



Howard County
Health Department

Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 4/16/15

ONSITE SEWAGE DISPOSAL SYSTEM

P 555814-A

INSTALLATION

APPROVAL DATE: 7/22/15 *KMW*

PERMIT CONSTRUCTION

A _____

PROPERTY ADDRESS: 14923 Victory Lane

SUBDIVISION: Merwether Farm

LOT: 4

TAX ID: _____

CONTRACTOR: Fogle's Septic Clean Inc.

EMAIL: kevin@foglesinc.com

CONTRACTOR ADDRESS: 580 Obrecht Road, Sykesville, MD 21784

PHONE: 410-795-5670

PROPERTY OWNER: Toll Brothers Inc.

EMAIL: _____

OWNER ADDRESS: 14881 Meriwether Drive, Glenelg, MD 21737

PHONE: 301-418-1923

BAT UNIT MODEL: Hoff/1000ABNR

PUMP SIZE: _____

PUMP TANK CAPACITY: 600 GPD

DISTRIBUTION SYSTEM: GRAVITY ☐

LOW PRESSURE DOSED ☐

NUMBER OF BEDROOMS: 5 (1,2)

TRENCHES:	LINEAR FEET REQUIRED: <u>158' 174'</u>	INLET DEPTH: <u>SEE BAT PLAN 5'</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8' 6"</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>6' 7"</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install BAT Unit per plan. <u>2 x 87'</u>	

ISSUED BY: Hank Oswald

ISSUE DATE: 4/22/15

EXPIRATION DATE: 4/22/16

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION

NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING

NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.

NOTE: WATERTIGHT SEPTIC TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADE FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE

See As-Built Drawing On
Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH _____ INLET _____ BOTTOM _____
NUMBER OF TRENCHES _____
TOTAL LENGTH _____
ABSORPTION AREA _____
DISTRIBUTION BOX LEVEL _____
DISTRIBUTION BOX BAFFLE _____
DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL Yes
MANUFACTURER Hoot 600
CAPACITY ~2,000 GAL
SEAM LOC Top
TANK LID DEPTH 2-2.5'
BAFFLES _____
BAFFLE FILTER N/A
MANHOLE LOC Front+Rear
6" PORT LOC None
WATERTIGHT TEST No
SLOTTED N/A
DATE ON LID Dry

PUMP/SEPTIC TANK LEVEL N/A

MANUFACTURER _____
CAPACITY _____ GAL
SEAM LOC _____
TANK LID DEPTH _____
BAFFLES _____
BAFFLE FILTER _____
MANHOLE LOC _____
6" PORT LOC _____
WATERTIGHT TEST _____
SLOTTED _____
DATE ON LID _____

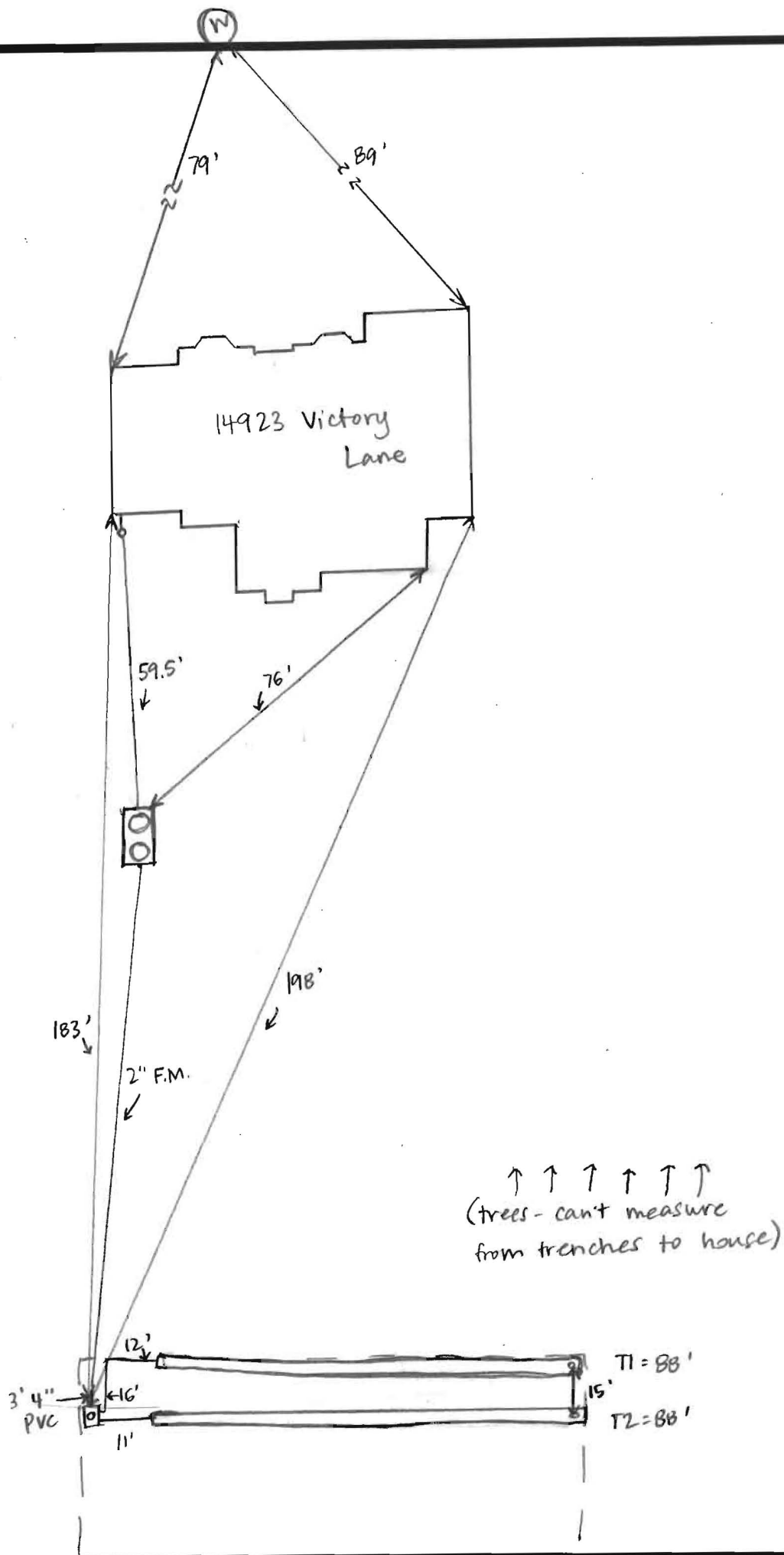
PRE-CONSTRUCTION:

