

# APPLICATION

## FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) \_\_\_\_\_ TEST TIME \_\_\_\_\_ A/P \_\_\_\_\_

AGENCY REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DO NOT WRITE ABOVE THIS LINE

I HEREBY APPLY FOR THE NECESSARY TESTING/EVALUATION PRIOR TO ISSUANCE OF SEWAGE DISPOSAL SYSTEM PERMIT(S) TO:

CHECK AS NEEDED:

- CONSTRUCT NEW SEPTIC SYSTEM(S)
- REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM
- REPLACE AN EXISTING SEPTIC SYSTEM

CHECK AS NEEDED:

- NEW STRUCTURE(S)
- ADDITION TO AN EXISTING STRUCTURE
- REPLACE AN EXISTING STRUCTURE

CHECK ONE:

- CREATE NEW LOT(S)
- BUILD ON AN EXISTING LOT IN A SUBDIVISION
- BUILD ON AN EXISTING PARCEL OF RECORD

IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?

- YES
- NO

THE TYPE OF STRUCTURE IS:

- RESIDENTIAL WITH \_\_\_\_\_ PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE (NOTE *UNKNOWN* IF APPROPRIATE)
- COMMERCIAL (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/ CUSTOMERS ON ACCOMPANYING PLAN)
- INSTITUTIONAL/GOVERNMENT (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/USERS ON ACCOMPANYING PLAN)

PROPERTY OWNER(S) \_\_\_\_\_

DAYTIME PHONE \_\_\_\_\_ CELL \_\_\_\_\_ FAX \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_  
STREET CITY/TOWN STATE ZIP

APPLICANT \_\_\_\_\_

DAYTIME PHONE \_\_\_\_\_ CELL \_\_\_\_\_ FAX \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_  
STREET CITY/TOWN STATE ZIP

APPLICANT'S ROLE: DEVELOPER BUILDER BUYER RELATIVE/FRIEND REALTOR CONSULTANT

PROPERTY LOCATION  
SUBDIVISION/PROPERTY NAME \_\_\_\_\_ LOT NO. \_\_\_\_\_

PROPERTY ADDRESS \_\_\_\_\_  
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) \_\_\_\_\_ GRID \_\_\_\_\_ PARCEL(S) \_\_\_\_\_ PROPOSED LOT SIZE \_\_\_\_\_

AS APPLICANT, I UNDERSTAND THE FOLLOWING: THE SYSTEM INSTALLED SUBSEQUENT TO THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS APPLICATION IS COMPLETE WHEN ALL APPLICABLE FEES AND A SUITABLE SITE PLAN HAVE BEEN RECEIVED. I ACCEPT THE RESPONSIBILITY FOR COMPLIANCE WITH ALL M.O.S.H.A. AND "MISS UTILITY" REQUIREMENTS. APPROVAL IS BASED UPON SATISFACTORY REVIEW OF A PERC CERTIFICATION PLAN.

TEST RESULTS WILL BE MAILED TO APPLICANT. \_\_\_\_\_  
SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM  
3525-H ELLICOTT MILLS DRIVE, ELLICOTT CITY, MARYLAND 21043-4544 (410) 313-1771 FAX (410) 313-2648  
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

Lot 2  
 A/P (101)  
 str brn dk brn  
 hvy L-CL  
 many roots organic  
 18"  
 str org brn  
 micac  
 (35-40%)  
 CL  
 Trace Rx  
 5'  
 H brn  
 mdy SAND  
 Bottom 14'

(102)  
 org brn  
 micac  
 Loam  
 Trace Rx  
 5'  
 abrupt soil  
 L; H brn  
 brn micac  
 f-med gr sand  
 f-vf r/sap  
 R 10%  
 Bottom 13 1/2'

(103)  
 Str org brn  
 Loam  
 granular  
 33-40% micac  
 trace Rx  
 2 1/2'  
 3'  
 brn Lt  
 brn  
 micac  
 f-med gr  
 SAND  
 LS  
 Bottom 10 1/2'



(104)  
 str brn  
 hvy L-CL  
 1'  
 org brn  
 SCL  
 3'  
 org, rd brn  
 SL  
 35-40%  
 micac  
 ?  
 H brn  
 gr f sand  
 wk-mod sap  
 12'

Overall 25% Rock / siltstone

(100)  
 str brn  
 CL  
 micac  
 1'  
 org brn  
 L micac  
 3'  
 pocket  
 S.L in  
 y brn  
 SL  
 5 1/2'  
 y brn  
 SL -  
 f-grained  
 12 1/2' LS

