

REFORESTATION PLAN

PROPOSED FOREST CLEARING: 7,976 SF
PROVIDED IN LANDSCAPE INFILTRATION: 544 SF

PLANTING CLUSTER (1-CANOPY TREE AND 3 LARGE SHRUBS) = 300 SF
PROVIDED: 12 CLUSTERS

PLANTING CLUSTER (2-UNDERSTORY TREES AND 3 LARGE SHRUBS) = 350 SF
PROVIDED: 11 CLUSTERS

TOTAL PROVIDED: 7,994 SF

BUFFER ESTABLISHMENT PLAN

PROPOSED LOT COVERAGE OUTSIDE CRITICAL AREA BUFFER: 3,631 SF
LESS LOT COVERAGE REMOVED FROM CRITICAL AREA BUFFER: 530 SF
REQUIRED BUFFER ESTABLISHMENT: 3,101 SF

PLANTING CLUSTER (1-CANOPY TREE AND 3 LARGE SHRUBS) = 300 SF
PROVIDED: 8 CLUSTERS

PLANTING CLUSTER (2-UNDERSTORY TREES AND 3 LARGE SHRUBS) = 350 SF
PROVIDED: 4 CLUSTERS

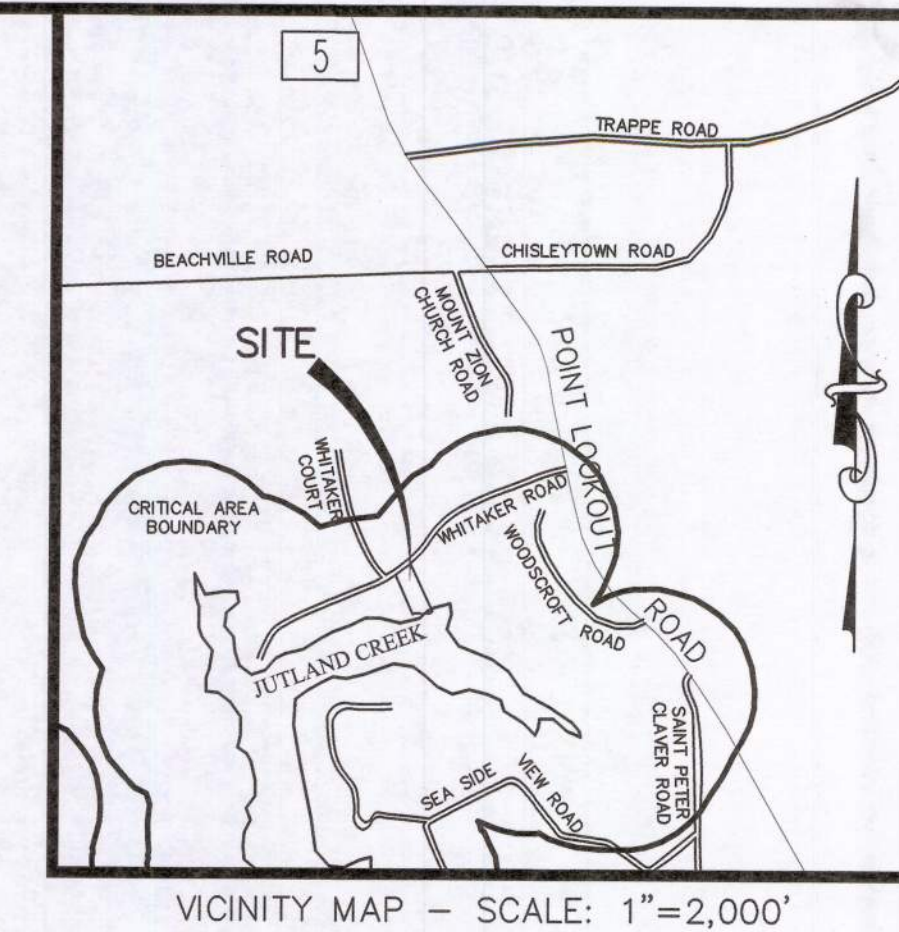
TOTAL PROVIDED: 3,200 SF

BUFFER MANAGEMENT LANDSCAPE

QUANTITY	BOTANICAL/COMMON NAME	SIZE	PLANTING DATE
6	TREES (CANOPY): Fagus grandifolia/American Beech	3/4-INCH CALIPER, 6' TALL	SPRING OR FALL MONTHS
6	Liriodendron tulipifera/Tulip Poplar		
6	Quercus palustris/Pin Oak		
6	TREES (UNDERSTORY): Asimina triloba/American Pawpaw	3/4-INCH CALIPER, 6' TALL	
6	Cornus florida/Flowering Dogwood		
6	Cercis canadensis/Eastern Redbud		
6	Amelanchier canadensis/Shadblow Serviceberry		
6	Morus coronaria/Sweet Crabapple		
20	LARGE SHRUBS: Vaccinium corymbosum/High Bush Blueberry	3' TALL	
17	Cephalanthus occidentalis/Butterbush		
17	Ilex glabra/Inkberry		
15	Lindera benzoin/Spicebush		
15	Morella carolinensis/Southern Bayberry		
15	Rhododendron atlanticum/Coast Azalea		

TABLE B.4.1 MATERIALS SPECIFICATIONS FOR LANDSCAPE INFILTRATION

MATERIAL	SPECIFICATION	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	PLANTINGS ARE SITE-SPECIFIC
PLANTING SOIL SEE DETAILS FOR DEPTH	LOAMY SAND (60-85%) & COMPOST (35-40%) OR SANDY LOAM (30%) COARSE SAND (30% & COMPOST (40%)	USDA SOIL TYPES LOAMY SAND OR SAND LOAM; CLAY CONTENT <5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)	
MULCH	SHREDDED HARDWOOD	AGED 6 MONTHS; NO PINE OR WOOD CHIPS
GRAVEL	ASHITO M-43 NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
GEOTEXTILE		PE TYPE 1 NONWOVEN



VICINITY MAP - SCALE: 1"=2,000'



