

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLANS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 - 1-800-257-7777
 - 1-410-954-6281
 - VERIZON TELEPHONE COMPANY: 410-313-2366
 - AT&T CABLE LOCATION DRAWING: 1-800-393-3553
 - B.G.&C. CO. CONTRACTOR SERVICES: 410-850-4620
 - B.G.&C. CO. UNDERGROUND DAMAGE CONTROL: 410-787-4620
 - STATE HIGHWAY ADMINISTRATION: 410-531-5533
 - 410-531-5533
- THIS FINAL PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES: ECP-17-041.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DEVELOPMENT OR 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 AND GRADING PERMITS.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- SEDMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- THE PROJECT SHALL BE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY REQUIREMENTS UNLESS WAIVERS OR ALTERNATIVE COMPLIANCE PETITIONS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY, ELEVATIONS 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.
- THERE ARE NO WETLANDS, STREAMS OR OTHER FEATURES PRESENT ON THE PROPERTY. THERE ARE NO 100 YEAR FLOODPLAIN, OR STEEP SLOPES OVER 20,000 SF OF CONTIGUOUS AREA PRESENT ON THE SITE. PER FSD PLAN, THERE IS NO FOREST LOCATED ON THE SITE.
- THIS PROJECT COMPLETES WITHIN SECTION 16.1200 OF THE HOWARD COUNTY CODE AND SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL.
- TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY:
 - PAYMENT OF FEE - IN-LIEU = 14,810.4 SF (0.34 AC) X \$ 775 = \$11,108.00
 - NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
 - GEOTECHNICAL INVESTIGATIONS SHALL BE COMPLETED AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
 - A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
 - FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, ON MARCH 2017. MR. CANOLES IDENTIFIED 4 SPECIMEN TREES ON THE PROJECT SITE. THIS PLAN PROPOSAL REQUIRES THE REMOVAL OF 2 SPECIMEN TREES.
 - ALLEN LANE IS CLASSIFIED AS A LOCAL ROAD.
 - TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
 - THERE ARE TWO EXISTING STRUCTURES ON THIS SITE TO REMAIN, NO NEW BUILDINGS, EXTENSIONS, OR ADDITIONS TO THE EXISTING DWELLINGS ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS. THE EXISTING SHED ON LOT 1 IS TO BE REMOVED.
 - THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
 - STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-BIORETENTION (M-6), RAIN GARDEN (M-7), AND DRYWELLS (M-5) FACILITIES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
 - THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, ALTERNATIVE COMPLIANCE APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
 - A LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$1050.00 FOR THE 9 SHADE TREES (200'), 5 SHRUBS (150'), AND 4 SHADE TREES (SPECIMEN TREE REPLACEMENT) (1,200) SHALL BE POSTED WITH THE SUBMISSION OF THE FINAL REVIEW AND APPROVAL OF THE LANDSCAPE PLAN WILL BE WITH THE SITE DEVELOPMENT PLAN SUBMISSION.
 - A TRAFFIC STUDY FOR THIS PROJECT PREPARED BY THE TRAFFIC GROUP, INC., DATED JANUARY 19, 2018, HAS APPROVED MARCH 2018.
 - DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - A) WIDTH - 12 FEET RESIDENCE
 - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1-1 1/2" MIN.)
 - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGING AND MINIMUM 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 WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
 - A PRE-SUBMISSION MEETING WAS HELD ON MAY 01, 2017 AT 6:00 PM AT THE HOWARD COUNTY LIBRARY CENTRAL BRANCH.
 - MHIU'S ARE REQUIRED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 109.0.9.E OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS. THIS SUBDIVISION IS SUBJECT TO THE INCOME HOUSING UNITS. THE MHIU OBLIGATION FOR THIS DEVELOPMENT WILL BE PROVIDED BY A PAYMENT OF FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR EACH UNIT OR PORTION OF THE UNITS REQUIRED BY THE DEVELOPMENT. IN ACCORDANCE WITH SECTION 16.1210(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-12 PROJECT IS TO SATISFY BY PAYMENT OF FEE-IN-LIEU IN THE AMOUNT OF \$6,000 (4 LOTS X \$1,500)
 - THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, TREES, FENCES, SIGNAGE AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
 - TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993). A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3" LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO ("QUICK PUNCH") HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - THE R-12 (STOP) SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE GRADING IS COMPLETED.
 - THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
 - A PRIVATE ROAD STREET NAME ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.
 - FLAG AND PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT OF WAY LINE AND NOT INTO THE PIPESTEM LOT DRIVEWAY.
 - THIS PROJECT IS SUBJECT TO 18-074, ON MARCH 6, 2018. THE PLANNING DIRECTOR APPROVED THE REQUEST FOR ALTERNATIVE COMPLIANCE TO SECTION 16.1205(A)(7) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WHICH REQUIRES THE RETENTION OF STATE CHAMPION TREES, TREES 75% OF THE DIAMETER OF STATE CHAMPION TREES, AND TREES 30" IN DIAMETER OR LARGER, SECTION 16.127(C)(4)(I) WHICH REQUIRES A SHARED USE-IN-COMMON DRIVEWAY MUST BE PROVIDED IN ACCORDANCE WITH THE DESIGN MANUAL, WITHIN A MINIMUM 24'-FOOT-WIDE ACCESS EASEMENT FOR ALL PROPOSED RESIDENTIAL INFILL DEVELOPMENT LOTS. ANY EXISTING DRIVEWAY ENTRANCES ONTO THE PUBLIC ROAD RIGHT-OF-WAY MUST BE CONNECTED TO A SINGLE USE-IN-COMMON DRIVEWAY OR ABANDONED. APPROVAL FOR SECTION 16.127(C)(4)(I) AND SECTION 16.1205(A)(7) IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - ALTERNATIVE COMPLIANCE APPROVAL IS LIMITED TO THE REMOVAL OF SPECIMEN TREES #1 AND #3 AS DEPICTED ON THE EXHIBIT. ANY PROPOSAL TO REMOVE ANY OTHER SPECIMEN TREE WILL REQUIRE A NEW ALTERNATIVE COMPLIANCE REQUEST.
 - A MINIMUM OF FOUR, NATIVE 2.5"-3" CALIPER, SHADE TREES SHALL BE PROVIDED AS MITIGATION FOR THE REMOVAL OF THE TWO SPECIMEN TREES FROM THE PROPERTY. LANDSCAPING SURETY, IN THE AMOUNT OF \$300.00 PER TREE, SHALL BE PROVIDED WITH THE APPLICANT'S GRADING PERMIT.
 - ON MARCH 6, 2018, THE PLANNING DIRECTOR HAS DENIED YOUR REQUEST FOR AN ALTERNATIVE COMPLIANCE TO SECTION 16.1205(A)(7)(B), LOCAL OR MINOR COLLECTOR ROADS. CONTRIBUTE TO THE COUNTY THE FUNDS NECESSARY TO DO SUCH CONSTRUCTION. SECTION 16.1240(1), IN RESIDENTIAL SUBDIVISIONS, THE DEVELOPER SHALL CONSTRUCT SIDEWALKS ON BOTH SIDES OF ALL STREETS IN THE PROJECT AND ALONG THE PROJECT FRONTAGE. SECTION 16.135, STREET LIGHTING: UNLESS THE CONTRACTOR OF PLUMBING AND ZONING, AFTER CONSULTATION WITH THE DIRECTOR OF PUBLIC WORKS, DETERMINES THAT ADEQUATE LIGHTING ALREADY EXISTS, THE DEVELOPER OF SUBDIVISIONS AND SIDE DEVELOPMENTS SHALL PROVIDE LIGHTING IN ACCORDANCE WITH THE DESIGN MANUAL AND IN LOCATIONS APPROVED BY THE DIRECTOR OF PLANNING AND ZONING. AFTER CONSULTATION WITH THE DIRECTOR OF PUBLIC WORKS AND LANDSCAPING REQUIRES THE DEVELOPER SHALL PROVIDE STREET TREES AND LANDSCAPING IN ACCORDANCE WITH SECTION 16.120 AND THE LANDSCAPE MANUAL.
 - DUE TO THE EXCAVATIONS NEAR POLE# BGE293184 AND TO GUY WIRES, BRACING AND/OR RE-SETTING OF THE GUY WIRES MAY BE NECESSARY AT THE DISCRETION OF DGE. SEE NOTE.
 - FINANCIAL SURETY FOR THE REQUIRED STREET TREE PLANTING SHALL BE POSTED WITH THE BUILDERS GRADING PERMIT IN THE AMOUNT OF \$1,350.00 FOR THE REQUIRED 9 STREET TREES.

MINIMUM LOT SIZE CHART

LOT	GROSS AREA	PIPESTEM AREA	NET AREA	MIN. LOT SIZE
1	13,797 SF	834 SF	12,963 SF	12,000 SF
2	14,814 SF	1,445 SF	13,369 SF	12,000 SF
3	15,607 SF	1,405 SF	14,202 SF	12,000 SF
4	14,181 SF	860 SF	13,321 SF	12,000 SF

**FINAL SUPPLEMENTAL PLAN
LARRICK SUBDIVISION**
LOTS 1-6
A RESUBDIVISION OF
LOT 3, "ANNETTA GARDENS-SECTION 1"
AND LOT 4, "ANNETTA GARDENS-SECTION 2"
HOWARD COUNTY, MARYLAND

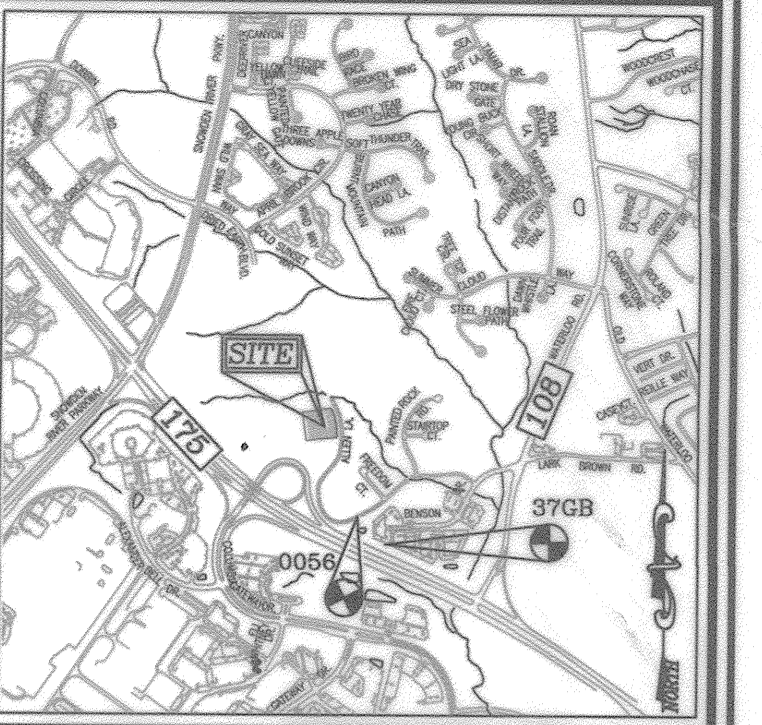
SPECIMEN TREE CHART

NO.	SIZE	CRZ	COMMON NAME	CONDITION	COMMENTS
ST 1	34.5	51.75	BLACK OAK	GOOD CONDITION	TO BE REMOVED
ST 2	32.5	48.75	WHITE OAK	FAIR CONDITION, LIMITED CANOPY	TO REMAIN
ST 3	31	46.5	SILVER MAPLE	TWIN SEMS	TO BE REMOVED
ST 4	30	45	SILVER MAPLE	TWIN SEMS	TO REMAIN

BENCHMARKS

COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 0054 AND 3709.

HOWARD COUNTY BENCHMARK - 0056
N 553723.18 E 1368212.59 ELEV.: 328.57
HOWARD COUNTY BENCHMARK - 37GB
N 553452.82 E 1368503.19 ELEV.: 325.23



UTILITY NOTES:

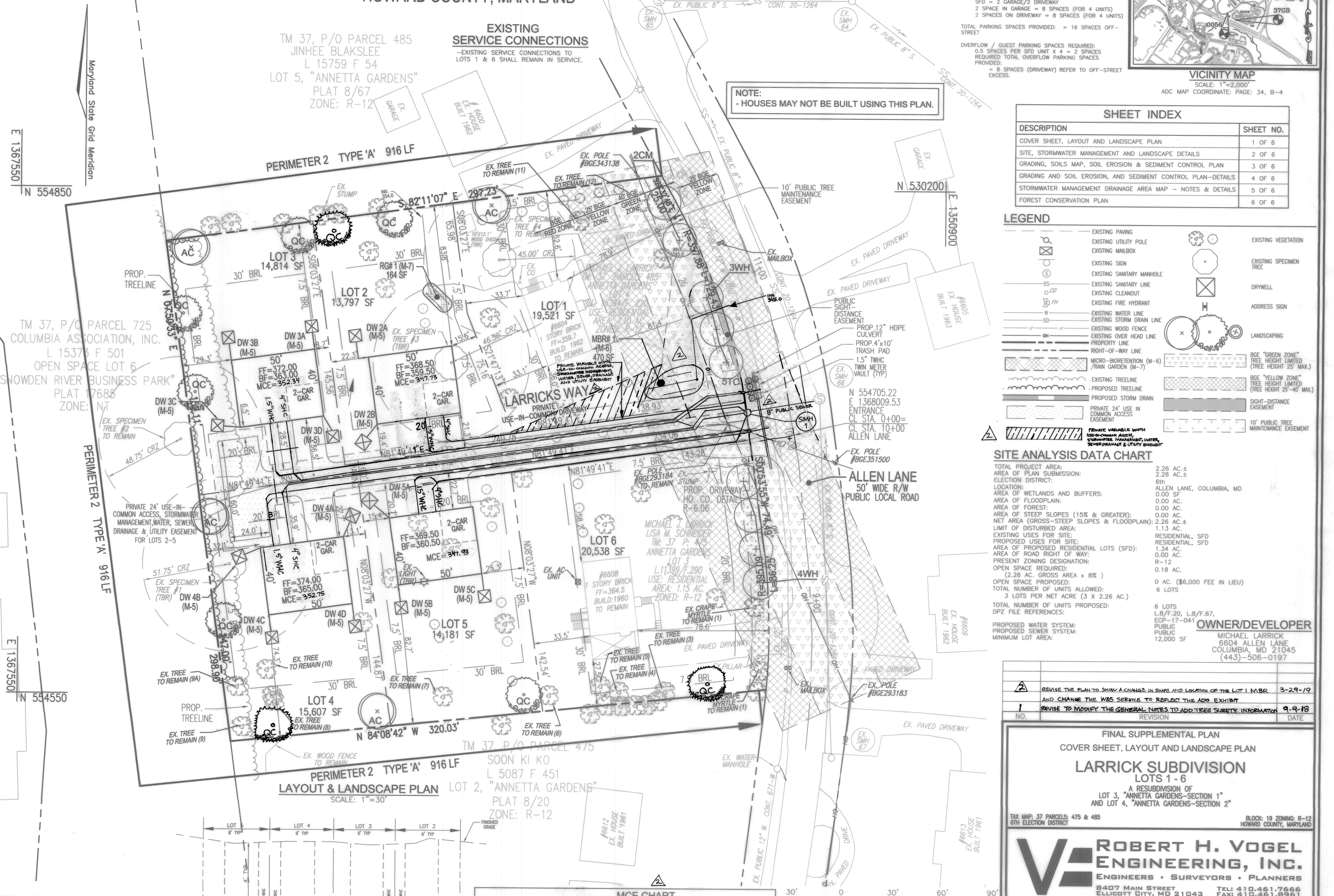
- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

MHIU AGREEMENT

PLEASE NOTE THAT ALL NEW LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION (LOTS 2-5) ARE SUBJECT TO THE MHIU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT.

