

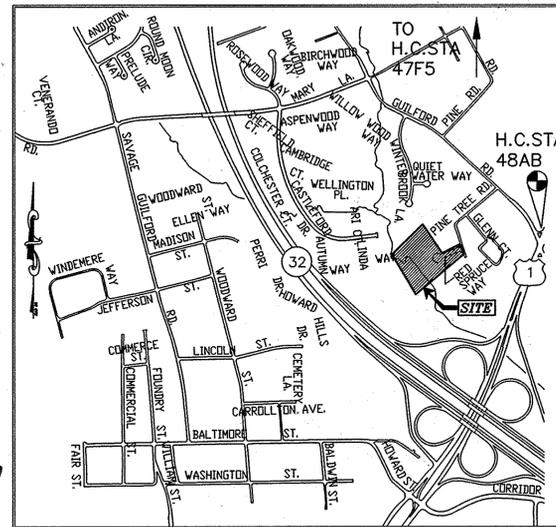
# REVISED ROAD CONSTRUCTION PLANS GUILFORD OVERLOOK LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

## SHEET INDEX

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### LEGEND

	SLOPES GREATER THAN 25%
	15% TO 25% SLOPES
	FLOODPLAIN
	WETLANDS
	FOREST CONSERVATION EASEMENT (RETENTION)
	FOREST CONSERVATION (AFFORESTATION)
	EXISTING TREE LINE
	LIMIT OF DISTURBANCE
	SUPER SILTENCE
	TREE PROTECTION FENCE
	DENOTES FOREST CONSERVATION SIGNAGE
	DENOTES PERIMETER LANDSCAPE EDGE
	AREA DEDICATED TO HO.CO. FOR PURPOSE OF PUBLIC ROAD
	NON-CREDITED OPEN SPACE
	PUBLIC WATER AND SEWER EASEMENT
	PRIVATE USE-IN-COMMON ACCESS EASEMENT
	RECREATIONAL OPEN SPACE
	100 YR. FLOODPLAIN ELEVATION



**VICINITY MAP**  
SCALE: 1"=1000' (5053/8-K)

## GENERAL NOTES:

- SUBJECT PROPERTY ZONED R-12 PER 2-2-04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7/28/2005
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL SURVEY PREPARED BY WINGS TOPOGRAPHY INC. DATED MARCH 2008.
- BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT MAY 2008 BY SHANAGER AND LANE.
- COORDINATES BASED ON NAD '83 (HORIZONTAL) AND NAD '88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 47FA AND 48AB  
STA. No. 47F5      N 535,985.0520    E 1,365,653.4720    ELEV. 234.997  
STA. No. 48AB      N 538,384.4442    E 1,366,415.7936    ELEV. 225.656
- PROJECT BACKGROUND:**  
TAX MAP: 47, PARCEL: 499, GRID: 6.  
ELECTION DISTRICT: SIXTH  
ZONING: R-12  
DEED REFERENCE: 1147/407  
ADDRESS: 8892 PINE TREE RD. JESSUP, MD 20794  
DPZ FILE REFERENCE: SP-10-002, WP-10-105
- AREA TABULATION**  
GROSS AREA OF PROPERTY TRACT: 7.08 AC.±  
AREA OF FLOODPLAIN: 2.6 AC.±  
MINIMUM LOT SIZE PROPOSED: 7,200 SQ.FT.  
NUMBER OF BUILDABLE LOTS PROPOSED: 15 LOTS  
NUMBER OF OPEN SPACE LOTS PROPOSED: 4 LOTS  
NUMBER OF PARCELS PROPOSED: 1 PARCEL  
AREA OF PROPOSED LOTS: 2.66 AC.±  
AREA OF OPEN SPACE REQUIRED: 40% = 2.832 AC.±  
AREA OF CREDITED OPEN SPACE PROVIDED: 2.83 AC.± (40%)  
AREA OF NON-CREDITED OPEN SPACE PROVIDED: 0.05 AC.±  
TOTAL AREA OF OPEN SPACE PROVIDED: 2.88 AC.±  
AREA OF RECREATIONAL OPEN SPACE REQUIRED: 200 SQ.FT./LOT = 3,000 SQ.FT.  
AREA OF RECREATIONAL OPEN SPACE PROVIDED: 3,200 SQ.FT.  
AREA OF PUBLIC ROAD DEDICATION: 1,313 SQ.FT. (0.03AC.±)  
AREA OF PUBLIC ROAD ROW: 22,800 SQ.FT. (0.52 AC.±)  
AREA OF NON-BUILDABLE BULK PARCEL A: 42,689 SQ.FT. (0.98 AC.±)
- WATER IS PUBLIC. EXISTING CONTRACT NO. 24-4667-D WILL BE UTILIZED.
- SEWER IS PUBLIC. EXISTING CONTRACT NO. 24-4667-D WILL BE UTILIZED.
- STORMWATER MANAGEMENT IS PROVIDED BY BIO-SWALE, USE OF RAIN GARDENS, ROOFTOP AND NON-ROOFTOP DISCONNECTION AND SHEET FLOW TO THE BUFFER IN ACCORDANCE WITH THE 2007 MARYLAND STORMWATER DESIGN MANUAL. STORMWATER MANAGEMENT FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED BY HOA.
- THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY MILDENBERG, BOENDER AND ASSOCIATES, INC. DATED JANUARY 2010.
- FOREST STAND AND WETLANDS DELINEATION PREPARED BY WILDMAN ENVIRONMENTAL SERVICES DATED MAY 26, 2009.
- APFO ROAD TEST WAS PREPARED BY TRAFFIC GROUP, DATED DECEMBER 15, 2009, AND APPROVED ON MARCH 9, 2010.
- NOISE STUDY PREPARED BY MILDENBERG, BOENDER AND ASSOCIATES, INC. DATED APRIL, 2011.
- NO HISTORIC STRUCTURES, CEMETERIES, OR GRAVE SITES EXIST ON-SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
- SOIL DELINEATION IS BASED ON HOWARD COUNTY SOIL SURVEY MAP 2004.
- THIS SUBDIVISION COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR PUBLIC FOREST CONSERVATION BY PROVIDING RETENTION OF 1.02 ACRES OF FOREST AND BY PLACEMENT OF 0.47 ACRES OF REQUIRED REFORESTATION INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE ROSEBAR PROPERTY, PRESERVATION PARCEL A, LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOBBS ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SHEET 18 OF SDP-97-115, NEW COLONY VILLAGE. DPZ HAS DETERMINED THAT A REDLINE REVISION SHALL BE MADE TO SDP-97-115 TO SHOW 0.47 ACRES OF REFORESTATION DEDUCTED FROM THE TOTAL FOREST CONSERVATION EASEMENT LOCATED ON THE ROSEBAR PROPERTY. SURETY FOR THE OFF-SITE FOREST CONSERVATION EASEMENT ON THE ROSEBAR PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT HOLDER. NO SURETY IS POSTED FOR RETENTION. A DEED OF FOREST CONSERVATION EASEMENT AND FOREST CONSERVATION AGREEMENT IS REQUIRED FOR THIS FINAL PLAT.
- ALL EXISTING STRUCTURES ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
- EXISTING UTILITIES ARE BASED ON A FIELD SURVEY AND HOWARD COUNTY MAP.
- THIS PROJECT IS SUBJECT TO WP-10-105 WHICH REQUESTS WAIVER OF SECTION 16.121(c)(1) TO ALLOW FOR THE REDUCTION OF FRONTAGE OF OPEN SPACE LOT 16, AND SECTION 16.1205(d)(7) TO ALLOW FOR THE REMOVAL OF SPECIMEN TREE #5, APPROVED ON JULY 8, 2010, SUBJECT TO FOLLOWING CONDITION:  
1. ACCESS TO 0/5 LOT 16 DEDICATED TO HOWARD COUNTY, SHALL BE PROVIDED BY USE-IN-COMMON ACCESS EASEMENT FOR LOTS 9 THRU 14 AND 0/5 LOT 16. A NOTE SHALL BE ADDED TO SP-PLANS AND F-PLANS INDICATING THAT HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS SHALL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE SHARED DRIVEWAY WITHIN THE USE-IN-COMMON ACCESS EASEMENT.  
2. REMOVAL OF SPECIMEN TREE # 5 IS APPROVED BUT WILL REQUIRE REPLACEMENT WITH TWO (2) PERIMETER SHADE TREES ALONG THE SOUTHERN PROPERTY LINE OF LOT 9.
- THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS SHOWN ARE AS FOLLOWS:  
- 100-WATT HPS VAPOR "PREMIER" POST TOP FIXTURE ON A 14" BLACK FIBERGLASS POLE AT ROAD "A" STATION 0+15, 13" RIGHT, AND LP STATION 2+09, 3" BACK.  
A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY STREET TREE.
- TRAFFIC CONTROL DEVICES:  
A. THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.  
B. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-5752) PRIOR TO THE INSTALLATION OF ANY TRAFFIC CONTROL DEVICES.  
C. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MD-MUTC).  
D. ALL SIGNS POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2.5" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3 FEET LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- A SITE INSPECTION ON THE PROPERTY WAS COMPLETED ON APRIL 13, 2010 BY MILDENBERG BOENDER AND ASSOCIATES, INC. AND TO THE BEST OF MY KNOWLEDGE THERE IS NO EVIDENCE THAT THE WELL OR THE SEPTIC EXISTS. IF DISCOVERED DURING THE DEMOLITION OR CONSTRUCTION PROCESS, THE WELL AND SEPTIC WILL BE PROPERLY ABANDONED/SEALED AND THE HOWARD COUNTY HEALTH DEPARTMENT WILL BE NOTIFIED.
- PERIMETER LANDSCAPING AND THE TRASH PAD SCREENING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL AND AS SHOWN ON THE LANDSCAPE PLAN SHEET OF THE ROAD CONSTRUCTION DRAWINGS. SURETY AMOUNT OF \$7,980.00 FOR 25 SHADE TREES, 3 EVERGREENS AND 10 SHRUBS SHALL BE POSTED WITH THE DEVELOPERS AGREEMENT FOR THIS FINAL PLAN.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OF TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT THAT AS DETERMINED TO BE NECESSARY DISTURBANCE.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS AS AMENDED BY C650-2001. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACKS AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- ROAD FRONTAGE FOR OPEN SPACE LOT 18 IS PROVIDED THROUGH ADJOINING OPEN SPACE LOT 35 OF THE WATERBROOK SUBDIVISION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1890 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II (1993) AND MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENT (LANE 2993). A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- TRASH PAD FOR LOT 9 TO 14 SHALL BE MAINTAINED BY HOA.
- MOE TRACKING NUMBER 201261183

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROVISIONS AT A. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER: *Mark Levy* DATE: 8/16/14  
PRINTED NAME OF DEVELOPER: MARK LEVY

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: *R. Jacob Hikmat* DATE: 8/16/14  
PRINTED NAME OF ENGINEER: R. JACOB HIKMAT

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

SIGNATURE OF DISTRICT: *John R. Blanton* DATE: 9/12/14  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
CHIEF BUREAU OF HIGHWAYS: *Michael* DATE: 9-10-2014

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DIVISION OF LAND DEVELOPMENT: *Keaton* DATE: 9-17-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Ed* DATE: 9-9-14

LOT #	GREEN ROOF (Y/N)	PERMEABLE PAVEMENTS (Y/N)	REINFORCED TURF (Y/N)	DISCONNECTION OF ROOFTOP RUNOFF (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF (Y/N)	SHEETFLOW TO CONSERVATION AREAS (Y/N)	RAINFALL HARVESTING (NUMBER)	SUBMERGED GRAVEL WETLANDS (NUMBER)	LANDSCAPE INFILTRATION (NUMBER)	INFILTRATION BERMS (NUMBER)	DRY WELLS (NUMBER)	MICRO-BIORETENTION (NUMBER)	RAIN GARDENS (NUMBER)	SWALES (NUMBER)	ENHANCED FILTERS (NUMBER)
	A-1	A-2	A-3	N-1	N-2	N-3	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	M-9
1					Y									1	
2					Y									1	
3					Y									1	
4					Y									1	
5				2	Y	Y								1	
6				2	Y	Y									
7				2	Y	Y									
8				2	Y	Y									
9					Y	Y									
10				2	Y	Y									
11				4	Y	Y									
12				3	Y	Y									
13					Y	Y									
14				3	Y	Y									
15					Y										

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. 17942, EXP DATE 9/3/16.

