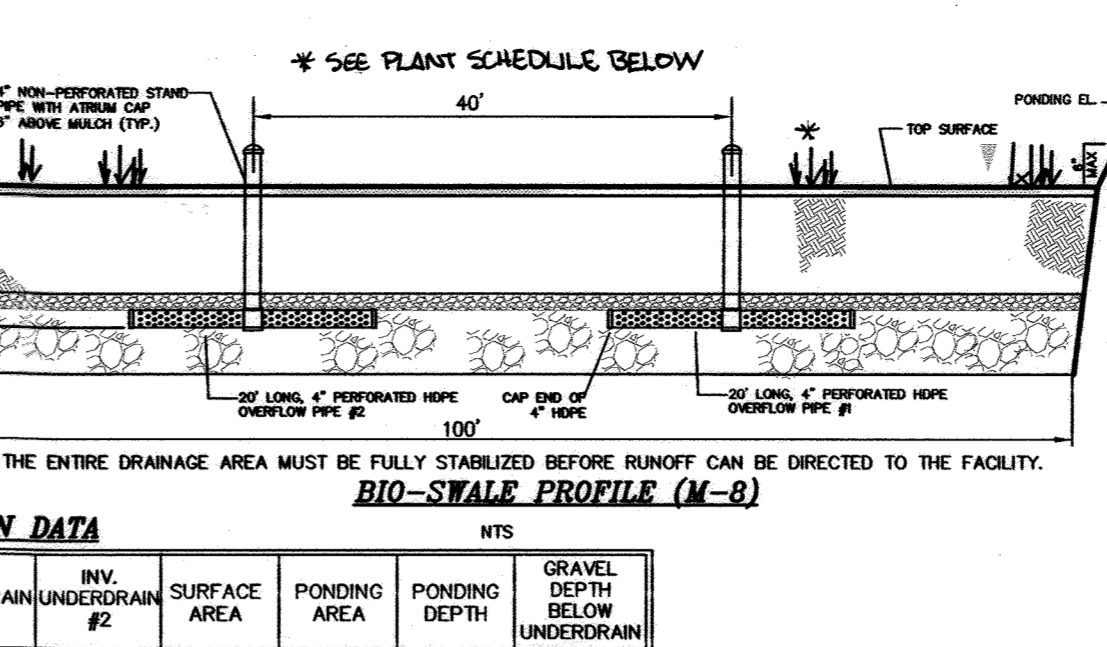
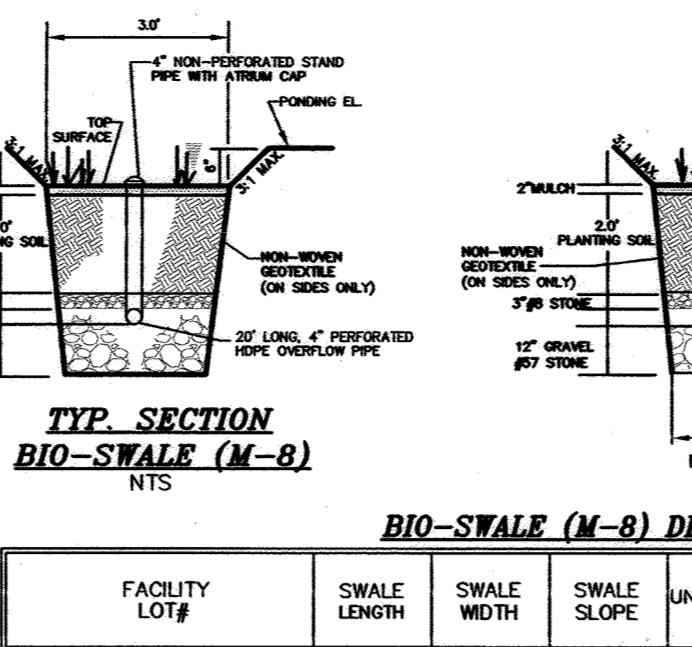
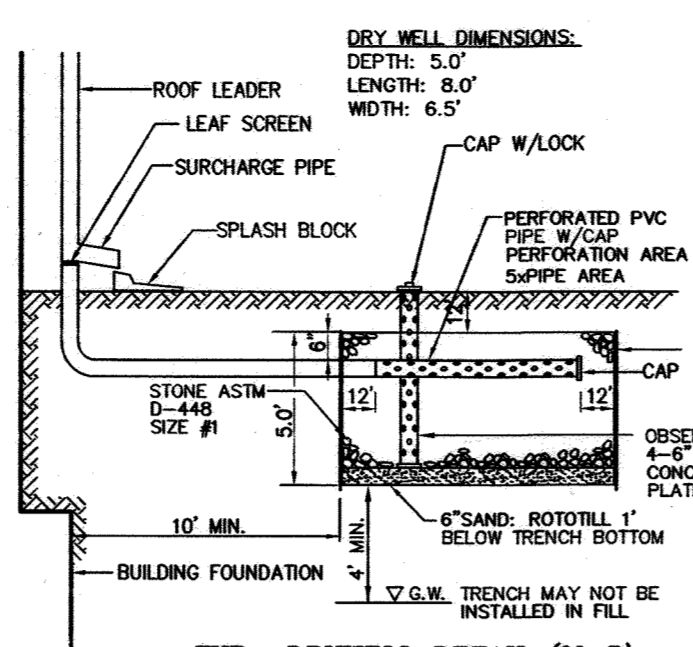
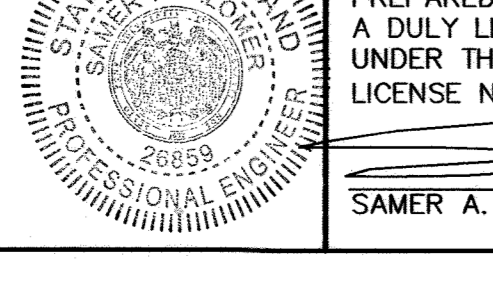
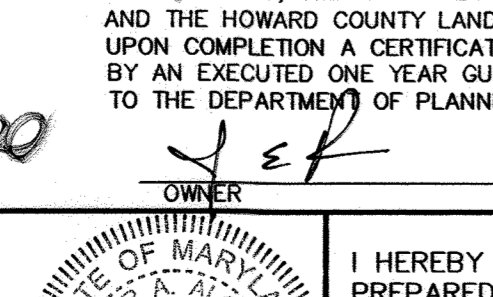
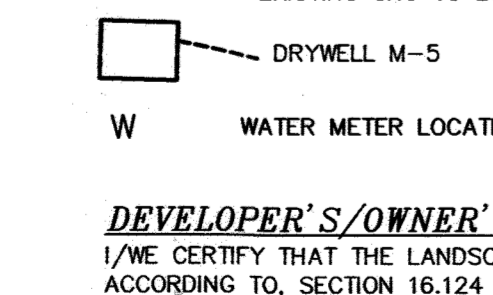
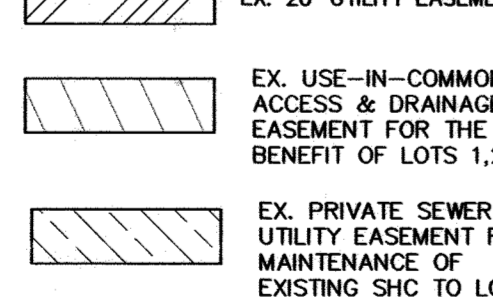
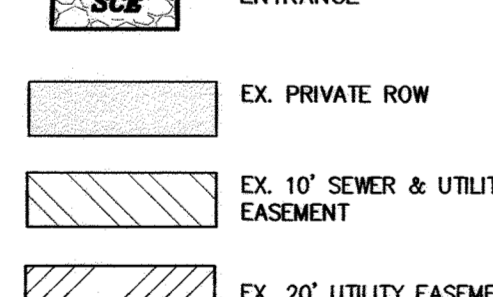
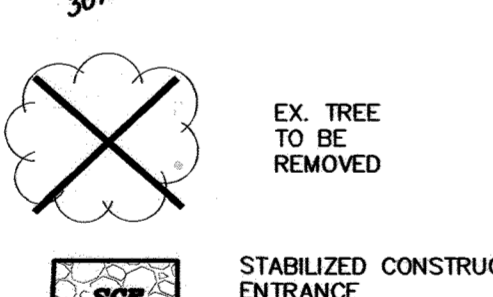
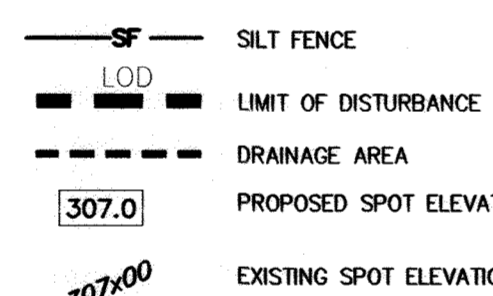
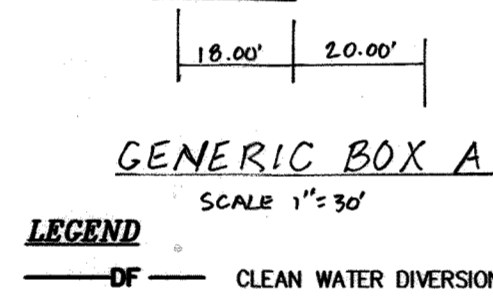
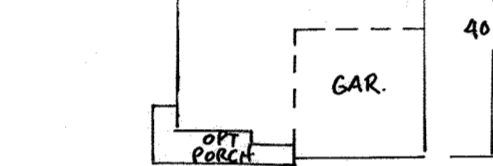
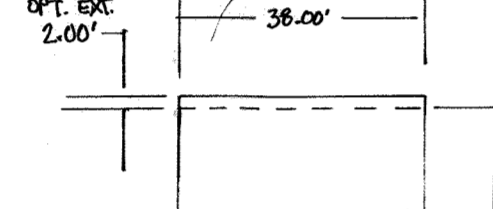
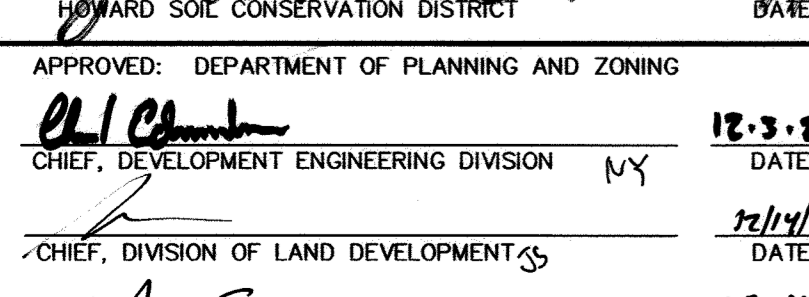
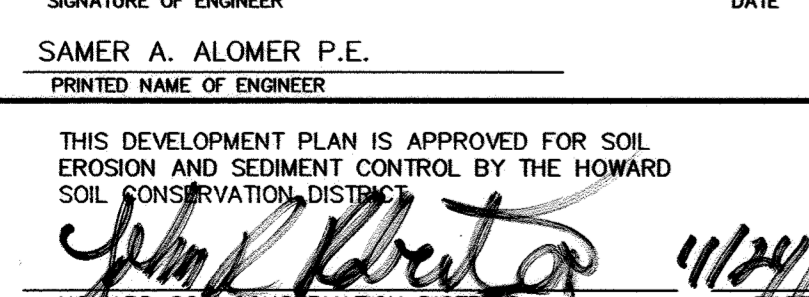
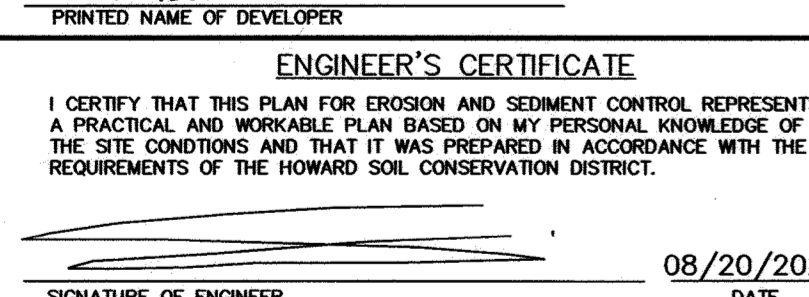
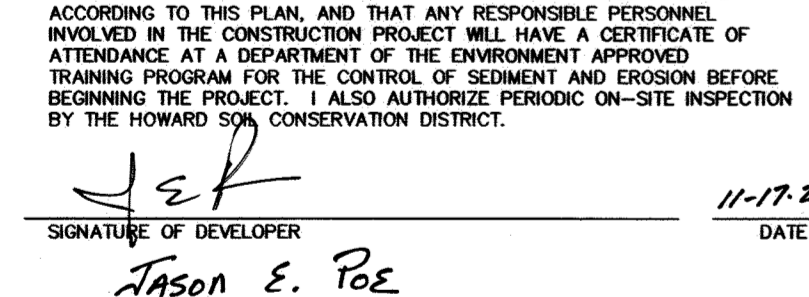
