

SOILS LEGEND			
MAP SYMBOL	SOIL TYPE	MAPPING UNIT	K FACTOR
Fa	D	FALLSINGTON SANDY LOAM - 0 TO 2 PERCENT SLOPES	0.20
UcB	C (B,D)	URBAN LAND, CHILLUM/BELTSVILLE COMPLEX - 0 TO 5 PERCENT SLOPES	0.37
USD	C (B,D)	URBAN LAND, CHILLUM/BELTSVILLE COMPLEX - 5 TO 10 PERCENT SLOPES	0.37

ESD Micro-Scale Practices Summary Table														
Drainage Area	Practice	MDE Type	No. used	Target Qe = 0.70 inches		Target Qe = 1.80 inches		Target ESDv = 3,558 cf		Total of Prov	Required	Provided	Rev	
				Total DA	Imp. Area	Total DA	Imp. Area	Total DA	Imp. Area					
LOT 1	DW	(M-5)	2	1,540	1,540	NA	770	770	1,540	NA	NA	NA	NA	
LOT 2	GD-5	(M-4)	1	1,407	983	1.19	1,407	983	983	NA	NA	NA	NA	
LOT 3	MB-1	(M-6)	1	3,206	1,536	0.87	3,206	1,536	1,536	64	230	NA	1.0	
LOT 4	MB-3	(M-6)	1	2,186	1,536	1.23	2,186	1,536	1,536	44	176	NA	1.0	
LOT 5	GD-1	(M-4)	1	695	330	NA	695	330	330	NA	NA	NA	5.0	
LOT 6	GD-2	(M-4)	1	431	285	NA	431	285	285	NA	NA	NA	5.0	
LOT 7	GD-3	(M-4)	1	539	340	NA	539	340	340	NA	NA	NA	5.0	
LOT 8	GD-4	(M-4)	1	1,110	495	NA	1,110	495	495	NA	NA	NA	5.0	
SITE	DW	(M-5)	2	1,540	1,540	NA	770	770	1,540	NA	NA	NA	5.0	
	GD-6	(M-4)	1	2,105	1,515	1.26	2,105	1,515	1,515	NA	NA	NA	5.0	
	GD-7	(M-4)	1	1,550	903	1.03	1,550	903	903	NA	NA	NA	5.0	
	SWALE	(M-8)	1	14,125	4,814	0.64	14,125	4,814	4,814	1,840	1,930	PASS	755.8	
Totals				40,429	22,352	0.99			22,352					3,789

BENCH MARKS NAD '83  
 HO. CO. MON. 3748 ELEV. 390.452  
 STAMPED DISC ON CONCRETE MONUMENT,  
 CORNER MD. RT. 108 & OLD MONTGOMERY RD.  
 N 561,137.376 E 1,369,891.847  
 HO. CO. MON. 0048 ELEV. 348.044  
 STAMPED DISC ON CONCRETE MONUMENT,  
 CORNER MD. RT. 108 & HAYFIELD AVENUE  
 N 557,526.362 E 1,370,661.987



VICINITY MAP  
 SCALE: 1"=2000'

**NARRATIVE:**  
 The extreme western portion of this site (parcel 488) is essentially a utility r/w which extends up to the existing intersection of Waterloo Road & Woodlooloo Drive, and shall remain undisturbed. The remaining site area is currently mostly meadow with a dwelling and several garage structures. Any and all existing structures are to be removed. The site drains from a high point west to east with short flows at an average slope of 5-10 percent. The majority of which flows towards the adjoining parcels along the northern and eastern boundaries. The site also minimally discharges onto existing Woodcrest Drive which runs parallel with the southern boundary.

The area of this submission is all of Tax Map 37, Parcel 126, 488 & 530 and is approximately 2.14 acres total. The property is zoned R-SC. The site is located on the northern side of Woodcrest Drive, approximately 1/4 of a mile east of the intersection with Waterloo Road. The entire site topography slopes generally west to east. This flows towards an intermittent stream which is an unnamed tributary of Deep Run, and ultimately flows into the Lower Northern Branch of the Patuxent River (213096A), which is a major tributary to the Patuxent River Area Watershed (2-13-09) a Class I stream.

Since the drainage is to the Deep Run above any railroad crossings the 10 year (Qp) and 100 year (Q0) control volumes will need to be managed.

The proposed development shall consist of: 8 single-family detached dwellings on 8 residential lots; with open space area that will contain the aforementioned utility r/w. The subdivision will include a private use-in-common driveway to access lots 1 thru 4, utilizing 1/4 open section roadway design.

The proposed development has no encroachments into any existing surrounding environmental elements and buffers. The limit of disturbance is basically limited to Parcel 126, which contains the existing dwelling, and immediate area of Parcel 530. Thus the overall natural and traditional character of the downstream waterway shall be maintained. The existing natural flow patterns are generally maintained through the location of ESD practices which dissipate concentrated flows back towards their original discharge points.

There is approximately 0.2 acres of existing impervious area on-site. There will be approximately 0.5 acres of proposed impervious area added including: 0.3 ac. for the proposed buildings; 0.1 ac. for the use-in-common driveway; and 0.2 ac. for the dwelling driveways. The limit of disturbance being proposed for development is approximately 1.4 acres.

Sediment and Erosion control shall comply with the latest edition of the MDE Standards and Specifications for Sediment Control as shown on the accompanying plan.

Based upon the existing topography the project was identified and analyzed for the developed area. Based upon the final grades it was determined that for the ESD/WQV treatment the drainage area (DA/P) would break down into sub-areas for driveway/impermeable treatment and sub-areas for rooftop on-site practices. These sub-areas distribute the captured and subsequently treated flow of the 1-yr storm (P=1.8") to separate points of discharge, where applicable, to avoid any concentrated flow or allowed to short flow off-site.

