

GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO PER 02/02/04 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF PROPERTY = 33.54 AC.±
- PROPOSED NUMBER OF LOTS = 9
- PROPOSED AREA OF LOTS = 33.54 AC.±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL OR SMALL COMMUNITY SEWERAGE IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- THIS PROPERTY IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/20/03 PER COUNCIL BILL 75-2003.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC IN APRIL 2011.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY SILL, ADCOCK & ASSOCIATES, LLC IN APRIL 2011. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FROM 1983.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION	410.531.5533
BGE(CONTRACTOR SERVICES)	410.850.4620
BGE(UNDERGROUND DAMAGE CONTROL)	410.787.9068
MISS UTILITY	1.800.257.7777
COLONIAL PIPELINE COMPANY	410.795.1390
HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES	410.313.4900
HOWARD COUNTY HEALTH DEPARTMENT	410.313.2640
AT&T	1.800.252.1133
VERIZON	1.800.743.0034/10.224.9210
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MARYLAND STATE HIGHWAY AUTHORITY STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- ALL HDPE PIPE SPECIFICATION AND INSTALLATION SHALL MEET AASHTO M-252 TYPE S, M-294 TYPE S AND ASTM D2321, RESPECTIVELY.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. INDIVIDUAL DRIVEWAY PAVING TO BE HOWARD COUNTY STANDARD P-1 PAVING SECTION. USE IN COMMON DRIVEWAY SECTION TO BE HOWARD COUNTY STANDARD P-2 PAVING SECTION. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST, PRIOR TO CONSTRUCTION.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- ALL TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, DATED JUNE, 2011.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A TWO INCH (2") GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A TWO AND A HALF INCH (2-1/2") GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) THREE FEET (3') LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- DRIVEWAY ENTRANCES PER HOWARD COUNTY DESIGN MANUAL IV, DETAIL R.6.06.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
 - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (+25-LOADING);
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 CFS OF RARE FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

- ALL DITCHES AND SWALES WILL HAVE EROSION CONTROL MATTING UNLESS SOIL IS BEING UTILIZED.
- REFERENCE: LIBER 3503, FOLIO 615; LIBER 3503 FOLIO 620; LIBER 12886, FOLIO 001; PLAT 9328
- PREVIOUS HOWARD COUNTY FILE NUMBERS: PLAT 9328, F-90-157; ECP-12-005; WP-11-181
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE.
- THE WETLAND AND STREAM LIMITS SHOWN ARE BASED ON A STUDY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC IN JULY 2011.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADE OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PREVENT UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE HOUSE ON EXISTING LOT 6, CHAPEL WOODS II, AND ITS SEPTIC SYSTEM ARE TO BE ABANDONED ACCORDING TO THE HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS. THE WELL LOCATED ON EXISTING LOT 6 WILL REMAIN TO BE USED FOR PROPOSED LOT 3. THE EXISTING HOUSE LOCATED ON PARCEL 353 IS TO REMAIN. THE SEPTIC HOUSE IS TO REMAIN AND HAS AN APPROVED 10' SQUARE FOOT SEPTIC EASEMENT. THE WELL SERVING PARCEL 353 WILL BE PROPERLY ABANDONED AND A NEW ONE CONSTRUCTED IN THE LOCATION SHOWN.
- THE EXISTING WELLS TO BE ABANDONED WILL BE SEALED BY A LICENSED WELL DRILLER AND STATE WELL ABANDONMENT FORMS SUBMITTED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT REQUIREMENTS.
- THE EXISTING SEPTIC TANKS WILL BE SEALED AND PROPERLY ABANDONED. ANY DRY WELLS WILL BE LOCATED AND PROPERLY ABANDONED. PROPER DOCUMENTATION WILL BE PROVIDED TO THE HEALTH DEPARTMENT IN ACCORDANCE WITH THEIR REQUIREMENTS.
- MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS APPROVED A VARIANCE TO ALLOW SEWAGE DISPOSAL SYSTEMS LOCATED ON LOTS 1, 2, 3, 4, 7 & 8 TO BE LOCATED UPGRADIENT FROM THE PRIVATE WATER SUPPLY ON LOT 1 AND NEIGHBORING PARCELS 30, 31, 37, 45 & 47. THIS IS SUBJECT TO THE FOLLOWING CONDITIONS: AN AVAILABLE SYSTEM, WHICH UTILIZES THE BEST AVAILABLE TECHNOLOGY TO PERFORM A 90% SOLIDIFICATION REDUCTION, MUST BE INSTALLED ON THE SEWAGE DISPOSAL SYSTEMS ON LOTS 1, 2, 3, 4, 7 & 8. THE WELLS ON LOT 1, 5 & 8 MUST BE CONSTRUCTED USING A STEEL WELL CASING, WHICH MUST BE INSTALLED AT A MINIMUM DEPTH OF 50' BELOW GROUND SURFACE OR 10' INTO THE COMPETENT BEDROCK. A LOW PRESSURE DOSING SYSTEM WILL BE REQUIRED FOR THE SEWAGE DISPOSAL SYSTEMS ON LOTS 1, 2, 3, 4, 7 & 8.
- THE COORDINATES SHOWN UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS, NUMBERS 2965 AND 2968, WERE USED FOR THIS PROJECT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED. THE DISTURBANCE OF THE WETLAND AREA LOCATED APPROXIMATELY 40' SOUTH OF DRIVEWAY STATION 1+60 HAS BEEN DETERMINED TO BE A NECESSARY DISTURBANCE BY THE DEPARTMENT OF PLANNING AND ZONING AS PART OF WP-11-181.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS PROJECT IS IN ACCORDANCE WITH THE MARYLAND STORMWATER DESIGN MANUALS, VOLUMES I AND II, AS AMENDED BY THE MARYLAND STORMWATER ACT OF 2007, AND HAVE BEEN HANDLED BY THE USE OF MICRO-BIORETENTION FACILITIES, ROOFTOP DISCONNECTS, GRAVEL TRENCHES AND NON-ROOFTOP DISCONNECTS.
- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 6.96 ACRES OF FOREST AND REFORESTATION PLANTING OF 2.37 ACRES (103,237 SF) OF FOREST. SURETY IN THE AMOUNT OF \$51,619 (103,237 x \$0.50) HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$1,050 FOR THE REQUIRED LANDSCAPING (2 SHADE TREES, 3 EVERGREENS) FOR LOT 1, \$750 FOR THE REQUIRED LANDSCAPING (5 EVERGREENS) FOR LOT 2, \$750 FOR THE REQUIRED LANDSCAPING (1 SHADE TREE, 3 EVERGREENS) FOR LOT 7, AND \$1,050 FOR THE REQUIRED LANDSCAPING (2 SHADE TREES, 3 EVERGREENS) FOR LOT 8.
- VEHICULAR ACCESS TO LOTS 1 AND 9 WILL BE VIA DIRECT ACCESS TO CHAPEL ESTATES DRIVE ONLY. LOTS 2-5, 7 AND 8 WILL HAVE VEHICULAR ACCESS TO CHAPEL ESTATES DRIVE VIA THE USE-IN-COMMON DRIVEWAY ONLY. LOT 6 WILL HAVE VEHICULAR ACCESS TO CHAPEL ESTATES DRIVE VIA THE USE-IN-COMMON DRIVEWAY AND WILL HAVE ACCESS TO BRAGDON WOOD VIA AN EXISTING ACCESS EASEMENT. THE PROPOSED GATE AT THE REAR OF LOT 2, ALONG THE LOT 6 DRIVEWAY, WILL BE OWNED, MAINTAINED AND REGULATED BY LOT 6. A KNOX BOX FOR FIRE DEPARTMENT USE WILL BE PROVIDED ON THE GATE SUPPORT COLUMNS.
- A PRIVATE RANGE OF ADDRESS SIGN 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 ESTIMATE.
- WAIVER PETITION WP-11-181, TO WAIVE SECTIONS 16.102(d) TO ALLOW THE PROPOSED SUBDIVISION TO PROCEED DIRECTLY TO FINAL PLAN SUBMISSION, 16.120(b)(4)(i) AND (ii) TO ALLOW LOTS TO BE IRREGULAR AND NON RECTANGULAR SHAPED AND ALLOWS DIMENSIONS TO EXCEED A 3:1 LOT DEPTH TO LOT WIDTH RATIO, 16.120(b)(4)(iii) TO ALLOW ENVIRONMENTAL FEATURES AND BUFFERS AND FOREST CONSERVATION EASEMENTS ON LOTS LESS THAN 10 ACRES IN SIZE, 16.120(b)(2)(ii) TO ALLOW THE FRONTAGE OF LOT 6, A SINGLE PIPESTEM LOT HAVING FURTHER SUBDIVISION POTENTIAL TO BE OF INSUFFICIENT WIDTH TO MEET PUBLIC ROAD RIGHT-OF-WAY REQUIREMENTS AND 16.145(a) TO ALLOW THE PROPOSED SUBDIVISION TO PROCEED DIRECTLY TO FINAL PLAN SUBMISSION, OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED ON JULY 15, 2011, SUBJECT TO THE FOLLOWING SEVEN (7) CONDITIONS:
 - PETITIONER SHALL INVESTIGATE THE USE OF AN OFF-SITE LOCATION FOR PLANTING AND/OR RETENTION AND USE OF AN APPROVED FOREST CONSERVATION BANK TO SATISFY THE FOREST CONSERVATION REQUIREMENTS OF THE PROPOSED SUBDIVISION. SHOULD USE OF AN OFF-SITE LOCATION OR BANK PROVE IMPRACTICAL, ATTEMPTS MUST BE MADE TO KEEP ALL ON-SITE FOREST CONSERVATION EASEMENTS LESS THAN 100 FEET FROM HOUSE SITES TO AVOID FUTURE INTRUSIONS.
 - PETITIONER SHALL, SHOULD ON-SITE FOREST CONSERVATION BE PERMITTED BY THE DEPARTMENT, INVESTIGATE FOREST CONSERVATION ALTERNATIVES ON LOT 6 OF THE WAIVER EXHIBIT, AND SHALL INCLUDE THESE ALTERNATIVES AS PART OF THE FUTURE ENVIRONMENTAL CONCEPT AND FOREST CONSERVATION PLANS.
 - PETITIONER SHALL, IN DESIGNING THE SHARED ACCESS DRIVEWAY, ATTEMPT TO CREATE A STABLE OPEN CHANNEL TO CONVEY HYDROLOGY FROM THE SMALL WETLAND AREA BEING DIRECTLY AFFECTED BY DRIVEWAY CONSTRUCTION TO THE LARGER WETLAND AREA ADJACENT TO CHAPEL ESTATES DRIVE. SHOULD THE CONVEYANCE BE FOUND FEASIBLE, PETITIONER SHALL INCLUDE A PLANTING PLAN WITH VEGETATION SUITABLE FOR THIS AREA TO BE INCORPORATED WITH THE LANDSCAPING AND/OR FOREST CONSERVATION PLAN.
 - PETITIONER SHALL, AS PART OF THE FUTURE ENVIRONMENTAL CONCEPT AND SUBDIVISION PLANS, ADDRESS THE DEVELOPMENT ENGINEERING DIVISION AND DEPARTMENT OF FIRE AND RESCUE SERVICES COMMENTS.
 - AT THE FINAL PLAT STAGE, PROVIDE THE REQUIRED 35' BULK FROM THE WETLAND BUFFER, STREAM BUFFER AND FOREST CONSERVATION EASEMENT.
 - PETITIONER SHALL COORDINATE WITH THE DEPARTMENT OF PLANNING AND ZONING, DEVELOPMENT ENGINEERING DIVISION TO DETERMINE THE NEED FOR DESIGN MANUAL WAIVERS.
 - APPROVAL OF THE SUBDIVISION IS SUBJECT TO HEALTH DEPARTMENT APPROVAL AT FINAL SUBDIVISION PLAN STAGE.
- A USE-IN-COMMON MAINTENANCE AGREEMENT FOR THE SHARED DRIVEWAY WILL BE RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, CONCURRENTLY WITH THIS PLAT.

AN APPLICATION HAS BEEN SUBMITTED TO MDE NON-TIDAL WETLANDS & WATERWAYS DIVISION FOR NECESSARY DISTURBANCE TO A SMALL ISOLATED WETLAND AND WETLAND BUFFER AREA BEING DISTURBED FOR THE CONSTRUCTION OF A USE-IN-COMMON DRIVEWAY BEING SUBMITTED TO PUBLIC ROAD STANDARDS PER REQUEST OF HOWARD COUNTY. MDE TRACKING NO. 201204067.

REVISED PER AS-BUILT MAP #5 0-10 ACRES OF PCC ON LOT 3 TO BE RECORDED IN FOREST CONSERVATION BANK FOR FUTURE EASEMENT. SEE PLAT NO. 25581-25592.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

For Rev. #1

STATE OF MARYLAND
PROFESSIONAL LAND SURVEYOR
 No. 32025

CHIEF, DIVISION OF LAND DEVELOPMENT *5/14/12* DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION *5/14/12* DATE

BY	NO.	REVISION	DATE
PCC	8	REVISE SWM PRACTICES CHART FOR LOT 2	3/5/12
PCC	7	REVISE SWM PRACTICES CHART FOR LOT 7	11/14/10
PCC	6	REVISE SWM PRACTICES CHART FOR LOT 7	8/17/10
PCC	1	REVISE SWM PRACTICES CHART FOR LOT 2	6/10/10

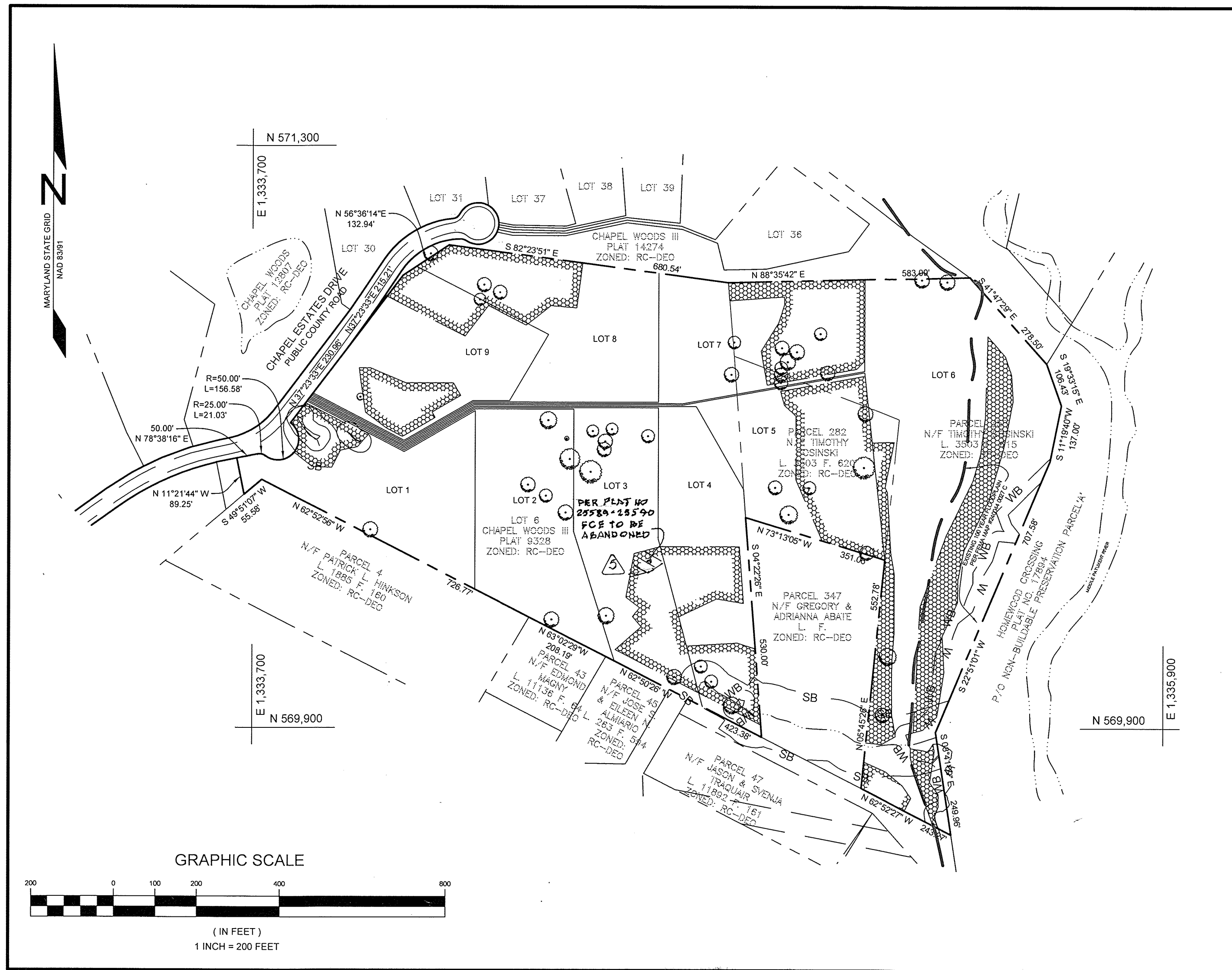
NO.	DATE	REVISIONS
5	1/14/12	REVISE LOT 3 TO ADD RAMP TO LOWER GARAGE, ABANDON OLD LOC OF FCE

ROAD CONSTRUCTION PLAN

CHAPEL RISE

LOTS 1 THRU 9

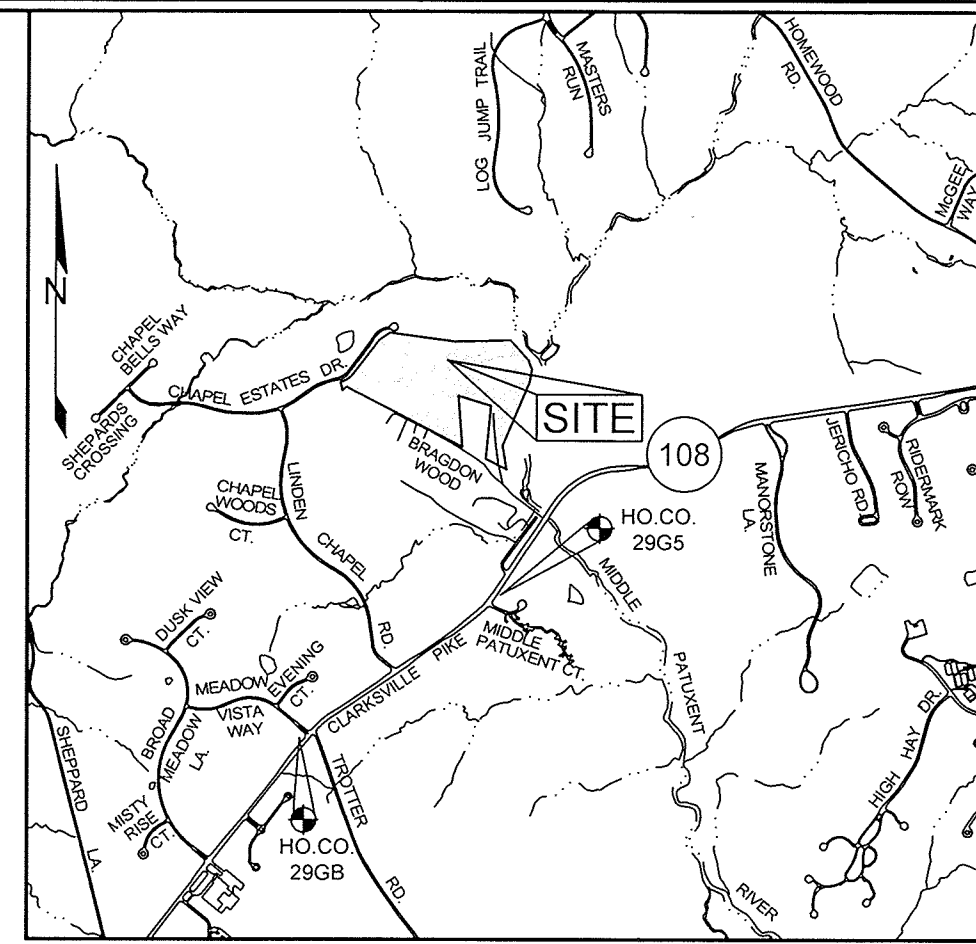
HOWARD COUNTY, MARYLAND



LOCATION MAP
 SCALE: 1"=200'

LEGEND

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- SOIL BOUNDARY
- FOREST CONSERVATION EASEMENT
- PROPOSED EASEMENT
- 15.00% - 24.99% SLOPES
- 25.00% AND GREATER SLOPES
- EXISTING WELL BOX LOCATION
- EXISTING SEPTIC FIELD



BENCHMARKS

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
29GB	566,826.1	1,333,265.9	456.00	SW CORNER OF MEADOW VISTA ROAD AND TROTTER ROAD, 32.2' FROM CULVERT END
29GS	568,341.2	1,335,392.5	387.40	SE SIDE OF ROUTE 108, 142' FROM MIDDLE PATUXENT RIVER, 80' FROM PAVING EDGE

STORMWATER MANAGEMENT PRACTICES

DESCRIPTION	DISCONNECTION OF ROOFTOP RUNOFF N-1 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (N/A)	MICRO BIORETENTION M-6 (NUMBER)	TR. WELL M-5 (NUMBER)
LOT 1	0	N	1	
LOT 2	0	N	1	
LOT 3	3	Y	3	4
LOT 4	0	Y	1	
LOT 5	0	N	1	
LOT 6	0	N	0	0
LOT 7	0	Y	0	0
LOT 8	0	N	1	
LOT 9	0	N	0	
USE-IN-COMMON DRIVEWAY EASEMENT	0	N	6	

* INDICATES P-6 BIORETENTION

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	USE-IN-COMMON DRIVEWAYS LOTS 2 THRU 8 PLAN AND PROFILE
3	GRADING, SEDIMENT AND EROSION CONTROL PLAN
4	GRADING, SEDIMENT AND EROSION CONTROL PLAN
5	GRADING, SEDIMENT AND EROSION CONTROL PLAN
6	SEDIMENT & EROSION CONTROL NOTES AND DETAILS
7	STORM DRAIN AND CULVERT DRAINAGE AREA MAP
8	STORM DRAIN & BIORETENTION PROFILES, DETAILS AND CHARTS
9	LANDSCAPE & FOREST CONSERVATION PLAN
10	LANDSCAPE & FOREST CONSERVATION NOTES AND DETAILS
11	LOT 3, PLOT PLAN
12	LOT 3, SEPTIC PLAN
13	LOT 3, NOTES & DETAILS
14	LOT 3, NOTES & DETAILS
15	LOT 3, TIERED RETAINING WALL

OWNER
 TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

DEVELOPER
 GREEN GATEWAY LLC
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

CHAPEL RISE, LTD
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

COVER SHEET
CHAPEL RISE
 LOTS 1 THRU 9

A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6, CHAPEL WOODS II, PLAT #9328

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

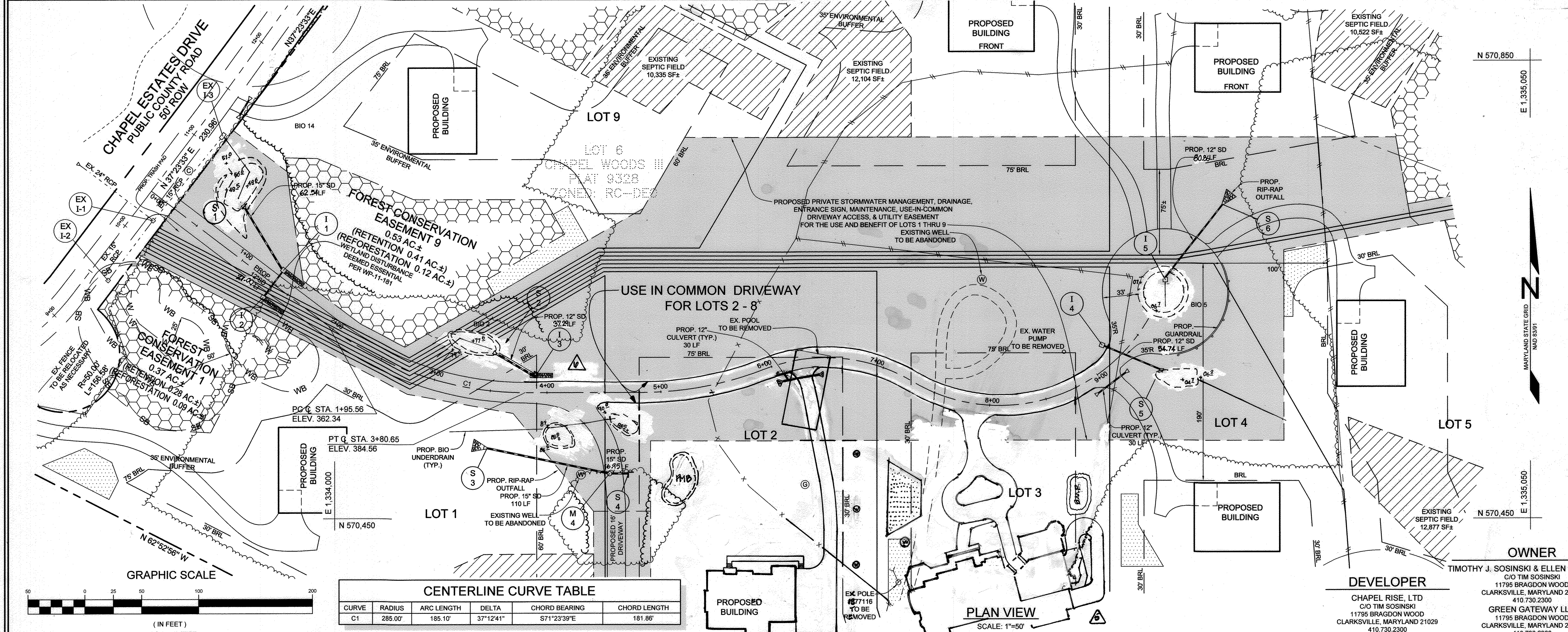
PARCEL 282, 282 & 353
 HOWARD COUNTY, MARYLAND

AS-BUILT CERTIFICATION
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: PS
SCALE: AS SHOWN
DATE: APRIL 24, 2012
PROJECT #: 09-073
SHEET #: 1 of 15

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2013



CENTERLINE CURVE TABLE

CURVE	RADIUS	ARC LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C1	285.00'	185.10'	37°12'41"	S71°23'39"E	181.86'

PAVING SECTIONS

SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	5 TO <55 TO <7		27		5 TO <55 TO <7		27	
			MIN HMA WITH GAB	HMA WITH CONSTANT GAB	MIN HMA WITH GAB	HMA WITH CONSTANT GAB	MIN HMA WITH GAB	HMA WITH CONSTANT GAB		
P-1	PARKING BAYS, RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE AISLES:	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE (IV)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5		
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0		
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0		
P-3	LOCAL ROADS: CUL-DE-SACS ACCESS STREET RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE (IV)	N/A	N/A	N/A	N/A	N/A	N/A		
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0		

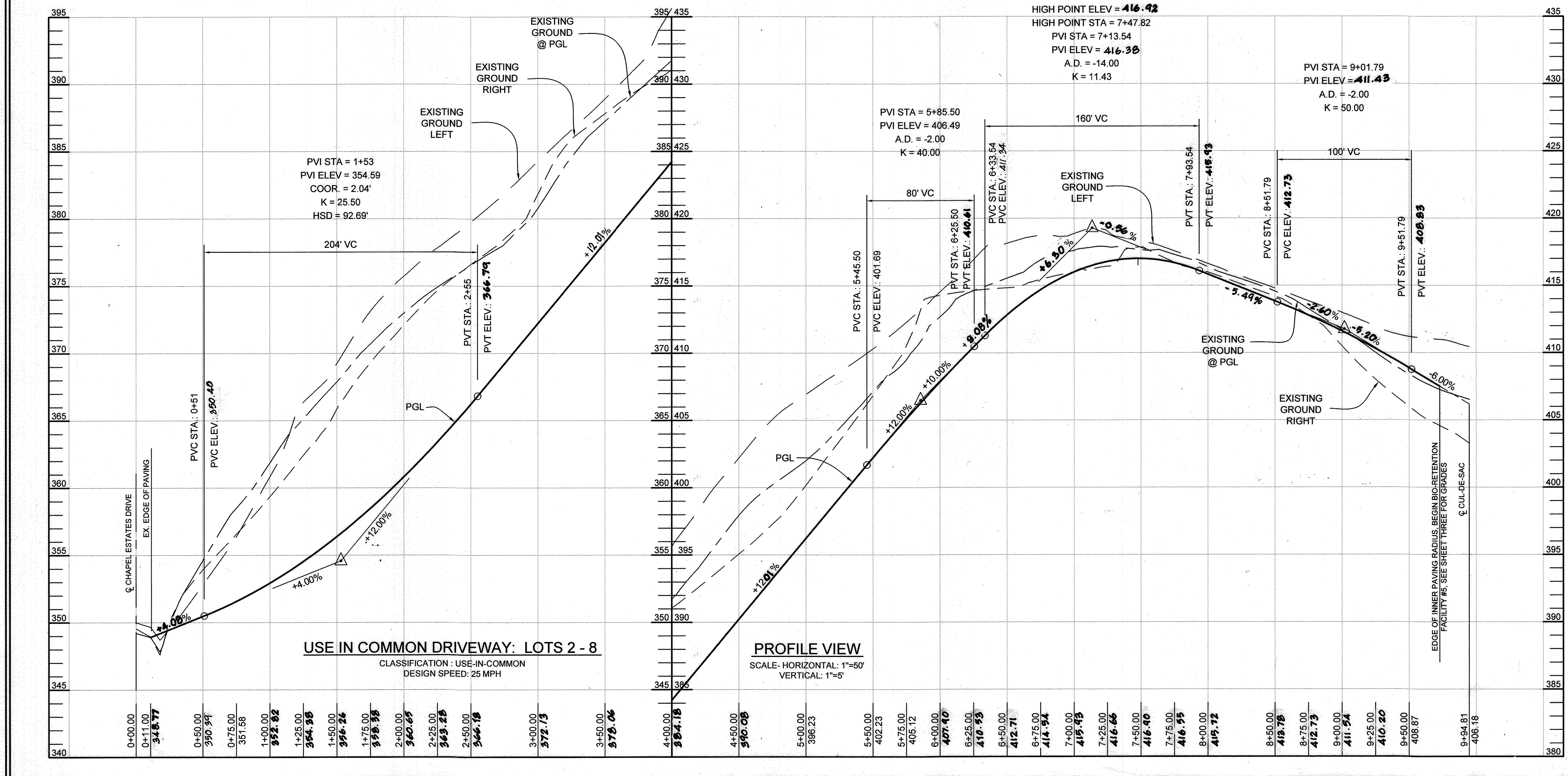
USE-IN-COMMON DRIVEWAY LOTS 2 THRU 8 PLAN AND PROFILE CHAPEL RISE
 LOTS 1 THRU 9
 A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6, CHAPEL WOODS II, PLAT #9328

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

OWNER: TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 DEVELOPER: CHAPEL RISE, LTD

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners

DESIGN BY: JH
 DRAWN BY: JH
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 2 of 18



TYPICAL DRIVEWAY SECTION CLASSIFICATION: USE-IN-COMMON
 DESIGN SPEED: 25 MPH NOT TO SCALE

TYPICAL USE-IN-COMMON DRIVEWAY SECTION CLASSIFICATION: USE-IN-COMMON
 DESIGN SPEED: 25 MPH NOT TO SCALE

AS-BUILT CERTIFICATION

PROFESSIONAL LAND SURVEYOR

Revision: 10-19-2017 - updated Lot 2 - impervious, grading and BMP, by GeoEnv Engineers, (703) 591-7170.