Expires 1/4/24

WHITAKER ROAD - 30' R/W
PER PLAT 4/113

GENERAL NOTES

- THIS SITE IS LOCATED ON TAX MAP 67, GRID 16, PARCEL 194.
- PARENT ZONING: RPD/RCA OVERLAY
- BUILDING RESTRICTION LINES SHALL BE AS SHOWN HEREON. THE BUILDING RESTRICTION LINES ARE MAPPED IN ACCORDANCE WITH THE ST. MARY'S COUNTY COMPREHENSIVE ZONING ORDINANCE 10-02 CHAPTER 32.3.2 AND SCHEDULE 32.1 FOR ZONE RPD AS FOLLOWS: 25' FRONT, 15' SIDE, AND 20' REAR APPLIED FROM THE MORE RESTRICTIVE OF THE LOT LINES OR FROM SENSITIVE AREAS MAPPED PER CZO 10-02 CHAPTER 71.
- WATER SUPPLY SHALL BE FROM AN EXISTING INDIVIDUAL DEEP DRILLED WELL TO AN APPROVED CONFINED AQUIFER.
- SEWAGE FLOW SHALL BE TO A PROPOSED SAND MOUND SYSTEM DESIGNED FOR 400 GPD WITH AN INFILTRATION RATE OF 0.25GPD/SF. MOUND DESIGN COMPLETED 1/26/2021 BY ST. MARY'S COUNTY HEALTH DEPARTMENT.
- BEST AVAILABLE TECHNOLOGY FOR NITROGEN REMOVAL (BAT) AS APPROVED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT IS REQUIRED FOR THE ON-SITE SEWAGE DISPOSAL SYSTEM. SEPTIC SYSTEM IS DESIGNED FOR 400 GPD. THE PROPERTY OWNER SHALL MAINTAIN AND OPERATE ALL NEW AND EXISTING BAT SYSTEMS FOR THE LIFE OF THE SYSTEM.
- THERE ARE NO EXISTING WELLS OR SEWAGE EASEMENTS WITHIN 100' OF THE PROPOSED WELLS OR SEWAGE EASEMENTS, UNLESS OTHERWISE SHOWN.
- "MINIMUM OWNERSHIP STATEMENT" - THESE LOTS CONTAIN AT LEAST A 20,000 SQUARE FOOT AREA WHICH DOES NOT INCLUDE RIGHTS-OF-WAY (EXISTING OR PROPOSED), 50 YEAR FLOOD PLAINS AND 25% OR GREATER GRADES. THE 20,000 SQUARE FOOT AREA INCLUDES THE COMBINED AREA OF SEWAGE RESERVE AREA PLUS THE BUILDING SITE.
- PRESENT SEWER CATEGORY: NPS (NO PLANNED SERVICE)
- PRESENT WATER CATEGORY: NPS (NO PLANNED SERVICE)
- THIS BUILDING PERMIT SITE PLAN IS IN COMPLIANCE WITH THE ST. MARY'S COUNTY COMPREHENSIVE WATER AND SEWER PLAN.
- THIS SITE IS SUBJECT TO STORMWATER MANAGEMENT PURSUANT TO THE ST. MARY'S COUNTY COMPREHENSIVE ZONING ORDINANCE.
- SUBJECT PROPERTY APPEARS TO BE IN FLOOD HAZARD ZONE "A2" AS Delineated ON FLOOD INSURANCE RATE MAPS FOR ST. MARY'S COUNTY, MARYLAND, AS DISTRIBUTED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, COMMUNITY PANEL NUMBER 2403700344F, EFFECTIVE DATE NOVEMBER 19TH, 2014. THE BASE FLOOD ELEVATION IS AT 5' BASED ON NAVD 1988.
- THIS LOT WILL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE AWAY FROM THE FOUNDATION WILL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET.
- THIS SITE IS EXEMPT FROM THE FOREST CONSERVATION ACT PER SECTION 75.2.2.B OF THE ST. MARY'S COMPREHENSIVE ZONING ORDINANCE.

CRITICAL AREA NOTES

- THE CRITICAL AREA BUFFER MUST REMAIN IN NATURAL VEGETATION AND MAY NOT BE DISTURBED EXCEPT AS PROVIDED UNDER CHAPTER 71, SECTION 8 (HABITAT PROTECTION STANDARDS) OF THE ST. MARY'S COUNTY COMPREHENSIVE ZONING ORDINANCE (10-02, AS AMENDED).
- NO DEVELOPMENT IS PERMITTED IN WETLANDS WITHOUT APPROVAL FROM THE APPROPRIATE LOCAL, STATE, AND FEDERAL AGENCIES. THIS SITE HAS NOT BEEN FIELD EVALUATED FOR TIDAL OR NON-TIDAL WETLANDS.
- ALL EXISTING FOREST SHOWN HEREON SHALL REMAIN UNDISTURBED EXCEPT AS PERMITTED UNDER THE PROVISIONS OF CHAPTER 72 (FOREST AND WOODLAND RESOURCES) IN THE CRITICAL AREA) OF THE ST. MARY'S COUNTY COMPREHENSIVE ZONING ORDINANCE. ANY AND ALL AFFORESTED OR REFORESTED AREA CREATED UNDER THE PROVISIONS OF THE ST. MARY'S COUNTY CRITICAL AREA ORDINANCE AND DESIGNATED ON THIS PLAT SHALL BE PRESERVED FROM FUTURE DISTURBANCE.
- LOCATIONS OF NATURAL HERITAGE AREAS, HABITATS OF THREATENED OR ENDANGERED SPECIES, AND HABITATS OF SIGNIFICANT PLANTS OR WILDLIFE ARE IDENTIFIED ON THIS PLAT IN ACCORDANCE WITH SECTION 71.8 OF THE ST. MARY'S COUNTY COMPREHENSIVE ZONING ORDINANCE.
- EXISTING LOT COVERAGE WITHIN 100 FOOT CRITICAL AREA BUFFER IS 530 SQ. FT.
- AREA OF SLOPES 15% OR GREATER IS 7,161 SQ. FT.
- EXISTING TREES OR FORESTED AREA IS 64,060 SQ. FT.
- AREA OF EXISTING LOT COVERAGE IS 11,066 SQ. FT.
- PROPOSED AREAS OF VEGETATION CLEARING IS 7,976 SQ. FT.
- PROPOSED AREAS OF SOIL DISTURBANCE IS 23,753 SQ. FT.
- PROPOSED AREAS OF LOT COVERAGE IS 4,305 SQ. FT.
- REQUIRED AREAS OF REFORESTATION OR AFFORESTATION IS 11,607 SQ. FT.

FOREST INTERIOR DWELLING SPECIES HABITAT NOTES

- DEVELOPMENT ACTIVITIES INCLUDING CLEARING, GRADING, AND CONSTRUCTION SHALL BE MINIMIZED DURING THE MAY-AUGUST BREEDING SEASON.
- UNAVOIDABLE DEVELOPMENT ACTIVITIES OR OTHER DISTURBANCES DURING THE MAY TO AUGUST BREEDING SEASON SHALL BE FOCUSED ON THE PERIPHERY OF THE AREA (ROADS, UTILITY LINES, CORRIDORS, AND STRUCTURES).
- CONTINUOUS COVER OF BRANCHES AND FOLIAGE FORMED BY THE CROWNS OF ADJACENT TREES (FOREST CANOPY) AND TREES AND SHRUBS UNDERNEATH THE CANOPY (UNDERSTORY VEGETATION) SHOULD BE RETAINED IN SO FAR AS POSSIBLE.
- CLEARING AND DEVELOPMENT ACTIVITIES SHOULD BE CLUSTERED AND CREATION OF SMALL CLEARINGS SHOULD BE MINIMIZED.
- WHERE FOREST MUST BE CLEARED, THE CLEARED FOREST SHOULD BE ALLOWED OR ENCOURAGED TO RETURN TO NATIVE VEGETATION IN SO MUCH AS POSSIBLE.

JUTLAND CREEK



APPROVED
AS NOTED IN RED

JUL 19 2022

CRITICAL AREA REVIEW
ST. MARY'S COUNTY
LAND USE & GROWTH MANAGEMENT

Received
DEC 22 2022
St. Mary's County
Land Use & Growth Management

LANDSCAPE INFILTRATION PLANT LIST

QUANTITY	BOTANICAL / COMMON NAME	SIZE	ROOT
2	TREES Cercis canadensis / Redbud	3/4" CAL.	B&B
7	SHRUBS Itea virginica / Virginia sweetspire	3'-4"	3-GALLON
22	GROUND COVERS Eupatorium perfoliatum/Joe Pye Weed	3'-4"	1-QUART OR PLUG

PLANT SUBSTITUTIONS/ALTERNATIVES SHOULD BE CHOSEN FROM APPENDIX A OF VOLUME 2 OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL

ATTENTION CONTRACTOR!
You must verify that the soils on this site are suitable for the stormwater management practices shown on this plan BEFORE installation. If soils on this site are unsuitable, Contractor must notify LUGM by calling 301-475-4200 ext. 1560 ASAP.

