

**SOILS TABLE**

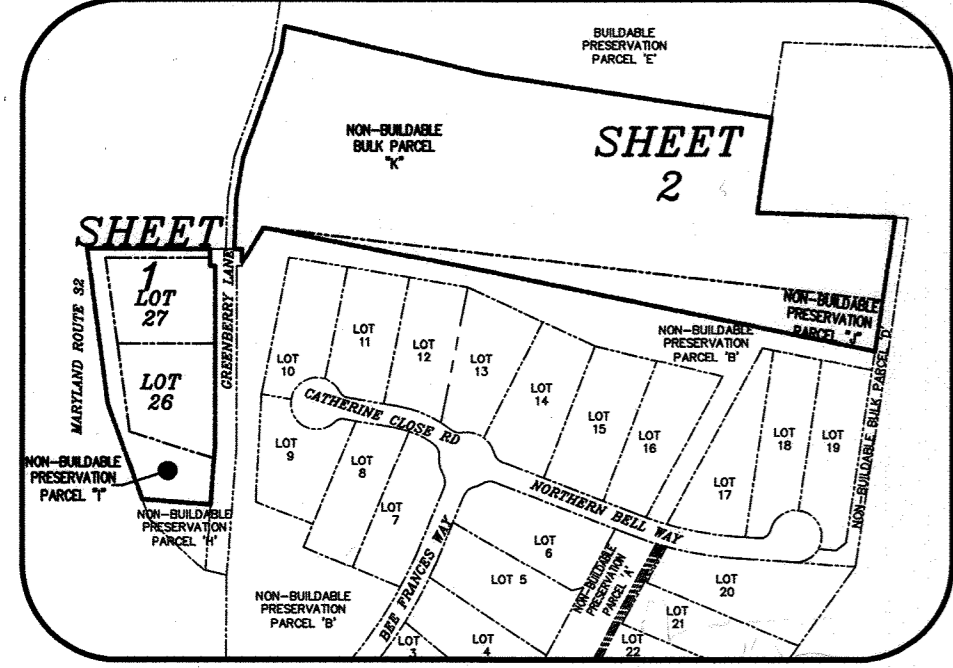
SYMBOL	RATING	NAME	K FACTOR
GgB	(B)	GLENELG LOAM, 3-8% SLOPES.	.20
GgC	(B)	GLENELG LOAM, 8-15% SLOPES.	.20
GmB	(C)	GLENVILLE SILT LOAM, 3 TO 8% SLOPE	

**SWM PRACTICES SCHEDULE**

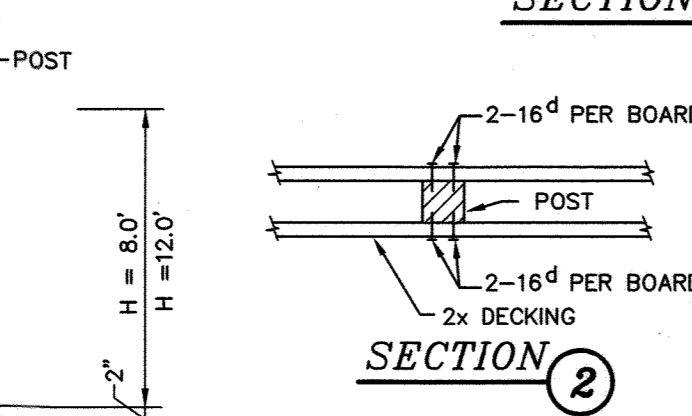
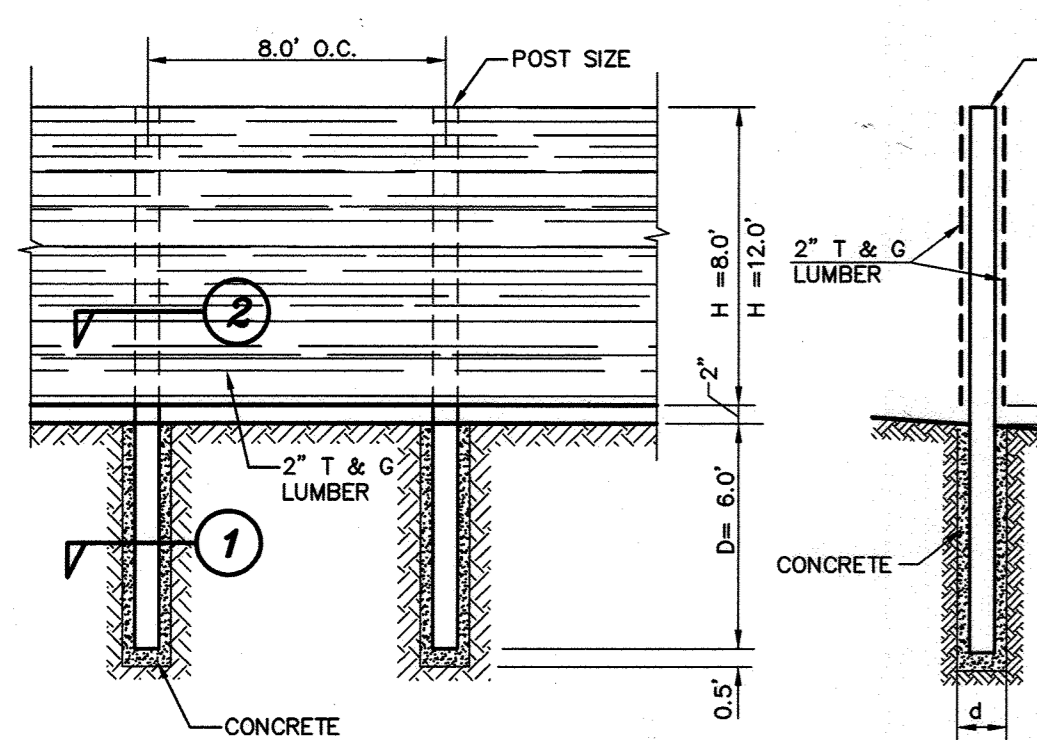
LOT #	PROPOSED PRACTICES	REQUIRED ESDV	PROVIDED ESDV
26	N-1, ROOFTOP DISCONNECTION M-6, MICRO-BIORETENTION	375 CF	631 CF
27	N-1, ROOFTOP DISCONNECTION N-2, NON-ROOFTOP DISCONNECTION	375 CF	375 CF

**LEGEND**

- IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION
- IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION
- IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION
- TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
- 75' @ 5% MAX. ROOFTOP DISCONNECTION (N-1) FLOW PATH WITH DISTANCE AND SLOPE
- LOD LIMIT OF DISTURBANCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- SSF SUPER SILT FENCE
- SF SILT FENCE
- RD ROOF DRAIN LEADER
- PWP PROPOSED POTABLE WATER WELL
- EXISTING PERMANENT B/E EASEMENT (L 12341 F 57)
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION EASEMENT (AFFORESTATION)
- EX. WETLANDS
- EX. SPECIMEN TREE TO BE REMOVED



**LOCATION MAP**  
SCALE: 1"=500'



**SCHEDULE**

H	D	d	POST SIZE
8.0'	6.0'	16"	8"x8"
12.0'	8.0'	18"	6"x12"

- NOISE WALL NOTES:**
- CONCRETE SHALL BE MSHA MIX. NO. 2 FC=3,500 PSI
  - ALL WOODEN MEMBERS SHALL BE PRESSURE TREATED NO. 2 SELECT STRUCTURAL SOUTHERN PINE.
  - PRESSURE TREATMENT SHALL CONSIST OF CCA IN ACCORDANCE WITH AWMP LP-22.
  - PROVIDE 2" OPENING AT BOTTOM OF NOISE WALL.