AS-BUILT

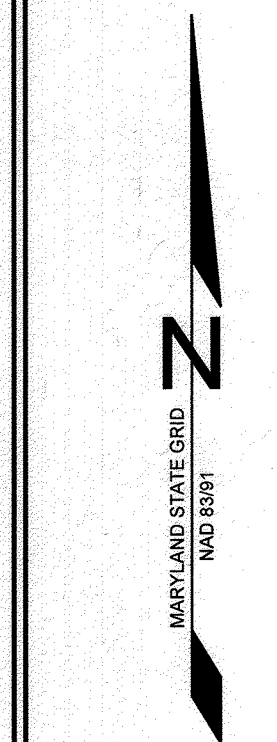
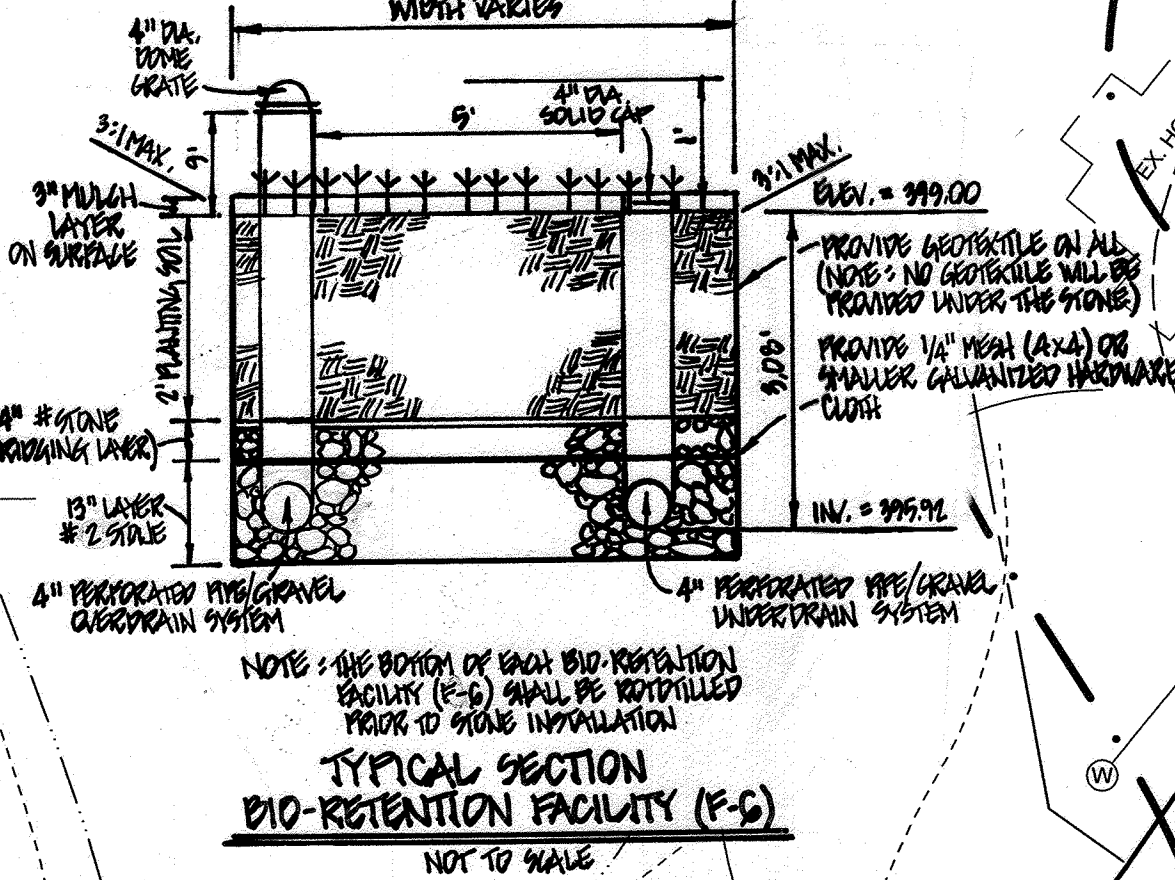
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 5/14/12

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 5/14/12

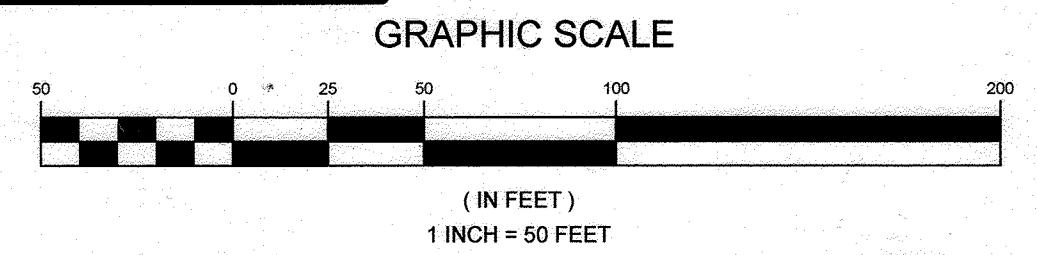
SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	"K" FACTOR
Cc	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	0.37
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
GmB	GLENVILLE BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.37
Hs	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	D	0.37
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

LEGEND	
EXISTING CONTOUR	--- 382
PROPOSED CONTOUR	--- 382
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 62.53
DIRECTION OF FLOW	→
EXISTING TREELINE	~~~~~
PROPOSED TREELINE	~~~~~
SOIL BOUNDARY	---
FOREST CONSERVATION EASEMENT	[Pattern]
PROPOSED EASEMENT	[Pattern]
15.00% - 24.99% SLOPES	[Pattern]
25.00% AND GREATER SLOPES	[Pattern]
"B" SOILS	[Pattern]
"C" SOILS	[Pattern]
STABILIZED CONSTRUCTION ENTRANCE	[Pattern]
SILT FENCE	--- SF --- SF
SUPER SILT FENCE	--- SSF --- SSF
LIMIT OF DISTURBANCE	--- LOD ---
AT-GRADE INLET PROTECTION	[Symbol] AGIP
TREE PROTECTION FENCE	--- TPF ---



MATCHLINE SEE SHEET FIVE

MATCHLINE SEE SHEET FOUR



*** FOR SEDIMENT TRAP AND EARTHDIKE CONSTRUCTION, SEE SHEET 5**

DEVELOPER	OWNER
CHAPEL RISE LTD C/O TIM SOSINSKI 11795 BRAGDON WOOD CLARKSVILLE, MARYLAND 21029 410.730.2300	TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI C/O TIM SOSINSKI 11795 BRAGDON WOOD CLARKSVILLE, MARYLAND 21029 410.730.2300
	GREEN GATEWAY LLC 11795 BRAGDON WOOD CLARKSVILLE, MARYLAND 21029 410.730.2300

AS-BUILT

GRADING, SEDIMENT AND EROSION CONTROL PLAN
CHAPEL RISE
 LOTS 1 THRU 9

A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6, CHAPEL WOODS II, PLAT #9328 HOWARD COUNTY, MARYLAND

TAX MAP 29 GRID 13 5TH ELECTION DISTRICT

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners

3300 North Ridge Road, Suite 160
 Elliott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: PS
 SCALE: 1" = 50'
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 3 of 15

NO.	DATE	REVISION
1	10/19/2017	updated Lot 2 impervious, grading and BMP, by Geo Env Engineers (703) 591-7170.
2	2/2/18	REVISE H&E & GRD LOTS, FROM PEN. BOX TO H&E
3	6/16/18	REVISE H&E & GRD, LOTS, FROM GEN. BULK TO H&E
4	6/19/18	REVISE H&E, H&E, T, SMT, LOT 2
5	8/17/18	REVISE H&E, H&E, T, SMT, LOT 7
6	12/18/18	REVISE H&E, H&E, T, SMT, LOT 2, LOT 7, LOT 8, LOT 9, LOT 10, LOT 11, LOT 12, LOT 13, LOT 14, LOT 15, LOT 16, LOT 17, LOT 18, LOT 19, LOT 20, LOT 21, LOT 22, LOT 23, LOT 24, LOT 25, LOT 26, LOT 27, LOT 28, LOT 29, LOT 30, LOT 31, LOT 32, LOT 33, LOT 34, LOT 35, LOT 36, LOT 37, LOT 38, LOT 39, LOT 40, LOT 41, LOT 42, LOT 43, LOT 44, LOT 45, LOT 46, LOT 47, LOT 48, LOT 49, LOT 50, LOT 51, LOT 52, LOT 53, LOT 54, LOT 55, LOT 56, LOT 57, LOT 58, LOT 59, LOT 60, LOT 61, LOT 62, LOT 63, LOT 64, LOT 65, LOT 66, LOT 67, LOT 68, LOT 69, LOT 70, LOT 71, LOT 72, LOT 73, LOT 74, LOT 75, LOT 76, LOT 77, LOT 78, LOT 79, LOT 80, LOT 81, LOT 82, LOT 83, LOT 84, LOT 85, LOT 86, LOT 87, LOT 88, LOT 89, LOT 90, LOT 91, LOT 92, LOT 93, LOT 94, LOT 95, LOT 96, LOT 97, LOT 98, LOT 99, LOT 100, LOT 101, LOT 102, LOT 103, LOT 104, LOT 105, LOT 106, LOT 107, LOT 108, LOT 109, LOT 110, LOT 111, LOT 112, LOT 113, LOT 114, LOT 115, LOT 116, LOT 117, LOT 118, LOT 119, LOT 120, LOT 121, LOT 122, LOT 123, LOT 124, LOT 125, LOT 126, LOT 127, LOT 128, LOT 129, LOT 130, LOT 131, LOT 132, LOT 133, LOT 134, LOT 135, LOT 136, LOT 137, LOT 138, LOT 139, LOT 140, LOT 141, LOT 142, LOT 143, LOT 144, LOT 145, LOT 146, LOT 147, LOT 148, LOT 149, LOT 150, LOT 151, LOT 152, LOT 153, LOT 154, LOT 155, LOT 156, LOT 157, LOT 158, LOT 159, LOT 160, LOT 161, LOT 162, LOT 163, LOT 164, LOT 165, LOT 166, LOT 167, LOT 168, LOT 169, LOT 170, LOT 171, LOT 172, LOT 173, LOT 174, LOT 175, LOT 176, LOT 177, LOT 178, LOT 179, LOT 180, LOT 181, LOT 182, LOT 183, LOT 184, LOT 185, LOT 186, LOT 187, LOT 188, LOT 189, LOT 190, LOT 191, LOT 192, LOT 193, LOT 194, LOT 195, LOT 196, LOT 197, LOT 198, LOT 199, LOT 200, LOT 201, LOT 202, LOT 203, LOT 204, LOT 205, LOT 206, LOT 207, LOT 208, LOT 209, LOT 210, LOT 211, LOT 212, LOT 213, LOT 214, LOT 215, LOT 216, LOT 217, LOT 218, LOT 219, LOT 220, LOT 221, LOT 222, LOT 223, LOT 224, LOT 225, LOT 226, LOT 227, LOT 228, LOT 229, LOT 230, LOT 231, LOT 232, LOT 233, LOT 234, LOT 235, LOT 236, LOT 237, LOT 238, LOT 239, LOT 240, LOT 241, LOT 242, LOT 243, LOT 244, LOT 245, LOT 246, LOT 247, LOT 248, LOT 249, LOT 250, LOT 251, LOT 252, LOT 253, LOT 254, LOT 255, LOT 256, LOT 257, LOT 258, LOT 259, LOT 260, LOT 261, LOT 262, LOT 263, LOT 264, LOT 265, LOT 266, LOT 267, LOT 268, LOT 269, LOT 270, LOT 271, LOT 272, LOT 273, LOT 274, LOT 275, LOT 276, LOT 277, LOT 278, LOT 279, LOT 280, LOT 281, LOT 282, LOT 283, LOT 284, LOT 285, LOT 286, LOT 287, LOT 288, LOT 289, LOT 290, LOT 291, LOT 292, LOT 293, LOT 294, LOT 295, LOT 296, LOT 297, LOT 298, LOT 299, LOT 300, LOT 301, LOT 302, LOT 303, LOT 304, LOT 305, LOT 306, LOT 307, LOT 308, LOT 309, LOT 310, LOT 311, LOT 312, LOT 313, LOT 314, LOT 315, LOT 316, LOT 317, LOT 318, LOT 319, LOT 320, LOT 321, LOT 322, LOT 323, LOT 324, LOT 325, LOT 326, LOT 327, LOT 328, LOT 329, LOT 330, LOT 331, LOT 332, LOT 333, LOT 334, LOT 335, LOT 336, LOT 337, LOT 338, LOT 339, LOT 340, LOT 341, LOT 342, LOT 343, LOT 344, LOT 345, LOT 346, LOT 347, LOT 348, LOT 349, LOT 350, LOT 351, LOT 352, LOT 353, LOT 354, LOT 355, LOT 356, LOT 357, LOT 358, LOT 359, LOT 360, LOT 361, LOT 362, LOT 363, LOT 364, LOT 365, LOT 366, LOT 367, LOT 368, LOT 369, LOT 370, LOT 371, LOT 372, LOT 373, LOT 374, LOT 375, LOT 376, LOT 377, LOT 378, LOT 379, LOT 380, LOT 381, LOT 382, LOT 383, LOT 384, LOT 385, LOT 386, LOT 387, LOT 388, LOT 389, LOT 390, LOT 391, LOT 392, LOT 393, LOT 394, LOT 395, LOT 396, LOT 397, LOT 398, LOT 399, LOT 400, LOT 401, LOT 402, LOT 403, LOT 404, LOT 405, LOT 406, LOT 407, LOT 408, LOT 409, LOT 410, LOT 411, LOT 412, LOT 413, LOT 414, LOT 415, LOT 416, LOT 417, LOT 418, LOT 419, LOT 420, LOT 421, LOT 422, LOT 423, LOT 424, LOT 425, LOT 426, LOT 427, LOT 428, LOT 429, LOT 430, LOT 431, LOT 432, LOT 433, LOT 434, LOT 435, LOT 436, LOT 437, LOT 438, LOT 439, LOT 440, LOT 441, LOT 442, LOT 443, LOT 444, LOT 445, LOT 446, LOT 447, LOT 448, LOT 449, LOT 450, LOT 451, LOT 452, LOT 453, LOT 454, LOT 455, LOT 456, LOT 457, LOT 458, LOT 459, LOT 460, LOT 461, LOT 462, LOT 463, LOT 464, LOT 465, LOT 466, LOT 467, LOT 468, LOT 469, LOT 470, LOT 471, LOT 472, LOT 473, LOT 474, LOT 475, LOT 476, LOT 477, LOT 478, LOT 479, LOT 480, LOT 481, LOT 482, LOT 483, LOT 484, LOT 485, LOT 486, LOT 487, LOT 488, LOT 489, LOT 490, LOT 491, LOT 492, LOT 493, LOT 494, LOT 495, LOT 496, LOT 497, LOT 498, LOT 499, LOT 500, LOT 501, LOT 502, LOT 503, LOT 504, LOT 505, LOT 506, LOT 507, LOT 508, LOT 509, LOT 510, LOT 511, LOT 512, LOT 513, LOT 514, LOT 515, LOT 516, LOT 517, LOT 518, LOT 519, LOT 520, LOT 521, LOT 522, LOT 523, LOT 524, LOT 525, LOT 526, LOT 527, LOT 528, LOT 529, LOT 530, LOT 531, LOT 532, LOT 533, LOT 534, LOT 535, LOT 536, LOT 537, LOT 538, LOT 539, LOT 540, LOT 541, LOT 542, LOT 543, LOT 544, LOT 545, LOT 546, LOT 547, LOT 548, LOT 549, LOT 550, LOT 551, LOT 552, LOT 553, LOT 554, LOT 555, LOT 556, LOT 557, LOT 558, LOT 559, LOT 560, LOT 561, LOT 562, LOT 563, LOT 564, LOT 565, LOT 566, LOT 567, LOT 568, LOT 569, LOT 570, LOT 571, LOT 572, LOT 573, LOT 574, LOT 575, LOT 576, LOT 577, LOT 578, LOT 579, LOT 580, LOT 581, LOT 582, LOT 583, LOT 584, LOT 585, LOT 586, LOT 587, LOT 588, LOT 589, LOT 590, LOT 591, LOT 592, LOT 593, LOT 594, LOT 595, LOT 596, LOT 597, LOT 598, LOT 599, LOT 600, LOT 601, LOT 602, LOT 603, LOT 604, LOT 605, LOT 606, LOT 607, LOT 608, LOT 609, LOT 610, LOT 611, LOT 612, LOT 613, LOT 614, LOT 615, LOT 616, LOT 617, LOT 618, LOT 619, LOT 620, LOT 621, LOT 622, LOT 623, LOT 624, LOT 625, LOT 626, LOT 627, LOT 628, LOT 629, LOT 630, LOT 631, LOT 632, LOT 633, LOT 634, LOT 635, LOT 636, LOT 637, LOT 638, LOT 639, LOT 640, LOT 641, LOT 642, LOT 643, LOT 644, LOT 645, LOT 646, LOT 647, LOT 648, LOT 649, LOT 650, LOT 651, LOT 652, LOT 653, LOT 654, LOT 655, LOT 656, LOT 657, LOT 658, LOT 659, LOT 660, LOT 661, LOT 662, LOT 663, LOT 664, LOT 665, LOT 666, LOT 667, LOT 668, LOT 669, LOT 670, LOT 671, LOT 672, LOT 673, LOT 674, LOT 675, LOT 676, LOT 677, LOT 678, LOT 679, LOT 680, LOT 681, LOT 682, LOT 683, LOT 684, LOT 685, LOT 686, LOT 687, LOT 688, LOT 689, LOT 690, LOT 691, LOT 692, LOT 693, LOT 694, LOT 695, LOT 696, LOT 697, LOT 698, LOT 699, LOT 700, LOT 701, LOT 702, LOT 703, LOT 704, LOT 705, LOT 706, LOT 707, LOT 708, LOT 709, LOT 710, LOT 711, LOT 712, LOT 713, LOT 714, LOT 715, LOT 716, LOT 717, LOT 718, LOT 719, LOT 720, LOT 721, LOT 722, LOT 723, LOT 724, LOT 725, LOT 726, LOT 727, LOT 728, LOT 729, LOT 730, LOT 731, LOT 732, LOT 733, LOT 734, LOT 735, LOT 736, LOT 737, LOT 738, LOT 739, LOT 740, LOT 741, LOT 742, LOT 743, LOT 744, LOT 745, LOT 746, LOT 747, LOT 748, LOT 749, LOT 750, LOT 751, LOT 752, LOT 753, LOT 754, LOT 755, LOT 756, LOT 757, LOT 758, LOT 759, LOT 760, LOT 761, LOT 762, LOT 763, LOT 764, LOT 765, LOT 766, LOT 767, LOT 768, LOT 769, LOT 770, LOT 771, LOT 772, LOT 773, LOT 774, LOT 775, LOT 776, LOT 777, LOT 778, LOT 779, LOT 780, LOT 781, LOT 782, LOT 783, LOT 784, LOT 785, LOT 786, LOT 787, LOT 788, LOT 789, LOT 790, LOT 791, LOT 792, LOT 793, LOT 794, LOT 795, LOT 796, LOT 797, LOT 798, LOT 799, LOT 800, LOT 801, LOT 802, LOT 803, LOT 804, LOT 805, LOT 806, LOT 807, LOT 808, LOT 809, LOT 810, LOT 811, LOT 812, LOT 813, LOT 814, LOT 815, LOT 816, LOT 817, LOT 818, LOT 819, LOT 820, LOT 821, LOT 822, LOT 823, LOT 824, LOT 825, LOT 826, LOT 827, LOT 828, LOT 829, LOT 830, LOT 831, LOT 832, LOT 833, LOT 834, LOT 835, LOT 836, LOT 837, LOT 838, LOT 839, LOT 840, LOT 841, LOT 842, LOT 843, LOT 844, LOT 845, LOT 846, LOT 847, LOT 848, LOT 849, LOT 850, LOT 851, LOT 852, LOT 853, LOT 854, LOT 855, LOT 856, LOT 857, LOT 858, LOT 859, LOT 860, LOT 861, LOT 862, LOT 863, LOT 864, LOT 865, LOT 866, LOT 867, LOT 868, LOT 869, LOT 870, LOT 871, LOT 872, LOT 873, LOT 874, LOT 875, LOT 876, LOT 877, LOT 878, LOT 879, LOT 880, LOT 881, LOT 882, LOT 883, LOT 884, LOT 885, LOT 886, LOT 887, LOT 888, LOT 889, LOT 890, LOT 891, LOT 892, LOT 893, LOT 894, LOT 895, LOT 896, LOT 897, LOT 898, LOT 899, LOT 900, LOT 901, LOT 902, LOT 903, LOT 904, LOT 905, LOT 906, LOT 907, LOT 908, LOT 909, LOT 910, LOT 911, LOT 912, LOT 913, LOT 914, LOT 915, LOT 916, LOT 917, LOT 918, LOT 919, LOT 920, LOT 921, LOT 922, LOT 923, LOT 924, LOT 925, LOT 926, LOT 927, LOT 928, LOT 929, LOT 930, LOT 931, LOT 932, LOT 933, LOT 934, LOT 935, LOT 936, LOT 937, LOT 938, LOT 939, LOT 940, LOT 941, LOT 942, LOT 943, LOT 944, LOT 945, LOT 946, LOT 947, LOT 948, LOT 949, LOT 950, LOT 951, LOT 952, LOT 953, LOT 954, LOT 955, LOT 956, LOT 957, LOT 958, LOT 959, LOT 960, LOT 961, LOT 962, LOT 963, LOT 964, LOT 965, LOT 966, LOT 967, LOT 968, LOT 969, LOT 970, LOT 971, LOT 972, LOT 973, LOT 974, LOT 975, LOT 976, LOT 977, LOT 978, LOT 979, LOT 980, LOT 981, LOT 982, LOT 983, LOT 984, LOT 985, LOT 986, LOT 987, LOT 988, LOT 989, LOT 990, LOT 991, LOT 992, LOT 993, LOT 994, LOT 995, LOT 996, LOT 997, LOT 998, LOT 999, LOT 1000, LOT 1001, LOT 1002, LOT 1003, LOT 1004, LOT 1005, LOT 1006, LOT 1007, LOT 1008, LOT 1009, LOT 1010, LOT 1011, LOT 1012, LOT 1013, LOT 1014, LOT 1015, LOT 1016, LOT 1017, LOT 1018, LOT 1019, LOT 1020, LOT 1021, LOT 1022, LOT 1023, LOT 1024, LOT 1025, LOT 1026, LOT 1027, LOT 1028, LOT 1029, LOT 1030, LOT 1031, LOT 1032, LOT 1033, LOT 1034, LOT 1035, LOT 1036, LOT 1037, LOT 1038, LOT 1039, LOT 1040, LOT 1041, LOT 1042, LOT 1043, LOT 1044, LOT 1045, LOT 1046, LOT 1047, LOT 1048, LOT 1049, LOT 1050, LOT 1051, LOT 1052, LOT 1053, LOT 1054, LOT 1055, LOT 1056, LOT 1057, LOT 1058, LOT 1059, LOT 1060, LOT 1061, LOT 1062, LOT 1063, LOT 1064, LOT 1065, LOT 1066, LOT 1067, LOT 1068, LOT 1069, LOT 1070, LOT 1071, LOT 1072, LOT 1073, LOT 1074, LOT 1075, LOT 1076, LOT 1077, LOT 1078, LOT 1079, LOT 1080, LOT 1081, LOT 1082, LOT 1083, LOT 1084, LOT 1085, LOT 1086, LOT 1087, LOT 1088, LOT 1089, LOT 1090, LOT 1091, LOT 1092, LOT 1093, LOT 1094, LOT 1095, LOT 1096, LOT 1097, LOT 1098, LOT 1099, LOT 1100, LOT 1101, LOT 1102, LOT 1103, LOT 1104, LOT 1105, LOT 1106, LOT 1107, LOT 1108, LOT 1109, LOT 1110, LOT 1111, LOT 1112, LOT 1113, LOT 1114, LOT 1115, LOT 1116, LOT 1117, LOT 1118, LOT 1119, LOT 1120, LOT 1121, LOT 1122, LOT 1123, LOT 1124, LOT 1125, LOT 1126, LOT 1127, LOT 1128, LOT 1129, LOT 1130, LOT 1131, LOT 1132, LOT 1133, LOT 1134, LOT 1135, LOT 1136, LOT 1137, LOT 1138, LOT 1139, LOT 1140, LOT 1141, LOT 1142, LOT 1143, LOT 1144, LOT 1145, LOT 1146, LOT 1147, LOT 1148, LOT 1149, LOT 1150, LOT 1151, LOT 1152, LOT 1153, LOT 1154, LOT 1155, LOT 1156, LOT 1157, LOT 1158, LOT 1159, LOT 1160, LOT 1161, LOT 1162, LOT 1163, LOT 1164, LOT 1165, LOT 1166, LOT 1167, LOT 1168, LOT 1169, LOT 1170, LOT 1171, LOT 1172, LOT 1173, LOT 1174, LOT 1175, LOT 1176, LOT 1177, LOT 1178, LOT 1179, LOT 1180, LOT 1181, LOT 1182, LOT 1183, LOT 1184, LOT 1185, LOT 1186, LOT 1187, LOT 1188, LOT 1189, LOT 1190, LOT 1191, LOT 1192, LOT 1193, LOT 1194, LOT 1195, LOT 1196, LOT 1197, LOT 1198, LOT 1199, LOT 1200, LOT 1201, LOT 1202, LOT 1203, LOT 1204, LOT 1205, LOT 1206, LOT 1207, LOT 1208, LOT 1209, LOT 1210, LOT 1211, LOT 1212, LOT 1213, LOT 1214, LOT 1215, LOT 1216, LOT 1217, LOT 1218, LOT 1219, LOT 1220, LOT 1221, LOT 1222, LOT 1223, LOT 1224, LOT 1225, LOT 1226, LOT 1227, LOT 1228, LOT 1229, LOT 1230, LOT 1231, LOT 1232, LOT 1233, LOT 1234, LOT 1235, LOT 1236, LOT 1237, LOT 1238, LOT 1239, LOT 1240, LOT 1241, LOT 1242, LOT 1243, LOT 1244, LOT 1245, LOT 1246, LOT 1247, LOT 1248, LOT 1249, LOT 1250, LOT 1251, LOT 1252, LOT 1253, LOT 1254, LOT 1255, LOT 1256, LOT 1257, LOT 1258, LOT 1259, LOT 1260, LOT 1261, LOT 1262, LOT 1263, LOT 1264, LOT 1265, LOT 1266, LOT 1267, LOT 1268, LOT 1269, LOT 1270, LOT 1271, LOT 1272, LOT 1273, LOT 1274, LOT 1275, LOT 1276, LOT 1277, LOT 1278, LOT 1279, LOT 1280, LOT 1281, LOT 1282, LOT 1283, LOT 1284, LOT 1285, LOT 1286, LOT 1287, LOT 1288, LOT 1289, LOT 1290, LOT 1291, LOT 1292, LOT 1293, LOT 1294, LOT 1295, LOT 1296, LOT 1297, LOT 1298, LOT 1299, LOT 1300, LOT 1301, LOT 1302, LOT 1303, LOT 1304, LOT 1305, LOT 1306, LOT 1307, LOT 1308, LOT 1309, LOT 1310, LOT 1311, LOT 1312, LOT 1313, LOT 1314, LOT 1315, LOT 1316, LOT 1317, LOT 1318, LOT 1319, LOT 1320, LOT 1321, LOT 1322, LOT 1323, LOT 1324, LOT 1325, LOT 1326, LOT 1327, LOT 1328, LOT 1329, LOT 1330, LOT 1331, LOT 1332, LOT 1333, LOT 1334, LOT 1335, LOT 1336, LOT 1337, LOT 1338, LOT 1339, LOT 1340, LOT 1341, LOT 1342, LOT 1343, LOT 1344, LOT 1345, LOT 1346, LOT 1347, LOT 1348, LOT 1349, LOT 1350, LOT 1351, LOT 1352, LOT 1353, LOT 1354, LOT 1355, LOT 1356, LOT 1357, LOT 1358, LOT 1359, LOT 1360, LOT 1361, LOT 1362, LOT 1363, LOT 1364, LOT 1365, LOT 1366, LOT 1367, LOT 1368, LOT 1369, LOT 1370, LOT 1371, LOT 1372, LOT 1373, LOT 1374, LOT 1375, LOT 1376, LOT 1377, LOT 1378, LOT 1379, LOT 1380, LOT 1381, LOT 1382, LOT 1383, LOT 1384, LOT 1385, LOT 1386, LOT 1387, LOT 1388, LOT 1389, LOT 1390, LOT 1391, LOT 1392, LOT 1393, LOT 1394, LOT 1395, LOT 1396, LOT 1397, LOT 1398, LOT 1399, LOT 1400, LOT 1401, LOT 1402, LOT 1403, LOT 1404, LOT 1405, LOT 1406, LOT 1407, LOT 1408, LOT 1409, LOT 1410, LOT 1411, LOT 1412, LOT 1413, LOT 1414, LOT 1415, LOT 1416, LOT 1417, LOT 1418, LOT 1419, LOT 1420, LOT 1421, LOT 1422, LOT 1423, LOT 1424, LOT 1425, LOT 1426, LOT 1427, LOT 1428, LOT 1429, LOT 1430, LOT 1431, LOT 1432, LOT 1433, LOT 1434, LOT 1435, LOT 1436, LOT 1437, LOT 1438, LOT 1439, LOT 1440, LOT 1441, LOT 1442, LOT 1443, LOT 1444, LOT 1445, LOT 1446, LOT 1447, LOT 1448, LOT 1449, LOT 1450, LOT 1451, LOT 1452, LOT 1453, LOT 1454, LOT 1455, LOT 1456, LOT 1457, LOT 1458, LOT 1459, LOT 1460, LOT 1461, LOT 1462, LOT 1463, LOT 1464, LOT 1465, LOT 1466, LOT 1467, LOT 1468, LOT 1469, LOT 1470, LOT 1471, LOT 1472, LOT 1473, LOT 1474, LOT 1475, LOT 1476, LOT 1477, LOT 1478, LOT 1479, LOT 1480, LOT 1481, LOT 1482, LOT 1483, LOT 1484, LOT 1485, LOT 1486, LOT 1487, LOT 1488, LOT 1489, LOT 1490, LOT 1491, LOT 1492, LOT 1493, LOT 1494, LOT 1495, LOT 1496, LOT 1497, LOT 1498, LOT 1499, LOT 1500, LOT 1501, LOT 1502, LOT 1503, LOT 1504, LOT 1505, LOT 1506, LOT 1507, LOT 1508, LOT 1509, LOT 1510, LOT 1511, LOT 1512, LOT 1513, LOT 1514, LOT 1515, LOT 1516, LOT 1517, LOT 1518, LOT 1519, LOT 1520, LOT 1521, LOT 1522, LOT 1523, LOT 1524, LOT 1525, LOT 1526, LOT 1

