

**SOIL DESCRIPTION:**

SYMBOL	RATING	NAME	K FACTOR	MAP NO.	COMMENTS
R <sub>sB</sub>	(C)	RUSSETT FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES	.43	46	HIGHLY ERODABLE
R <sub>sC</sub>	(C)	RUSSETT FINE SANDY LOAM, 5 TO 10 PERCENT SLOPES	.43	46	HIGHLY ERODABLE
F <sub>o</sub>	(D)	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	.24	46	

**LEGEND**

- WETLANDS
- FLOODPLAIN
- CLEAN WATER DIVERSION FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- IMPERVIOUS AREA TREATED BY MICRO-BIORETENTION (M-6)
- PROPOSED MICRO-BIORETENTION STORMWATER MANAGEMENT FACILITY (M-6)
- STORM DRAIN JUNCTION BOX
- STORM DRAIN INLET
- TEMPORARY SOIL STABILIZATION MATTING
- CHANNEL APPLICATION

**MICRO-BIORETENTION SCHEDULE**

FACILITY	TOP EL. (SURFACE)	WEIR EL. (PONDING)	BERM EL.	INV. IN.	INV. OUT.	SURFACE AREA	PONDING AREA	PONDING DEPTH	GRAVEL DEPTH BELOW UNDERDRAIN
MB-1	256.00	257.00	257.50	253.25	249.75	263 S.F.	491 S.F.	12"	14"
MB-2	260.00	261.00	261.50	257.25	256.98	313 S.F.	580 S.F.	12"	15"
MB-3	256.50	257.50	258.00	253.75	253.61	275 S.F.	509 S.F.	12"	12"

**SWM PRACTICES SCHEDULE**

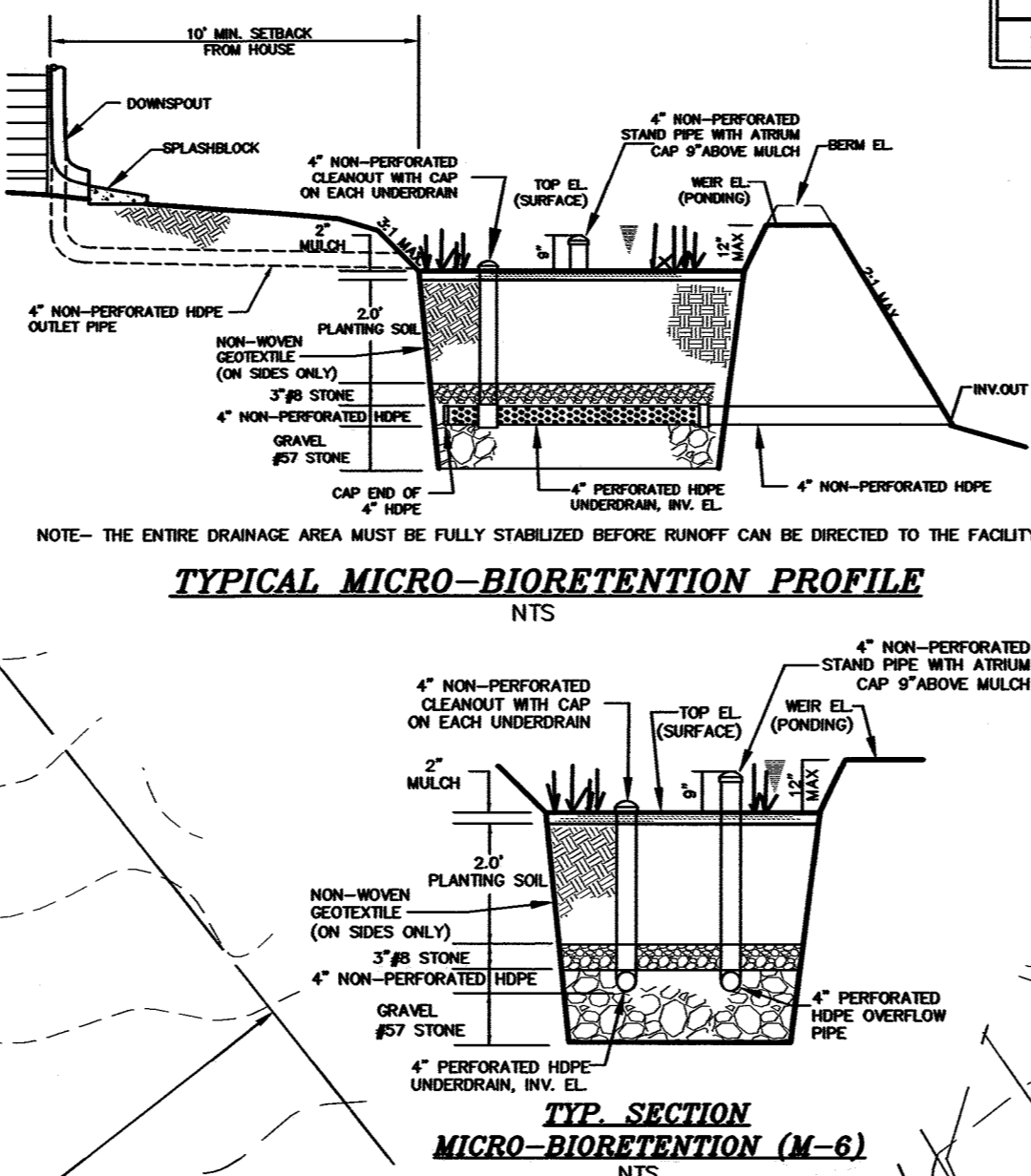
AREA	PROPOSED PRACTICES	REQUIRED ESD <sub>v</sub>	PROVIDED ESD <sub>v</sub>	REQUIRED P <sub>e</sub>	PROVIDED P <sub>e</sub>	REQUIRED R <sub>v</sub>	PROVIDED R <sub>v</sub>
LOT 1	M-6, MICRO-BIORETENTION	492 C.F.	500 C.F.	1.6"	1.6"	40 C.F.	123 C.F.
LOT 2	M-6, MICRO-BIORETENTION	595 C.F.	604 C.F.	1.6"	1.6"	48 C.F.	157 C.F.
LOT 3	M-6, MICRO-BIORETENTION	427 C.F.	430 C.F.	1.6"	1.6"	35 C.F.	110 C.F.

