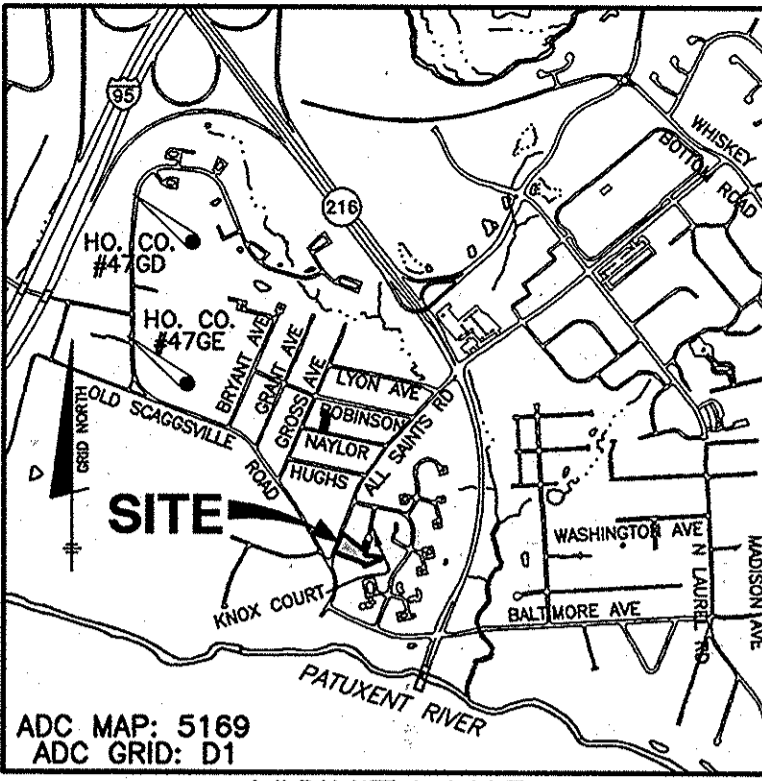


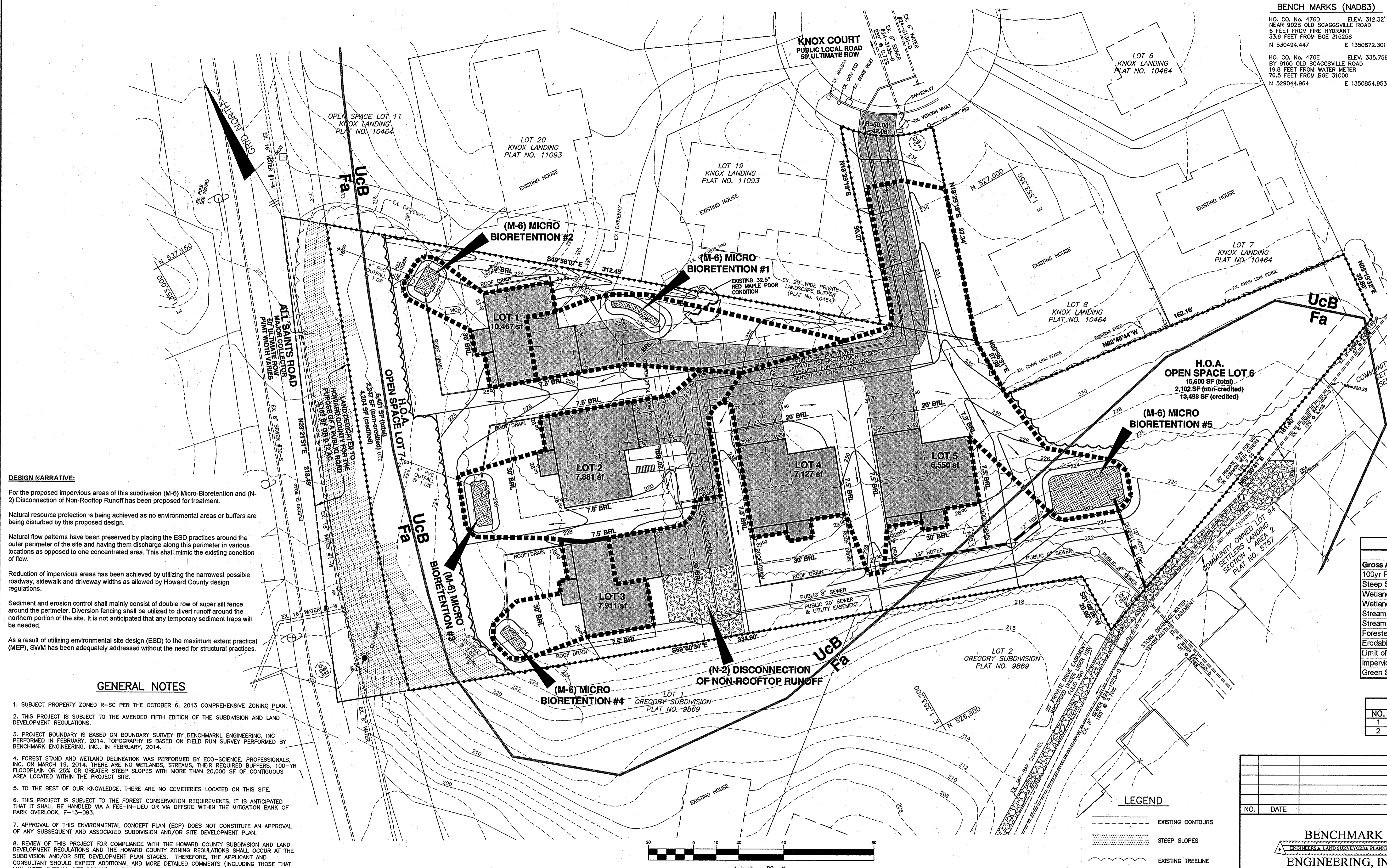
BENCH MARKS (NAD83)