5/6/2015 O.K. to set tank at slated location. Can't lay out trenches until some trees and brush are cleared from the area. May need to dig some observation holes in the septic easement. (BB) 5/7/2015 Install two 87' trenches on contour across the top of the easement. (BB)

INSTALLATION: 5/7/2015 Need house connection. Tank set. (BB) 5/8/15 Fogle's installed 2" force main from tank to location of D-box. (SC) 5/8/15 D-box installed and T2 all dug, 1/2 full w/ stone + pipe. 3' wide, 4.5' to stone. (SC) 5/11/15 T1 finished and left open at ends. Need house connection + BAT startup certification. (SC) 7/21/15 Hoot startup with Mike Sample. Pump pumps to D-box, recirculation is good, alarm works. Pump is model EP0511AC - 1/2 hp blaster pump. House connection is covered; I saw it from inside + water from house flowed through to fill Hoot tank. (SC) 7/22/15 SHC okay per Kevin Wolf. (SC)

FINAL INSPECTOR K. Wolf DATE OF APPROVAL 7-22-15

NOT TO SCALE





MAYER BROS., INC.

Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: 14923 Victory Ln.
Glenn, MD 21737

Date of Final Inspection: 7/21/15

Installer: Fogles

Hoot Technician/Inspector: Mike Sample

I hereby certify that the Hoot system installed at the property listed above has been installed according to proper Hoot installation practices. I have also verified the startup of the system and it is in proper working order.

Sincerely,

H. Michael Dwyer
Name of Inspector
Mayer Bros., Inc.

Emailed 7/22/15

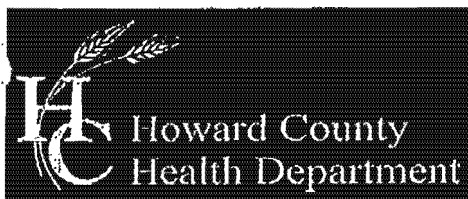
PH: 410-796-1434

FX: 410-796-1438

WBE
NPCA Certified Plant

mayerbro@connext.net
www.mayerbrosprecast.com

Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors,
Bench Broyler, Water Meter Vaults, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bumpers, Perimeter Basement Entries,
Scapewall Window Wells, Custom Precast Products

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Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 15 day of April 2015, among FABIEN LAURIER, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 14923 VICTORY LANE, in the Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber Folio .

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013. The pre-treatment device being installed is 4000 BNR.

NOW, THEREFORE, the parties hereto agree as follows:

5-0
460
7m
A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require

maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

Best Nipen 4/15/2015
Howard County Health Department

Owner #1 Signature 4/15/15 Date

Mike Martin
Owner #1 Print Name

Buyer #1 Signature 4-15-15 Date

FASHION LAURION
Buyer #1 Print Name

Owner #2 Signature Date

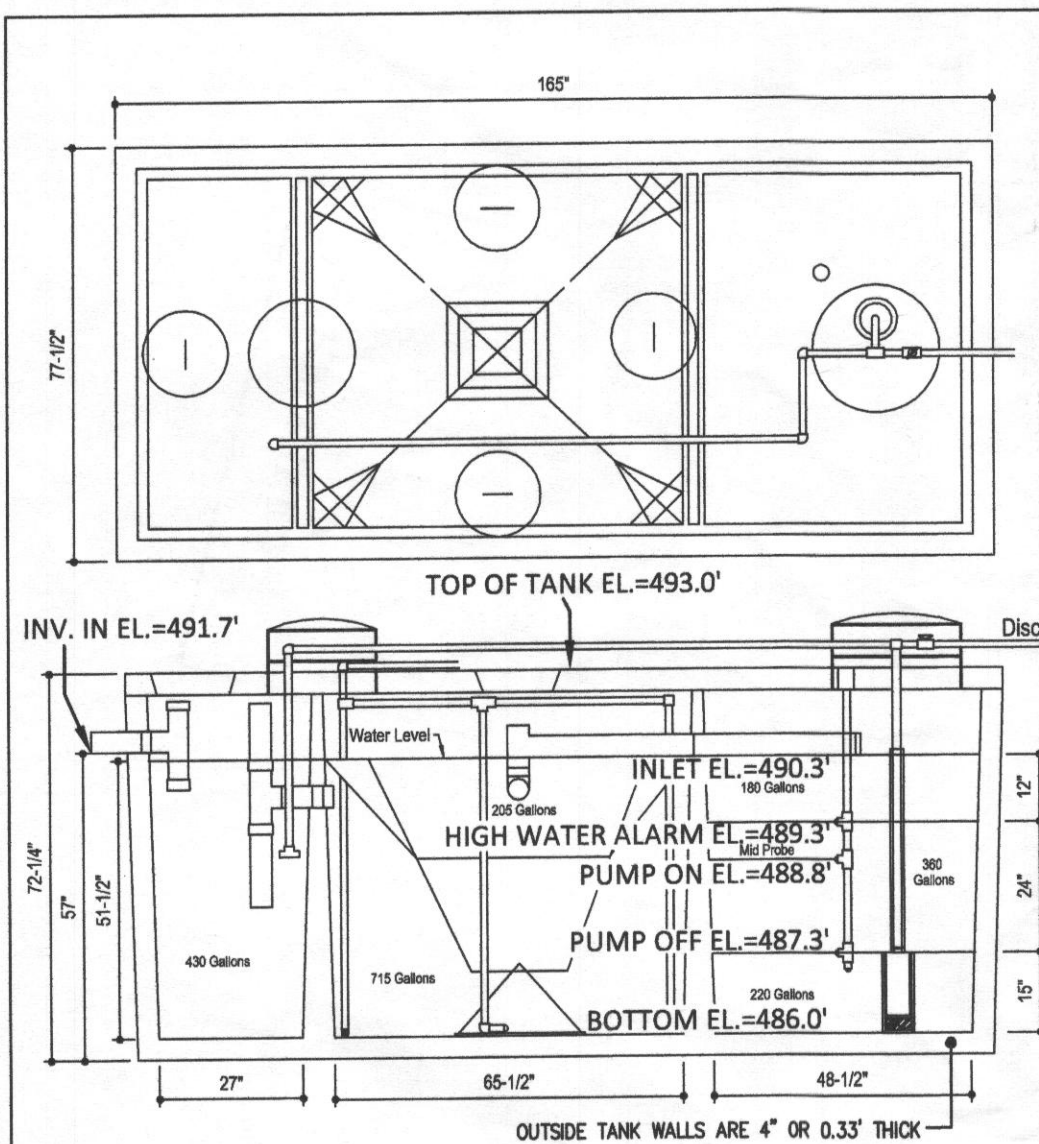
Owner #2 Print Name

Buyer #2 Signature Date

Buyer #2 Print Name

JW 8/8/2014

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
Taurier
Reference/Control #: 157
LR - Agreement
Surcharge 40.00
Subtotal: 60.00
Total: 60.00
04/15/2015 01:29
CC13-TR
#4107194 CCE503 -
Howard Co
Columbia/CC05.03.01 -
Register at



DESIGN DATA & GENERAL NOTES

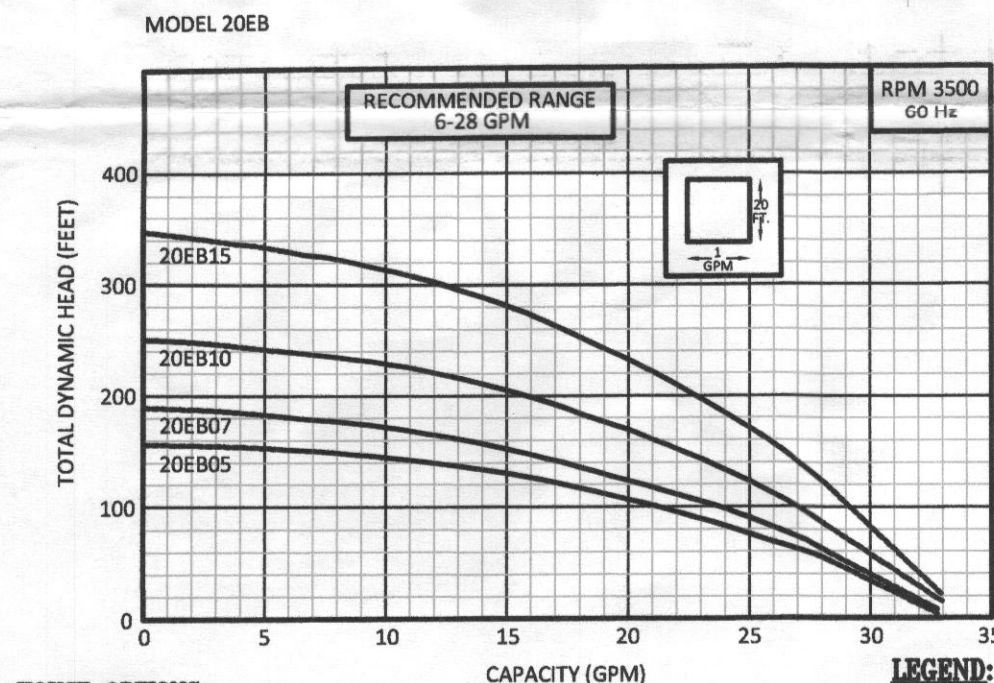
- Concrete strength f'c=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- Cement - Portland Type III per ASTM C 150-92.
- Admixtures & plasticizers per ASTM C 260-86 & C 484-92.
- Reinforcing per ASTM A185. Min. 1-1/2" cover.

Mayer Brothers, Inc.
6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbroscast.com