NOTE: ALL ROOF LEADERS TO BE DIRECTED TOWARDS THE MICRO-BIORETENTION FACILITY.

**SPECIMEN TREE CHART**

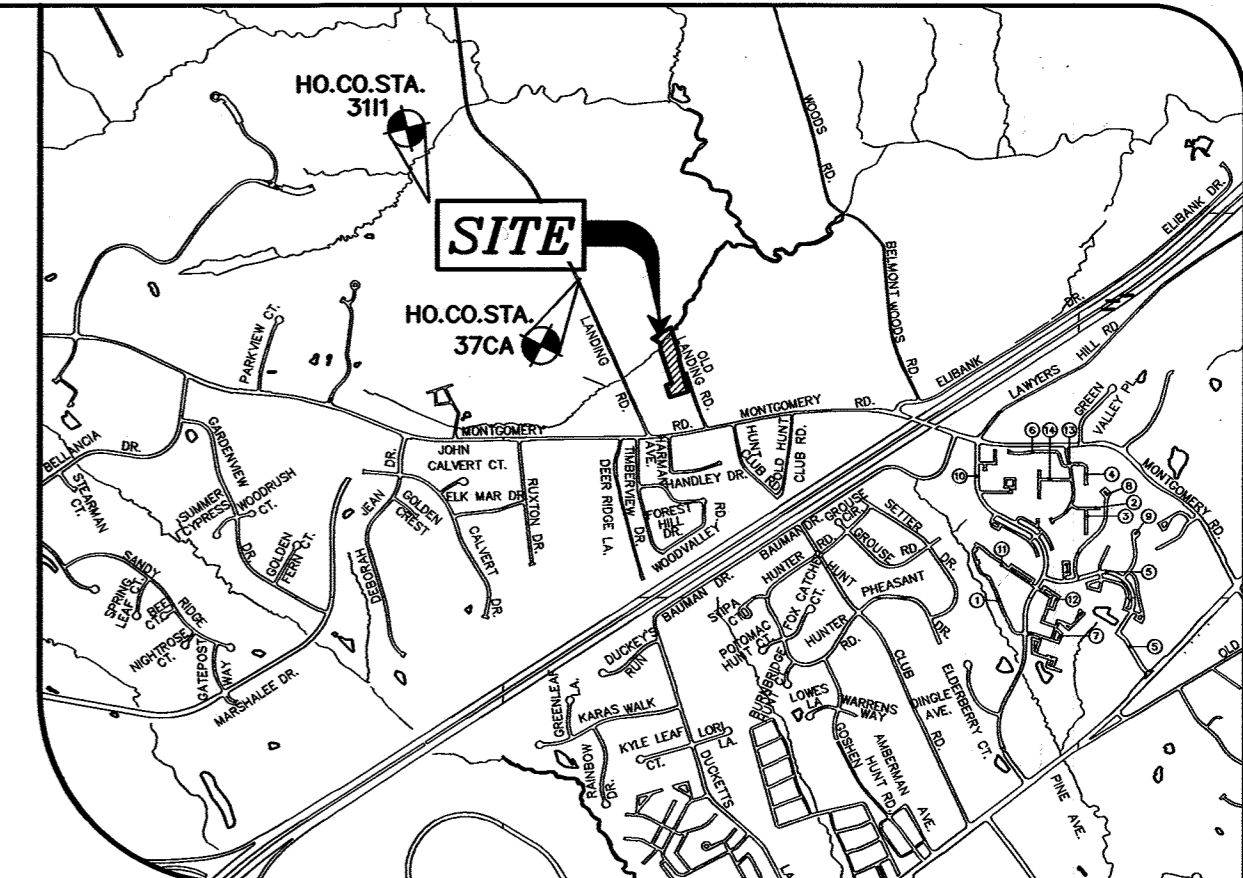
KEY	SPECIES	SIZE:DBH	CRZ	COMMENTS	CRZ AREA SF
ST-01	WHITE OAK	36"	54'	FAIR CONDITION - TO BE REMOVED	9160