LAND USE AND GROWTH MANAGEMENT CONTROL NO: SFDD22-1364

DEPARTMENT OF LAND USE & GROWTH MANAGEMENT
DATE
DIRECTOR

HEALTH DEPARTMENT
DATE
DIRECTOR

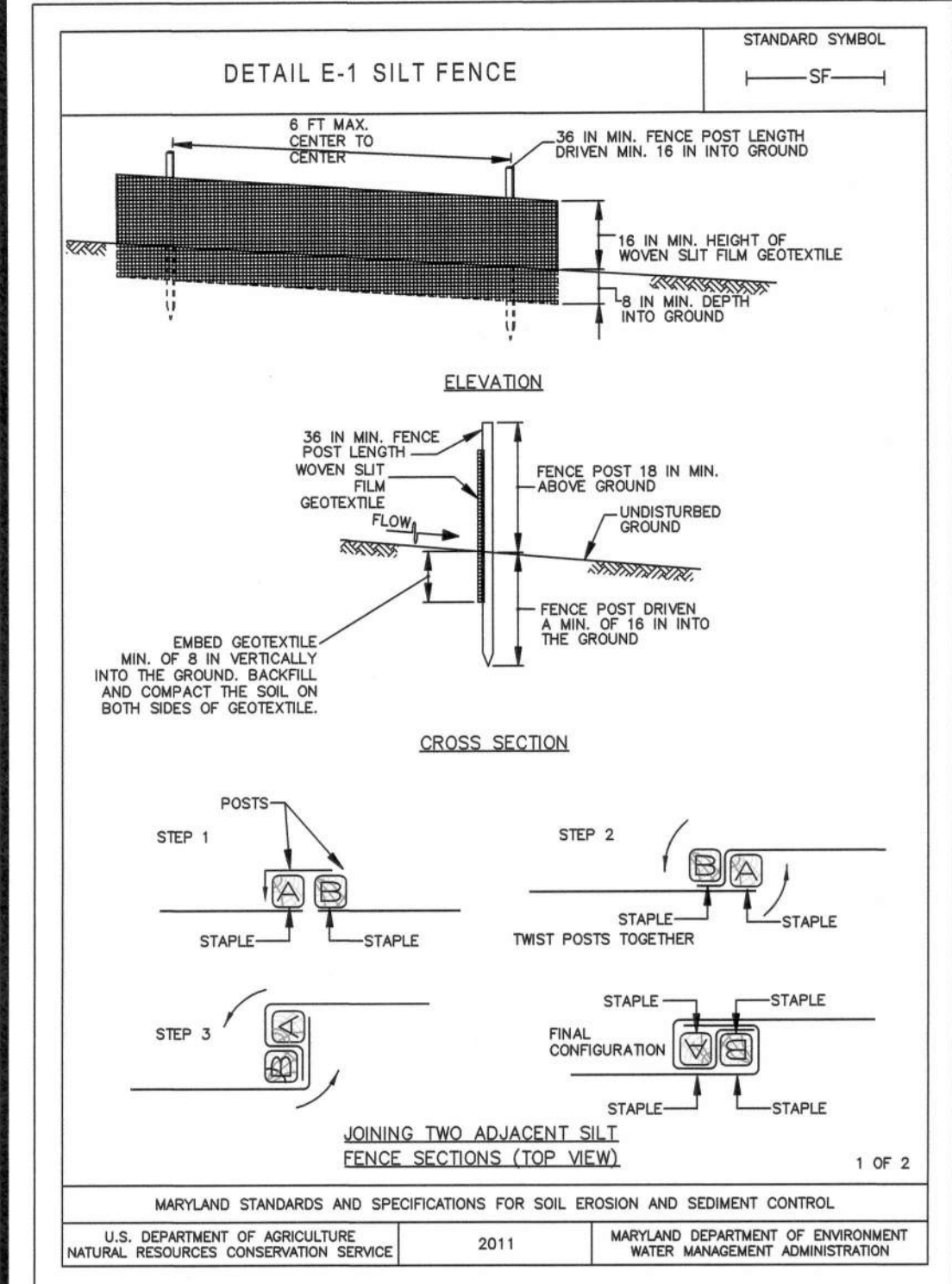
CRITICAL AREA BUILDING PERMIT SITE PLAN
FOR ALEXANDER TAIT
LOT 9 - DELLE BOURNE SUBDIVISION
DEED LIBER DJB 5650, FOLIO 230
FIRST ELECTION DISTRICT
ST. MARY'S COUNTY, MARYLAND

DRAWING: 67194(9)SP DATE: 5/31/2022 SCALE: 1"=20' SHEET 1 OF 2

LINEAR SURVEYS INC.

PROFESSIONAL LAND SURVEYORS
42120 ST. ANDREWS CHURCH ROAD
LEONARDTOWN, MARYLAND 20650
PHONE: (301)475-9000 FAX: (301)475-0363

NO.	DATE	DESCRIPTION	BY
1.	10/26/22	HD COMMENTS	RAM
		REVISION	



SOIL CONSERVATION GENERAL NOTES

- APPROVAL BY THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE INSTALLATION OF THE PERMITTER EROSION CONTROLS AND BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES BEFORE REMOVAL OF SEDIMENT CONTROLS.
- SPECIFICATIONS FOR EROSION CONTROLS PRACTICES SHALL BE THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - THREE CALENDAR DAYS FOR ALL PERMITTER CONTROLS, DITCHES, SWALES, DITCHES, PERMITTER SLOPES AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SIX DAYS AS TO ALL DISTURBED OR GRADED AREAS IN THE PROJECT SITE.
- TEMPORARY SEEDING SCHEDULE:

HARDINESS ZONE 7A FROM TABLE B.1					FERTILIZER RATE (10-20-20)		LIME RATE	
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS				
1	BARLEY	96	2/15 - 4/20 8/15 - 11/30	1/4" - 1/2"	436 LB/AC (10 LB/1000 SF)		2 TONS/AC (90 LB/1000 SF)	
2	OATS	72	2/15 - 4/20 8/15 - 11/30	1/4" - 1/2"				
3	CEREAL RYE	112	2/15 - 4/20 8/15 - 11/30	1/4" - 1/2"				

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL VEGETATIVE PRACTICES.

SEED MIXTURE (HARDINESS ZONE 7A)					FERTILIZER RATE				
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K ₂ O		LIME RATE
1	COASTAL PANIC GRASS	10	3/1-5/15	1/4" - 1/2"	(1 LB/ 1000 SF)	(2 LB/ 1000 SF)	(2 LB/ 1000 SF)		2 TONS/AC
2	CREEPING RED FESCUE	15	8/15-9/15						
3	PARTRIDGE PEA	2			45 LB/AC	90 LB/AC	90 LB/AC		1000 SF

** OTHER MIXES MAY BE USED AS RECOMMENDED BY THE SOIL CONSERVATION DISTRICT.

UTILITY INSTALLATION NOTES

ALL TRENCHES OR HOLES CREATED FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED, AND STABILIZED AT THE END OF EACH WORKING DAY. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH OR HOLE. NO MORE TRENCH/HOLE SHALL BE OPENED THAN CAN BE STABILIZED THE SAME DAY. IF AN AREA MUST BE LEFT UNSTABILIZED OVERNIGHT, SILT FENCE WILL BE PLACED IMMEDIATELY DOWNSTREAM OF ALL DISTURBED AREAS AND STOCKPILES, AND APPROPRIATE SAFETY MEASURES WILL BE INSTALLED AS REQUIRED. IF TRENCHING IS DONE AT 3:1 SLOPES OR GREATER, DISTURBED AREA TO BE STABILIZED WITH EROSION CONTROL MATTING.

SEQUENCE OF CONSTRUCTION

PHASE 1 THE CONTRACTOR SHALL NOTIFY THE SOIL CONSERVATION DISTRICT OFFICE FOR A PRE-CONSTRUCTION MEETING AT LEAST FIVE (5) DAYS BEFORE THE DATE OF THE PRE-CONSTRUCTION MEETING AT 301-475-8402 EXT 3. THE CONTRACTOR SHALL NOTIFY MDE ENFORCEMENT DIVISION AT 410-537-3510 OR MDE SEDIMENT STORMWATER ADMINISTRATION, 1800 WASHINGTON BLVD, BALTIMORE, MD 21204 AT LEAST 48 HOURS PRIOR TO COMMENCING CLEARING AND GRUBBING AND ONCE THE PRE-CONSTRUCTION MEETING HAS BEEN HELD WITH ST. MARY'S SOIL CONSERVATION DISTRICT.