**600 GPD BNR SYSTEM
H-600 ABNR
with 750 GALLON PUMP CHAMBER**

Dwg. No. Hoot Form #1 No Scale March 19, 2009

FILTERED EFFLUENT BLASTER PUMP CURVE FOR WASTEWATER



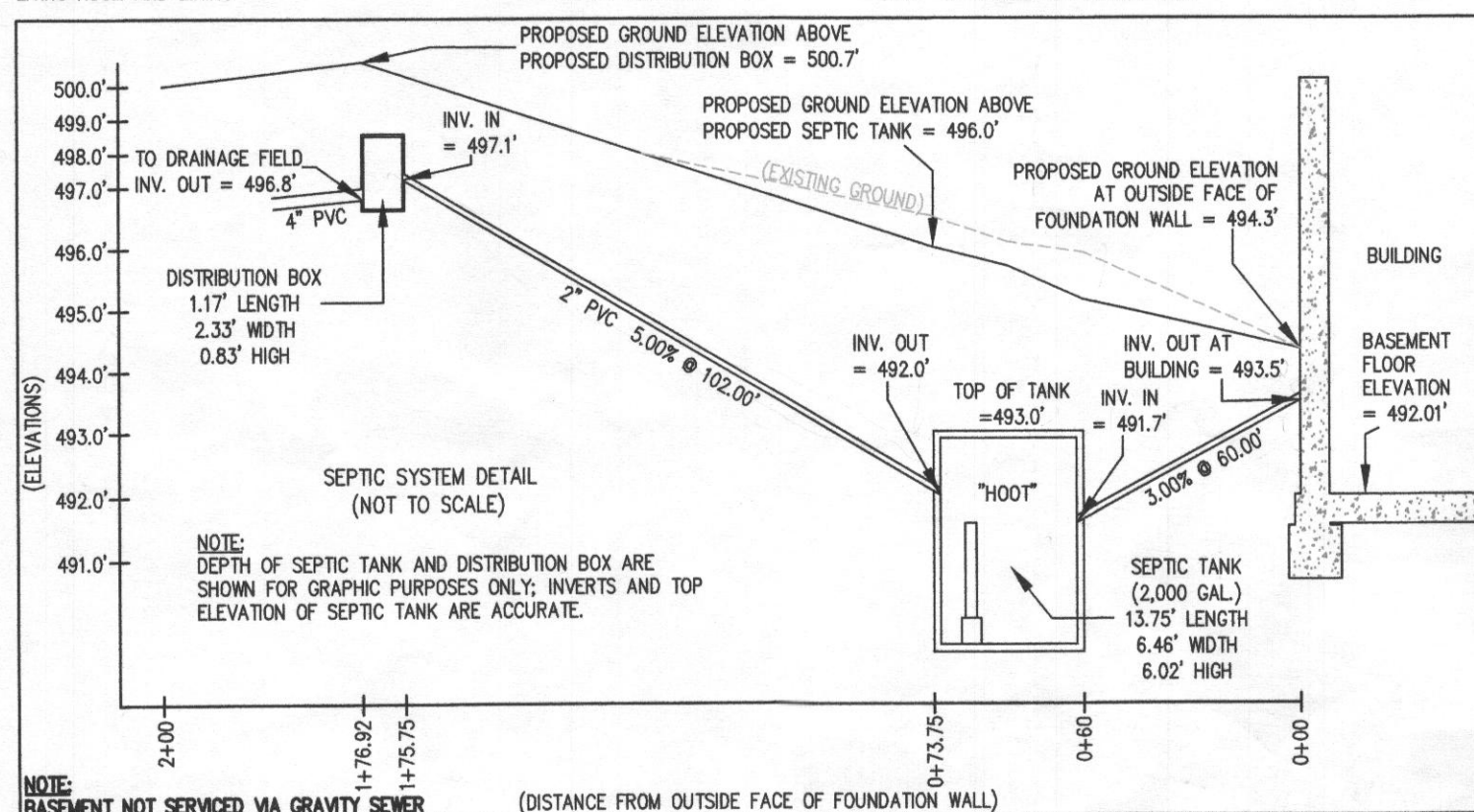
HOUSE OPTIONS:

TYPE: LANGLEY (FEDERAL)

- DAYLIGHT BASEMENT
- EXPANDED FAMILY ROOM/GREAT ROOM
- CONSERVATORY ELITE ADDITION
- ADD'L 1' HEIGHT OF BASEMENT FOUNDATION WALLS
- SOLARIUM ADDITION
- BAY WINDOWS WITH FOUNDATION ON FRONT OF LIVING ROOM AND DINING

- OPTION No. 018
- OPTION No. 023
- OPTION No. 039
- OPTION No. 070
- OPTION No. 501
- OPTION No. 90004004

- PERC TEST LOCATION
- WELL LOCATION
- LIMITS OF DISTURBANCE
- TOP OF WALL
- GF GROUND FLOOR/FIRST FLOOR
- BF BASEMENT FLOOR
- BRL BUILDING RESTRICTION LINE



NOTE: BASEMENT NOT SERVICED VIA GRAVITY SEWER

PUMPING SYSTEM DATA:

LENGTH OF FORCE MAIN: 102.00' @ 2" DIA. PIPE
STATIC HEAD = 9.80'
FRICTION HEAD = 0.78'
DYNAMIC HEAD = 10.58'
FLOW = 28 GPM
TIMED DOSE = 56 GALLONS @ 2 MINUTE INTERVALS
PUMP TYPE PER PUMP CURVE CHART = 20EB05, 1/2 H.P.

DOSE CALCULATIONS:

PER HOWARD COUNTY HEALTH DEPARTMENT SPECIFICATIONS, A DOSE AROUND 50 GALLONS IS PREFERRED WHEN PUMPING TO A DISTRIBUTION BOX. MINIMUM DOSING FOR A 5 BEDROOM HOUSE IS 750 GPD AT 15 EVENTS PER DAY.
(750 GPD ÷ 15 EVENTS PER DAY) = 50 GALLON DOSE (MINIMUM)
PUMP MAXIMUM = 28 GPM X 2 MIN. (DOSE TIME SELECTED) = 56 GALLON DOSE
56 GALLON DOSE MEETS MINIMUM REQUIREMENTS.

FRICTION HEAD CALCULATIONS:

LENGTH OF PIPE FROM SEPTIC TANK TO DISTRIBUTION BOX = 102.00'
0 (45°) BENDS IN 2" PVC = (ADD 4' PER BEND) = (0 X 4) = 0'
(LENGTH OF FORCE MAIN + LENGTH OF PIPE FOR FRICTION LOSS PER BENDS)
102.00' + 0' = 102.00' TOTAL PIPE PER FRICTION LOSS
(20 GPM OF 2" PVC = 0.74 PER 100' OF PIPE)
0.74 ÷ 100 = 0.0074 X 2.00' (LEFT OVER PIPE) = 0.015 (2.00' OF PIPE PRORATED)
(0.74 (100' PIPE) + 0.015 (PRORATED 2.00' LEFT OVER))
FRICTION HEAD = 0.78'

DYNAMIC HEAD CALCULATIONS:

INV. IN @ DISTRIBUTION BOX = 497.1'
INV. @ TANK PUMP OFF FLOAT = 487.3'
(INV. IN AT DISTRIBUTION BOX (-) ELEV. OF PUMP OFF SWITCH)
STATIC HEAD = 9.80'
FRICTION HEAD LOSS IN 2" DIA. PIPE = 0.78'
(STATIC HEAD + FRICTION HEAD)
TOTAL DYNAMIC HEAD = 10.58'



SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE), IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
- ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DIRECTOR