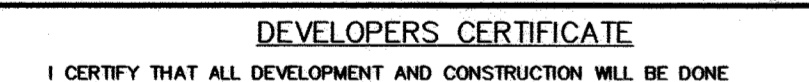
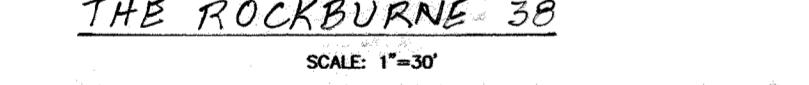
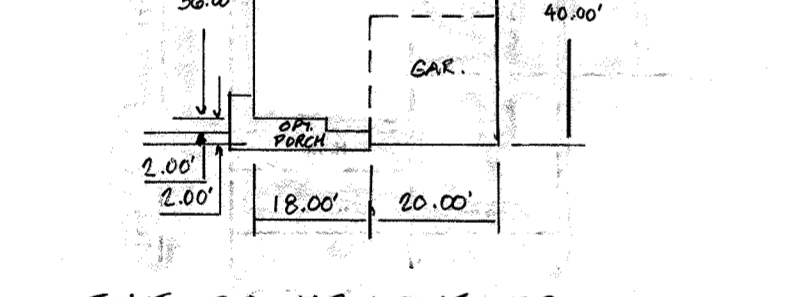
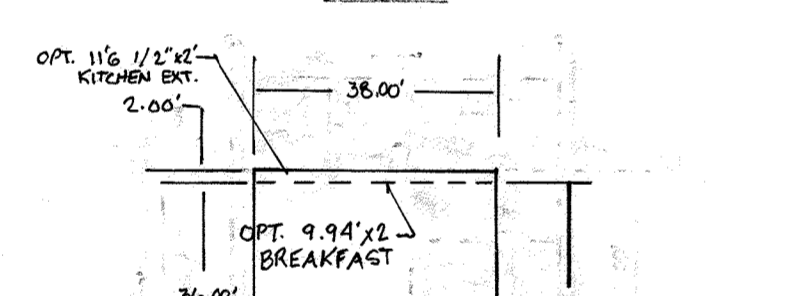
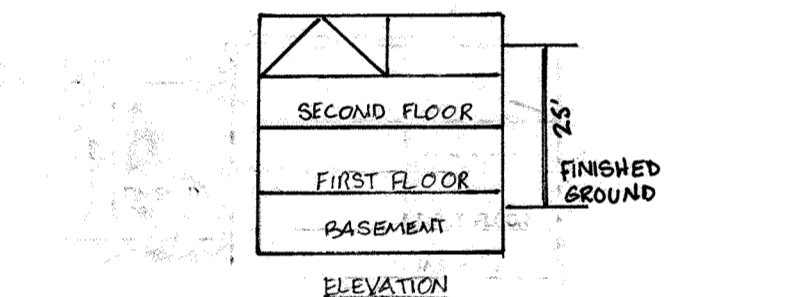
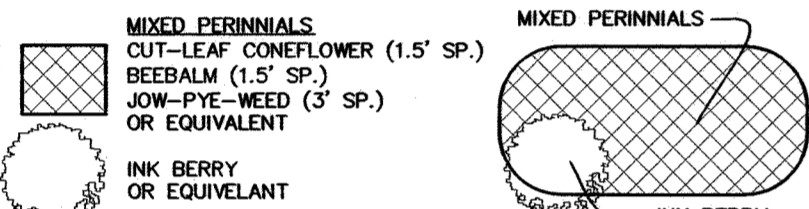
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- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY	TOTAL
LANDSCAPE TYPE	A (PERIMETER 1)*	A (PERIMETER 2)**
LINEAR FEET OF PERIMETER	87.59 LF	159.69 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	*	**
NUMBER OF PLANTS REQUIRED		
SHADE TREES	2 SHADE TREES	3 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0 SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS

* CREDIT TAKEN FOR ONE 15" AND ONE 10" EXISTING OAKS.
 ** CREDIT TAKEN FOR ONE EXISTING 24" ELM, ONE 18" MAPLE AND ONE 8" MULBERRY.

NOTE: THE OTHER TWO PERIMETERS ARE CONSIDERED INTERNAL TO BLAIR PROPERTY SUBDIVISION.

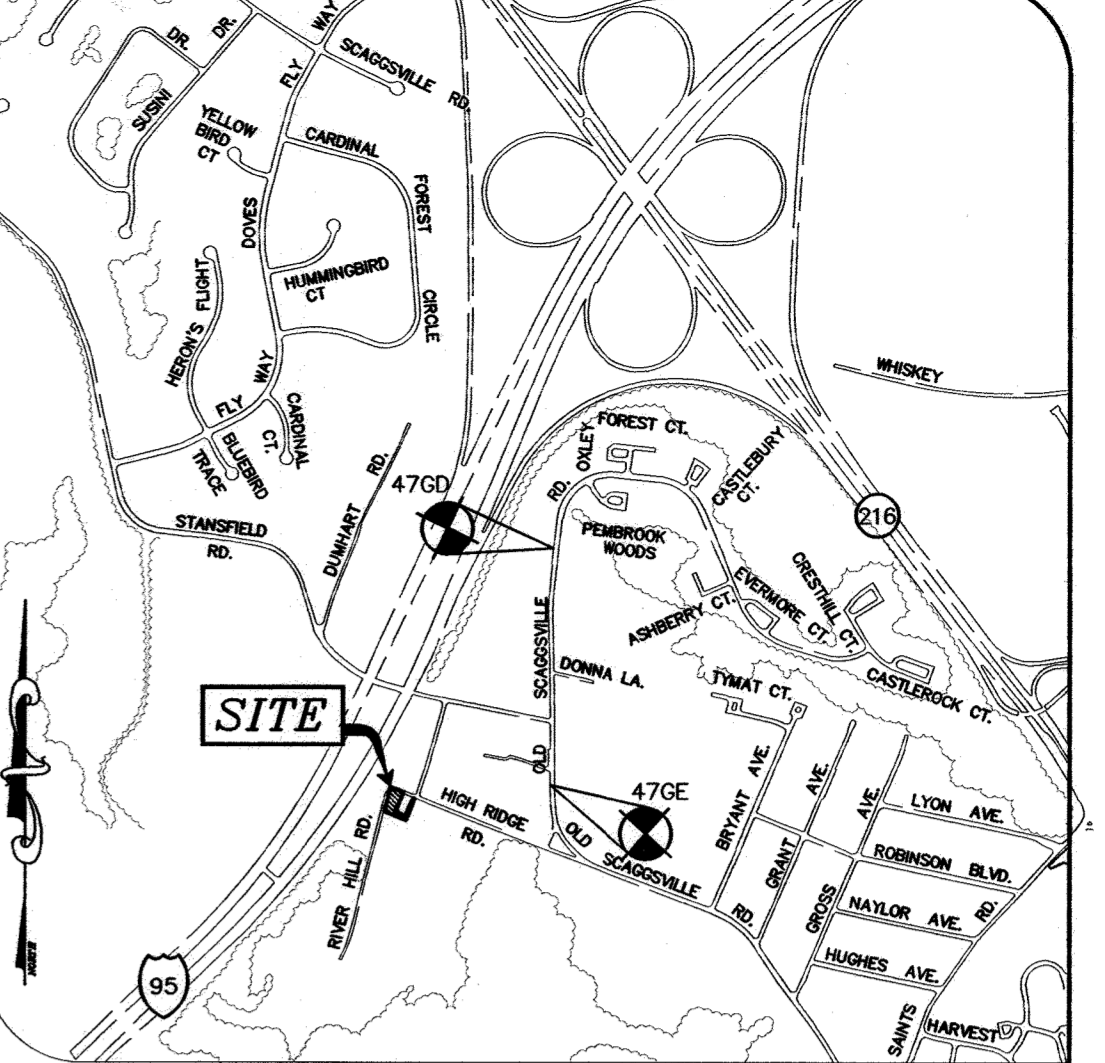


BIO-SWALE (M-8) DESIGN DATA

FACILITY LOT#	SWALE LENGTH	SWALE WIDTH	SWALE SLOPE	INV. UNDERDRAIN #1	INV. UNDERDRAIN #2	SURFACE AREA	PONDING AREA	PONDING DEPTH	GRAVEL DEPTH BELOW UNDERDRAIN
LOT 2	100.0'	3.0'	2.0%	373.08	372.85	350 S.F.	650 S.F.	6"	12"