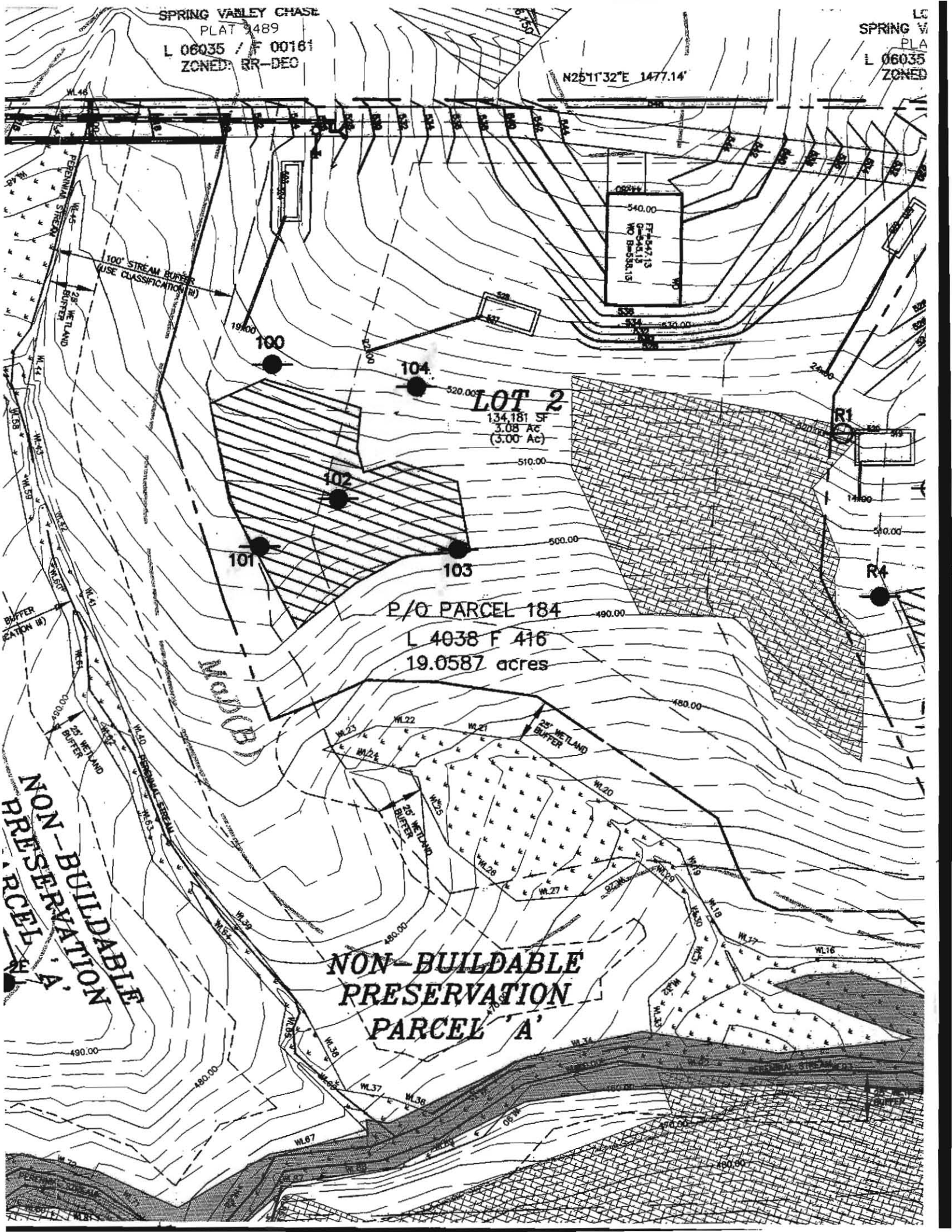
DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2nd INCH	P/F/H
4-4-05	101	4' 3" / 14" V	12:55	1:00	1:09	9	P
	102	13 1/2" V	Visual	SEE	SOIL	EST 9 min profile	P
	103	4' / 12 1/2" V	1:36	1:39	1:43	4	P
	104	3.5' / 12" V	2:00	2:05	2:11	6	P
	100	4.3' / 12.5"	2:17	2:19	2:22	3	P
TESTED ON ROCK LENS							
LIMITING SOIL NEAR BOTTOM OF PROPOSED SEPTIC AREA - LAST TRENCH IN SYSTEM TO BE NO DEEPER THAN 6' * *							

REMARKS: Holes dug per plan  
 SANITARIAN: Kacie / Sara  
 BACKHOE: Dennis Feaga  
 OTHERS: Ms Melchoir, Tim Feaga  
 TEST HOLES USED IN SDA: \_\_\_\_\_  
 TRENCH WIDTH: \_\_\_\_\_ INLET DEPTH: \_\_\_\_\_ MAX. BOT DEPTH: \_\_\_\_\_ EFFECTIVE SW: \_\_\_\_\_  
 AVG. PERC TIME: 7 1/2' SQ. FT/BR: 180

SPRING VALLEY CHASE  
PLAT 3489  
L 06035 / F 00161  
ZONED: RR-DEC

LC  
SPRING VALLEY  
PLA  
L 06035  
ZONED

N25°11'32"E 1477.14'



**LOT 2**  
134,181 SF  
3.08 Ac  
(3.00 Ac)

**P/O PARCEL 184**  
L 4038 F 416  
19.0587 acres

**NON-BUILDABLE  
PRESERVATION  
PARCEL 'A'**

**NON-BUILDABLE  
PRESERVATION  
PARCEL 'A'**

100' STREAM BUFFER  
(USE CLASSIFICATION (R))

25' WETLAND  
BUFFER

25' WETLAND  
BUFFER

25' WETLAND  
BUFFER

BUFFER  
CLASSIFICATION (W)

PERENNIAL STREAM

PERENNIAL STREAM

Wetland

100

104

102

101

103

R1

R4

WL 46

WL 45

WL 44

WL 43

WL 42

WL 41

WL 40

WL 39

WL 38

WL 37

WL 36

WL 35

WL 34

WL 33

WL 32

WL 31

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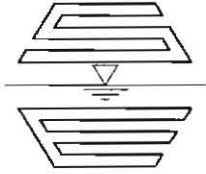
WL -97

WL -98

WL -99

WL -100

Letter of Transmittal



11130 Dovedale Court, Suite 200  
 Marriottsville, MD 21104  
 Website: www.sillengineering.com

Office: 443-325-5076  
 Fax: 410-696-2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

SILL ENGINEERING GROUP, LLC

To: Mr. Jeff Williams  
 Howard County Health Department  
 Bureau of Environmental Health  
 8930 Stanford Boulevard  
 Columbia, MD 21045

Date:	June 06, 2016
Attention:	<del>Robert Bricker</del>
Re:	Melchior Property Lot 2 Percolation Certification Plan
Project #:	15-023

We are sending you

<input checked="" type="checkbox"/> Attached	Under Separate Cover Via Mail the following:	
Letter	Originals	Other:
<input checked="" type="checkbox"/> Plans	Computations	

Quantity	Description	Quantity	Description
3	BAT Installation Plan		
1	BAT Report		

These are transmitted as checked below

<input checked="" type="checkbox"/> For Approval	As Requested	Please Return After Using
For Review	For Your Use	As Approved

Comments:

Copy To:

Signed:

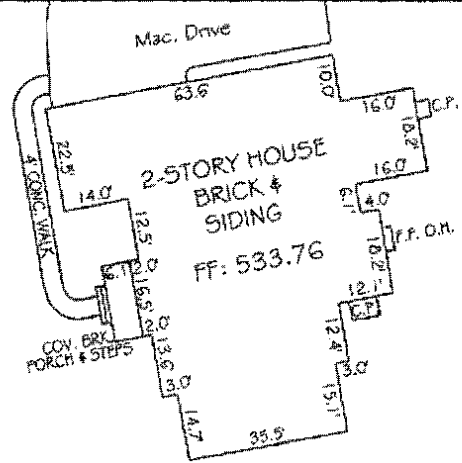
*Anita E. Allen*  
 Anita E. Allen

Received by:

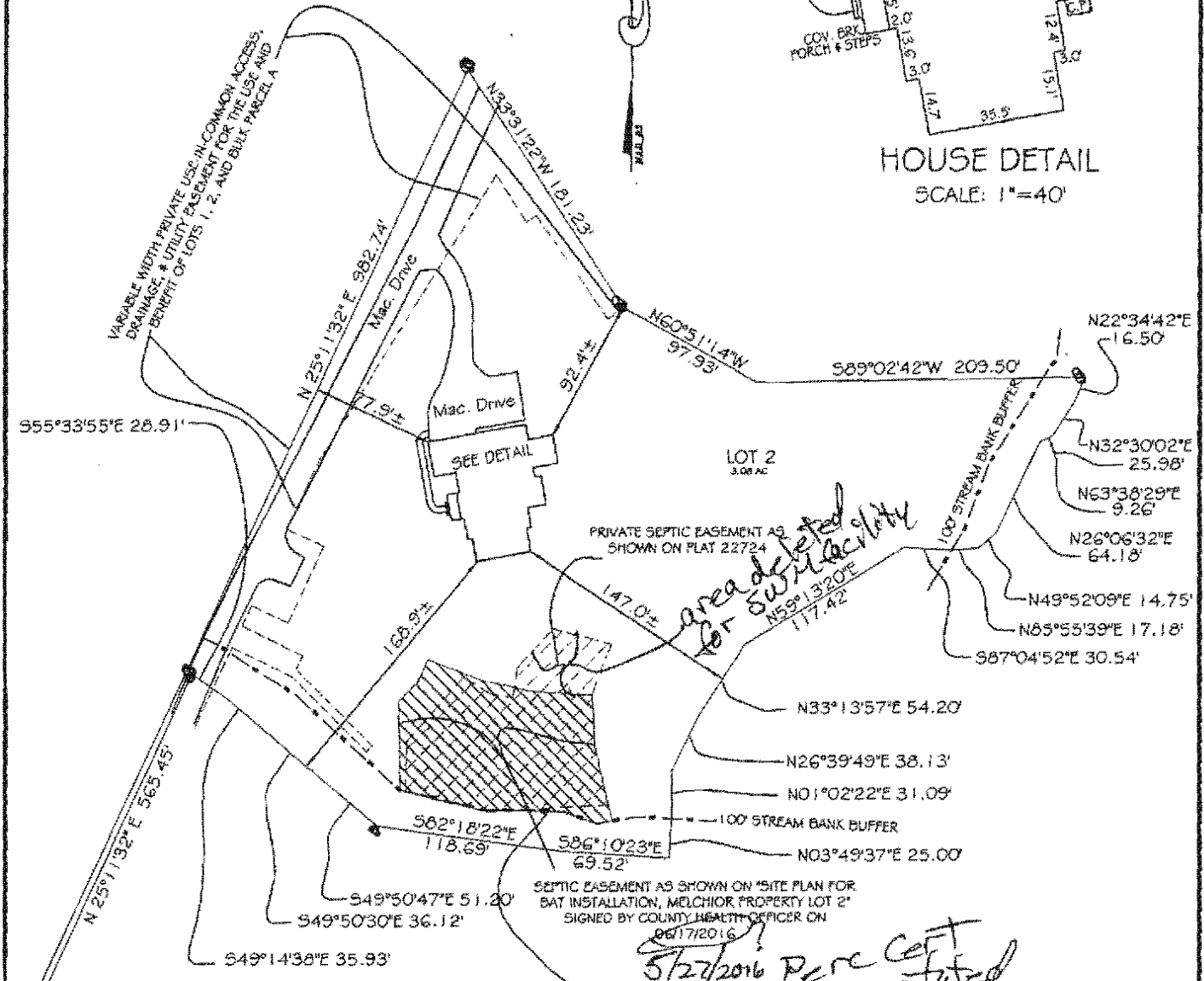
Date Received:

**NOTES:**

1. ACCURACY OF BUILDING MEASUREMENTS: 0.1'
2. ACCURACY OF SETBACK DIMENSIONS: 0.3'
3. ACCURACY OF ELEVATIONS: 0.1'
4. SETBACK DIMENSIONS ARE FROM PROPERTY LINE TO FOUNDATION
5. THE PROPERTY SHOWN HEREON LIES IN ZONE "X" AS SHOWN ON FLOOD INSURANCE RATE MAP NO. 24027C0060D DATED: 11/06/2013.
6. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM A SUBDIVISION PLAT ENTITLED "MELCHIOR PROPERTY, LOTS 3 THROUGH 6 AND NONBUILDABLE PRESERVATION PARCEL A" SHEETS 1-5 OF 5, RECORDED IN PLATS #22758-22762



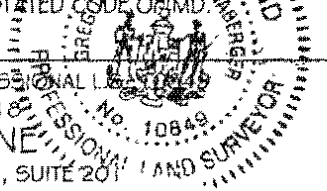
**HOUSE DETAIL**  
SCALE: 1"=40'



*5/2/2016 Perc Cert Demonstrated 3 systems for 7-bed room SFD*

THE INFORMATION SHOWN HAS BEEN ESTABLISHED BY CURRENT ACCEPTABLE SURVEY PROCEDURES AND FROM AVAILABLE RECORD INFORMATION. THIS DRAWING IS NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES, LOCATIONS OF FENCES, GARAGES, BUILDINGS, OR OTHER FUTURE IMPROVEMENTS. IT WAS PREPARED UNDER MY DIRECT SUPERVISION AND REVIEW IN ACCORDANCE WITH SEC. 09.13.06.06. OF THE ANNOTATED CODE OF MD.