HO. CO. No. 476D ELEV. 312.32'
NEAR 9028 OLD SCAGGSVILLE ROAD
6 FEET FROM FIRE HYDRANT
33.9 FEET FROM BGE 315258
N 530494.447 E 1350872.301

HO. CO. No. 476E ELEV. 335.756'
BY 9160 OLD SCAGGSVILLE ROAD
19.8 FEET FROM WATER METER
76.5 FEET FROM BGE 31000
N 529044.964 E 1350854.953



VICINITY MAP
SCALE: 1" = 2000'



DESIGN NARRATIVE:

For the proposed impervious areas of this subdivision (M-6) Micro-Bioretentment and (N-2) Disconnection of Non-Rooftop Runoff has been proposed for treatment.

Natural resource protection is being achieved as no environmental areas or buffers are being disturbed by this proposed design.

Natural flow patterns have been preserved by placing the ESD practices around the outer perimeter of the site and having them discharge along this perimeter in various locations as opposed to one concentrated area. This shall mimic the existing condition of flow.

Reduction of impervious areas has been achieved by utilizing the narrowest possible roadway, sidewalk and driveway widths as allowed by Howard County design regulations.

Sediment and erosion control shall mainly consist of double row of super silt fence around the perimeter. Diversion fencing shall be utilized to divert runoff around the northern portion of the site. It is not anticipated that any temporary sediment traps will be needed.

As a result of utilizing environmental site design (ESD) to the maximum extent practical (MEP), SWM has been adequately addressed without the need for structural practices.

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-SC PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- PROJECT BOUNDARY IS BASED ON BOUNDARY SURVEY BY BENCHMARK ENGINEERING, INC PERFORMED IN FEBRUARY, 2014. TOPOGRAPHY IS BASED ON FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC., IN FEBRUARY, 2014.
- FOREST STAND AND WETLAND DELINEATION WAS PERFORMED BY ECO-SCIENCE, PROFESSIONALS, INC. ON MARCH 19, 2014. THERE ARE NO WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, 100-YR FLOODPLAIN OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED WITHIN THE PROJECT SITE.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- THIS PROJECT IS SUBJECT TO THE FOREST CONSERVATION REQUIREMENTS. IT IS ANTICIPATED THAT IT SHALL BE HANDLED VIA A FEE-IN-LIEU OR VIA OFFSITE WITHIN THE MITIGATION BANK OF PARK OVERLOOK, F-13-093.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (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 STORMWATER MANAGEMENT PRACTICES SHOWN ON THIS PLAN ASSUME ADEQUATE SOIL BORING TEST RESULTS. THE DESIGN MAY NEED TO BE ADJUSTED AT THE NEXT STAGE AFTER SOIL BORING TESTING HAS BEEN COMPLETED AND AN ALTERNATE PRACTICE MAY NEED TO BE UTILIZED.
- APPLICABLE DPZ FILE REFERENCES: WP-14-123
- THE SEDIMENT AND EROSION CONTROL SHOWN ON SHEET 2 IS A SCHEMATIC PRELIMINARY DESIGN. A MORE DETAILED DESIGN COMPLETE WITH SEQUENCE OF CONSTRUCTION, NOTES AND DETAILS SHALL BE PROVIDED AT THE NEXT PLAN STAGE.
- WP-14-123, A REQUEST TO WAIVE SECTIONS 16.121(e)(2)(i), SECTION 16.134(a)(1), SECTION 16.144(b) AND SECTION 16.144(g) WAS APPROVED ON JULY 28, 2014 SUBJECT TO THE FOLLOWING CONDITIONS:
A) SUBMISSION OF A FINAL SUBDIVISION PLAN AND APPLICATION UPON APPROVAL OF ECP-14-054
B) COMPLY WITH ALL ATTACHED AGENCY COMMENTS ON THE SUBMITTED ECP PLANS.
C) COMPLIANCE WITH THE DEVELOPMENT ENGINEERING DIVISION COMMENTS DATED JULY 17, 2014 REGARDING THE PAYMENT OF A FEE-IN-LIEU FOR THE SIDEWALK ALONG ALL SAINTS ROAD.
D) COMPLIANCE WITH THE DEPARTMENT OF FIRE AND RESCUE SERVICES COMMENTS DATED MAY 15, 2014 AND DPW REAL ESTATE SERVICES COMMENTS DATED MAY 6, 2014 ON THE FINAL PLAN SUBMISSION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 9-23-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION J.P. DATE