**GENERAL NOTES**

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY 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 OR 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.
- 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.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE FOREST PRESERVATION AREA SHALL BE PROHIBITED.
- THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
- ROOF PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

**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 DISTURBANCE HAS TAKEN 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 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. SUCH 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.

**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAY	TOTAL
LANDSCAPE TYPE	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)
LINEAR FEET OF PERIMETER	244.70 LF	406.85 LF	207.20 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	80 LF OF EX. TREES
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	YES 8" TALL 236 LF OF PRIVACY FENCE	YES 8"-12" TALL 392 LF OF PRIVACY FENCE	YES 8"-12" TALL 134 LF OF NOISE WALL
NUMBER OF PLANTS REQUIRED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES (2:1 SUBSTITUTION) 0 SHRUBS (10:1 SUBSTITUTION)	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS

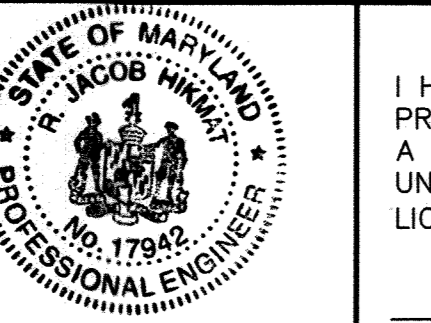
**SHEET INDEX**

NO	TITLE
1	SUPPLEMENTAL LANDSCAPE AND FOREST CONSERVATION PLAN
2	SUPPLEMENTAL LANDSCAPE PLAN
3	DETAILS FOR LOT 27

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chis Chisom* 6-7-17  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

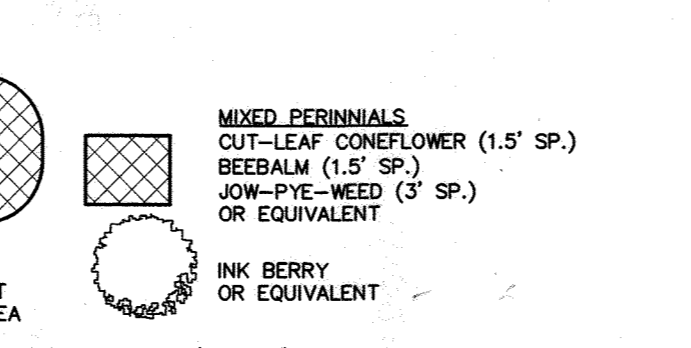
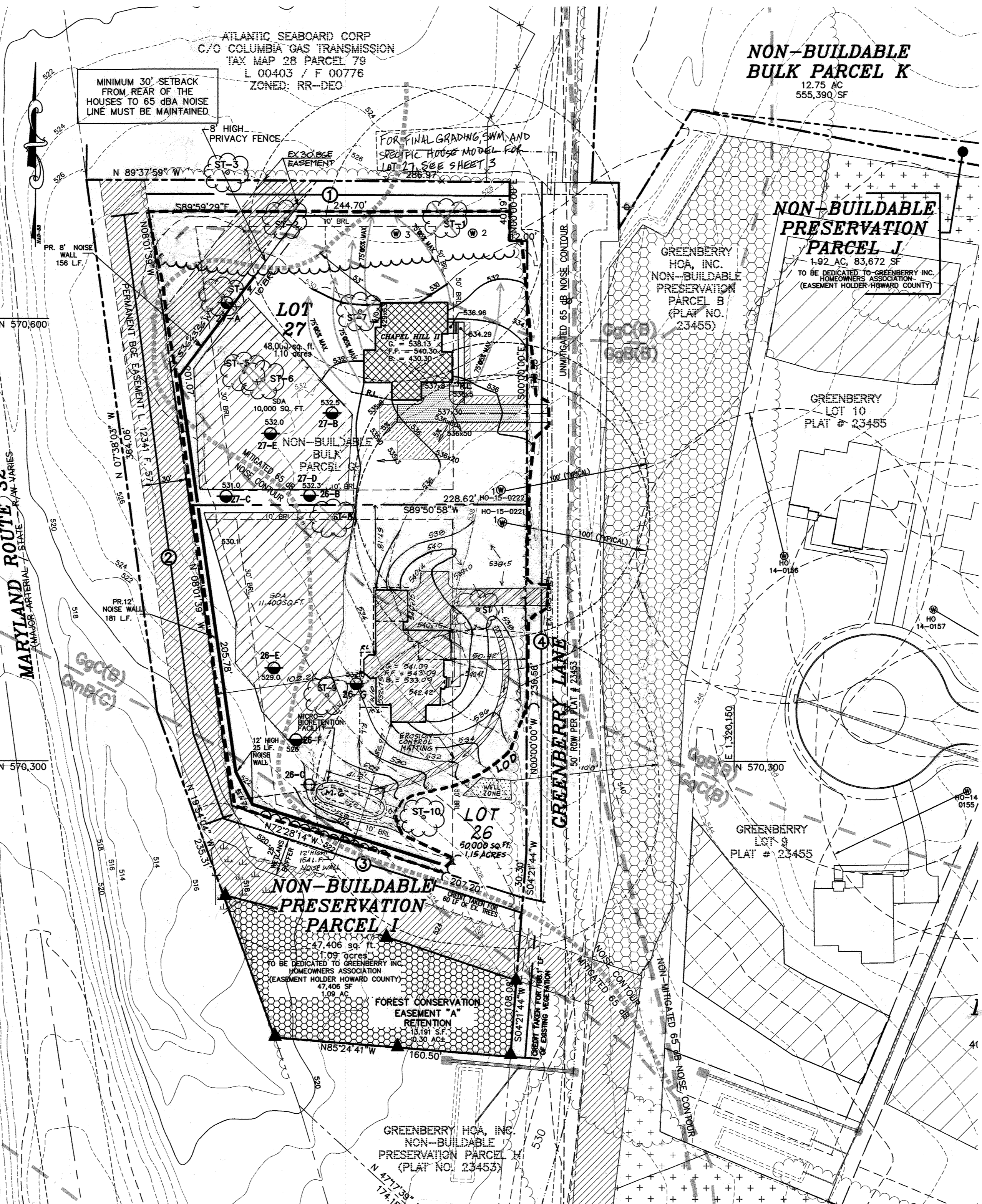
*Neil Slade* 6-8-17  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