**TYPICAL MICRO-BIORETENTION PROFILE**

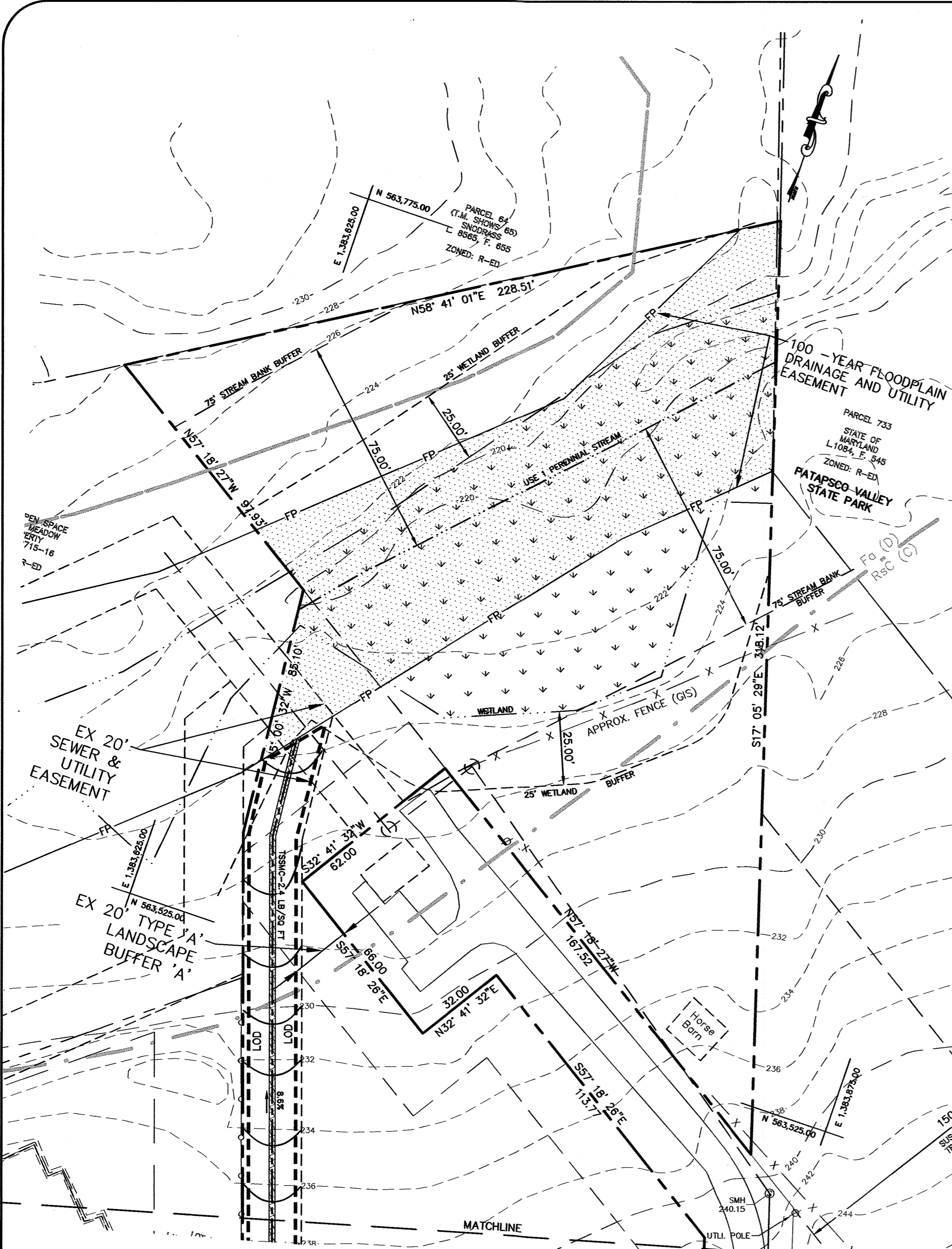


**TYP. SECTION MICRO-BIORETENTION (M-6)**

NOTE - THE ENTIRE DRAINAGE AREA MUST BE FULLY STABILIZED BEFORE RUNOFF CAN BE DIRECTED TO THE FACILITY.