PROFESSIONAL ENGINEER

DATE

DATE

DATE

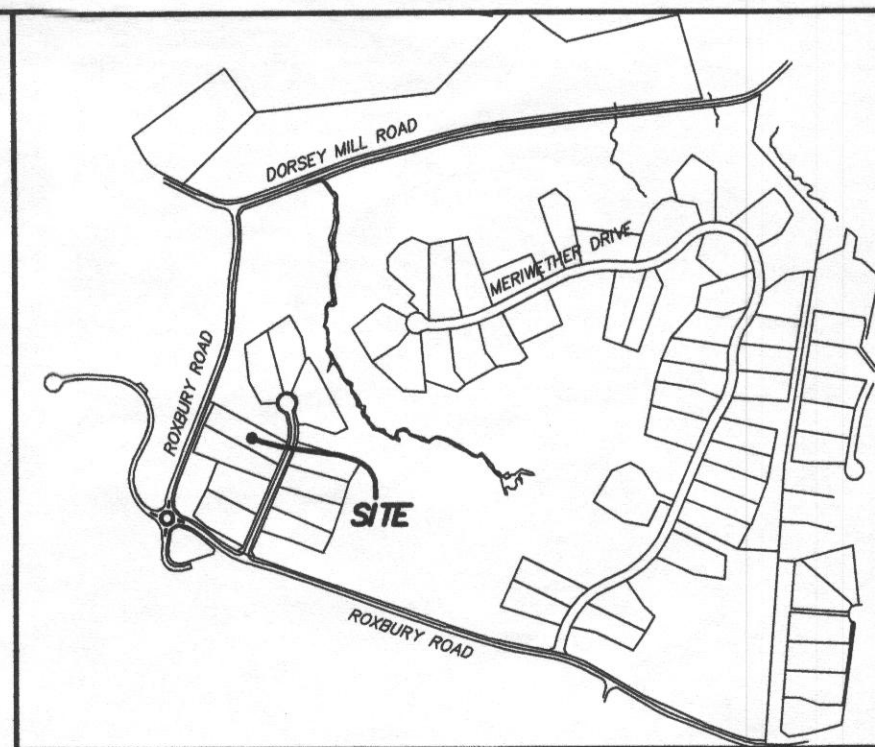
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/15.

FLOW CALCULATIONS:

STANDARD HOOT 600BNR "BLASTER EB20" PUMP:
THE SPECIFICATIONS SHOW IT PUMPS 28 GPM (MAXIMUM) AT A HEAD OF 100'.
(2 MINUTE PUMP RUN TIME X 28 GPM = 56 GALLON DOSE)
(56 GALLON DOSE X 15 EVENTS PER DAY = 840 GALLONS)
840 GALLONS MEETS MINIMUM DAILY REQUIREMENTS.

PUMP HORSEPOWER CALCULATIONS:

FLOW X TOTAL DYNAMIC HEAD X SPECIFIC GRAVITY ÷ 3960 X EFFICIENCY
(SPECIFIC GRAVITY H2O @ 68°F IS 1)
(USE 0.4 FOR EFFICIENCY, AS THIS IS COMMON FOR EFFLUENT PUMPS)
28 X 10.58 X 1 ÷ 3960 X 0.4 = 296.24 ÷ 1,584.0 = 0.19
USE PUMP CHART - PUMP = 20EB05, 1/2 H.P.



VICINITY MAP

GENERAL NOTES: 1" = 1000'

- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS DATED 7/28/06.
- PLAT REFERENCE: PLAT No. 21751.
- THE EXISTING TOPOGRAPHY WITHIN THE AREA OF PROPOSED WORK IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY ESE. DATED 6/06/13.
- SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE ESE CONSULTANTS INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
- THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410-313-1881) AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TOTAL LIMIT OF DISTURBANCE: 42,027 SQ. FT. / 0.96 AC.±
- STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED BY PREVIOUSLY APPROVED PLAN F-08-199
- ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (ESE) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
- THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- THESE AREAS DESIGNATE A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS FOR ALL PROPOSED STRUCTURES AND/OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
- THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-08-199.
- A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN DATED 12/18/13.
- THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-2082 HAS BEEN FIELD LOCATED BY ESE CONSULTANTS - PROFESSIONAL LAND SURVEYOR(S), AND IS ACCURATELY SHOWN.
- BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
- CULVERT FOR DRIVEWAY IS A 12" C.M.P. (CORRUGATED METAL PIPE) AS SHOWN ON SHEET 7 OF 15 OF THE STORM DRAIN PROFILES PLAN IN A COLUMN LABELED "DRIVEWAY CULVERT DATA", PER F-08-199 PLAN.

TRENCH DATA:

APP. RATE (0.8)
EFFECTIVE SIDEWALL (5')
BOTTOM MAX. DEPTH (8')
(INITIAL AND FIRST REPLACEMENT)
TRENCH 1 (T1):
GROUND ABOVE = 500.7'
INV. IN = 496.7'
BOTTOM TRENCH = 492.7'

TRENCH 2 (T2):
GROUND ABOVE = 500.4'
INV. IN = 496.4'
BOTTOM TRENCH = 492.4'

BACKUP TRENCH 3 (T3):
GROUND ABOVE = 500.1'
INV. IN = 496.1'
BOTTOM TRENCH = 492.1'

BACKUP TRENCH 4 (T4):
GROUND ABOVE = 499.4'
INV. IN = 495.4'
BOTTOM TRENCH = 491.4'

(SECOND REPLACEMENT)
APP. RATE (0.8)
EFFECTIVE SIDEWALL (5')
BOTTOM MAX. DEPTH (6')
BACKUP TRENCH 5 (T5):
GROUND ABOVE = 497.8'
INV. IN = 495.8'
BOTTOM TRENCH = 491.8'

BACKUP TRENCH 6 (T6):
GROUND ABOVE = 495.8'
INV. IN = 493.8'
BOTTOM TRENCH = 489.8'

BACKUP TRENCH 7 (T7):
GROUND ABOVE = 493.7'
INV. IN = 491.7'
BOTTOM TRENCH = 487.7'

SEWAGE DISPOSAL SYSTEM DATA (5 BDRM):

HOOT BNR600 (3 CHAMBER SYSTEM)