G. SCOTT SHANABERGER PROFESSIONAL LAND SURVEYOR  
 LICENSE EXPIRATION DATE 4/2/2018  
**SHANABERGER & LANE**  
 8726 TOWN AND COUNTRY BLVD., SUITE 201  
 ELICOTT CITY, MD. 21043  
 (410)461-9563 FAX: (410)461-9693

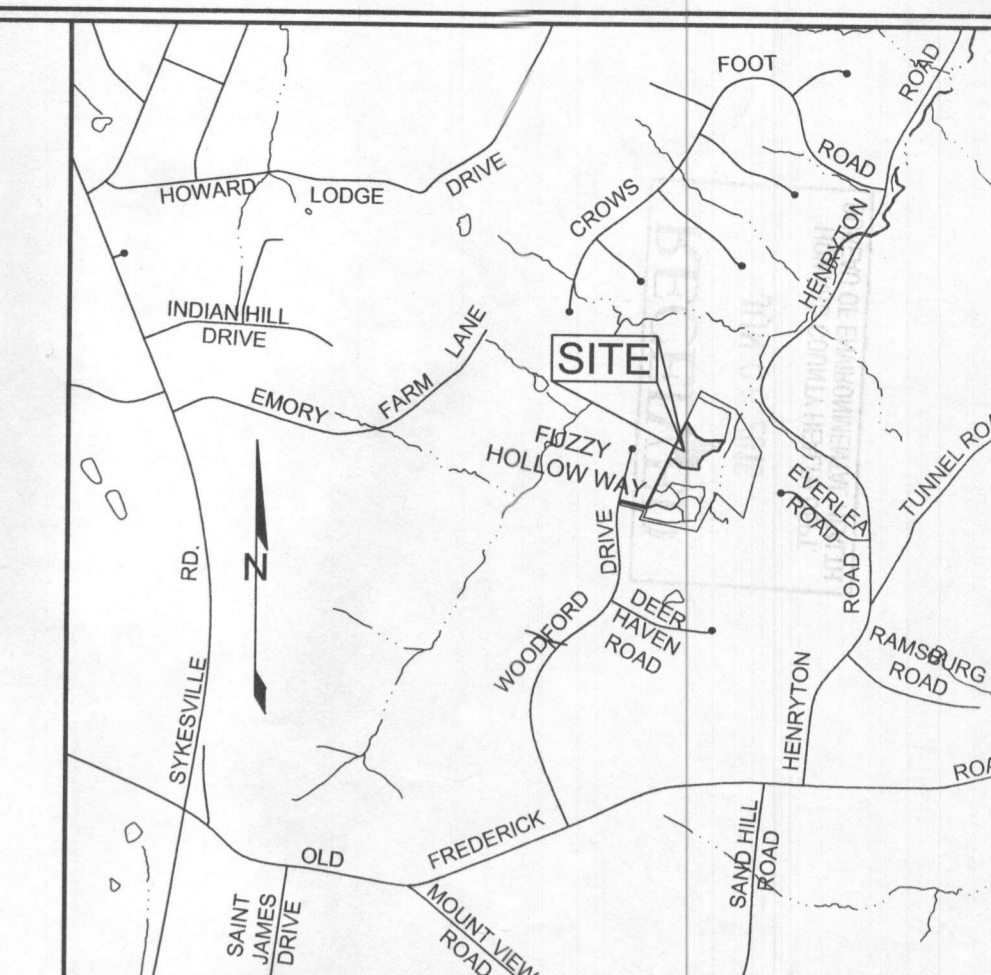
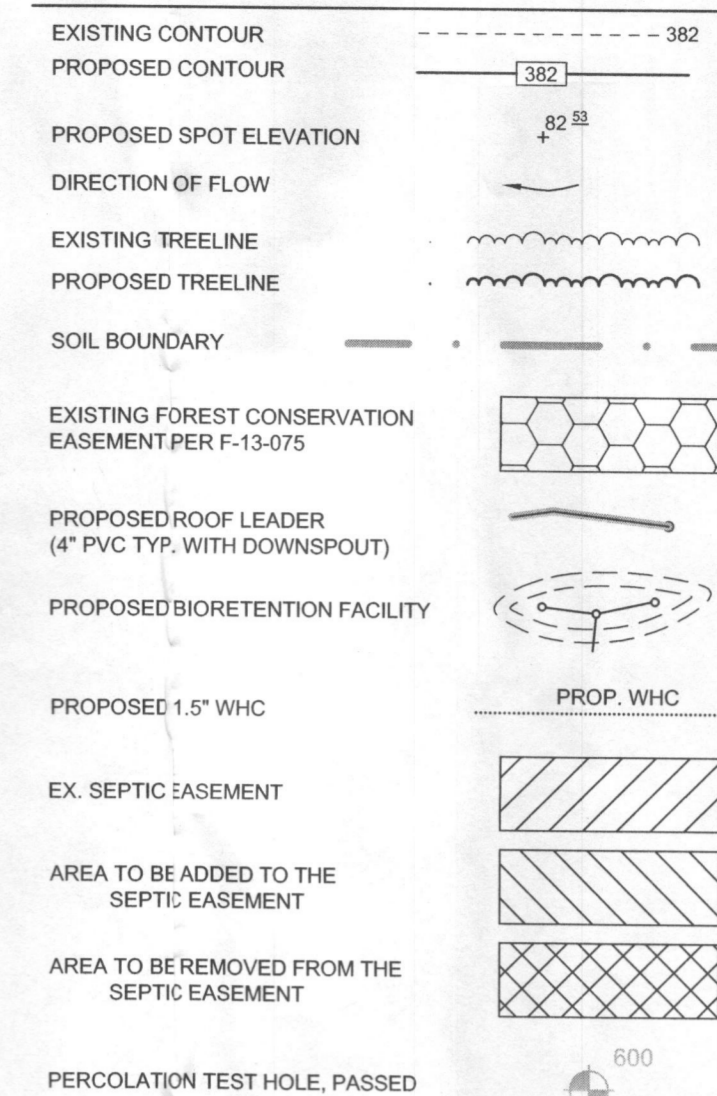