PHASE 2 CLEAR AND GRUB AREAS NECESSARY FOR INSTALLATION OF PERMITTER CONTROLS. INSTALL ALL PERMITTER CONTROLS (SILT FENCE, SMART FENCE, EARTH DIKE, MOUNTABLE BERM). THE EXISTING GRAVEL DRIVEWAY WILL SERVE AS THE CONSTRUCTION ENTRANCE. NOTIFY MDE INSPECTOR AT 410-537-3510 ONCE PERMITTER CONTROLS HAVE BEEN INSTALLED.

PHASE 3 REMAINING CLEARING AND GRUBBING, ROUGH GRADING OF SITE FOR DRIVEWAY, GARAGE, AND BUILDING CONSTRUCTION ARE TO BE IMMEDIATELY STABILIZED WITH TEMPORARY STABILIZATION. LANDSCAPE INFILTRATION TO BE PROTECTED FROM COMPACTION DURING CONSTRUCTION ACTIVITIES BY RIGGING IT IN SILT FENCE OR BLAZE ORANGE CONSTRUCTION FENCE. ANY COMPACTION WHICH OCCURS IN AREAS WHERE LANDSCAPE INFILTRATION IS TO BE INSTALLED WILL BE CORRECTED BEFORE LANDSCAPE INFILTRATION IS INSTALLED. RUNOFF TO BE DIVERTED AND USE OF HEAVY EQUIPMENT AVOIDED TO MINIMIZE COMPACTION IN AREAS DESIGNATED FOR LANDSCAPE INFILTRATION. LANDSCAPE INFILTRATION FACILITY CANNOT BE INSTALLED UNTIL ALL CONTRIBUTORY DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED.

PHASE 4 FINAL GRADING AND CONSTRUCTION OF DRIVEWAY, BUILDING, AND SEPTIC SYSTEM. PERMANENTLY STABILIZE DISTURBED AREAS WITH A MINIMUM 4" OF TOPSOIL, SEED AND MULCH.

PHASE 5 FINAL GRADING AND CONSTRUCTION OF LANDSCAPE INFILTRATION ONCE ALL CONTRIBUTORY DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED. PERMANENTLY STABILIZE DISTURBED AREAS WITH A MINIMUM 4" OF TOPSOIL, SEED AND MULCH.

PHASE 6 REMOVE ALL TEMPORARY SEDIMENT CONTROLS UPON APPROVAL BY MDE INSPECTING AUTHORITY AND PERMANENTLY STABILIZE THE SEDIMENT CONTROL AREAS WITH A MINIMUM 4" OF TOPSOIL, SEED AND MULCH.

CONSTRUCTION TIMING

PHASE 1, ONE DAY
PHASE 2, THREE (3) DAYS TO ONE (1) WEEK
PHASE 3, TWO (2) WEEKS TO ONE (1) MONTH
PHASE 4, SIX (6) MONTHS TO EIGHT (8) MONTHS
PHASE 5, THREE (3) DAYS TO TWO (2) WEEKS
PHASE 6, THREE (3) DAYS TO ONE (1) WEEK

DEVELOPER'S CERTIFICATION

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THE APPROVED PLANS AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN CONSTRUCTION OF THIS PROJECT HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION.

GREAT MILLS TRADING POST

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROVED EROSION AND SEDIMENT CONTROL ORDINANCES, REGULATIONS, STANDARDS AND CRITERIA.

JEFFREY T. NIEMAN, L.S.
MD LICENSE #21553

DATE

12/22/22

SCD INFORMATION BLOCK

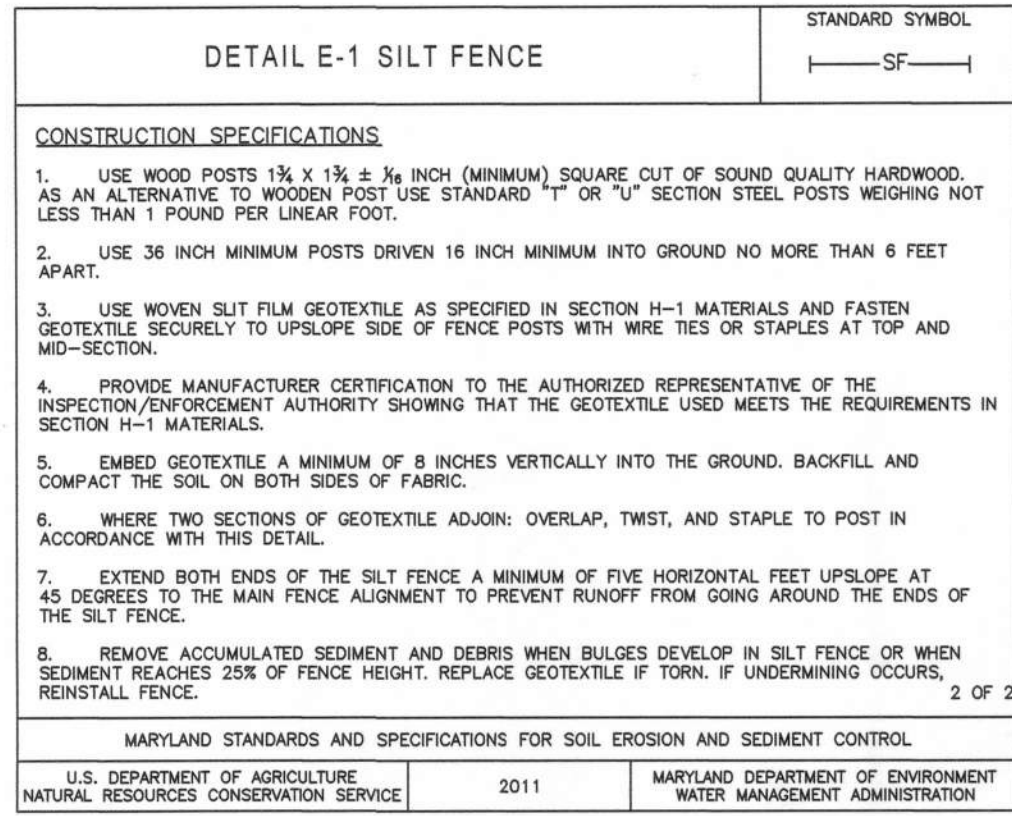
OWNER:
ALEXANDER TAIT
9307 SUBURBY ROAD
GREAT MILLS, MD 20901
301-461-8956

DEVELOPER:
GREAT MILLS TRADING POST
20294 PLOT LOOKOUT ROAD
GREAT MILLS, MD 20634
301-994-0300

TOPOGRAPHY: FIELD LOCATED BY LINEAR SURVEYS INC. WITHIN SITE AREA, COUNTY AERIAL MAPING OUTSIDE OF SITE AREA

DISTURBED AREAS = 23,753 SF
IMPERVIOUS AREAS = 4,205 SF
AREA TO BE VEGETATIVELY STABILIZED = 19,548 SF
TOTAL FOREST CLEARED = 7,976 SF
EARTH CUT = 150 CY
EARTH FILL = 150 CY

ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF DETERMINING PERMITTING REQUIREMENTS. SINCE FINAL EARTHWORK QUANTITIES ARE BASED ON MANY VARIABLE CONDITIONS WHICH THE ENGINEER HAS NO CONTROL, INCLUDING VARIABILITY OF SOILS, ALLOWABLE SURVEY AND CONSTRUCTION TOLERANCES, AND COMPACTION RATES, THE ENGINEER CANNOT GUARANTEE THE ACCURACY OF THE ESTIMATES FOR FINAL CONSTRUCTION. THE OWNER/DEVELOPER SHOULD REQUIRE THE CONTRACTOR TO PROVIDE THEIR OWN ESTIMATES OF THE QUANTITIES IN THEIR RESPECTIVE BIDS.