This Drainage area is based on the flow that will impact the proposed ESD-SWM design. There is minimal off-site area that under the existing condition will flow through the analyzed area, but generally flow is bypassed to the high area along the western perimeter of the property. Therefore, the analyzed area encompasses the anticipated limit of disturbance for this project.

The drainage areas were analyzed as woods in good condition and a target RCN was determined. A target rainfall depth treatment (P=1.8") was determined based on the measured impervious areas and ISG C-slopes types. This P=1.8" was then used to determine if alternative surface practices could be implemented, which were subsequently determined due to the site constraints. Then the target P=1.8" was converted to a target ESDv using the volumetric runoff coefficient. Environmental Site Design practices were designed to treat the proposed impervious cover and the 1.8" storm to provide water quality. The amount of treatment provided by these practices was calculated based on the surface area and depth of ponding treatment.

The stormwater management, by use of ESD, does provide full treatment of ESDv. WQV is provided in accordance with the MDE Stormwater Management Act of 2007 criteria as the resulting imperviousness is treated by use of ESD to the MEP implementation. Cpv is addressed by essentially returning the developed area to woods in good condition through use of ESD implementation.

It is concluded that all ESD requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. 98% of total impervious areas are treated, the total treated ESDv is 100%, and the total treated P=1.8". The Water Quality has been provided by the implementation of Micro-Bioretention (M-6), Dry Wells (M-5), Gravel Drains (M-4) and Grass Swale (M-8). The infiltration practices utilized adhere to the USDA Map Hydrologic soils information and geotechnical analysis.

**PROJECT BACKGROUND INFORMATION**  
 PRESENT ZONING: R-SC  
 LOCATION: TAX MAP 37 - GRID 14 - PARCELS 0126, 0488 & 0530  
 APPLICABLE DPZ FILE REFERENCES: N/A  
 DEED REFERENCES: P.0126 (L.11333/F.0522) P.0488(L.11333/F.0518) P.0530 (L.11333/F.0526)

**PROPOSED USE OF SITE:** RESIDENTIAL (SFD)  
**PROPOSED WATER AND SEWER SYSTEMS:** PUBLIC WATER & SEWER

Lot No.	Practice	ESD Practices Summary Table	Type	Number	Ownership/Maintenance
LOT 1	DW	(M-5)	DRYWELL	2	Private
LOT 2	GD-5	(M-4)	GRAVEL DRAIN	1	Private
LOT 2	MB-1	(M-6)	Micro-Bioretention	1	Private
LOT 2	GD-5	(M-4)	DRYWELL	1	Private
LOT 3	MB-2	(M-6)	Micro-Bioretention	1	Private
LOT 4	MB-3	(M-6)	Micro-Bioretention	1	Private
LOT 5	GD-1	(M-4)	GRAVEL DRAIN	1	Private
LOT 5	MB-4	(M-6)	Micro-Bioretention	1	Private
LOT 6	GD-2	(M-4)	GRAVEL DRAIN	1	Private
LOT 6	MB-6	(M-6)	Micro-Bioretention	1	Private
LOT 7	GD-3	(M-4)	GRAVEL DRAIN	1	Private
LOT 7	DW	(M-5)	DRYWELL	2	Private
LOT 8	GD-4	(M-4)	GRAVEL DRAIN	1	Private
LOT 8	DW	(M-5)	DRYWELL	2	Private
SITE	GD-6	(M-4)	GRAVEL DRAIN	1	Private
SITE	GD-7	(M-4)	GRAVEL DRAIN	1	Private
SITE	SWALE	(M-8)	Grass Swale	1	Private