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
Co	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	0.37
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
GmB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.37
Ha	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	D	0.37
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

LEGEND	
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+ 82.53
DIRECTION OF FLOW	→
EXISTING TREELINE	~
PROPOSED TREELINE	~
SOIL BOUNDARY	---
APPROXIMATE FOREST CONSERVATION EASEMENT	[Pattern]
PROPOSED EASEMENT	[Pattern]
15.00% - 24.99% SLOPES	[Pattern]
25.00% AND GREATER SLOPES	[Pattern]
'B' SOILS	[Pattern]
'C' SOILS	[Pattern]
'D' SOILS	[Pattern]

MATCHLINE SEE SHEET FIVE

MATCHLINE SEE SHEET THREE

MATCHLINE SEE SHEET THREE



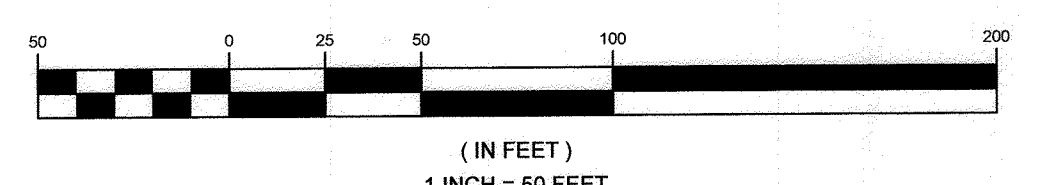
NOTE: THERE IS NO GRADING TAKING PLACE ON THIS SHEET.

N 570,300
E 1,334,400

N 569,800
E 1,334,400

N 569,800
E 1,335,800

GRAPHIC SCALE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
K. J. Sheahan 5/16/12 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
William Machen 5/16/12 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



AS-BUILT CERTIFICATION
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
William Machen 5-16-12 DATE
 WILLIAM MACHEN, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 9011, EXPIRATION DATE: 10-02-2015

OWNER
 TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

DEVELOPER
 CHAPEL RISE, LTD
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

GREEN GATEWAY LLC
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

GRADING, SEDIMENT AND EROSION CONTROL PLAN
 CHAPEL RISE
 LOTS 1 THRU 9
 A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6,
 CHAPEL WOODS II, PLAT #9328

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

PARCEL 26, 282 & 353
 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@salland.com

DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: PS
 SCALE: 1" = 50'
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 4 of 15

PROFESSIONAL CERTIFICATION: 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. 32026, EXPIRATION DATE: JUNE 20, 2013

AS-BUILT

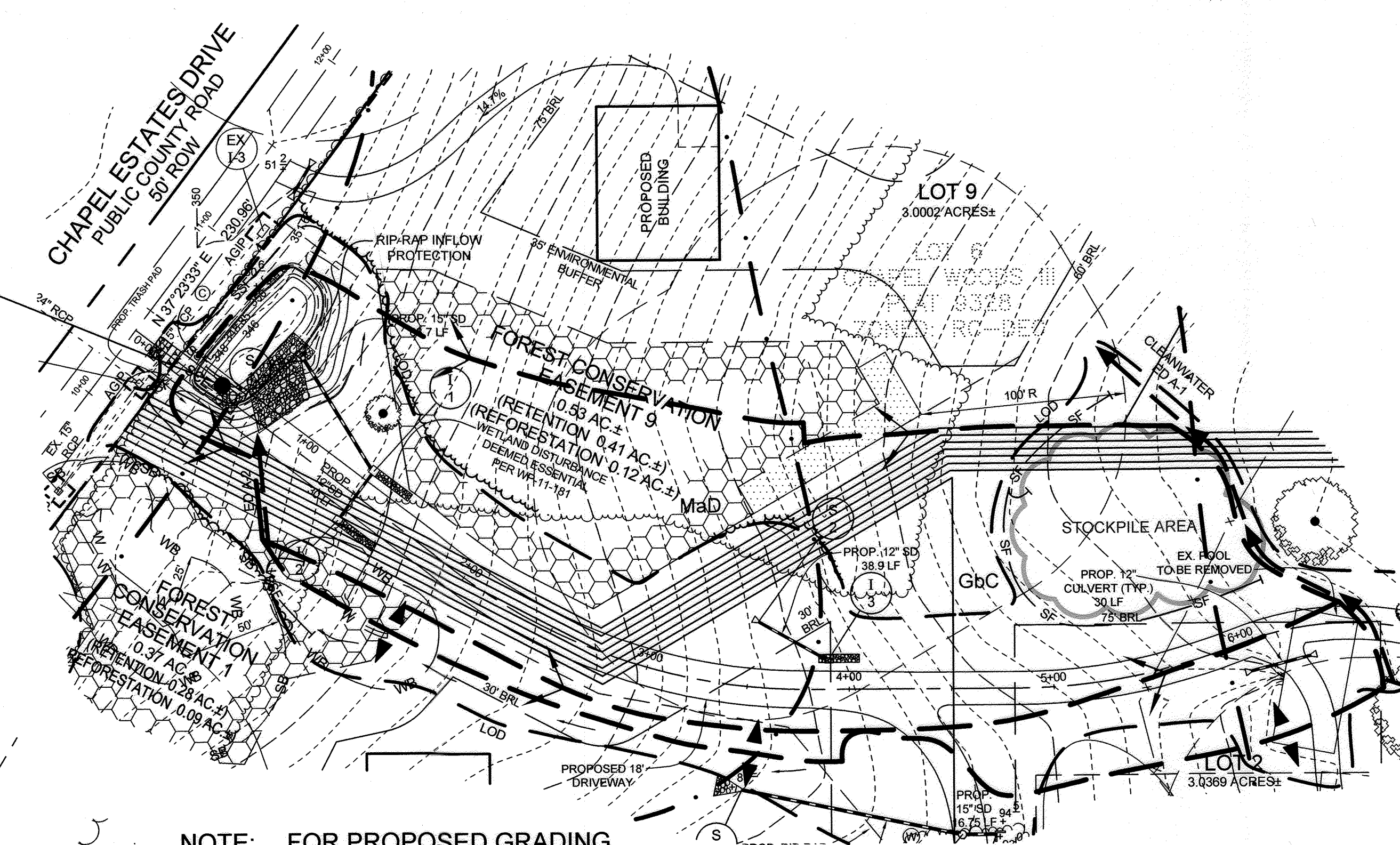
SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K ^c FACTOR
Co	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	0.37
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
GmB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.37
Md	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	D	0.37
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

SEDIMENT TRAP #1 (ST-II)

EXISTING DRAINAGE AREA: 1.80AC±
 PROPOSED DRAINAGE AREA: 1.88AC±
 WET STORAGE REQUIRED: 3,600.0CF
 WET STORAGE PROVIDED: 3,634.2CF
 DRY STORAGE REQUIRED: 3,600.0CF
 DRY STORAGE PROVIDED: 3,606.4CF
 WEIR LENGTH: 8.0'
 STORAGE DEPTH BELOW OUTLET: 1.75'
 CLEANOUT ELEVATION: 347.6
 EMBANKMENT HEIGHT: 1.0'
 TRAP BOTTOM: 346.0
 TRAP DIMENSIONS: 85x16'
 WET STORAGE ELEVATION: 348.85
 CREST ELEVATION: 350.6

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- SOIL BOUNDARY
- APPROXIMATE FOREST CONSERVATION EASEMENT
- PROPOSED EASEMENT
- 15.00% - 24.99% SLOPES
- 25.00% AND GREATER SLOPES
- 'B' SOILS
- 'C' SOILS
- PROPOSED DRAINAGE DIVIDE
- EXISTING DRAINAGE DIVIDE
- EARTH DIKE



NOTE: FOR PROPOSED GRADING SEE SHEET 3

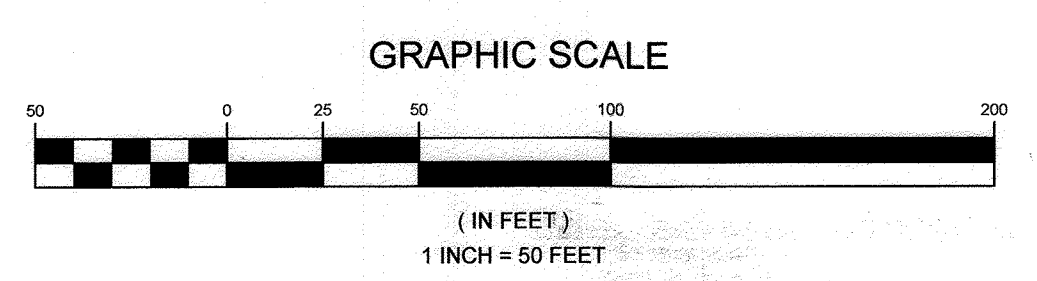
SEDIMENT TRAP DETAIL
SCALE: 1"=50'

MATCHLINE SEE SHEET THREE

MATCHLINE SEE SHEET FOUR

NOTE: THERE IS NO GRADING TAKING PLACE IN THIS PORTION OF THE PROPERTY.

PLAN VIEW
SCALE: 1"=50'



N 570,400
E 1,335,000

N 570,400
E 1,336,000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Kathleen...
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 5/11/12

AS-BUILT CERTIFICATION
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
 WILLIAM MACHEN, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 4011, EXPIRATION DATE: 10-01-2018
 DATE: 8-19-14

DEVELOPER
 CHAPEL RISE, LTD
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

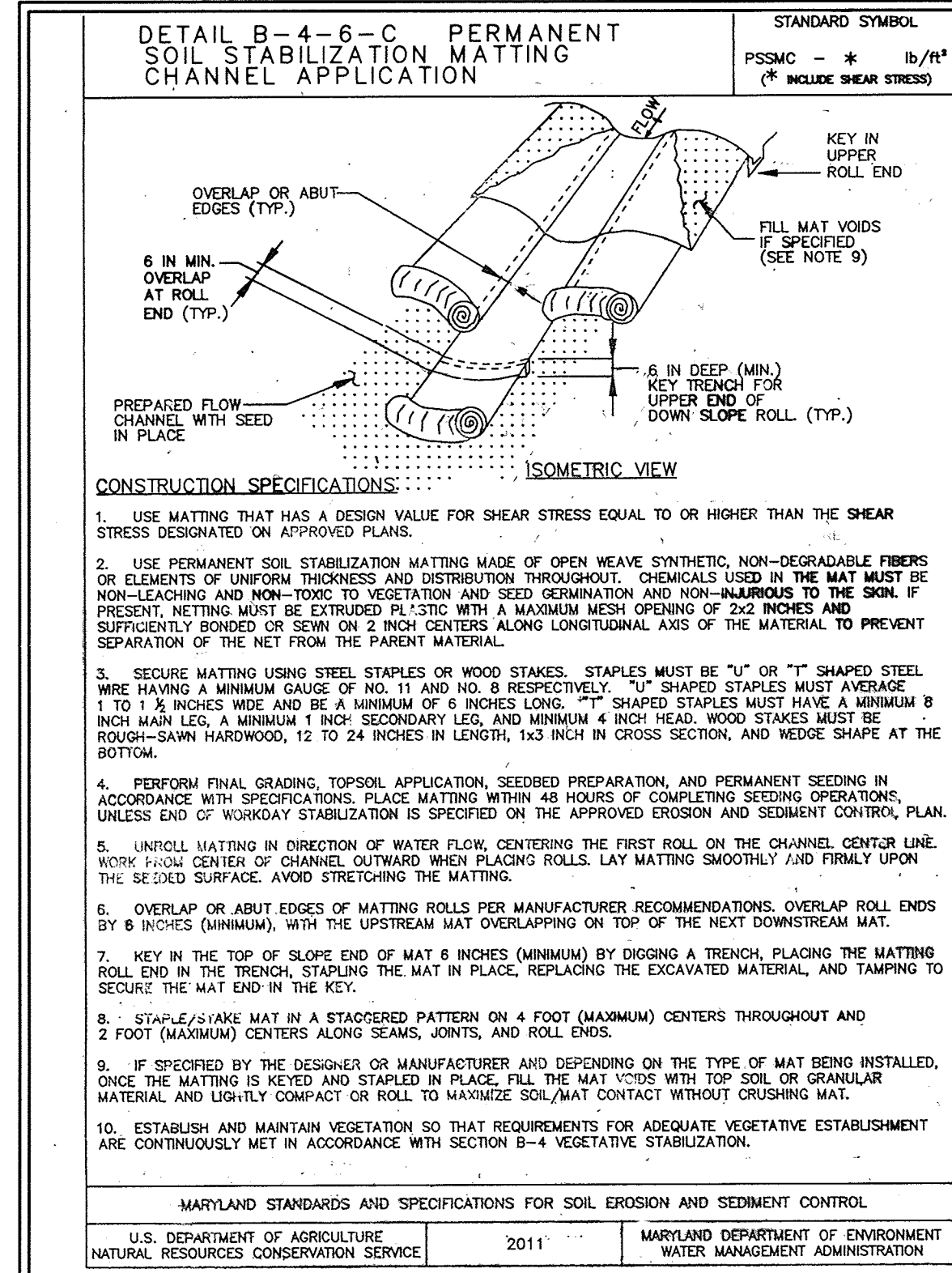
OWNER
 TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

GREEN GATEWAY LLC
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

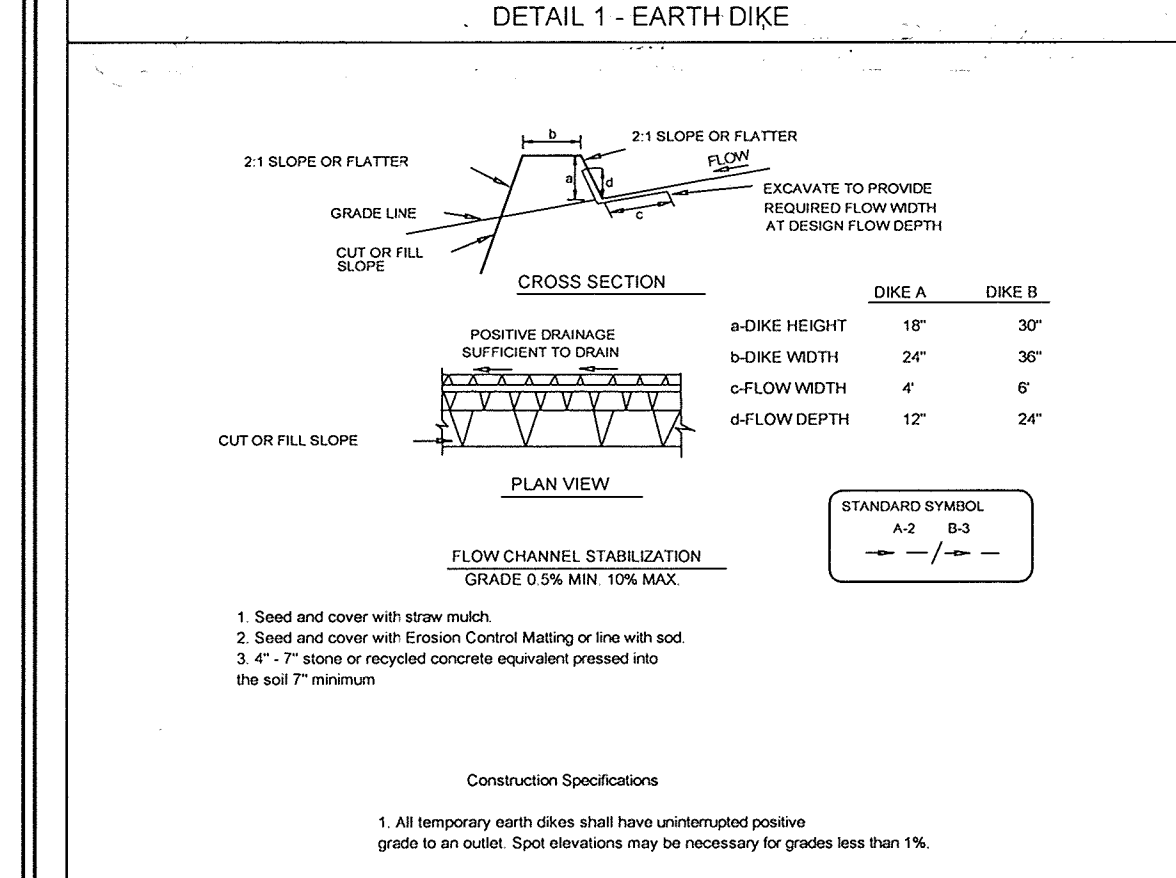
AS-BUILT
GRADING, SEDIMENT AND EROSION CONTROL PLAN
CHAPEL RISE
 LOTS 1 THRU 9
 A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6,
 CHAPEL WOODS II, PLAT #9328
 PARCEL 28, 282 & 353
 HOWARD COUNTY, MARYLAND
 TAX MAP 28 GRID 13
 5TH ELECTION DISTRICT

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 5 of 15



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
 U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 2011
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE A-1-6
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION FOR LOT 7

- OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)
- NOTIFY "MSS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY DPW, CONSTRUCTION INSPECTION DIVISION AT 410-313-1855 AT LEAST 48 HOURS BEFORE STARTING WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, AND EARTH DIKE. (3 DAYS)
- ROUGH GRADE SITE. (2 WEEKS)
- INSTALL TEMPORARY SEEDING. (3 DAYS)
- CONSTRUCT BUILDING, ASSOCIATED DRIVEWAY, AND SEPTIC SYSTEM. (12 MONTHS)
- FINE GRADE SITE, REMOVE EARTH DIKE (UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR), AND COMPLETE PERMANENT SEEDING. (2 WEEKS)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, AND EARTH DIKE. (1 WEEK)
- UPON STABILIZATION AND ONCE ALL SITE WORK IS COMPLETED INSTALL PERMANENT SOIL STABILIZATION MATTING IN SWALES, WEDGE CHANNELS, INSTALL MICRO-BIORETENTION FACILITIES. (1 WEEK)
- ALL FINAL GRADING AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS ASSOCIATED WITH THIS LOT, WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (3 DAYS)

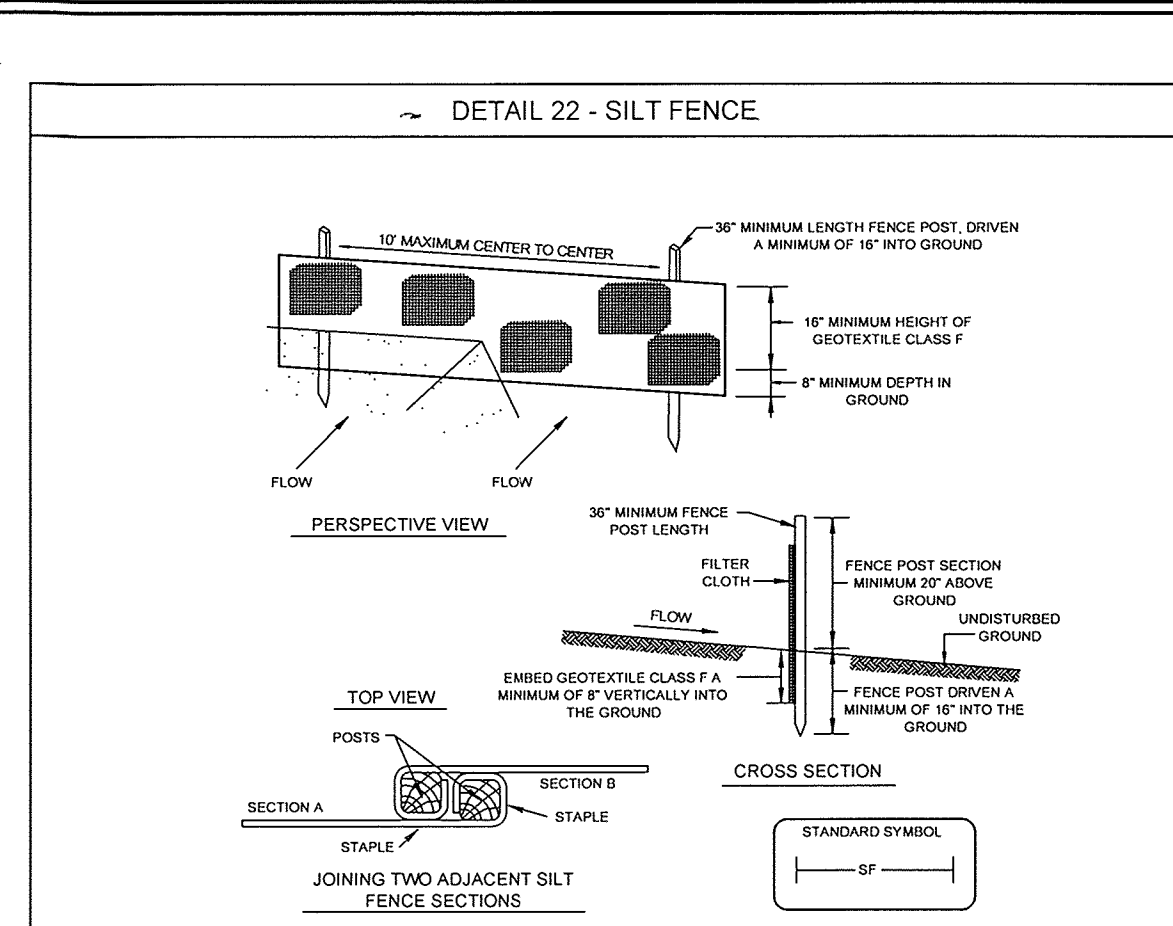
NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

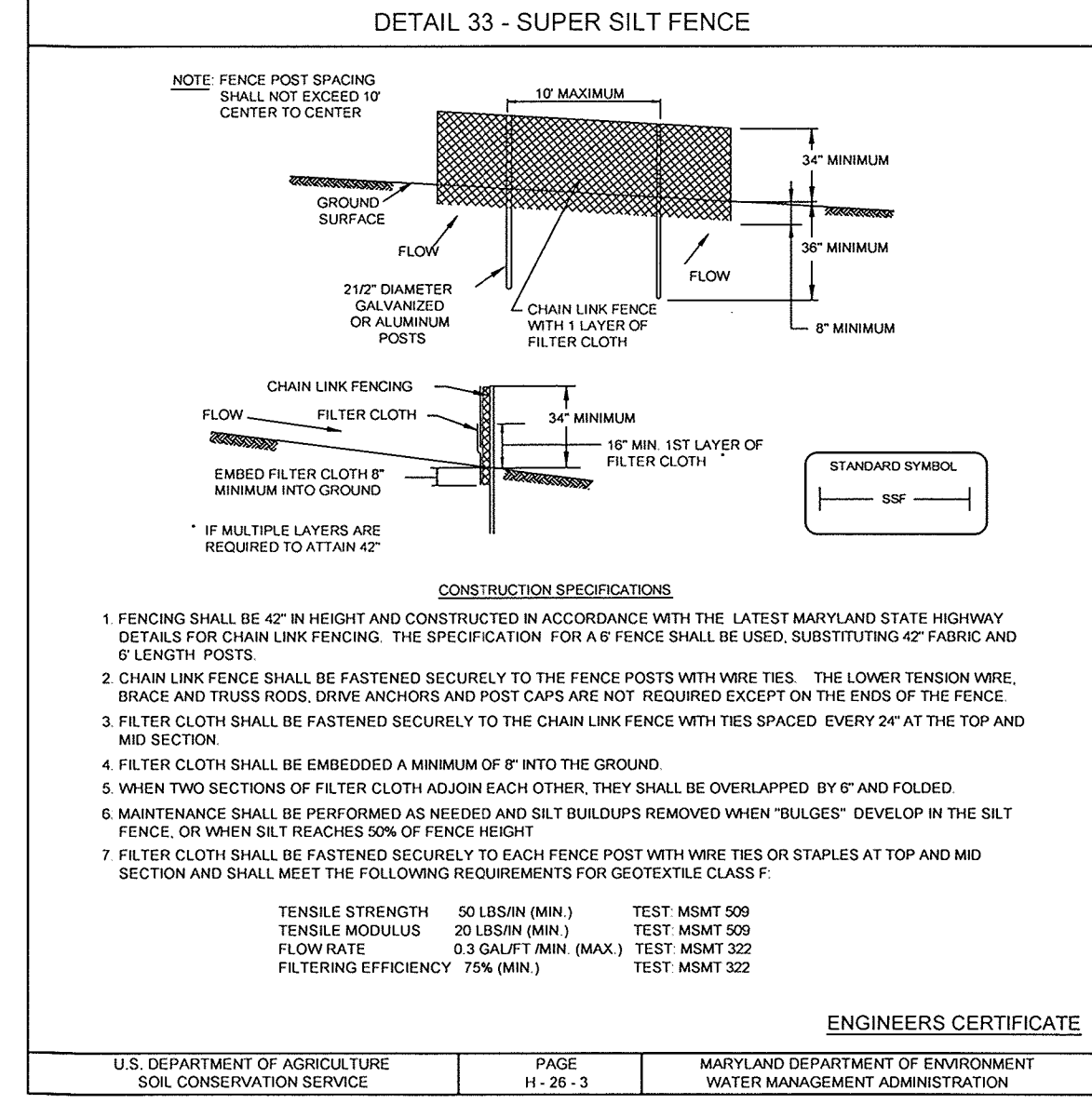
5-14-21
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

1/19/2018 REVISION #3 -
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

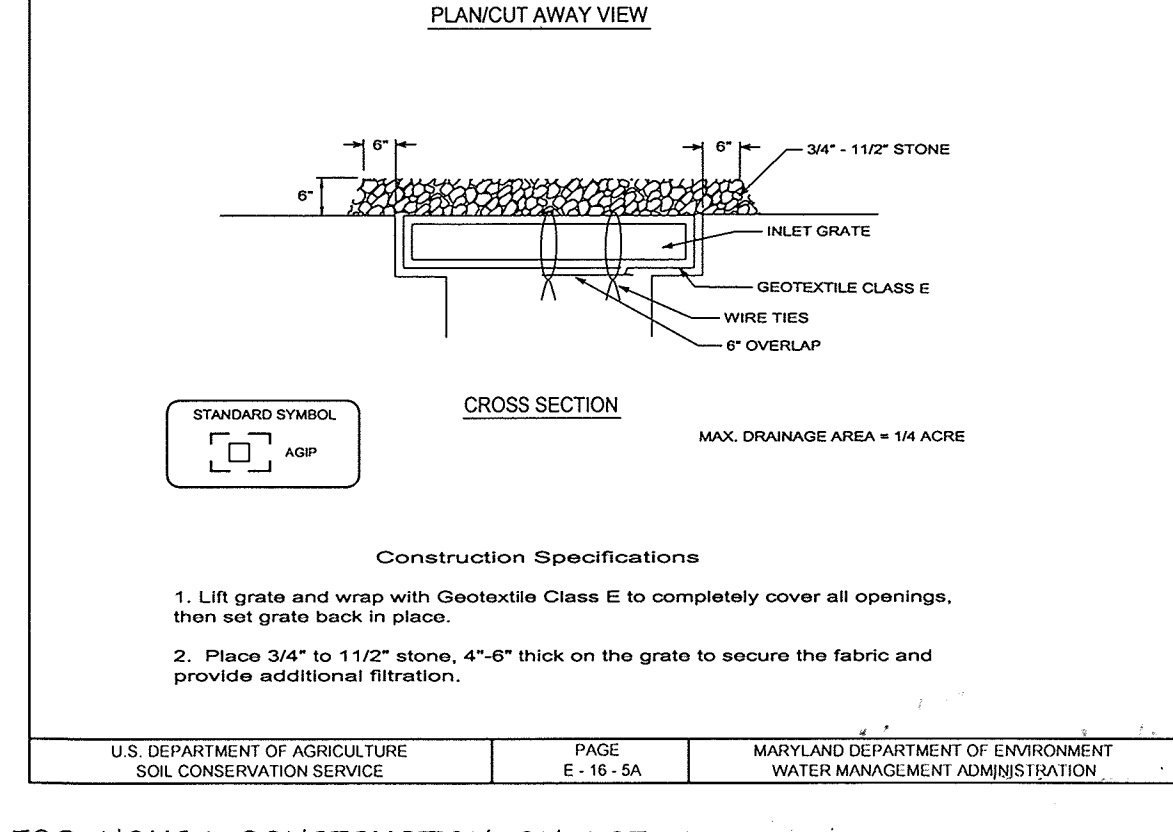
SHOW SITE ANALYSIS FOR HOUSE TO BE BUILT ON LOT 7 & REVISE ECM DETAIL TO PSMHC DETAIL - FISHER, COLLINS & CARTER, INC.