*R. Jacob Hikmat* DATE: 8/16/14  
R. JACOB HIKMAT P.E.

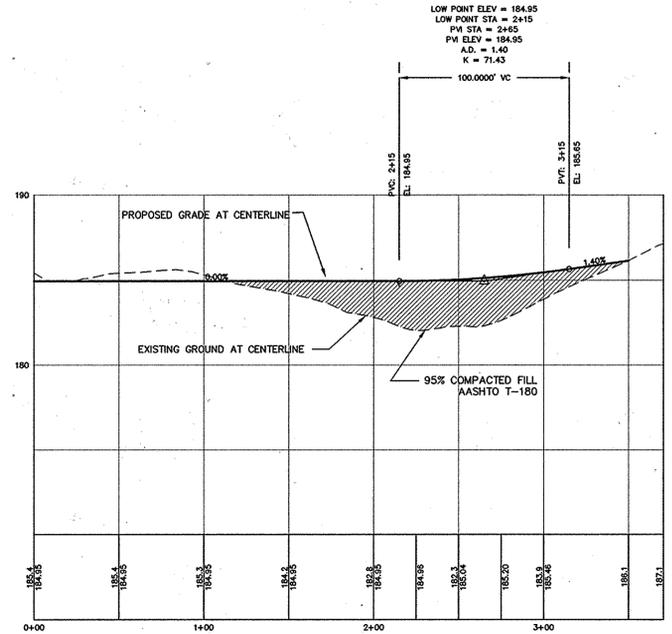
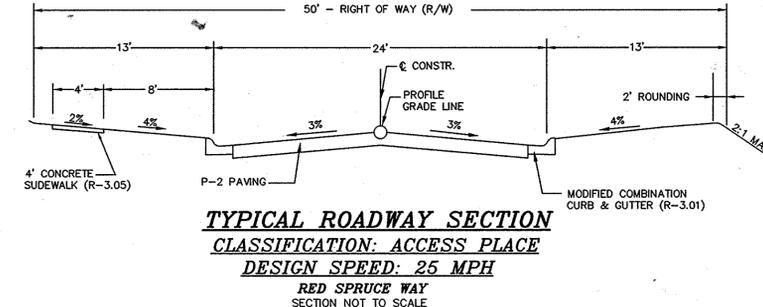
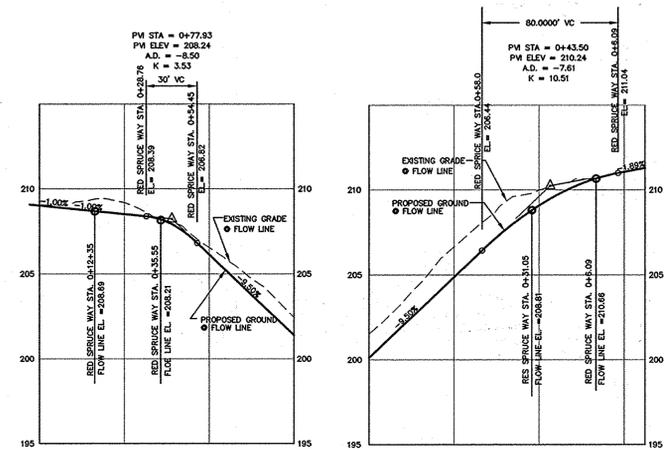
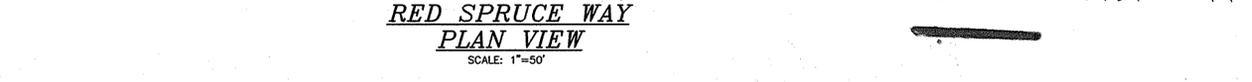
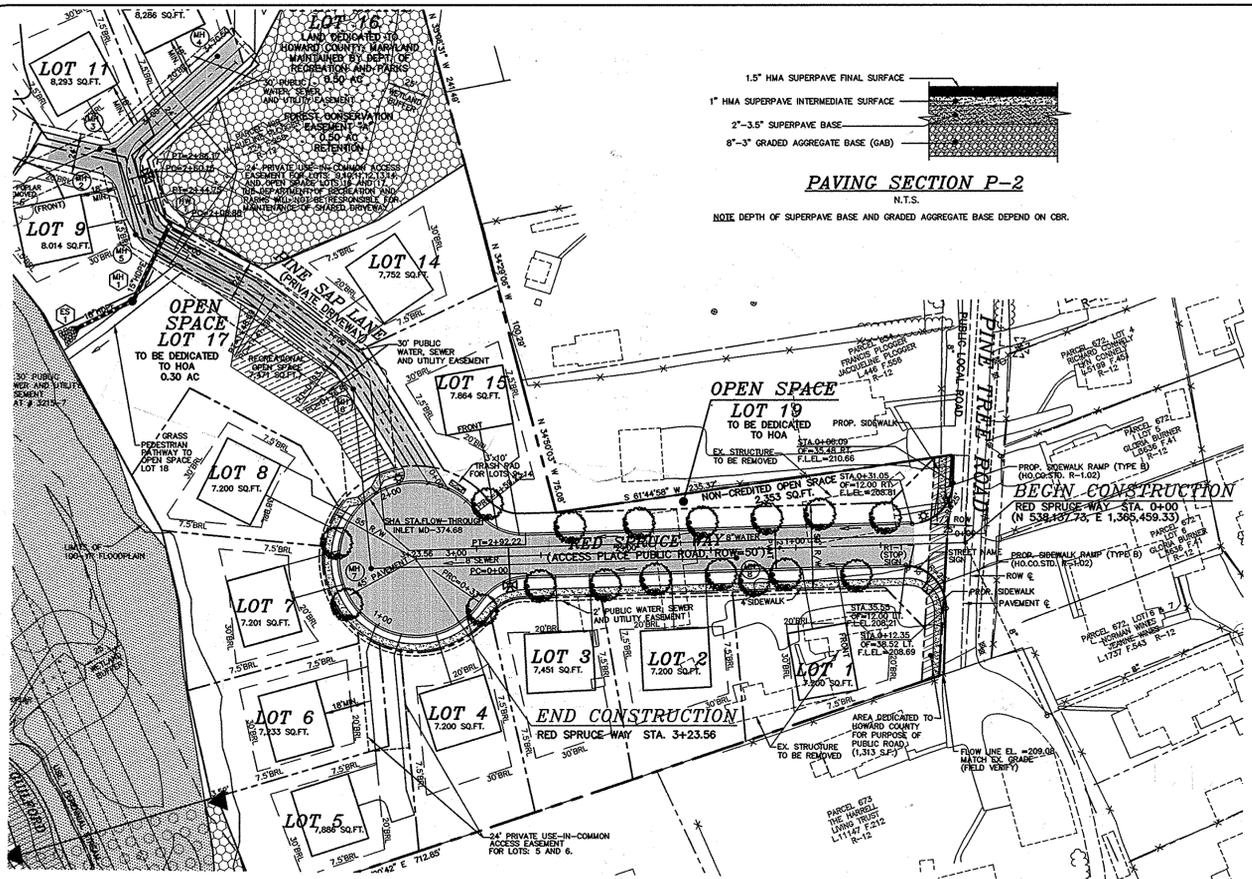
**OWNER/DEVELOPER**  
PLOGGER LLC  
6800 DEERPATH RD, SUITE 100  
ELKBRIDGE, MARYLAND 21075  
410-579-2442  
CONTACT NAME: MARK LEVY

project 08-002 illustration MMM scale 1"=50' approval RJH	date AUG. 2014 engineering MMM MMM approval RJH	DATE JULY 2014 NO. 1 REV. TITLE REV. AREA TABULATION, REME. NOTE #7 description revisions	<b>COVER SHEET</b> GUILFORD OVERLOOK LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A TAX MAP 47, BLOCK 6, PARCEL 489 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
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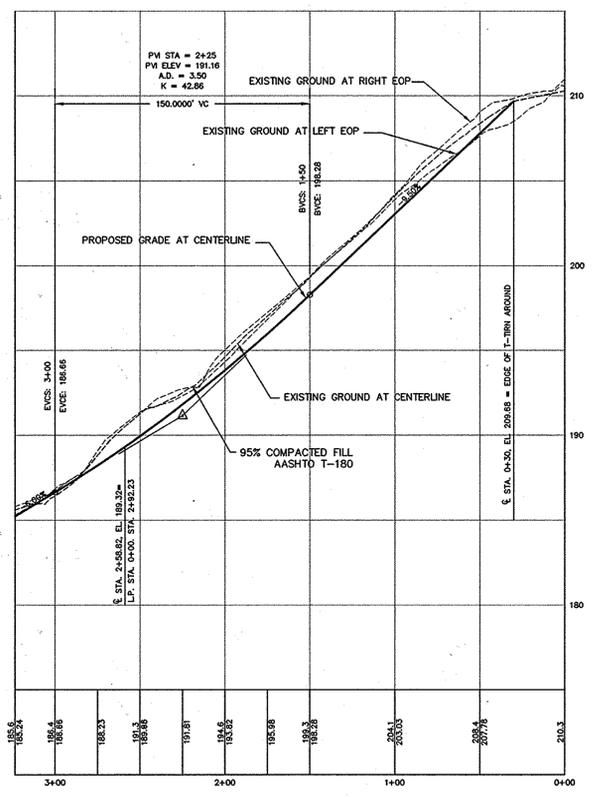
**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Surveyors  
7350-B Crace Drive, Columbia, Maryland, 21044  
(410) 997-0286 Fax (410) 997-0288 Pbx