PARKING TABULATION:

TOTAL NUMBER OF DWELLING UNITS PROPOSED: 4
OFF-STREET PARKING SPACES REQUIRED: 2 SPACES PER UNIT = 8 SPACES
PARKING SPACES PROVIDED:
SPD = 2 GARAGE/2 DRIVEWAY
2 SPACE IN GARAGE = 8 SPACES (FOR 4 UNITS)
2 SPACES ON DRIVEWAY = 8 SPACES (FOR 4 UNITS)
TOTAL PARKING SPACES PROVIDED = 16 SPACES OFF-STREET



SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET, LAYOUT AND LANDSCAPE PLAN	1 OF 6
SITE, STORMWATER MANAGEMENT AND LANDSCAPE DETAILS	2 OF 6
GRADING, SOILS MAP, SOIL EROSION & SEDIMENT CONTROL PLAN	3 OF 6
GRADING AND SOIL EROSION, AND SEDIMENT CONTROL PLAN-DETAILS	4 OF 6
STORMWATER MANAGEMENT DRAINAGE AREA MAP - NOTES & DETAILS	5 OF 6
FOREST CONSERVATION PLAN	6 OF 6

LEGEND

[Symbol]	EXISTING PAVING	[Symbol]	EXISTING VEGETATION
[Symbol]	EXISTING UTILITY POLE	[Symbol]	EXISTING SPECIMEN TREE
[Symbol]	EXISTING MAILBOX	[Symbol]	DRYWELL
[Symbol]	EXISTING SIGN	[Symbol]	ADDRESS SIGN
[Symbol]	EXISTING SANITARY MANHOLE	[Symbol]	LANDSCAPING
[Symbol]	EXISTING SANITARY LINE	[Symbol]	BCE "GREEN ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 25' MAX.)
[Symbol]	EXISTING CLEANOUT	[Symbol]	BCE "YELLOW ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 25'-40' MAX.)
[Symbol]	EXISTING FIRE HYDRANT	[Symbol]	SIGHT-DISTANCE EASEMENT
[Symbol]	EXISTING WATER LINE	[Symbol]	10' PUBLIC TREE MAINTENANCE EASEMENT
[Symbol]	EXISTING STORM DRAIN LINE	[Symbol]	
[Symbol]	EXISTING WOOD FENCE	[Symbol]	
[Symbol]	EXISTING OVER HEAD LINE	[Symbol]	
[Symbol]	PROPERTY LINE	[Symbol]	
[Symbol]	RIGHT-OF-WAY LINE	[Symbol]	
[Symbol]	MICRO-BIORETENTION (M-6) RAIN GARDEN (M-7)	[Symbol]	
[Symbol]	EXISTING TREE LINE	[Symbol]	
[Symbol]	PROPOSED TREE LINE	[Symbol]	
[Symbol]	PROPOSED STORM DRAIN	[Symbol]	
[Symbol]	PROPOSED '4' USE IN COMMON ACCESS EASEMENT	[Symbol]	
[Symbol]	PROPOSED VARIABLE WIDTH DRIVEWAY	[Symbol]	

SITE ANALYSIS DATA CHART

TOTAL PROJECT AREA:	2.26 AC ±
AREA OF PLAN SUBMISSION:	2.26 AC ±
ELECTION DISTRICT:	6th ALLEN LANE, COLUMBIA, MD
LOCATION:	0.00 SF
AREA OF WETLANDS AND BUFFERS:	0.00 AC
AREA OF FLOODPLAIN:	0.00 AC
AREA OF FOREST:	0.00 AC
AREA OF STEEP SLOPES (15% & GREATER):	0.00 AC
NET AREA (GROSS - STEEP SLOPES & FLOODPLAIN):	2.26 AC ±
LIMIT OF DISTURBED AREA:	1.13 AC
EXISTING USES FOR SITE:	RESIDENTIAL, SFD
PROPOSED USES FOR SITE:	RESIDENTIAL, SFD
AREA OF PROPOSED RESIDENTIAL LOTS (SFD):	1.34 AC
AREA OF ROAD RIGHT OF WAY:	0.00 AC
PRESIDENT ZONING DESIGNATION:	R-12
OPEN SPACE REQUIRED:	0.18 AC
(2.26 AC GROSS AREA X 8%)	
OPEN SPACE PROVIDED:	0 AC (\$6,000 FEE IN LIEU)
TOTAL NUMBER OF UNITS ALLOWED:	6 LOTS
3 LOTS PER NET ACRE (3 X 2.26 AC)	
TOTAL NUMBER OF UNITS PROPOSED:	6 LOTS
DPZ FILE REFERENCES:	6 LOTS
	L8/F-20, L8/F-67, ECP-17-041
PROPOSED WATER SYSTEM:	PUBLIC
PROPOSED SEWER SYSTEM:	PUBLIC
MINIMUM LOT AREA:	12,000 SF

OWNER/DEVELOPER

MICHAEL LARRICK
6604 ALLEN LANE
COLUMBIA, MD 21045
(443)-506-0197

**FINAL SUPPLEMENTAL PLAN
COVER SHEET, LAYOUT AND LANDSCAPE PLAN
LARRICK SUBDIVISION
LOTS 1-6
A RESUBDIVISION OF
LOT 3, "ANNETTA GARDENS-SECTION 1"
AND LOT 4, "ANNETTA GARDENS-SECTION 2"
HOWARD COUNTY, MARYLAND**

TAX MAP: 37 PARCELS: 475 & 485 BLOCK: 19 ZONING: R-12 HOWARD COUNTY, MARYLAND
6TH ELECTION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

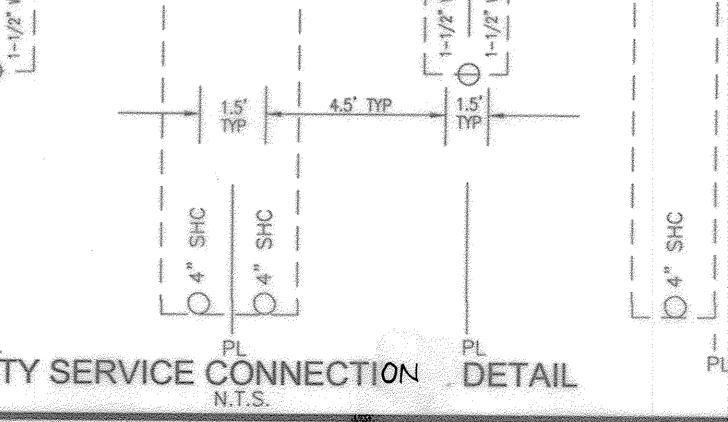
5/17/18
DATE

5/29/18
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

Signature: Michael Larrick
DATE: 5/2/18



MCE CHART

LOT#	EL @ MAIN	TYPE	DIST. TO RW	EL @ ESMT.	DIST. R/W TO HOUSE	EL @ HOUSE	MCE*
2	334.23	SHC	N/A	N/A	2.20	345.25 (1)	347.78
3	334.23	SHC	N/A	N/A	3/2	344.84 (1)	352.34
4	334.23	SHC	N/A	N/A	3.20	350.25 (1)	352.75
5	334.23	SHC	N/A	N/A	2.24	345.43 (1)	347.93

(1) SHC @ 5%
NOTE: 1. DROP SHC'S MAY BE UTILIZED HOWEVER MUST PROVIDE PROPER CLEARANCES PER CHOSEN WHC MATERIAL.
2. BUILDER'S SITE DEVELOPMENT PLAN SHALL PROVIDE FINAL DESIGN.

STORMWATER MANAGEMENT PRACTICE CHART

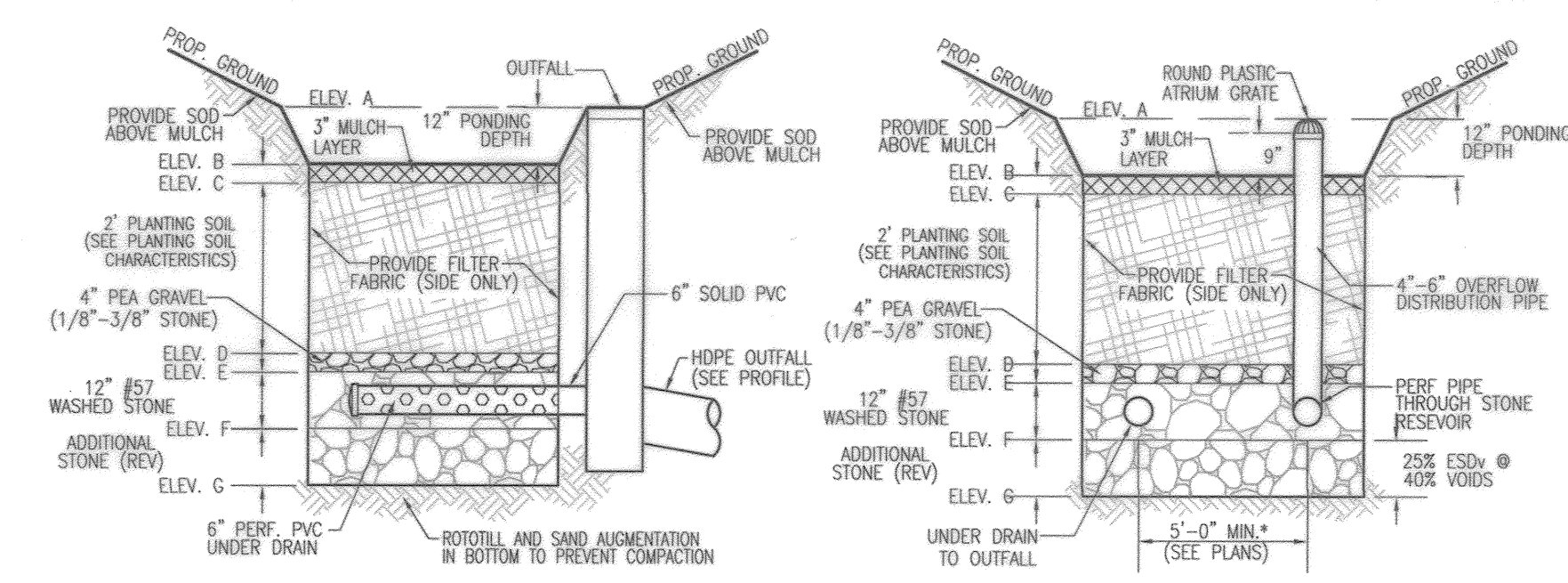
LOT #	STREET ADDRESS	ESD PRACTICE
LOT 1	6604 ALLEN LANE	(1) MICRO BIO-RETENTION (M-6) - USC DRIVE
LOT 2	6506 LARRICK'S WAY	(1) RAIN GARDEN (M-7); (2) DRY WELL (M-5)
LOT 3	6510 LARRICK'S WAY	(4) DRY WELL (M-5)
LOT 4	6511 LARRICK'S WAY	(4) DRY WELL (M-5)
LOT 5	6507 LARRICK'S WAY	(4) DRY WELL (M-5)
LOT 6	6608 ALLEN LANE	N/A

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELIDOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8961

DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: MAY 2018
SCALE: AS SHOWN
W.O. NO.: 18-38