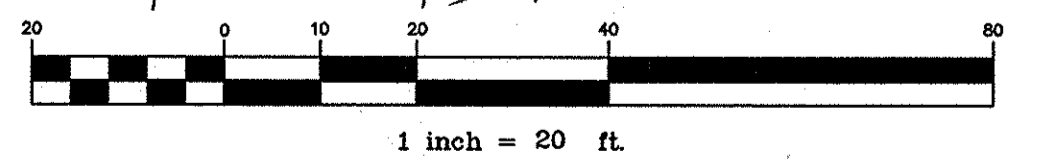
Vest Stalwood 9-19-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Site Analysis Data Sheet

Gross Area	1.54 ac
100yr Floodplain	0.00 ac
Steep Slopes 15% or greater	0.11 ac
Wetlands	0.00 ac
Wetlands Buffer	0.00 ac
Stream	0.00 ac
Stream Buffer	0.00 ac
Forested Area	0.60 ac
Erodible Soils	0.00 ac
Limit of Disturbance	1.07 ac
Impervious Area	0.35 ac
Green Space	0.72 ac

SHEET INDEX

NO.	TITLE
1	ENVIRONMENTAL CONCEPT PLAN
2	SEDIMENT & EROSION CONTROL PLAN



ESD STORMWATER MANAGEMENT SUMMARY TABLE

Practice	Pe= 1.2	Inches		ESDv= 1705	cf	Esdv	Rev		Ownership		
		DA to practice	Imp Area to practice				Required	Provided			
(M-6) MicroBioretention #1	#1	3,351	1,858	67	68	PASS	184	209	1.2	Private	
(M-6) MicroBioretention #2	#2	1,776	1,040	36	63	PASS	102	111	1.2	Private	
(M-6) MicroBioretention #3	#3	5,756	2,832	115	139	PASS	284	308	1.2	Private	
(M-6) MicroBioretention #4	#4	2,014	1,140	40	59	PASS	113	162	1.2	Private	
(M-6) MicroBioretention #5	#5	13,031	6,495	261	551	PASS	650	823	1.2	Private	
(N-2) Disc. of Non-Rooftop Runoff	Lot 3	1,243	1,243					93	1.0	Private	
Total Treated		27,171	14,608	519	900		1,705	1,705	1.2	84	110
Site Total		61,986	15,160								

The 552 sf of impervious area that is left untreated is the beginning portion of the use-in-common drive that drains back to the cul-de-sac. Total ESDv provided meets that which is required.

LEGEND

- EXISTING CONTOURS
- STEEP SLOPES
- EXISTING TREELINE
- PROPOSED TREELINE
- PROJECT BOUNDARY LINE
- PROPOSED IMPERVIOUS
- SITE Pe
- DRAINAGE DIVIDE
- MICRO-BIORETENTION SURFACE AREA
- DISCONNECTION OF NON-ROOFTOP RUNOFF
- SOILS CLASSIFICATION
- SOILS DELINEATION

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6544
WWW.BEE-CIVILENGINEERING.COM