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE E-15-3
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION



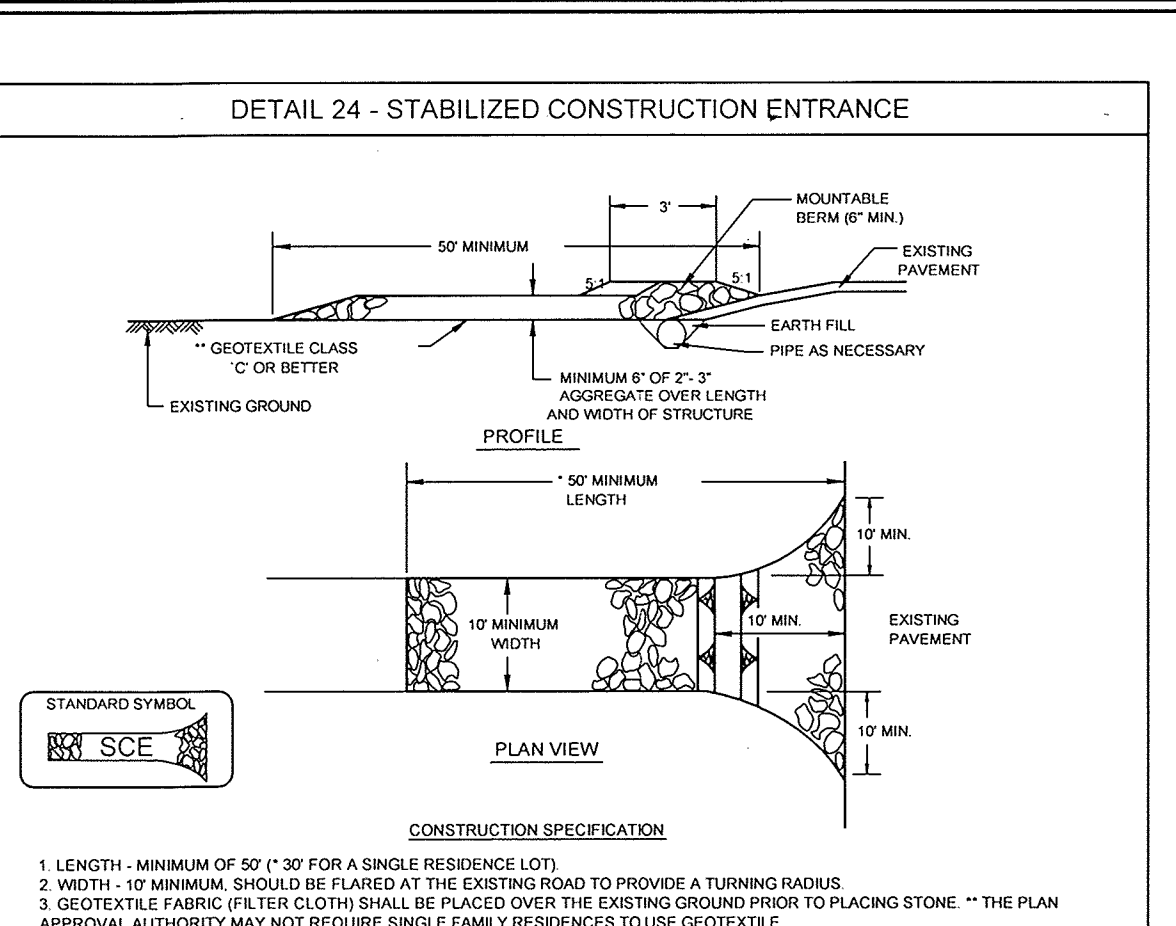
U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE H-26-3
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION



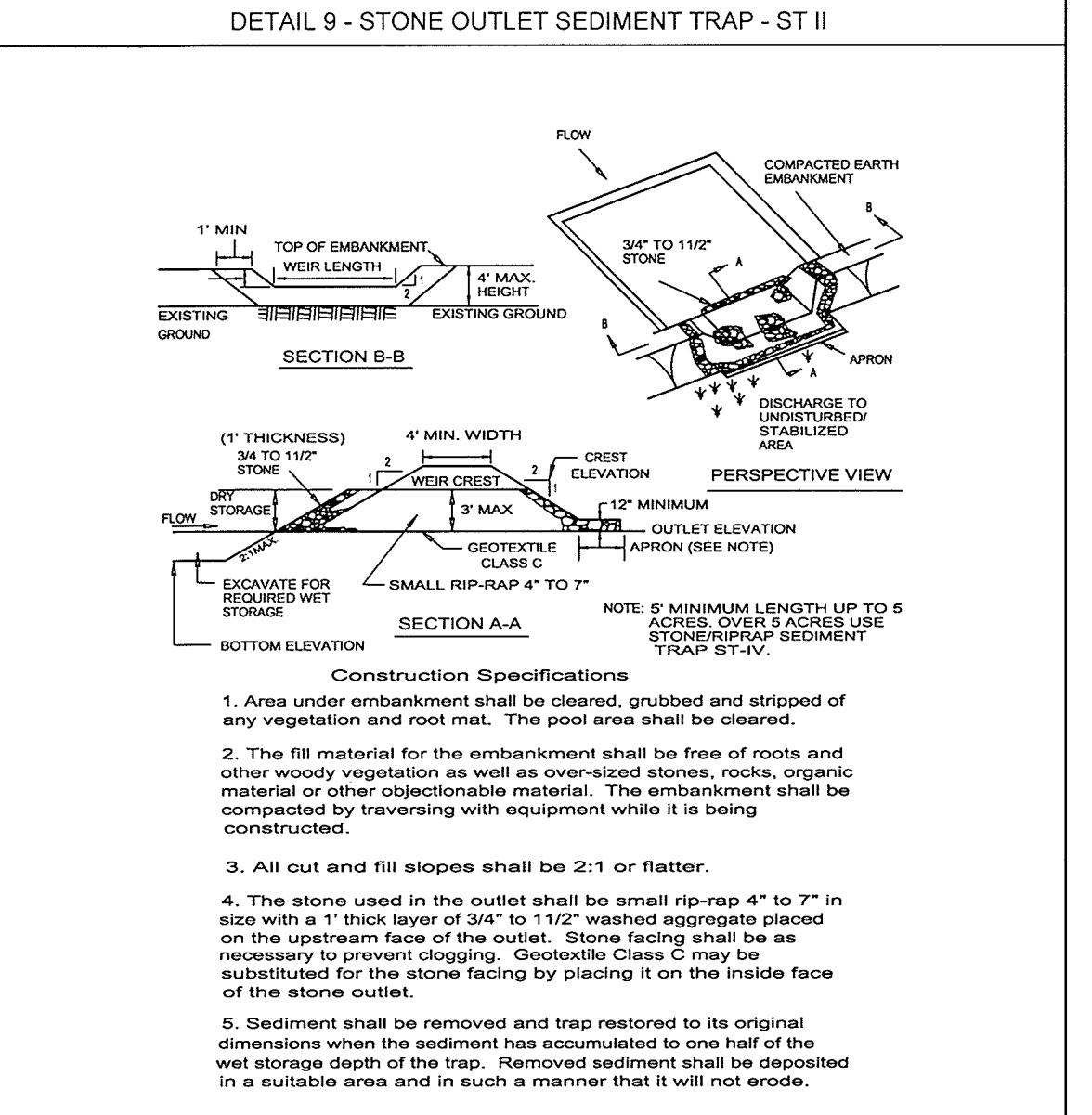
U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE E-16-5A
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

FOR HOUSE CONSTRUCTION ON LOT 7

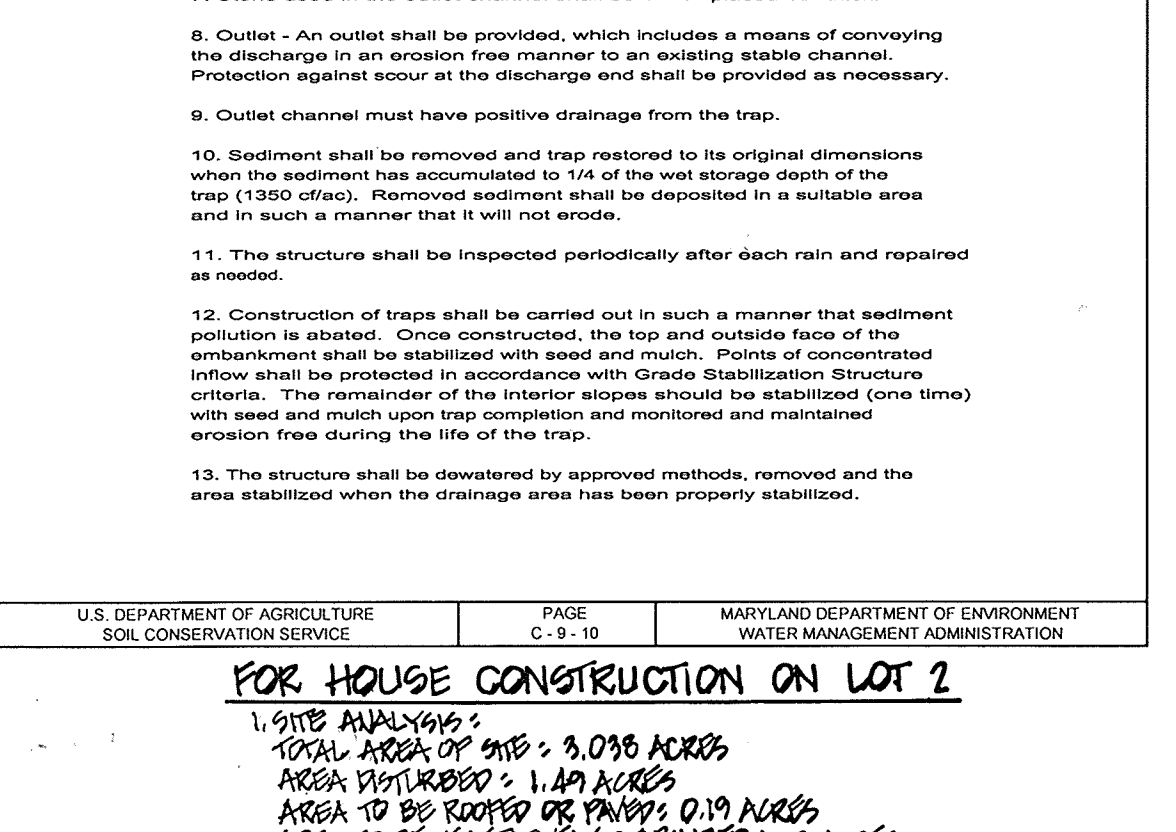
6. Site Analysis:
 Total Area of Site: 3.07 Acres
 Area Disturbed: 0.38 Acres
 Area to be roofed or paved: 0.26 Acres
 Area to be vegetatively stabilized: 0.72 Acres
 Total Cut: 150 Cu. Yds.
 Total Fill: 450 Cu. Yds.
 Offsite waste/borrow area location: N/A



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE F-17-3
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE G-17-3
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE G-17-3
 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

FOR HOUSE CONSTRUCTION ON LOT 2

1. SITE ANALYSIS:
 TOTAL AREA OF SITE: 2.038 ACRES
 AREA DISTURBED: 0.19 ACRES
 AREA TO BE ROOFED OR PAVED: 0.19 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 1.9 ACRES
 TOTAL CUT: 1,104 CU. YDS.
 TOTAL FILL: 845 CU. YDS.
 OFFSITE WASTE/BORROW AREA LOCATION: N/A THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

AS-BUILT CERTIFICATION

WILLIAM MACIEN - PROFESSIONAL LAND SURVEYOR
 REG. NO. 991, EXPIRATION DATE: 10-22-2019

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOILS

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES:

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAN 1 AND 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (82 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (82 LBS/1000 SQ. FT.) AND APPLY 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 80 LBS PER ACRE (1.8 LBS/1000 SQ. FT.) OF TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.06 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (6 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SO.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (6 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).

2. ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. TEMPORARY SEEDING, SOIL TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:

TOTAL AREA:	33.55 ACRES
AREA DISTURBED:	3.31 ACRES
AREA TO BE ROOFED OR PAVED:	0.56 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	2.75 ACRES
TOTAL CUT:	935 CY
TOTAL FILL:	1,392 CY
OFFSITE WASTE/BORROW AREA LOCATION:	N/A

SOD SPECIFICATIONS

TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

A. GENERAL SPECIFICATIONS:

- CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR APPROVED. SOD LABELS SHALL BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
- SOD SHALL BE MACHINE CUT IN A UNIFORM SOIL THICKNESS OF 3/4", PLUS OR MINUS 1/4", AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIERS WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

B. SOD INSTALLATION:

- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, THE SUBSOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD.
- THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOIL IS NOT STRETCHED OR OVERLAPPED AND THAT JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- WHEREVER POSSIBLE, SOD SHALL BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STEERING GROUPEL. SOD SHALL BE ROLLED AND TAPPED, PEACED OR OTHERWISE SECURED TO PREVENT SLIPPAGE ON SLOPES AND TO ENSURE SOIL CONTACT BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- SOD SHALL BE WATERED IMMEDIATELY FOLLOWING ROLLING OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.

C. SOD MAINTENANCE:

- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4". WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- THE FIRST MOWING OF SOD SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2" AND 3" UNLESS OTHERWISE SPECIFIED.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS AT (410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SEDIMENT TRAP, EARTH DIKE, SILT FENCE AND SUPER SILT FENCE. (3 DAYS)
- ROUGH GRADE SITE UP TO APPROXIMATE DRIVEWAY STATION 6+50. (1 MONTH)
- INSTALL STORM DRAINAGE S-1 TO I-2 AND S-2 TO I-3. (2 WEEKS)
- FINE GRADE AND INSTALL DRIVEWAY BASE COAT UP TO APPROXIMATE DRIVEWAY STATION 6+50. (2 WEEKS)
- STABILIZE ALL CONSTRUCTION UP TO APPROXIMATE DRIVEWAY STATION 6+50. DRIVEWAY SWALES TO BE SODDED AND FOR 20' PRIOR TO I-1, I-2 AND I-3 LINE THE SWALES WITH CLASS I RIP-RAP. ONCE STABILIZED, AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAP AND EARTH DIKES. (2 WEEKS)
- ROUGH GRADE BIO'S 1, 2, 3 AND 6, IMMEDIATELY STABILIZING THE DISTURBED AREAS. DO NOT CONSTRUCT BIO'S AT THIS TIME. (2 WEEKS)
- ROUGH GRADE REMAINDER OF SITE. (1 WEEK)
- INSTALL REMAINING STORM DRAIN SYSTEM AND FINAL CONSTRUCT ALL MICRO-BIORETENTION FACILITIES. (2 MONTHS)
- FINE GRADE REMAINDER OF SITE, COMPLETE DRIVEWAY PAVING. (1 MONTH)
- PLANT AFFORESTATION AREAS. (3 DAYS)
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA. (1 WEEK)

NOTE: -FOLLOWING INITIAL SOIL DISTURBANCE OR ANY RE-DISTURBANCES, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES AND ALL SLOPES GREATER THAN 3:1.
 B 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
 -DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.

AS-BUILT

SEDIMENT & EROSION CONTROL NOTES AND DETAILS
 CHAPEL RISE
 LOTS 1 THRU 9

A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6, CHAPEL WOODS II, PLAT #9328

TAX MAP 29 GR1D 13
 5TH ELECTION DISTRICT

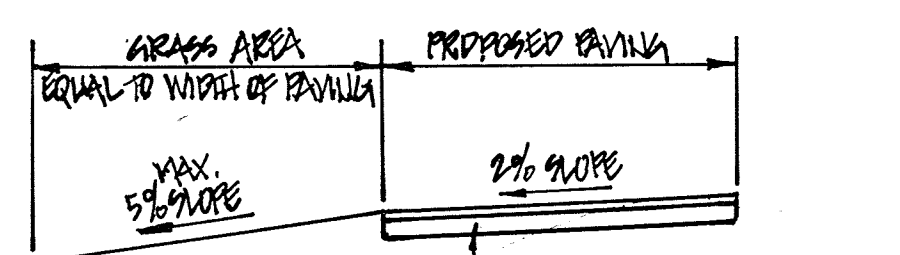
PARCEL 282, 282 & 353
 HOWARD COUNTY, MARYLAND

DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 6 OF 15

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Elliotts City, Maryland 21043
 Phone: 443.235.7682 Fax: 443.235.7685
 Email: info@silladcock.com

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2013

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
Co	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
GmB	GLENVILLE-BAILEY SILT LOAMS, 0 TO 8 PERCENT SLOPES	C
MaD	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	D
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B

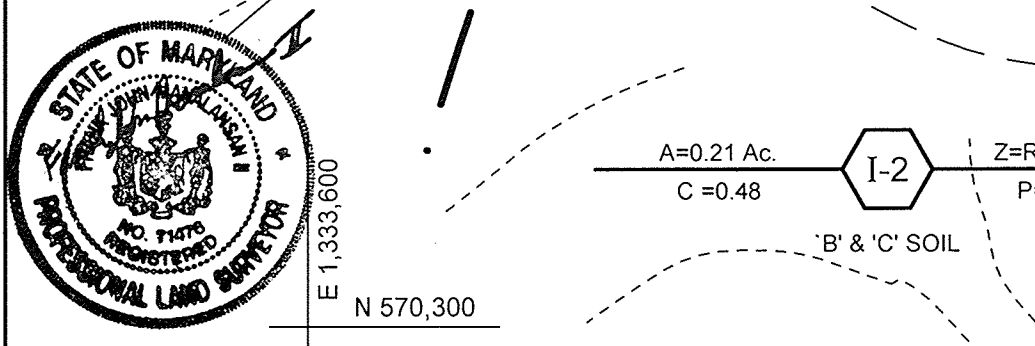
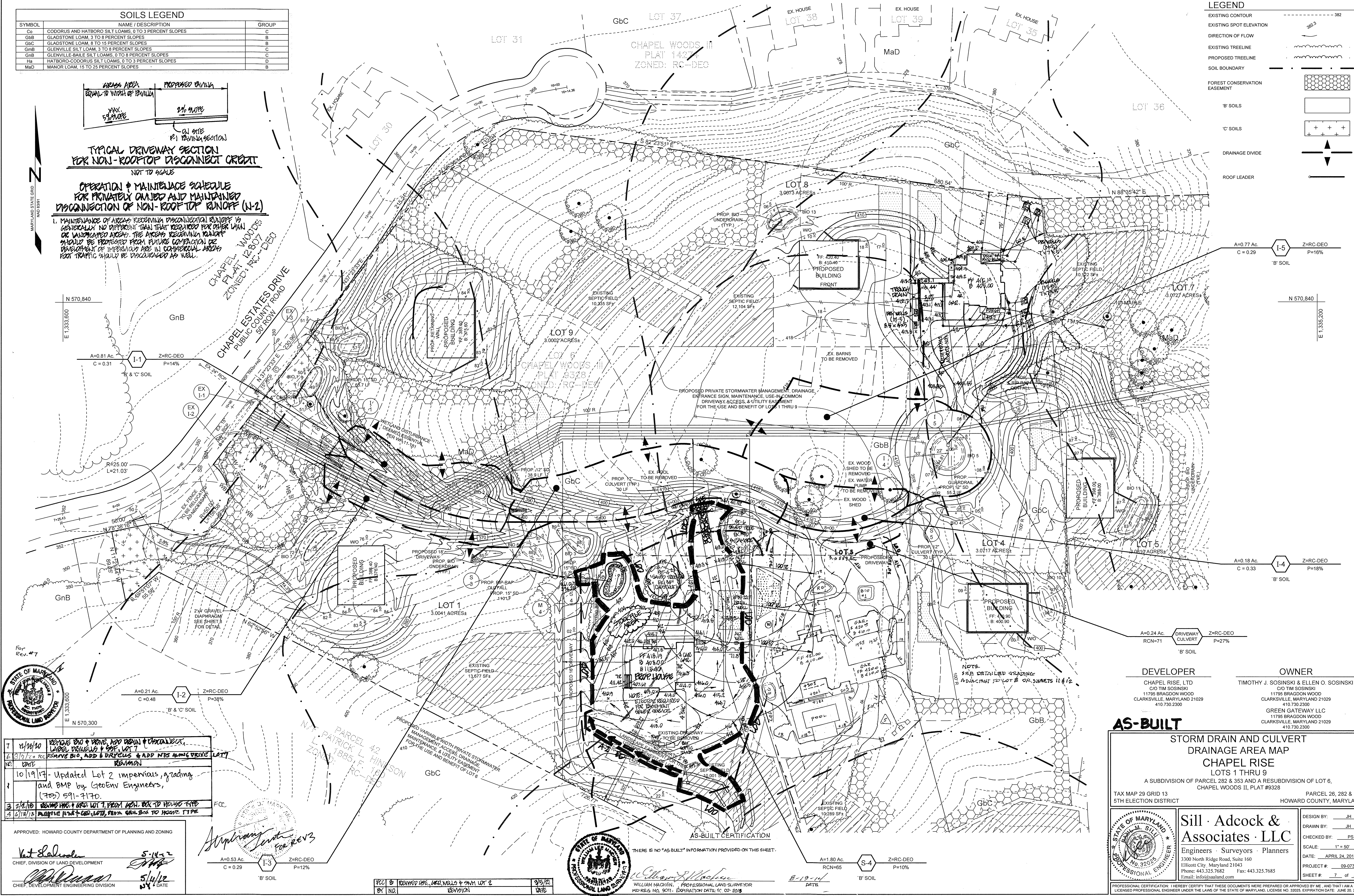


TYPICAL DRIVEWAY SECTION FOR NON-ROOFTOP DISCONNECT CREDIT
NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREAS IN COMMERCIAL AREAS. FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

LEGEND	
EXISTING CONTOUR	--- 382
EXISTING SPOT ELEVATION	382.3
DIRECTION OF FLOW	→
EXISTING TREELINE	~~~~~
PROPOSED TREELINE	~~~~~
SOIL BOUNDARY	---
FOREST CONSERVATION EASEMENT	[Pattern]
'B' SOILS	[Symbol]
'C' SOILS	[Symbol]
DRAINAGE DIVIDE	↑
ROOF LEADER	↓



NO.	DATE	REVISION
7	11/09/10	REMOVE BIO & DRIVE, ADD DRIVE & UNDERDRAN, LABEL DRIVEWAY & SWP, LOT 7
8	03/17/12	REMOVE BIO, ADD & DIRECT, & ADD NTS ALONG DRIVE, LOT 7
REVISION		
1	10/19/17	Updated Lot 2 impervious, grading and BMP by GeoEnv Engineers, (700) 591-7170.
2	2/2/18	REMOVE DRIVE & SWP, LOT 7, FROM SWP, EX TO HOUSE TYPE
3	2/18/18	REMOVE SWP & SWP, LOT 7, FROM SWP, EX TO HOUSE TYPE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Victor Salcedo 5-14-12
 CHIEF, DIVISION OF LAND DEVELOPMENT
William M. Chien 5/14/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

William M. Chien For REV3
 A=0.53 Ac. Z=RC-DEO P=12%
 'B' SOIL

REV	NO.	REVISION	DATE
1	1	REVISED DRIVE, SWP, WELLS & SWP LOT 2	3/5/21



WILLIAM M. CHIEN, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 5011, EXPIRATION DATE: 12-02-2015
 DATE: 8-19-14

DEVELOPER
 CHAPEL RISE, LTD
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

OWNER
 TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300
 GREEN GATEWAY LLC
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

AS-BUILT
STORM DRAIN AND CULVERT DRAINAGE AREA MAP
CHAPEL RISE
 LOTS 1 THRU 9
 A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6,
 CHAPEL WOODS II, PLAT #9328
 TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT
 PARCEL 26, 282 & 353
 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@sauland.com

DESIGN BY: JH
 DRAWN BY: JH
 CHECKED BY: PS
 SCALE: 1" = 50'
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 7 of 15

PROFESSIONAL CERTIFICATION: 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. 32023, EXPIRATION DATE: JUNE 20, 2013

NOTES

- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 6.96 ACRES OF FOREST AND REFORESTATION PLANTING OF 2.37 ACRES (103,237 SF) OF FOREST. SURETY IN THE AMOUNT OF \$51,619 (103,237 x \$0.50) HAS BEEN POSTED AS PART OF THE OPEN DEVELOPER'S AGREEMENT.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$1,050 FOR THE REQUIRED LANDSCAPING (2 SHADE TREES, 3 EVERGREENS) FOR LOT 1, \$750 FOR THE REQUIRED LANDSCAPING (1 SHADE TREE, 3 EVERGREENS) FOR LOT 7, AND \$1,050 FOR THE REQUIRED LANDSCAPING (2 SHADE TREES, 3 EVERGREENS) FOR LOT 8.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- SEE THE PLAN OR DEED EASEMENT DESCRIPTION FOR THE BEARING AND DISTANCE DESCRIPTIONS OF THE FOREST CONSERVATION EASEMENTS.