**GENERAL NOTES**

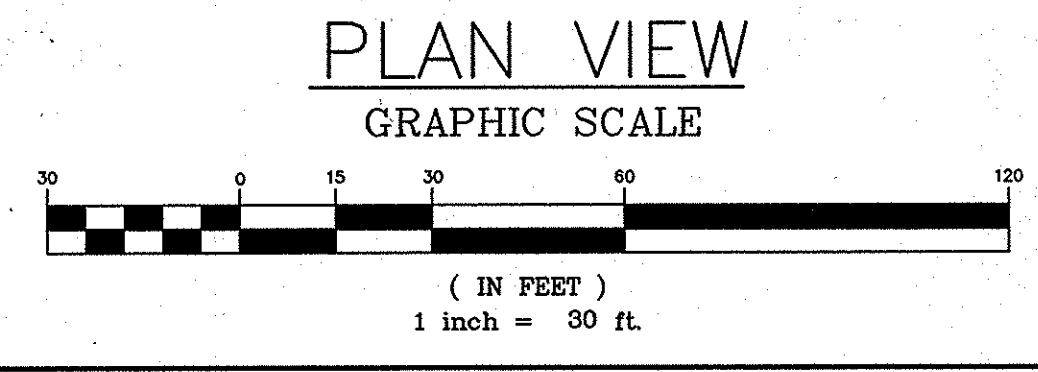
- THE SUBJECT PROPERTY ZONED R-SC, PER THE COMPREHENSIVE ZONING PLAN, MAPS AND AMENDED REGULATIONS, EFFECTIVE OCTOBER 6, 2013
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY BENCHMARK ENGINEERING, INC., DATED FEBRUARY, 2014.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS, PREPARED BY BENCHMARK ENGINEERING, INC., DATED JANUARY, 2014 & SUPPLEMENTED WITH HO.CC. GIS TOPOGRAPHICAL INFORMATION.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. #3748 AND #0048 WERE USED FOR THIS PROJECT.
- EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM APPROVED CONTRACT DRAWINGS AND FIELD SURVEYED LOCATIONS. IF NECESSARY, THE CONTRACTOR SHALL ADJUST ANY OR ALL STRUCTURE TOP ELEVATIONS TO MATCH PROPOSED GRADES.
- THERE ARE NO 100 YEAR-FLOODPLAIN ON-SITE; THERE ARE NO STEEP SLOPES (15% TO 24.0% OR 25% & GREATER) ON-SITE; THERE ARE SPOKEN TREES, STREAMS, AND WETLANDS, INCLUDING THEIR RESPECTIVE BUFFERS LOCATED ON-SITE.
- NO GRADING, REMOVAL OR VEGETATIVE COVER AND TREES, AND PAVING ARE NOT PERMITTED IN WETLANDS, STREAMS, FLOODPLAIN, FOREST CONSERVATION EASEMENT AREAS AND WETLAND AND STREAM BUFFERS EXCEPT AS APPROVED BY THE DEPARTMENT ON PLANNING AND ZONING.
- THERE ARE EXISTING STRUCTURES LOCATED ON THIS SITE TO BE REMOVED.
- BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
- A NOISE STUDY IS NOT REQUIRED FOR THIS DEVELOPMENT.
- A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, INC., DATED MARCH, 2014 TO BE APPROVED UNDER SUBSEQUENT PLANS SUBMISSION.
- THIS SITE IS WITHIN THE METROPOLITAN DISTRICT; WATER & SEWER IS PUBLIC, CONNECTING INTO EXISTING CONTRACT #14-3057-D; THE DRAINAGE AREA IS THE LOWER NORTH BRANCH PATAPSCO RIVER WATERSHED.
- ADEQUATE SITE DISTANCE IS AVAILABLE AT THE ENTRANCE BASED ON FIELD VERIFICATION. THIS PROJECT IS SUBJECT TO A SIGHT DISTANCE ANALYSIS TO BE PREPARED AND SUBMITTED WITH FURTHER PLAN SUBMISSION.
- A GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLS-CARNES ENGINEERING ASSOCIATES, INC. DATED AUGUST 8, 2014 AND APPROVED UNDER SUBSEQUENT PLANS SUBMISSION.
- THERE ARE WETLANDS LOCATED ON-SITE AS OUTLINED IN THE WETLANDS DELINEATION REPORT PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE 6, 2014.
- A LANDSCAPE PLAN WILL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
- REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
- THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WILL BE FULFILLED BY A FEE-IN-LIEU PAYMENT UNDER SUBSEQUENT PLANS SUBMISSION FOR A 1.10 ACRE RE-FORESTATION OBLIGATION.
- A WRITER PETITION TO REMOVE SPECIMEN TREES WILL BE FILED UNDER SUBSEQUENT PLANS SUBMISSION.
- THIS PROJECT REQUIRES MANAGEMENT OF THE 10 YEAR (Qp) AND 100 YEAR (Q0) EVENTS DUE TO BEING WITHIN THE WATERSHED OF DEEP RUN ABOVE ANY RAILROAD CROSSING, AS REQUIRED BY DESIGN MANUAL, VOLUME III, SECTION 5.2.1.A. FINAL PLANS SHALL SHOW THE CONTROL OF THESE MANAGEMENT VOLUMES.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*John R. Neighoff* 1-9-15 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION NY

*Neil J. DeLeon* 1-6-15 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT NY

SHEET INDEX	
NO.	DESCRIPTION
1	GRADING PLAN, NOTES, AND DETAILS
2	EXISTING CONDITIONS PLAN, NOTES, AND DETAILS
3	SWM-ESD PLAN, DRAINAGE AREA MAP
4	SWM-ESD PLAN, NOTES, AND DETAILS
5	SEDIMENT & EROSION CONTROL PLAN, NOTES, AND DETAILS
6	SEDIMENT & EROSION CONTROL NOTES, AND DETAILS
7	WETLAND DELINEATION AND SIMPLIFIED FOREST STAND DELINEATION PLAN, NOTES, & DETAILS



MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPESTEM AREA	MIN. LOT SIZE
1	9,408 S.F.	1,407 S.F.	7,999 S.F.
2	9,388 S.F.	853 S.F.	8,535 S.F.
3	8,130 S.F.	635 S.F.	7,495 S.F.
4	8,959 S.F.	841 S.F.	8,128 S.F.

NO.	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
 8480 BALTIMORE NATIONAL PIKE A SUITE 315  
 ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-6644  
 www.bel-civilengineering.com

OWNER: JOHN R. & CHARLES E. NEIGHOFF, ET AL  
 4936 WHARFF ROAD  
 ELLICOTT CITY, MARYLAND 21043

DEVELOPER: SECURITY DEVELOPMENT, LLC  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041  
 410-465-4244

PROJECT: WOODBROOK SECTION 2  
 6201 E. WATERLOO ROAD & 6247 WOODCREST DRIVE

LOCATION: TAX MAP 37, GRID 14  
 PARCELS 126, 488 AND 530  
 1st ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: ENVIRONMENTAL CONCEPT PLAN  
 GRADING PLAN,  
 NOTES, AND DETAILS

DATE: DECEMBER, 2014 PROJECT NO. 2370

SCALE: AS SHOWN DRAWING 1 OF 7

Design: MCR Draft: MCR Check: -

PROFESSIONAL CERTIFICATION:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45572. John R. Neighoff Date: 6-08-2016