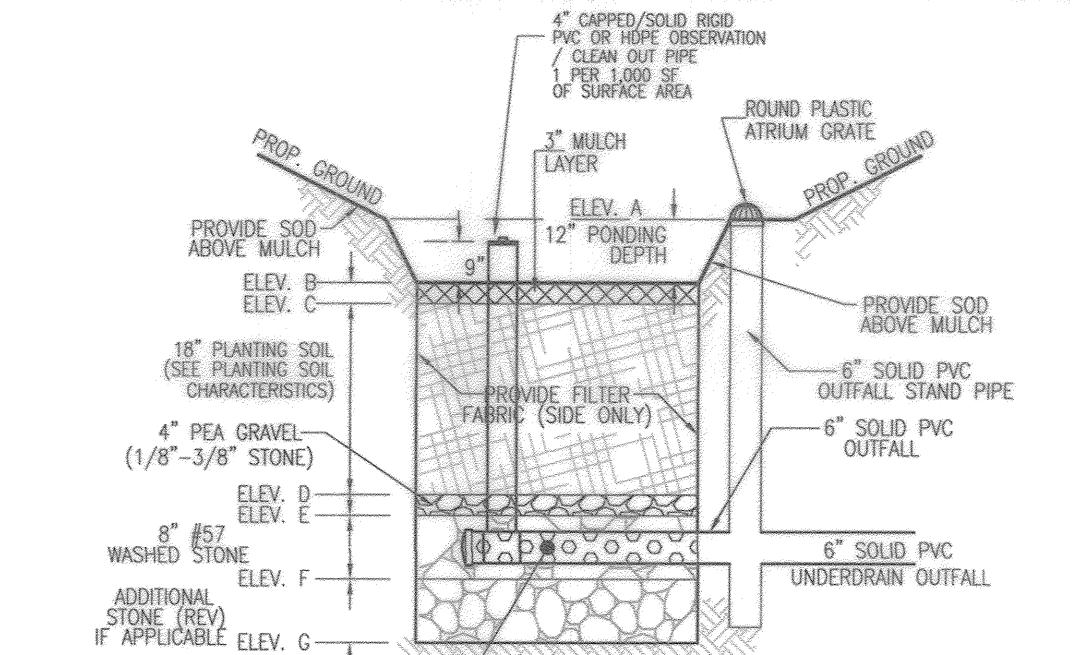
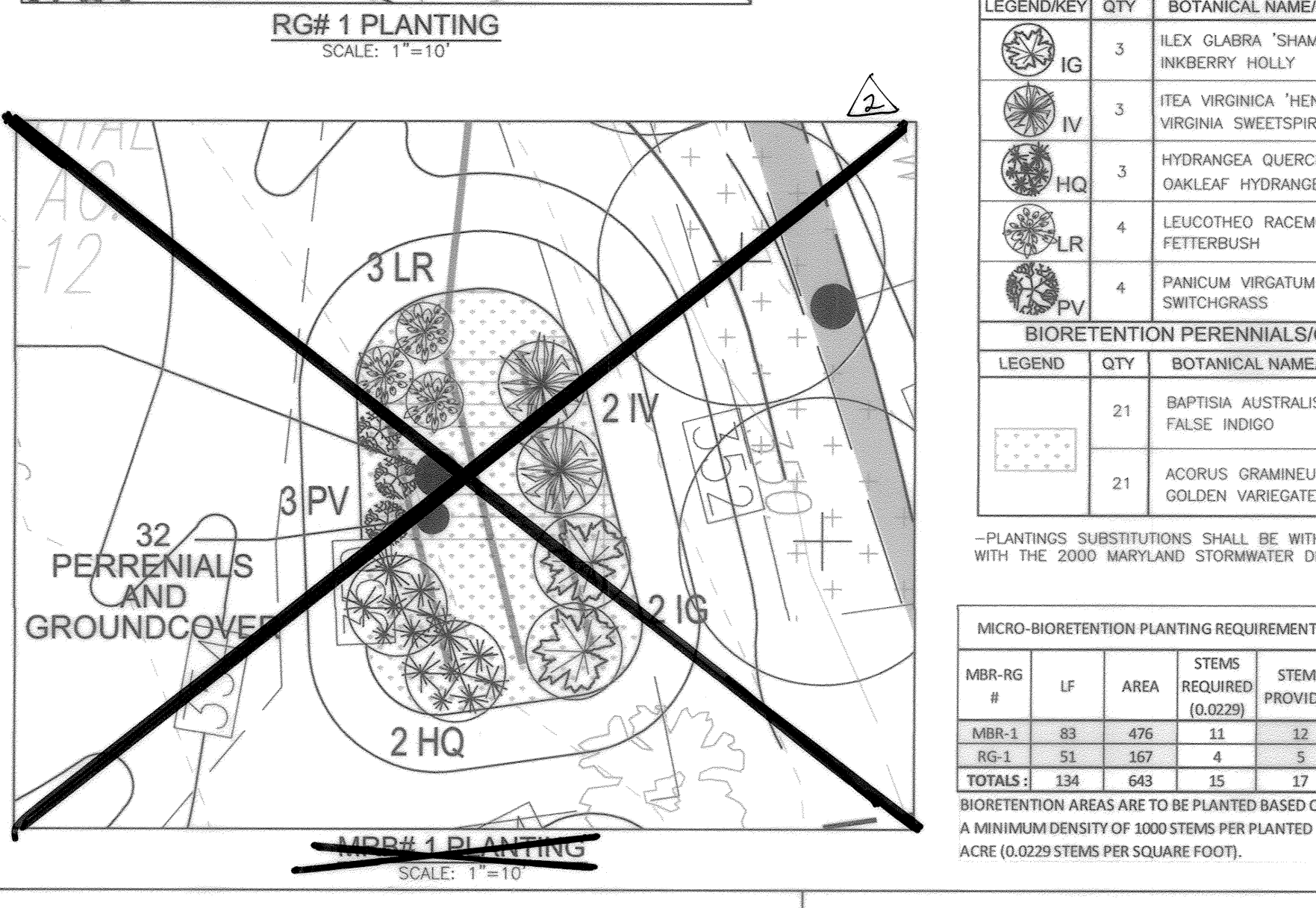
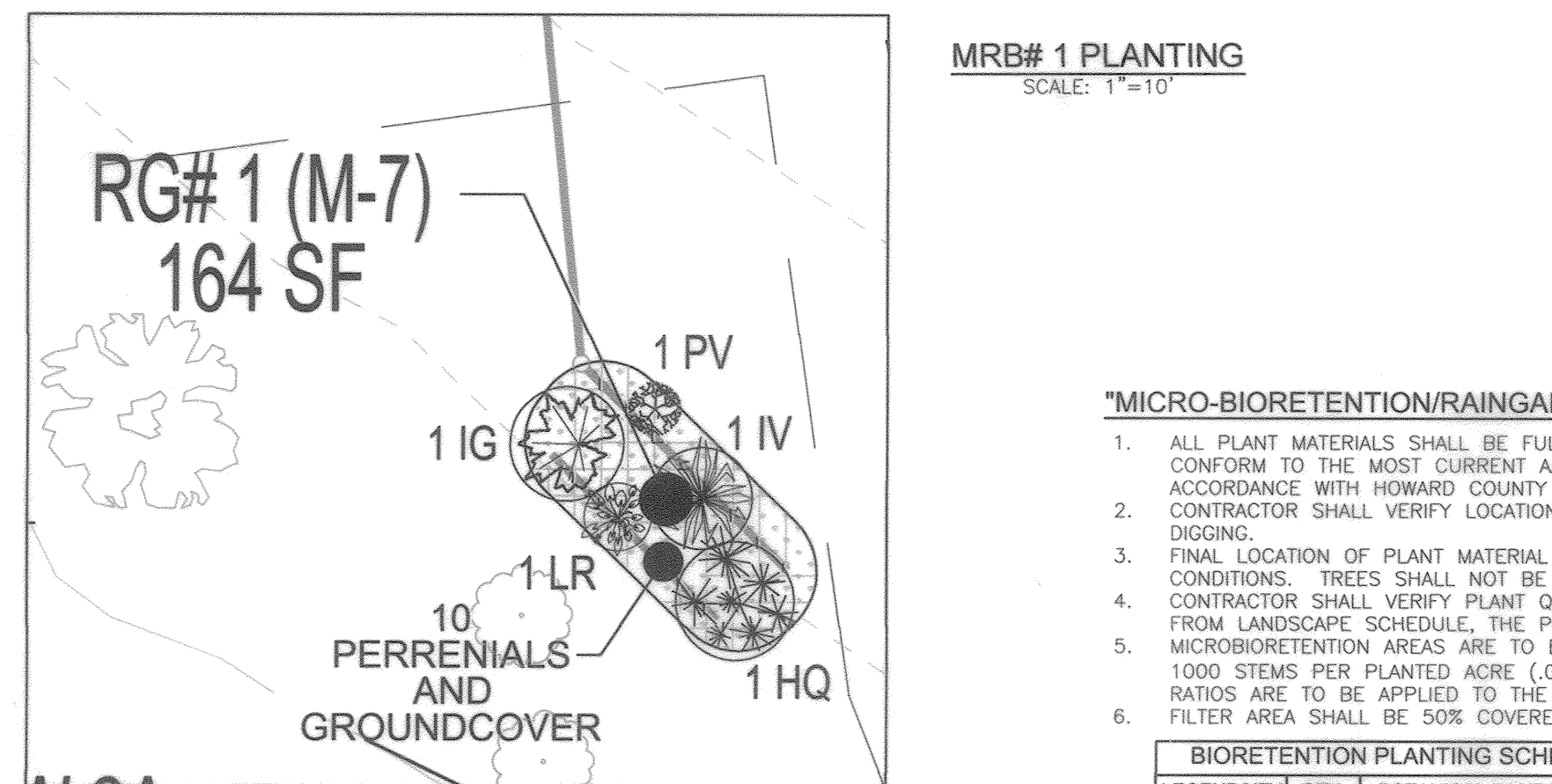
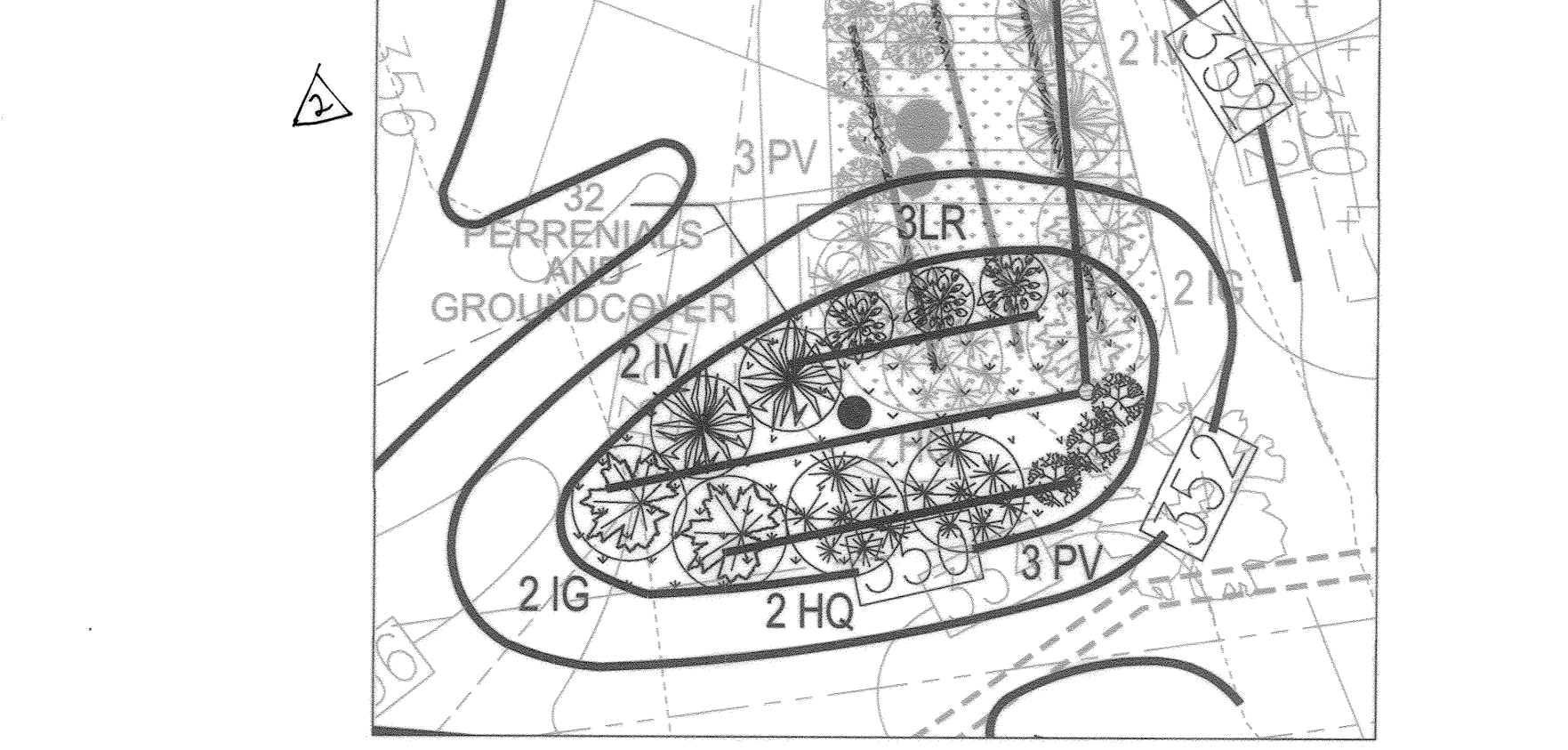
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183 EXPIRATION DATE: 09-27-2018

1 SHEET OF 6



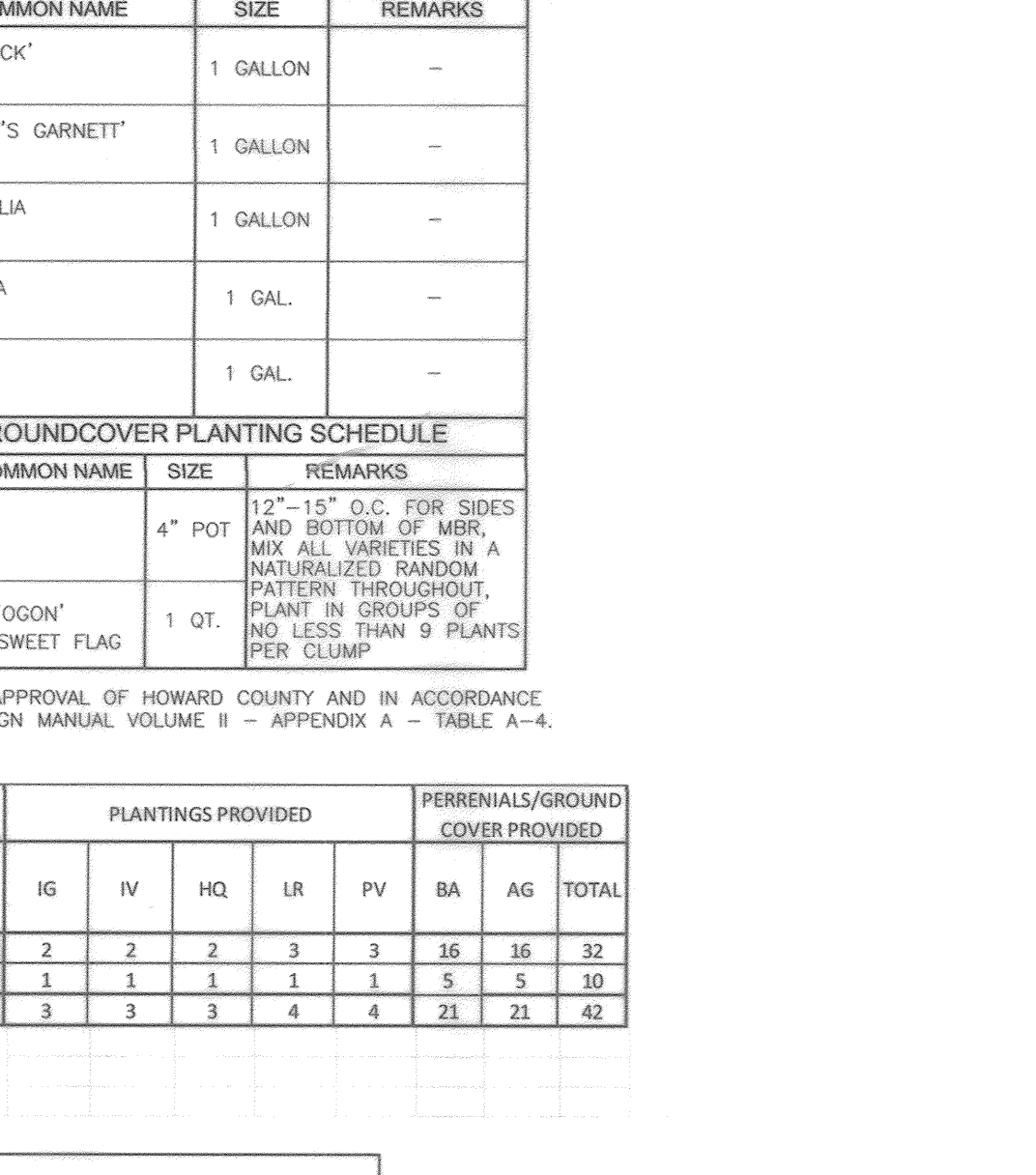
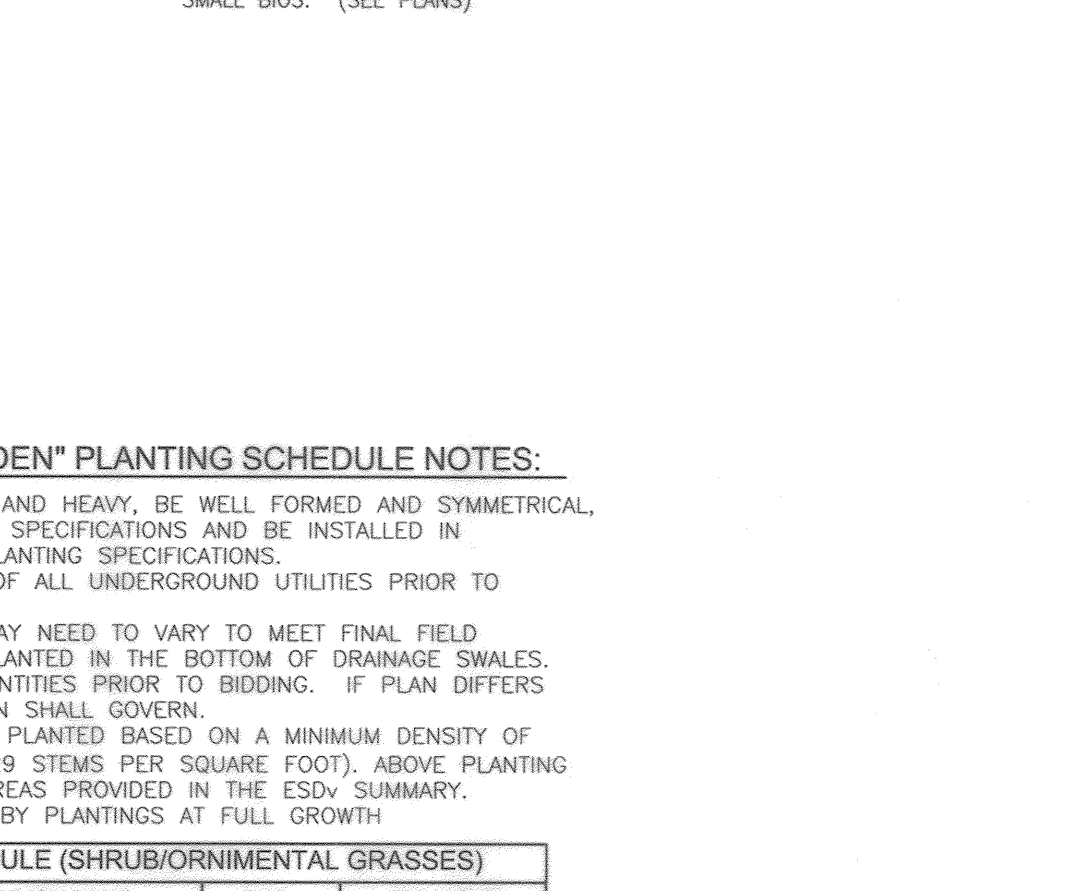
MICROBIORETENTION NOTES:

- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS).