1 OF 9

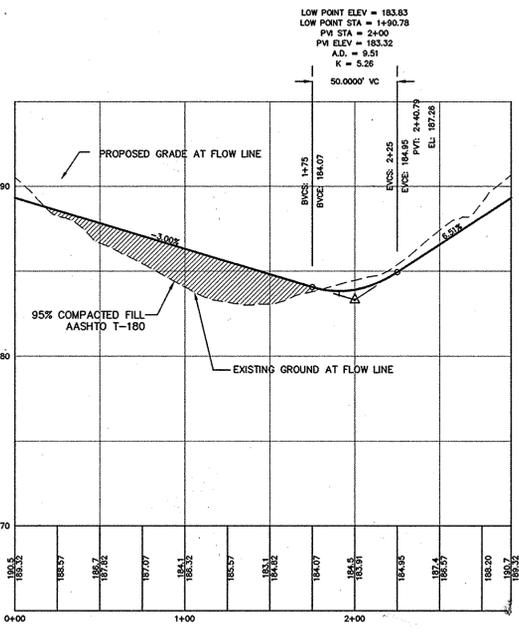
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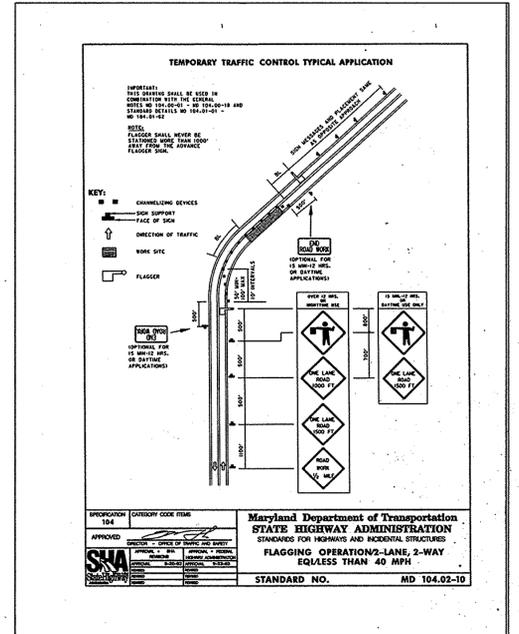
**USE-IN-COMMON DRIVEWAY PROFILE**  
 (PRIVATE DRIVEWAY, DESIGN SPEED = 15 MPH, 24' PRIVATE EASEMENT)  
 SCALE: HOR. 1"=50'  
 VER. 1"=5'



**RED SPRUCE WAY PROFILE**  
 (ACCESS PLACE PUBLIC ROAD, DESIGN SPEED = 25 MPG, ROW=50')  
 SCALE: HOR. 1"=50'  
 VER. 1"=5'



**RED SPRUCE WAY LINEAR PROFILE**  
 SCALE: HOR. 1"=50'  
 VER. 1"=5'



Project	08-002	Date	AUG. 2014
Illustration	MMM	Engineering	MMM
Scale	1"=50'	Approval	MMM
Revisions		Approval	RJH

1.	REVISE TITLE AND PRIVATE ROAD NAME	DATE	AUG. 2014
2.	DESCRIPTION	REVISIONS	

**GUILFORD OVERLOOK**  
 LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A  
 REVISED ROAD CONSTRUCTION PLAN  
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 499  
 ROAD PLAN, PROFILE AND TYPICAL SECTION

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Surveyors Planners  
 7350-B Cross Drive, Columbia Maryland, 21044  
 (410) 997-0286 Bldg. (410) 997-0288 Fax.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF BUREAU OF HIGHWAYS  
 DATE: 9-10-2014

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9-17-14

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9.9.14



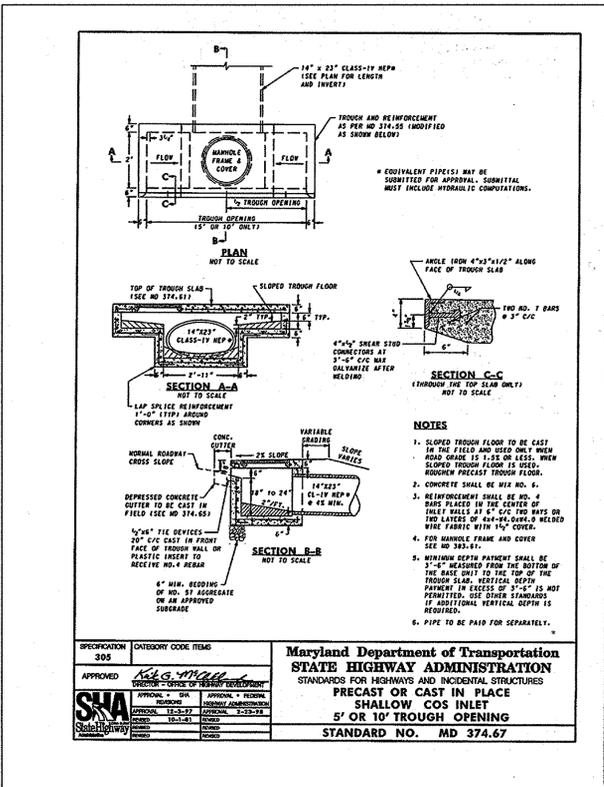
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 9/3/16.

R. JACOB HIKMAT P.E. DATE: 8/16/14

**OWNER/DEVELOPER**  
 PLOGGER LLC  
 6800 DEERPATH RD, SUITE 100  
 ELKRDGE, MARYLAND 21075  
 410-579-2442  
 CONTACT NAME: MARK LEVY

**SOIL SCHEDULE**

- Fa (D) FOLLINGTON SANDY LOAM, 0-2% SLOPES.
- Ha (D) HATBORO SILT LOAM, 0-3% SLOPES.
- RuB (C) RUSSETT AND BELTSVILLE SOILS, 2-5% SLOPES.
- UwC (D) URBAN LAND-WOODSTONE-SASSAFRAS COMPLEX, 5-10% SLOPES



**NOTE:**  
GRADING IN THE FLOODPLAIN AREA FOR THE SEWER LINEAR HAS BEEN DETERMINED TO BE ESSENTIAL DISTURBANCE.



**NOTE:** DOUBLE ROW OF SUPER SILT FENCE TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

BY THE DEVELOPER:

I, *[Signature]* CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 8/19/14

PRINTED NAME OF DEVELOPER: *[Name]*

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *[Signature]* DATE: 8/19/14

R. JACOB HIKMAT  
PRINTED NAME OF ENGINEER

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

*[Signature]* DATE: 9/12/14

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* DATE: 9-10-2014

CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* DATE: 9-17-14

CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* DATE: 9-9-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION



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. 17942, EXP DATE 9/3/16.

*[Signature]* DATE: 8/19/14

R. JACOB HIKMAT P.E.

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Surveyors  
7350-B Grace Drive, Columbia, Maryland, 21044  
(410) 997-0288 Fax

**OWNER/DEVELOPER**  
PLOGGER LLC  
6800 DEERPATH RD. SUITE 100  
ELKRIDGE, MARYLAND 21075  
410-579-2442  
CONTACT NAME: MARK LEVY

**PROJECT**  
08-002  
Illustration

**DATE**  
AUG. 2014

**ENGINEERING**  
MMM

**APPROVAL**  
MMM

**SCALE**  
1"=50'

**REVISIONS**

1.	Revised Title Block	date	8-2014

**3 OF 9**

F-11-059

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

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

**PURPOSE**  
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

**CONDITIONS WHERE PRACTICE APPLIES**  
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

**CRITERIA**

**A. SOIL PREPARATION**

1. **TEMPORARY STABILIZATION**

a. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR TRIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENEED, IT MUST NOT BE ROLLED OR GRADED SMOOTH BUT LEFT IN A STATE OF UNIFORM, UNBROKEN SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. **PERMANENT STABILIZATION**

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:  
I. SOIL PH BETWEEN 6.0 TO 7.0.  
II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).  
III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

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

c. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

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

e. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.

f. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN.

g. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO WHERE THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. 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 LOOSE AND FRAGILE. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

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

**DEFINITION**  
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

**PURPOSE**  
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

**CONDITIONS WHERE PRACTICE APPLIES**  
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

**CRITERIA**

**A. SEEDING**

1. **SPECIFICATIONS**

a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED MUST HAVE BEEN TESTED WITHIN 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL. ON ANY PROJECT, REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

b. MULCH ALONE MAY BE APPLIED DURING THE FALL AND SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING DATE IS TO BE DETERMINED BY THE TESTING AGENCY.

c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURE MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER AND FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN KILL BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

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

2. **APPLICATION**

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.  
I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1.  
II. PERMANENT SEEDING: SEEDING MUST BE PERFORMED IN ONE OF THE FOLLOWING MANNER:  
I. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDING AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.  
II. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. CULTIPACKER SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDS MUST BE FIRM AFTER PLANTING.  
III. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

b. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).  
I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL; SOLUBLE NITROGEN, P O (PHOSPHOROUS), 300 POUNDS PER ACRE; P O (PHOSPHOROUS), 200 POUNDS PER ACRE.  
II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE) MAY BE APPLIED BY HYDROSEEDING. NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURST OR HYDRATED LIME WHEN HYDROSEEDING.  
III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.  
IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

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

**DEFINITION**  
TO STABILIZE DISTURBED SOIL WITH VEGETATION FOR UP TO 6 MONTHS.

**PURPOSE**  
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOIL.

**CONDITIONS WHERE PRACTICE APPLIES**  
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF THE 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 TABLE BY APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B-1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.

2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.

3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.1.b, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

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

**DEFINITION**  
TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.

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

**CONDITIONS WHERE PRACTICE APPLIES**  
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

**CRITERIA**

**A. SEED MIXTURES**

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 IN THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 342-CRITICAL AREA PLANTING.

c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE SOIL TESTING AGENCY.

d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZED (40-0-0) AT 3 1/2 POUNDS PER 1000 S.F. (50 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 DESIRE INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

b. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN BROADCAST AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 60 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 40 TO 40 PERCENT, SEEDING RATE: 5 TO 8 PERCENT PER 1000 S.F. ONE OR MORE CULTIVARS MAY BE BLENDED.

IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FULL SUN MIXTURE: INTENSIVELY MANAGED TRIF AREA MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATES 1 1/2 TO 3 POUNDS PER 1000 S.F.

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURE:  
WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDNESS ZONE: 6B, 6A)  
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONE: 6B)  
SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONE: 7A, 7B)

d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONE AND DEBRIS OVER 1.5 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH A CONDITION THAT FUTURE MOISTURE WILL BE SUFFICIENT TO PERMIT SEED TO REMAIN IN CONTACT WITH THE SOIL. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH 0.5 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE IN AREAS WHERE SEEDS ARE MADE LAKE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES.