**LEGEND**

SOILS CLASSIFICATION	UcD
SOILS DELINEATION	---
EXISTING CONTOURS	--- 338 --- 346
PROPOSED CONTOURS	---
LIMIT OF WETLANDS	~
EXISTING WOODS LINE	~
PROPOSED WOODS LINE	~
EXISTING STRUCTURE	□
PROPOSED STRUCTURE	□
DRAINAGE AREA	---
DRAINAGE DIVIDE	---
LIMIT OF DISTURBANCE	---
STABILIZED CONSTRUCTION ENTRANCE	---
SUPER SILT FENCE	SSF
OVERHEAD UTILITY LINE	OHL
UNDERGROUND GAS LINE	---
UNDERGROUND ELECTRIC LINE	---

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

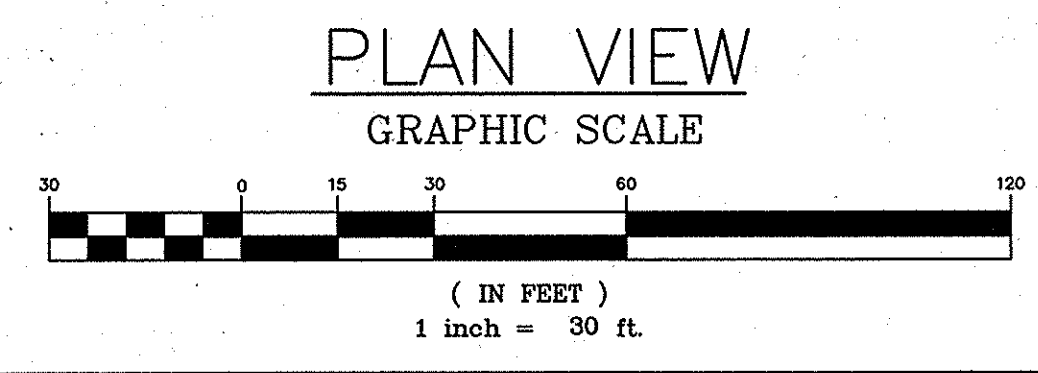
*Chad P. ...* 1-9-15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Walter ...* 1-07-15  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**SOILS LEGEND**

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Fa	D	FALLSINGTON SANDY LOAM - 0 TO 2 PERCENT SLOPES	0.20
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USDA-NRCS WEBSITE, MAP #19 SAVAGE NE