MICROBIORETENTION / RAIN GARDEN NOTES:

- ONLY THE SIDES OF RAIN GARDENS ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE FACILITY WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- PERFORATED PVC/HDPE UNDER DRAIN TO BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH OR EQUAL. SEE APPENDIX B.4.C.
- PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS).



SPECIMEN TREE MITIGATION

NUMBER OF SPECIMEN TREES TO BE REMOVED	2
NUMBER OF TREES REQUIRED (2 x SPECIMEN TREES TRK)	4
SHADE TREES	4
EVERGREEN TREES (2:1 SUBSTITUTION)	8
SHRUBS (10:1 SUBSTITUTION)	40

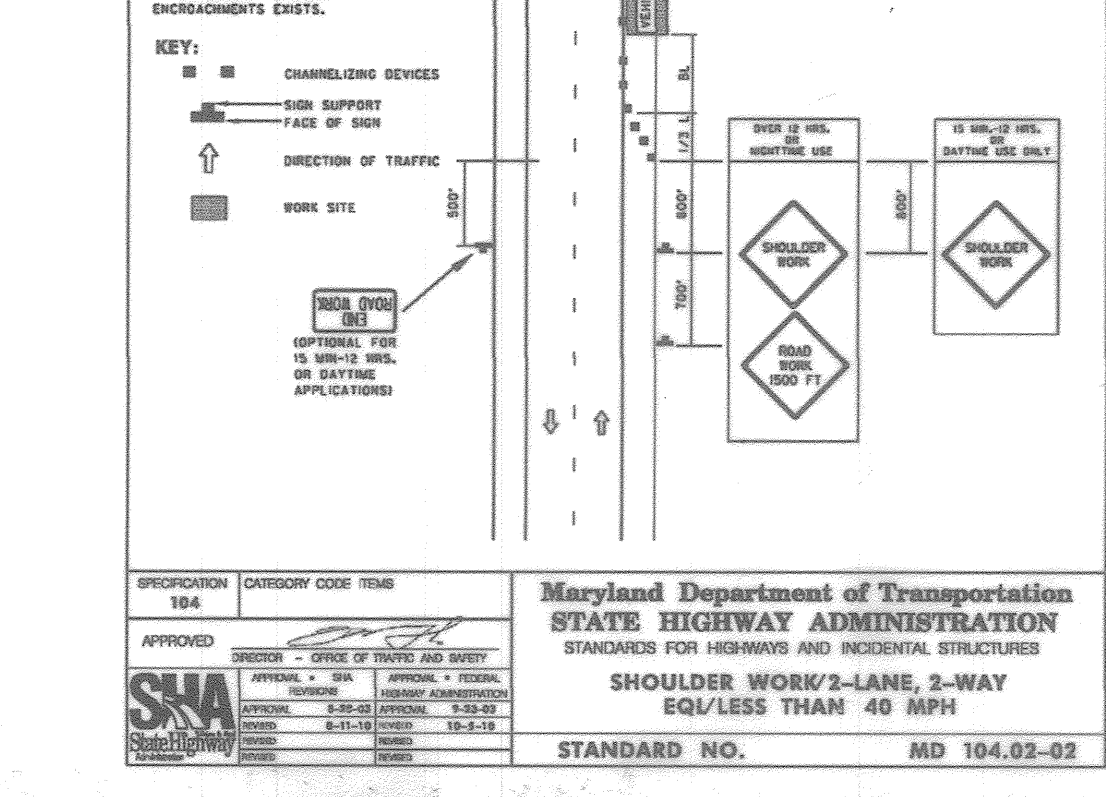
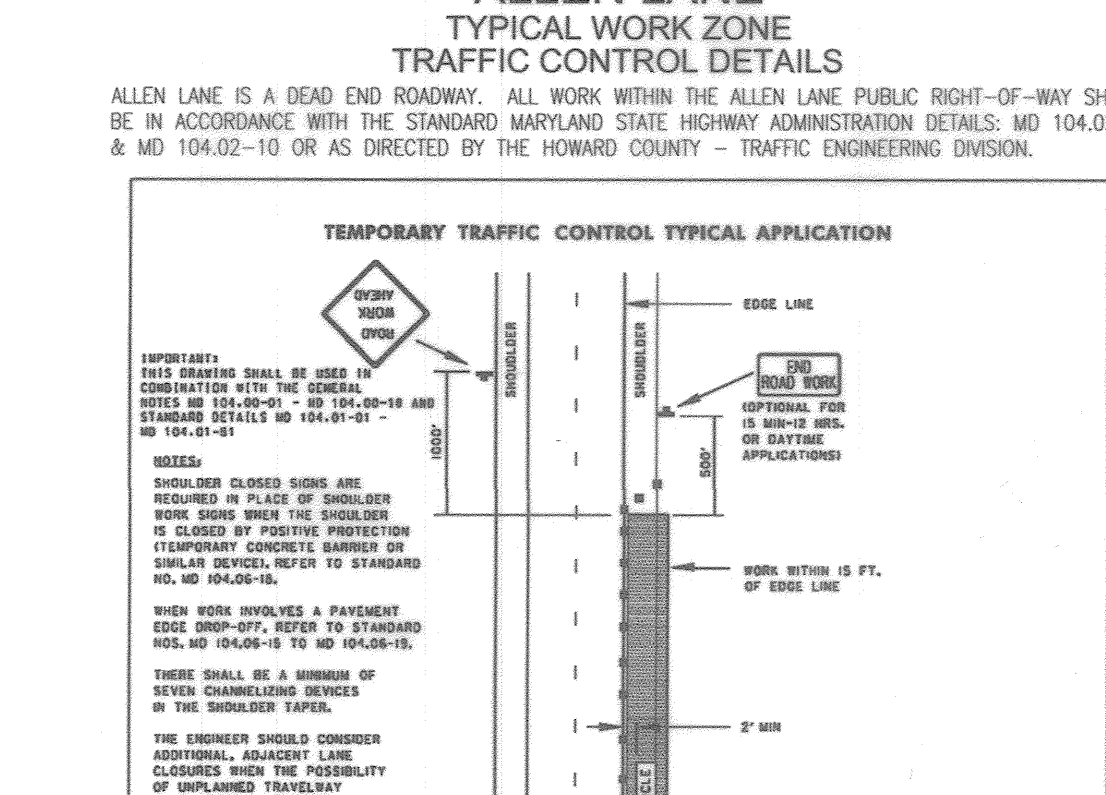
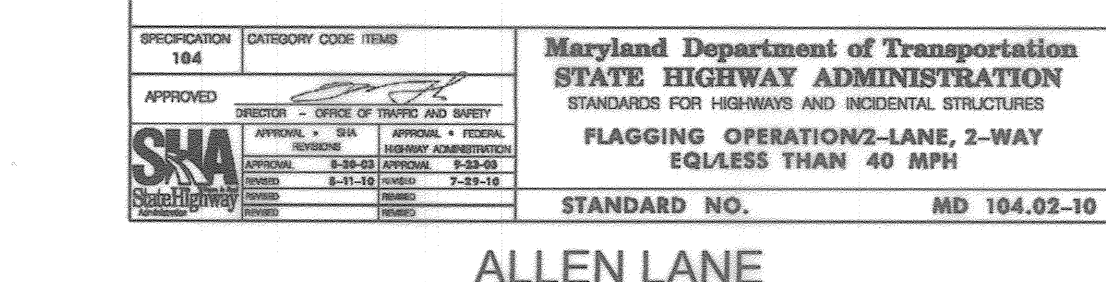
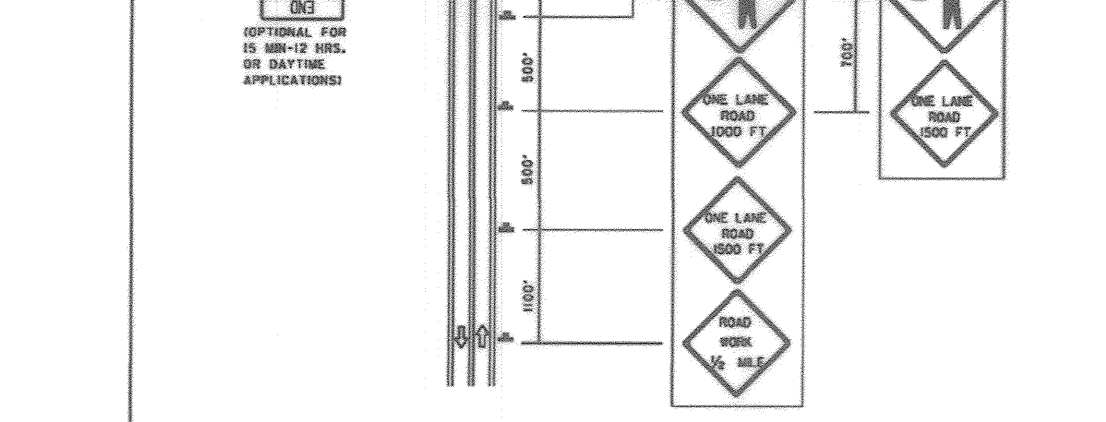
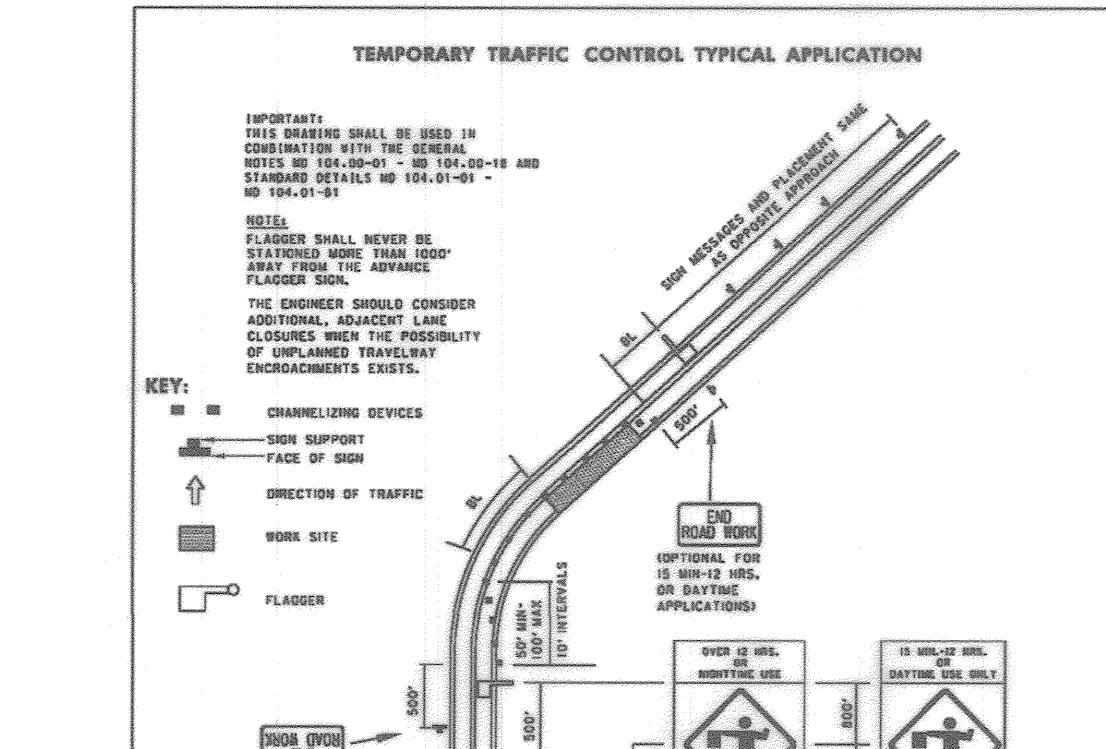
STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
ALLEN LANE	516' / 30'	11	9*

*CREDIT FOR 2 EXISTING TREES (1) TO REMAIN LOCATED AT EITHER SIDE OF # 6808 EXISTING DRIVEWAY.
(1) MULISTEM CRAPE MYRTLE

B.G. & E. NOTES:

- SEE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE FIRST IN THE ORDER OF USE SHALL BE DESIGNATED BY THE OWNER AND THE RELIABLE DELIVERY OF THE TREE.
- THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE USE BOUNDARY, IF THE TRIMMING OR REMOVAL IS NECESSARY TO MAINTAIN THE SAFETY OF A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY RIGHT-OF-WAY OR EXISTENCE IF THE UTILITY IS TO BE REMOVED OR RELOCATED WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF THE COMMENCEMENT OF WORK. DPZ UNDERSTANDS CONSENTATION LETTERS ARE NOT TO BE USED TO PROTECT TRANSMISSION LINES AND WILL NOT UNDERSIGN WITHOUT PERMISSION.
- CALL USUALLY TO MARK UP THE LOCATION OF EXISTING GAS LINE BEFORE PLANTING ALONG TREES ALLEN LANE & PLANT STREET TREES 10' AWAY FROM EXISTING GASLINE AS REQUIRED.



GENERAL NOTES:

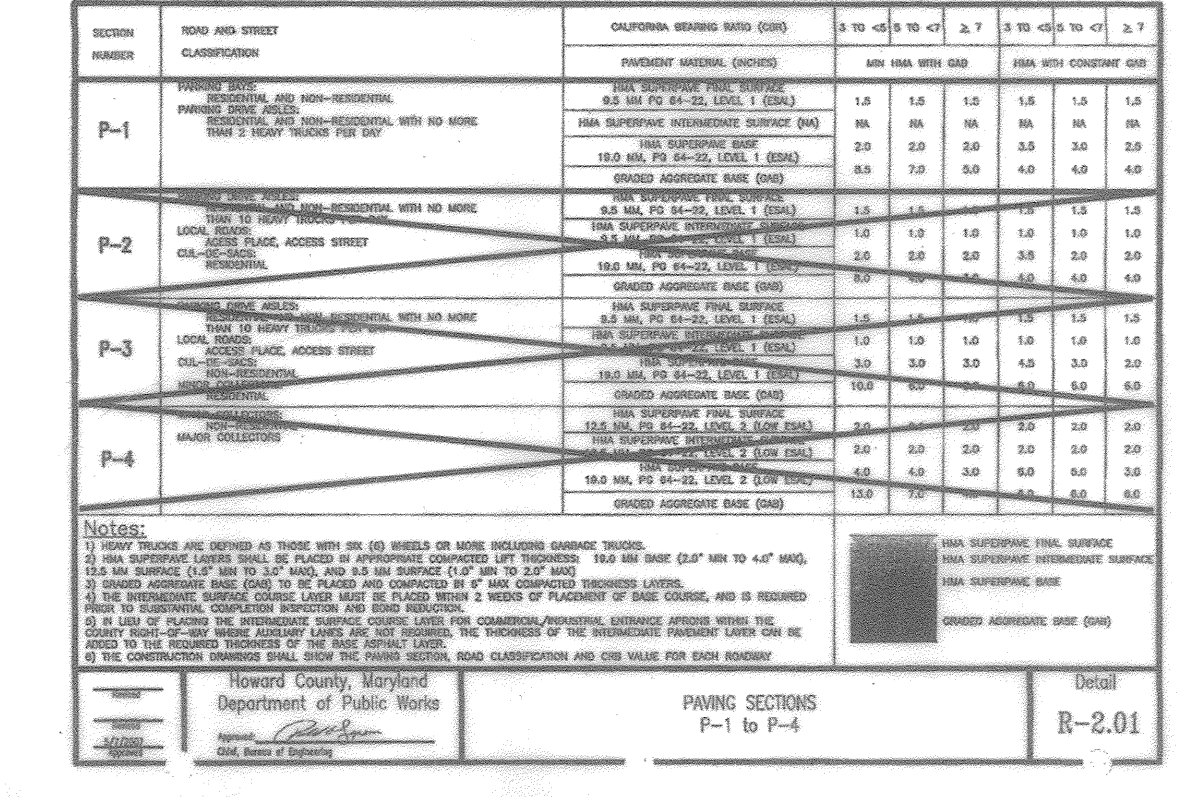
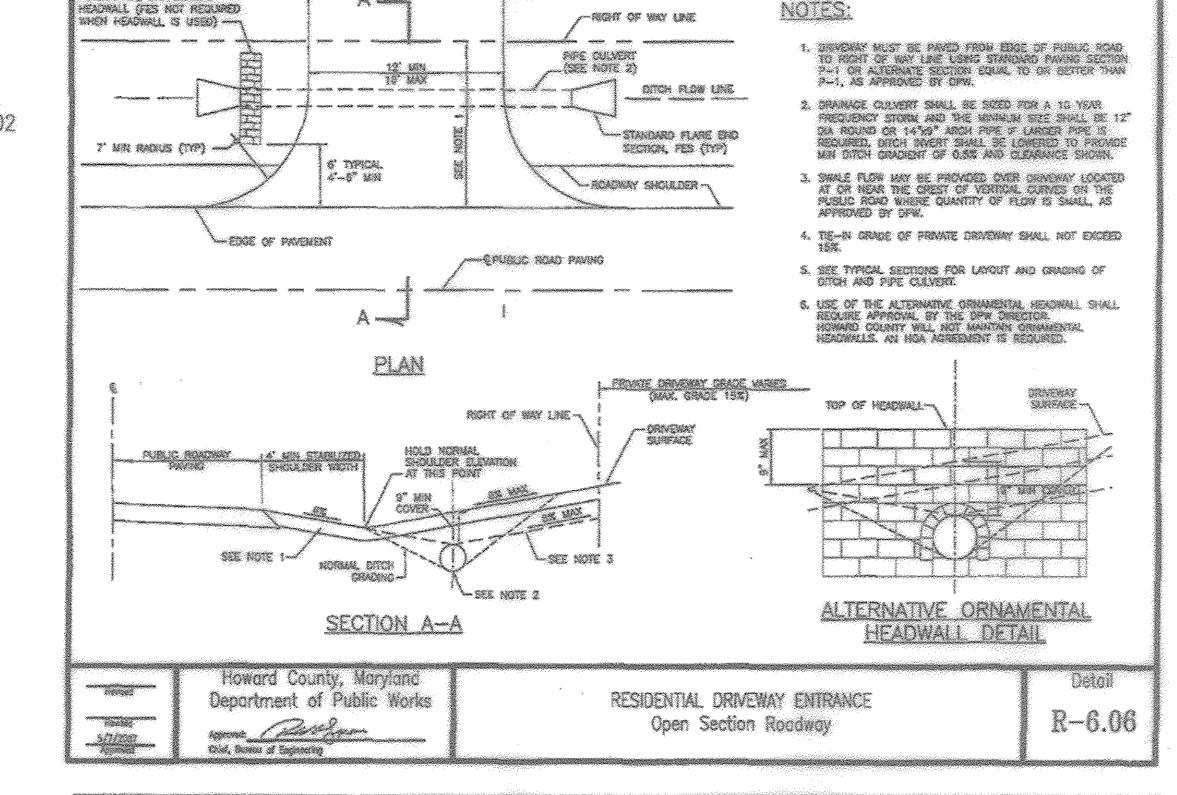
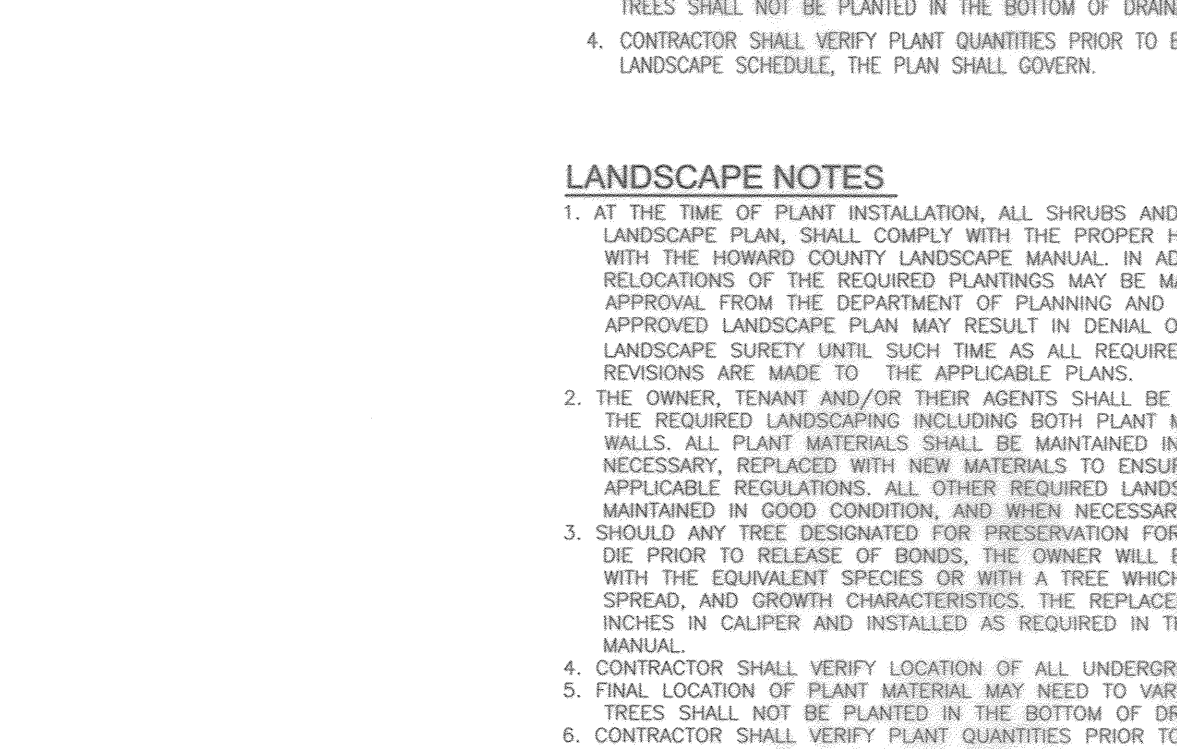
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
- FINANCIAL SURETY IN THE AMOUNT OF \$4050.00 FOR THE 9 SHADE TREES (2,700), 5 SHRUBS (150), AND 4 SHADE TREES (SPECIMEN TREE REPLACEMENT) (1,200) SHALL BE POSTED WITH THE BUILDERS GRADING PERMIT. FINAL REVIEW AND APPROVAL OF THE LANDSCAPE PLAN WILL BE WITH THE SITE DEVELOPMENT PLAN SUBMISSION.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR 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 AND GRADING PERMITS.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- NO LANDSCAPING TO BE INSTALLED WITH ANY PUBLIC EASEMENT FOR WATER, SEWER, OR STORMDRAIN.
- ANY EXISTING TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- FINANCIAL SURETY FOR THE REQUIRED STREET TREE PLANTING SHALL BE POSTED WITH THE BUILDERS GRADING PERMIT IN THE AMOUNT OF \$1,950 FOR THE REQUIRED 9 STREET TREES.

LANDSCAPE SCHEDULE - REQUIRED PLANTING

SYMB.	KEY	QUAN.	BOTANICAL NAME	SIZE	CAT.
OC	9	1	QUERCUS COCCINEA SCARLET OAK	2.5"-3" CAL	B & B
AC	4 (1)	1	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2.5"-3" CAL	B & B
CM	2	1	LACERSTROEMIA CRAPE MYRTLE (MATCH #6808)	8"-10" HGT	B & B
WH	7	1	CRATAEGUS PHAENOPYRUM WASHINGTON HARTTHORNE	8"-10" HGT	B & B

LANDSCAPE SCHEDULE NOTE:

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



SCHEDULE 'A' PERIMETER LANDSCAPE EDGE

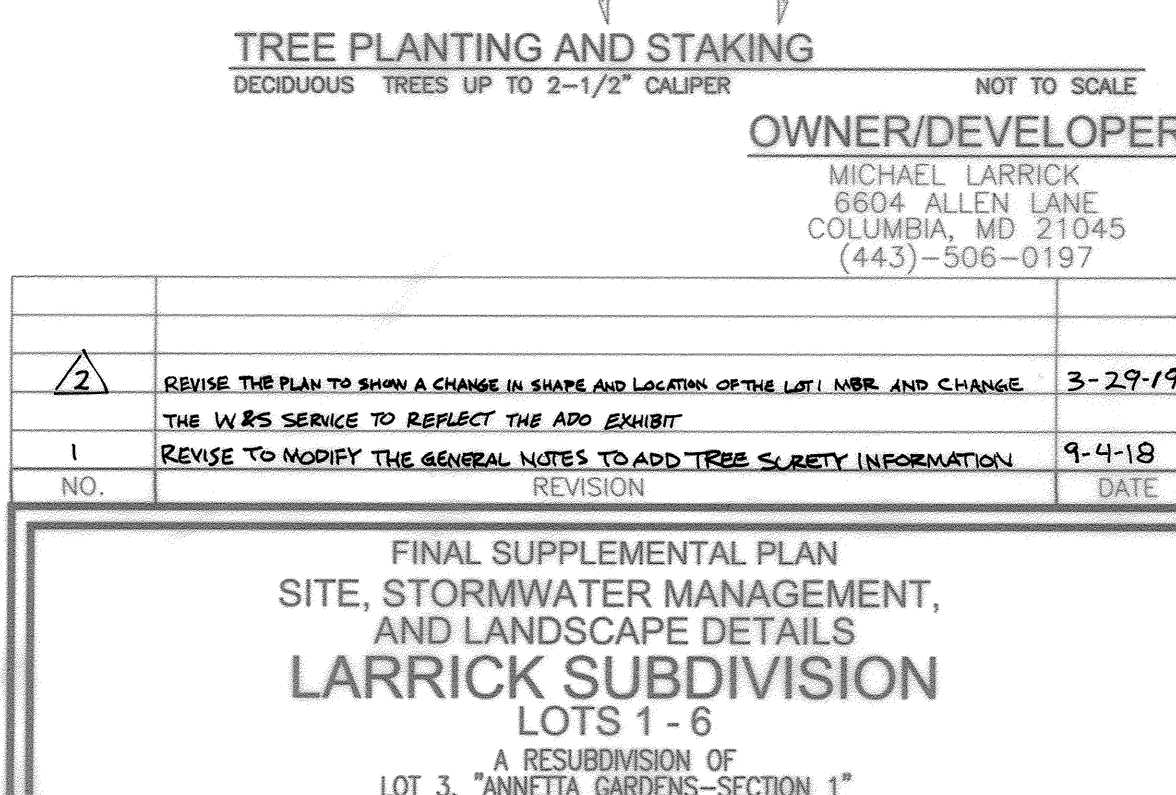
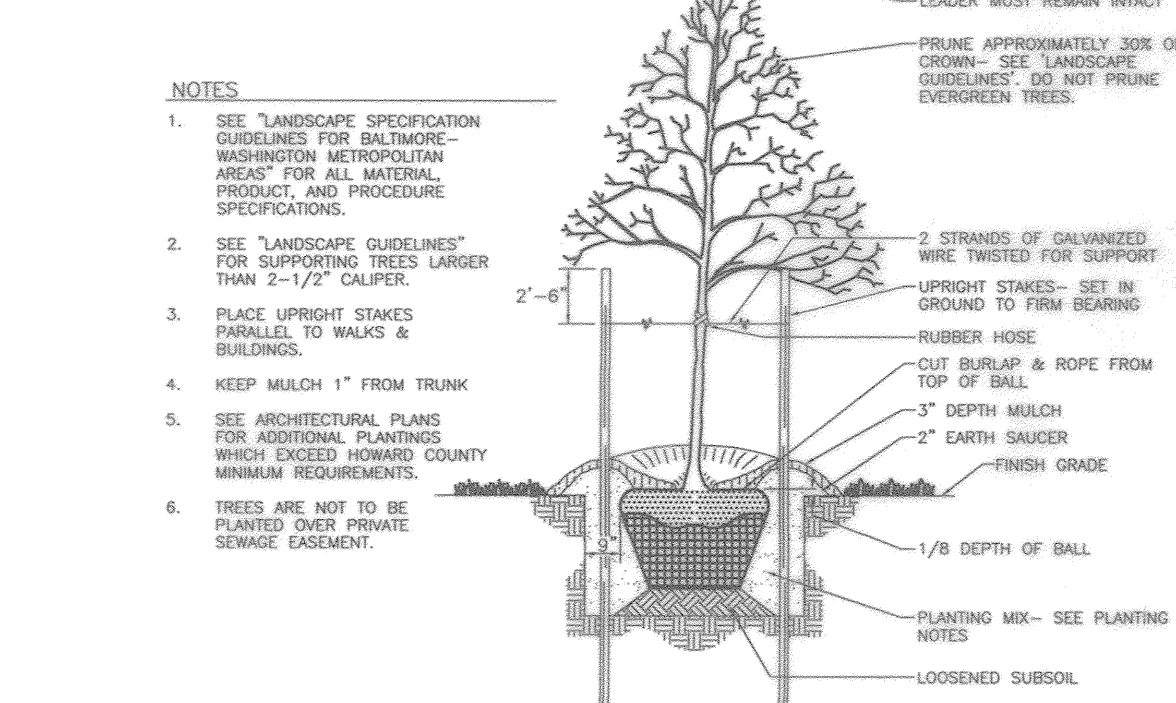
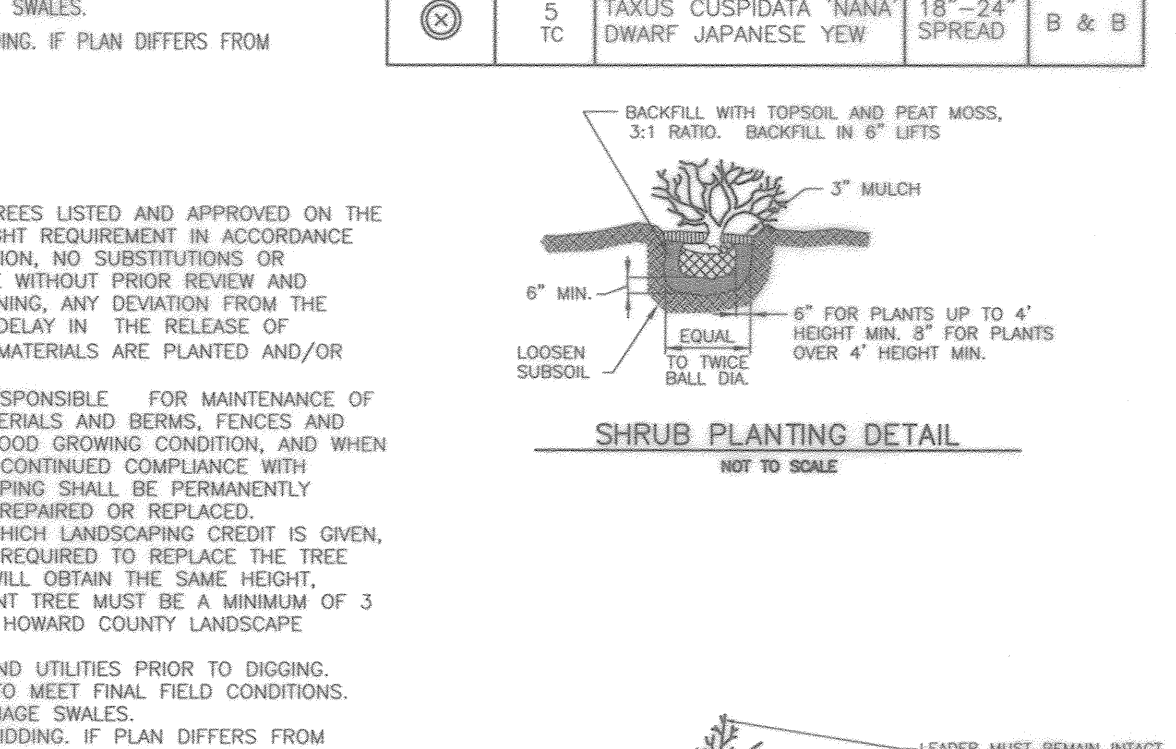
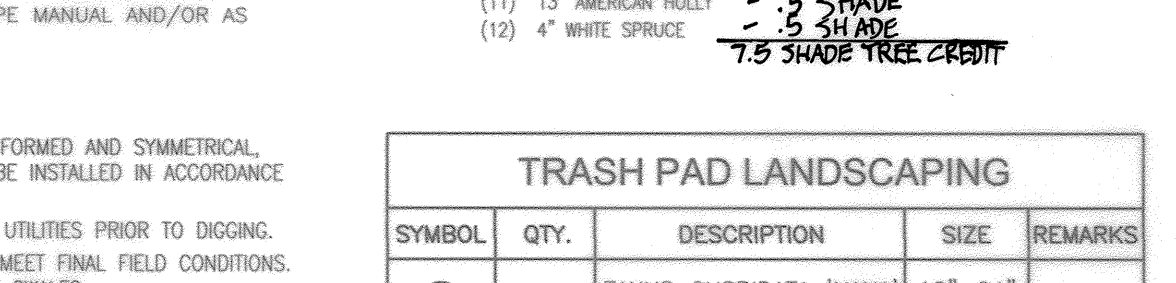
CATEGORY	ADJACENT TO ROADS/WAYS & PERIMETER PROPERTIES	TOTAL
PERIMETER/FRONTAGE DESIGNATION	NONE	A
LANDSCAPE TYPE	315'	916'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER		
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES*
(DESCRIBE BELOW IF NEEDED)		
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NO	NO
(DESCRIBE BELOW IF NEEDED)		
NUMBER OF PLANTS REQUIRED		1:80 15 15
SHRUBS		
EVERGREEN TREES		
NUMBER OF PLANTS PROVIDED		79 9
SHRUBS		
EVERGREEN TREES		
OTHER TREES (2:1 SUBSTITUTION)		
SHRUBS (10:1 SUBSTITUTION)		
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED		