SWM PRACTICES SCHEDULE

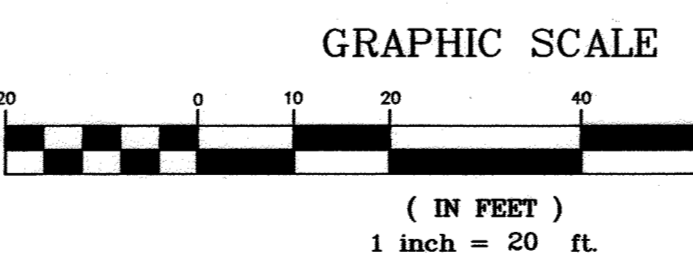
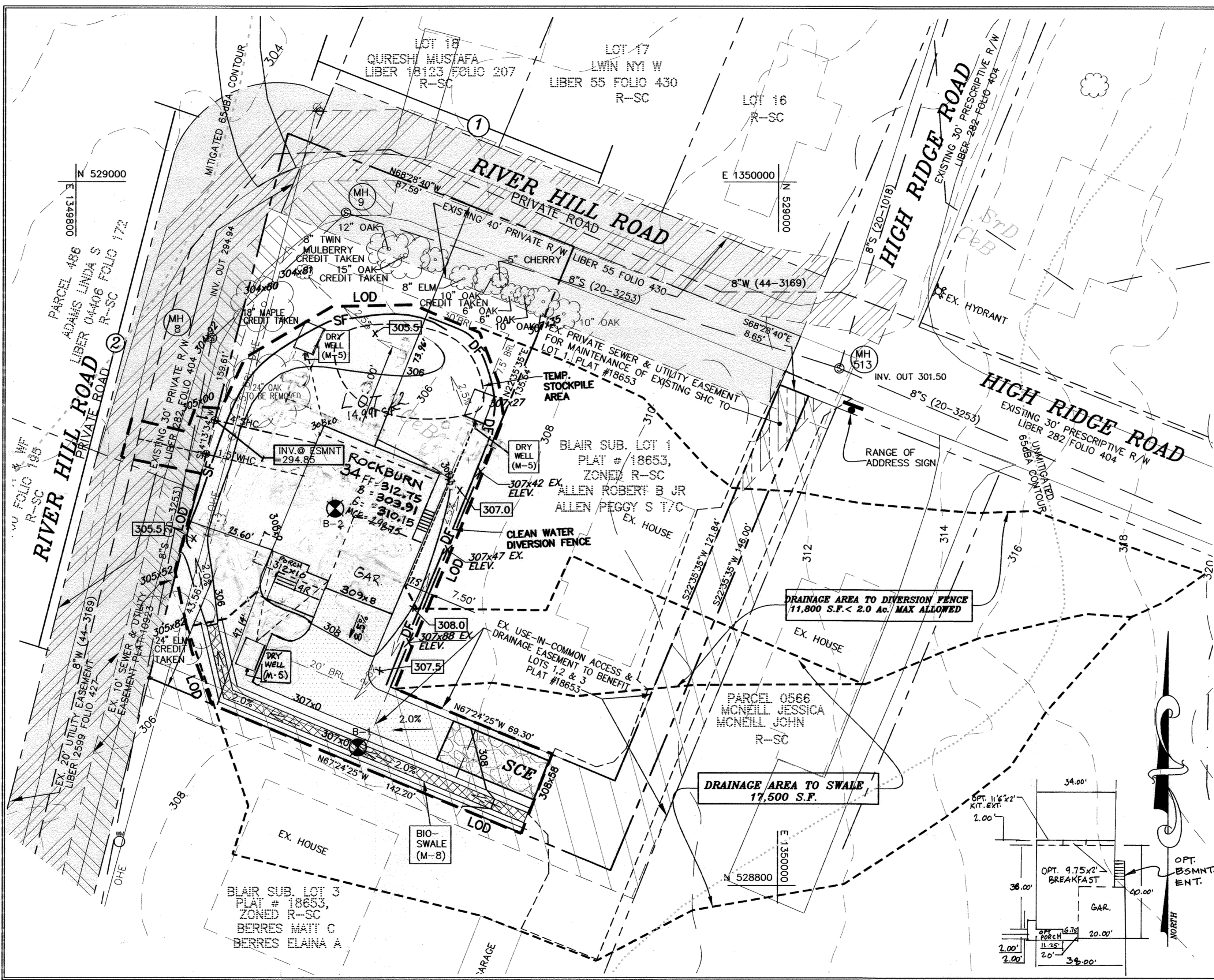
AREA	PROPOSED PRACTICES	REQUIRED ESDV	PROVIDED ESDV	REQUIRED P _o	PROVIDED P _o
LOT 2	DRYWELLS M-5	556 C.F.	636 C.F.	1.6"	1.9"



VICINITY MAP
 SCALE: 1"=1000'
 ADC MAP: 39, GRID F7

GENERAL NOTES:

- SUBJECT PROPERTY ZONED "R-SC" PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- SITE ANALYSIS DATA:
 ADDRESS: 10165-B HIGH RIDGE RD LAUREL 20723-0000
 LOCATION: TAX MAP: 47 - PARCEL: 565, LOT 2 - GRID 019
 ZONING: R-SC
 ELECTION DISTRICT: THIRD
 DEED REFERENCE: 10489 F. 00091
 AREA OF TRACT: 0.344 AC±
 PROPOSED USE: STD.
 TOTAL NUMBER OF EXISTING LOTS: 2.5 SPACES
 NUMBER OF PARKING SPACES REQUIRED: 2.5 SPACES (2 IN GARAGE+ 2 DRIVEWAY)
 NUMBER OF PARKING SPACES PROVIDED: 4 SPACES (2 IN GARAGE+ 2 DRIVEWAY)
 COUNTY FILE NUMBERS: F-02-036, ECP-20-012
 LIMIT OF DISTURBANCE: 0.22 AC.
- COORDINATES BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 1
 STA No. 47E N 529,044.936 E 1,350,855.028 EL. 335.744
 STA No. 47GD N 530,494.421 E 1,350,872.374 EL. 312.276
- EXISTING TOPOGRAPHIC INFORMATION IS BASED FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY MILDENBERG BOENDER & ASSOC. ON JULY 2019.
- BOUNDARY INFORMATION IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY BY MILDENBERG, BOENDER & ASSOC., INC. DATED JULY 2019.
- IN ACCORDANCE WITH SECTION 128.0 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK, PORCHES OR DECKS, OPEN OR ENCLOSED, MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
 B. SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").
 C. GEOMETRY-MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS.
 D. STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.
 F. STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 G. MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH SECTION SEC. 16.1202(B)(1)(I) AS INDICATED UNDER F-02-036.
- LANDSCAPING FOR THIS PROJECT IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. NO FINANCIAL SURETY IS REQUIRED. CREDIT IS BEING TAKEN FOR THE EXISTING TREES ALONG PERIMETERS ONE AND TWO. THE OTHER TWO PERIMETERS ARE INTERNAL TO BLAIR PROPERTY SUBDIVISION.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, 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.
- NO STREAM, WETLANDS, FLOODPLAIN OR FOREST EXIST ON SITE PER PLAT # 18653.
- APFO ROAD TEST IS NOT REQUIRED FOR THIS DEVELOPMENT.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC. SEWER CONTRACT# 20-3253 WATER 44-3169.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED BY 4 DRYWELLS (M-5) AND BIO-SWALE (M-8). ALL SWM PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST 48 HOURS PRIOR TO EXCAVATION WORK BEING DONE:
 MISS UTILITY 800-257-7777
 VERIZON TELEPHONE COMPANY (410) 725-9976
 HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900
 AT&T CABLE LOCATION DIVISION (410) 393-3533
 BALTIMORE GAS AND ELECTRIC (410) 685-0123
 STATE HIGHWAY ADMINISTRATION (410) 531-5533
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OF CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- EXISTING UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS, IN COMBINATION WITH EXISTING WATER AND SEWER CONTRACTS.
- 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 THE START OF WORK.



ADDRESS CHART

LOT	ADDRESS
2	10165-B HIGH RIDGE RD

PERMIT INFORMATION BLOCK

SUBDIVISION NAME:	SECTION/AREA:	PARCEL:			
BLAIR PROPERTY LOT 2	N/A	565			
PLAT NO.	BLOCK(S)	ZONING	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
18653	19	R-SC	47	THIRD	606906

INDEX OF DRAWINGS

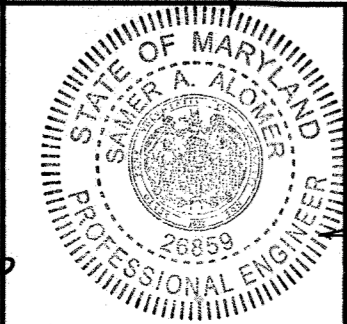
NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT CONTROL NOTES AND DETAILS

DEVELOPERS CERTIFICATE
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF DEVELOPER: Jason E. Poe
 DATE: 11-17-20

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: Samer A. Alomer P.E.
 DATE: 08/20/2020

DEVELOPER'S/OWNER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO 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-YEAR GUARANTEED OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 SIGNATURE OF DEVELOPER/OWNER: Samer A. Alomer P.E.
 DATE: 11-17-20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature]
 DATE: 12-3-20
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature]
 DATE: 12-16-20



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. 26859, EXP DATE 08/08/21.
 SIGNATURE OF DEVELOPER/OWNER: Samer A. Alomer P.E.
 DATE: 08/20/2020

DEVELOPER/OWNER
 JP & SB ENTERPRISES LLC
 4028 PETERSVILLE RD
 KNOXVILLE MD 21758
 301-674-6730

BLAIR PROPERTY
 LOT 2
 TAX MAP: 47 - PARCELS: 565, LOT 2 GRID 0019
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7850-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0298 Tel. (410) 997-0298 Fax

1 OF 2

SOIL DESCRIPTION:

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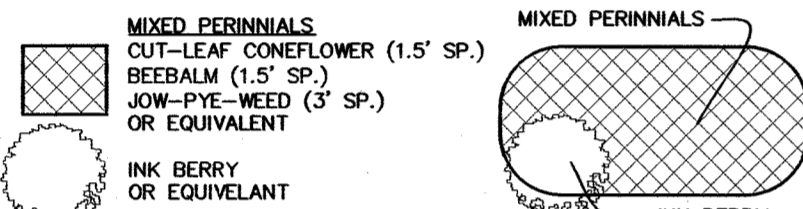
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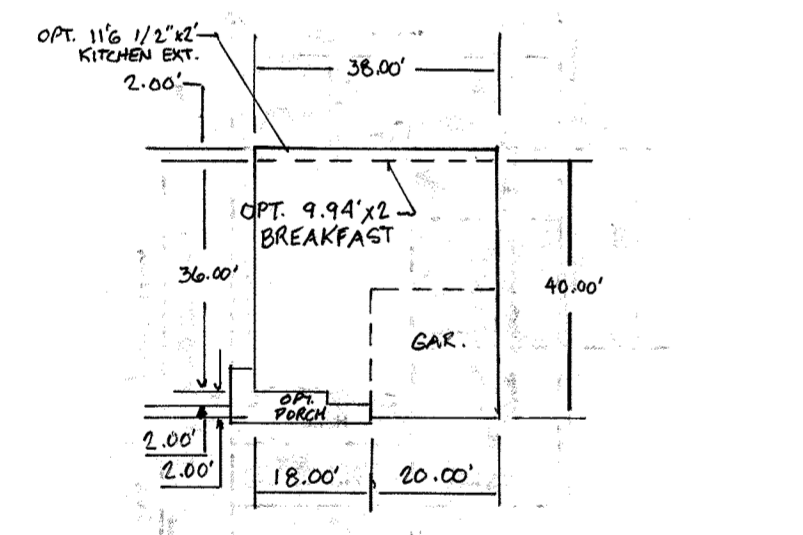
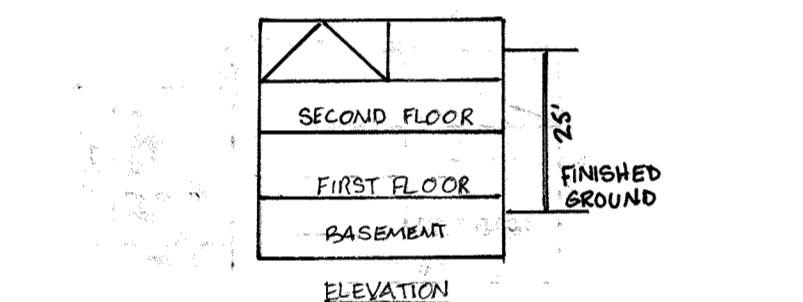
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-NOTE: THE OTHER TWO PERIMETERS ARE CONSIDERED INTERNAL TO BLAIR PROPERTY SUBDIVISION.



TYP. MICRO-BIORETENTION PLANTING DETAIL



THE ROCKBURN 38

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ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: Samer A. Alomer P.E.
 DATE: 08/20/2020

DEVELOPER'S/OWNER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO 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-YEAR GUARANTEED PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Signature: Samer A. Alomer P.E.
 DATE: 11-17-20

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: [Official Seal]
 DATE: 12-3-20

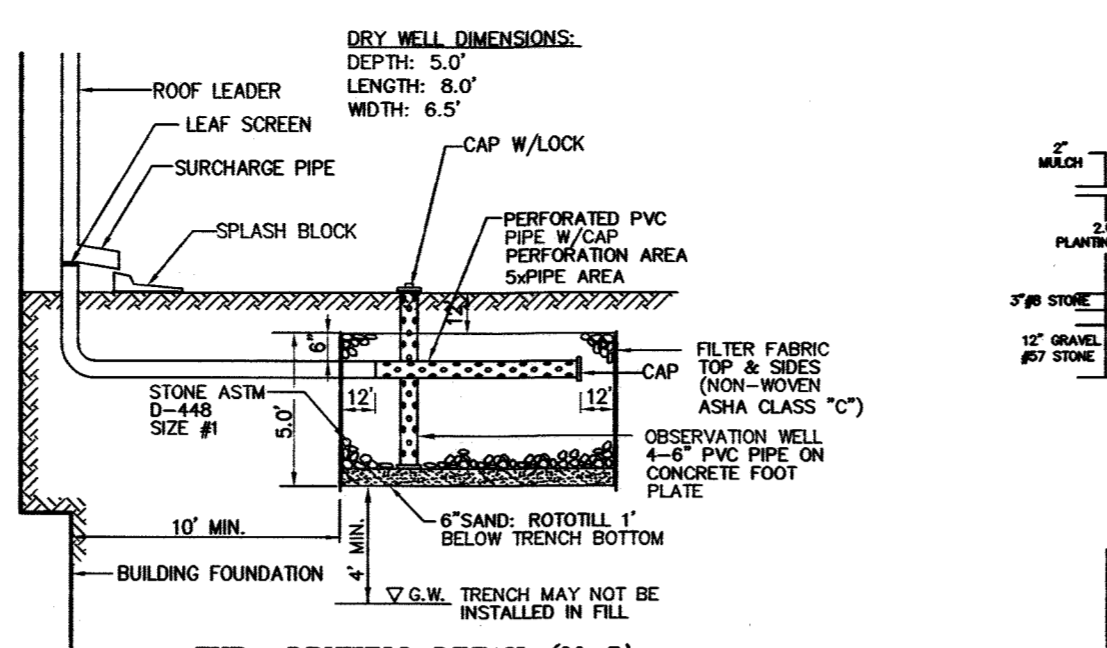
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Signature: Samer A. Alomer P.E.
 DATE: 08/20/2020

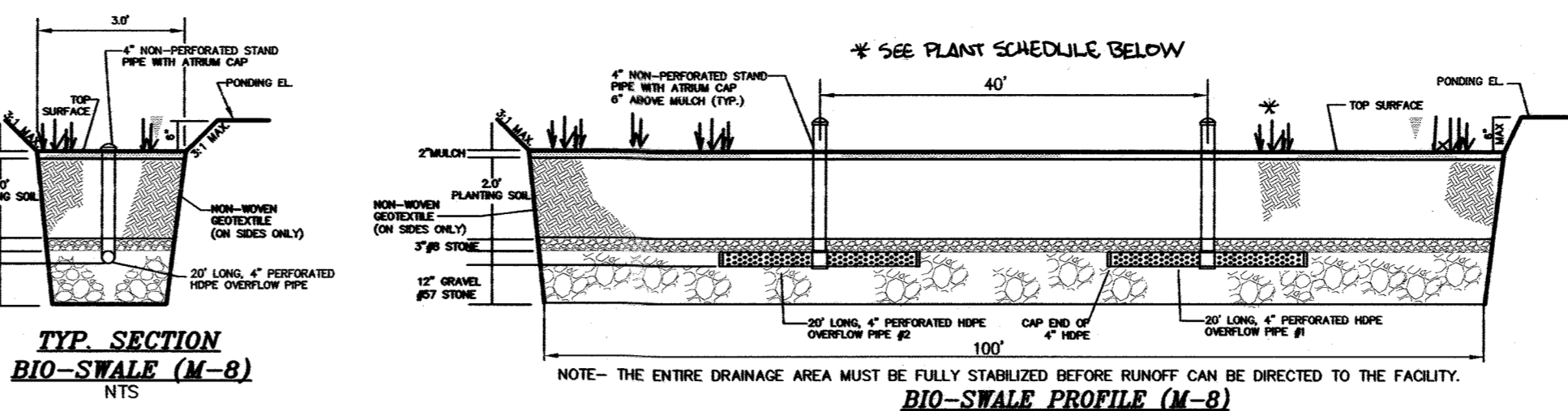
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26859, EXP DATE 08/08/21

Signature: Samer A. Alomer P.E.
 DATE: 08/20/2020



TYP. DRYWELL DETAIL (M-5)