GENERAL NOTES

- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY DEMOLITION, LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
 - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
 - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
 - ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
 - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
 - THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
 - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
 - THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
 - ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE, LIMIT OF GRADING, OR TREE PROTECTIVE FENCING WITHIN AND ADJACENT TO ALL SPECIMEN TREES AND EASEMENT AREAS TO BE PRESERVED, AS NECESSARY. ALL POSSIBLE PRECAUTIONS SHALL BE TAKEN TO NOT DAMAGE ROOTS ADJACENT TO DEMOLITION WALLS OR FOUNDATIONS ARE BEING REMOVED, AND ESPECIALLY WITH PAVEMENT REMOVAL, WHERE ROOTS LIKELY EXIST WITHIN SUBBASE GRAVEL.

REFORESTATION PLANTING NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES.
- PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
- PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DISFIGURING ROOTS, SUNSCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BOXERS, INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. PLANTS SHALL BE FRESHLY DUG; NO HELED-IN PLANTS OR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- UNLESS OTHERWISE SPECIFIED, PLANT MATERIAL SHALL CONFORM TO "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1-1990, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN, INCLUDING ALL ADDENDA.
- UNLESS OTHERWISE SPECIFIED, GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES" (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, LATEST EDITION, INCLUDING ALL ADDENDA.
- CONTRACTOR WILL BE REQUIRED TO GUARANTEE PLANT MATERIAL FOR A PERIOD OF TWO YEARS AFTER DATE OF ACCEPTANCE AND MAINTAIN A 75% SURVIVABILITY AT THE END OF TWO YEARS.
- AFTER THE FIRST YEAR OF PLANTING A SOIL TEST SHOULD BE MADE AND A FERTILIZATION PROGRAM DETERMINED. CONTRACTOR'S ATTENTION IS DIRECTED TO THE "LANDSCAPE GUIDELINES" FOR FERTILIZING SPECIFICATIONS. SOIL SHOULD BE AN APPROXIMATE pH OF 6.0.
- TO LESSEN THE CHANCE OF LOSS THE TREES SHOULD BE CHECKED FROM TIME TO TIME TO INSURE THAT THEY ARE RECEIVING SUFFICIENT WATER. IF NECESSARY, PLANTINGS SHOULD BE REGULARLY WATERED DURING DRY PERIODS UNTIL PLANTINGS ARE WELL ESTABLISHED IN ORDER TO MAINTAIN SURVIVABILITY.
- THE LOCATION AND ORIENTATION OF ALL PLANT MATERIAL SHALL BE RANDOMLY PLANTED IN DESIGNATED REFORESTATION AREAS BY THE LANDSCAPE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING ANY PLANT MATERIAL INSTALLED WITHOUT APPROVAL.
- MOWING AND APPLYING HERBICIDES TO THE REFORESTATION AREA IS PROHIBITED AT ANY AND ALL STAGES OF THE PLANTING PROCESS IN ORDER TO ENCOURAGE THE EXISTING SAPLINGS TO GROW.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND PRUNING PLANT MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. SEE TREE PLANTING AND MAINTENANCE CALENDAR.
- PLANTING MIX SHALL BE AS FOLLOWS:
DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX.
TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.
- THIS PLAN IS INTENDED FOR FOREST CONSERVATION USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, UTILITIES, LAYOUT, ETC.
- UPON COMPLETION OF INSTALLMENT, PROTECTIVE FENCING AND SIGNAGE SHALL BE INSTALLED AS SHOWN.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS AND ALL SPECIMEN TREES HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

NET TRACT AREA		
A	TOTAL TRACT AREA	33.55 AC
B	DEDUCTIONS (100 YR FLOODPLAIN)	4.09 AC
C	NET TRACT AREA	29.46 AC

LAND USE CATEGORY						
ARA	MDR	IDA	HDR	MPD	MPD	CIA
0	1	0	0	0	0	0

AFFORESTATION THRESHOLD (NET TRACT AREA x 20%)		5.89 AC
CONSERVATION THRESHOLD (NET TRACT AREA x 25%)		7.37 AC

EXISTING FOREST COVER		
F	EXISTING FOREST COVER WITHIN THE NET TRACT AREA	13.60 AC
G	AREA OF FOREST ABOVE CONSERVATION THRESHOLD	6.24 AC

BREAK EVEN POINT		
H	BREAK EVEN POINT	8.61 AC
I	FOREST CLEARING PERMITTED WITHOUT MITIGATION	4.99 AC

PROPOSED FOREST CLEARING		
J	TOTAL AREA OF FOREST TO BE CLEARED	6.64 AC
K	TOTAL AREA OF FOREST TO BE RETAINED	6.96 AC

PLANTING REQUIREMENTS		
L	REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD	1.56 AC
M	REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD	0.81 AC
N	CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD	0.0 AC
P	TOTAL REFORESTATION REQUIRED	2.37 AC
Q	TOTAL AFFORESTATION REQUIRED	0.0 AC
R	TOTAL PLANTING REQUIRED	2.37 AC

* NOTE : 2.37 ACRES WILL BE REFORESTED ON-SITE TO FULFILL FOREST CONSERVATION REQUIREMENTS.
 * 2.10 ACRES OF FOREST RETENTION ON LOTS 5, 6 AND 7
 * PER PLAN 2018-04-01-010

FOREST CONSERVATION EASEMENT PLANT LIST (2.37 AC)												
TOTAL	QUANTITY								BOTANICAL NAME	SIZE	SPACING	NOTE
	FCE 1 0.09 AC	FCE 2 0.23 AC	FCE 3 0.37 AC	FCE 4 0.51 AC	FCE 5 0.65 AC	FCE 6 0.79 AC	FCE 7 0.93 AC	FCE 8 1.07 AC				
21	1	3	0	0	14	0	0	0	ACER NEGUNDO 'BOXELDER'	2" CAL.	20' x 20'	B & B
81	2	10	4	4	48	12	1	0	ACER RUBRUM 'RED SUNSET' 'RED SUNSET RED MAPLE'	2" CAL.	20' x 20'	B & B
8	0	0	0	1	6	0	0	0	NYSSA SYLVATICA 'BLACK GUM'	2" CAL.	20' x 20'	B & B
49	1	6	2	3	37	0	0	0	PLATANUS OCCIDENTALIS 'SYCAMORE / PLANE TREE'	2" CAL.	20' x 20'	B & B
8	2	0	2	0	0	4	0	0	PRUNUS SEROTINA 'BLACK CHERRY'	2" CAL.	20' x 20'	B & B
22	1	2	0	3	16	0	0	0	QUERCUS BICOLOR 'SWAMP WHITE OAK'	2" CAL.	20' x 20'	B & B
10	0	0	2	0	0	7	1	0	QUERCUS RUBRA OR QUERCUS COCCINEA 'RED OAK OR SCARLET OAK'	2" CAL.	20' x 20'	B & B
10	0	0	2	0	0	7	1	0	QUERCUS VELLUTINA 'BLACK OAK'	2" CAL.	20' x 20'	B & B
*9	*2	2	2	0	0	5	0	0	AMELANCHIER CANADENSIS 'SERVICE BERRY'	2" CAL.	20' x 20'	B & B
9	0	0	2	0	5	2	0	0	ILEX OPACA 'AMERICAN HOLLY'	6'-8" HT.	20' x 20'	B & B
*15	*2	2	2	2	5	3	1	0	LINDERA BENZOIN 'SPICEBUSH'	1" CAL.	15' x 15'	B & B
*22	*4	3	3	3	10	3	0	0	VIBURNUM DENTATUM 'ARROWWOOD VIBURNUM'	2"-3"	15' x 15'	B & B / CONT

TOTAL: 209 SHADE TREES, 5 EVERGREENS, 24 SMALL TREES, 422 SHRUBS (EXCLUDES * PLANTS ACCOUNTED FOR IN THE 'SUPPLEMENTAL SWALE PLANT LIST', THIS SHEET)

NOTE: * PLANT INSTALLED UNDER SEPARATE PLANT LIST AND NOT INCLUDED IN REFORESTATION PLANT TOTALS

SCHEDULE A : PERIMETER LANDSCAPE EDGE														
CATEGORY	ADJACENT TO ROADWAY					ADJACENT TO PERIMETER PROPERTIES								
	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PERIMETER FRONTAGE DESIGNATION	NA - FRONT TO RD	2	3	4	5	6	7	8	9	10	11	12	13	
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	691.9	93.8	111.9	898.6	293.2	1479.5	243.3	552.8	351.1	530.0	1356.3	55.6	89.3	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 93.8 LF	YES, 111.9 LF	YES, 566.2 LF	NO	NO	NO	NO	YES, 353.1 LF	YES, 530 LF	YES, 1056 LF	YES, 55.6 LF	YES, 45 LF	
REMAINING PERIMETER LENGTH	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED														
SHADE TREES	-	-	-	160 = 6	-	-	-	-	-	-	-	160 = 5	-	160 = 1
EVERGREEN TREES	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED														
SHADE TREES	-	-	-	3	-	-	-	-	-	-	-	1	-	1
EVERGREEN TREES	-	-	-	-	-	-	-	-	-	-	-	-	-	5
OTHER TREES (2: SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION)	-	-	-	6	-	-	-	-	-	-	-	8	-	14

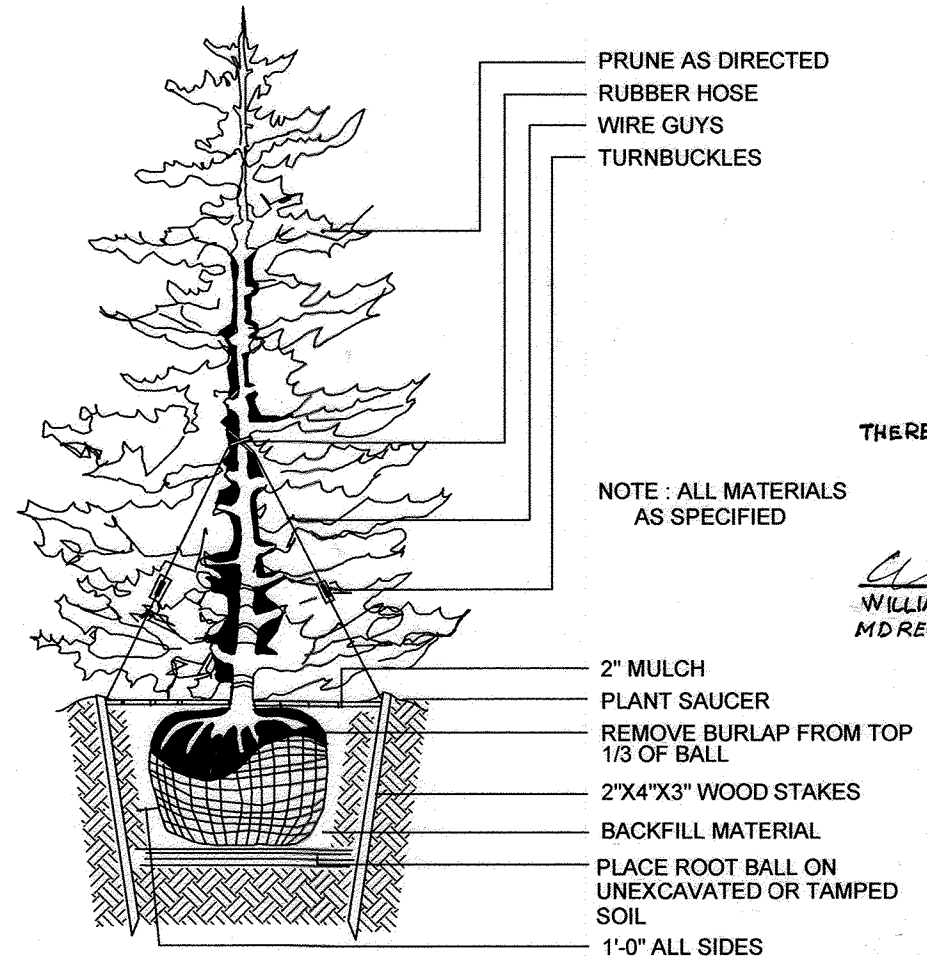
TOTAL NUMBER OF PLANTS PROVIDED = 5 SHADE TREES & 14 EVERGREEN TREES

NOTES

- CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL.
- EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.
- STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
- PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
- KEEP MULCH 1" FROM TRUNK.
- SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
- TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.

TYPICAL TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

SPECIMEN TREE TABLE				
KEY	SIZE	TYPE	CONDITION	REMARKS
ST-1	35"	TULIP POPLAR	GOOD	TRI-STEM
ST-2	34"	TULIP POPLAR	GOOD	
ST-3	38"	PIN OAK	GOOD / FAIR	DEEBERRY 1/2 WAY UP TREE
ST-4	34"	CHESTNUT	GOOD	SOME DIEBACK
ST-5	40"	SYCAMORE	VERY GOOD	BEAUTIFUL CANOPY & BRANCHING
ST-6	48"	RED MAPLE	GOOD	
ST-7	64"	SILVER MAPLE	GOOD	BEAUTIFUL CANOPY
ST-8	30"	SYCAMORE	FAIR	SOME DIEBACK
ST-9	34"	RED MAPLE	GOOD	
ST-10	30"	RED OAK	GOOD	
ST-11	43"	TULIP POPLAR	GOOD	
ST-12	44"	TULIP POPLAR	GOOD / FAIR	BROKEN BRANCHES, POISON IVY 3/4 WAY UP TREE
ST-13	56"	TULIP POPLAR	FAIR	LARGE CANOPY BUT ASYMMETRICAL
ST-14	36"	TULIP POPLAR	GOOD	
ST-15	37"	TULIP POPLAR	GOOD	
ST-16	35"	TULIP POPLAR	GOOD	
ST-17	31"	TULIP POPLAR	GOOD	
ST-18	30"	TULIP POPLAR	FAIR	POISON IVY 1/2 WAY UP TREE
ST-19	37"	TULIP POPLAR	GOOD	NICE GANOPY

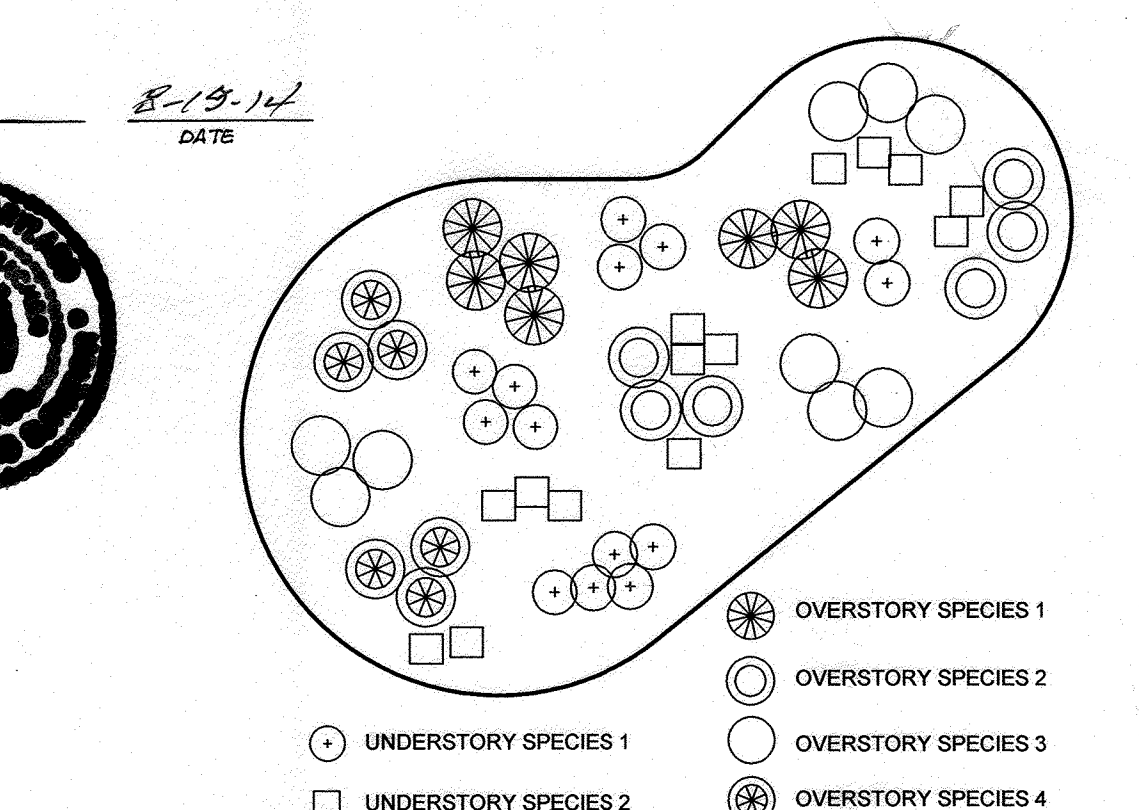
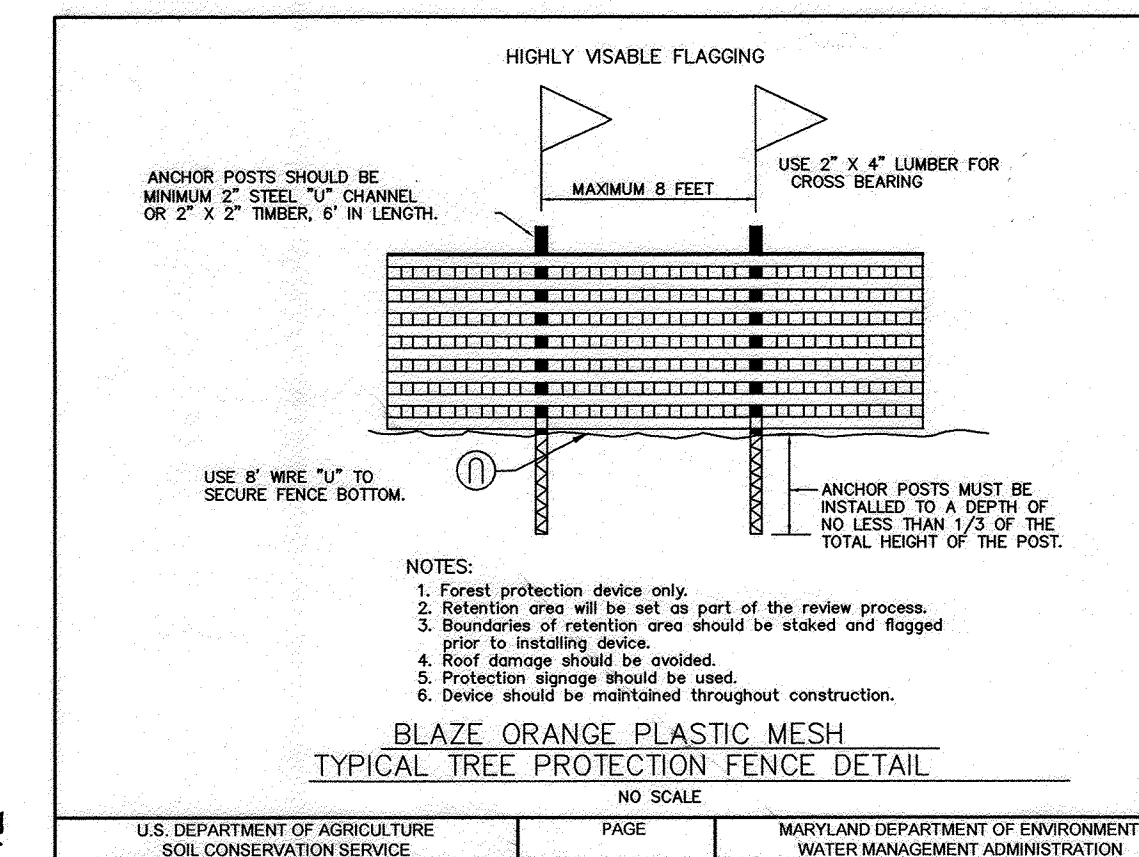
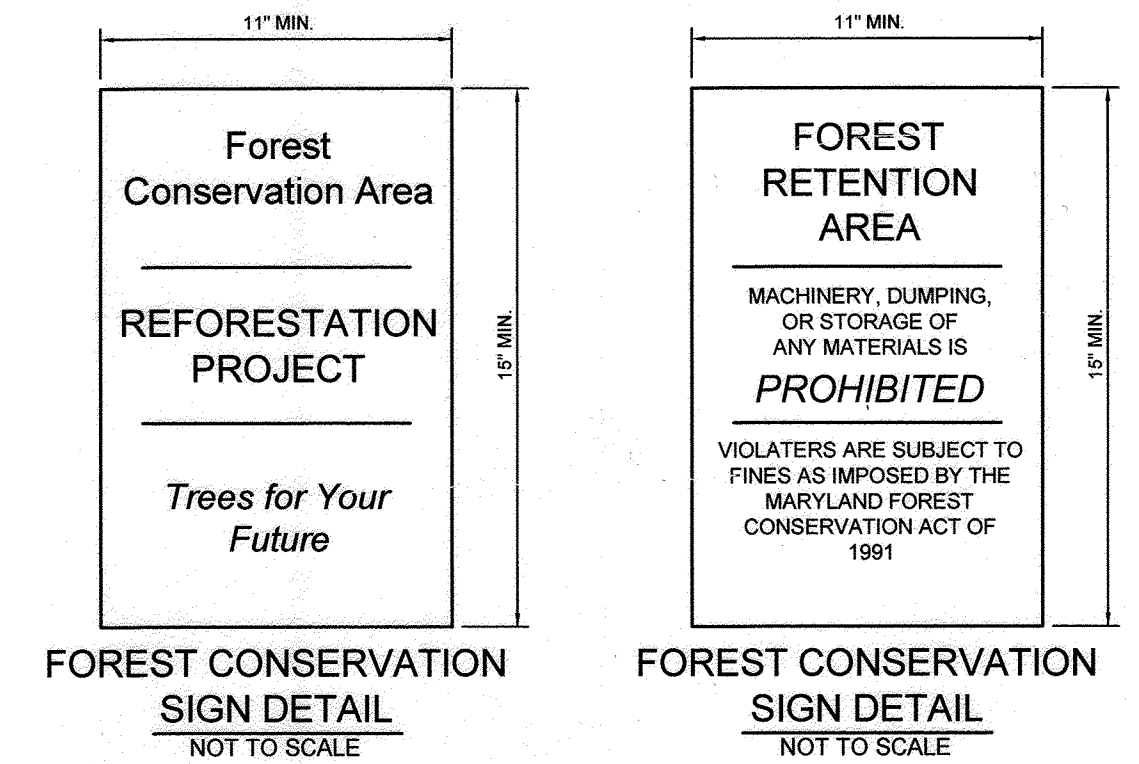
LANDSCAPE PLANT LIST				
KEY	QUANTITY	BOTANICAL NAME	SIZE	NOTE
☼	5	ACER RUBRUM 'RED SUNSET' 'RED SUNSET RED MAPLE'	2.5"-3" CAL.	B & B
☼	9	ILEX OPACA 'AMERICAN HOLLY'	5'-6" HT.	B & B
☼	5	JUNIPERUS VIRGINIANA 'OPRESSIFOLIA' 'HILLSPIRE JUNIPER'	6'-8" HT.	B & B

TOTAL NUMBER OF PLANTS PROVIDED = 5 SHADE TREES & 14 EVERGREEN TREES

DEVELOPER
 CHAPEL RISE, LTD
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

OWNER
 TIMOTHY J. SOSINSKI & ELLEN O. SOSINSKI
 C/O TIM SOSINSKI
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300

GREEN GATEWAY LLC
 11795 BRAGDON WOOD
 CLARKSVILLE, MARYLAND 21029
 410.730.2300



SUPPLEMENTAL SWALE PLANT LIST				
KEY	QUANTITY	BOTANICAL NAME	SIZE	NOTE
⊙	2	AMELANCHIER CANADENSIS 'SERVICE BERRY'	8' - 10' HT.	B & B
○	2	LINDERA BENZOIN 'SPICEBUSH'	2-1/2' - 3' HT.	B&B / CONT.
○	4	VIBURNUM DENTATUM 'ARROWWOOD VIBURNUM'	2-1/2' - 3' HT.	B&B / CONT.
○	6	ARISAEMA TRIPHYLLUM 'JACK-IN-THE-PULPIT'	RANDOM (PART SHADE)	RANDOM (PART SHADE)
○	6	ASCLEPIAS INCARNATA 'SWAMP MILKWEEED'	4" CONT.	3 SPACING (FULL SUN)
○	15	OSMUNDA CINNAMOMEA 'CINNAMON FERN'	4" CONT.	3 SPACING (FULL SUN)
○	8	SCORPUS CYPERINUS 'WOOL GRASS'	4" CONT.	3 SPACING (FULL SUN)

TOTAL NUMBER OF PLANTS PROVIDED = 2 TREES, 6 SHRUBS, AND 45 PERENNIALS

AS-BUILT

LANDSCAPE & FOREST CONSERVATION NOTES AND DETAILS
CHAPEL RISE
 LOTS 1 THRU 9
 A SUBDIVISION OF PARCEL 282 & 353 AND A RESUBDIVISION OF LOT 6, CHAPEL WOODS II, PLAT #9328

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

PARCEL 26, 282 & 353
 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Elliott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

DESIGN BY: SJT
 DRAWN BY: SJT
 CHECKED BY: SJT
 SCALE: AS SHOWN
 DATE: APRIL 24, 2012
 PROJECT #: 09-073
 SHEET #: 10 OF 14

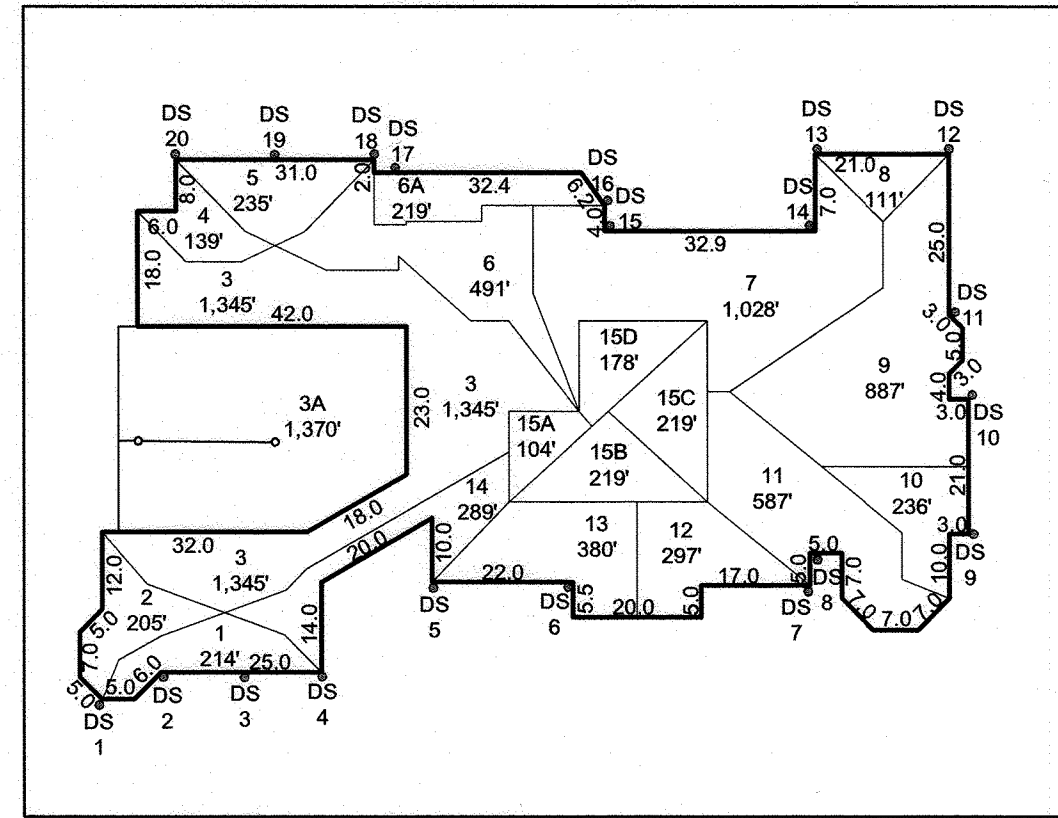
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33205, EXPIRATION DATE: JUNE 20, 2013.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DEVELOPER'S / OWNER'S LANDSCAPE 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 LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED

GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO PER 10/06/13 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF LOT = 3.0559 AC.±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
- ZZZ3 THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWNGRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
- THE EXISTING WELL SHOWN ON THIS PLAN (#95-2265) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- THE MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS APPROVED A VARIANCE TO ALLOW THE SEWAGE DISPOSAL SYSTEM LOCATED ON THIS LOT TO BE LOCATED UPGRADIENT FROM THE PRIVATE WATER SUPPLY ON LOT 1 AND NEIGHBORING PARCELS 30, 31, 37, 45 & 47.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC IN APRIL 2011.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY SILL, ADCOCK & ASSOCIATES, LLC IN APRIL, 2011 AND SUPPLEMENTED WITH GRADING FROM F-95-065, F-12-041 AND GP-13-006. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 1993.
- THE WETLAND AND STREAM LIMITS SHOWN ARE BASED ON A STUDY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC IN JULY 2011.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS, NUMBERS 29GS AND 29GB, WERE USED FOR THIS PROJECT.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREAS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- ALL DITCHES AND SWALES WILL HAVE SOIL STABILIZATION MATTING UNLESS SOD IS BEING UTILIZED.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS LOT HAVE BEEN MET BY NON ROOFTOP DISCONNECTS AND MICRO BIORETENTION FACILITY. STORMWATER MANAGEMENT OBLIGATIONS FOR CHAPEL RISE HAVE BEEN APPROVED UNDER F-12-041. SEE THE FINAL STORMWATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.
- THE STORM WATER MANAGEMENT FACILITIES WILL BE USING IMPERMEABLE LINERS SINCE THEY ARE ALL WITHIN 100 FEET OF A WELL.
- LIMIT OF DISTURBANCE = 64,452 SQ. FT. ±
- THE TIERED RETAINING WALL MUST BE SET BACK 10' FROM THE PROPERTY LINE IN ACCORDANCE WITH SECTION 128.0.A.9(a)(6) OF THE ZONING REGULATIONS.
- THE RAMP FROM THE PARKING COURT TO THE LOWER GARAGE IS A PRIVATE INTERNAL DRIVEWAY AND IS NOT SUBJECT TO HOWARD COUNTY DESIGN STANDARDS. THE OWNER TAKES COMPLETE RESPONSIBILITY FOR DESIGN, CONSTRUCTION, MAINTENANCE AND SAFETY OF THE RAMP AND EXCLUDES HOWARD COUNTY FROM ANY RESPONSIBILITY.