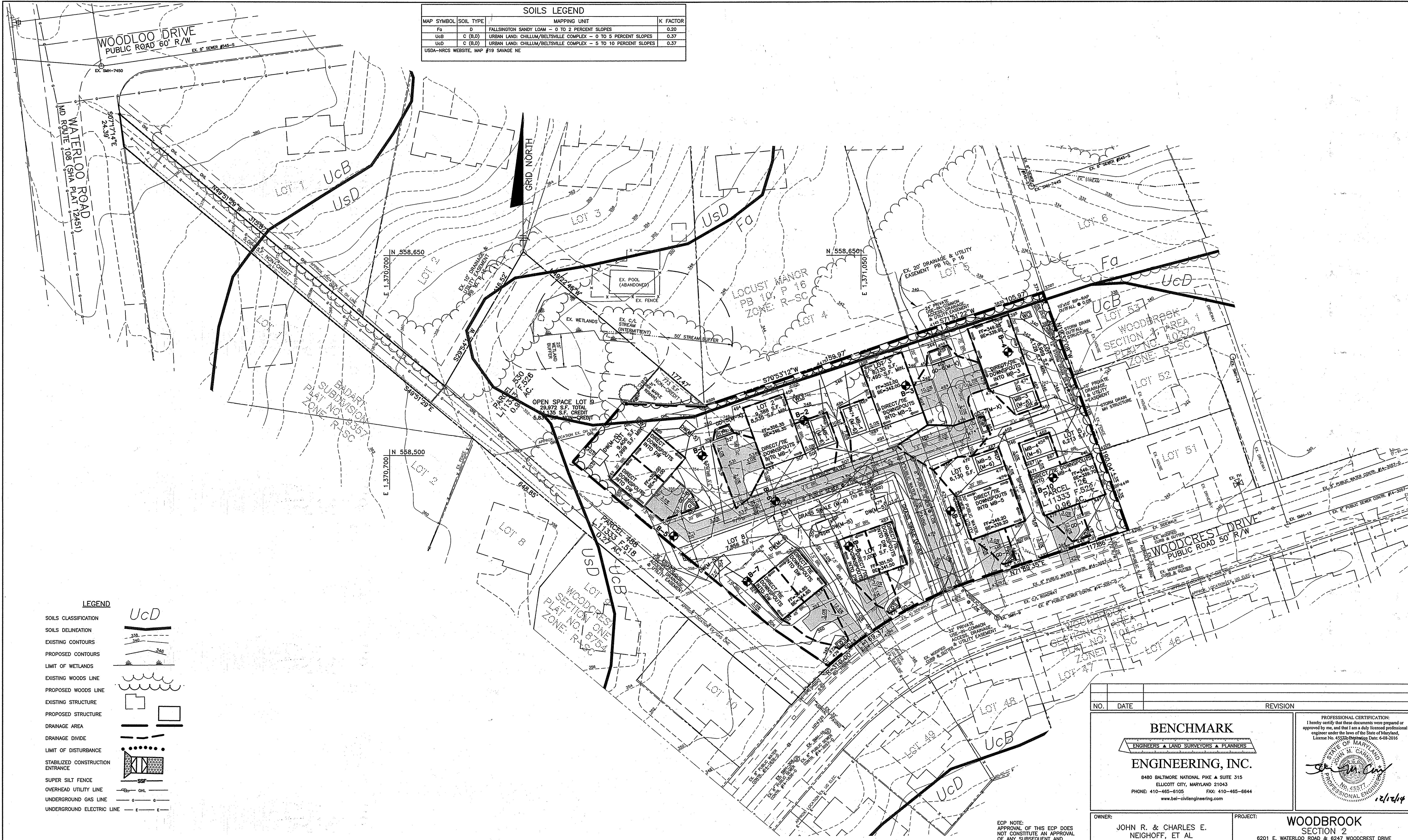


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NO.	DATE	REVISION
<b>BENCHMARK</b> ENGINEERS & LAND SURVEYORS & PLANNERS <b>ENGINEERING, INC.</b> 8480 BALTIMORE NATIONAL PIKE A SUITE 315 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 www.bel-civilengineering.com		
PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45577, Expiration Date: 6-08-2016.		
OWNER:	PROJECT:	
JOHN R. & CHARLES E. NEICHOFF, ET AL 4936 WHARFF ROAD ELLICOTT CITY, MARYLAND 21043	<b>WOODBROOK SECTION 2</b> 6201 E. WATERLOO ROAD & 6247 WOODCREST DRIVE	
DEVELOPER:	LOCATION:	
SECURITY DEVELOPMENT, LLC P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	TAX MAP 37, GRID 14 PARCELS 126, 488 AND 530 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE:	DATE:	PROJECT NO.
ENVIRONMENTAL CONCEPT PLAN EXISTING CONDITIONS PLAN, NOTES, AND DETAILS	DECEMBER, 2014	2370
Design: MCR	Draft: MCR	Check: -
SCALE: AS SHOWN	DRAWING 2 OF 7	

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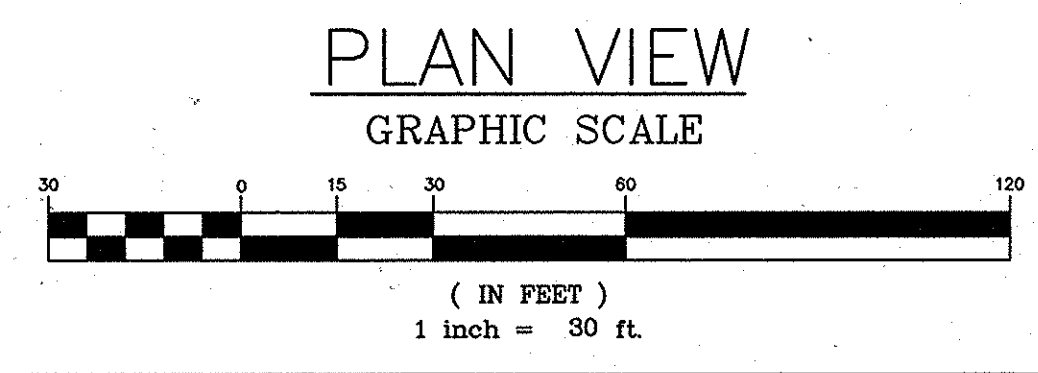
**LEGEND**

SOILS CLASSIFICATION	
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UNDERGROUND ELECTRIC LINE	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chl Chl* 1-9-15  
CHIEF, DEVELOPMENT ENGINEERING DIVISION NY DATE

*Keat* 1-27-15  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



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NO.	DATE	REVISION

**BENCHMARK**

ENGINEERS • LAND SURVEYORS • PLANNERS

**ENGINEERING, INC.**

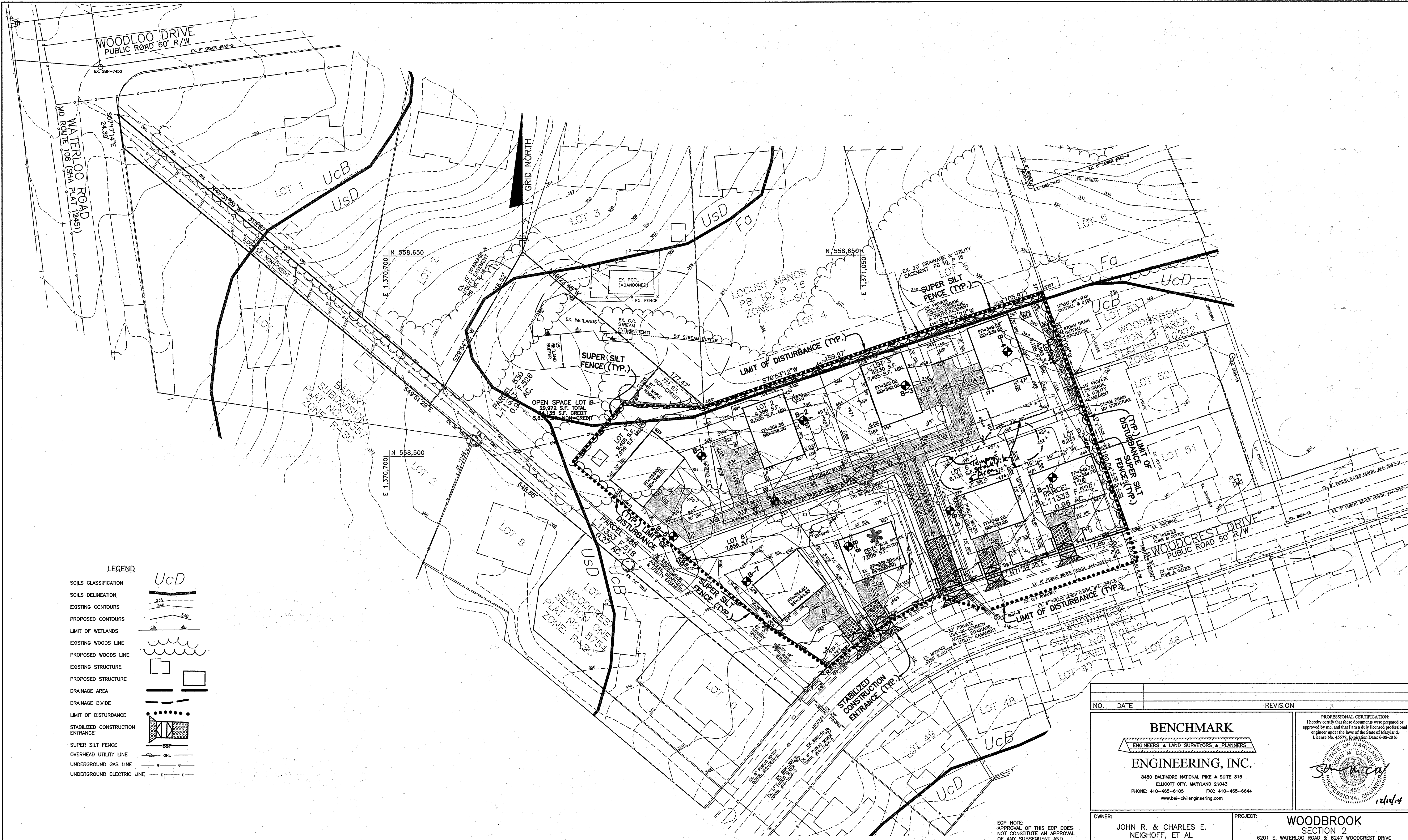
8480 BALTIMORE NATIONAL PIKE & SUITE 315  
ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6844  
www.bel-civilengineering.com