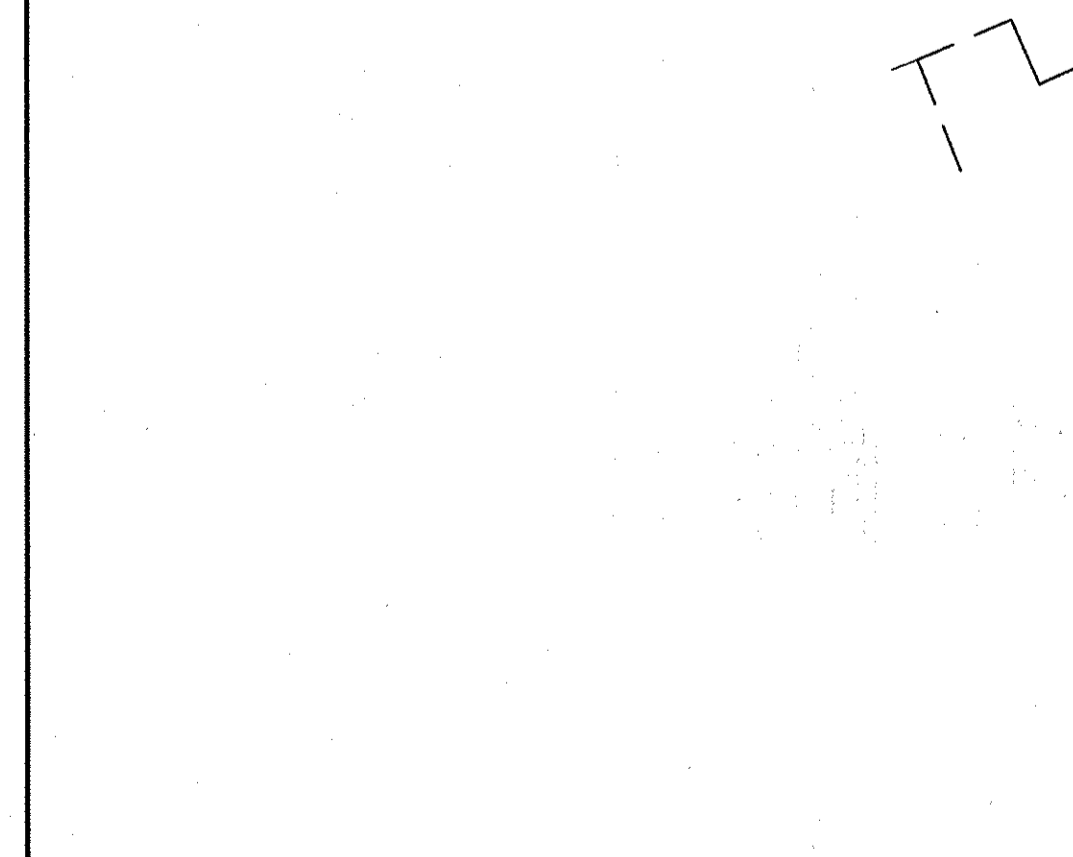
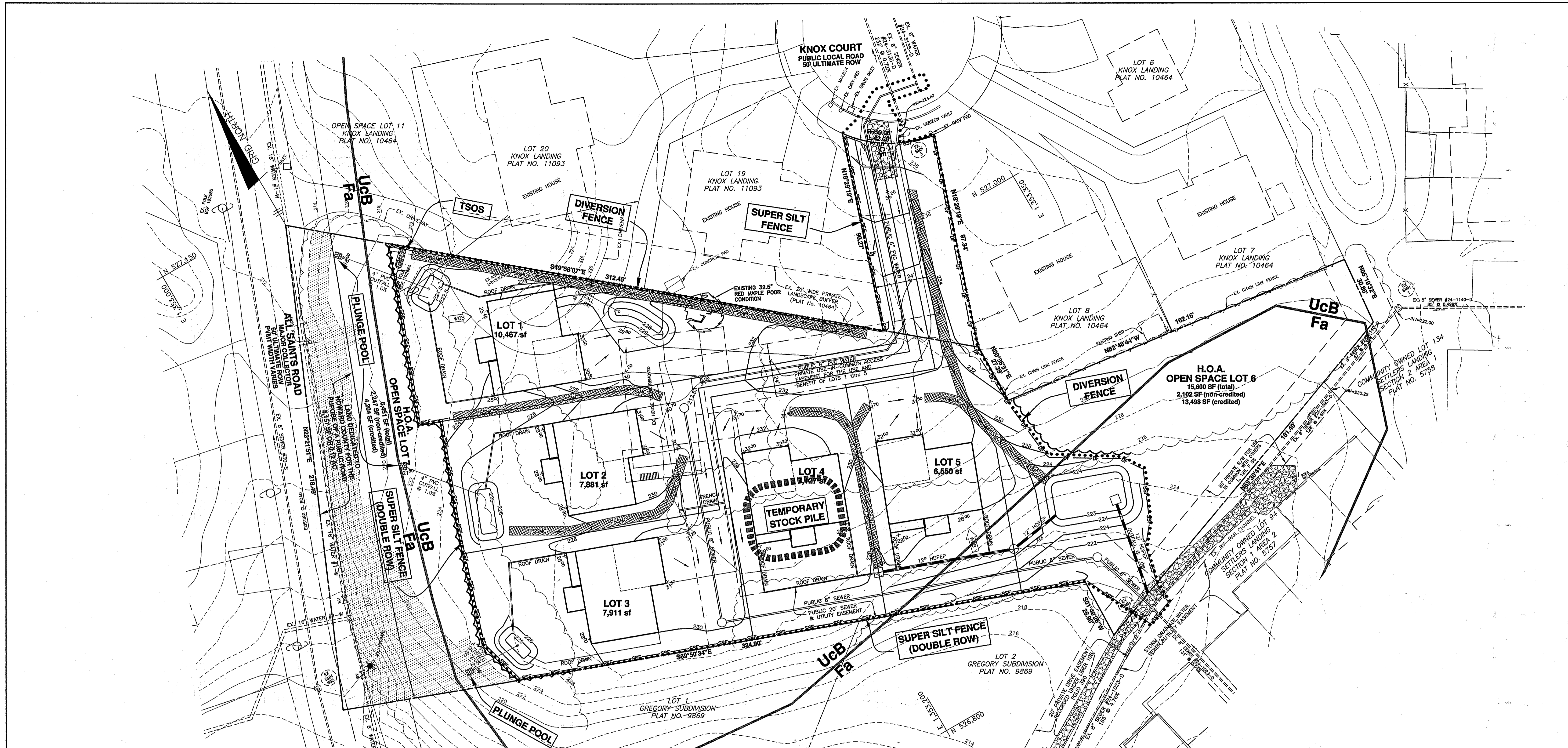
KNOX LANDING II
RESIDENTIAL
TAX MAP: 50 GRID: 2 PARCEL: 75 & 528 ZONED: R-SC
9417 ALL SAINTS ROAD
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN
DATE: SEPTEMBER 15, 2014 BEI PROJECT NO: 2586
SCALE: AS SHOWN SHEET 1 OF 2