PROPOSED INVERT AT FOUNDATION WALL: 494.3'

1. EXISTING GRADE OVER TANK: 496.5'
PROPOSED GRADE OVER TANK: 496.0'
INVERT IN: 491.7' INVERT OUT: 492.0'

2. DISTRIBUTION BOX:
EXISTING GRADE OVER BOX: 500.7'
PROPOSED GRADE OVER BOX: 500.7'
INVERT IN: 497.1' INVERT OUT: 496.8'

3. TRENCH DESIGN, INITIAL SYSTEM AND FIRST REPLACEMENT:
(5 BDRM x 150 GPD/BDRM = 750 GPD)
750 GPD ÷ 0.8 APP. RATE = 937.5 SF
USE 3' WIDE TRENCH WITH 48" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
937.5 SF ÷ 3' WIDTH = 312.50 LF X 0.50 = 156.25 LF MIN. TRENCH
USE 2 79' LONG TRENCHES = 158 LF

4. TRENCH DESIGN, SECOND REPLACEMENT:
(5 BDRM x 150 GPD/BDRM = 750 GPD)
750 GPD ÷ 0.8 APP. RATE = 937.5 SF
USE 3' WIDE TRENCH WITH 48" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
937.5 SF ÷ 3' WIDTH = 312.50 LF X 0.83 = 259.38 LF MIN. TRENCH
USE 3 87' LONG TRENCHES = 261 LF

BASEMENT NOT SERVICED VIA GRAVITY SEWER

SITE PLAN FOR BAT INSTALLATION

LOT 4

MERIWETHER FARMS

LIBER 13779, FOLIO 473

PLAT No. 21751

TAX No. 04-593613

FOURTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

ADDRESS: 14923 VICTORY LANE

GLENELG, MARYLAND

ESE Land Planning
Engineering
Land Surveying

ESE Consultants Inc.
7164 Columbia Gateway Dr.
Suite 203
Columbia, MD 21046
TEL: 410-872-9105
FAX: 410-872-4870

DATE: 10/23/14

CHK'D: M.J.B

SCALE: 1"=40'

JOB NO.: 3184

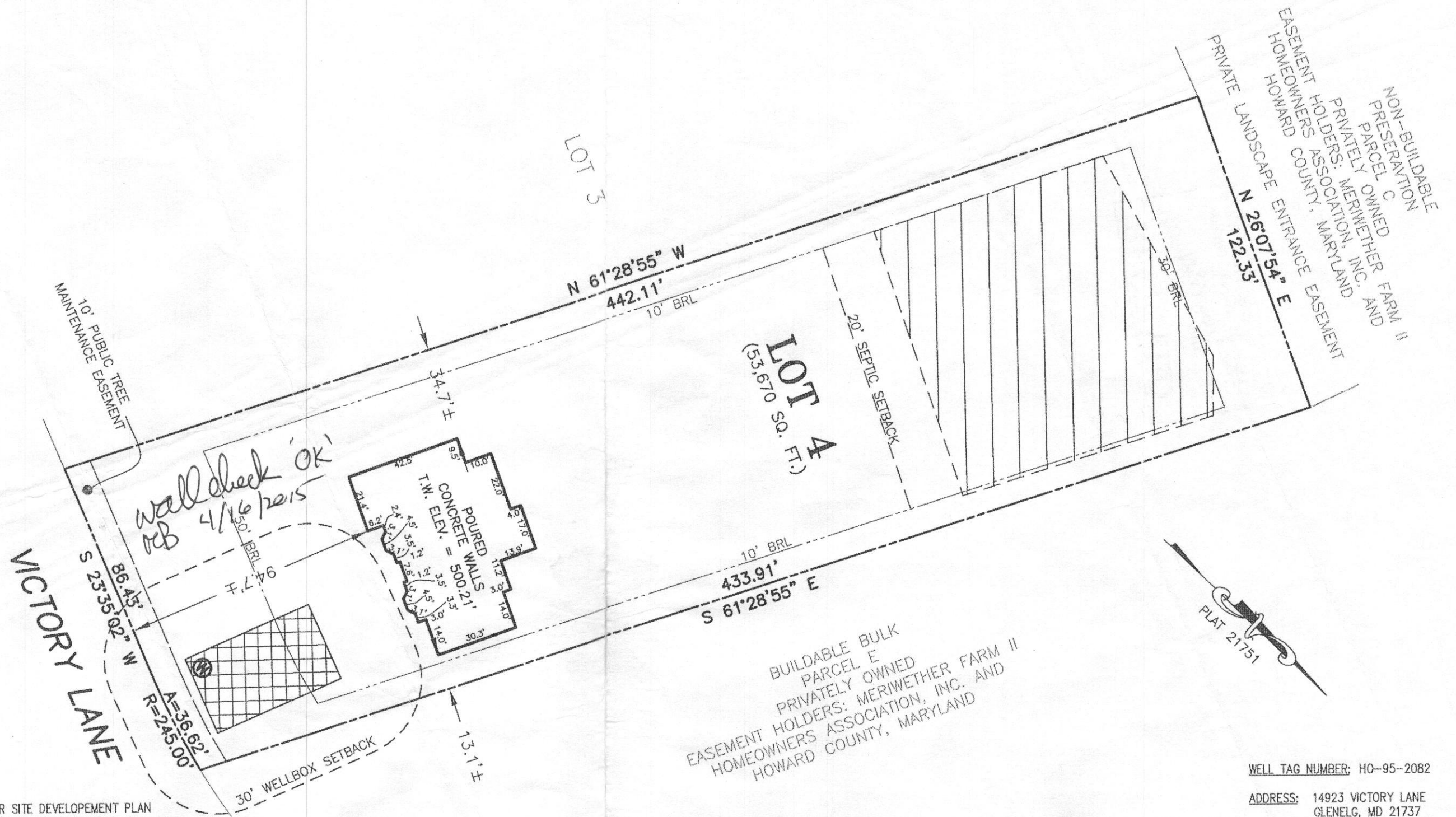
FILE: PP LOT 4

DRAWN: R.C.K

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/17.