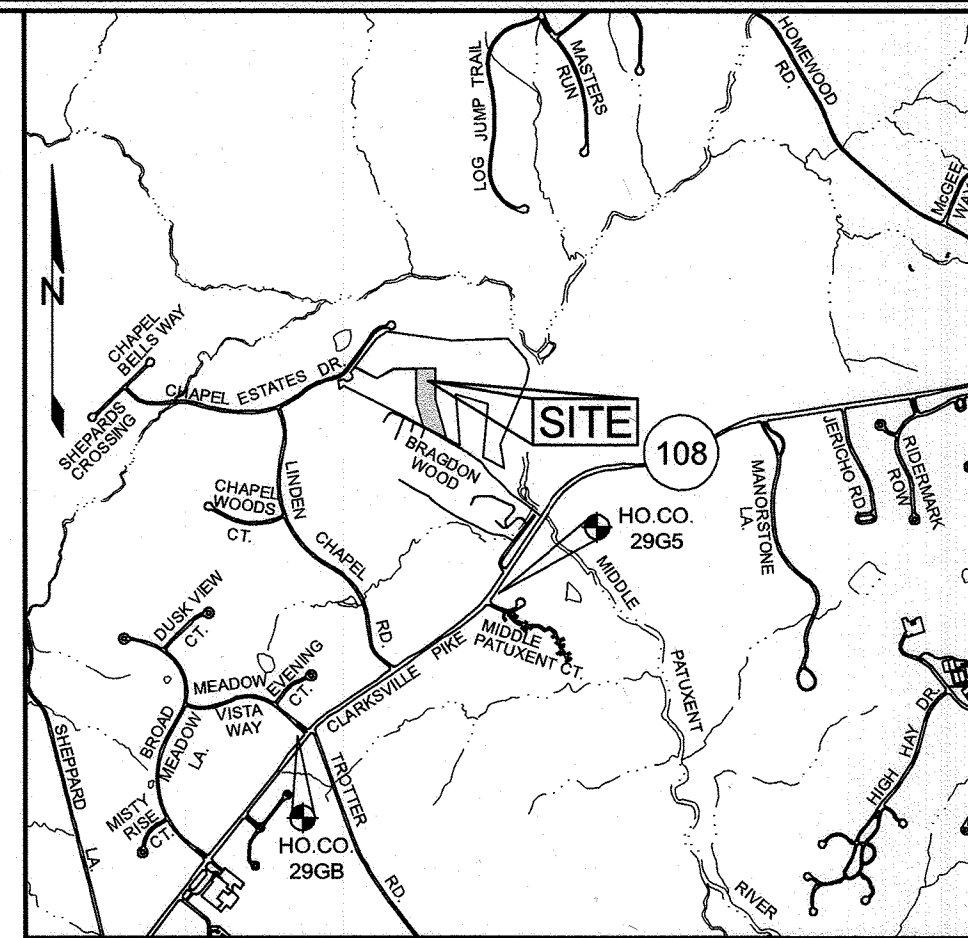


DRAINAGE AREA MAP
SCALE: 1:30'

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- EXISTING TREE
- SOIL BOUNDARY
- WETLANDS
- WETLAND BUFFER
- STREAM
- STREAM BUFFER
- EXISTING FOREST CONSERVATION EASEMENT WITH TREE CONSERVATION SIGNS & TREE PROTECTION FENCE PER F-12-041
- EXISTING PERCOLATION TEST HOLE, PASSED
- EXISTING PERCOLATION TEST HOLE, FAILED
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- NON-ROOFTOP DISCONNECT CREDIT AREA
- PROPOSED DRYWELL
- HDPE GRID PAVING WITH GRASS INSERTS



VICINITY MAP
SCALE: 1:2000'

BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
29GB	566,826.1	1,333,265.9	456.00	SW CORNER OF MEADOW VISTA ROAD AND TROTTER ROAD, 32' FROM CULVERT END
29GS	568,341.2	1,335,392.5	387.40	SE SIDE OF ROUTE 108, 142' FROM MIDDLE PATUXENT RIVER, 80' FROM PAVING EDGE

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

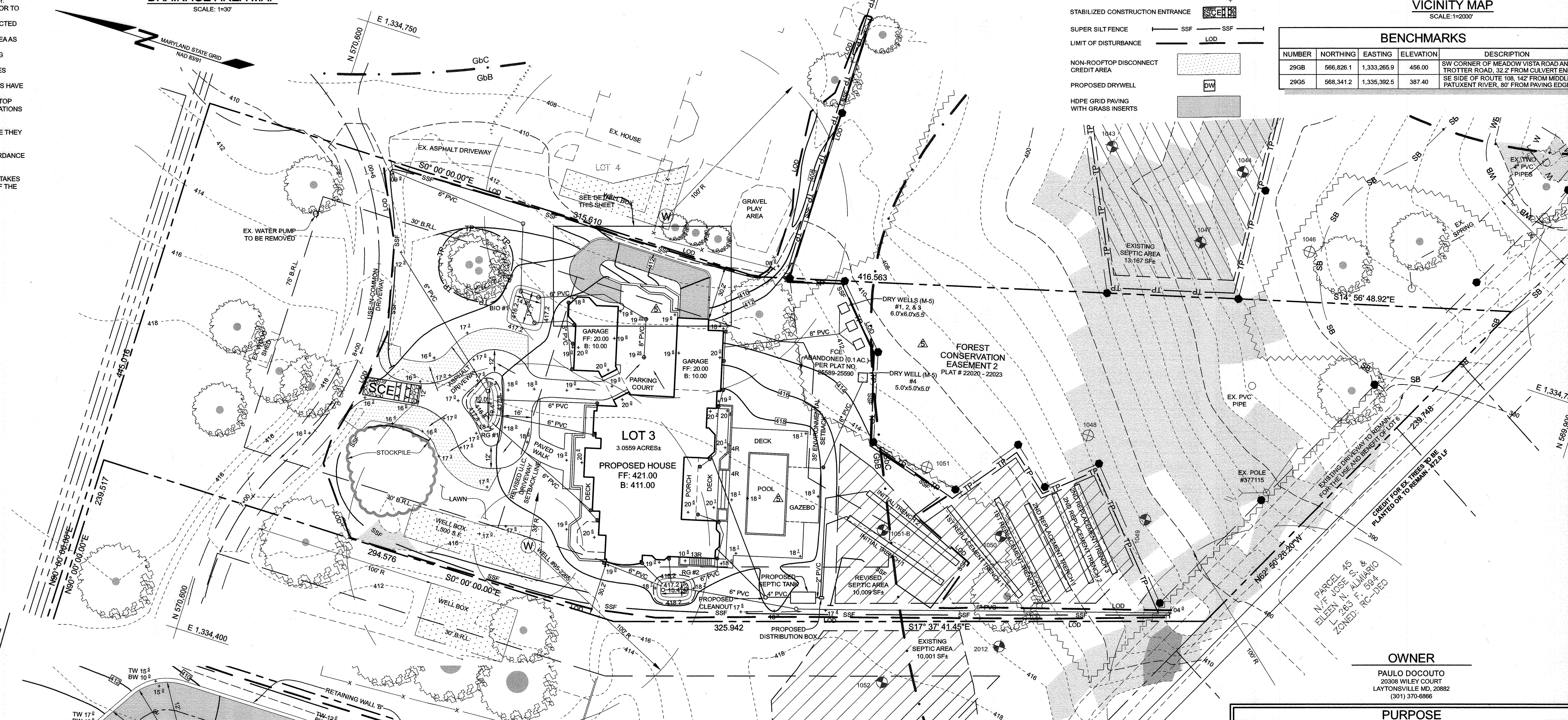
- THREE (3) CALENDAR DAYS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.

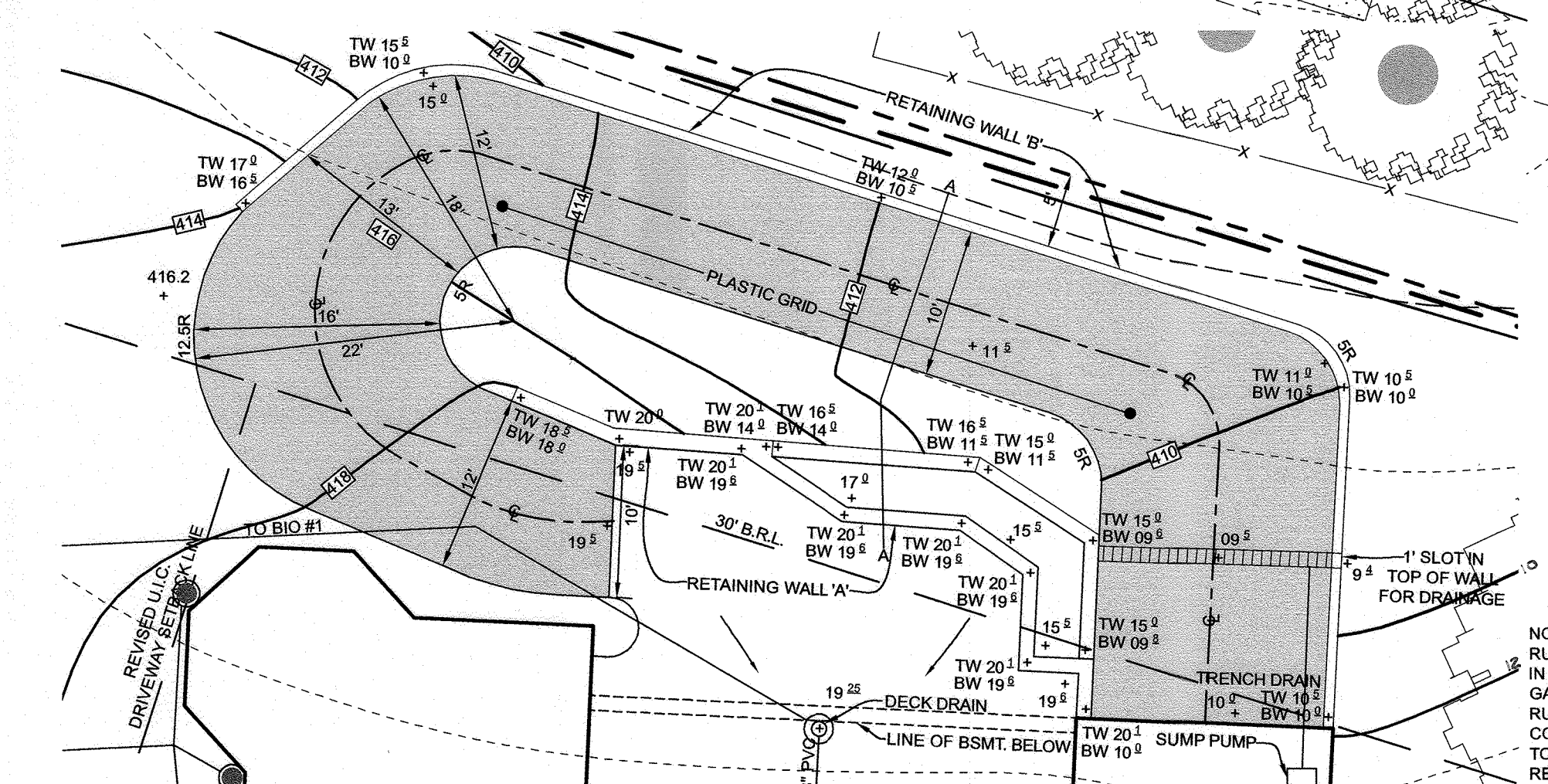
ROOF DRAINAGE AREA CALCULATION

AREA #	SQUARE FEET	2 YR CFS	5 YR CFS	10 YR CFS	100 YR CFS
1	214 S.F.	0.03	0.03	0.04	0.06
2	205 S.F.	0.03	0.03	0.04	0.06
3	1,345 S.F.	0.16	0.20	0.24	0.36
3A	1,370 S.F.	0.17	0.21	0.24	0.37
4	139 S.F.	0.02	0.02	0.03	0.04
5	235 S.F.	0.03	0.03	0.04	0.06
6	491 S.F.	0.06	0.07	0.08	0.13
6A	219 S.F.	0.03	0.03	0.03	0.04
7	1,028 S.F.	0.13	0.15	0.18	0.28
8	111 S.F.	0.02	0.02	0.03	0.04
9	887 S.F.	0.11	0.13	0.16	0.24
10	236 S.F.	0.03	0.03	0.04	0.06
11	587 S.F.	0.07	0.08	0.10	0.15
12	297 S.F.	0.04	0.04	0.05	0.08
13	380 S.F.	0.05	0.06	0.07	0.10
14	289 S.F.	0.04	0.05	0.05	0.08
15A	104 S.F.	0.02	0.02	0.03	0.04
15B	219 S.F.	0.03	0.03	0.04	0.06
15C	219 S.F.	0.03	0.03	0.04	0.06
15D	178 S.F.	0.02	0.03	0.03	0.05
DRIVEWAY	1,441 S.F.	0.20	0.25	0.29	0.44

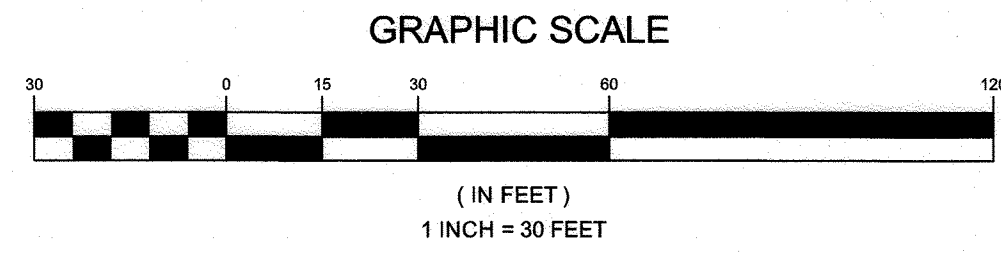
TIME OF CONCENTRATION 5 MINUTES, RUNOFF COEFFICIENT 0.97, INTENSITY FOR 2 YEAR, 5 YEAR, 10 YEAR, AND 100 YEAR STORMS OF 5.9, 7.15, 8.50, AND 12.75 RESPECTIVELY.



PLAN VIEW
SCALE: 1:30'



DETAIL
SCALE: 1:10'



GRAPHIC SCALE
1 INCH = 30 FEET

SHEET INDEX

SHEET NO.	DESCRIPTION
11	PLOT PLAN
12	SITE PLAN FOR SEPTIC INSTALLATION
13	NOTES AND DETAILS
14	NOTES AND DETAILS
15	NOTES AND DETAILS

REVISIONS

No.	Description	Date
1	ADDED RAMP TO LOWER GARAGE AND ABANDONED 0.1 AC. OF FCE	8/01/19

PURPOSE
SUPPLEMENTAL SHEETS 11-14 OF F-12-041 ARE TO CLARIFY REVISION OF HOUSE AND GRADE ON LOT 3 FROM A GENERAL BLOT TO NEW HOUSE TYPE.

REVISED FINAL ROAD CONSTRUCTION PLAN
CHAPEL RISE
LOT 3
11550 CHAPEL RISE
SINGLE FAMILY DETACHED
TAX MAP 29 GRID 8
5TH ELECTION DISTRICT
TAX ACCOUNT # 594204
HOWARD COUNTY, MARYLAND

Adcock & Associates · LLC
Engineers · Surveyors · Planners
5389 Enterprise Street, Suites B-C
Sykesville Maryland, 21784
Phone: 443.325.7682
Email: info@adcoand.com

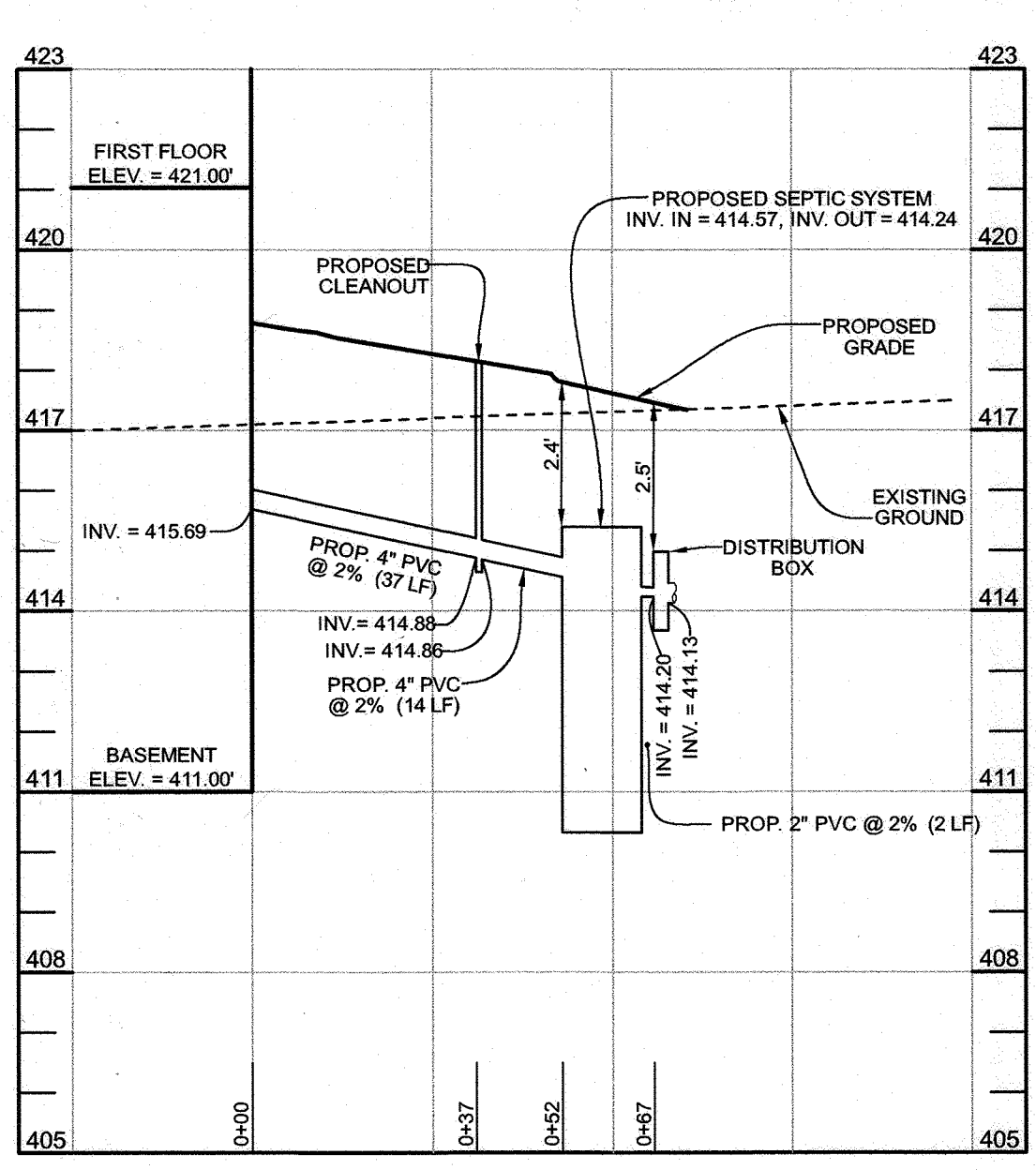
DESIGN BY: DR
DRAWN BY: JT
CHECKED BY: DR/MA
SCALE: AS SHOWN
DATE: December 30, 2020
PROJECT #: 15-068
SHEET #: 11 OF 15

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 1/23/21

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/23/21

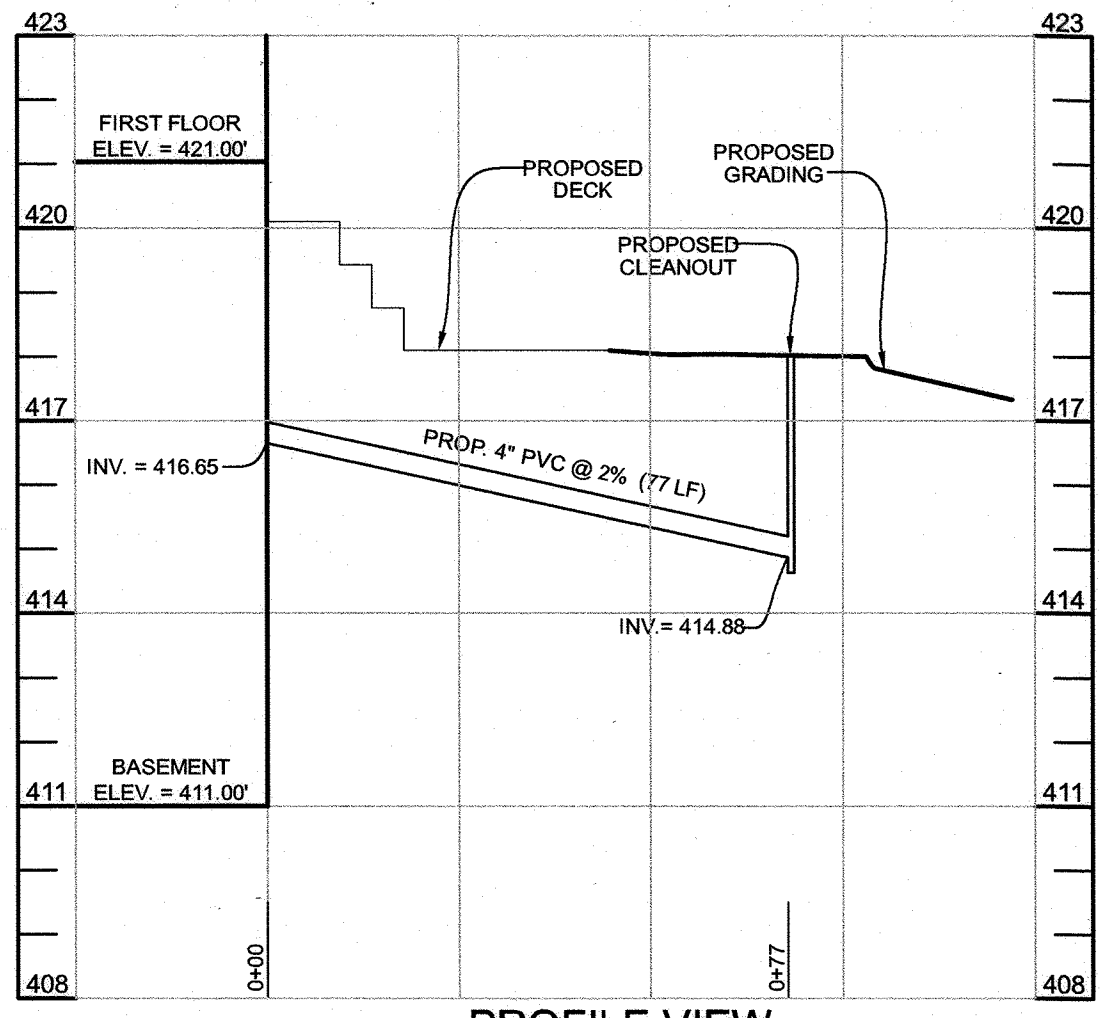
NOTE: RUNOFF FROM THE RAMP TO THE LOWER GARAGE WILL BE COLLECTED IN A TRENCH DRAIN AND PIPED TO A SUMP PUMP WITHIN THE LOWER GARAGE. THEN PUMPED TO THE PIPE COLLECTING THE DOWNSPOUTS RUNOFF AND FLOW TO THE DRYWELLS LOCATED IN THE NORTHEAST CORNER OF THE ABANDONED FCE. A SLOT IN THE RETAINING WALL TOP ADJACENT TO THE TRENCH DRAIN WILL PROVIDE OVERFLOW RELIEF TO RAMP RUNOFF IN VERY INTENSE RAINSTORMS. THE OVERFLOW RUNOFF WILL SURFACE FLOW TO LOT 4.



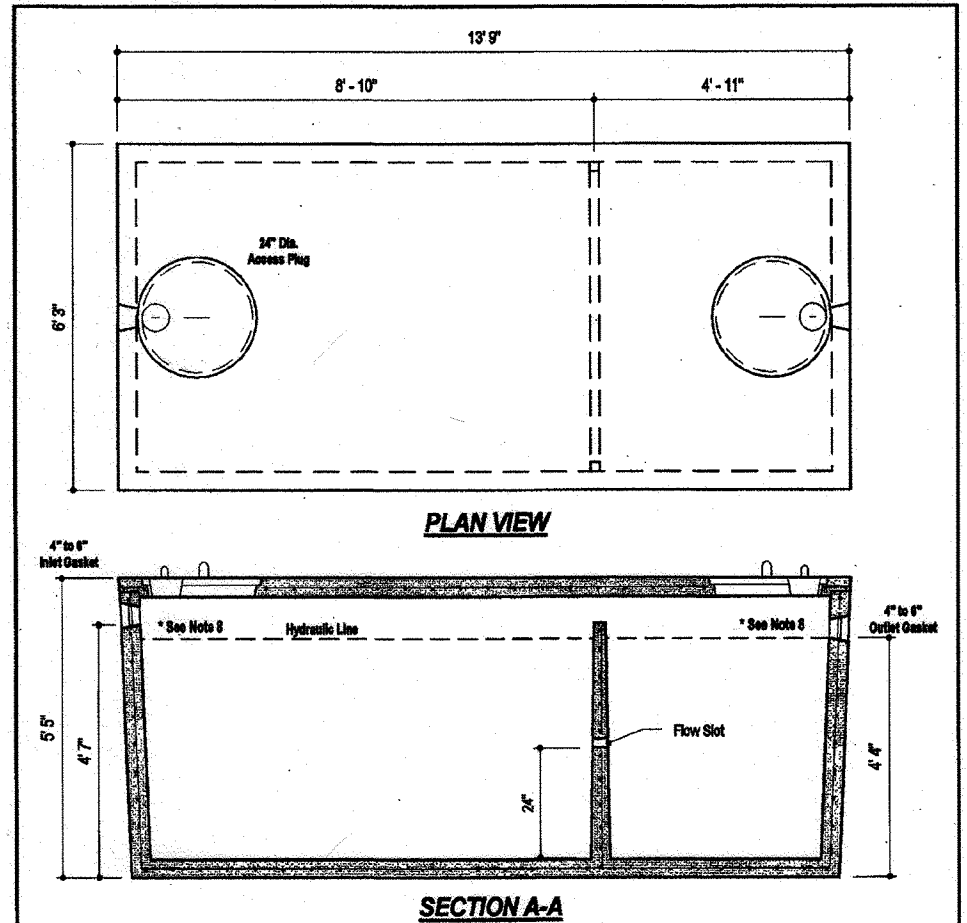
PROFILE VIEW
SCALE: HORIZ: 1"=30'
VERT: 1"=3'

SEPTIC NOTES

1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL (#95-2265) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
6. THE SEWAGE CREATED FROM THE BASEMENT WILL BE UTILIZING A SEPTIC PUMP TO TRANSPORT THE SEWAGE TO THE PROPOSED SEPTIC UNIT SEEN ON THIS SHEET.
7. THE STORM WATER MANAGEMENT FACILITIES WILL BE USING IMPERMEABLE LINERS SINCE THEY ARE ALL WITHIN 100 FEET OF A WELL.
8. THE PROPERTY LINE CLOSEST TO THE PROPOSED SEPTIC TANK LOCATION MUST BE FIELD LOCATED AND MARKED BY A LICENSED SURVEYOR PRIOR TO INSTALLATION.