PROFESSIONAL CERTIFICATION:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 43300, Expiration Date: 6-08-2016

12/1/14

<p>OWNER: JOHN R. &amp; CHARLES E. NEIGHOFF, ET AL 4936 WHARFF ROAD ELLICOTT CITY, MARYLAND 21043</p>	<p>PROJECT: <b>WOODBROOK SECTION 2</b> 6201 E. WATERLOO ROAD &amp; 6247 WOODCREST DRIVE</p>
<p>DEVELOPER: SECURITY DEVELOPMENT, LLC P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244</p>	<p>LOCATION: TAX MAP 37, GRID 14 PARCELS 126, 488 AND 530 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>
<p>TITLE: ENVIRONMENTAL CONCEPT PLAN SWM-ESD PLAN DRAINAGE AREA MAP</p>	<p>DATE: DECEMBER, 2014</p>
<p>Design: MCR Draft: MCR Check: -</p>	<p>PROJECT NO. 2370 DRAWING 3 OF 7</p>





**LEGEND**

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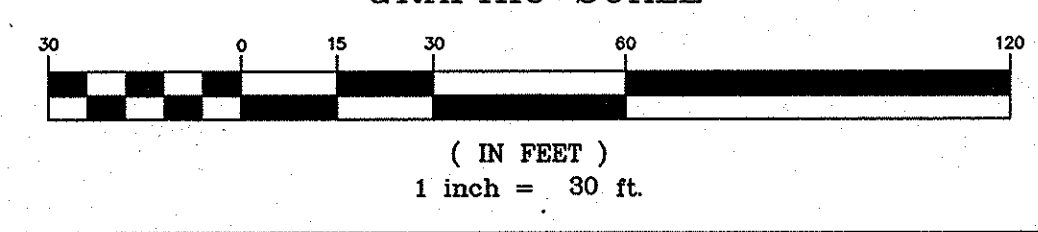
USDA-NRCS WEBSITE, MAP #19 SAVAGE NE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Ch. E. Neuhoff* 1-9-15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*W. E. DeLoach* 1-27-15  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**PLAN VIEW**  
 GRAPHIC SCALE



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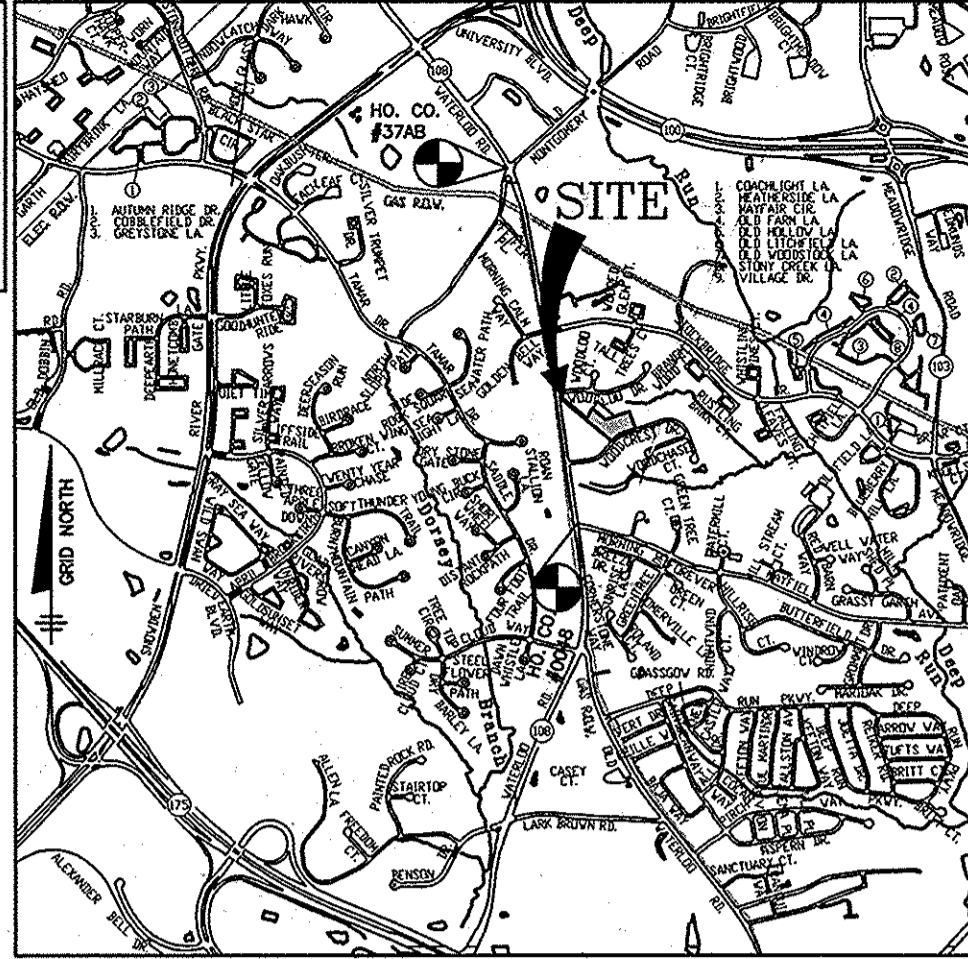
**BENCHMARK**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
 8480 BALTIMORE NATIONAL PIKE & SUITE 315  
 ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-8644  
 www.bel-cvllengineering.com