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 9/03/18

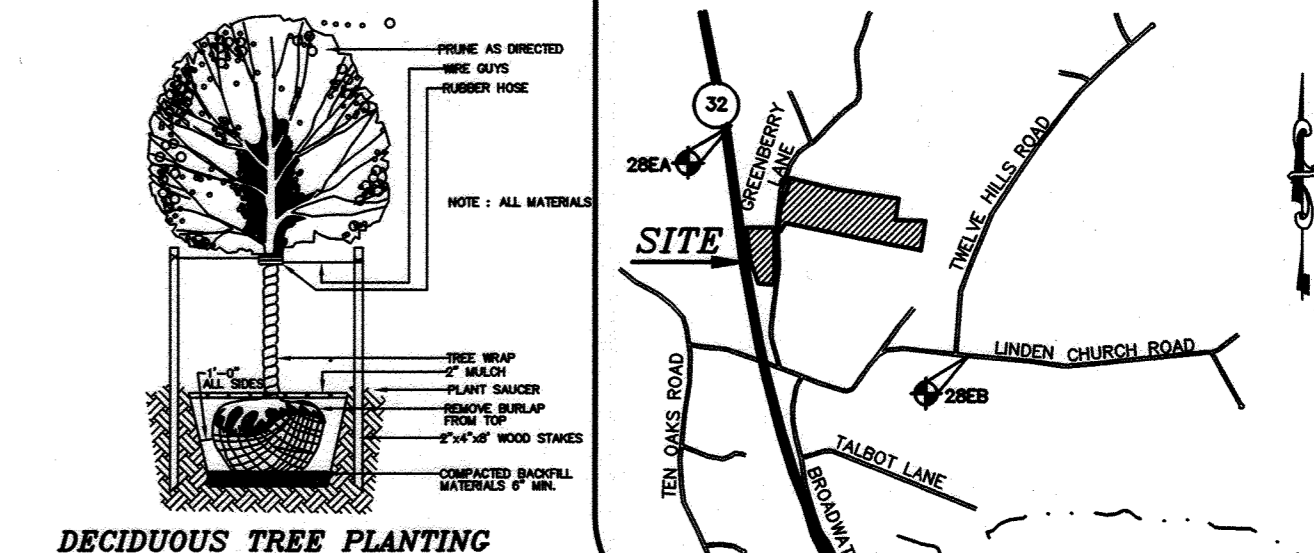
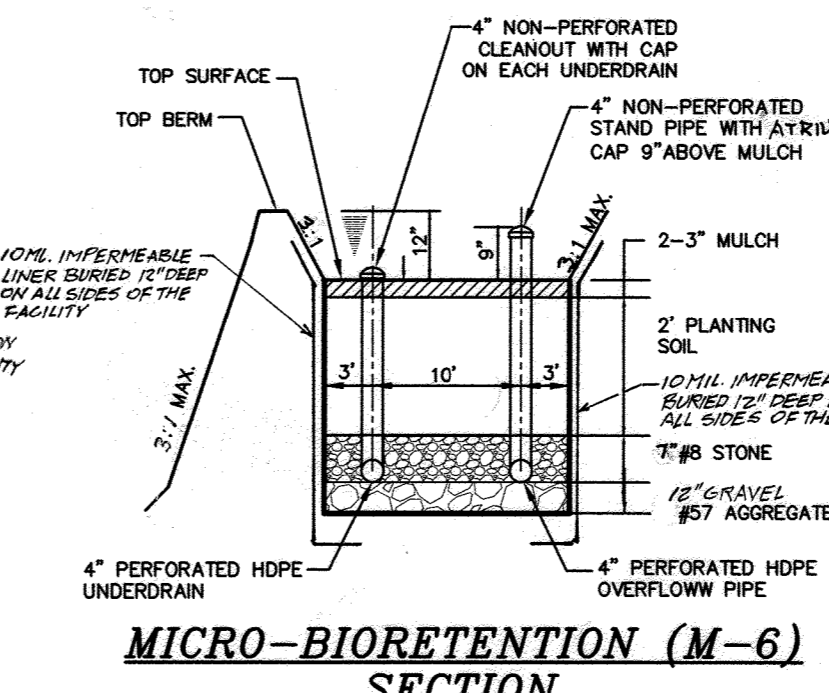
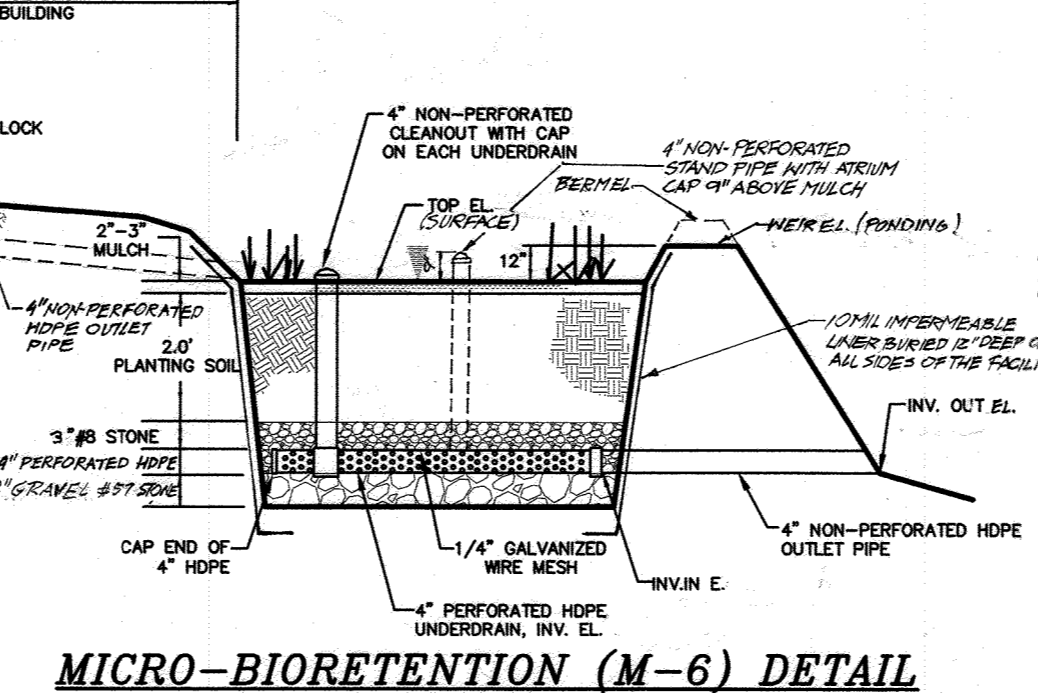
R. JACOB HIKMAT, P.E. DATE 6/16/17