PROFILE VIEW
SCALE: HORIZ: 1"=30'
VERT: 1"=3'

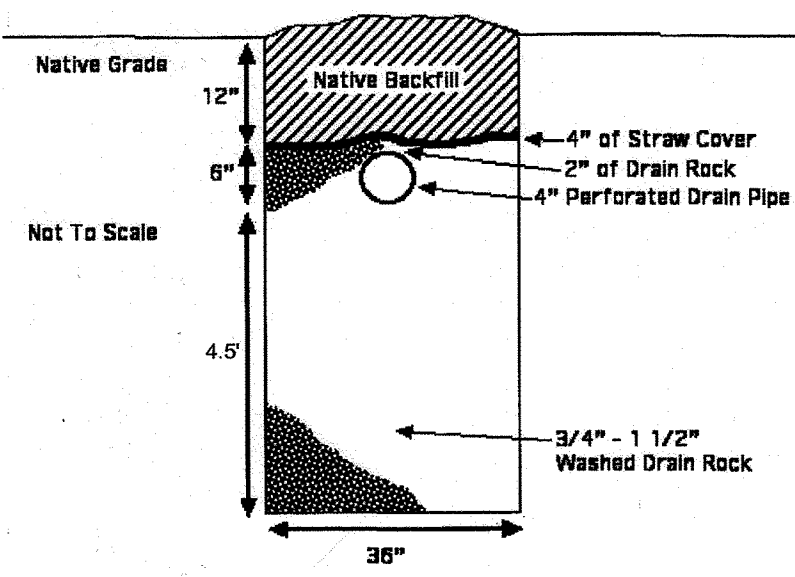


SECTION DATA & GENERAL NOTES

1. Consult drawing for all dimensions and notes.
2. Materials shall conform to the following specifications:
 - a. Concrete: 3000 psi (20.7 MPa) concrete.
 - b. Reinforcement: #4 steel reinforcement bars.
 - c. Pipe: 4" diameter, 12' length, 12" manhole.
3. The tank shall be installed on a compacted sand/gravel bed.
4. The tank shall be installed on a compacted sand/gravel bed.
5. The tank shall be installed on a compacted sand/gravel bed.
6. The tank shall be installed on a compacted sand/gravel bed.
7. The tank shall be installed on a compacted sand/gravel bed.
8. The tank shall be installed on a compacted sand/gravel bed.

2,000 GALLON SEPTIC TANK
2-Compartment
Stock Item (Approx. 18,900 lbs)

MB
Mayer Bros., Inc.
4800 River Road
Chesapeake, Maryland 20762
Tel: 410.751.4200
Fax: 410.751.4208
www.mayerbros.com
Dep. No. 2000-02 No Scale Aug 11, 2008



SEPTIC TRENCH DETAIL

SEPTIC TRENCH DESIGN (INITIAL SYSTEM)

1. INITIAL SYSTEM:
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3'
 - BOTTOM MAXIMUM DEPTH: 6'
2. DESIGN FLOW:
 - 6 BEDROOMS AT 150 GPD
 - 6x150 GPD = 900 GPD
3. SQUARE FOOTAGE OF DRAINFIELD REQUIRED:
 - DESIGN FLOW (900 GPD) / APPLICATION RATE (1.2) = 750.0
4. SIDEWALL REDUCTION CREDIT:
 - TRENCH WIDTH (W) = 3'
 - TRENCH DEPTH (D) = 3'
 - (W+2) / (W+1+2D) x 100 = 50%
5. LINEAR LENGTH OF TRENCH REQUIRED:
 - DRAINFIELD SQUARE FOOTAGE (750.0) x SIDEWALL REDUCTION PERCENTAGE (50%) / TRENCH WIDTH (3') = 125.0'
6. LINEAR LENGTH OF TRENCH PROVIDED = 126.0'

INITIAL SEPTIC TRENCH CHART

TRENCH NUMBER	EXISTING GRADE	INVERT	TRENCH BOTTOM	LENGTH	WIDTH
1	416.0	413.0	410.0	63'	3'
2	415.0	412.0	409.0	63'	3'

SEPTIC TRENCH DESIGN (REPLACEMENT SYSTEM 1)

1. INITIAL SYSTEM:
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3'
 - BOTTOM MAXIMUM DEPTH: 6'
2. DESIGN FLOW:
 - 6 BEDROOMS AT 150 GPD
 - 6x150 GPD = 900 GPD
3. SQUARE FOOTAGE OF DRAINFIELD REQUIRED:
 - DESIGN FLOW (900 GPD) / APPLICATION RATE (1.2) = 750.0
4. SIDEWALL REDUCTION CREDIT:
 - TRENCH WIDTH (W) = 3'
 - TRENCH DEPTH (D) = 3'
 - (W+2) / (W+1+2D) x 100 = 50%
5. LINEAR LENGTH OF TRENCH REQUIRED:
 - DRAINFIELD SQUARE FOOTAGE (750.0) x SIDEWALL REDUCTION PERCENTAGE (50%) / TRENCH WIDTH (3') = 125.0'
6. LINEAR LENGTH OF TRENCH PROVIDED = 126.0'

REPLACEMENT SEPTIC TRENCH CHART

TRENCH NUMBER	EXISTING GRADE	INVERT	TRENCH BOTTOM	LENGTH	WIDTH
1	415.0	412.0	409.0	63'	3'
2	413.9	410.9	407.9	63'	3'

SEPTIC TRENCH DESIGN (REPLACEMENT SYSTEM 2)

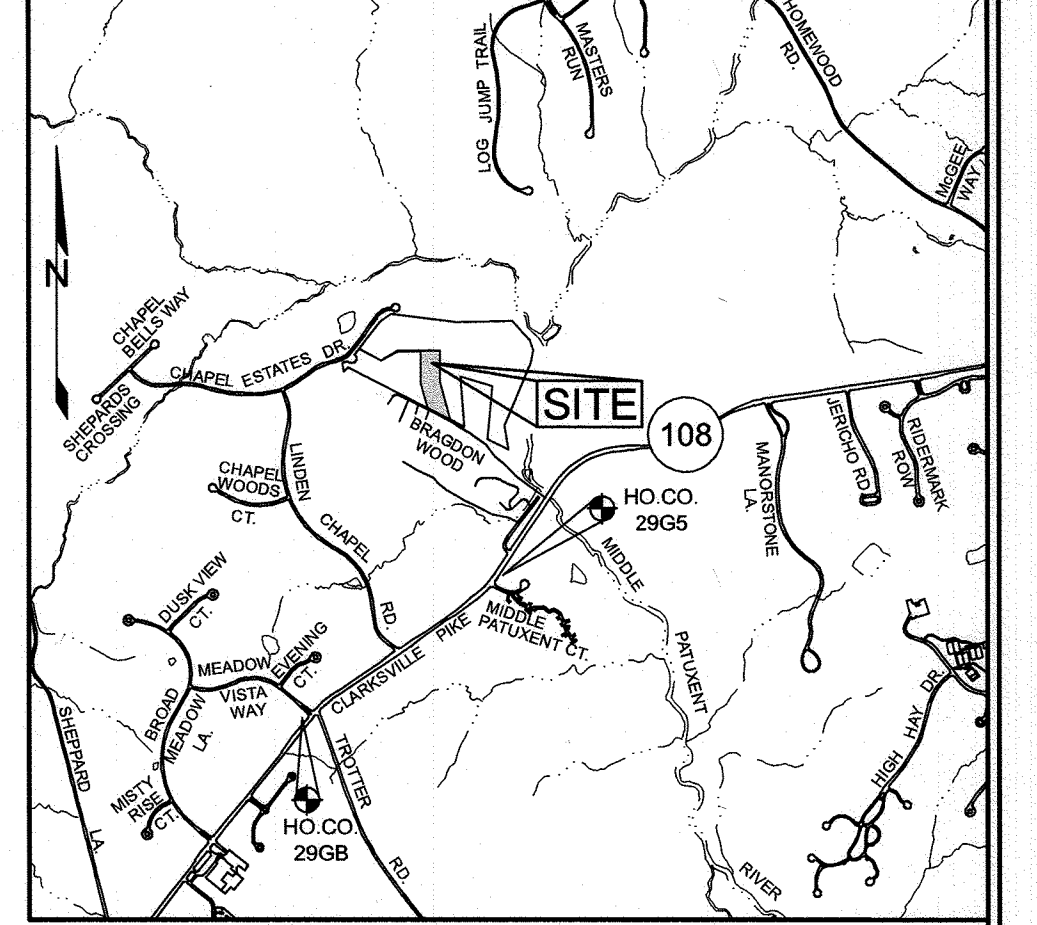
1. INITIAL SYSTEM:
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 4'
 - BOTTOM MAXIMUM DEPTH: 6'
2. DESIGN FLOW:
 - 6 BEDROOMS AT 150 GPD
 - 6x150 GPD = 900 GPD
3. SQUARE FOOTAGE OF DRAINFIELD REQUIRED:
 - DESIGN FLOW (900 GPD) / APPLICATION RATE (1.2) = 750.0
4. SIDEWALL REDUCTION CREDIT:
 - TRENCH WIDTH (W) = 3'
 - TRENCH DEPTH (D) = 2'
 - (W+2) / (W+1+2D) x 100 = 62.5%
5. LINEAR LENGTH OF TRENCH REQUIRED:
 - DRAINFIELD SQUARE FOOTAGE (750.0) x SIDEWALL REDUCTION PERCENTAGE (62.5%) / TRENCH WIDTH (3') = 156.25'
6. LINEAR LENGTH OF TRENCH PROVIDED = 159.0'

REPLACEMENT SEPTIC TRENCH CHART

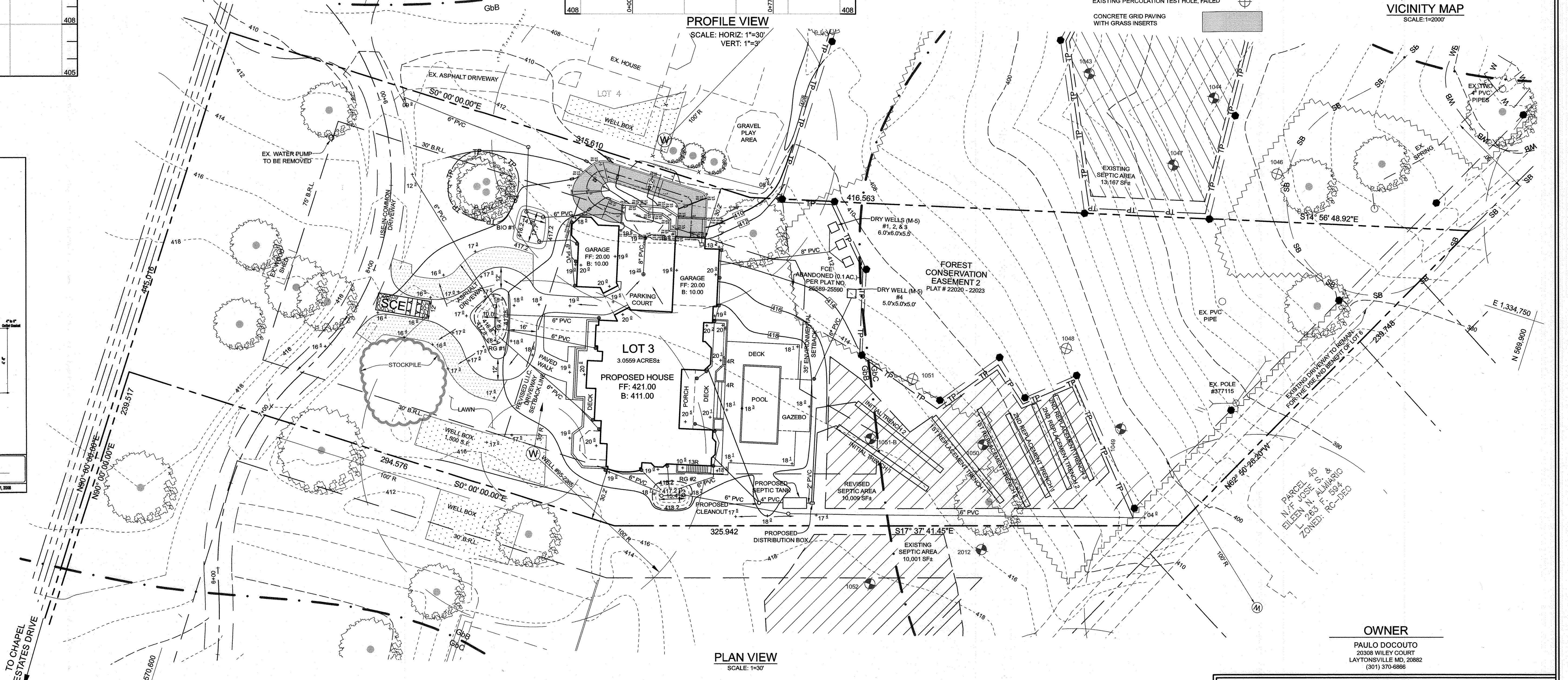
TRENCH NUMBER	EXISTING GRADE	INVERT	TRENCH BOTTOM	LENGTH	WIDTH
1	412.0	408.0	406.0	53'	3'
2	410.0	406.0	404.0	53'	3'
3	408.0	404.0	402.0	53'	3'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- EXISTING TREE
- SOIL BOUNDARY
- WETLANDS
- WETLAND BUFFER
- STREAM
- STREAM BUFFER
- EXISTING FOREST CONSERVATION EASEMENT WITH TREE CONSERVATION SIGNS & TREE PROTECTION FENCE PER F-12-041
- EXISTING PERCOLATION TEST HOLE, PASSED
- EXISTING PERCOLATION TEST HOLE, FAILED
- CONCRETE GRID PAVING WITH GRASS INSERTS



VICINITY MAP
SCALE: 1:2000'



PLAN VIEW
SCALE: 1"=30'

OWNER

PAULO DOCOUTO
20308 WILEY COURT
LAYTONSVILLE MD, 20882
(301) 370-6886

PURPOSE

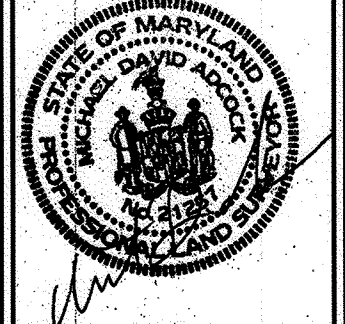
SUPPLEMENTAL SHEETS 11-14 OF F-12-041 ARE TO CLARIFY REVISION OF HOUSE AND GRADE ON LOT 3 FROM A GENERAL BOX TO NEW HOUSE TYPE.

SEPTIC PLAN
CHAPEL RISE

LOT 3
11550 CHAPEL RISE
SINGLE FAMILY DETACHED

TAX MAP 29 GRID 8 5TH ELECTION DISTRICT PARCEL 26
TAX ACCOUNT # 594204 HOWARD COUNTY, MARYLAND

Adcock & Associates · LLC
Engineers · Surveyors · Planners
5389 Enterprise Street, Suites B-C
Sykesville Maryland, 21784
Phone: 443.325.7682
Email: info@saaland.com



DESIGN BY: DR
DRAWN BY: JT
CHECKED BY: DR/MA
SCALE: AS SHOWN
DATE: December 30, 2020
PROJECT#: 15-058
SHEET#: 12 of 15

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

2/3/21
DATE

1:28:21
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
CHIEF, DEVELOPMENT ENGINEERING DIVISION

STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

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

- PURPOSE**
- TO USE FAST GROWING 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 DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

- CRITERIA**
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY 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 OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS DESCRIBED IN SECTION B-4.5.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

- PURPOSE**
- TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES:

- EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

- CRITERIA**
1. GENERAL USE
 - a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2, ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
 - c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
 2. TURFGRASS MIXTURES
 - a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - i. KENTUCKY BLUEGRASS: FULL SUN MIXTURE. FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANKING RATIO 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - ii. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE. FOR USE IN FULL SUN AREAS WHERE B.22 RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANKING RATIO 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - iii. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE. FOR USE IN DROUGHT PRONE AREAS AND/OR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE.
 - iv. KENTUCKY BLUEGRASS/FESCUE: SHADE MIXTURE. FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.
 - c. NOTES:
 - i. SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
 - ii. WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDNESS ZONES: 5b, 6a)
 - iii. CENTRAL MD: MARCH 15 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7a, 7b)
 - iv. SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7a, 7b)
 - v. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND RAKE THE AREA TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
 - vi. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NURSE SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS) DEPENDS ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.
 3. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER)
 - a. CLASS OF TURFGRASS SOO MUST BE MARYLAND STATE CERTIFIED. SOO LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
 - b. SOO MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/8 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNWEVEN EDGES WILL NOT BE ACCEPTABLE.
 - c. STANDARD SIZE SECTIONS OF SOO MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 - d. SOO MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
 - e. SOO MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOO NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
 4. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOO.
 - a. LAY THE FIRST ROW OF SOO IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOO IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUILT TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
 - b. WHEREVER POSSIBLE, LAY SOO WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOO TO PREVENT SLIPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOO ROOTS AND THE UNDERLYING SOIL SURFACE.
 - c. WATER THE SOO IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE SOO PAD AND SOIL SURFACE BELOW THE SOO ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOO WITHIN EIGHT HOURS.
 5. SOO MAINTENANCE
 - a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOO DURING THE HEAT OF THE DAY TO PREVENT WILTING.
 - b. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
 - c. DO NOT MOW UNTIL THE SOO IS FIRMLY ROOTED. NO MORE THAN 1/2 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

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:

- WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

1. SOIL PREPARATION
 - a. TEMPORARY STABILIZATION
 - i. SEEDBED 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 PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT AFTER THE SOIL IS LOOSENED. IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - ii. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - iii. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - b. PERMANENT STABILIZATION
 - i. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 1. SOIL PH BETWEEN 6.0 AND 7.0
 2. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)
 3. SOIL CONTAINS LESS THAN 40 PERCENT SILT PLUS CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOW GRASS WILL BE PLANTED, THEN A SANDY SOIL, LESS THAN 30 PERCENT SILT PLUS CLAY WOULD BE ACCEPTABLE.
 4. SOIL CONTAINS 1% PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 5. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - ii. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - iii. GRAZED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 - iv. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN AND AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - v. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND RAKE THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PRACTICES. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL COARSE AND FRAGMENTED. SEEDBED LOOSENING MAY BE NECESSARY ON NEWLY DISTURBED AREAS.
2. TOPSOILING
 - a. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
 - b. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
 - c. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - i. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - ii. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR TO FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - iii. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - iv. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - d. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
3. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - a. TOPSOIL MUST BE LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CHINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
 - b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERBERIS GRASS, QUACK GRASS, JOHNSON GRASS, SUIF SEED, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - d. TOPSOIL APPLICATION
 - i. GROUND AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - ii. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF SOIL TILLAGE.
 - iii. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - iv. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY MOIST, IT MAY BE PLACED THAT WAY OTHERWISE BE DETRIMENTAL TO PROPER GRASSING AND SEEDBED PREPARATION.
4. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 - a. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATES AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
 - b. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
 - c. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
 - d. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - e. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR HIGHLY MIXED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

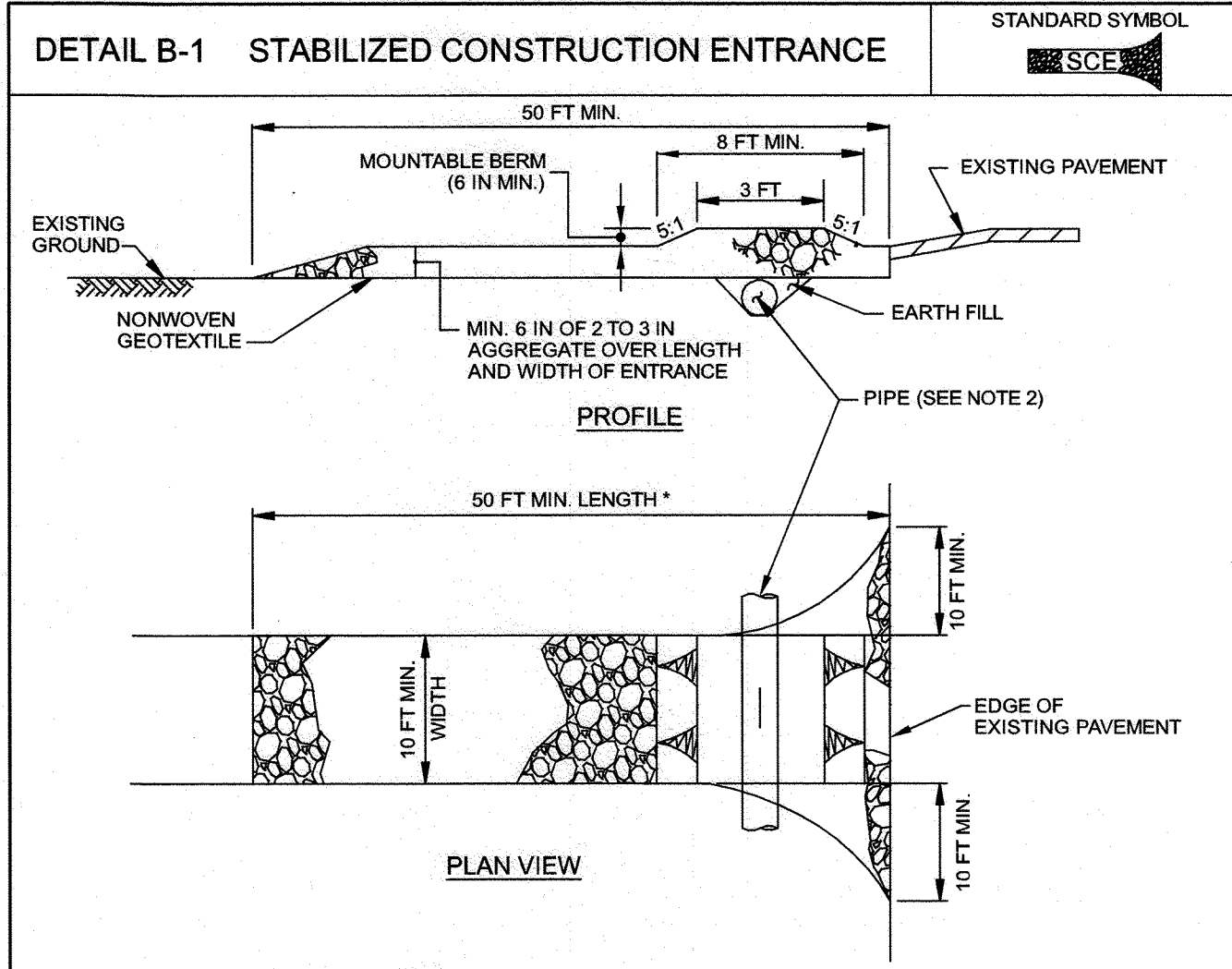
HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 2135 RES AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - a. PRIOR TO THE START OF EARTH DISTURBANCE.
 - b. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - c. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - d. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCE, 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 MOST CURRENT 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 TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-3), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-4). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-3) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-3) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-4). ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS:

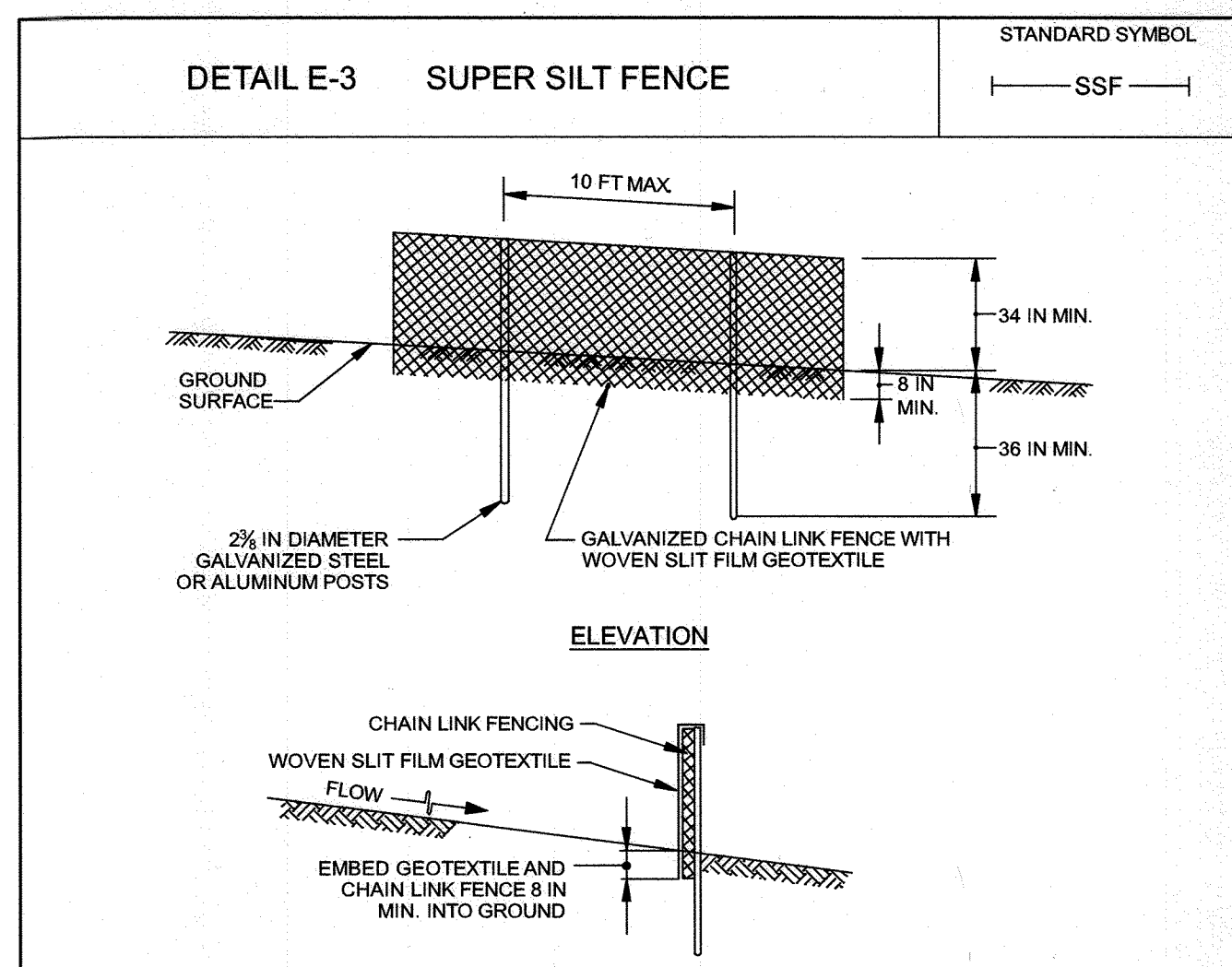
TOTAL AREA OF SITE:	3.06 ACRES ±
AREA DISTURBED:	1.00 ACRES ±
AREA TO BE ROOFED OR PAVED:	0.37 ACRES ±
AREA TO BE VEGETATIVELY STABILIZED:	0.79 ACRES ±
TOTAL CUT:	1,200 CU YDS ±
OFFSITE WASTE/BORROW AREA LOCATION:	1,950 CU YDS ±



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE. IDENTIFY MATERIALS AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ON ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ON PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BYPASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE 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 USE MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE LB/AC	SEEDING RATE LB/1000 FT ²	SEEDING DEPTH (INCHES)	RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE		
				5b & 6a	6b	7a & 7b
ANNUAL RYEGRASS (COLUM PERENNIS SSP. MULTIFLORUM)	40	1.0	0.5	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
OATS (Avena sativa)	72	1.7	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	MARCH 15 TO MAY 31; AUG 1 TO SEP 30	MARCH 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
CEREAL RYE (SECALE CEREALE)	112	2.8	1.0	MARCH 15 TO MAY 31; AUG 1 TO OCT 31	MARCH 1 TO MAY 15; AUG 1 TO NOV 15	FEB 15 TO APR 30; AUG 15 TO DEC 15
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14

FERTILIZER RATE (10-20-20): 436 LB/AC (10LB/1000SF) LIME RATE: 2 TONS/AC (90LB/1000SF)

- NOTES:**
1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES. SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS. WHEN PLANTED ALONE, WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.
 2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
 3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

TABLE B.5: RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND

TYPE OF PLANT MATERIAL	PLANT HARDINESS ZONES		
	5b & 6a	6b	7a & 7b
SEEDS - COOL-SEASON GRASSES (INCLUDES MIXES WITH FORBS AND/OR LEGUMES)	MAR 15 TO MAY 31 AUG 1 TO SEP 30	MAR 1 TO MAY 15 AUG 1 TO OCT 15	FEB 15 TO APR 30 AUG 15 TO OCT 31 NOV 1 TO NOV 30
SEEDS - WARM-SEASON COOL-SEASON GRASS MIXES (INCLUDES MIXES WITH FORBS AND/OR LEGUMES)	MAR 15 TO MAY 31 JUN 1 TO JUN 15	MAR 1 TO MAY 15 MAY 16 TO JUN 15	FEB 15 TO APR 30 MAY 1 TO MAY 31
SOD - COOL-SEASON	MAR 15 TO MAY 31 JUN 1 TO NOV 15	MAR 1 TO MAY 15 MAY 16 TO SEP 15 SEP 15 TO NOV 15	FEB 15 TO APR 30 MAY 1 TO SEP 30 OCT 1 TO DEC 15
UNROOTED WOODY MATERIALS; BARE-ROOT PLANTS; BULBS, RHIZOMES, CORNS AND TUBERS ²	MARCH 15 TO MAY 31 JUN 1 TO JUN 30	MARCH 1 TO MAY 15 MAY 16 TO JUN 30	FEB 15 TO APR 30 MAY 1 TO JUN 30
CONTAINERIZED STOCK; BALLED-AND-BURLAPPED STOCK	MAR 15 TO MAY 31 SEP 1 TO NOV 15	MAR 1 TO MAY 15 MAY 16 TO JUN 30	FEB 15 TO APR 30 MAY 1 TO JUN 30

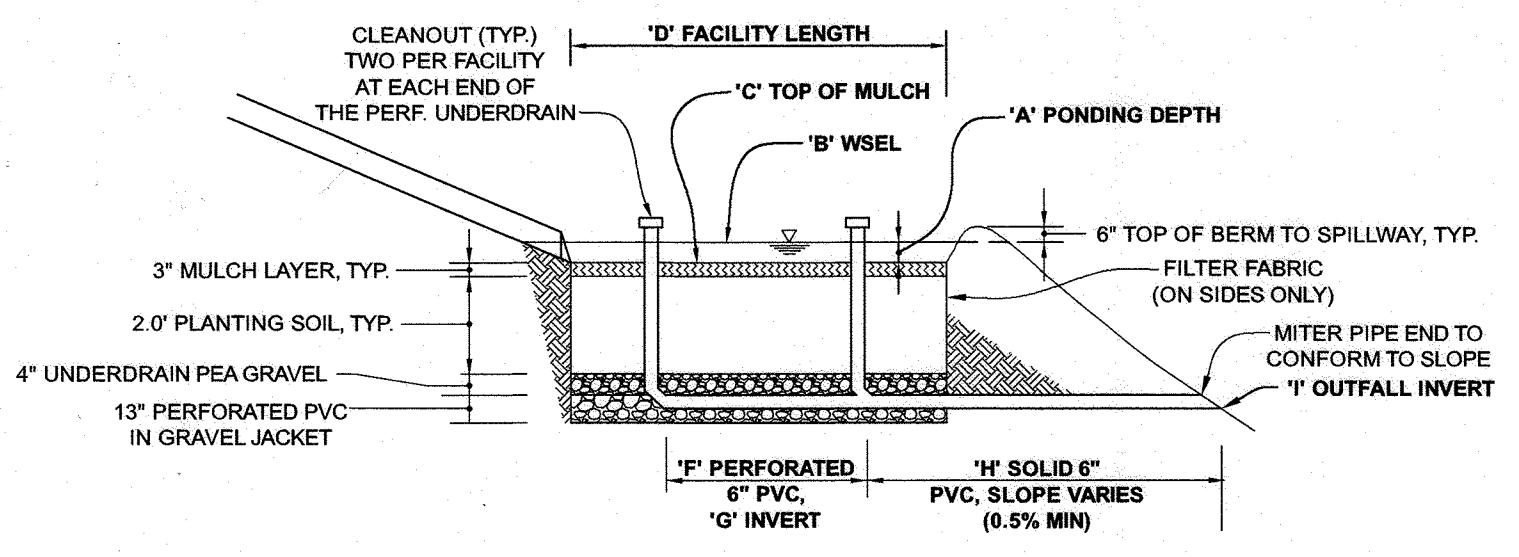
- NOTES:**
1. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.
 2. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS.
 - ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRENDS. RECOMMEND ADDING A NURSE CROP, AS NOTED ABOVE, IF PLANTING DURING THIS PERIOD.
 - WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WET EMERGENCE AND WEEP CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WET CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS, ESPECIALLY ON DROUGHTY SITES.
 - ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT. PREVENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN LATE FALL. IF PLANTS HAVE NOT SUFFICIENTLY ROOTED IN PLACE, SOO USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENTLY ROOTED. LARGE CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE.