LEGEND:

T.W. TOP OF WALL
ELEV. ELEVATION
BRL BUILDING RESTRICTION LINE



SEPTIC AREA
WELLBOX

BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPEMENT PLAN
SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.

SURVEYOR'S CERTIFICATE

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED. THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

SIGNATURE: MICHAEL JOE BOYCE

21328
MD. LIC NO.

DATE

WALLCHECK
LOT 4
MERIWETHER FARMS

LIBER 13779, FOLIO 473
PLAT NO. 21751
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ESE

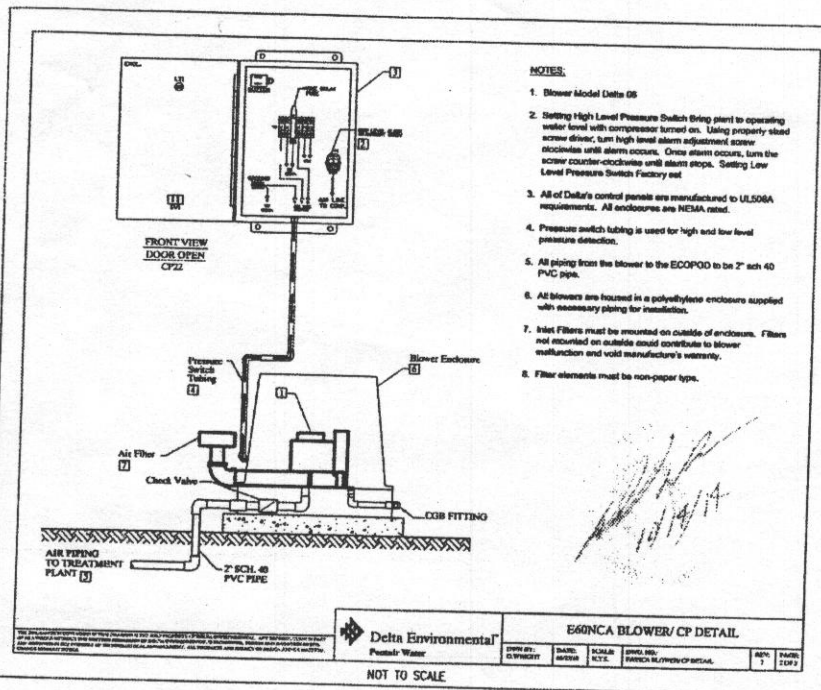
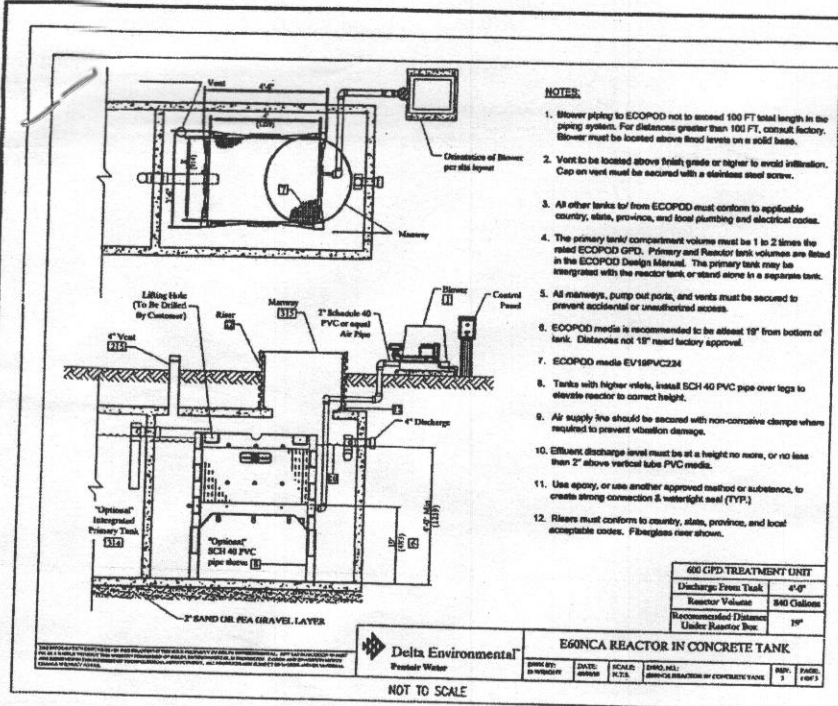
Land Planning
Engineering
Land Surveying

ESE Consultants, Inc.
7164 Columbia Gateway Dr.
Suite 230
Columbia, MD 21046
Tel: 410-872-9105
Fax: 410-872-4870