**(B-4-8) STANDARDS AND SPECIFICATION FOR STOCKPILE AREA**

**DEFINITION**  
A MATING OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

**PURPOSE**  
TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION AND CHANNELS TO DRAINAGE PATTERNS.

**CONDITIONS WHERE PRACTICE APPLIES**  
STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

**CRITERIA**

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

2. THE FOOTPRINT OF STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON SOIL SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

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

4. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVISS, SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

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

6. STOCKPILE MUST BE STABILIZED IN ACCORDANCE WITH THE 3:7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.

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

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

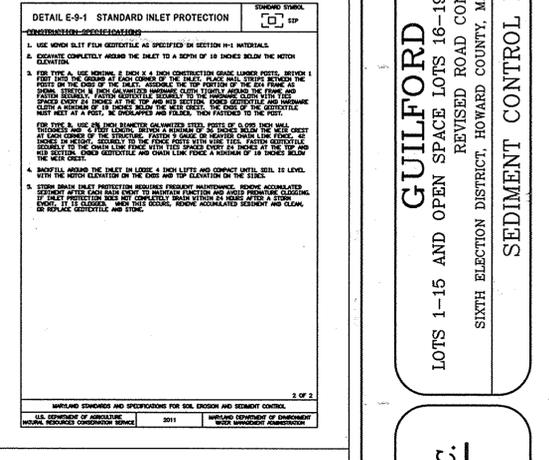
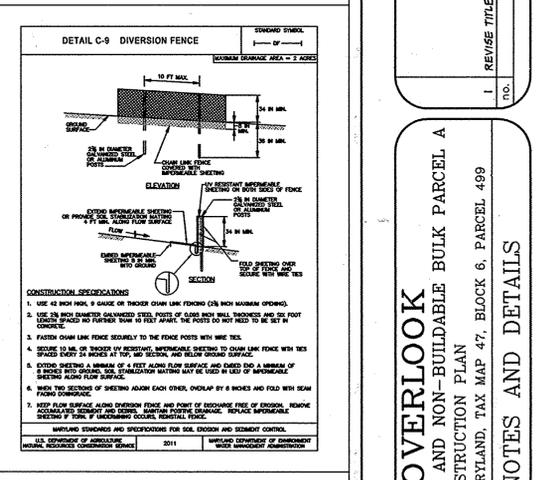
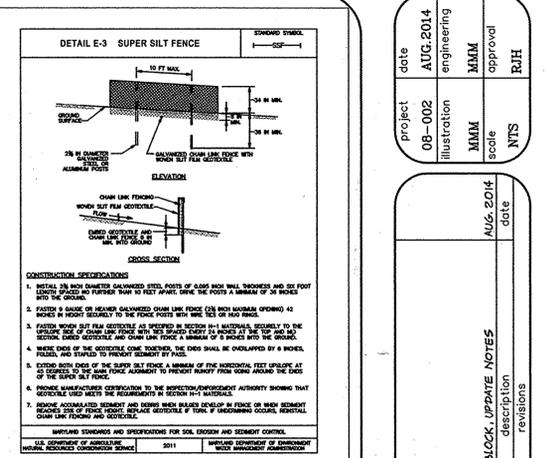
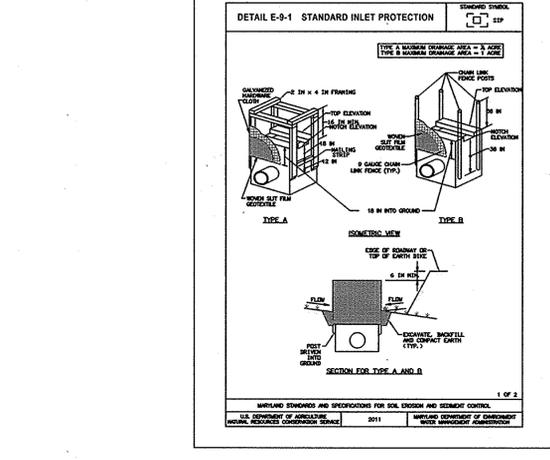
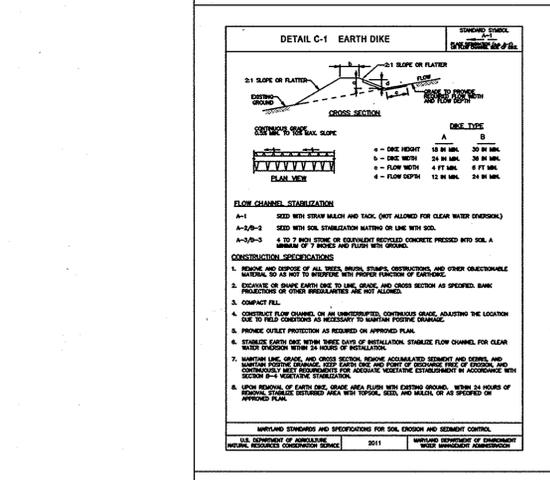
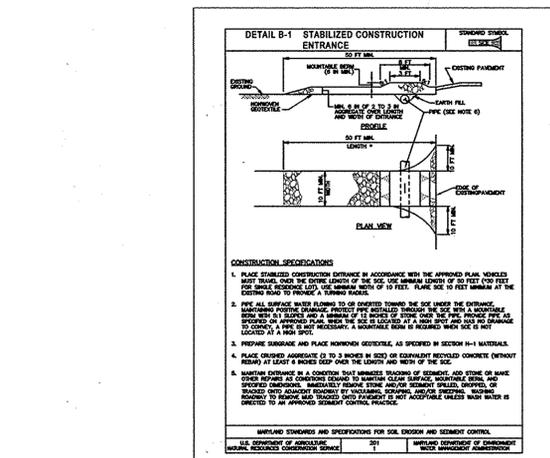
**TEMPORARY SEEDING FOR SITE STABILIZATION**

PLANT SPECIES	SEEDING RATE (LB/AC)	SEEDING DEPTH (INCHES)	RECOMMENDED SEEDING DATED BY PLANT HARDNESS ZONE			
			5B AND 6A	6B	7A AND 7B	
<b>COOL SEASON GRASSES</b>						
ANNUAL RYEGRASS (LULIUM PERENNIS, MULTIFLORUM)	40	1.0	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
BARLEY (HORDEUM VULGARE)	96	2.2	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
OATS (AVENA SATIVA)	72	1.7	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
WHEAT (TRITICUM AESTIVUM)	120	2.8	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
CERIAL RYE (SECALE ITALICA)	112	2.8	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 DEC 15	
<b>WARM SEASON GRASSES</b>						
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14	
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14	

**PERMANENT SEEDING SUMMARY**

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)			LIME RATE (90 S.F.)
					N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
1	TALL FESCUE	100	MARCH 1-MAY 15 AUG 15-OCT 15	1/4"-1/2"	45 LBS PER ACRE (1 LB./1000 SF)	30 LBS PER ACRE (2 LB./1000 SF)	90 LBS PER ACRE (2 LB./1000 SF)	2 TONS / ACRE (90 S.F.)

MIXTURES 1, 4, 7, 9, AND 10 FROM TABLE B.3 OF THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MAY BE USED.



**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES, WITH MOUNTABLE BERM, AT LOCATION SHOWN (1 DAY).
- CONSTRUCT SUPER SILT FENCES AND SILT FENCES. (5 DAYS)
- INSTALL DIVERSION DIKE AS INDICATED. (5 DAYS)
- CONSTRUCT STORM DRAIN SYSTEM FROM HW-1 TO ES-1. (10 DAYS)
- WITH PERMISSION OF INSPECTOR, BRING SITE TO GRADE. (30 DAYS)
- CONSTRUCT PAVEMENT (10 DAYS).
- STABILIZE ALL DISTURBED AREA. (3 DAYS)
- CONSTRUCT BIOW-SWALE ON OPENS SPACE LOT 1.
- WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL JUNK, TRASH AND DEBRIS FROM THE FLOODPLAINS, STREAMS, WETLAND AND THEIR BUFFERS, AND FROM FOREST CONSERVATION AREA.
- WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
- EXCEPT SILT FENCES AND SUPER SILT FENCES WHICH SHOULD BE USED FOR CONSTRUCTION OF THE HOUSES) AND STABILIZE REMAINING DISTURBED AREAS. (3 DAYS)

**EROSION AND SEDIMENT CONTROL NOTES FOR UTILITY CROSSING**

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

STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. MARYLAND RESOURCE CONSERVATION SERVICE. 2011. WITH APPROVED AMENDMENTS.

**OWNER/DEVELOPER**

PLOGGER LLC  
6800 DEERPATH RD, SUITE 100  
ELKRDGE, MARYLAND 21075  
410-579-2442  
CONTACT NAME: MARK LEVY

**DEVELOPERS CERTIFICATE**

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Developer: *Mark Levy*  
Date: *8/18/14*

**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT I HAVE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Engineer: *R. Jacob Hikmat*  
Date: *8/18/14*

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

Signature of District Director: *John C. Robertson*  
Date: *7/2/14*

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *John C. Robertson*  
Date: *9-9-14*

Signature: *Veronica L. L...*  
Date: *9-7-14*

Signature: *...*  
Date: *...*

**STATE OF MARYLAND**

R. JACOB HIKMAT  
PRINTED NAME OF ENGINEER

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. *1242* EXP DATE: *7/3/16*.

Signature: *R. Jacob Hikmat, P.E.*  
Date: *8/18/14*

**STANDARD STABILIZATION NOTES:**

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

STATE OF MARYLAND PROFESSIONAL ENGINEER REGISTRATION BOARD. LICENSE NO. 17942.

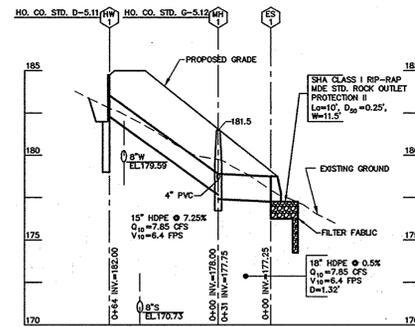
Project	08-002	date	AUG. 2014
Illustration	engineering	scale	MMM
revision	MMM	description	approval
date	AUG. 2014	revisions	NTS
no.	1	REVISE TITLE BLOCK, UPDATE NOTES	

**GUILFORD OVERLOOK**  
LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A  
REVISED ROAD CONSTRUCTION PLAN  
SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 499  
SEDIMENT CONTROL NOTES AND DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Surveyors  
7850-B Drive, Columbia Maryland, 21044  
(410) 997-0286 Fax  
(410) 997-0286 Cell

**SOIL SCHEDULE**

- Fa (D) FOLLINGTON SANDY LOAM, 0-2% SLOPES.
- Ha (D) HATBORO SILT LOAM, 0+3% SLOPES.
- RuB (C) RUSSETT AND BELTSVILLE SOILS, 2-5% SLOPES.
- UwC (D) URBAN LAND-WOODSTONE-SASSAFRAS COMPLEX, 5-10% SLOPES



**STORM DRAIN PROFILE**

SCALE: HOR. 1"=50'  
VER. 1"=5'



**DRAINAGE AREA MAP**

SCALE: 1"=50'

**NOTES:**

- CONTRACTOR SHALL PROVIDE 3"-45° BEVEL AROUND PIPE OPENINGS UPSTREAM HEADWALLS.