MD DNR QUALIFIED PROFESSIONAL  
*Mashid Tringa* 6/16/17  
MASHID TRINGA DATE



**OWNER**

ROBERT B. WILLIAMS  
JOANNA K. BENEDICT  
BARBARA B. CUSACK  
WILLIAM I. SLADE, JR.  
C/O MILDENBERG, BOENDER & ASSOC.  
7350-B GRACE DRIVE  
COLUMBIA, MARYLAND 21044  
(410)997-0296



**NOTES:**

- THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE OCTOBER 6, 2013 ZONING REGULATIONS
- SITE ANALYSIS DATA:  
LOCATION: TAX MAP: 28 GRID: 9 PARCEL: 48 NON-BUILDABLE BULK PARCELS C AND G  
ELECTION DISTRICT: FIFTH  
ZONING: RR-DEO  
TOTAL AREA: 18.01 AC±  
LIMIT OF DISTURBED AREA: 1.49 AC±  
PROPOSED USE FOR SITE: RESIDENTIAL  
TOTAL NUMBER OF UNITS: 2  
TYPE OF PROPOSED UNIT: SPD  
DEED REFERENCE: 5891 / 307  
PREVIOUS DPZ FILE #S: ECP-13-026, SP-13-010, F-14-095, ECP-16-050, F-16-022  
WP-17-089
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 28EA & 28EB  
STA. NO. 28EA N 572,158.9655 E 1,319,400.6816 EL. 485.012  
STA. NO. 28EB N 569,357.9517 E 1,322,113.5747 EL. 536.733
- TOPOGRAPHY WITHIN 200' OF SITE BOUNDARY SHOWN HEREON IS BASED ON AERIAL SURVEY FLOWN BY WINGS TOPOGRAPHY INC. DATED ON OR ABOUT MARCH 2007. TOPOGRAPHY WAS FIELD VERIFIED IN NOVEMBER 2012. OFF-SITE TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS. MILDENBERG, BOENDER & ASSOCIATES, INC. CERTIFIES THAT THE ON-SITE TOPOGRAPHY ILLUSTRATED ON THE PLAN IS AN ACCURATE REPRESENTATION OF FIELD CONDITIONS.
- SOILS LOCATION AND CLASSIFICATION BASED ON HOWARD COUNTY GIS SOIL SURVEY DATA.  
THIS AREA DESIGNATES A SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ.FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. PUBLIC SEWERAGE IS AVAILABLE. THIS AREA 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 SEWAGE DISPOSAL AREA, AND RECODATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- NO CEMETERIES OR BURIAL GROUNDS EXISTS ON-SITE.
- NO HISTORIC DISTRICTS ARE ADJACENT TO THIS SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
- WETLANDS AND FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. IN MARCH 2016.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE FOREST CONSERVATION (0.30 ACRES OF RETENTION AND 1.50 ACRES REFORESTATION) FINANCIAL SURETY FOR REFORESTATION IN THE AMOUNT OF \$32,670.00 WILL BE PROVIDED WITH THE DEVELOPERS AGREEMENT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, FLOODPLAINS, FLOODWAYS, OR FOREST CONSERVATION EASEMENT AREAS EXCEPT AS SHOWN ON THE APPROVED ROAD CONSTRUCTION PLANS.
- LANDSCAPING FOR LOTS 26 AND 27 IS IN COMPLIANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE 274 LINEAR FEET OF PRIVACY FENCE IN THE AMOUNT OF \$2,740.00 WILL BE POSTED WITH THE GRADING PERMIT APPLICATION.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
A) WIDTH - 12 FEET (16 FEET MIN. OR WIDER SERVING MORE THAN ONE RESIDENCE).  
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").  
C) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS.  
D) STRUCTURE (CURB, BRIDGE) - CAPABLE OF SUPPORTING 25 GROSS TONS (REG. LOADING).  
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAIN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.  
F) STRUCTURE CLEARANCES - MINIMUM 12 INCHES.  
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- STORMWATER MANAGEMENT IS PROVIDED BY ROOFTOP DISCONNECTIONS (N-1), NON-ROOFTOP DISCONNECTIONS (N-2) AND MICRO-BIORETENTION FACILITY (M-6) IN ACCORDANCE WITH THE 2007 MARYLAND STORMWATER DESIGN MANUAL. ALL SWM PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- PRIVATE WATER AND PRIVATE SEWERAGE WILL BE UTILIZED.
- THIS MAJOR SUBDIVISION PLAN IS LOCATED IN THE DESIGNATED TIER III GROWTH AREA OF HOWARD COUNTY PER THE PLAN HOWARD 2030 TIER MAP AND IT WOULD BE SUBJECT TO STATE BILL SB-236. HOWEVER, IT IS CONSIDERED TO BE GRANDFATHERED BECAUSE THE PROPERTY OWNER HAD APPLIED FOR A SOIL PERCOLATION TEST APPLICATION AND HAD SUBMITTED A PERCOLATION TEST PLAN TO THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO JULY 1, 2012.
- THE DESIGN OF THIS CLUSTER SUBDIVISION REFLECTS THE INTENDED USE OF THE PROPOSED PRESERVATION AREAS (PARCELS 1 AND 4 - ENVIRONMENTAL / FORESTATION). THE PRESERVATION PARCELS, AS DESIGNED, WILL FUNCTION FOR THEIR INTENDED USE AND THE CLUSTER LOT ARRANGEMENT WILL MINIMIZE ADVERSE IMPACTS TO ADJACENT PRESERVATION PARCELS (FOREST CONSERVATION AND FARMING). THE CONTRIBUTION OF THE PRESERVATION PARCELS WILL SERVE TO PROHIBIT IMPACTS TO THE ENVIRONMENTALLY SENSITIVE AREAS OF THE SITE (FLOODPLAIN AND WETLANDS) IN THE NORTHERN PORTION OF THE SITE.
- THE CLUSTER SUBDIVISION HAS BEEN DESIGNED IN ACCORDANCE WITH SECTION 10.6.G OF THE 10/8/13 HOWARD COUNTY ZONING REGULATIONS. THE PRESERVATION PARCELS ARE CREATED WITH AN APPROPRIATE AREA TO ENSURE THAT THE OVERALL DENSITY OF THE PROJECT DOES NOT EXCEED ONE CLUSTER LOT PER 25 ACRES OF GROSS AREA.
- THE 65 DBA CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS, AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NOISE STUDY WAS PREPARED BY MILDENBERG, BOENDER & ASSOC., INC. DATED NOVEMBER 2016.
- PER SECTION 4.2.A. OF VOLUME III OF THE HOWARD COUNTY DESIGN MANUAL, AN OFF ROAD TEST IS NOT REQUIRED FOR THIS PROJECT SINCE THE SITE IS LOCATED MORE THAN TWO FEET FROM A MINOR COLLECTOR - MINOR COLLECTOR INTERSECTION.
- ORIGINAL PARCEL DENSITY TABULATION:  
GROSS AREA OF PROPERTY: 133.64 AC±  
NUMBER OF LOTS PERMITTED (1/4.25 AC): 31 LOTS  
NUMBER OF LOTS PROPOSED UNDER (F-14-095): 25  
NUMBER OF PRESERVATION PARCELS PROPOSED UNDER (F-14-095): 1  
NUMBER OF LOTS PROPOSED WITH THIS PLAN: 2  
TOTAL NUMBER OF LOTS/PARCELS PROPOSED: 28  
NUMBER OF REMAINING LOTS: 3  
AREA RESERVED FOR THE REMAINING LOTS (BULK PARCEL K): 12.75 AC.
- A PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROJECT WAS HELD ON DECEMBER 9, 2015 AT 6:00PM AT THE CLARKSBURG FIRE STATION.
- MHUs ARE REQUIRED FOR THIS PROJECT. IN ACCORDANCE WITH SECTION 108.0.E. OF THE 10/08/13 COMPREHENSIVE ZONING REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MOBILE HOME UNITS. THE MHU OBLIGATION FOR THIS DEVELOPMENT WILL BE PROVIDED BY A PAYMENT OF FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT. FOR EACH UNIT OR PORTION OF THE UNITS REQUIRED BY THE DEVELOPMENT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THIS PROJECT IS SUBJECT TO WAIVER PETITION WP-17-089, WHICH WAS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON APRIL 11, 2017. THIS WAIVER IS TO SECTION 16.1205(o)(7) TO ALLOW REMOVAL OF SEVEN (7) SPECIMEN TREES 30" OR GREATER IN DIAMETER. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:  
1. REMOVAL OF THE SEVEN (7) SPECIMEN TREES WILL REQUIRE REPLACEMENT MITIGATION AT A RATIO OF TWO (2) LARGER CALIPER TREES (AT LEAST THREE (3) INCHES DBH) FOR EACH SPECIMEN TREE REMOVED (FOURTEEN TREES TOTAL). THE MITIGATION PLANTING CAN BE PROVIDED AS PART OF THE REQUIRED PERIMETER LANDSCAPING FOR THIS PROJECT. WITH THE FINAL PLAN/SUPPLEMENTAL PLAN FOR THIS PROPERTY, YOU MUST INCLUDE PLAN SHEETS THAT SHOW HOW YOU PLAN TO ADDRESS THIS ALTERNATIVE FOREST CONSERVATION/LANDSCAPE MITIGATION.
- PROPOSED NON-BUILDABLE PRESERVATION PARCEL "J" WILL BE DEDICATED TO THE GREENBERRY HOMEOWNERS ASSOCIATION INC. IT ADJOINS EXISTING PRESERVATION PARCEL "B" WHICH IS ALSO OWNED BY GREENBERRY HOMEOWNERS ASSOCIATION INC. IT WAS DETERMINED BY DPZ ON MAY 30, 2017 THAT NO PUBLIC ROAD FRONTAGE IS REQUIRED FOR PRESERVATION PARCEL "J".