*CREDIT FOR 11 EXISTING TREES TO REMAIN:
(3) 10' CHERRY
(5) MULISTEM CRAPE MYRTLE
(3) MULISTEM CRAPE MYRTLE
(3) MULISTEM CRAPE MYRTLE
(7) 29" WHITE PINE
(8) 21" / 14" TWN RED OAK
(9) 8" POINT REDOGBAY
(10) 12" WHITE OAK
(11) 13" AMERICAN HOLLY
(12) 4" WHITE SPRUCE

7.5 SHADE TREE CREDIT

TRASH PAD LANDSCAPING

SYMBOL	QTY.	DESCRIPTION	SIZE	REMARKS
TC	5	TAXUS CUSPIDATA 'NANA' DWARF JAPANESE YEW	18"-24" SPREAD	B & B



FINAL SUPPLEMENTAL PLAN SITE, STORMWATER MANAGEMENT, AND LANDSCAPE DETAILS LARRICK SUBDIVISION LOTS 1-6

A RESUBDIVISION OF LOT 3, 'ANNETTA GARDENS-SECTION 1' AND LOT 4, 'ANNETTA GARDENS-SECTION 2'

TAX MAP: 37 PARCELS: 475 & 485
6TH ELECTION DISTRICT

BLOCK: 19 ZONING: R-12
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: MAY 2018
SCALE: AS SHOWN
W.O. NO.: 16-38

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2018.

2 SHEET OF 6

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

5/17/18
DATE

5/29/18
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

5/2/18
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

5/17/18
DATE

5/29/18
DATE

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION

STANDARD FOR HIGHWAYS AND INDUSTRIAL STRUCTURES
SHOULDER WIDTHS/2-LANE, 2-WAY
80'/LESS THAN 40 MPH

STANDARD NO. MD 104.02-02

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION

STANDARD FOR HIGHWAYS AND INDUSTRIAL STRUCTURES
SHOULDER WIDTHS/2-LANE, 2-WAY
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STANDARD FOR HIGHWAYS AND INDUSTRIAL STRUCTURES
SHOULDER WIDTHS/2-LANE, 2-WAY
80'/LESS THAN 40 MPH

STANDARD NO. MD 104.02-02



EROSION AND SEDIMENT CONTROL NOTES:

1. 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.
2. AT NO TIME DURING CONSTRUCTION WILL FENCING BE ALLOWED TO INTERCEPT CONCENTRATED FLOWS
3. A DOUBLE ROW OF SSF MAY BE REQUIRED IN THE PROXIMITY OF THE ENVIRONMENTAL AREAS
4. SOILS ON SITE ARE CONSIDERED HIGHLY ERODIBLE BY THE HOWARD SOIL CONSERVATION DISTRICT. MORE STRINGENT SEEDING AND STABILIZATION METHODS MAY BE EXPECTED AT SITE DEVELOPMENT STAGE

SEQUENCE OF CONSTRUCTION

- NOTE: HOUSES MAY NOT BE BUILT USING THIS PLAN.
1. OBTAIN GRADING PERMIT. (1 DAY)
 2. DEVELOPER / CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT AUTHORITY PRIOR TO BEGINNING CONSTRUCTION. (1 DAY)
 3. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK. (1 DAY)
 4. STAKEOUT LIMITS OF DISTURBANCE. (3 DAYS)
 5. INSTALL STABILIZED CONSTRUCTION ENTRANCE, AS SHOWN HEREON. (1 DAY)
 6. CLEAR AND GRUB ON SITE AREA FOR THE INSTALLATION OF PERIMETER CONTROLS (1 DAY)
 7. INSTALL PERIMETER FENCING, EARTH DIKES, CLEAN WATER DIKES, AND TSOS AS SHOWN HEREON OR AS DIRECTED BY SEDIMENT CONTROL INSPECTOR. (1 DAY)
 8. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN GRADING OPERATIONS COMMON AND INSTALLATION OF THE WATER & SEWER SERVICE CONNECTIONS AND TIES TO THE EXISTING WATER & SEWER MAINS. (5 DAYS)
 9. WORK WITHIN THE ALLEN LANE RIGHT-OF-WAY SHALL BE COMPLETED IN ACCORDANCE WITH MD104-02.02 & MD 104-02.10
 10. ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY. (1 DAY)
 11. INSTALL DRIVEWAY CULVERT AND ASSOCIATED OPEN SECTION SIDE SWALE. IMMEDIATELY STABILIZED DISTURBED AREAS WITH SOO. (1 DAY)
 12. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROLS SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS. (1 DAY)
 13. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, AND ITEM #8 COMPLETED, PLACE USE-IN-COMMON DRIVEWAY TO SUBGRADE AND INSTALL BASE PAVEMENT. INSTALL USE-IN-COMMON DRIVEWAY SIDE SWALES AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. (4 DAYS)
 14. INSTALL LANDSCAPING (3 DAYS)
 15. AFTER LANDSCAPING HAS BEEN GIVEN BY SEDIMENT CONTROL INSPECTOR, REMOVE ANY REMAINING PERIMETER 1/2 CONTROLS AND STABILIZE THESE DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. (1 WEEK)
- NOTE: ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION

LEGEND:

- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING FINISH
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING OVER-HEAD LINE
- PROPOSED STORM DRAIN
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING WOOD FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- MICRO-BRETENTION (M-6) / FRAM GARDEN (M-7)
- PRIVATE 24" USE-IN-COMMON ACCESS EASEMENT
- NRCS/AJCE/HSCD 20% STEEP SLOPES
- SHORT-DISTANCE EASEMENT
- 10' PUBLIC TREE MAINTENANCE EASEMENT
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- CLEAR WATER EARTHDIKE
- EXISTING VEGETATION
- EXISTING SPECIMEN TREE
- DRYWELL
- ADDRESS SIGN
- PRIVATE VARIABLE WIDTH TRANSMISSION MANAGEMENT UTILITY SERVICE STRAIGHT & UTILITY EASEMENT

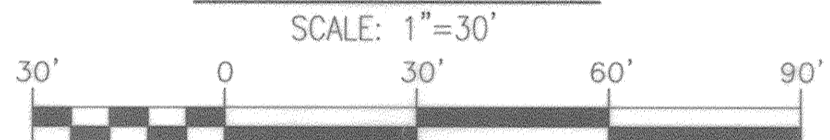
NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE: - HOUSES MAY NOT BE BUILT USING THIS PLAN. -THE HOWARD SCD STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN PERMITS FOR THIS PROJECT.

NOTES

1. REFER TO SHEET 4 FOR STANDARD DETAILS AND STABILIZATION NOTES
2. ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.

GRADING PLAN



OWNER/DEVELOPER
MICHAEL LARRICK
6604 ALLEN LANE
COLUMBIA, MD 21045
(443)-506-0197

NOTE: STABILIZATION IS TO BE DONE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS REQUIRED BY THE 2011 STDS. & SPECS. WHICHEVER IS MORE RESTRICTIVE.

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.

SOILS LEGEND
HOWARD COUNTY SOILS MAP #19

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	HYDRIC
SrC	SASSAFRAS AND CROOK SOILS, 5 TO 10 PERCENT SLOPES	B	0.37	YES	NO
UsD	URBAN LAND-SESSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D	0.37	YES	NO
CaB	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	D	0.37	YES	NO
FaA	FALLINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.02	NO	YES

NOTE: TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY 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

5/12/18
DATE

5/24/18
DATE

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

Michael Larrick
DATE: 5/21/18
PRINTED NAME & TITLE

DESIGNER CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS; THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert H. Vogel
DATE: 5/14/18
PRINTED NAME
MD REGISTRATION NO. 16193
P.E., R.L.S., OR R.L.A. (circle one)

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

John R. Robertson
DATE: 5/14/18
HOWARD S.C.D.

NO.	REVISION	DATE
1	REVISE THE PLAN TO SHOW A CHANGE IN SHAPE AND LOCATION OF THE LOT 1 MBR AND CHANGE THE WBS SERVICES TO REFLECT THE ADD EXHIBIT	3-29-19

FINAL SUPPLEMENTAL PLAN
GRADING, SOILS MAP, SOIL EROSION & SEDIMENT CONTROL PLAN
LARRICK SUBDIVISION
LOTS 1 - 6
A RESUBDIVISION OF
LOT 3, "ANNETTA GARDENS-SECTION 1"
AND LOT 4, "ANNETTA GARDENS-SECTION 2"

TAX MAP: 37 PARCELS: 475 & 485
BLOCK: 19 ZONING: R-12
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: MAY 2018
SCALE: AS SHOWN
W.O. NO.: 16-38

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: 09-27-2018

3 SHEET OF 6

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (C-3), 410-311-1855 AFTER THE FUTURE LOT AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FOLLOWING STAGES: A. PRIOR TO THE START OF EARTH DISTURBANCE, B. UPON COMPLETION OF THE INSTALLATION OF PERMANENT 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, AND 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 SERVICE 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 PERMANENT CONTROLS, Dikes, SWALES, DRIVERS, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SLOPES (7) CALDERON DMS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.

4. DISTURBED AREAS SHALL 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 ENTRY SELECTED MATURING (SEC. B-4-5). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FAULT AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION SHALL BE REQUIRED IN AREAS WITH EXCESSIVE MOISTURE TO MAINTAIN >15% OF CUT AND/OR FULL STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENTCHED WITH STABLE OUTLET, ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6). ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSON FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CD.

SITE ANALYSIS:

TOTAL AREA OF SITE:	2.28 ACRES
AREA DISTURBED:	1.15 ACRES
AREA TO BE ROOFED OR PAVED:	0.87 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	389 CU. YDS. TOTAL
TOTAL FILL:	389 CU. YDS. TOTAL
OFFSITE WASTE/BORROW AREA LOCATION:	ONSITE

- (1) REFER TO ITEM 11 BELOW
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 CD, 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 MUST BE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE: - INSPECTION TIME (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT) - NAME AND TITLE OF INSPECTOR - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES - EVIDENCE OF SEDIMENT DISCHARGES - IDENTIFICATION OF PLAN DEFICIENCIES - IDENTIFICATION OF SEEDING PRACTICES - 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, MDE).

9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS WITH 48" DIA. TUB 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 SCHEMATIC OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE CD PRIOR TO ANY EARTH DISTURBANCE. CONSTRUCTION, MAJOR REVISIONS MAY ALLOWED BY THE CD PER THE LIST OF FIELD-APPROVED FIELD CHANGES.
11. ASSURANCE 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, NOW OR 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 CD, UNLESS OTHERWISE PROVIDED BY THE CD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER TOP SURFACES SHALL BE TREATED IN A SEDIMENT TRAP 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 MARKED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURVED UPWARD BY 2' IN ELEVATION.
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUDES): - USE IN AND BY MARCH 1 - APRIL 30 - USE IN MARCH 1 - MAY 31

REV. 6/2015

OWNER/DEVELOPER CERTIFICATION:

I, THE CERTIFY THAT ANY GRADING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGAINING THE PROJECT. I CERTIFY THAT ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT, AND THE CD.

Michael Larrick
OWNER/DEVELOPER SIGNATURE
Michael Larrick
PRINTED NAME & TITLE

DESIGNER CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert H. Vogel
DESIGNER'S SIGNATURE
R. H. VOGEL
PRINTED NAME
MD REGISTRATION NO. 16193
P.E., R.L.S., OR P.L.C. (circle one)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

5/2/18
5/2/18
5/22/18
5/22/18

CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT

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

DATE

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

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. SEDIMENT PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL FLOWS, OR RIPPER MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE REQUIRED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON 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 EVERY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
I. SOIL CONTAINS SUFFICIENT PORE SPACE TO FURNISH ADEQUATE ROOT PENETRATION.
II. SOLUBLE SALTS LESS THAN 400 PARTS PER MILLION (PPM).
III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 10 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION IF LEVASSERILLS 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.

V. SOIL CONTAINS SUFFICIENT PORE SPACE TO FURNISH ADEQUATE ROOT PENETRATION.

B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.

C. MIX SOIL AMENDMENTS AND READY THE AREA FOR SEED APPLICATION. LOOSEN TO APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TOPSOIL SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TOPSOIL SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TOPSOIL SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TOPSOIL SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.

D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

E. MIX SOIL AMENDMENTS AND READY THE AREA FOR SEED APPLICATION. LOOSEN TO APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TOPSOIL SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCORBED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.