VICINITY MAP  
SCALE: 1" = 1000'  
ADC MAP: 4936, GRID J-4



**GENERAL NOTES:**

- SITE ANALYSIS DATA:  
ADDRESS: 5740 OLD LANDING ROAD, ELK RIDGE MD 21075  
LOCATION: TAX MAP: 37 - GRID: 06 - PARCEL 66  
ZONING: R-ED  
ELECTION DISTRICT: FIRST  
DEED REFERENCE: 16428/107  
AREA OF TRACT: 2.36 ACRES  
PROPOSED USE: SFD  
PROPOSED BUILDABLE LOTS: 4  
PROPOSED OPEN SPACE LOTS: LOT 5: 1.58 ACRES, 0.77 ACRES CREDITED.
- COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3111 & 37CA:  
STA. No. 3111 N 565,004.702 E 1,381,586.987 EL. 305.961  
STA. No. 37CA N 564,321.637 E 1,382,742.900 EL. 256.893
- EXISTING TOPOGRAPHIC INFORMATION IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY BY MILDENBERG, BOENDER & ASSOC., INC. DATED ON OR ABOUT AUGUST 12, 2020 AND SHOWN WITH 2' CONTOUR INTERVALS. OFFSITE TOPOGRAPHY IS BASED ON HOWARD COUNTY GIS DATA AND SHOWN WITH 2' CONTOUR INTERVALS.
- BOUNDARY INFORMATION IS BASED ON FIELD RUN MONUMENTED SURVEY BY MILDENBERG, BOENDER & ASSOC., INC. DATED AUGUST 12, 2020.
- THERE ARE NO FORESTS ON SITE.
- APFO ROAD TEST IS NOT REQUIRED FOR THIS SUBDIVISION. THE HOWARD COUNTY ADEQUATE PUBLIC FACILITIES TRAFFIC REQUIREMENTS DO NOT REQUIRE A TRAFFIC IMPACT ANALYSIS FOR DEVELOPMENT GENERATING FEWER THAN 5 PEAK HOUR TRIPS.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC. WATER CONTRACT 064W AND SEWER CONTRACT 10-1043.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED VIA ON-SITE NON-STRUCTURAL PRACTICES: MICRO-BIORETENTION (M-6) AND DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2). SWM PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- THERE ARE NO SLOPES GREATER THAN 15% ON SITE.
- PREVIOUS COUNTY FILE NUMBERS: F-96-178.

**ESD NARRATIVE**

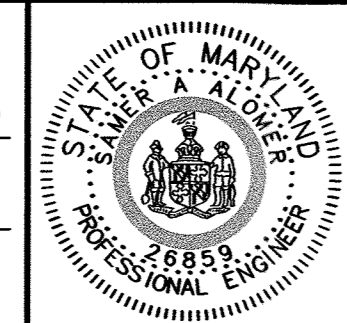
- THE PROPERTY DOES CONTAIN FLOODPLAIN, STREAM, WETLAND AND THEIR BUFFER. THERE ARE NO STEEP SLOPES ON SITE. THE SITE SLOPES FROM SOUTHEAST TO NORTHWEST.
- THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
- 16' WIDE DRIVEWAY WILL BE USED TO PROVIDE ACCESS TO THE HOUSES. MICRO-BIORETENTION FACILITIES (M-6) WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SUPER SILT AND DIVERSION FENCES. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
- 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 MINIMIZING EARTH DISTURBANCE.
- IN DESIGNING THIS PROJECT, IT WAS PLANNED TO MINIMIZE IMPERVIOUS AREAS, AND UTILIZE ESD MEASURES.

**SITE ANALYSIS DATA:**

- AREA OF THE SITE = 2.36 AC ±
- AREA OF WETLANDS AND ITS BUFFERS = 0.55 AC ±
- AREA OF FLOODPLAIN = 0.28 AC ±
- AREA OF EXISTING FOREST = 0.0 AC ±
- AREA OF STREAM BUFFER = 0.64 AC ±
- AREA OF STEEP SLOPES 15% OR GREATER = 0.00 AC ±
- AREA OF STEEP SLOPES 25% OR GREATER = 0.00 AC ±
- NET BUILDABLE AREA = 2.08 AC ±
- NO. OF ALLOWABLE LOTS = 2.08 AC X 2 UNITS PER NET AC = 4.16
- A TOTAL OF 4 BUILDABLE LOTS ARE PROPOSED, (LOTS 1-4)
- PROPOSED OPEN SPACE LOTS: 1 (OPEN SPACE LOT 5)
- THREE NEW SINGLE FAMILY DETACHED DWELLINGS ARE PROPOSED
- AREA OF ERODABLE SOILS = 1.86 AC ±
- LIMIT OF DISTURBANCE AREA = 0.77 AC ±
- GREEN OPEN AREA (PERVIOUS) = 2.09 AC ±
- PROPOSED IMPERVIOUS AREA = 0.27 AC ±