NOTE - ALL ROOF LEADERS MUST BE CONNECTED TO DRYWELLS

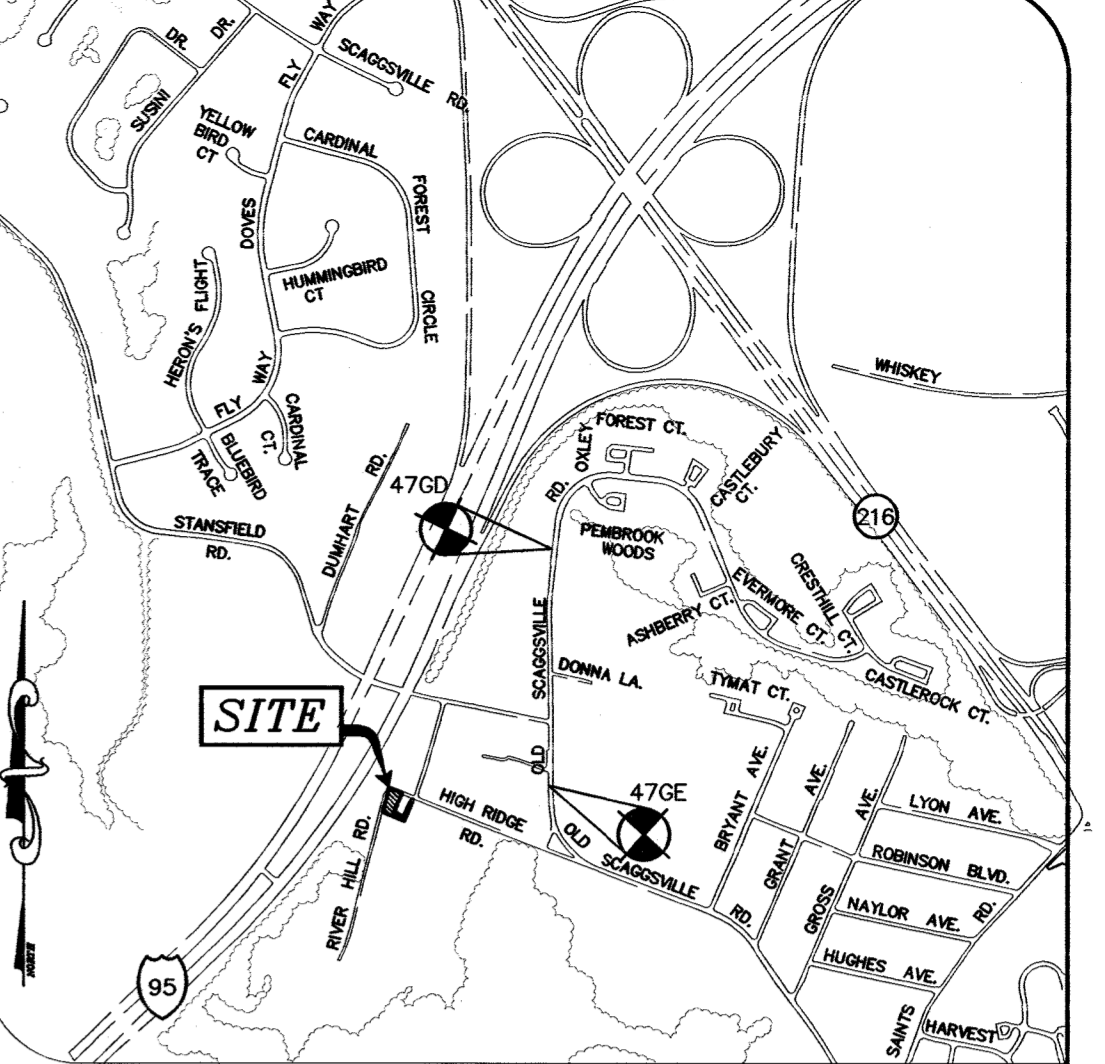


BIO-SWALE (M-8) DESIGN DATA

FACILITY LOT#	SWALE LENGTH	SWALE WIDTH	SWALE SLOPE	INV. UNDERDRAIN UNDERGRAN #1	INV. UNDERDRAIN UNDERGRAN #2	SURFACE AREA	PONDING AREA	PONDING DEPTH	GRAVEL DEPTH BELOW UNDERDRAIN
LOT 2 10165-B HIGH RIDGE RD	100.0'	3.0'	2.0%	373.08	372.85	350 S.F.	650 S.F.	6"	12"

SWM PRACTICES SCHEDULE

AREA	PROPOSED PRACTICES	REQUIRED ESDV	PROVIDED ESDV	REQUIRED P _e	PROVIDED P _e
LOT 2 10165-B HIGH RIDGE RD	DRYWELLS M-5 BIO SWALE M-8	556 C.F.	636 C.F.	1.6"	1.9"