OWNER: CORNERSTONE HOLDINGS LLC
9685 NORFOLK AVENUE
LAUREL, MARYLAND 20793
410-792-2565

DEVELOPER: CORNERSTONE HOLDINGS LLC
9685 NORFOLK AVENUE
LAUREL, MARYLAND 20793
410-792-2565

DESIGN: DBT DRAWN: DBT



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Clark 9-23-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION J.R. DATE

W. Salas 9-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT MM DATE

LEGEND

- EXISTING CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- PROJECT BOUNDARY LINE
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- DIVERSION FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL MATTING
- SOILS CLASSIFICATION
- SOILS DELINEATION

1 inch = 20 ft.

NRCS SOILS CHART - Map No. 28

SYMBOL	HYDRIC	HYDROLOGIC GROUP	Kw erodibility Factor	NAME
ES	YES	D	0.20	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT
UCb	NO	D	0.37	URBAN LAND- CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES

NO.	DATE	REVISION

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
 8450 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644
 WWW.BEI-CIVILENGINEERING.COM

<p>OWNER: CORNERSTONE HOLDINGS LLC 9695 NORFOLK AVENUE LAUREL, MARYLAND 20793 410-792-2565</p> <p>DEVELOPER: CORNERSTONE HOLDINGS LLC 9695 NORFOLK AVENUE LAUREL, MARYLAND 20793 410-792-2565</p> <p>DESIGN: DBT DRAWN: DBT</p>	<p>KNOX LANDING II</p> <p>RESIDENTIAL</p> <p>TAX MAP: 50 GRID: 2 PARCEL: 75 & 528 ZONED: R-SC 9417 ALL SAINTS ROAD ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND</p> <p>ENVIRONMENTAL CONCEPT PLAN SEDIMENT & EROSION CONTROL PLAN</p> <p>DATE: SEPTEMBER 15, 2014 BEI PROJECT NO: 2586 SCALE: AS SHOWN SHEET 2 OF 2</p>
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