PROFESSIONAL CERTIFICATION:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 45577, Expiration Date: 6-08-2016

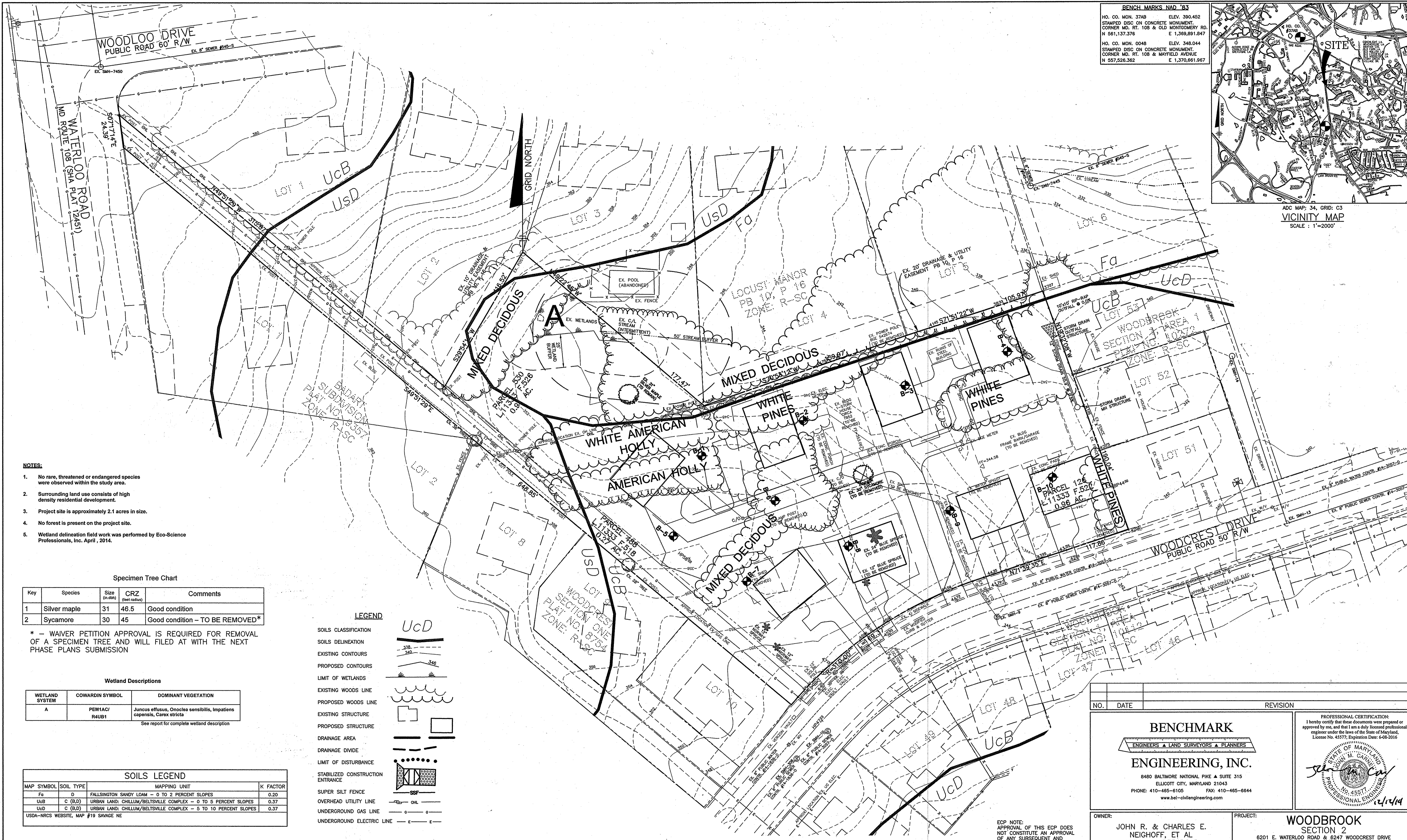
<b>OWNER:</b> JOHN R. & CHARLES E. NEIGHOFF, ET AL 4936 WHARFF ROAD ELLICOTT CITY, MARYLAND 21043	<b>PROJECT:</b> <b>WOODBROOK SECTION 2</b> 6201 E. WATERLOO ROAD & 6247 WOODCREST DRIVE LOCATION: TAX MAP 37, GRID 14 PARCELS 126, 488 AND 530 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
<b>DEVELOPER:</b> SECURITY DEVELOPMENT, LLC P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	<b>TITLE:</b> ENVIRONMENTAL CONCEPT PLAN <b>SEDIMENT &amp; EROSION CONTROL PLAN, NOTES, AND DETAILS</b> DATE: DECEMBER, 2014 PROJECT NO. 2370 SCALE: AS SHOWN DRAWING 5 OF 7
Design: MCR Draft: MCR Check: -	ECP-14-081