**MICRO-BIORETENTION SCHEDULE**

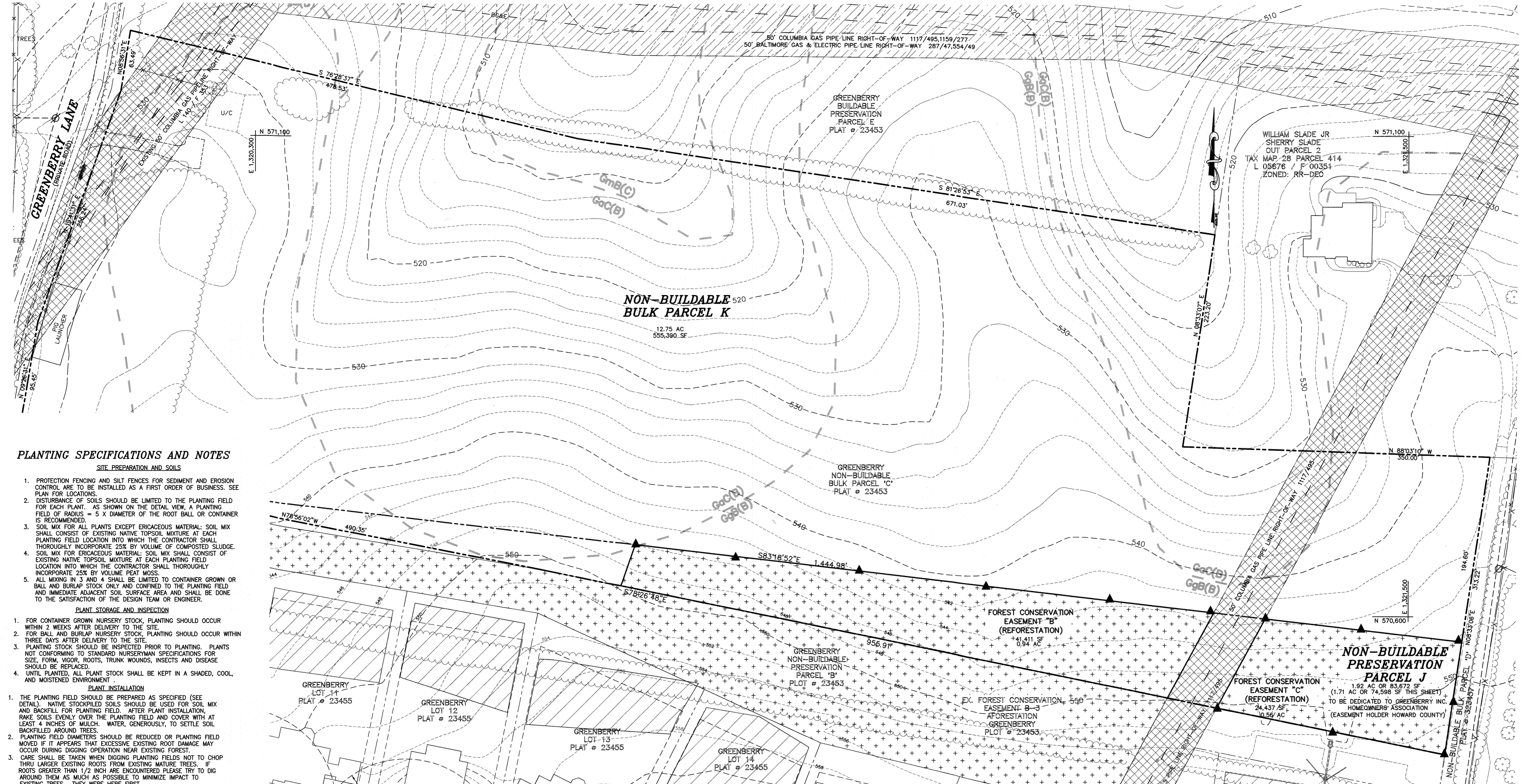
FACILITY	TOP EL.	WEIR EL.	INV. UNDERDRAIN	INV. OUT UNDERDRAIN	AREA AT TOP EL.	AREA AT BERM EL.	BERM EL.
LOT 26	525.00	526.00	522.17	521.70	340 SF	640 SF	256.50

date	project	revision	description	date
MAY 2017	15-008	1	engineering	MM
MAY 2017	15-008	2	illustration	MM
MAY 2017	15-008	3	approval	RJH