APPROVED: DEPARTMENT OF PLANNING AND ZONING

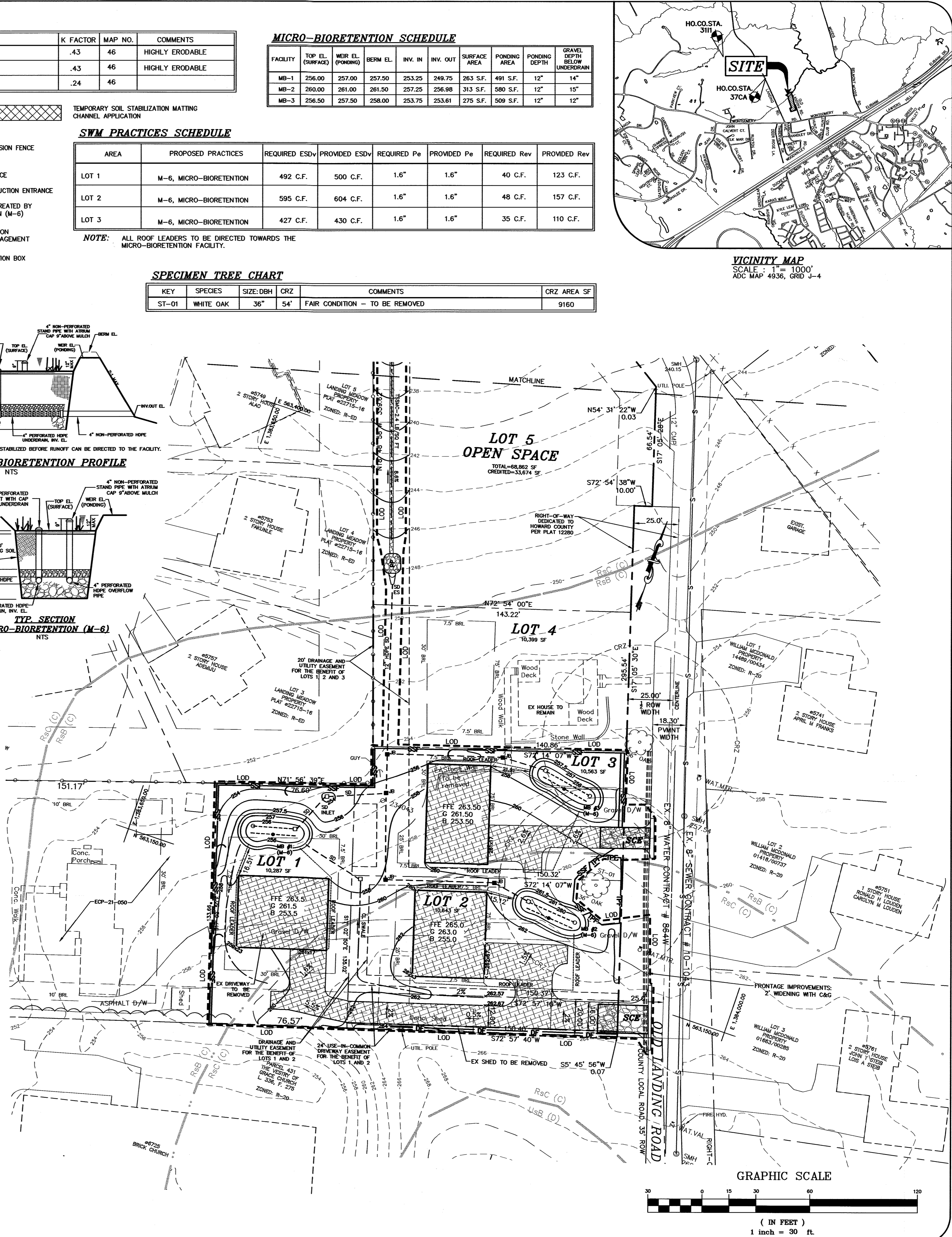
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
12-14-21  
DATE



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  
SAMER A. ALOMER P.E. 9/20/2021 DATE

**DEVELOPER**  
JACOB HIKMAT  
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SUITE 103  
COLUMBIA, MD 21044  
443-935-9547  
JHIKMAT@HOTMAIL.COM