D	C	F	G	H	J	K	L	N	R	Δ VOL. CY	Δ
12'	2'-0"	7'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	#8-12" O/C	1.50	1.50
15'	2'-0"	7'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	#8-12" O/C	1.70	1.70
21'	3'-0"	7'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	#8-12" O/C	1.90	1.90
27'	3'-0"	8'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	#8-12" O/C	2.00	2.00
30'	4'-2"	8'-0"	3'-0"	4'-0"	2'-18"	8"	8"	10"	#8-12" O/C	2.85	2.85
36'	4'-8"	10'-0"	3'-0"	4'-6"	2'-3"	8"	10"	10"	#8-12" O/C	3.15	3.15
42'	5'-3"	11'-0"	4'-0"	5'-0"	2'-0"	8"	10"	10"	#8-12" O/C	3.87	3.87
48'	5'-10"	13'-0"	4'-0"	5'-0"	3'-0"	8"	10"	12"	#8-12" O/C	5.08	5.08
54'	6'-5"	14'-0"	5'-0"	6'-0"	3'-3"	9"	12"	12"	#8-8" O/C	6.50	6.50
60'	7'-0"	16'-0"	5'-0"	6'-0"	3'-6"	9"	12"	12"	#8-8" O/C	7.68	7.68
66'	7'-7"	17'-0"	6'-0"	7'-0"	3'-9"	9"	12"	14"	#8-8" O/C	9.14	9.14
72'	8'-2"	19'-0"	6'-0"	7'-6"	4'-3"	9"	12"	14"	#8-8" O/C	11.10	11.10

PLAN  
FRONT ELEVATION  
SECTION A-A  
SECTION B-B

TYPE 'A' Headwall  
Circular Pipe  
Detail  
D-5.11

Howard County, Maryland  
Department of Public Works  
Approved: [Signature]  
Chief, Bureau of Engineering

**PIPE SCHEDULE**

QUANTITY	PIPE SIZE
64	15" HDPE
31	18" HDPE

**STRUCTURE SCHEDULE**

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
HW-1	USE-IN-COMMON DR. STA. 2+21; OFFSET 11.0' RT.	-	-	182.00	HEAD WALL TYPE A (HO.CO.STD. D-5-11)
MH-1	USE-IN-COMMON DR. STA. 2+12; OFFSET 50.5' LT.	181.50	178.00	177.75	MANHOLE (HO.CO.STD. G-5.12)
ES-1	USE-IN-COMMON DR. STA. 2+11; OFFSET 78.0' LT.	-	-	188.25	18" HDPE END SECTION

- \* STATIONS GIVEN TO CENTERLINE FACE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR YARD INLETS TO CL OF INLET. LOCATION OF MANHOLES IS TO CL OF MANHOLE COVER. END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO THE END SECTION.
- \*\* ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
[Signature] 9-10-2014  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
[Signature] 9-17-14  
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 9.9.14  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



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. 17942; EXP DATE 9/3/16.

R. JACOB HIKMAT P.E. 8/18/14

**OWNER/DEVELOPER**

PLOGGER LLC  
6800 DEERPATH RD. SUITE 100  
ELK RIDGE, MARYLAND 21075  
410-579-2442  
CONTACT NAME: MARK LEVY

date	AUG. 2014	approval	BJH
project	08-002	illustration	MMM
scale	1"=50'		

no.	1.	description	revisions
no.		REVISE TITLE	
date	JULY 2014		

**GUILFORD OVERLOOK**  
LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A  
REVISED ROAD CONSTRUCTION PLAN  
SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 489  
**STORM DRAIN PROFILES AND DRAINAGE AREA MAP**

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
7350-B Grace Drive, Columbia, Maryland, 21044  
(410) 997-0288 Fax

**SOIL SCHEDULE**

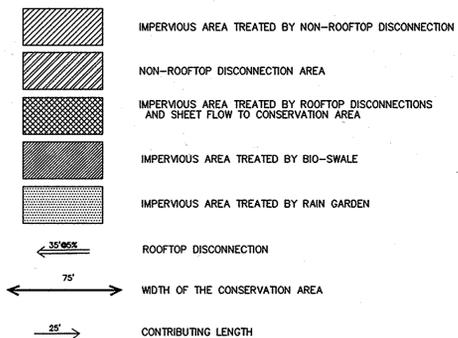
- Fa (D) FOLLINGTON SANDY LOAM, 0-2% SLOPES.
- Ha (D) HATBORO SILT LOAM, 0+3% SLOPES.
- RuB (C) RUSSETT AND BELTSVILLE SOILS, 2-5% SLOPES.
- UwC (D) URBAN LAND-WOODSTONE-SASSAFRAS COMPLEX, 5-10% SLOPES

**ESD NARRATIVE**

1. THE PROPERTY CONSISTS OF 7.08 ACRES WITH APPROXIMATELY 3.75 ACRES BEING PRESERVED AS OPEN SPACE, FLOODPLAIN, WETLANDS, STREAM AND THEIR BUFFERS COMPRISE ALMOST 2.8 ACRES OF THE SITE. ALL NATURAL RESOURCES HAVE BEEN PROTECTED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS. NO GRADING OR REMOVAL OF VEGETATION IS ALLOWED.
2. THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSE AS POSSIBLE, NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
3. THE OVERWHELMING MAJORITY OF STORMWATER MANAGEMENT REQUIREMENTS ARE MET VIA NON-STRUCTURAL PRACTICES. SWM REQUIREMENTS ON LOTS 1 THRU 4 REQUIRE A MICRO SCALE FACILITY TO MEET CPV REQUIREMENT ONLY. SWM REQUIREMENTS ON LOTS 5 THRU 15 WERE MET ALMOST ENTIRELY BY NON-STRUCTURAL PRACTICES. SWM FOR REMAINING CPV REQUIREMENTS FROM LOTS 5 THRU 15 AND AREA OF PUBLIC RIGHT-OF-WAY WERE PROVIDED IN THE MICRO SCALE FACILITY (BIO SWALE) LOCATED ON OPEN SPACE LOT 17.
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATION FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING SHARED DRIVEWAY AND MINIMIZING EARTH DISTURBANCE.
6. IN DESIGNING THIS PROJECT AND AFTER WE PLANNED THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
  - A. SHEETFLOW TO CONSERVATION AREA.
  - B. DISCONNECTION OF ROOFTOP.
  - C. DISCONNECTION OF NON-ROOFTOP.
  - D. RAIN GARDEN
  - E. MICRO-SCALE PRACTICES.
7. THERE ARE NO DESIGN MANUAL WAIVERS PLANNED FOR THIS SITE IN REGARD TO ENVIRONMENTAL DISTURBANCES.

**SWM PRACTICES SCHEDULE**

LOT #	PROPOSED PRACTICES
1	NON-ROOFTOP DISCONNECTION (N-2) RAIN GARDEN (M-7)
2	NON-ROOFTOP DISCONNECTION (N-2) RAIN GARDEN (M-7)
3	NON-ROOFTOP DISCONNECTION (N-2) RAIN GARDEN (M-7)
4	NON-ROOFTOP DISCONNECTION (N-2) RAIN GARDEN (M-7)
5	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (132.9 C.F.) BIO SWALE (M-8)
6	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (146.0 C.F.) BIO SWALE (M-8)
7	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (67.2 C.F.) BIO SWALE (M-8)
8	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (34.8 C.F.) BIO SWALE (M-8)
9	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (64.2 C.F.) BIO SWALE (M-8)
10	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (36.9 C.F.) BIO SWALE (M-8)
11	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (4.2 C.F.) BIO SWALE (M-8)
12	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (79.4 C.F.) BIO SWALE (M-8)
13	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (56.29 C.F.) BIO SWALE (M-8)
14	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (46.7 C.F.) BIO SWALE (M-8)
15	NON-ROOFTOP DISCONNECTION (N-2) ROOFTOP DISCONNECTION (N-1) SHEETFLOW TO CONSERVATION AREA (N-3) (119.3 C.F.) BIO SWALE (M-8)
R/W	(1,309.8 C.F.) BIO SWALE (M-8)



BY THE DEVELOPER:  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

APPROVED, DEPARTMENT OF PUBLIC WORKS  
 CHIEF BUREAU OF HIGHWAYS  
 DATE: 9-10-2014

APPROVED, DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9-17-14

APPROVED, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9-9-14

**NON-BUILDABLE BULK PARCEL**  
 FOR FUTURE CONVEYANCE TO ADJACENT PARCEL 1911 (0.9 AC)



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. 17942, EXP DATE 9/3/16.

R. JACOB HIKMAT P.E. DATE: 8/18/14

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers, Planners, Surveyors  
 7350-B Crace Drive, Columbia, Maryland, 21044  
 (410) 997-0288 Fax: (410) 997-0288

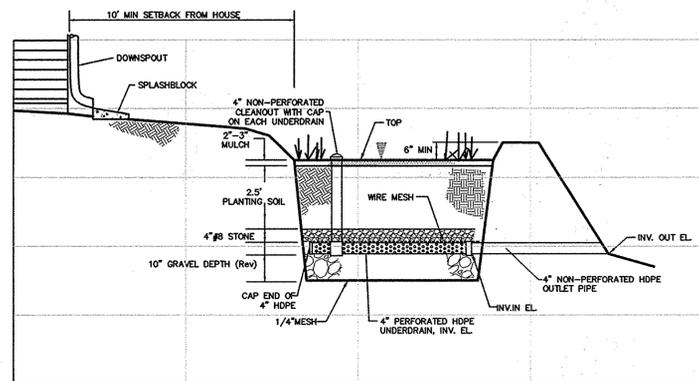
**GUILFORD OVERLOOK**  
 LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A  
 REVISED ROAD CONSTRUCTION PLAN  
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 489  
 SWM PLAN

Project: 08-002  
 Illustration: MMM  
 Scale: 1"=50'  
 Date: JULY 2014  
 Description: REV. TITLE, REV. OPEN SPACE LOT 16, CREATE NON-BUILDABLE BULK PARCEL "A", REV. FOREST CONSERVATION EASEMENT

DATE: AUG. 2014  
 ENGINEERING: MMM  
 APPROVAL: MMM

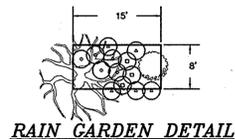
6 OF 9  
 F-11-059

**OWNER/DEVELOPER**  
 PLOGGER LLC  
 6800 DEERPATH RD. SUITE 100  
 ELKRIDGE, MARYLAND 21075  
 410-579-2442  
 CONTACT NAME: MARK LEVY



TYPICAL RAIN GARDEN PROFILE

NOTE: FINAL DESIGN OF THE RAIN GARDENS WILL BE PROVIDED AT SDP STAGE.