NO.	DATE	DESCRIPTION	BY
1	NOV 2012	REVISED HOUSE TOPOGRAPHY, GRADING, SEPTER FIELD	MM
2	DEC 2012	REVISED PROPERTY LINE, BASE & SEPTER EASEMENT	MM
3	NOV 2012	REVISED LOT 27, CORRECT #1-NORMAL, NOTE 12.	MM

GREENBERRY, SECTION II  
LOT 26 AND 27, NON-BUILDABLE PRESERVATION PARCELS 'I' AND 'J', AND  
NON-BUILDABLE BULK PARCEL 'K'.  
TAX MAP 28, PARCEL 48, NON-BUILDABLE BULK PARCELS C AND G  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SUPPLEMENTAL, LANDSCAPE AND FOREST CONSERVATION PLAN

**MILDENBERG & ASSOC., INC.**  
Engineers Planners Surveyors  
7005-F Grace Drive, Columbia, Maryland 21044  
(410) 997-0296 Fax



**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.
- DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 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 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 PEAT MOSS.
- 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, VIGOR, 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 DIAMETERS 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 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.

**SPECIMEN TREE CHART**

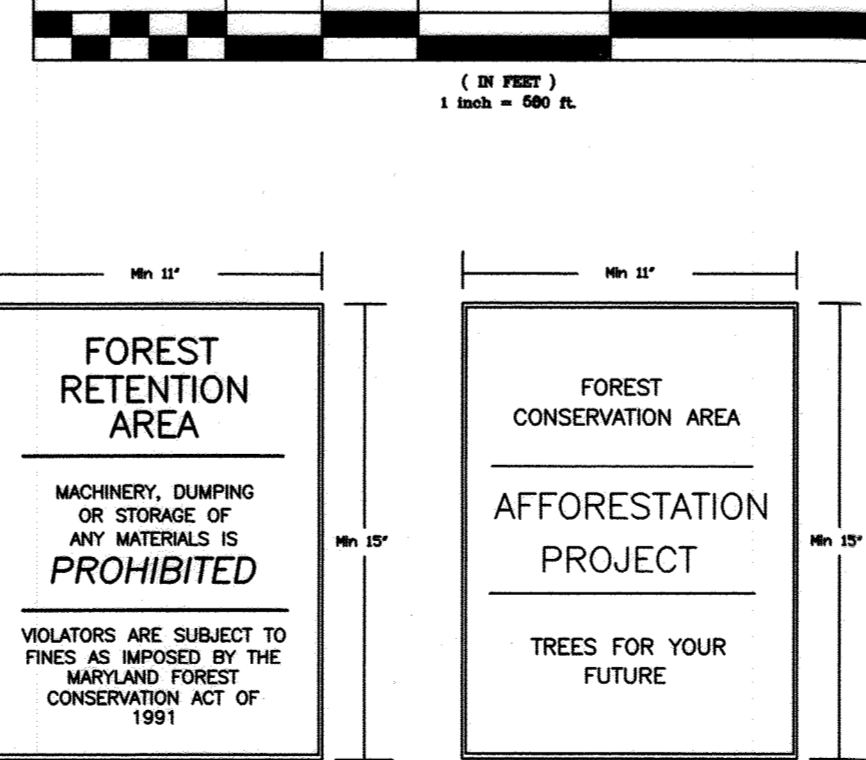
KEY	SPECIES	SIZE (IN. DBH)	COMMENTS	COMMENTS
1	TULIP POPLAR	38"		TO REMAIN
2	BLACK OAK	32"		TO REMAIN
3	WHITE OAK	30"		OFF-SITE
4	BLACK OAK	33"	FAIR CONDITION, LIMB DIEBACK NOTED.	TO BE REMOVED
5	BLACK OAK	33.5"	FAIR CONDITION, LIMB DIEBACK NOTED.	TO BE REMOVED
6	RED OAK	30"		TO BE REMOVED
7	WHITE OAK	31"	POOR CONDITION, TRUNK IS SEVERELY LEANING.	TO BE REMOVED
8	BLACK OAK	33.5"	POOR CONDITION, NOTABLE LIMB DIEBACK.	TO BE REMOVED
9	RED OAK	30"		TO BE REMOVED
10	WHITE OAK	35"		TO REMAIN
11	WHITE OAK	32.5"		TO BE REMOVED

**OPTION 1: AFFORESTATION PLANT LIST (FOR "B" & "C" - 1.50 AC)**

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
27	Acer rubrum	VT	D-W	FAC	20'	CONT/B & B 2" CALIPER	
30	Lindera benzoin	T	M	FACW-	20'	CONT/B & B 3'-5' HEIGHT	
30	Liquidambar styraciflua	I	M-W	FAC	20'	CONT/B & B 2" CALIPER	
23	Liriodendron tulipifera	MT	D-M	FAC	20'	CONT/B & B 2" CALIPER	
20	Nyssa sylvatica	T	M-W	FAC	20'	CONT/B & B 2" CALIPER	
40	Quercus alba	MT	D-M	FACU	20'	CONT/B & B 2" CALIPER	
TOTAL							300 - 1" CALIPER TREES

**OPTION 2: AFFORESTATION PLANT LIST (FOR "B" & "C" - 1.50 AC)**

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
60	Acer rubrum	VT	D-W	FAC	15'	CONT/B & B 1" CALIPER	
60	Lindera benzoin	T	M	FACW-	15'	CONT/B & B 3'-5' HEIGHT	
50	Liquidambar styraciflua	I	M-W	FAC	15'	CONT/B & B 1" CALIPER	
50	Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B 1" CALIPER	
40	Nyssa sylvatica	T	M-W	FAC	15'	CONT/B & B 1" CALIPER	
40	Quercus alba	MT	D-M	FACU	15'	CONT/B & B 1" CALIPER	
TOTAL							300 - 1" CALIPER TREES



**FOREST CONSERVATION DATA**

NET TRACT AREA:  
 A. Total tract area: 3.34  
 B. Area within 100 year floodplain: -0.00  
 C. Area of existing gas line right of way: -0.00  
 D. Net tract area: 3.34