**OWNER**  
JACKY L. KIMMEL  
C/O M&A  
7350-B GRACE DRIVE  
COLUMBIA MD 21044



project	date	description	scale
20-023	DEC. 2021	illustration	1"=90'
		DAM	SAAs
		approval	SAAs

no.	description	date
	revisions	

**LANDING ENCLAVE EAST**  
A RESUBDIVISION OF LOT 1  
TAX MAP: 37 - GRID: 06 - PARCEL: 66  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ENVIRONMENTAL CONCEPT PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
7350-B Grace Drive, Columbia, Maryland 21044  
(410) 997-0298 Fax

**SOIL DESCRIPTION:**

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**NOTES:**

- REPLACEMENT RATIO OF 2:1 FOR TREES TO BE REMOVED. A TOTAL OF 2 TREES TO BE REPLANTED WITH CALIBER OF 3" MIN. DBH. ADDITIONAL TREE REPLANTING MAY BE REQUIRED IF THE TREES DESIGNATED TO BE SAVED ON LOT 2 PERISH DURING CONSTRUCTION. THE ADDITIONAL REPLANTING WILL BE DONE AT A 2:1 RATIO WITH CALIBER OF 3" MIN.
- TREE PROTECTIVE FENCE TO BE INSTALLED AROUND ALL TREES TO REMAIN ON BUILDABLE LOTS DURING ALL PHASES OF CONSTRUCTION. DETAILS TO BE SHOWN ON FINAL PLANS AND SITE DEVELOPMENT PLANS.
- TREE PRESERVATION RECOMMENDATIONS TO BE PERFORMED IN ACCORDANCE WITH THE GUIDELINES SHOWN ON THIS EXHIBIT. DETAILS WILL BE PROVIDED ON THE FINAL AND SDP PLANS.