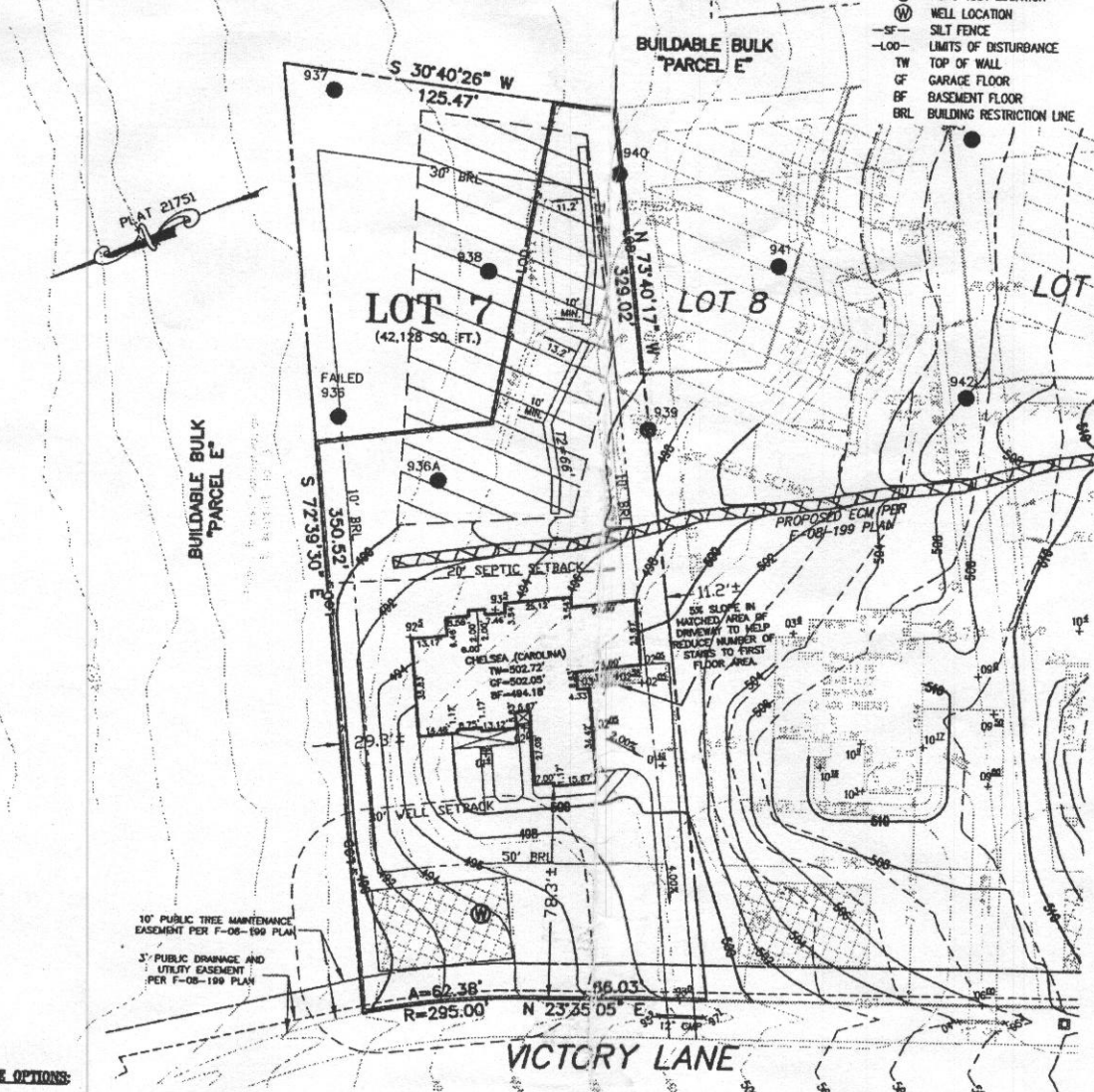
DATE: 01/26/15
CHK'D: M.J.B.

SCALE: 1"=40'
JOB NO: 3184

FILE: WC LOT 4
DRAWN: R.C.K



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/15.



SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE), IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
- ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DIRECTOR

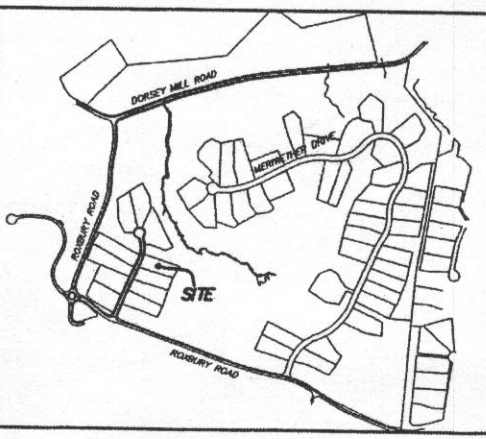
PROFESSIONAL ENGINEER

DATE

DATE

DATE

SITE PLAN FOR BAT INSTALLATION
LOT 7
MERIWETHER FARMS
LIBER 13779, FOLIO 473
PLAT No. 21751
TAX No. 04-593616
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
ADDRESS: 14926 VICTORY LANE
GLENELG, MARYLAND



- GENERAL NOTES:**
- THE SUBJECT PROPERTY IS ZONED RC-BED PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS DATED 7/28/06.
 - PLAT REFERENCE: PLAT No. 21751.
 - THE EXISTING TOPOGRAPHY WITHIN THE AREA OF PROPOSED WORK IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY ESE, DATED 6/06/13.
 - SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE ESE CONSULTANTS INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
 - THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410-313-1881) AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TOTAL LIMIT OF DISTURBANCE: 31,405 SQ. FT. / 0.72 AC.±
 - STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED BY PREVIOUSLY APPROVED PLAN F-08-199
 - ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
 - DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (ESE) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
 - THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
 - THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
 - THESE AREAS DESIGNATE A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
 - EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
 - ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS FOR ALL PROPOSED STRUCTURES AND/OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
 - THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-08-199.
 - A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN DATED 12/18/13.
 - THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER 10-95-2085 HAS BEEN FIELD LOCATED BY ESE CONSULTANTS - PROFESSIONAL LAND SURVEYOR(S), AND IS ACCURATELY SHOWN.
 - BUILDING SETBACKS (BRL'S) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
 - CULVERT FOR DRIVEWAY IS A 12" C.M.P. (CORRUGATED METAL PIPE) AS SHOWN ON SHEET 7 OF 15 OF THE STORM DRAIN PROFILES PLAN IN A COLUMN LABELED "DRIVEWAY CULVERT DATA", PER F-08-199 PLAN.

ESE Land Planning
Engineering
Land Surveying

ESE Consultants Inc.
7164 Columbia Gateway Dr.
Suite 203
Columbia, MD 21046
TEL: 410-872-9105
FAX: 410-872-4870

DATE: 10/14/14 SCALE: 1"=40' FILE: BAT LOT 7
CHK'D: M.J.B. JOB NO: 3184 DRAWN: R.C.K.

115/15
FP's show 5 bedrooms
w/ full bath rough-in
on basement level.
BAT system is sized
for 5 bedrooms.
A note was sent to
builder regarding any
future improvements to
basement may require
septic upgrade.
Approved - H.O.

HOWARD COUNTY HEALTH DEPT
DEC 1 2014
RECEIVED