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

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
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R-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

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IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

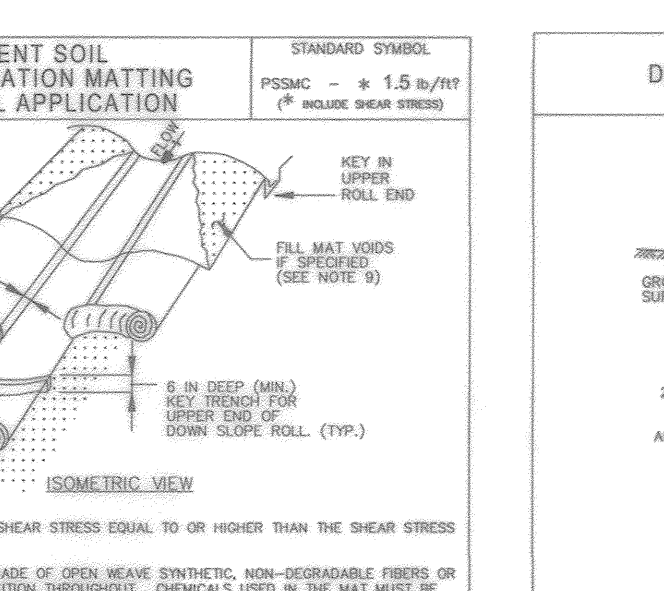
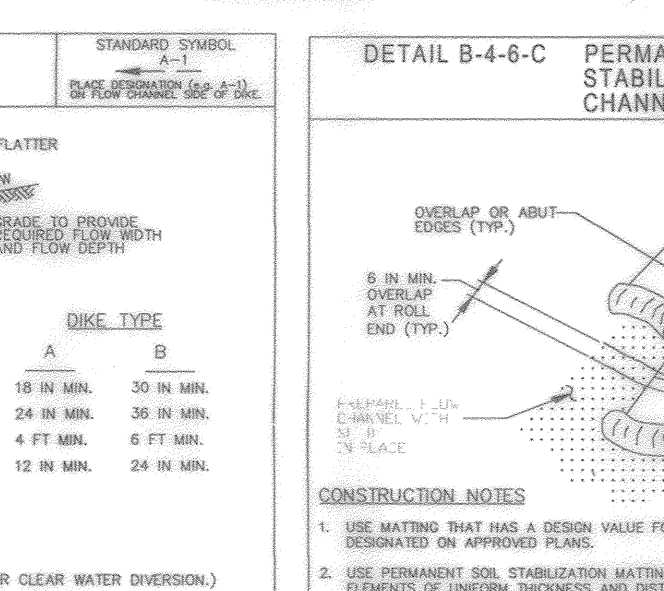
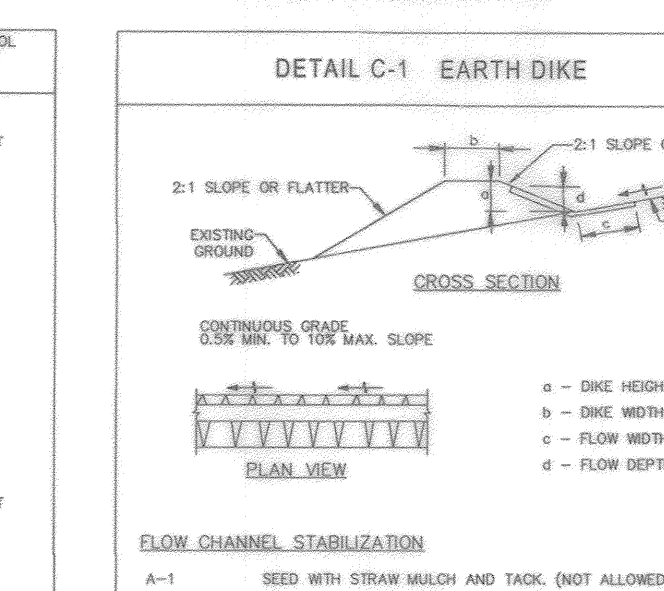
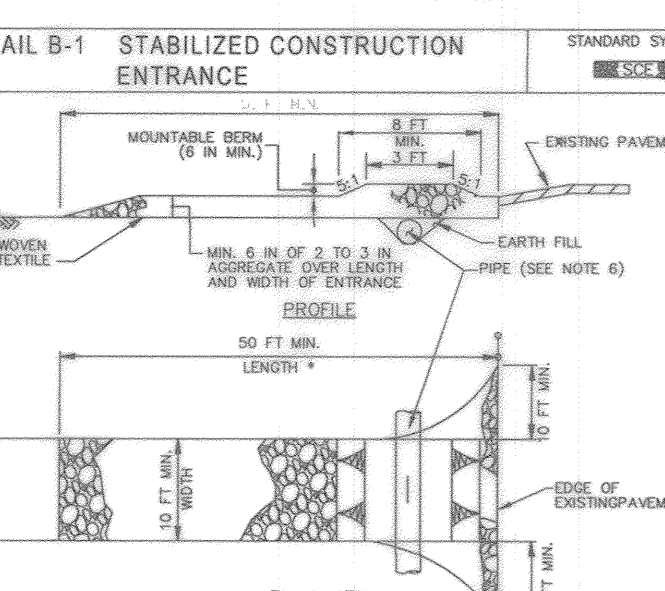
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1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES SHALL BE PROHIBITED FROM ENTERING THE ENTRANCE. THE ENTRANCE SHALL BE FURNISHED WITH AN APPROVED SIGN.

2. PAVE ALL SURFACE WATER FLOWING TO OR OVER THE ENTRANCE THROUGH THE ENTRANCE.

3. MAINTAIN SUITABLE BRIDGE. PROTECT PIPE INSTALLED THROUGH THE SIDE WITH A MOUNTABLE BRIDGE WITH 2:1 SLOPE AND A MINIMUM OF 12 INCHES CLEARANCE FROM THE PIPE. PROVIDE AS MUCH AS POSSIBLE FOR PROTECTION. A MINIMUM OF 12 INCHES CLEARANCE FROM THE PIPE IS REQUIRED.

4. PREPARE SUBGRADE AND PLACE NONWOOL CELLULOSE AS SPECIFIED IN SECTION H-1. MATERIAL SHALL BE FIRM AND FREE OF LUMPS.

5. PLACE COURSE OF AGGREGATE TO 3 INCHES OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SEED.

6. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, SOIL, OR MUD ONTO ADJACENT AREAS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR DISCARDED ONTO ADJACENT ROADWAY BY VACUATING, SCRAPING, SWEEPING, HOSING, OR OTHERWISE REMOVING TRACKED ON PAVEMENT IS NOT ACCEPTABLE UNLESS WASTE WATER IS DISCHARGED TO AN APPROVED SEWAGE CONTROL FACILITY.

7. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, SOIL, OR MUD ONTO ADJACENT AREAS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR DISCARDED ONTO ADJACENT ROADWAY BY VACUATING, SCRAPING, SWEEPING, HOSING, OR OTHERWISE REMOVING TRACKED ON PAVEMENT IS NOT ACCEPTABLE UNLESS WASTE WATER IS DISCHARGED TO AN APPROVED SEWAGE CONTROL FACILITY.

1. EROSION AND SHAPING OF ALL TRENDS, BRUSH, STAMPS, OBSTRUCTIONS, AND OTHER OBSTRUCTIONAL MATERIALS, SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF ENTRANCE.

2. EXCAVATE AND SHAPE EARTH Dike TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROTECTION OR OTHER REINFORCEMENTS ARE NOT ALLOWED.

3. COMPACT FILL.

4. CONSTRUCT FLOW CHANNEL ON AN UNDISTURBED, CONTIGUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.

5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.

6. STABILIZE EARTH Dike WITHIN THREE DAYS OF INSTALLATION. STABILIZED FLOW CHANNEL FOR CLEAR WATER OVERFLOW WITHIN 24 HOURS OF INSTALLATION.

7. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH Dike AND POINT OF DISCHARGE FREE OF OBSTRUCTIONS, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4-2 VEGETATIVE STABILIZATION.

8. UPON REMOVAL OF EARTH Dike, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL, REPAIR AND STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS EXPECTED ON APPROVED PLANS.

2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF GREEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF CHROMIUM TRENDS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-TOXIC AND NON-HAZARDOUS TO VEGETATION AND NON-HAZARDOUS TO THE SHEAR STRESS. MATTING MUST BE EXTENDED PAST THE MINIMUM REQUIRED LENGTH AND WIDTH BY AT LEAST 6 INCHES AND BE A MINIMUM OF 8 INCHES WIDE.

3. SECURE MATTING USING STEEL STAPLES OR WOOD STAPLES. STAPLES MUST BE 7" OR 7" SHAPED STEEL. MATTING MUST HAVE A MINIMUM GRADE OF 100 AND 100 IS RESPECTED. "SHAPED" STAPLES MUST AVERAGE 8 INCH LONG AND BE A MINIMUM OF 1/2 INCH THICK. STAPLES MUST BE PLACED AT A MINIMUM OF 2 INCH SPACING ALONG THE LENGTH AND WIDTH OF THE MAT. STAPLES MUST BE PLACED AT A MINIMUM OF 2 INCH SPACING ALONG THE LENGTH AND WIDTH OF THE MAT.

4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDING, PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS. PLACE END OF MATTING AT LEAST 6 INCHES FROM THE EDGE OF THE MATTING.

5. LAY MATTING IN DIRECTIONS OF WATER FLOW, COVERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UNTO 2 FOOT (MINIMUM) COVER ALLOWING SEAMS, SWETS, AND ROLL ENDS.

6. OVERLAP OR BUTT ENDS OF MATTING ROLLS BY MANUFACTURER'S RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM) WITH THE UPPER MATTING OVERLAPPING THE BOTTOM MATTING BY 6 INCHES. SEAMS OR SWETS SHALL BE MADE UP BY MANUFACTURER'S RECOMMENDATIONS. SEAMS SHALL BE MADE UP BY MANUFACTURER'S RECOMMENDATIONS.

7. MATTING IS TO BE PLACED ON A SLOPE OF 2:1 OR FLATTER. MATTING IS TO BE PLACED ON A SLOPE OF 2:1 OR FLATTER. MATTING IS TO BE PLACED ON A SLOPE OF 2:1 OR FLATTER. MATTING IS TO BE PLACED ON A SLOPE OF 2:1 OR FLATTER.

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1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 6005 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS TO A MINIMUM OF 30 INCHES INTO THE GROUND.

2. FASTEN A GAUGE OR HEAVY GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MINIMUM SPACING) TO THE POSTS AND STAPLE TO THE FENCE POSTS AT EACH END.

3. FASTEN WOVEN SILT FENCE GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE POSTS. EMBROIDERED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO THE GROUND.

4. INTERSECT ENDS OF GEOTEXTILE OVER TOGETHER. THE ENDS SHALL BE OVERLAPPED BY 4 INCHES.

5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPLOAF AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS OF SECTION H-1 MATERIALS, AND CHAIN LINK FENCE MEETS THE REQUIREMENTS OF SECTION H-1 MATERIALS, AND CHAIN LINK FENCE MEETS THE REQUIREMENTS OF SECTION H-1 MATERIALS.

7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULKY DEVELOPS IN FENCE OR WHEN SEDIMENT REACHES 20% OF FENCE HEIGHT. REPLACE GEOTEXTILE OR FENCE. UP ENFORCEMENT OFFICERS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

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NATURAL RESOURCES CONSERVATION SERVICE

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
TO THE SURFACE OF ALL PERMANENT CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

A. SEEDING

1. SPECIFICATIONS

A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED MUST HAVE BEEN TESTED WITHIN THE 12 MONTHS IMMEDIATELY PRECEDING THE DATE OF SEEDING.

B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MATURE MUST BE APPLIED WHEN THE GROUND THAWES.

C. INCULCANTS: THE INCULCANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTIVAR OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INCULCANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INCULCANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE AND FRESH INCULCANTS. NOTE: IT IS VERY IMPORTANT TO KEEP INCULCANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INCULCANT LESS EFFECTIVE.

D. SOO OR SEED MUST NOT BE PLACED ON SOIL THAT HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISPERSION OF PHYTO-TOXIC MATERIALS.

2. APPLICATION

A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

B. INCULCANT SEED INTO THE SUBSOIL AT THE RATES SPECIFIED IN SECTION H-1 MATERIALS AND SPECIFIED IN TABLE B.1. PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

C. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDING AREA WITH A WHEELED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

D. BROADCAST SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL, LIQUIDAPPLICATORS SEEDERS, OR OTHER SEEDERS THAT APPLY SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDING MUST BE FIRMLY AFTER PLANTING.

E. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

F. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER).

G. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE; TOP DRESSING, 200 POUNDS PER ACRE; PHOSPHORUS, 200 POUNDS PER ACRE; POTASSIUM, 200 POUNDS PER ACRE.

H. LIME: USE ONLY GRIND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ONE TIME. DO NOT USE BURNED OR HYDRATED LIME WHEN HYDROSEEDING.

I. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

J. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

**B-4-4 STANDARDS AND SPECIFICATIONS
FOR
TEMPORARY STABILIZATION**

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

PURPOSE
TO USE FAST GRADING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATIONS 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 HARDSHIP ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND 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-4-3A.1.8 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

1. STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.

2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A 5% SLOPE ABOVE OR STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3-1 LAND GRADING.

3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.

4. ACCESS THE STOCKPILE AREA FROM THE UPGRADGE SIDE.

5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE. TEMPORARY SLOPES OF AN OVERFLOW DRAINAGE MUST BE PROTECTED BY USE OF A DIVERSION DEVICE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

6. WHERE RUNOFF CONCENTRATES ABOVE THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.

7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENTS AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.

8. IF THE STOCKPILE IS LOCATED ON AN INTERFERING SURFACE, A LINDER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

CRITERIA

1. THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4-2 VEGETATIVE STABILIZATION. SOIL SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3-1 LAND GRADING.

2. APPLICATION

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 MUST NOT BE MOIST, DAMP, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE WEED SEEDS IS DESIRED.

B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBRIL PHYSICAL STATE.

C. WCFM IS TO BE DIED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNFORMALLY SPREAD SLURRY.

D. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ADSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

E. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.

F. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

3. ANCHORING

A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MUST BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE):
1. APPLY MULCH TO ALL SEEDING AREAS IMMEDIATELY AFTER SEEDING.
2. APPLY MULCH 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 MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
3. WOOD CELLULOSE FIBER MULCH: USE A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. APPLY MULCH AT THE RATE OF 2 TONS PER ACRE TO 5 TONS PER ACRE. THIS PRACTICE IS ONLY EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. F. USED ON SLOPING LANDS, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

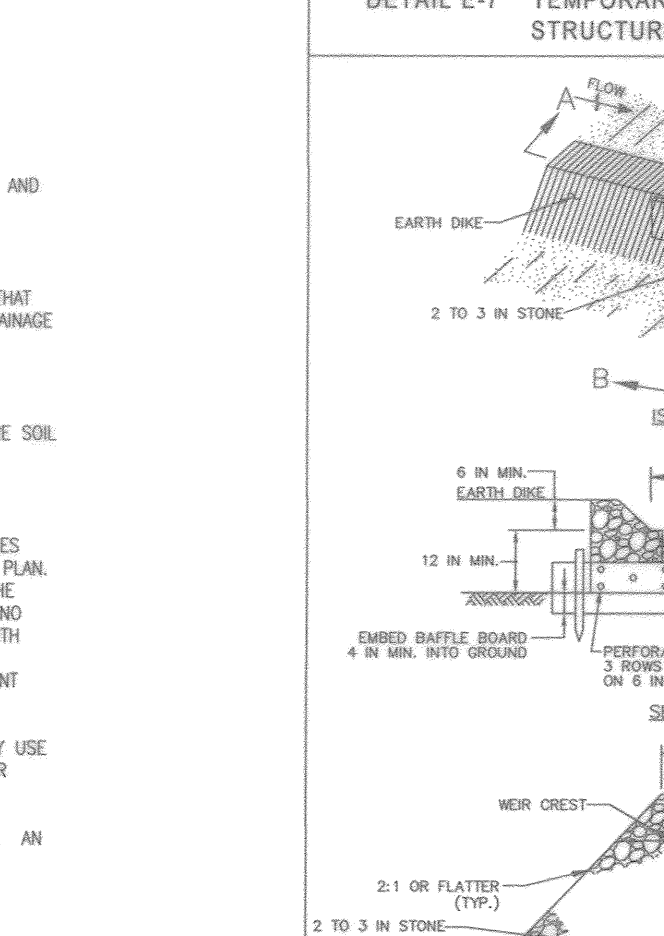
B. MULCH ANCHORING TOOL: THIS TOOL IS TO BE USED FOR ANCHORING STRAW APPLY THE FIBER UNDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

C. SYNTHETIC ANCHORS SUCH AS ANCHOR DUE (ANCHOR-DUE), PNETROSE, TERBA TALK, TERBA TALK OR OTHER APPROVED EQUIVALENT MAY BE USED. FOLLOW APPLICATION RATES AND INSTRUCTIONS MANUFACTURER. APPLICATION OF LIQUID ANCHORS NEEDS TO BE REPAIRED TO THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF AIRSPRAY ANCHORS IS STRICTLY PROHIBITED.

D. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

TEMPORARY SEEDING SUMMARY

HARDSHIP ZONE (FROM FIGURE B.3):	ZONE Gb					
SEED MIXTURE (FROM TABLE B.1):						
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
1.	C	40 LB / AC	MAY 15 AUG 1 OCT 15	1/2 IN.	436 LB/AC (2 LB PER 1000 SF)	2 TONS/AC (2 LB PER 1000 SF)
2.	W	30 LB / AC	MAY 15 OCT 15	1/2 IN.		



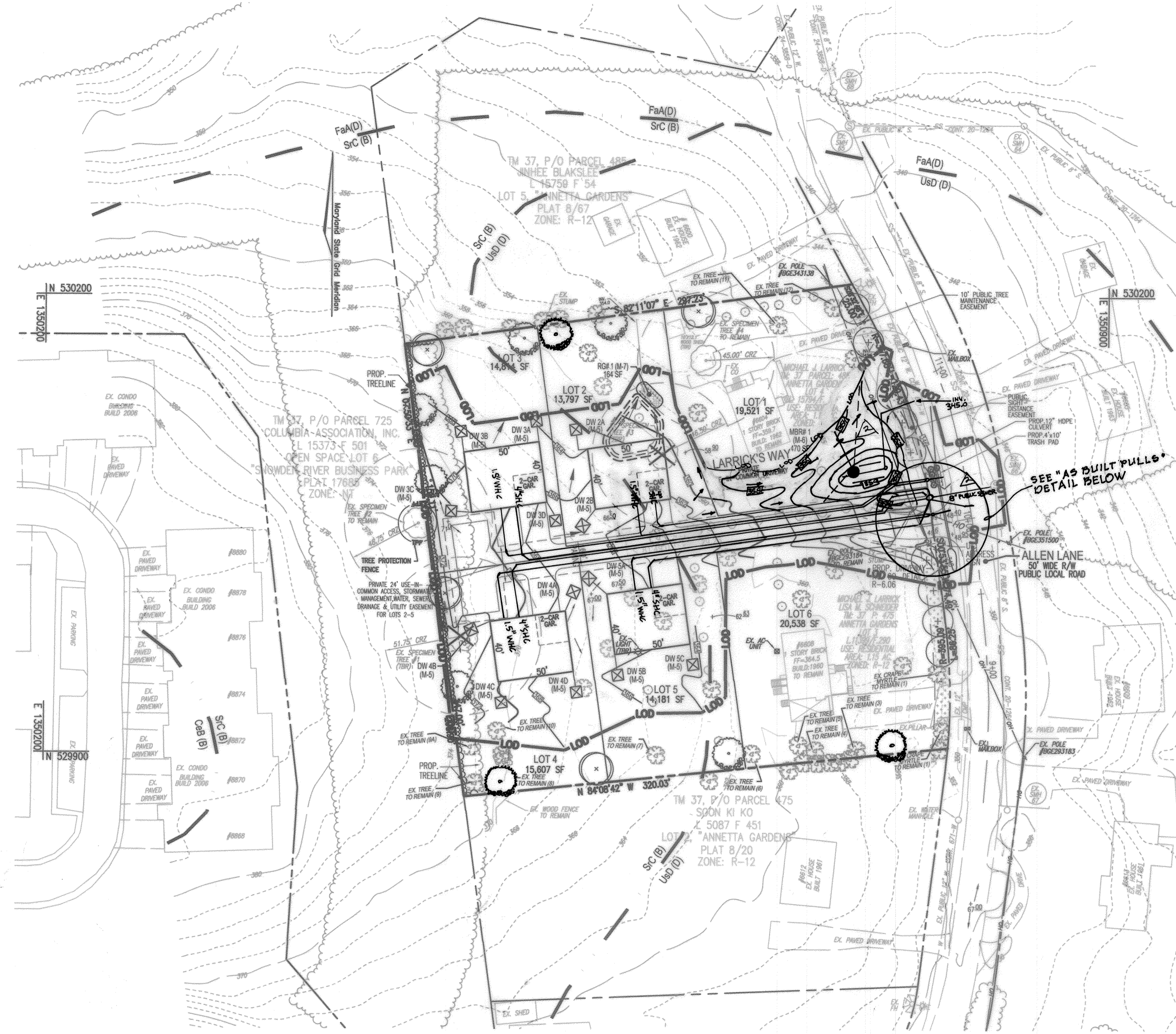
HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

ZONED R-12
NET TRACT AREA:
A. TOTAL TRACT AREA 2.26 AC.
B. AREA WITHIN 100 YEAR FLOODPLAIN 0.00 AC
C. AREA TO REMAIN IN AG. PRODUCTION 0.00 AC
D. NET TRACT AREA 2.26 AC
LAND USE CATEGORY
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-ED-MXD-3
ARA MDR IDA HDR MPD CIA
0 0 0 1 0 0
E. AFFOREST THRESHOLD 15% X 2.26 = 0.34 AC
F. CONSERVATION THRESHOLD 20% X 2.26 = 0.45 AC
EXISTING FOREST COVER:
G. EXISTING FOREST COVER = 0.00 AC
H. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 0.00 AC
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 0.00 AC
BREAK EVEN POINT:
(2 X I) + F = BREAK EVEN POINT (0 AC)
J. BREAK EVEN POINT / FOREST RET. ABOVE THRESHOLD W/ NO MIT. = 0.00 AC
K. FOREST CLEARING PERMITTED WITHOUT MITIGATION = 0.00 AC
PROPOSED FOREST CLEARING:
L. TOTAL AREA OF FOREST TO BE CLEARED = 0.00 AC
M. TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC
PLANTING REQUIREMENTS:
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD (L X 25) = 0.00 AC
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD = 0.00 AC
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD (M-F) = 0.00 AC
R. TOTAL REFORESTATION REQUIRED (N+P-Q) = 0.00 AC
S. TOTAL AFFORESTATION REQUIRED = 0.34 AC
T. TOTAL PLANTING REQUIREMENT (REFORESTATION AND AFFORESTATION) = 0.34 AC

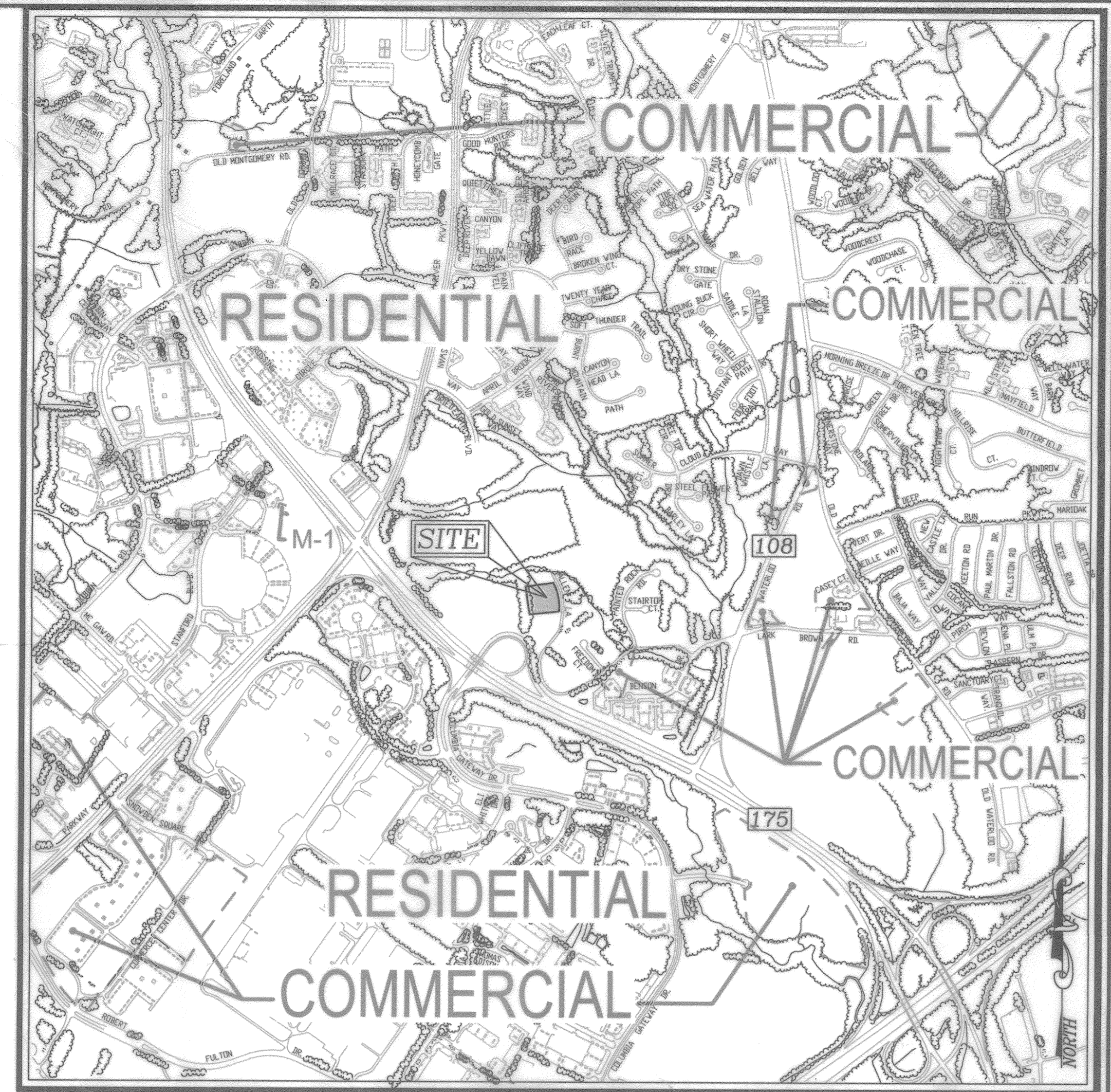
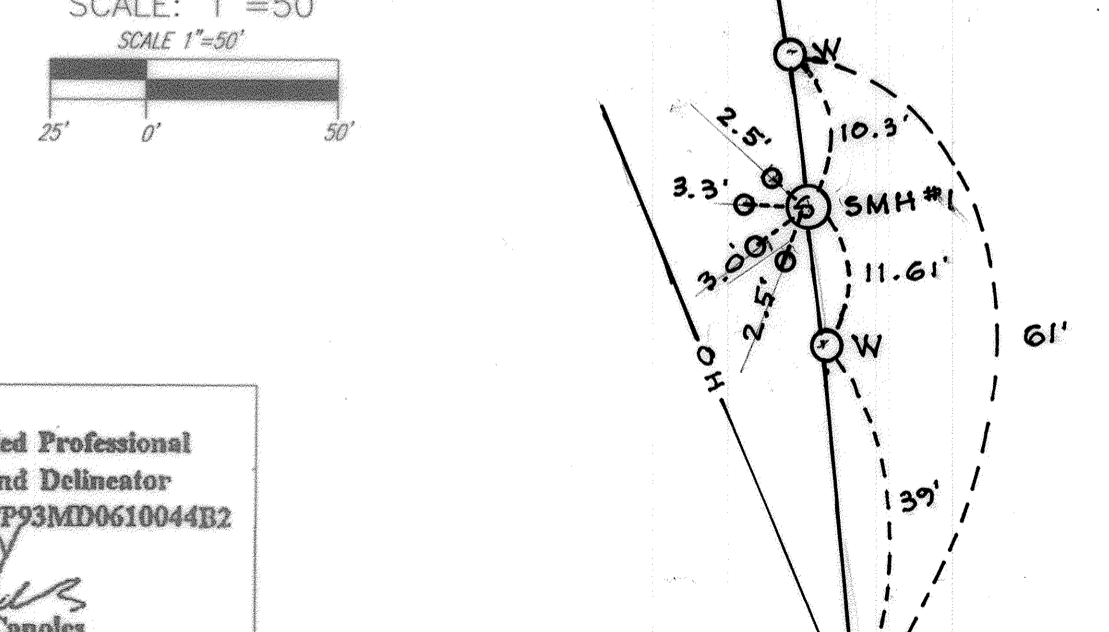
A FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED 03/07/2017.
THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL.
TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY:
-PAYMENT OF FEE-IN-LIEU = 14,810.4 SF (0.34 AC) X \$ 0.75 = \$ 11,108.00

NO.	SIZE (IN. DBH @ 4.5 FT)	CRZ	COMMON NAME	CONDITION	COMMENTS
ST 1	34.5	51.75	BLACK OAK	GOOD CONDITION	TO BE REMOVED
ST 2	32.5	48.75	WHITE OAK	FAIR CONDITION, LIMITED CANOPY	TO REMAIN
ST 3	31	46.5	SILVER MAPLE	TWIN SEMS	TO BE REMOVED
ST 4	30	45	SILVER MAPLE	TWIN SEMS	TO REMAIN

LEGEND	
	EXISTING CURB AND GUTTER
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING UTILITY POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING STORM DRAIN LINE
	EXISTING FENCE
	EXISTING OVER HEAD LINE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING SPECIMEN TREE TO BE REMOVED
	EXISTING SPECIMEN TREE TO REMAIN
	SOILS BOUNDARY
	LIMIT OF DISTURBANCE
	EXISTING VEGETATION
	PROPOSED LANDSCAPING



FOREST CONSERVATION PLAN
SCALE: 1"=50'



VICINITY MAP
SCALE: 1"=1,000'

ADC MAP COORDINATE: PAGE: 34, B-4

GENERAL NOTES

WATERSHED NAME: LITTLE PATUXENT RIVER (1-P)
WATERSHED NUMBER: 2131105
A. GROSS SITE AREA: 2.26 AC.
NET SITE AREA: 2.26 AC.
B. AREA OF 100-YEAR FLOODPLAIN: 0.00 AC.
C. AREA OF WETLANDS AND BUFFERS: 0.00 AC.
D. AREA OF > 25% STEEP SLOPES: 0.00 AC.
E. EXISTING FOREST WITHIN NET AREA: 0.00 AC.
F. ZONED: R-12
G. EXISTING USE: RESIDENTIAL
H. PROPOSED USE: RESIDENTIAL

OWNER/DEVELOPER

MICHAEL LARRICK
6604 ALLEN LANE
COLUMBIA, MD 21045
(443)-506-0197

NO.	REVISION	DATE
1	ADDED "AS BUILT PULLS"	7/21/21
2	REVISE THE PLAN TO SHOW A CHANGE IN SHARE AND LOCATION OF THE LOT 1 MDR AND	3-29-19
	CHANGE THE V&S SERVICE TO REFLECT THE ADD EXHIBIT	

FINAL SUPPLEMENTAL PLAN
FOREST CONSERVATION PLAN

LARRICK SUBDIVISION
LOTS 1-6

A RESUBDIVISION OF
LOT 3, "ANNETTA GARDENS-SECTION 1"
AND LOT 4, "ANNETTA GARDENS-SECTION 2"

TAX MAP: 37 PARCELS: 475 & 485 BLOCK: 19 ZONING: R-12
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8961

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: 09-27-2018.
DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: MAY 2018
SCALE: AS SHOWN
W.O. NO.: 18-38
6 SHEET OF 6

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/12/18
CHIEF, DIVISION OF LAND DEVELOPMENT 5/29/18

Eco-Science Professionals, Inc.
Consulting Ecologists
P.O. Box 5006 Glen Arm, Maryland 21057 Telephone (410) 832-2480 Fax (410) 832-2488

MD DNR Qualified Professional
USACOE Wetland Delineator
Certification # WDCP93MD061004B2
John F. Canoles

John F. Canoles 5/2/18
JOHN CANOLES
DNR QUALIFIED PROFESSIONAL

SOILS LEGEND HOWARD COUNTY SOILS MAP #19			
SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR/ERODIBLE / HYDRIC
SfC	SASSAPARILLA AND GROOM SOILS, 5 TO 10 PERCENT SLOPES	B	0.37 YES NO
Umd	URBAN LAND-SASSAPARILLA-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D	0.37 YES NO
ChB	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	B	0.37 YES NO
FaA	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.02 NO YES

NOTE:
TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
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.