**TREE PRESERVATION RECOMMENDATIONS**

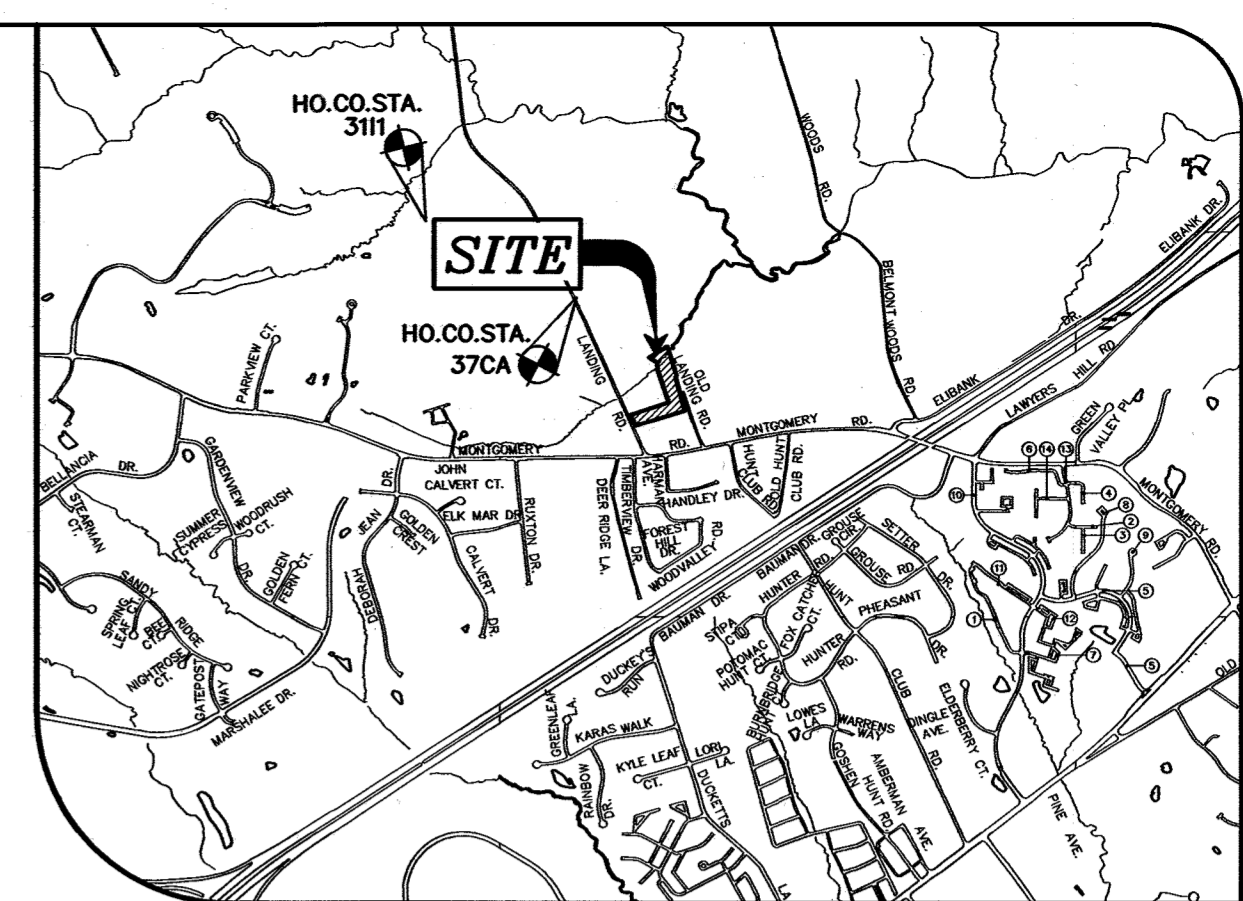
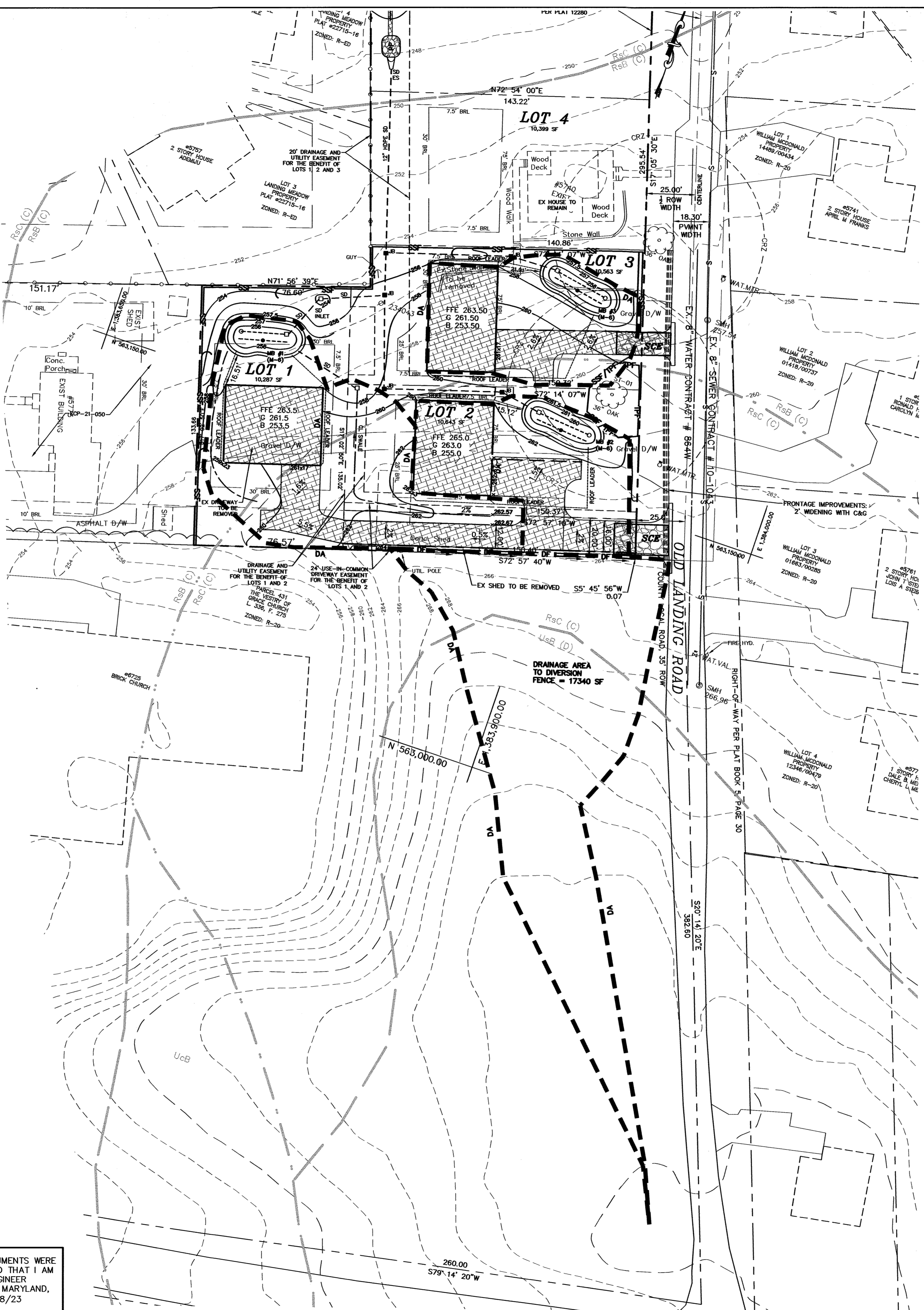
- AFTER THE LIMIT OF DISTURBANCE (LOD) IS ESTABLISHED, TREE ST-1 SHOULD BE PRUNED, THINNED AND THE DEADWOOD REMOVED.
- THESE TREES SHALL HAVE A DEEP ROOT FERTILIZATION TO PROMOTE NEW ROOT GROWTH. THE FOLLOWING MIXTURE OR EQUIVALENT THEREOF SHOULD BE USED PER 550 GALLONS OF WATER. APPROXIMATELY 25 LBS. OF 20-20-20B NUTRI-LEAF AND APPROXIMATELY 50 LBS. OF POWDER BLUE 38-0-0 SHOULD BE USED. THIS RESULTS IN A 4-1-1 RATIO. THE APPLICATION RATE SHOULD BE 5 GALLONS OF MIXTURE FOR EACH INCH OF (DBH). THE MATERIAL SHOULD BE APPLIED WITH AN APPROPRIATE HYDRAULIC SPRAYER AND THE TANK SHALL RECEIVE CONSTANT AGITATION TO KEEP THE MATERIAL IN SOLUTION. THIS MATERIAL SHOULD BE APPLIED AT APPROXIMATELY 150 TO 200 LBS. P.S.I. (PER SQUARE INCH). THIS APPLICATION IS DESIGNED TO DO TWO THINGS: TO PUT THE MATERIAL INTO THE SOIL AT THE APPROPRIATE DEPTH AND TO AERATE THE SOIL.
- ROOT PRUNING SHOULD BE DONE AT THE LOD TO A DEPTH OF APPROXIMATELY TWO FEET. ROOTS SHOULD BE CLEANLY CUT USING A VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT. THE TRENCH SHOULD BE IMMEDIATELY BACK-FILLED WITH THE SOIL REMOVED OR ORGANIC SOIL APPROVED BY PROJECT MANAGER. NOTE: NOT MORE THAN 30% OF THE CRITICAL ROOT ZONE SHOULD BE DISTURBED AND LESS IF POSSIBLE.
- ORANGE TREE-PROTECTION FENCING SHOULD BE INSTALLED AT THE LOD AND AROUND THE REMAINING CANOPY OF THE SAVED TREES. THE AREA SHOULD NOT BE DISTURBED BY EQUIPMENT OR USED FOR STORAGE. THE FENCE SHOULD REMAIN AS INSTALLED THROUGHOUT THE ENTIRE PROJECT.
- FIELD INSPECTION TO MAKE SURE ALL WORK HAS BEEN DONE ACCORDING TO INDUSTRY STANDARDS.
- TREES SHOULD BE MONITORED DURING CONSTRUCTION OF THE PROJECT. THOSE PROBLEMS THAT ARE FOUND DURING THE COURSE OF CONSTRUCTION SHOULD BE CORRECTED BY THE TREE TRIMMING CONTRACTOR AT THE DIRECTION OF THE PROJECT MANAGER.
- UPON SUCCESSFUL COMPLETION OF THE PROJECT, ALL TREE PRESERVATION MATERIAL SHALL BE REMOVED.
- A FINAL INSPECTION SHALL BE DONE AND ANY INJURY TO THE TREES (E.G., PRUNING OF DEAD, DYING AND BROKEN LIMBS) SHOULD BE DONE AT THIS TIME. THE TREES SHOULD BE MONITORED FOR A PERIOD OF TWO YEARS BEFORE FINAL RELEASE OF THE PROJECT.