LAND USE CATEGORY: (from table 3.2.1, page 46, Manual)  
 Input the number "1" under the appropriate land use zoning, and limit to only one entry.  
 ARA MDR IDA HDR MPD CIA  
 0 1 0 0 0 0

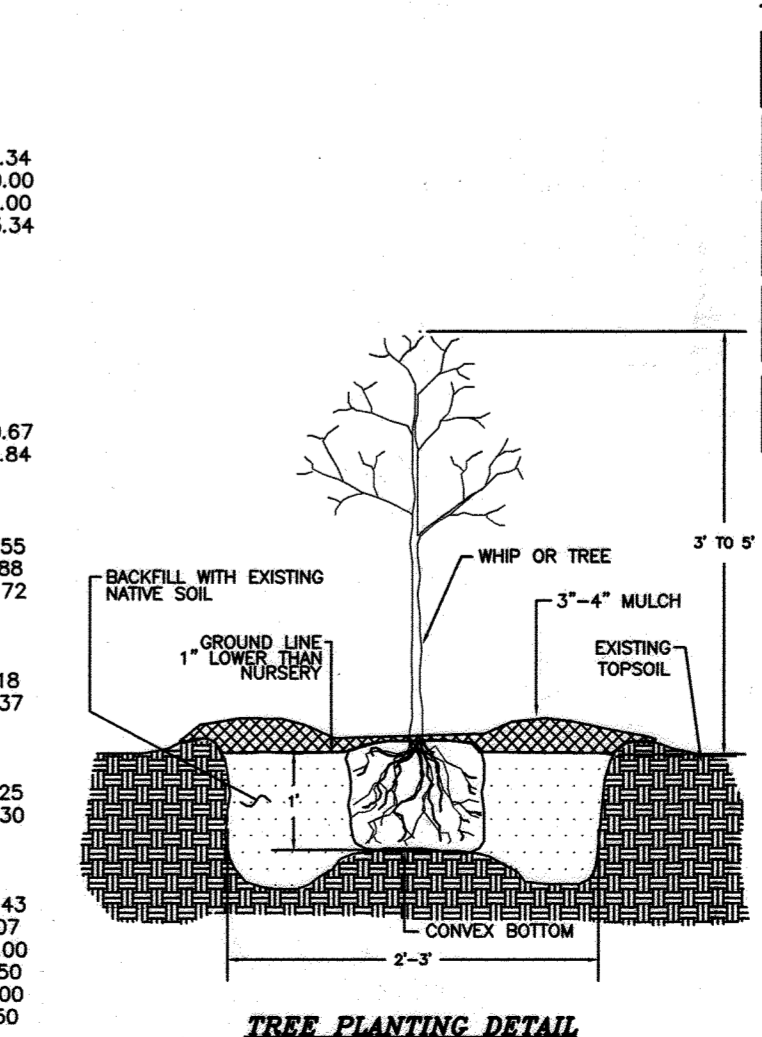
E. Afforestation Threshold: 20% x D = 0.67  
 F. Conservation Threshold: 25% x D = 0.84

EXISTING FOREST COVER:  
 G. Existing forest cover (excluding floodplain): 2.55  
 H. Area of forest above afforestation threshold: -1.88  
 I. Area of forest above conservation threshold: -1.72

BREAK EVEN POINT:  
 J. Forest retention above threshold with no mitigation: 1.18  
 K. Clearing permitted without mitigation: 1.37

PROPOSED FOREST CLEARING:  
 L. Total area of forest to be cleared: 2.25  
 M. Total area of forest to be retained: 0.30

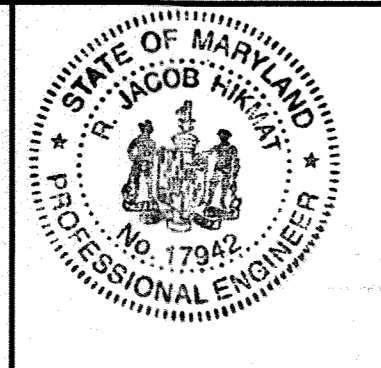
PLANTING REQUIREMENTS:  
 N. Reforestation for clearing above conservation threshold: 0.43  
 O. Reforestation for clearing below conservation threshold: 1.07  
 P. Credit for retention above conservation threshold: -0.00  
 R. Total reforestation required: 1.50  
 S. Total afforestation required: 0.00  
 T. Total reforestation and afforestation required: 1.50



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chief Development Engineering* 5-23-17  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Chief Land Development* 5-23-17  
 CHIEF, DIVISION OF LAND DEVELOPMENT 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 9/03/18

R. JACOB HIKMAT, P.E. 5/11/17 DATE

**OWNER**

ROBERT B. WILLIAMS  
 JOANNA K. BENEDICT  
 BARBARA B. CUSACK  
 WILLIAM I. SLADE, JR.  
 C/O  
 MILDENBERG, BOENDER & ASSOC.  
 7350-B GRACE DRIVE  
 COLUMBIA, MARYLAND 21044  
 (410)997-0296

**DEVELOPER**

GREENBERRY, INC.  
 7350-B GRACE DRIVE  
 COLUMBIA, MARYLAND 21044  
 (410)997-0296

**SIGNAGE DETAILS**

NOT TO SCALE

**LEGEND**

EXISTING PERMANENT BGE EASEMENT (L 12341 F 57)

FOREST CONSERVATION EASEMENT (RETENTION)

FOREST CONSERVATION EASEMENT (AFFORESTATION)

EXISTING COLUMBIA GAS PIPE LINE RIGHT-OF-WAY L 1117 / F 495, L 1159 / F 277

EXISTING COLUMBIA GAS PIPELINE RIGHT-OF-WAY L 1117 / F 495, L 4915 / F 153, L 5080 / F 324, L 140 / F 353

EXISTING BALTIMORE GAS & ELECTRIC PIPE LINE RIGHT-OF-WAY L 287 / F 47, L 554 / F 49

**TREE PLANTING DETAIL**

BACKFILL WITH EXISTING NATIVE SOIL

WHIP OR TREE

3"-4" MULCH

EXISTING TOPSOIL

CONVEX BOTTOM

CONTAINER GROWN

MD DNR QUALIFIED PROFESSIONAL  
 MASHID TRINGA 5/11/17

Project	15-008	date	MAY 2017
Illustration	MMM	engineering	MMM
scale	1"=50'	approval	RJH

REVISED SHEET NUMBER	DATE
1	MAY 2017
description	revisions

GREENBERRY SECTION II  
 LOTS 26 AND 27, NON-BUILDABLE PRESERVATION PARCELS 'I' AND 'J', AND  
 TAX MAP 28, NON-BUILDABLE BULK PARCEL 'K',  
 SUPPLEMENTAL AND FOREST CONSERVATION PLAN  
 HOWARD COUNTY, MARYLAND  
 FIFTH ELECTION DISTRICT