RAIN GARDEN DETAIL

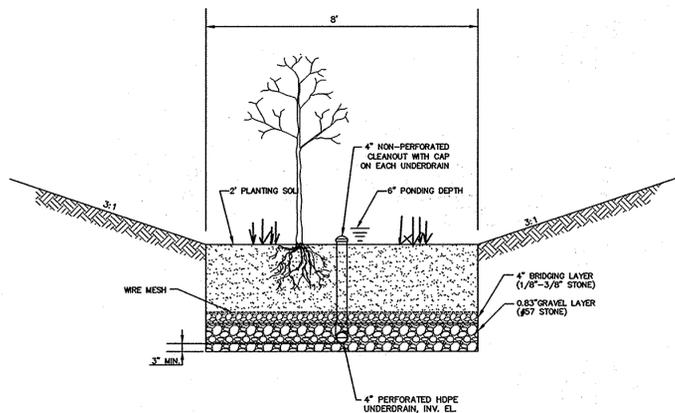
**PLANT LIST**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1	⊗	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1	○	ILEX GLABRA	INK BERRY	2' - 3' HT.
6	⊙	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
4	⊙	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
3	⊙	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

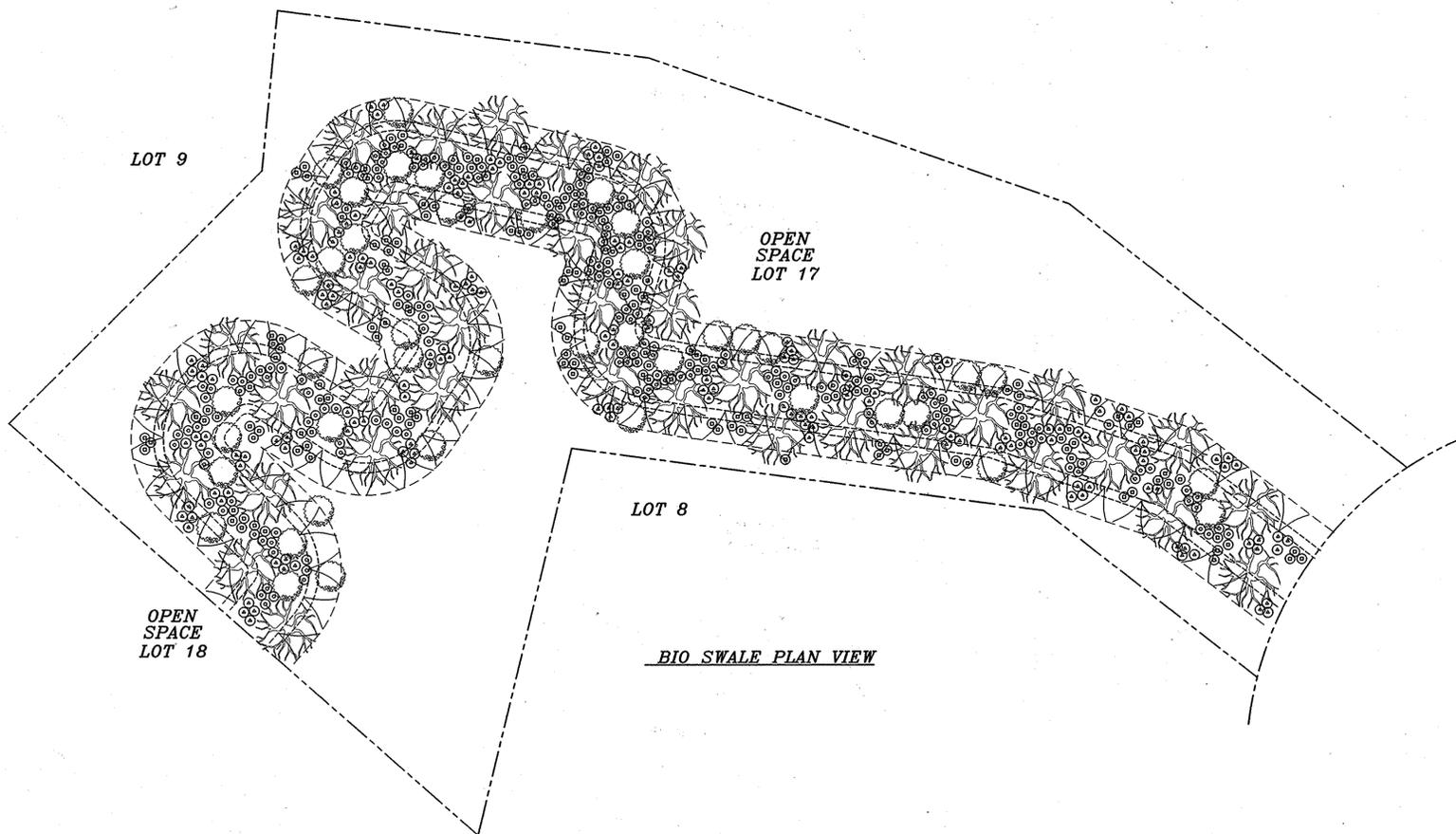
TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)

**OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDENS AND BIO SWALE**

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



TYPICAL BIO SWALE DETAIL



BIO SWALE PLAN VIEW

**PLANT LIST**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
42	⊗	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
42	○	ILEX GLABRA	INK BERRY	2' - 3' HT.
167	⊙	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
167	⊙	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
167	⊙	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

TOTAL: 309 PERENNIALS, 26 SHRUB, 26 TREE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Melvin* 9-10-2014  
 CHIEF BUREAU OF HIGHWAYS AS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*V. J. ...* 9-17-14  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chad ...* 9.9.14  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



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. 17942, EXP DATE 9/3/16.

*R. J. ...* 8/18/14  
 R. JACOB HIKMAT P.E. DATE

**OWNER/DEVELOPER**  
 PLOGGER LLC  
 6800 DEERPATH RD. SUITE 100  
 ELKCRIDGE, MARYLAND 21075  
 410-579-2442  
 CONTACT NAME: MARK LEVY

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 7350-B Grace Drive, Columbia, Maryland, 21044  
 (410) 997-0286 Fax (410) 997-0288 Fax

**GUILFORD OVERLOOK**  
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 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 489  
 SWM DETAILS

Project: 08-002  
 Illustration: MMM  
 Scale: 1"=50'  
 Date: AUG. 2014  
 Revisions: 1 REV. TITLE BLOCK

Date: AUG. 2014  
 Engineering: MMM  
 Approval: RJH

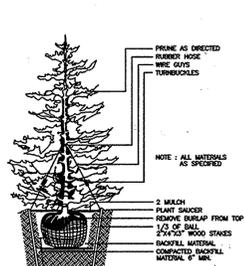
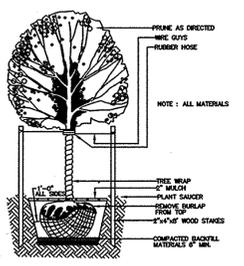
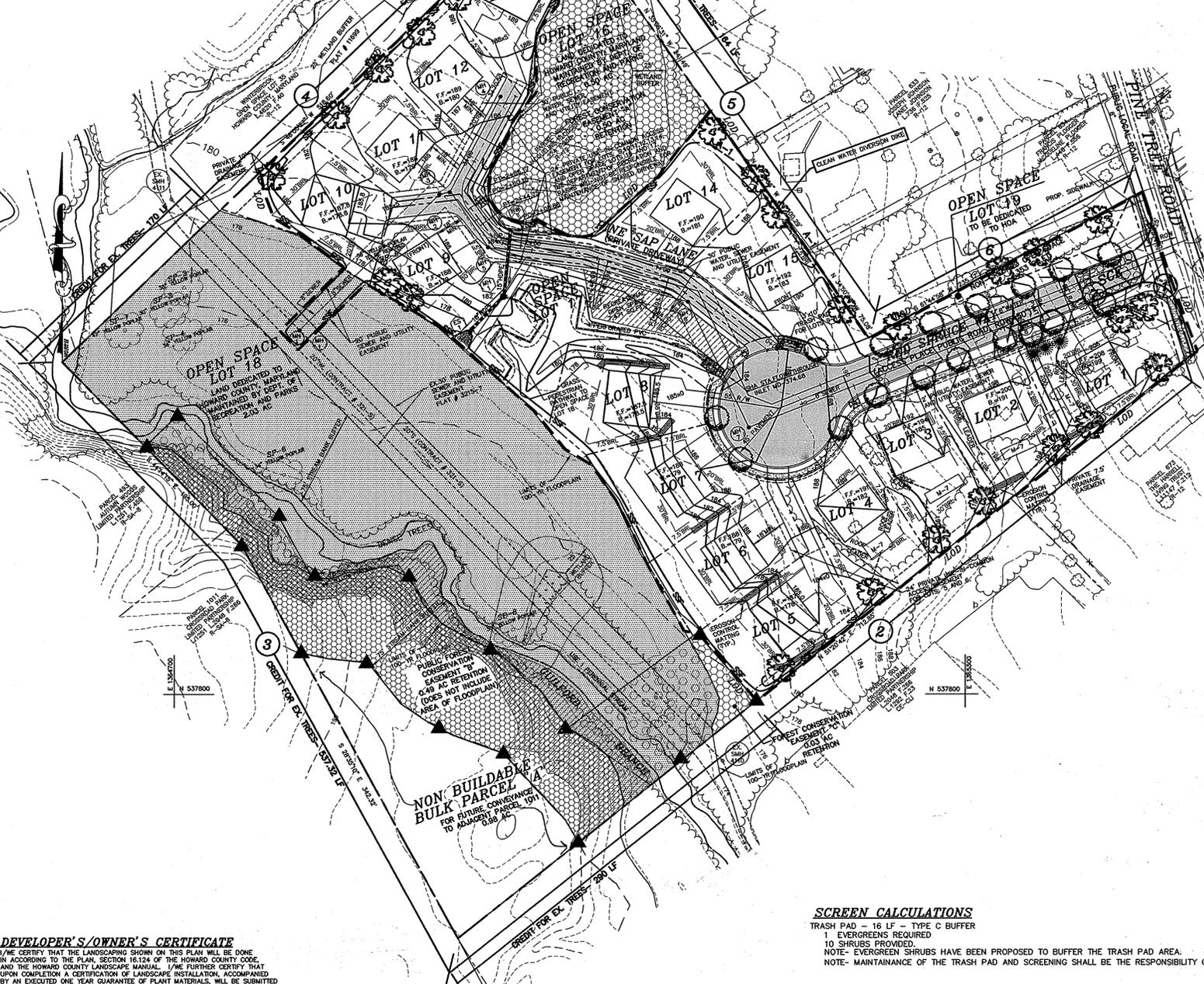
P: 2004\08-002 PINE TREE RD FINAL 08-002-FINAL.DWG