**FINAL LOCATION DRAWING**  
**LOT 2 MELCHIOR PROPERTY**  
 PLAT # 22721-22725  
 TAX MAP 10 GRID 13 PARCEL 184  
 3rd ELECTION DISTRICT HOWARD COUNTY, MD.  
 SCALE: 1"=100' DATE: 8/26/2016

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GgB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY  
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

**LEGEND**



VICINITY MAP  
SCALE: 1"=2000'

BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
09H2	601,676.7	1,329,521.0	640.22	N SIDE OF RT. 99, 0.8 MILE TO RT. 32, 500' TO CL. OF MT. VIEW, 48' N OF POLE #102450
10GB	602,276.0	1,331,069.4	597.35	S SIDE OF RT. 99, 59' E OF POLE #G-27, 100' W OF F.H.

**GENERAL NOTES**

- SUBJECT PROPERTY ZONED RR-DEO PER 10/06/13 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF LOT = 3.08 AC.±
- PUBLIC WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- WATER WILL BE PUBLIC (CONTRACT # 44-4791-D). WATER SERVICE TO THIS LOT WILL BE GRANTED UNDER PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE VIA CONNECTIONS TO EXISTING CONTRACT # W-44-3478.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING OR PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY MILDENBERG, BOENDER AND ASSOC. IN OCTOBER 2012.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY CHRISTOPHER CONSULTANTS, INC. IN NOVEMBER 2004. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE. HOWARD COUNTY SOILS GRID 4, SOILS MAP GRID 193.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS, NUMBERS 09H2 AND 10GB, WERE USED FOR THIS PROJECT.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.



PLAN VIEW  
SCALE: 1"=50'

**SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS**

- INITIAL SYSTEM**
  - APPLICATION RATE: 1.2
  - EFFECTIVE AREA BEGINNING DEPTH: 3'
  - BOTTOM MAXIMUM DEPTH: 7'
- DESIGN FLOW:**
  - 7 BEDROOMS AT 150 GPD
  - 7X150 GPD = 1,050 GPD
- 2. SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (1,050 GPD) / APPLICATION RATE (1.2)
  - = 875 SF
- 3. SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3'
  - TRENCH EFFECTIVE DEPTH (D) = 4'
  - (W+2) / (W+1+2D) X 100 = 41.7%
- 4. LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (875) X SIDEWALL REDUCTION CREDIT (41.7%) / TRENCH WIDTH (3') = 121.8'
- 5. LINEAR LENGTH OF TRENCH PROVIDED = 122'**
  - THREE TRENCHES 41 LF/EACH
- 6. EXISTING GRADE TRENCH R1: 520.0**
  - INVERT: 516.0
- EXISTING GRADE TRENCH I2: 517.8**
  - INVERT: 513.8
- REPLACEMENT SYSTEM 1:**
  - APPLICATION RATE: 0.3
  - EFFECTIVE AREA BEGINNING DEPTH: 5'
  - BOTTOM MAXIMUM DEPTH: 8'
- DESIGN FLOW:**
  - 7 BEDROOMS AT 150 GPD
  - 7X150 GPD = 1,050 GPD
- 2. SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (1,050 GPD) / APPLICATION RATE (0.8)
  - = 1,312.5 SF
- 3. SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3'
  - TRENCH EFFECTIVE DEPTH (D) = 3'
  - (W+2) / (W+1+2D) X 100 = 50%
- 4. LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (1,312.5) X SIDEWALL REDUCTION CREDIT (50%) / TRENCH WIDTH (3') = 218.75'
- 5. LINEAR LENGTH OF TRENCH PROVIDED = 219'**
  - THREE TRENCHES 73 LF/EACH
- 6. EXISTING GRADE TRENCH R1: 513.0**
  - INVERT: 510.0
- EXISTING GRADE TRENCH R2: 511.5**
  - INVERT: 508.5
- EXISTING GRADE TRENCH R3: 508.5**
  - INVERT: 505.5
- REPLACEMENT SYSTEM 2:**
  - APPLICATION RATE: 1.2
  - EFFECTIVE AREA BEGINNING DEPTH: 3'
  - BOTTOM MAXIMUM DEPTH: 8'
- DESIGN FLOW:**
  - 7 BEDROOMS AT 150 GPD
  - 7X150 GPD = 1,050 GPD
- 2. SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (1,050 GPD) / APPLICATION RATE (1.2)
  - = 875 SF
- 3. SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3'
  - TRENCH EFFECTIVE DEPTH (D) = 3'
  - (W+2) / (W+1+2D) X 100 = 50%
- 4. LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (875) X SIDEWALL REDUCTION CREDIT (50%) / TRENCH WIDTH (3') = 145.8'
- 5. LINEAR LENGTH OF TRENCH PROVIDED = 146'**
  - TWO TRENCHES 73 LF/EACH
- 6. EXISTING GRADE TRENCH R1: 505.5**
  - INVERT: 502.5
- EXISTING GRADE TRENCH R2: 502.5**
  - INVERT: 499.5