**MILDENBERG & ASSOC., INC.**

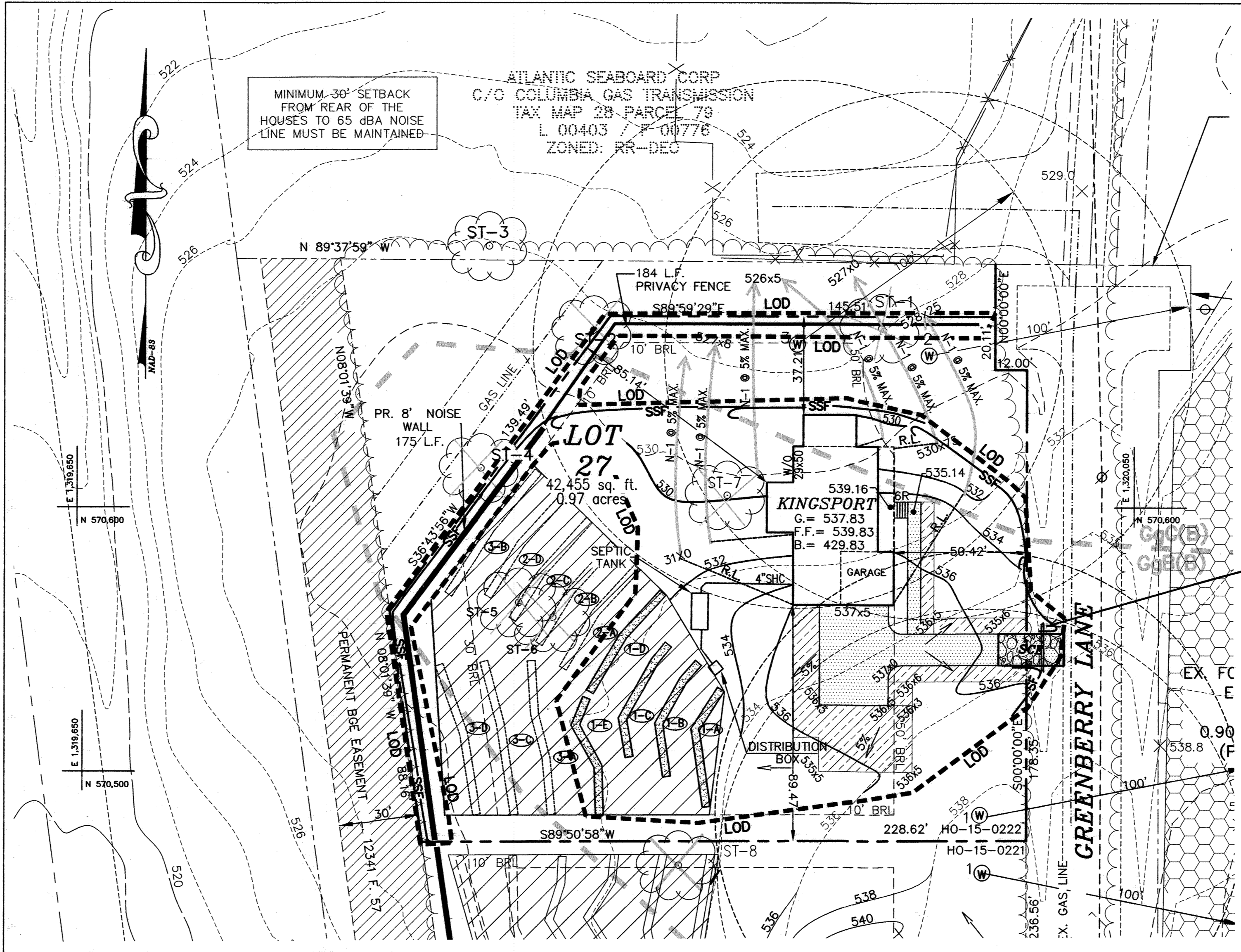
Engineers Planners Surveyors

7905-B Grace Drive, Columbia, Maryland 21044  
 (410) 997-0296 Tel. (410) 997-0298 Fax.

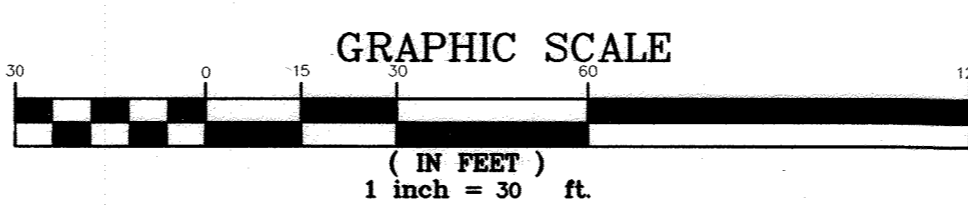
2 OF 3

F-17-056

M:\2022\22-013 Greenberry lot 27\DWG\REDLINE-LOT 27-NOV 2022.dwg, 11/21/2022 11:56:05 AM, MMT



**LOT 27**



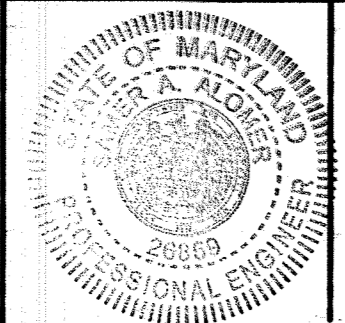
**LEGEND**

- EXIST. TREE LINE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED SUPER SILT FENCE
- PROPOSED SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED IMPERVIOUS AREA
- EXISTING FOREST CONSERVATION EASEMENT
- POTABLE WATER WELL
- TRENCH DESIGNATION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12-5-22  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE

*[Signature]* 12/13/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 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. 26859, EXP DATE 08/08/23

*[Signature]* 11/21/2022  
 SAMER A. ALOMER, P.E. DATE

**OWNER**  
 GADANI ANVI  
 GADANI MARUT  
 3691 DUCKHORN WAY  
 LAUREL MD 20724  
 410-997-0296

**THE PURPOSE OF THIS PLAN IS TO SHOW THE FINAL GRADING, SEDIMENT CONTROL AND STORMWATER MANAGEMENT FOR LOT 27.**

project	22-013	date	NOV. 2022
illustration	MMM	engineering	MMM
scale	AS SHOWN	approval	MMM
		AS SHOWN	SSA

no.		description		date
		revisions		

**REVISED**  
 GREENBERRY, SECTION II  
 LOTS 26 AND 27, NON-BUILDABLE PRESERVATION PARCELS 'I' AND 'J', AND  
 NON-BUILDABLE BULK PARCEL 'K'  
 TAX MAP 28, PARCEL 48, NON-BUILDABLE BULK PARCELS C AND G  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**DETAILS FOR LOT 27**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 8816 Forrest Street - Suite 300, Ellicott City, MD 21043  
 (410) 997-0296 Tel. (410) 997-0288 Fax.