**DEVELOPER**

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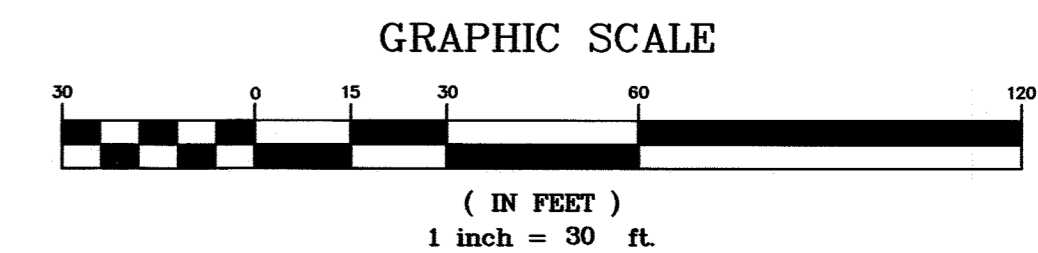
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**VICINITY MAP**  
SCALE: 1" = 1000'  
ADC MAP 4836, GRID J-4

**DRAINAGE AREA MAP**



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12-16-21  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 9/20/2021  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT



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DATE:

date	DEC., 2021
project	20-023
illustration	DAM
scale	1" = 30'
approval	SA A
SA A	SA A

date	
description	
revisions	
no.	

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TAX MAP: 37 - GRID: 06 - PARCEL: 66  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
**DRAINAGE AREA MAP, NOTES**

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