BENCH MARKS NAD '83  
 HO. CO. MON. 3748 ELEV. 390.452  
 STAMPED DISC ON CONCRETE MONUMENT  
 CORNER MD. RT. 108 & OLD MONTGOMERY RD.  
 N 561,137.376 E 1,369,891.847  
 HO. CO. MON. 0048 ELEV. 348.044  
 STAMPED DISC ON CONCRETE MONUMENT  
 CORNER MD. RT. 108 & MAYFIELD AVENUE  
 N 557,526.362 E 1,370,661.967



ADC MAP: 34, GRID: C3  
 VICINITY MAP  
 SCALE: 1"=2000'



- NOTES:**
- No rare, threatened or endangered species were observed within the study area.
  - Surrounding land use consists of high density residential development.
  - Project site is approximately 2.1 acres in size.
  - No forest is present on the project site.
  - Wetland delineation field work was performed by Eco-Science Professionals, Inc. April, 2014.

Specimen Tree Chart

Key	Species	Size (in dbh)	CRZ (feet radius)	Comments
1	Silver maple	31	46.5	Good condition
2	Sycamore	30	45	Good condition - TO BE REMOVED*

\* - WAIVER PETITION APPROVAL IS REQUIRED FOR REMOVAL OF A SPECIMEN TREE AND WILL FILED AT WITH THE NEXT PHASE PLANS SUBMISSION

Wetland Descriptions

WETLAND SYSTEM	COWARDIN SYMBOL	DOMINANT VEGETATION
A	PEM1AC/ R4UB1	Juncus effusus, Onoclea sensibilis, Impatiens capensis, Carex stricta See report for complete wetland description

SOILS LEGEND

MAP SYMBOL	SOIL TYPE	MAPPING UNIT	K FACTOR
Fa	D	FALLSINGTON SANDY LOAM - 0 TO 2 PERCENT SLOPES	0.20
UcB	C (B,D)	URBAN LAND: CHILLUM/BELTSVILLE COMPLEX - 0 TO 5 PERCENT SLOPES	0.37
UcD	C (B,D)	URBAN LAND: CHILLUM/BELTSVILLE COMPLEX - 5 TO 10 PERCENT SLOPES	0.37

USDA-NRCS WEBSITE, MAP #19 SAVAGE NE

LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- DRAINAGE AREA
- DRAINAGE DIVIDE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- OVERHEAD UTILITY LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

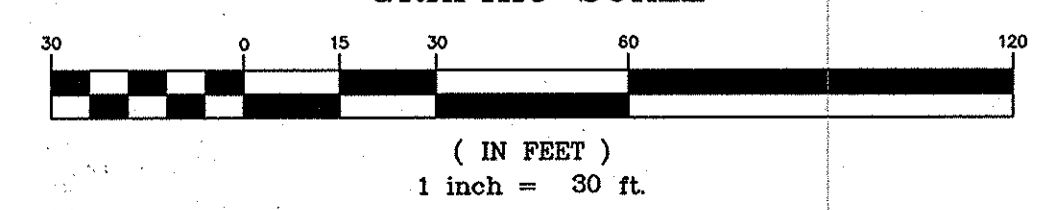
Chief, Development Engineering Division  
 Chief, Division of Land Development  
 1-9-15  
 1-07-15



MD DNR Certified Professional  
 USACO Wetland Delineator  
 Certification # WD-2793MD-610041D3  
 John P. Canale

P.O. Box 5006 Glen Arw, MD 21057 (410) 592-6752

PLAN VIEW  
 GRAPHIC SCALE



EOP NOTE:  
 APPROVAL OF THIS EOP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION, SITE DEVELOPMENT PLAN, OR GRADING AND BUILDING PERMIT STAGES.

NO.	DATE	REVISION
<p><b>BENCHMARK ENGINEERING, INC.</b>            8480 BALTIMORE NATIONAL PIKE A SUITE 315            ELLICOTT CITY, MARYLAND 21043            PHONE: 410-465-6105 FAX: 410-465-6844            www.bel-civilengineering.com</p>		
<p>OWNER:            JOHN R. &amp; CHARLES E. NEIGHOFF, ET AL            4936 WHARFF ROAD            ELLICOTT CITY, MARYLAND 21043</p>		<p>PROJECT:  <b>WOODBROOK SECTION 2</b>            6201 E. WATERLOO ROAD &amp; 6247 WOODCREST DRIVE</p>
<p>DEVELOPER:            SECURITY DEVELOPMENT, LLC            P.O. BOX 417            ELLICOTT CITY, MARYLAND 21041            410-465-4244</p>		<p>TITLE:  <b>WETLAND DELINEATION AND SIMPLIFIED FOREST STAND DELINEATION PLAN, NOTES, &amp; DETAILS</b></p>
<p>DATE: DECEMBER, 2014</p>		<p>PROJECT NO. 2370</p>
Design: MCR	Draft: MCR	Check: -
SCALE: AS SHOWN		DRAWING 7 OF 7