**OWNER/DEVELOPER**

WILLIAMSBURG GROUP  
5465 HARRERS FARM ROAD  
COLUMBIA, MARYLAND 21044

**REVISED PERCOLATION CERTIFICATION PLAN**

MELCHIOR PROPERTY  
LOT 2

TAX MAP 10 GRID 13  
3RD ELECTION DISTRICT  
PARCEL 184  
HOWARD COUNTY, MARYLAND

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Paul M. Sill*  
PAUL M. SILL, P.E., LEED AP  
LICENSED PROFESSIONAL ENGINEER #32025

DATE: 5/17/16

STATE OF MARYLAND  
PAUL M. SILL  
LICENSED PROFESSIONAL ENGINEER  
No. 32025

**SILL ENGINEERING GROUP, LLC**

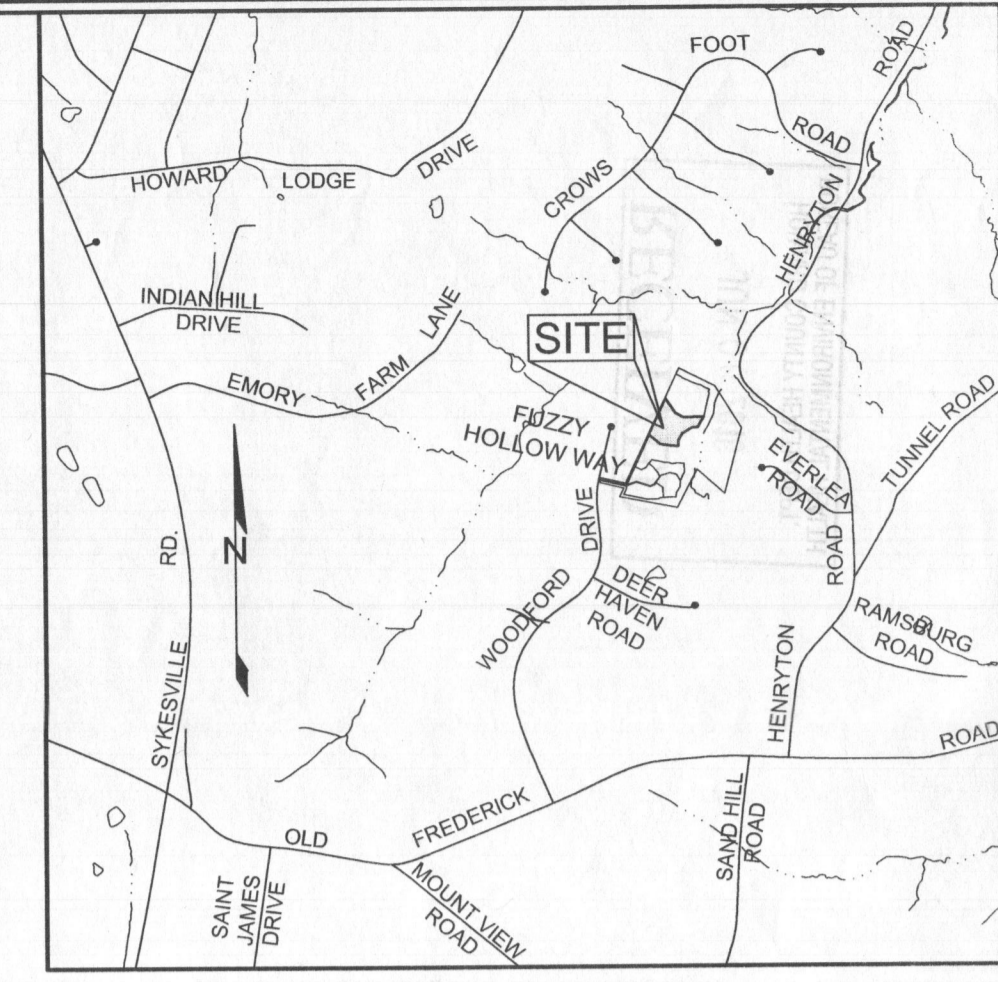
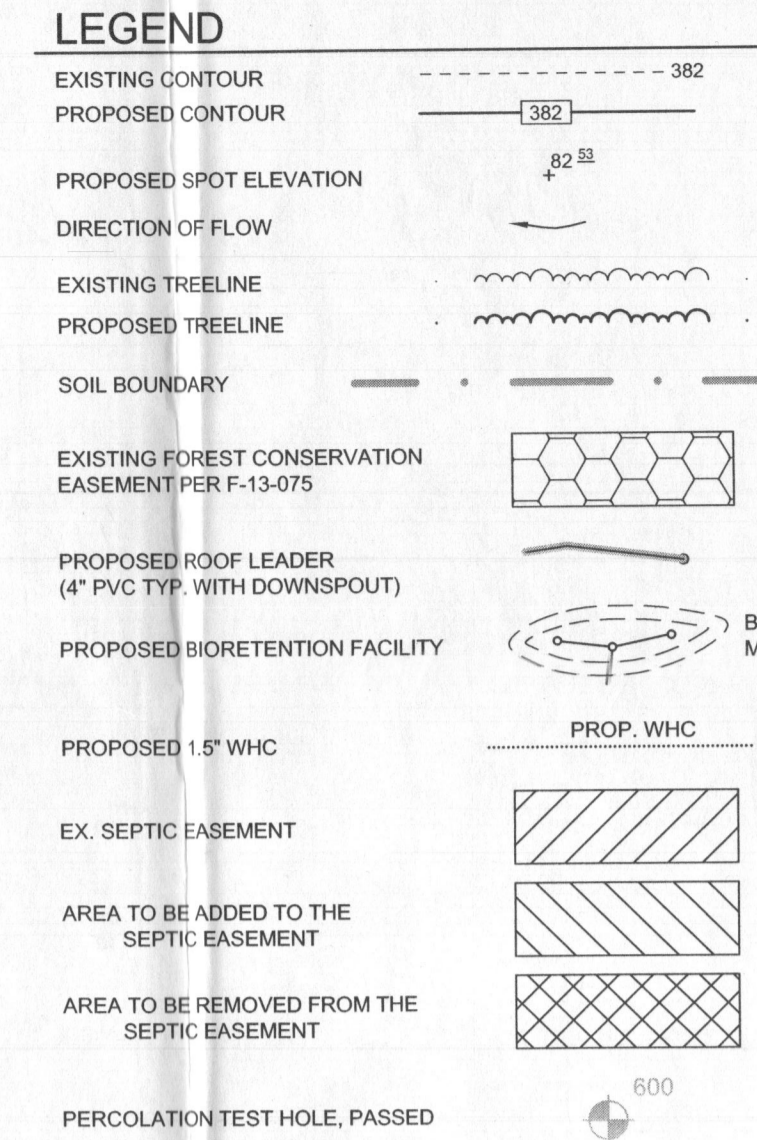
11130 Dovedale Court, Suite 200  
Marriottsville, Maryland 21104  
Phone: 443.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: PS  
DRAWN BY: AEA  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: MAY 17, 2016  
PROJECT #: 15-023  
SHEET #: 1 of 1