**SOIL SCHEDULE**

- Fa (D) FOLLINGTON SANDY LOAM, 0-2% SLOPES.
- Ho (D) HATBORO SILT LOAM, 0+3% SLOPES.
- RuB (C) URBAN AND BELTSVILLE SOILS, 2-5% SLOPES.
- UwC (D) URBAN LAND-WOODSTONE-SASSAFRAS COMPLEX, 5-10% SLOPES

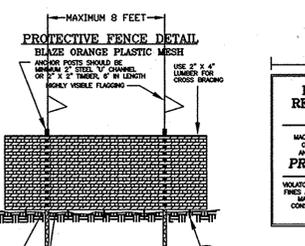
**LEGEND**

- SLOPES GREATER THAN 25%
- 15% TO 25% SLOPES
- FLOODPLAIN
- WETLANDS
- FOREST CONSERVATION EASEMENT (RETENTION)
- EXISTING TREE LINE
- LOD - LIMIT OF DISTURBANCE
- SSP - SUPER SILTENCE
- FOREST CONSERVATION EASEMENT (NON CREDITED)



**PLANTING SPECIFICATIONS AND NOTES**

- SITE PREPARATION AND SOILS**
- PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS AND DETAILS.
  - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF 25' x 25' WITH A 5' DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
  - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
  - SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
  - ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
  - FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
  - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, MOOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
  - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.
- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER GENEROUSLY TO SETTLE SOIL. BACKFILL AROUND TREES SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
  - CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2" DIAMETER ARE ENCOUNTERED, PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
  - CONTAINER GROWN STOCK SHALL BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. U-SHAPED OR RINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORING DISEASES.
  - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
  - FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
- PLANTING STOCK**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPIRIT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
  - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
  - IF AND WHEN IT IS TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE CONCULCUMULUS AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS WELL AS TO SUPPLY NUTRIENTS TO THE FOREST SYSTEM AND WATER SUPPLY.
- POST CONSTRUCTION PERIOD PROTECTION AND MANAGEMENT PROGRAM**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
  - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD DISEASED OR DESTROYED TREES WITHIN THE FOREST CONSERVATION EASEMENTS.
  - VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
  - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE NON-NATIVE AND HERBACEOUS WEEDS AND INVASIVE VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
  - REMOVE AND DISPERSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL PRODUCTS OCCURRING OR ACCUMULATING UNLESS IT IS SMOTHERING PLANTING STOCK.
  - A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.
- FOREST CONSERVATION SUPERVISION**
- ALL FOREST CONSERVATION SUPERVISION SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE HOWARD COUNTY COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.
- STANDARD SPECIMEN TREE NON-DISTURBANCE NOTE:**
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL HABITAT AREAS DETERMINED BY THE HOWARD COUNTY FOREST CONSERVATION SUPERVISION PROGRAM. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- CONSTRUCTION PERIOD PROTECTION AND MANAGEMENT PROGRAM**
- ALL FOREST RETENTION AREAS AND ISOLATED POTENTIAL SPECIMEN TREES SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED, BLAZE ORANGE PLASTIC FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY AND AROUND ISOLATED POTENTIAL SPECIMEN TREES PRIOR TO ANY LAND CLEARING, GRADING, OR GRADING ACTIVITIES.
  - NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON. DUE TO THE WEED-GROWN NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD, THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
  - DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPIRIT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
  - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
  - IF AND WHEN IT IS TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE CONCULCUMULUS AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS WELL AS TO SUPPLY NUTRIENTS TO THE FOREST SYSTEM AND WATER SUPPLY.
  - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE FOREST RETENTION AREA.
  - ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THE 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 DRIPPING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
  - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
  - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
  - ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT GROWING WITHIN AND ADJACENT TO ALL FORESTED AREAS. PLEASE REFER TO ROOT PRUNING DETAIL THIS SHEET.
- PRE-CONSTRUCTION MEETING**
- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER CONSTRUCTION ACTIVITIES BEGIN 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 AND EQUIPMENT AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
  - TO IDENTIFY THE LIMITS OF DISTURBANCE, FOREST PROTECTION DEVICES, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS.
  - INSPECT ALL PLACED 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, LIMIT INHERITED BY FLOODING OR DRIPPING OF MATERIALS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- CONSTRUCTION PROCEDURE**
- 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.



**GENERAL NOTES:**

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
- PERIMETER LANDSCAPING AND TRASH PAD SCREENING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL AND AS SHOWN ON THE LANDSCAPE PLAN SHEET OF THE ROAD CONSTRUCTION DRAWINGS. SURETY IN THE AMOUNT OF \$7,000.00 FOR THE FOREST CONSERVATION EASEMENT AND 10 SHRUBS SHALL BE POSTED WITH THE DEVELOPERS AGREEMENT FOR THIS FINAL PLAN, F-11-059.
- THIS SUBDIVISION COMPLETES WITH THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR PUBLIC FOREST CONSERVATION BY PROVIDING RETENTION OF 1.02 ACRES OF FOREST AND BY PLACEMENT OF 0.47 ACRES OF FOREST RESTORATION INTO AN 0.71-ACRE FOREST CONSERVATION EASEMENT ON THE ROSEBARK PROPERTY. PRESERVATION PARCEL A, LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOWARD ROAD, THE ROSEBARK FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SDP-97-115. NEW COLONY VILLAGE, DP2 HAS DETERMINED THAT A REDLINE REVISION SHALL BE MADE TO SDP-97-115 TO SHOW 0.47 ACRES OF RESTORATION DEDUCTED FROM THE TOTAL FOREST CONSERVATION EASEMENT LOCATED ON THE ROSEBARK PROPERTY. SURETY FOR THE ON-SITE FOREST CONSERVATION EASEMENT ON THE ROSEBARK PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT HOLDER. NO SURETY IS POSTED FOR RETENTION, A DEED OF FOREST CONSERVATION EASEMENT AND FOREST CONSERVATION AGREEMENT IS REQUIRED FOR THIS FINAL PLAN.
- FOREST CONSERVATION SIGNAGE SHALL BE PLACED FOR PERPETUITY. 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. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWIT LISTED AND APPROVED FOR THIS DRAWING SHALL BE OF THE PROPER HEIGHT ACCORDING WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT APPROVAL FROM THE PLANNING AND ZONING DEPARTMENT WITH ANY DENATATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN 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.

**SPECIMEN TREE CHART**

KEY	SPECIES	SIZE	CONDITION
SP 1	YELLOW POPLAR	47"DBH	GOOD (TO REMAIN)
SP 2	YELLOW POPLAR	35"DBH	GOOD (TO REMAIN)
SP 3	YELLOW POPLAR	30"DBH	GOOD (TO REMAIN)
SP 4	YELLOW POPLAR	34"DBH	GOOD (TO REMAIN)
SP 5	YELLOW POPLAR	36"DBH	GOOD (TO BE REMOVE)
SP 6	YELLOW POPLAR	34"DBH	GOOD (TO REMAIN)
SP 7	YELLOW POPLAR	42"DBH	GOOD (TO REMAIN)
SP 8	YELLOW POPLAR	30"DBH	GOOD (TO REMAIN)

NOTE: PER WP-10-105, APPROVAL WAS GIVEN TO REMOVE SP-5 AND REPLACED WITH 2 SHADED TREES ON LOT 9.

**FOREST CONSERVATION DATA**

FOREST CONSERVATION WORKSHEET

NET TRACT AREA: 7.08

A. Total tract area: 7.08

B. Area within 100 year floodplain & overhead transmission line: 2.60

C. Area to remain in agricultural production: 0.00

D. Net tract area: 4.48

LAND USE CATEGORY:

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA MDR IDA HDR MPD CIA

0 0 0 1 0 0

E. Afforestation Threshold: 15% x D = 0.67

F. Conservation Threshold: 20% x D = 0.90

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain): 3.40

H. Area of forest above afforestation threshold: 0.273

I. Area of forest above conservation threshold: 2.60

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation: 1.40

K. Clearing permitted without mitigation: 2.00

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared: 2.28

M. Total area of forest to be retained: 1.28

PLANTING REQUIREMENTS:

N. Restoration for clearing above conservation threshold: 0.60

O. Restoration for clearing below conservation threshold: 0.00

P. Credit for retention above conservation threshold: 0.12

Q. Total restoration required: 0.47

R. Total afforestation required: 0.00

T. Total restoration and afforestation required: 0.47

**LANDSCAPE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
25	(Symbol)	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2 1/2" - 3" CAL.
3	(Symbol)	PINUS THUNBERGIANA	JAPANESE BLACK PINE	6' - 8' HT.
10	(Symbol)	TAXUS MEDIA 'HICKSI'	HICKS YEW	2 1/2" - 3" HT.
TOTAL				

25 TREES/25 SHADE TREES, 3 EVERGREENS, 10 SHRUBS

**STREET TREE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
17	(Symbol)	PYRUS SARGENTII OR EQUIVALENT	SARGENT CHERRY OR EQUIVALENT	2 1/2" - 3" CAL.
TOTAL				

17 STREET TREES

**STREET TREE CALCULATIONS**

RED SPRUCE WAY - 680 / 40 = 17

TOTAL TREES REQUIRED = 17 TREES

**SCREEN CALCULATIONS**

TRASH PAD - 16 LF - TYPE C BUFFER

1 EVERGREENS REQUIRED

10 SHRUBS PROVIDED

NOTE: EVERGREEN SHRUBS HAVE BEEN PROPOSED TO BUFFER THE TRASH PAD AREA.

NOTE: MAINTENANCE OF THE TRASH PAD AND SCREENING SHALL BE THE RESPONSIBILITY OF THE HOA.

**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES						ADJACENT TO ROADWAYS	TOTAL
		A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)		
LANDSCAPE TYPE	(PERIMETER 1)	130.32 LF	712.85 LF	537.32 LF	518.60 LF	589.86 LF	235.37 LF	108.0 LF	108.0 LF
LINEAR FEET OF PERIMETER									
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	N/A	YES, 290.00 LF.	YES, 537.32 LF.	YES, 170.00 LF.	YES, 164.00 LF.	NO	NO	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	N/A	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED									
SHADE TREES	0 SHADE TREES	7 SHADE TREE	0 SHADE TREES	0 SHADE TREES	4 SHADE TREES	4 SHADE TREES	2 SHADE TREES	2 SHADE TREES	25 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED									
SHADE TREES	0 SHADE TREES	7 SHADE TREE	0 SHADE TREES	0 SHADE TREES	4 SHADE TREES	4 SHADE TREES	2 SHADE TREES	2 SHADE TREES	25 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS

\* NOTE: ADDITIONAL TWO (2) REPLACEMENT TREES WILL BE PLANTED ON THE BACK OF LOT 9 FOR REMOVING OF S.P.# 5.