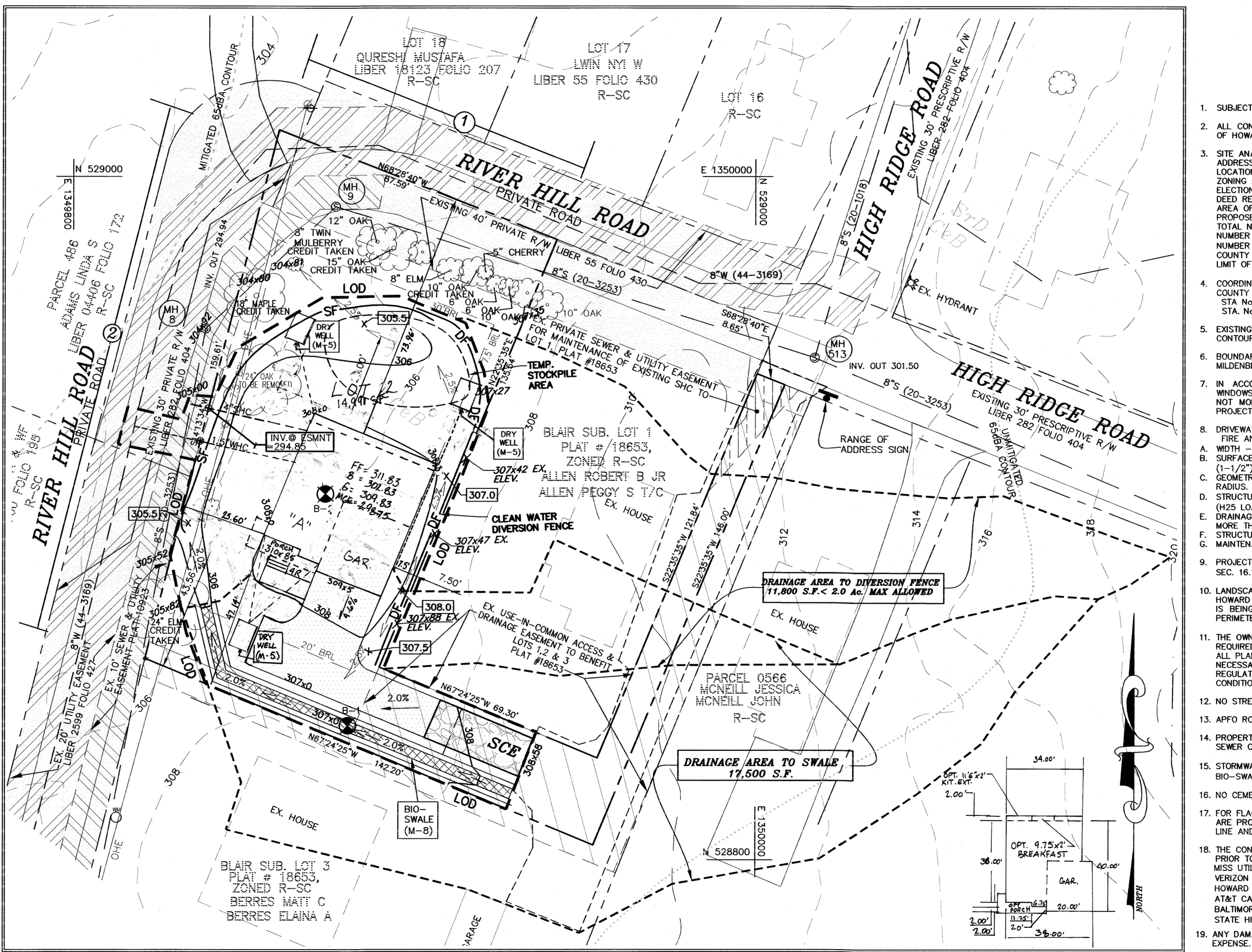


VICINITY MAP

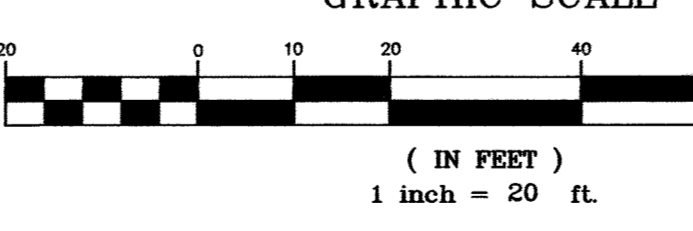
SCALE: 1"=1000'

GENERAL NOTES:

- SUBJECT PROPERTY ZONED "R-SC" PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- SITE ANALYSIS DATA:
 ADDRESS: 10165-B HIGH RIDGE RD LAUREL 20723-0000
 LOCATION: TAX MAP: 47 - PARCEL: 565, LOT 2 - GRID 019
 ZONING: R-SC
 ELECTION DISTRICT: THIRD
 DEED REFERENCE: 10489 F. 00091
 AREA OF TRACT: 0.344 AC±
 PROPOSED USE: SFD
 TOTAL NUMBER OF EXISTING LOTS: 1
 NUMBER OF PARKING SPACES REQUIRED: 2.5 SPACES
 NUMBER OF PARKING SPACES PROVIDED: 4 SPACES (2 IN GARAGE+ 2 DRIVEWAY)
 COUNTY FILE NUMBERS: F-02-036, ECP-20-012
 LIMIT OF DISTURBANCE: 0.22 AC.
- COORDINATES BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. STA No. 47C N 529,044.936 E 1,350,855.028 EL. 335.744 STA No. 47GD N 530,494.421 E 1,350,872.374 EL. 312.276
- EXISTING TOPOGRAPHIC INFORMATION IS BASED FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY MILDENBERG BOENDER & ASSOC. ON JULY 2019.
- BOUNDARY INFORMATION IS BASED ON FIELD SURVEY MONUMENTED BOUNDARY SURVEY BY MILDENBERG, BOENDER & ASSOC., INC. DATED JULY 2019.
- IN ACCORDANCE WITH SECTION 128.0 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK. PORCHES, DECKS, OPEN OR ENCLOSED, MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
 B. SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").
 C. GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS.
 D. STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAIN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.
 F. STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 G. MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH SECTION SEC. 16.120(B)(1)(I) AS INDICATED UNDER F-02-036.
- LANDSCAPING FOR THIS PROJECT IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. NO FINANCIAL SURETY IS REQUIRED, CREDIT IS BEING TAKEN FOR THE EXISTING TREES ALONG PERIMETERS ONE AND TWO. THE OTHER TWO PERIMETERS ARE INTERNAL TO BLAIR PROPERTY SUBDIVISION.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- NO STREAM, WETLANDS, FLOODPLAIN OR FOREST EXIST ON SITE PER PLAT # 18653.
- APFO ROAD TEST IS NOT REQUIRED FOR THIS DEVELOPMENT.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC. SEWER CONTRACT# 20-3253 WATER 44-3169.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED BY 4 DRYWELLS (M-5) AND BIO-SWALE (M-8). ALL SWM PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST 48 HOURS PRIOR TO EXCAVATION WORK BEING DONE:
 MISS UTILITY 800-257-7777
 VERIZON TELEPHONE COMPANY (410) 725-9976
 HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900
 AT&T CABLE LOCATION DIVISION (410) 393-3533
 BALTIMORE GAS AND ELECTRIC (410) 685-0123
 STATE HIGHWAY ADMINISTRATION (410) 531-5533
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OF CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- EXISTING UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS, IN COMBINATION WITH EXISTING WATER AND SEWER CONTRACTS.
- 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 THE START OF WORK.



GRAPHIC SCALE



ADDRESS CHART

LOT	ADDRESS
2	10165-B HIGH RIDGE RD

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT CONTROL NOTES AND DETAILS

PERMIT INFORMATION BLOCK

SUBDIVISION NAME:	SECTION/AREA:	PARCEL:			
BLAIR PROPERTY LOT 2	N/A	565			
PLAT NO.	BLOCK(S)	ZONING	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
18653	19	R-SC	47	THIRD	606906

DEVELOPER/OWNER

JP & SB ENTERPRISES LLC
 4028 PETERSVILLE RD
 KNOXVILLE MD 21758
 301-674-6730

date	AUG 2020
project	19-007
illustration	MM
scale	1"=20'
approval	SAA

date	11/20/20
description	REV HOUSE MODEL + ASSOC. GRADING
revisions	1

BLAIR PROPERTY
 LOT 2
 TAX MAP: 47 - PARCELS: 565, LOT 2 GRID 0019
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7850-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0296 Tel. (410) 997-0298 Fax.

STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 A. PRIOR TO THE START OF EARTH DISTURBANCE.
 B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.

4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-3), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-5). SPRING STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN MEASUREMENT OF CUT AND/OR FILL STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCH WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HEAVY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
 6. SITE ANALYSIS:
 TOTAL AREA OF SITE: 0.34 ACRES
 AREA TO BE ROOFED OR PAVED: 0.09 ACRES
 AREA TO BE VEGETATED/STABILIZED: 0.11 ACRES
 TOTAL CUT: 500 CU. YDS.
 TOTAL FILL: 500 CU. YDS.
 OFFSITE WASTE/BORROW AREA LOCATION:
 7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY, BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 -INSPECTION DATE
 -INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 -NAME AND TITLE OF INSPECTOR
 -WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF PREVIOUS RAINFALL)
 -BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
 -EVIDENCE OF SEDIMENT DISCHARGES
 -IDENTIFICATION OF FLAN DETRICTIONS
 -IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
 -IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
 -COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
 -PHOTOGRAPHS
 -MONITORING/SAMPLING
 -MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
 -OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDS).

9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
 10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSD-APPROVED FIELD CHANGES.
 11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBERCATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
 15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 USE I AND II: MARCH 1 - JUNE 15
 USE III AND III: APRIL 30 - APRIL 30
 USE IV: MARCH 1 - MAY 31
 16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

(B-4-2) STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION
 THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE ESTABLISHMENT.
PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
CONDITIONS WHERE PRACTICE APPLIES
 WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.
CRITERIA
A. SOIL PREPARATION
 1. **TEMPORARY STABILIZATION**
 a. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISKS, HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENEED, IT MUST NOT BE ROLLED OR DRAGGED SOUTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRADED WITH RIDGES TO THE CONTOUR OF THE SLOPE.
 b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 2. **PERMANENT STABILIZATION**
 a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 I. SOIL PH BETWEEN 6.0 AND 7.0.
 II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LONGER GRASSES WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 b. SOIL PREPARATION TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND MIX THE SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. PRACTICES SUCH AS DISKING, HARROWING, OR EXCESSIVE TILLAGE ARE NOT TO BE USED TO PREPARE THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACED AND OTHER TRACKS MUST BE REPAIRED TO THE ORIGINAL CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
B. TOPSOILING
 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAIN DISTRIBUTION.
 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SITE TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 c. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR AS APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CHINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/4 INCH IN DIAMETER.
 b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERBERIS GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, HEDERA, OR OTHERS AS SPECIFIED.
 c. TOPSOIL SUBSTITUTES ARE RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 6. TOPSOIL APPLICATION
 a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM DEPTH OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING.
C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A REGISTERED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
 2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DESIGNED TO BE APPLIED AS LABELLED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNED LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDE OF CALCIUM PLUS MAGNESIUM OXIDE. LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