ENVIRONMENTAL SITE DESIGN CREDITS

LANDSCAPE INFILTRATION (M-3)				
DRAINAGE AREA NO.	AREA (SF)	IMPERVIOUS AREA (SF)	MAXIMUM ESDv ALLOWED (CF)	PROVIDED ESDv (CF)
1	3,913	2,351	539	500

STORMWATER MANAGEMENT NARRATIVE

NATURAL RESOURCE PROTECTION AND ENHANCEMENT:

SIGNIFICANT NATURAL RESOURCES AS DEFINED ON TABLE 5.1 OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL ARE SHOWN HEREON. THE SITE AREA FOR STORMWATER MANAGEMENT PURPOSES IS THE AREA WITHIN THE LIMITS OF DISTURBANCE. THE SOIL SURVEY OF ST. MARY'S COUNTY SHOWS 100% OF THE SITE AREA IS OCCUPIED BY HYDROLAPIC SOIL GROUP "B" SOIL TYPE, BEING Ssdc (SASSAFRAS SANDY LOAM, 2 TO 5 PERCENT SLOPES) AND SB2 (SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES, MODERATELY ERODED) WHICH IS CONSIDERED A PRIME FARMLAND SOIL IN ST. MARY'S COUNTY. OBSERVATION IN THE FIELD CONFIRMS THESE SOIL-MAPPING UNITS. THE PROPERTY IS OCCUPIED BY 1.47 ACRES OF FOREST, BEING 61% OF THE LOT AREA OF WHICH THIS PLAN PROPOSES 0.18 ACRES (7,976 SF) FOREST DISTURBANCE. THE SITE PLAN IS EXEMPT FROM FOREST CONSERVATION AS THIS SITE LIES WITHIN MARYLAND'S CRITICAL AREA. AS THIS PROPERTY ADJUTS JUTLAND CREEK, TIDAL WETLANDS AND A FLOODPLAIN ARE PRESENT. THESE FEATURES ARE FOUND UPON THE SOUTHERN PORTION OF THE PROPERTY. A 100' CRITICAL AREA BUFFER HAS BEEN APPLIED FROM THE LANDWARD EDGE OF THE TIDAL WETLANDS AS MAPPED BY THE MARYLAND DEPARTMENT OF NATURAL RESOURCES. SLOPES GREATER THAN 15% ARE SHOWN. NO DISTURBANCE IS PROPOSED WITHIN ANY OF THE LISTED ENVIRONMENTAL FEATURES OR WITHIN THEIR APPLICABLE SETBACKS.

MAINTENANCE OF NATURAL FLOW PATTERNS:

15%-25% SLOPES ARE DESIGNATED ON THIS PLAN. DRAINAGE FROM THE SITE AREA GENERALLY FLOWS NORTHEAST TO SOUTHWEST TO A WELL DEFINED SWALE. THE PLAN MAINTAINS SHEET FLOWS THROUGH THIS DRAINAGE AREA WITH DISCHARGE OCCURRING AT THEIR EXISTING LOCATIONS. ALL DRAINAGE FROM THE PROPOSED DEVELOPMENT WILL BE TREATED AND DIRECTED TO THESE NATURAL DISCHARGE LOCATIONS.

REDUCTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES, AND NONSTRUCTURAL PRACTICES:

THE PROPOSED DEVELOPMENT UTILIZES A SITE AREA LESS THAN 25% OF THE LOT AREA. NUMEROUS NON-STRUCTURAL PRACTICES ARE UTILIZED AS OPPOSED TO STRUCTURAL PRACTICES. THE FOLLOWING BETTER SITE DESIGN TECHNIQUES ARE IMPLEMENTED TO REDUCE IMPERVIOUS SURFACE:

- STORMWATER PRACTICES PLACED IN LANDSCAPED AREAS
- ROOFTOP RUNOFF DIRECTED TO PERVIOUS SURFACES
- CLEARING, GRADING AND EARTH DISTURBANCE LIMITED TO THAT REQUIRED TO DEVELOP LOT
- USE OF NATIVE PLANTINGS
- ALIGN DRIVEWAY AND HOUSE TO MINIMIZE FOREST REMOVAL

INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO THE STORMWATER STRATEGY:

THIS PLAN IS IN ACCORDANCE WITH THE ST. MARY'S COUNTY STORMWATER MANAGEMENT, GRADING, EROSION AND SEDIMENT CONTROL ORDINANCE AND THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. THE SITE IS SUBJECT TO SEDIMENT AND EROSION CONTROL AS PROPOSED DISTURBANCE EXCEEDS 5,000 SQUARE FEET. THE EXISTING GRAVEL DRIVEWAY WILL SERVE AS THE CONSTRUCTION ENTRANCE WHICH WILL BE SNEE'D DAILY TO AVOID BACKLOGS. THE EARTH DIKE IS TO BE CONSTRUCTED AROUND THE PERIMETER OF THE DISTURBED AREA. EARTH DIKES WILL DIRECT SEDIMENT LADEN FLOW TO A SINGLE TEMPORARY STONE OUTLET STRUCTURE. SILT FENCE IS ALSO PROVIDED ON THE DOWNHILL SIDE OF THE STOCKPILE AREA; STOCKPILE AREA IS FOR TEMPORARY STORING OF TOPSOIL. ALL PERVIOUS SURFACES WITHIN THE SITE AREA WILL BE PERMANENTLY STABILIZED WITH A MINIMUM OF 4" OF TOPSOIL, SEED AND MULCH.

IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES TO THE MEP:

STORMWATER MANAGEMENT IS ADDRESSED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL AND THE ST. MARY'S COUNTY STORMWATER MANAGEMENT, GRADING, EROSION AND SEDIMENT CONTROL ORDINANCE. ENVIRONMENTAL SITE DESIGN IS IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE PER THE STORMWATER MANAGEMENT ACT OF 2007. ENVIRONMENTAL SITE DESIGN TARGETS HAVE BEEN MET THROUGH A SINGLE USE OF LANDSCAPE INFILTRATION TO TREAT RUNOFF AS CLOSE TO THE SOURCE AS POSSIBLE. LANDSCAPE INFILTRATION WAS CHOSEN FOR ITS ABILITY TO BE UTILIZED WITHIN HSG "B" SOIL TYPES, RECHARGE, WATER QUALITY STORAGE, AND CHANNEL PROTECTION STORAGE VOLUMES ARE SATISFIED. NO STRUCTURAL BMP'S HAVE BEEN USED. THE DESIGN OF THE SITE MIMICS "WOODS IN GOOD CONDITION".

CONSTRUCTION, INSPECTION & MAINTENANCE LANDSCAPE INFILTRATION

CONSTRUCTION:

LANDSCAPE INFILTRATION SHALL NOT BE CONSTRUCTED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED. DURING CONSTRUCTION, RUNOFF SHOULD BE DIVERTED AND THE USE OF HEAVY EQUIPMENT AVOIDED TO MINIMIZE COMPACTION.

PLANTING SOIL SHOULD BE MIXED ON-SITE PRIOR TO INSTALLATION. A SIX-INCH LAYER OF WASHED GRAVEL SHALL BE USED BELOW THE PLANTING SOIL MIX.

THE OPTIMUM PLANTING TIME IS DURING THE FALL. SPRING PLANTING IS ALSO ACCEPTABLE BUT MAY REQUIRE WATERING.