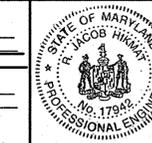
**DEVELOPER'S/OWNER'S CERTIFICATE**

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

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 NAME: [Signature] DATE: 9-10-2014  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 NAME: [Signature] DATE: 9-17-14  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: [Signature] DATE: 9-9-14  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



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. 17942, EXP DATE 9/3/16.

R. JACOB HIKMAT P.E. DATE: 8/18/14

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 7350-B Grace Drive, Columbia Maryland, 21044  
 (410) 997-0296 Fax

**LANDSCAPE AND FOREST CONSERVATION PLAN**

LOTS 1-15 AND OPEN SPACE LOTS 16-19 AND NON-BUILDABLE BULK PARCEL A  
 REVISED ROAD CONSTRUCTION PLAN  
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, TAX MAP 47, BLOCK 6, PARCEL 499

DATE: JULY 2014  
 SCALE: 1" = 50'  
 PROJECT: 08-002  
 DATE: AUG. 2014

NO. 1. REV. TITLE, REV. HIGH SPACE LOT 16, CREATE NON-BUILDABLE BULK CONSERVATION EASEMENT, REV. FOREST CONSERVATION PLAN

DATE: [Blank]  
 NO. [Blank]

APPROVAL: [Blank] MAM  
 APPROVAL: [Blank] RH

8 OF 9

F-11-059

**PLANTING SPECIFICATIONS AND NOTES**

- PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
- DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF DIAMETER = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
- SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
- SOIL MIX FOR ERICACEOUS MATERIALS: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
- ALL PLANTS IN 3" AND 4" SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

**PLANT STORAGE AND INSPECTION**

- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
- FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
- PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, WOOD, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
- UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

**PLANT INSTALLATION**

- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
- PLANTING FIELD DIMENSIONS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.

**FERTILIZING**

- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
- IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SAWDUST BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

**MAINTENANCE SCHEDULE**

- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
- ASSESS TREE MORTALITY OF PLANTING STOCK. REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
- VOLUNTARY SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
- REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
- REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL, NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
- A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

**SUPERVISION**

- ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 8.08.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

**NOTE :**

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

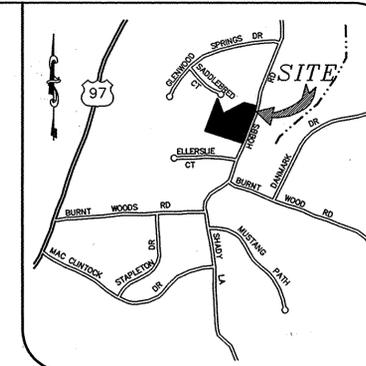
**SOILS CLASSIFICATION**

SYMBOL	DESCRIPTION
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES (D)
ObB	CHILIN-RUSSETT LOAMS, 2 TO 5 PERCENT SLOPES (B)
GaA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES (B)
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES (B)

**OFF-SITE FOREST CONSERVATION EASEMENT AREAS**

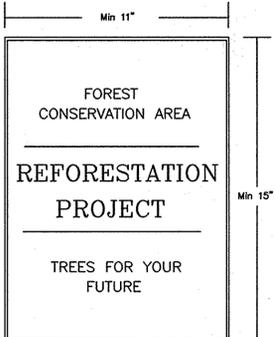
TOTAL EASEMENT AVAILABLE FOR PLANTING: 6.87 ACRES±

PROJECT PROVIDED	EASEMENT AREA	REMAINING EASEMENT AREA	FINAL PLAN #
NORDAU PROPERTY	0.77 ACRES±	8.10 ACRES±	F-12-047
TURLEY'S MEADOW	1.36 ACRES±	6.74 ACRES±	F-13-084
MONTGOMERY CROSSING PHASE 2	1.08 ACRES±	5.66 ACRES±	F-14-029
TURLEY'S OVERLOOK	0.52 ACRES±	5.14 ACRES±	F-14-079
BETHEL MINISTRIES, INC.	0.81 ACRES±	4.33 ACRES±	SDP-14-042
GUILFORD OVERLOOK	0.47 ACRES±	3.86 ACRES±	F-11-059



**VICINITY MAP**  
SCALE: 1" = 2000'  
ADD MAP 17 B-4

**PROJECT BACKGROUND:**  
TAX MAP : 47, PARCEL : 499, GRID: 6  
ELECTION DISTRICT : SIXTH  
ZONING : R-12  
DEED REFERENCE : 1147/407  
ADDRESS: 8692 PINE TREE RD, JESSUP, MD 20794  
DPZ FILE REFERENCE: SP-10-002, WP-10-105



**SIGNAGE DETAILS**  
NOT TO SCALE

**REFORESTATION PLANT LIST**

ALTERNATIVE 1	QTY, SPECIES	SHADE TOL	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
24	Acer rubrum Red Maple	VT	D-W	FAC	15'	CONT/B & B 1" CALIPER	
10	Lindera benzoin Spicebush	T	M	FACW	15'	CONT/B & B 3"-5" HEIGHT	
20	Quercus Rubra Red Oak	I	M-W	FAC	15'	CONT/B & B 1" CALIPER	
10	Liriodendron tulipifera Tuliptree	MT	D-M	FAC	15'	CONT/B & B 1" CALIPER	
20	Nyssa sylvatica Black Gum	T	M-W	FAC	15'	CONT/B & B 1" CALIPER	
20	Prunus sargentii Sargent Cherry	I	M	FACU	15'	CONT/B & B 1" CALIPER	
TOTAL	94 TREES, 10 BUSHES						

ALTERNATIVE 2	QTY, SPECIES	SHADE TOL	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
50	Acer rubrum Red Maple	VT	D-W	FAC	11"	SEEDLING/WHIP WITH TREE SHELTER	
20	Lindera benzoin Spicebush	T	M	FACW	11"	SEEDLING/WHIP WITH TREE SHELTER	
50	Quercus Rubra Red Oak	I	M-W	FAC	11"	SEEDLING/WHIP WITH TREE SHELTER	
20	Liriodendron tulipifera Tuliptree	MT	D-M	FAC	11"	SEEDLING/WHIP WITH TREE SHELTER	
20	Nyssa sylvatica Black Gum	T	M-W	FAC	11"	SEEDLING/WHIP WITH TREE SHELTER	
25	Prunus sargentii Sargent Cherry	I	M	FACU	11"	SEEDLING/WHIP WITH TREE SHELTER	
TOTAL	165 WHIPS WITH TREE SHELTERS, 20 BUSHES						

**OWNER / DEVELOPER**

PLOGGER LLC  
6800 DEERPATH RD, SUITE 100  
ELKRIDGE, MARYLAND 21075  
410-579-2442  
CONTACT NAME: MARK LEVY

**FOREST CONSERVATION WORKSHEET**

NET TRACT AREA:

A. Total tract area.....	= 7.08
B. Area within 100 year floodplain & overhead transmission line =	2.6
C. Area to remain in agricultural production.....	0.00
D. Net tract area.....	4.48

LAND USE CATEGORY:  
Input the number "1" under the appropriate land use zoning, and limit to only one entry.  
ARA MDR IDA HDR MPD CIA  
0 0 0 1 0 0

E. Afforestation Threshold..... 15% x D = 0.67  
F. Conservation Threshold..... 20% x D = 0.90

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain).....	= 3.40
H. Area of forest above afforestation threshold.....	= 2.37
I. Area of forest above conservation threshold.....	= 2.50

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation.....	= 1.40
K. Cleared permitted without mitigation.....	= 2.00

PROPOSED FOREST CLEARING

L. Total area of forest to be cleared.....	= 2.38
M. Total area of forest to be retained.....	= 1.02

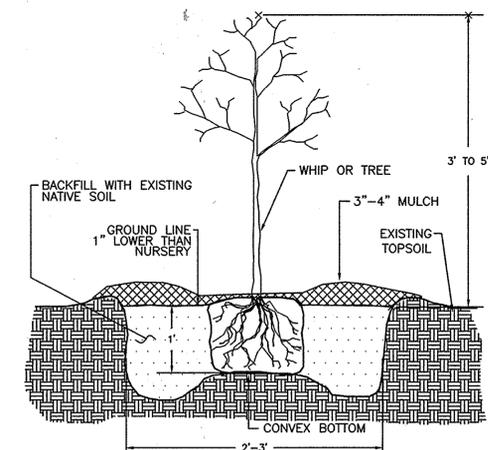
PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold.....	= 0.60
P. Reforestation for clearing below conservation threshold.....	= 0.00
Q. Credit for retention above conservation threshold.....	= 0.12
R. Total reforestation required.....	= 0.47
S. Total afforestation required.....	= 0.00
T. Total reforestation and afforestation required.....	= 0.47
Total reforestation and afforestation provided.....	= 0.47

**LEGEND**

- EXISTING SEPTIC EASEMENT
- FOREST CONSERVATION EASEMENT (REFORESTATION) THAT SATISFY OTHER SUBSIDIARY FOREST CONSERVATION OBLIGATION.
- EXISTING FOREST CONSERVATION EASEMENT (REFORESTATION) F-01-11 AVAILABLE.
- PROPOSED FOREST CONSERVATION EASEMENT FOR GUILFORD OVERLOOK
- DENOTES FOREST CONSERVATION SIGNAGE

FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED BY PLACEMENT OF 0.47 ACRES OF REQUIRED REFORESTATION FOR THE GUILFORD OVERLOOK PROPERTY INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE ROSEBAR PROPERTY, PRESERVATION PARCEL A, LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOBBS ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SHEET 18 OF SDP-97-115/NEW COLONY VILLAGE. DPZ HAS DETERMINED THAT A RED-LINE REVISION SHALL BE MADE TO SDP-97-115 TO SHOW 0.47 ACRES OF REFORESTATION DEDUCTED FROM THE TOTAL FC EASEMENT LOCATED ON ROSEBAR. SURETY FOR THE OFF-SITE FOREST CONSERVATION EASEMENT ON THE ROSEBAR PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT HOLDER.



**TREE PLANTING DETAIL**  
CONTAINER GROWN

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
Date: 9-9-14  
Chief, Division of Land Development  
Date: 9-17-14



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. 17942, EXP DATE 09/03/16.  
R. JACOB HIKMAT P.E. DATE: 8/18/19

MD DNR QUALIFIED PROFESSIONAL  
Mashid Tringa  
MASHID TRINGA

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
7850-B Grace Drive, Columbia, Maryland 21044  
(410) 997-0236 Ext. (410) 997-0596 Fax

**GUILFORD OVERLOOK**  
FOREST CONSERVATION EASEMENT GRANTED FROM ROSEBAR PROPERTY, PRESERVATION PARCEL "A"  
TAX MAP 14, PARCEL 221, BLOCK 23  
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
OFFSITE FOREST CONSERVATION PLAN