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. 32025, EXPIRATION DATE: JUNE 29, 2017.

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GgB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.  
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

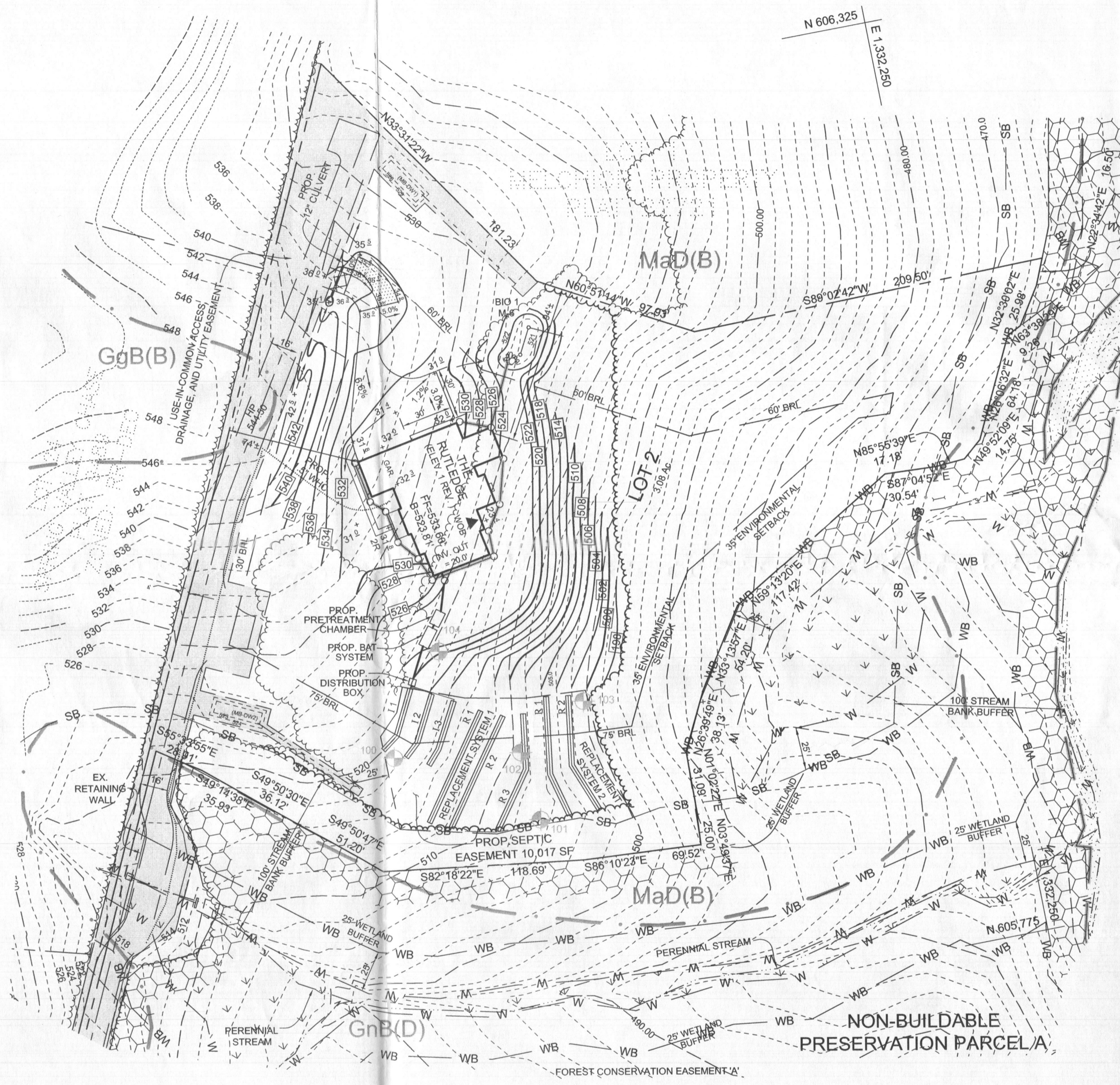


VICINITY MAP  
SCALE: 1"=2000'

BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
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- WATER WILL BE PUBLIC (CONTRACT # 44-4791-D). WATER SERVICE TO THIS LOT WILL BE GRANTED UNDER PROVISIONS OF SECTION 18-122.B OF THE HOWARD COUNTY CODE VIA CONNECTIONS TO EXISTING CONTRACT # W-44-3478.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY MILDENBERG, BOENDER AND ASSOC. IN OCTOBER 2012.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY CHRISTOPHER CONSULTANTS, INC. IN NOVEMBER 2004. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE, HOWARD COUNTY SOILS GRID 4, SOILS MAP-GRID 193.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENTS, NUMBERS 09H2 AND 10GB, WERE USED FOR THIS PROJECT.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.