INSPECTION:

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

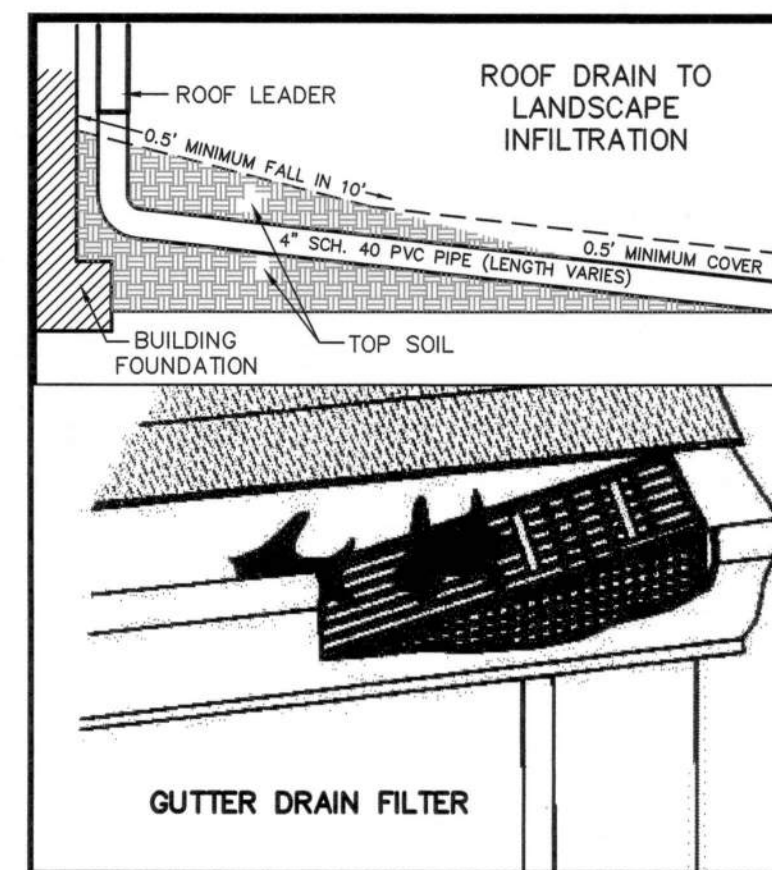
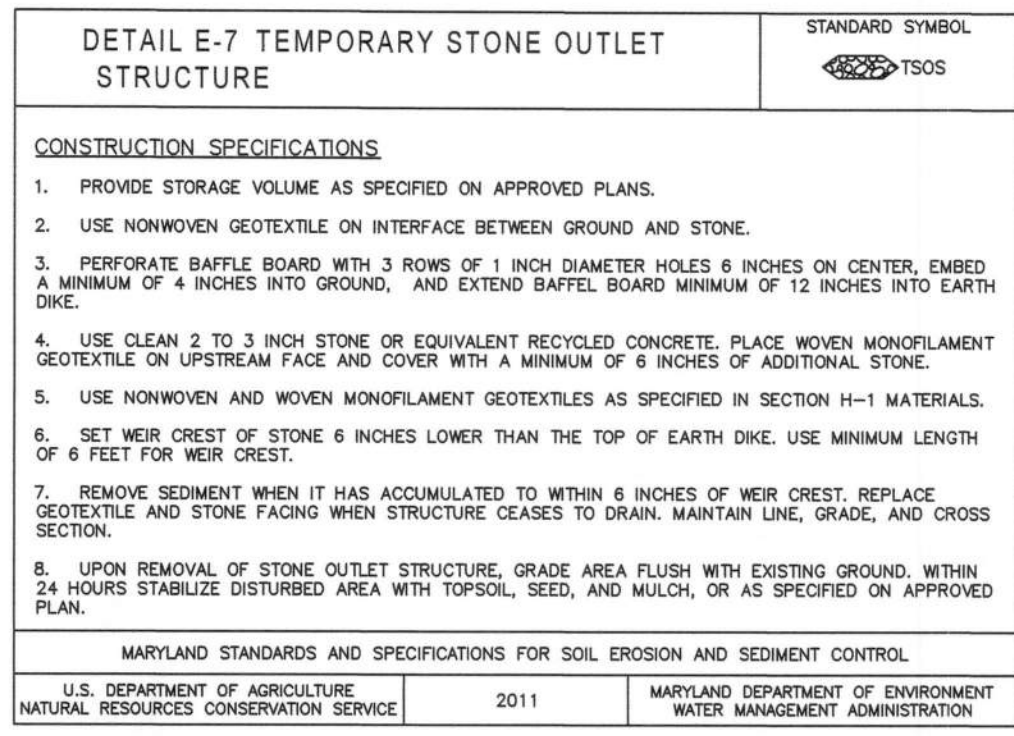
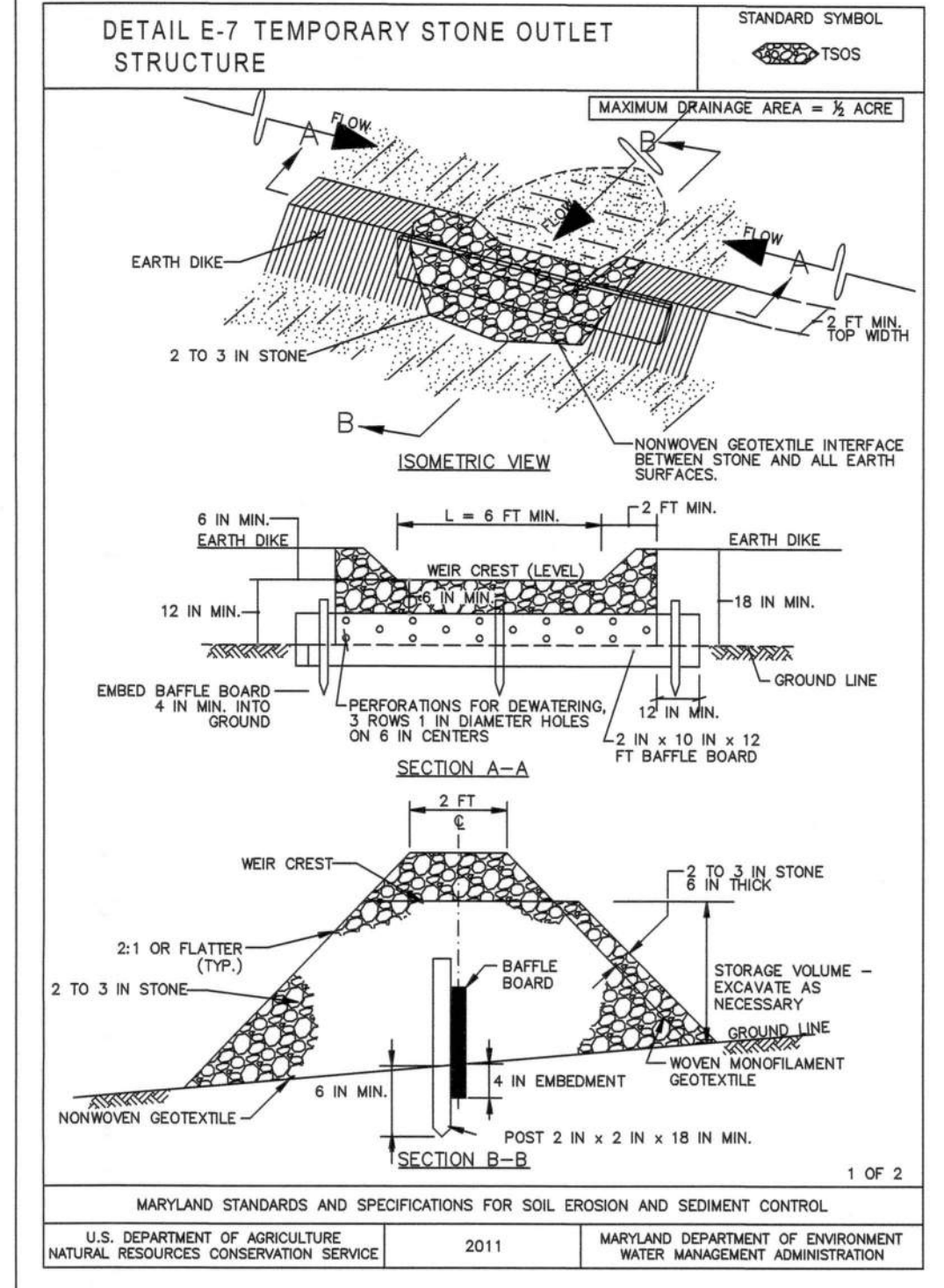
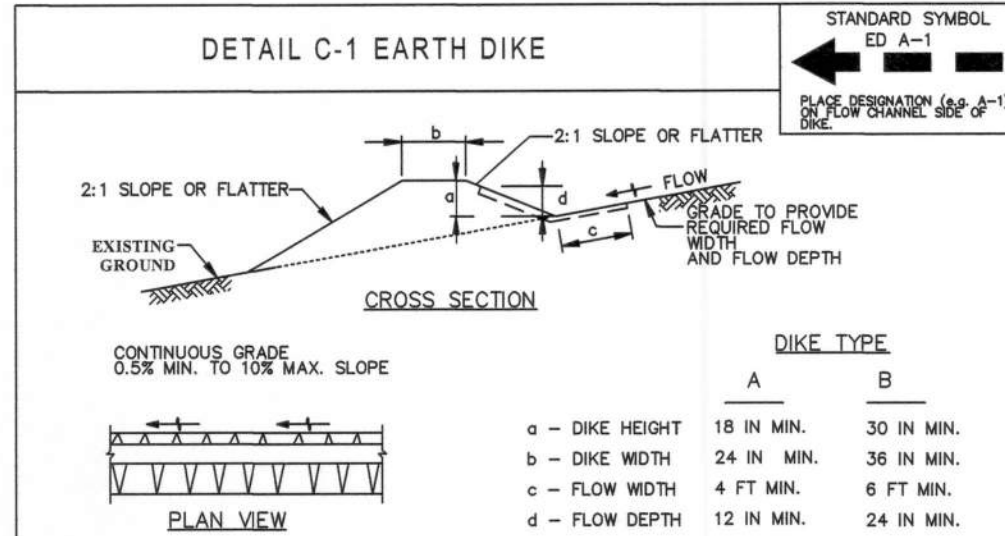
- DURING EXCAVATION TO SUBGRADE AND FINAL PLACEMENT OF PLANTING SOIL.
- UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