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 1-28-21
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:

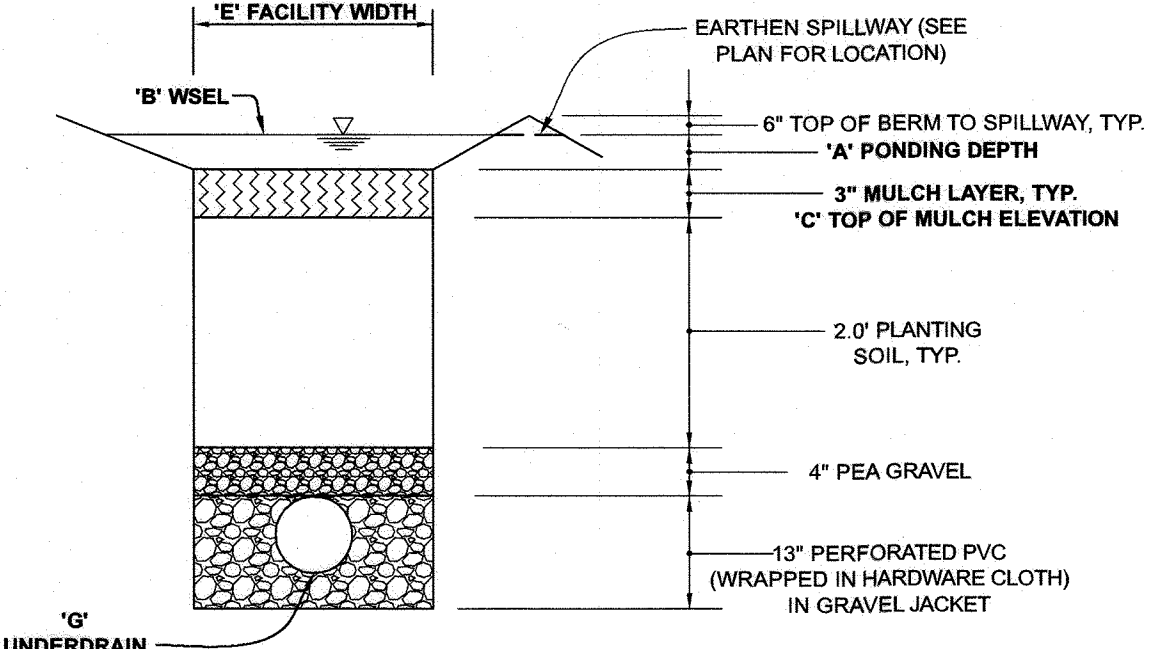
OWNER
PAULO DOCOU TO
2508 WILEY COURT
LAYTONSVILLE MD, 20882
(301) 370-6866

PURPOSE
SUPPLEMENTAL SHEETS 11-14 OF F-12-041 ARE TO CLARIFY REVISION OF HOUSE AND GRADE ON LOT 3 FROM A GENERAL BOU TO NEW HOUSE TYPE.



BIORETENTION FACILITY TYPICAL PROFILE
NOT TO SCALE

NOTES:
 * FOR ADDITIONAL INFORMATION, SEE THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II.
 * SEE CHART, THIS SHEET, FOR ELEVATIONS AND DISTANCES.
 * FILTER FABRIC IS TO BE USED ON THE SIDES OF THE FACILITY.



BIORETENTION FACILITY TYPICAL SECTION
NOT TO SCALE

NOTE: FILTER FABRIC IS TO BE USED ON THE SIDES OF THE FACILITY.

STORM WATER MANAGEMENT FACILITY ELEVATIONS AND DIMENSIONS

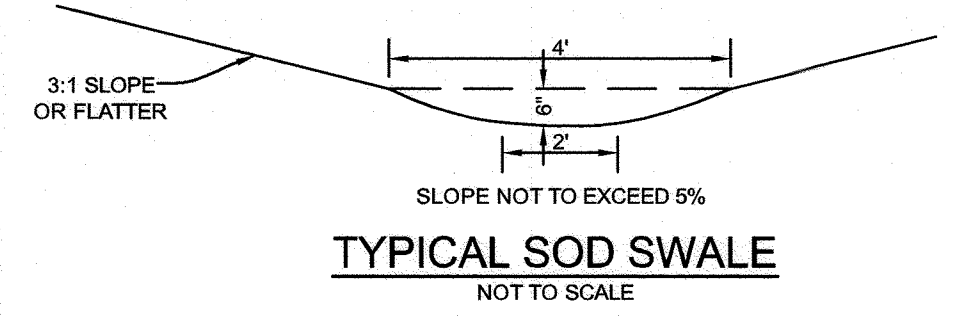
DESCRIPTION	BIO 1	RG 1	RG 2	DW 1	DW 2	DW 3	DW 4
'A' PONDING DEPTH	1.0'	1.0'	1.0'	-	-	-	-
'B' WSEL	417.20	417.8'	418.20	-	-	-	-
'C' TOP OF MULCH	416.20	416.8'	417.20	411.0	411.0	411.0	412.0
'D' FACILITY LENGTH	17.7'	19.4'	15.4'	6.0	6.0	6.0	5.0'
'E' FACILITY WIDTH	14.8'	10.0'	8.3'	6.0	6.0	6.0	5.0'
'F' PERF. UNDERDRAIN DIMENSION	19.0'	10.8'	10.7'	-	-	-	-
'G' UNDERDRAIN INVERT	411.12	415.3'	415.7'	405.5'	405.5'	405.5'	407.0'
'H' SOLID UNDERDRAIN DIMENSION	83.0'	60.0'	265.0'	-	-	-	-
'I' OUTFALL INVERT	409.9	414.8'	404.0'	409.2	409.2	409.2	410.2'

NOTE: THE ABOVE LISTED MICRO BIORETENTION FACILITIES AND RAIN GARDENS WILL BE USING IMPERMEABLE LINERS SINCE THEY ARE ALL WITHIN 100 FEET OF A WELL. DRY WELLS #1, 2, & 3 ARE 5.5' IN DEPTH WITH DRY WELL #4 BEING 5' IN DEPTH.

BIORETENTION PLANT LIST

HERBACEOUS SPECIES							
BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QTY. BIO 1	QTY. RG 1	QTY. RG 2
EUPATORIUM DUBIUM	JOE-PYE WEED	(MIN. 4' O.C.)	1 QT.	CONT.	7	2	2
RUDEBECKIA HIRTA	BLACK-EYED SUSAN	(MIN. 3' O.C.)	1 QT.	CONT.	5	3	3
RUDEBECKIA LACINIATA	TALL CONEFLOWER	(MIN. 3' O.C.)	1 QT.	CONT.	5	3	3

NOTE: PLANT MATERIAL MUST COVER 50% OF THE MULCH AREA AT MATURE GROWTH. BIORETENTION AREA 1 = 300 S.F. OR 0.006 AC. WITH 17 HERBACEOUS SPECIES PROVIDED. RAIN GARDEN AREA 1 = 125 S.F. OR 0.003 AC. WITH 8 HERBACEOUS SPECIES PROVIDED. RAIN GARDEN AREA 2 = 120 S.F. OR 0.003 AC. WITH 8 HERBACEOUS SPECIES PROVIDED.



TYPICAL SOD SWALE
NOT TO SCALE

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD OR DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIPES. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

STRUCTURE SCHEDULE

D.S.#	ROOF AREAS	TOTAL AREA (AC.)	WATER TO BE TREATED	REQUIRED VOLUME	PROVIDED VOLUME	TREATMENT PRACTICE
1	#2					
2	#1					
3	#1	0.075 AC.	0.67 CFS	300 C.F.	300 C.F.	BIO #1
4	50% 14					
	3 & 3A					
5	50% 14 & 15A					
6	13 & 50% 15B					
7	12 & 50% 15B	0.041 AC.	0.22 CFS	110 C.F.	125 C.F.	RAIN GARDEN #1
8	11 & 15C					
9	10					
10	9					
11	9					
12	50% 8	0.040 AC.	0.35 CFS	154 C.F.	170 C.F.	RAIN GARDEN #2
13	50% 8					
14	50% 7					
15	50% 7 & 15D					
16	50% 6A	0.018 AC.	0.15 CFS	59 C.F.	72 C.F.	DRYWELL #1
17	50% 6A & 6	0.16 AC.	0.14 CFS	44 C.F.	50 C.F.	DRYWELL #2
18	50% 5					
19	DRIVEWAY	0.039 AC.	0.26 CFS	133 C.F.	171 C.F.	DRYWELL #3
20	4 & 50% 5					
GAZEBO	540 S.F.	0.017 AC.	0.14 CFS	49 C.F.	59 C.F.	DRYWELL #4

MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION FACILITIES

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE SPECIFIC. SEE PLANT LIST THIS SHEET.
PLANTING SOIL (2'-4" DEEP)	LOAMY SAND (60% - 65%) & COMPOST (35%-40%) OR SANDY LOAM (30%) COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM; CLAY CONTENT < 5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM-D-2974)		AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
MULCH	SHREDDED HARDWOOD		
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN, IF REQUIRED	PEA GRAVEL: ASTM-D-448	PEA GRAVEL: NO. 8 OR NO. 9 (1/8" TO 3/8")	
GEOTEXTILE	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	PE TYPE 1 NONWOVEN
UNDERDRAIN GRAVEL	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
UNDERDRAIN PIPING	F 788, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	SLOTTED OR PERFORATED PIPE. 3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW. MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH.

NOTES

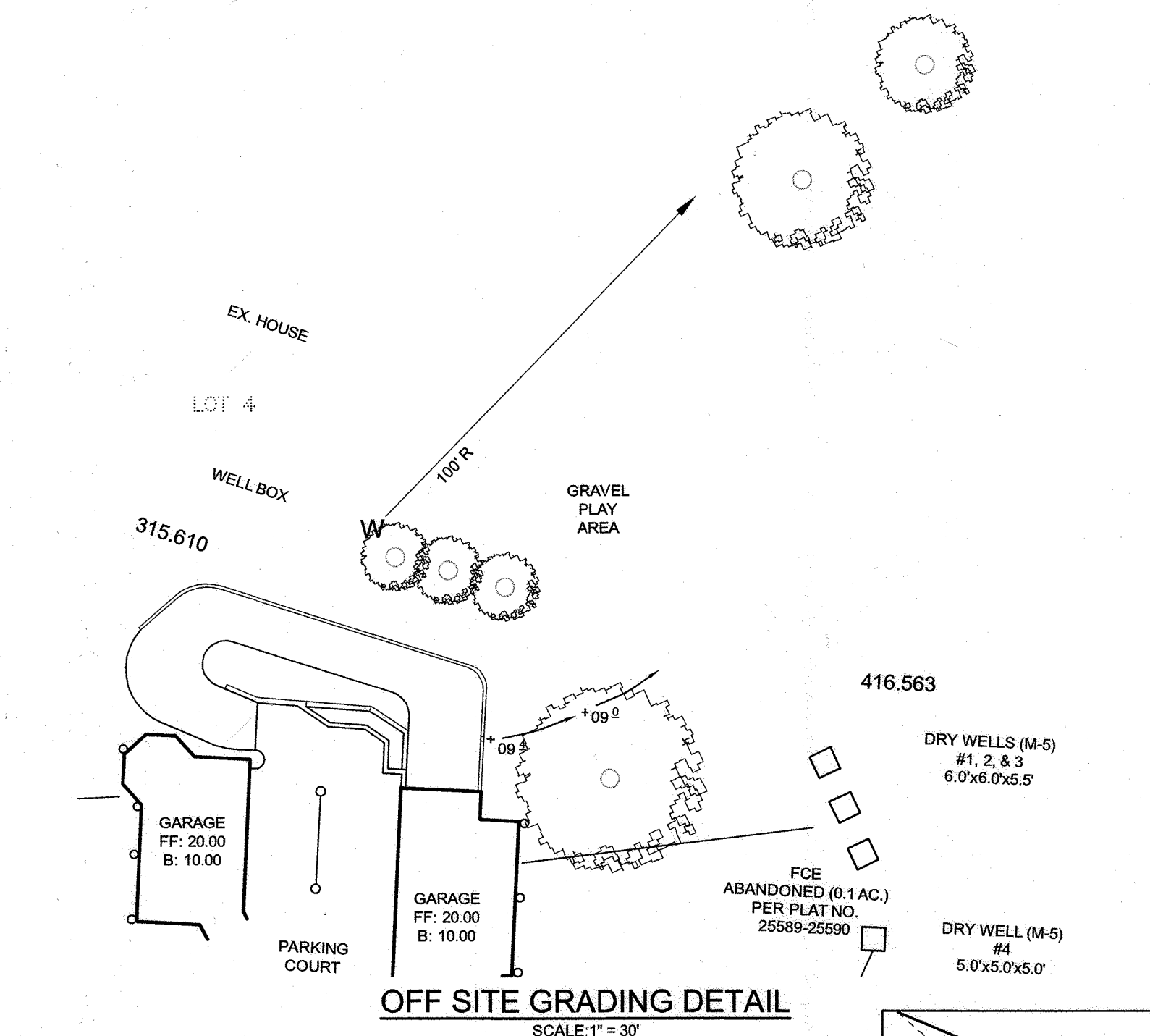
- FACILITY SHALL BE A MINIMUM OF 10FT FROM ANY BUILDING.
- FACILITY SHALL BE INSTALLED IN EXCAVATED VIRGIN SOIL (NOT FILL).
- FACILITY SHALL BE MINIMUM 4" ABOVE THE SEASONAL HIGH WATER TABLE.
- REGULAR INSPECTIONS SHALL BE REQUIRED DURING FOLLOWING STAGES OF THE CONSTRUCTION:
 - DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
 - DURING PLACEMENT OF PLANTING MEDIA.
 - DURING CONSTRUCTION OF APPURTENANT CONVEYANCE.
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- E1 TO E7 AS-BUILT SPOT ELEVATION LOCATIONS. THIS STANDARD IS A REFERENCE TO SHOW THE ELEMENTS AND MINIMUM DIMENSIONS FOR A MICRO-BIORETENTION FACILITY. EACH FACILITY SHALL BE DESIGNED AND APPROVED ON A SITE SPECIFIC BASIS. THIS DETAIL PROVIDES BLANK SPACES TO INFORM WHERE AS-BUILT INFORMATION IS REQUIRED FOR SWM CLOSEOUT.

AS-BUILT FACILITY DIMENSIONS
 WIDTH (A) FT
 LENGTH (B) FT
 DEPTH (C) FT

AS-BUILT FACILITY ELEVATIONS
 E1 FT CORNER
 E2 FT CORNER
 E3 FT CORNER
 E4 FT CORNER
 E5 FT CENTER
 E6 FT LOW SIDE AT TOP OF THE SLOPE
 E7 FT OUTFALL
 E8 FT TOP OF INLET

SECTION A-A

DETAIL D-9.03
 Howard County, Maryland Department of Public Works
 Approved: *Prerna S. Gupta*
 Chief, Bureau of Engineering

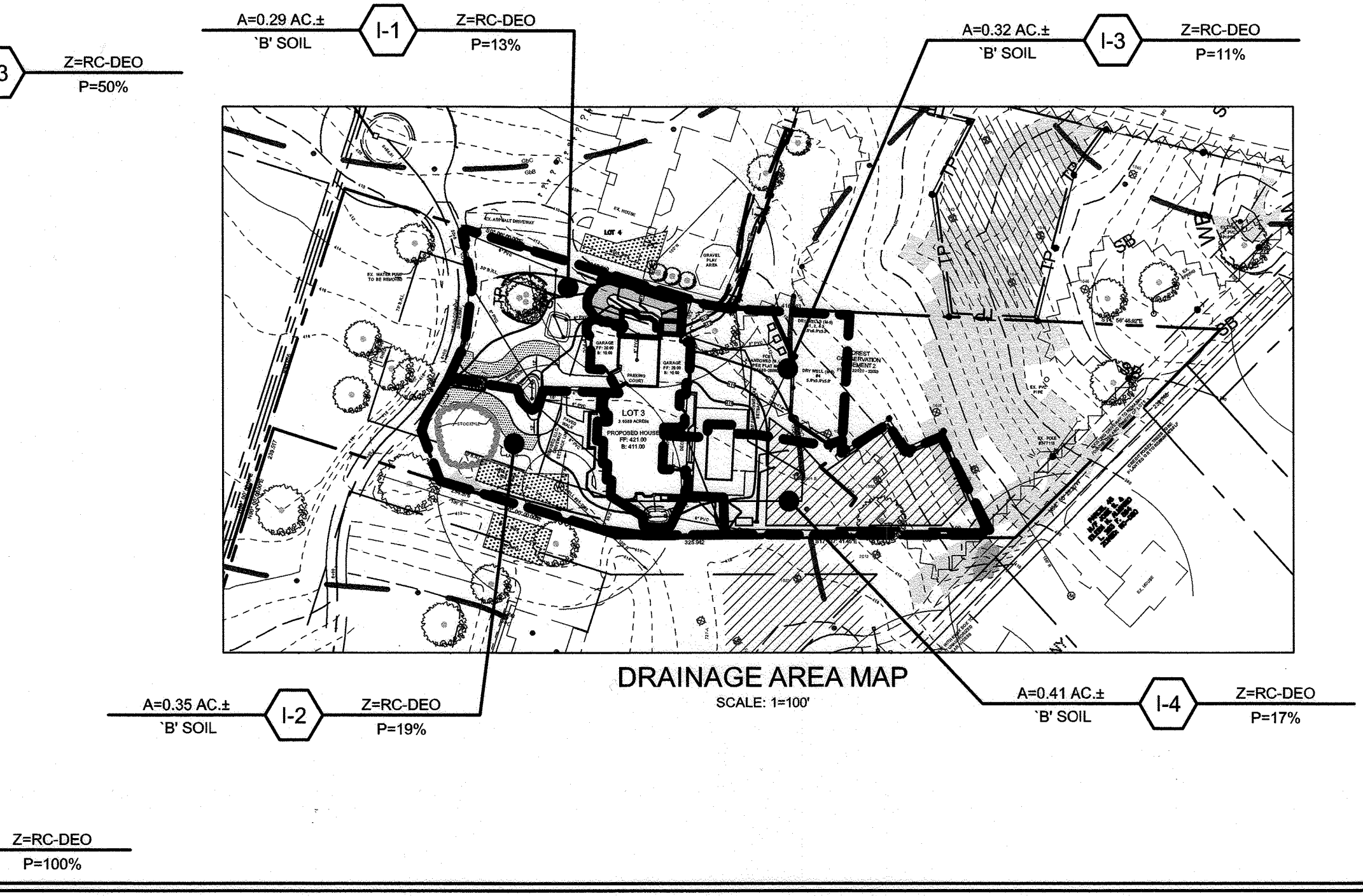
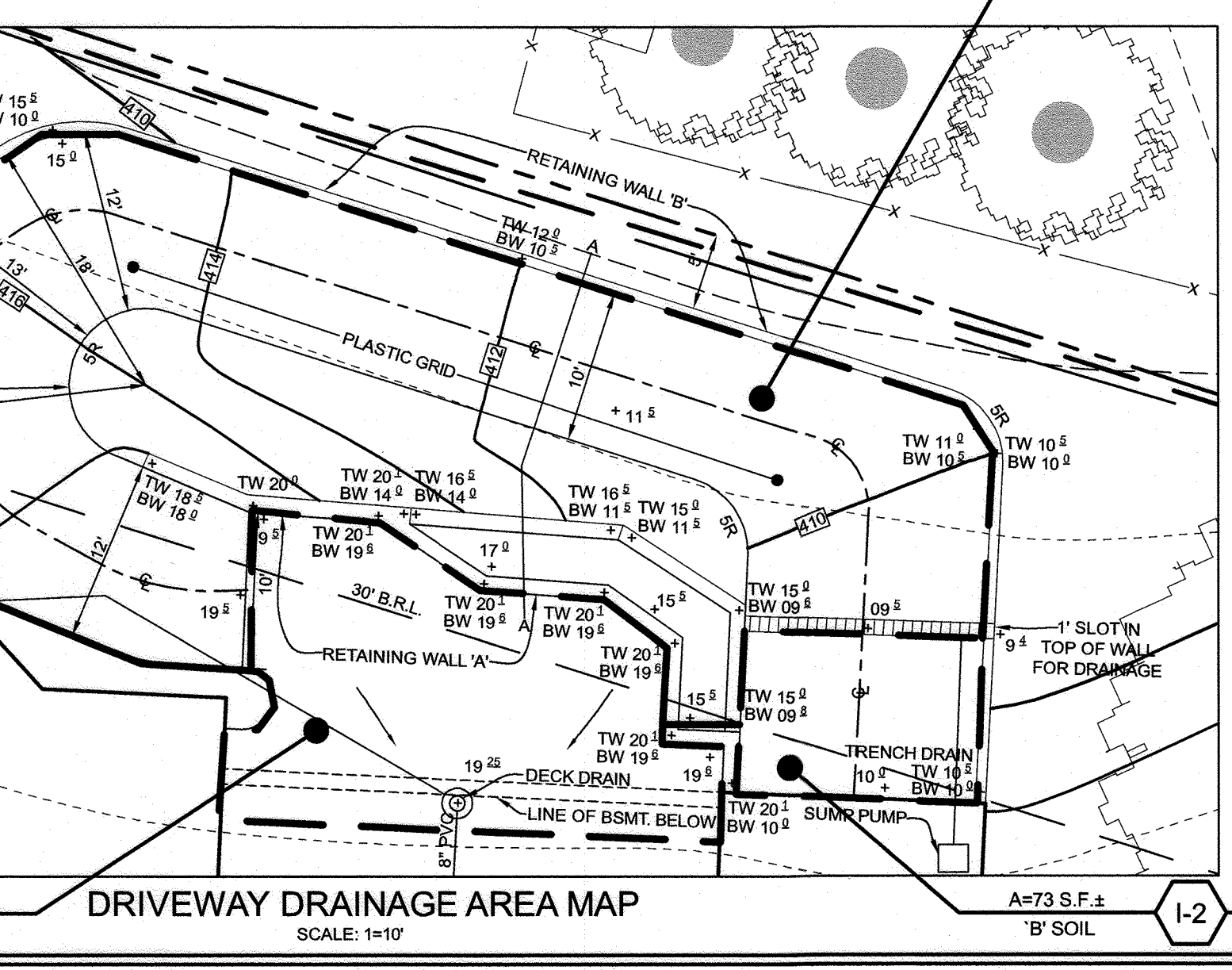


OFF SITE GRADING DETAIL
SCALE: 1" = 30'

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 1/28/21

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 1-28-21



NOTES

- FACILITY SHALL BE A MINIMUM OF 10FT FROM ANY BUILDING.
- FACILITY SHALL BE INSTALLED IN EXCAVATED VIRGIN SOIL (NOT FILL).
- FACILITY SHALL BE MINIMUM 2' ABOVE THE SEASONAL HIGH WATER TABLE.
- REGULAR INSPECTIONS SHALL BE REQUIRED DURING FOLLOWING STAGES OF THE CONSTRUCTION:
 - DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
 - DURING PLACEMENT OF PLANTING MEDIA.
 - DURING CONSTRUCTION OF APPURTENANT CONVEYANCE.
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- E1 TO E7 AS-BUILT SPOT ELEVATION LOCATIONS. THIS STANDARD IS A REFERENCE TO SHOW THE ELEMENTS AND MINIMUM DIMENSIONS FOR A MICRO-BIORETENTION FACILITY. EACH FACILITY SHALL BE DESIGNED AND APPROVED ON A SITE SPECIFIC BASIS. THIS DETAIL PROVIDES BLANK SPACES TO INFORM WHERE AS-BUILT INFORMATION IS REQUIRED FOR SWM CLOSEOUT.

AS-BUILT FACILITY DIMENSIONS
 WIDTH (A) FT
 LENGTH (B) FT
 DEPTH (C) FT

AS-BUILT FACILITY ELEVATIONS
 E1 FT CORNER
 E2 FT CORNER
 E3 FT CORNER
 E4 FT CORNER
 E5 FT CENTER
 E6 FT LOW SIDE AT TOP OF THE SLOPE
 E7 FT OUTFALL
 E8 FT TOP OF INLET

SECTION A-A

SECTION B-B

DETAIL D-9.02
 Howard County, Maryland Department of Public Works
 Approved: *Prerna S. Gupta*
 Chief, Bureau of Engineering

OWNER
 PAULO DOGOUTO
 20308 WILEY COURT
 LAYTONSVILLE, MD, 20882
 (301) 370-8866

PURPOSE
 SUPPLEMENTAL SHEETS 11-14 OF F-12-041 ARE TO CLARIFY REVISION OF HOUSE AND GRADE ON LOT 3 FROM A GENERAL BOX TO NEW HOUSE TYPE.

NOTES AND DETAILS
CHAPEL RISE
 LOT 3
 11550 CHAPEL RISE
 SINGLE FAMILY DETACHED
 TAX MAP 29 GRID 8 5TH ELECTION DISTRICT
 TAX ACCOUNT # 594204 HOWARD COUNTY, MARYLAND

Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 5389 Enterprise Street, Suites B-C
 Sykesville Maryland, 21784
 Phone: 443.325.7682
 Email: info@adcock.com

DESIGN BY: DR
 DRAWN BY: JT
 CHECKED BY: DR/MA
 SCALE: AS SHOWN
 DATE: December 30, 2020
 PROJECT #: 15-058
 SHEET #: 14 of 15

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12127, EXPIRATION DATE: 06-16-2021