PLAN VIEW  
SCALE: 1"=50'

SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>INITIAL SYSTEM:           <ul style="list-style-type: none"> <li>- APPLICATION RATE: 1.2</li> <li>- EFFECTIVE AREA BEGINNING DEPTH: 3'</li> <li>- BOTTOM MAXIMUM DEPTH: 7'</li> </ul> </li> <li>DESIGN FLOW:           <ul style="list-style-type: none"> <li>- 7 BEDROOMS AT 150 GPD</li> <li>- 7X150 GPD = 1,050 GPD</li> </ul> </li> <li>SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:           <ul style="list-style-type: none"> <li>- DESIGN FLOW (1,050 GPD) / APPLICATION RATE (1.2)</li> <li>= 875 SF</li> </ul> </li> <li>SIDEWALL REDUCTION CREDIT:           <ul style="list-style-type: none"> <li>- TRENCH WIDTH (W) = 3'</li> <li>- TRENCH EFFECTIVE DEPTH (D) = 4'</li> <li>- (W-2) / (W+1+2D) X 100 = 41.7%</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH REQUIRED:           <ul style="list-style-type: none"> <li>- DRAIN FIELD SQUARE FOOTAGE (875) X SIDEWALL REDUCTION CREDIT (41.7%) / TRENCH WIDTH (3') = 121.6'</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH PROVIDED = 122'</li> <li>- THREE TRENCHES 41 LF EACH</li> <li>EXISTING GRADE TRENCH R1: 520.0</li> <li>EXISTING GRADE TRENCH R2: 517.8</li> <li>EXISTING GRADE TRENCH R3: 513.8</li> <li>INVERT: 516.0</li> </ul> | <ul style="list-style-type: none"> <li>REPLACEMENT SYSTEM 1:           <ul style="list-style-type: none"> <li>- APPLICATION RATE: 0.8</li> <li>- EFFECTIVE AREA BEGINNING DEPTH: 5'</li> <li>- BOTTOM MAXIMUM DEPTH: 8'</li> </ul> </li> <li>DESIGN FLOW:           <ul style="list-style-type: none"> <li>- 7 BEDROOMS AT 150 GPD</li> <li>- 7X150 GPD = 1,050 GPD</li> </ul> </li> <li>SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:           <ul style="list-style-type: none"> <li>- DESIGN FLOW (1,050 GPD) / APPLICATION RATE (0.8)</li> <li>= 1,312.5 SF</li> </ul> </li> <li>SIDEWALL REDUCTION CREDIT:           <ul style="list-style-type: none"> <li>- TRENCH WIDTH (W) = 3'</li> <li>- TRENCH EFFECTIVE DEPTH (D) = 3'</li> <li>- (W-2) / (W+1+2D) X 100 = 50%</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH REQUIRED:           <ul style="list-style-type: none"> <li>- DRAIN FIELD SQUARE FOOTAGE (1,312.5) X SIDEWALL REDUCTION CREDIT (50%) / TRENCH WIDTH (3') = 218.75'</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH PROVIDED = 219'</li> <li>- THREE TRENCHES 73 LF EACH</li> <li>EXISTING GRADE TRENCH R1: 513.0</li> <li>EXISTING GRADE TRENCH R2: 511.5</li> <li>EXISTING GRADE TRENCH R3: 508.5</li> <li>INVERT: 508.5</li> </ul> | <ul style="list-style-type: none"> <li>REPLACEMENT SYSTEM 2:           <ul style="list-style-type: none"> <li>- APPLICATION RATE: 1.2</li> <li>- EFFECTIVE AREA BEGINNING DEPTH: 3'</li> <li>- BOTTOM MAXIMUM DEPTH: 6'</li> </ul> </li> <li>DESIGN FLOW:           <ul style="list-style-type: none"> <li>- 7 BEDROOMS AT 150 GPD</li> <li>- 7X150 GPD = 1,050 GPD</li> </ul> </li> <li>SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:           <ul style="list-style-type: none"> <li>- DESIGN FLOW (1,050 GPD) / APPLICATION RATE (1.2)</li> <li>= 875 SF</li> </ul> </li> <li>SIDEWALL REDUCTION CREDIT:           <ul style="list-style-type: none"> <li>- TRENCH WIDTH (W) = 3'</li> <li>- TRENCH EFFECTIVE DEPTH (D) = 3'</li> <li>- (W-2) / (W+1+2D) X 100 = 50%</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH REQUIRED:           <ul style="list-style-type: none"> <li>- DRAIN FIELD SQUARE FOOTAGE (875) X SIDEWALL REDUCTION CREDIT (50%) / TRENCH WIDTH (3') = 145.8'</li> </ul> </li> <li>LINEAR LENGTH OF TRENCH PROVIDED = 146'</li> <li>- TWO TRENCHES 73 LF EACH</li> <li>EXISTING GRADE TRENCH R1: 505.5</li> <li>EXISTING GRADE TRENCH R2: 502.5</li> <li>EXISTING GRADE TRENCH R3: 499.5</li> <li>INVERT: 499.5</li> </ul> |
|---|--|---|

OWNER/DEVELOPER

WILLIAMSBURG GROUP  
5485 HARPERS FARM ROAD  
COLUMBIA, MARYLAND 21044

REVISED PERCOLATION CERTIFICATION PLAN

MELCHIOR PROPERTY  
LOT 2

TAX MAP 10 GRID 13  
3RD ELECTION DISTRICT  
PARCEL 194  
HOWARD COUNTY, MARYLAND



**SILL ENGINEERING GROUP, LLC**  
 11130 Dovedale Court, Suite 200  
 Marriottsville, Maryland 21104  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: AEA  
 CHECKED BY: PS  
 SCALE: AS SHOWN  
 DATE: MAY 17, 2016  
 PROJECT #: 15-023  
 SHEET #: 1 of 1

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

DATE

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Paul M. Sill*  
 PAUL M. SILL, PE, LEED AP  
 LICENSED PROFESSIONAL ENGINEER #32025

DATE

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. 32025, EXPIRATION DATE: JUNE 20, 2017