MAINTENANCE:

THE TOP FEW INCHES OF THE PLANTING SOIL SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE BED AS NEEDED.

WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (E.G., PARKING LOTS, ROADS), MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP TWO TO THREE INCHES SHOULD BE REPLACED AS NECESSARY.

OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.



ESDv TARGET

TOTAL SITE AREA: 23,753 SF

SOIL TYPE: 100% HSG B

IMPERVIOUS COVER: 4,205 SF

PERCENT IMPERVIOUS: 18%

RV = 0.05 + 0.009 X 18 = 0.209

TARGET PE = 1.2"

TARGET ESDv = 1.2" X 0.209 X 23,753 / 12 = 498 CF

LANDSCAPE INFILTRATION:

DRAINAGE AREA 1: 3,913 SF

IMPERVIOUS COVER: 2,351 SF

PERCENT IMPERVIOUS: 60%

RV: 0.05 + 0.009 X 60 = 0.591

MAXIMUM ESDv ALLOWED: 2.8" X 0.591 X 3,913 / 12 = 539 CF

DESIGN:

SURFACE AREA: 192 SF

DIMENSIONS: 8' X 24'

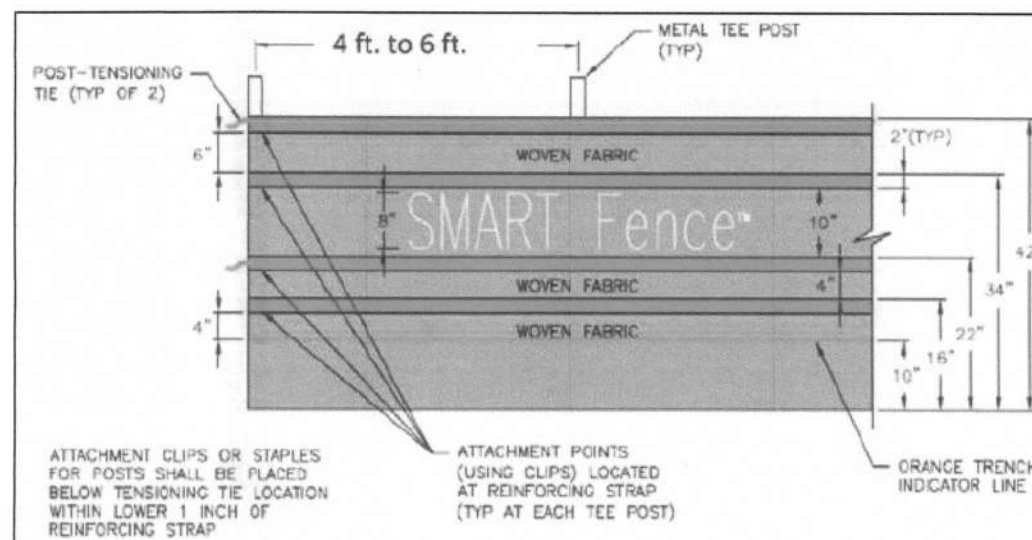
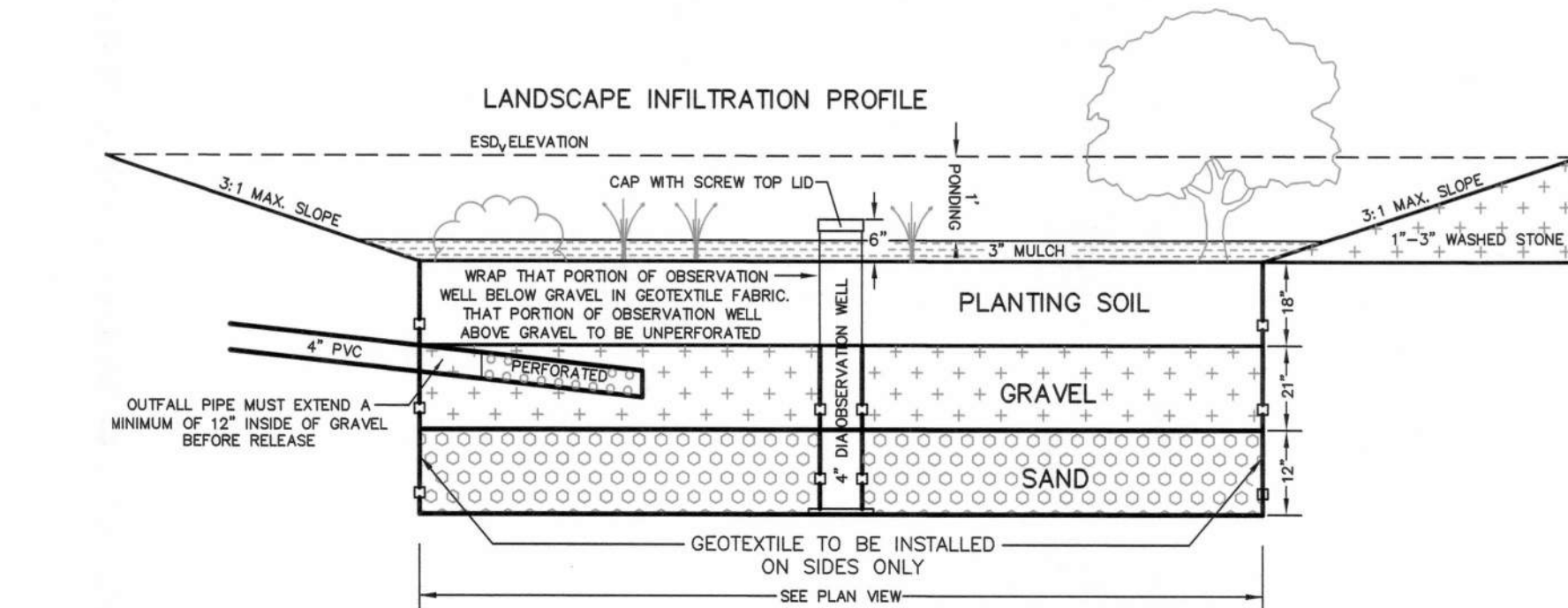
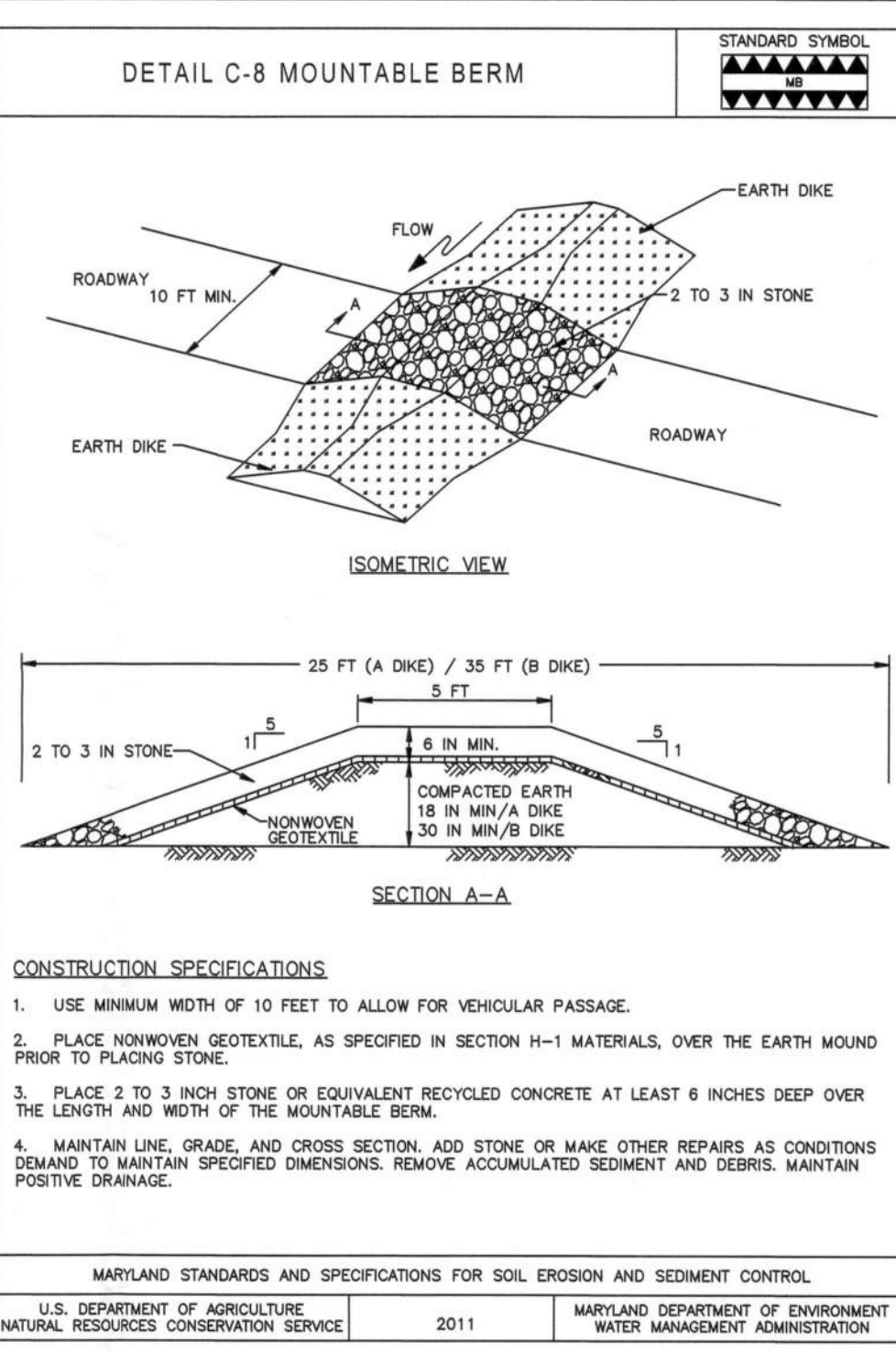
3" MULCH, 1.5" PLANTING MEDIA, 1.75" GRAVEL, 1" SAND

12" PONDING: (1.0") (192 SF) = 192 CF

4.5" MEDIA: (4.5") (192 SF) (4) = 345 CF

ESDv PROVIDED: 537 CF

TOTAL PROVIDED ESDv: 537 CF



LANDSCAPE INFILTRATION PLANTING CRITERIA

GENERAL NOTES:

- SCOPE: THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES OF PLANT MATERIAL SHOWN ON THE PLAN IN THE PLANT LIST, AND SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.
- UTILITIES: THE LANDSCAPE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-0257-7777) TO VERIFY THE LOCATION OF ALL MAJOR UTILITIES. THE GENERAL CONTRACTOR TO LOCATE LIGHTING AND OTHER ON-SITE UTILITIES IN THE FIELD BEFORE PROCEEDING WITH THE INSTALLATION OF ANY PLANTING. IF CONDITIONS ARISE IN THE FIELD WHICH NECESSITATES THE SHIFTING OF A PLANT LOCATION MORE THAN 15', THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED PRIOR TO INSTALLATION.
- SUBSTITUTIONS: ANY CHANGE IN THE TYPE, SIZE AND QUANTITY OF PLANT MATERIAL BY THE LANDSCAPE CONTRACTOR MUST BE APPROVED BY THE ST. MARY'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- STANDARDS: ALL PLANT MATERIAL MUST BE NURSERY GROWN AND MEET ALL OF THE QUALITATIVE CRITERIA ESTABLISHED BY THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- DUG MATERIAL: ALL DUG PLANT MATERIAL SHALL HAVE BEEN DUG BEFORE BUD BREAK OR AFTER LEAF MATURATION. ANY PLANT MATERIAL EXHIBITING DROOPING NEW GROWTH WITHIN TWO (2) WEEKS OF BEING PLANTED WILL BE REJECTED AND MUST BE REMOVED FROM THE JOB.
- SITE PREPARATION: IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO PRESENT "CLEAN" SOIL CONDITIONS TO THE LANDSCAPE CONTRACTOR PRIOR TO ANY LANDSCAPE INSTALLATION. SOIL MAY INCLUDE ON-SITE SOIL BUT MUST BE FREE OF PAVEMENT MATERIALS, MUCK, ROOT SYSTEMS, PETROLEUM OR OTHER CHEMICAL SUBSTANCES, BLUE STONE, CONSTRUCTION DEBRIS AND OTHER MATERIALS LARGER THAN 4" IN DIAMETER. THE "CLEAN" SOIL SHALL EXTEND TO THE FOLLOWING MINIMUM DEPTHS: 18" WHERE TREES ARE PROPOSED, 12" WHERE SHRUBS ARE PROPOSED AND 4" WHERE LAWN IS PROPOSED. IF THE LANDSCAPE CONTRACTOR ENCOUNTERS ANY AREAS TO BE DEFICIENT REGARDING THESE "CLEAN" SOIL SPECIFICATIONS, HE SHALL REPORT THIS CONDITION TO THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO PLANTING IN THOSE AREAS.
- WORKMANSHIP: DURING PLANTING, ALL AREAS SHALL BE KEPT NEAT AND CLEAN, AND ALL REASONABLE PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING PLANTS, TURF AND STRUCTURES. UPON COMPLETION, ALL DEBRIS AND WASTE MATERIAL RESULTING FROM PLANTING OPERATIONS SHALL BE REMOVED FROM THE PROJECT AND THE AREA CLEANED UP. ANY DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- WATER: IF AVAILABLE ON-SITE, THE OWNER SHALL SUPPLY WATER AT NO COST. IT WILL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO SUPPLY WATER IF THERE IS NONE ON THE SITE.

PLANTING PROCEDURES:

- PLANTING BEDS: WITH THE EXCEPTION OF THOSE TREES SHOWN ON THE PLAN AS INDIVIDUALS, ALL PLANTS ARE TO BE PLANTED INTO PREPARED PLANTING BEDS. THE OUTLINE OF EACH BED SHALL BE SPARE DUG TO BE A SMOOTH, CONTINUOUS SHARP-CUT EDGE.