(B-4-3) STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION
 THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE
 TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.
CONDITIONS WHERE PRACTICE APPLIES
 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.
CRITERIA
A. SEEDING
 1. **SPECIFICATIONS**
 a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO PRE-TESTING BY A REGISTERED SEED LABORATORY. ALL SEED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING. SUCH MATERIAL ON ANY PROJECT, REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 b. MULCH ALONG WITH SEEDING MUST BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
 c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USE. TEMPERATURE ABOVE 70 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 d. SOIL OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZANTS OR CHEMICALS. SEED FOR WEED CONTROL, UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 2. **APPLICATION**
 a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DRIP OR BROADCAST SPREADERS.
 b. HYDROSEEDING: THIS INCLUDES THE USE OF CONVENTIONAL DRIP OR BROADCAST SPREADERS.
 c. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1. PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
 d. APPLY SEED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER.
 e. EACH SEEDING RATE MUST BE SEEDING RATE WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 f. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 g. HYDROSEEDING: THIS INCLUDES THE USE OF CONVENTIONAL DRIP OR BROADCAST SPREADERS.
 h. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 i. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 1. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P₂O₅ (PHOSPHORUS), 200 POUNDS PER ACRE; K₂O (POTASSIUM), 200 POUNDS PER ACRE.
 2. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
 3. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
 4. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
B. MULCHING
 1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
 a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLLY, CANKED, DECAYED, OR EXCESSIVELY DUSTY. STRAW MULCH IS TO BE APPLIED TO AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 c. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN ATTRACTIVE COLOR TO FACILITATE VISUAL INSPECTION OF MULCH DISTRIBUTION.
 d. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATING OR GROWTH INHIBITING FACTORS.
 e. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM CONTACT WITH THE SOIL.
 f. WCFM MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERBERIS GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, HEDERA, OR OTHERS AS SPECIFIED.
 g. TOPSOIL SUBSTITUTES ARE RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 2. **APPLICATION**
 a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 c. WOOD CELLULOSE FIBER MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 3. **ANCHORING**
 a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 II. WOOD CELLULOSE FIBER MULCH CAN BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSEAL, TERRA TIL, TERRA TACK, OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVY AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS.
 IV. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 4. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

(B-4-5) STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
 TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.
PURPOSE
 TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED SOILS.
CONDITIONS WHERE PRACTICE APPLIES
 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.
CRITERIA
A. SEED MIXTURES
 1. **SELECTION**
 a. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED IN THE SITE CONDITION OR PURPOSE.
 b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 542-CRITICAL AREA PLANTING.
 c. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZING (40-0-0) AT 1 TO 2 POUNDS PER 1000 S.F. (150 POUNDS PER ACRE) AT THE TIME OF SEEDING AND ADD TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
 2. **TURFGRASS MIXTURES**
 a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 b. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.
 I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MAINTENANCE. CERTIFIED PERENNIAL KYBLUEGRASS CULTIVARS/ CERTIFIED KENTUCKY BLUEGRASS RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 20 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MAINTENANCE. CERTIFIED PERENNIAL KYBLUEGRASS/ CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT SHADE AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 65 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT, SEEDING RATE: 5 TO 8 PERCENT PER 1000 S.F. ONE OR MORE CULTIVARS MAY BE BLENDED.
 IV. MIXED KYBLUEGRASS/PERENNIAL RYE: FULL MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED PERENNIAL RYE 60 TO 70 PERCENT. SEEDING RATES: 1 1/2 TO 3 POUNDS PER 1000 S.F.
 c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURE:
 WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONE: 5B,6A)
 CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
 SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 7A,7B)
 2. **TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONE AND DEBRIS OVER 1.5 INCH DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE WORKING OF GRASS WILL BE WITHOUT DIFFICULTY.**
 3. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH.
 4. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
 7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

STANDARD STABILIZATION NOTE:
 FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
 A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND
 B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
 2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
 3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH.
 4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE WORKING DAY.
 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
 7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIOTRETENTION, RAIN GARDENS & LANDSCAPE INFILTRATION

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4.	N/A	PLANTINGS ARE SITE-SPECIFIC
PLANTING SOIL (2" TO 4" DEEP)	LOAMY SAND (60 - 65%) & COMPOST (35 - 40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM; CLAY CONTENT < 5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)		
MULCH	SHREDED HARROWOOD		AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
PEA GRAVEL (DIAPHRAGM)	PEA GRAVEL: ASTM-D-448	NO. 8 OR NO. 3	
CURTAIN DRAIN	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 3"	
GEOTEXTILE (UNDERDRAINS AND INFILTRATION BERMS)	AASHTO M-43	NO. 65 OR NO. 6	AGGREGATE (3/8" TO 3/4")
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 OR 40	SLOTTED OR PERFORATED PIPE, 3/8" PERFT. @ 6" ON CENTER, 4 HOLES PER ROW, MINIMUM OF 3" OF GRASS OVER PIPE. IF NECESSARY UNDERNEATH PIPES, PERFORATED PIPE SHALL BE WRAPPED WITH 1/4-INCH GALVANIZED HARDWARE CLOTH
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3, FC	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED
SAND	AASHTO M-6 or AASHTO M-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO ROCK DUST CAN BE USED FOR SAND.

OPERATION AND MAINTENANCE SCHEDULE FOR BIO SWALE (B-8)

A. THE OWNER 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. ANY ANNUAL REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE REPLACED AS NECESSARY. REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARIALAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
 B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
 C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
 D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

(B-4-4) STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION
 TO STABILIZE DISTURBED SOIL WITH VEGETATION FOR UP TO 6 MONTHS.
PURPOSE
 TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURB SOIL.
CONDITIONS WHERE PRACTICE APPLIES
 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.
CRITERIA
 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND NOT COMPLETED, THEN TABLE B-1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.1.b, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.
SEQUENCE OF CONSTRUCTION
 1. OBTAIN GRADING PERMIT (1 DAY).
 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION INDICATED (1 DAY).
 3. CONSTRUCT PERIMETER CONTROLS: SILT FENCES (SF), (1 DAY).
 4. GRADE SITE PER PLAN (5 DAYS).
 5. CONSTRUCT WATER AND SEWER HOUSE CONNECTIONS (5 DAYS).
 6. CONSTRUCT HOUSE (90-180 DAYS).
 7. CONSTRUCT DRIVEWAY (5 DAYS).
 8. STABILIZE ALL DISTURBED AREA (1 DAY).
 9. CONSTRUCT BGS, SWALES AND DRY WELL (3 DAYS).
 10. SEED AND MULCH ALL REMAINING DISTURBED AREAS (1 DAY).
 11. WHEN ALL CONTAINING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS (1 DAY).

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)			LIME RATE
					N	P ₂ O ₅	K ₂ O	
1	TALL FESCUE	100	MARCH 1-MAY 15 19-OCT 15	1/4"-1/2"	45 LBS. PER ACRE (2 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	2 TONS / ACRE (90 LBS. / 1000 SF)

MIXTURES 1, 4-7, 8, and 10 FROM TABLE B.3 OF THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, MAY BE USED.

TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE (LB/AC)	SEEDING DEPTHS (INCHES)	RECOMMENDED SEEDING DATED BY PLANT HARDNESS ZONE		
			5B AND 6A	6B	7A AND 7B
COOL SEASON GRASSES					
ANNUAL RYEGRASS (LOLLIUM PERENNIS SPEC. MULTIFLORUM)	40	1.0	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
BARLEY (HORDEUM VULGARE)	96	2.2	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
OATS (Avena sativa)	72	1.7	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
WHEAT (TRITICUM AESTIVUM)	120	2.8	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO	