

Bureau of Environmental Health  
 7178 Gateway Drive Columbia, MD 21046  
 (410) 313-2640 Fax (410) 313-2648  
 TDD (410) 313-2323 Toll Free 1-866-313-6300  
 website: www.hchealth.org

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

RECEIPT DATE: 10-20-14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 555279-A

INSTALLATION **PERMIT**  
 APPROVAL DATE: \_\_\_\_\_ A \_\_\_\_\_  
**CONSTRUCTION**

PROPERTY ADDRESS: 14528 Edgewoods Way

SUBDIVISION: Edgewood Farm LOT: 57 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 MD V LP EMAIL: \_\_\_\_\_

OWNER ADDRESS: 7164 Columbia Gateway Drive, MD 21045 PHONE: 410-872-9105

BAT UNIT MODEL: ECOPOD E609CA (E75) = SBR BAT UNIT SIZE: 600GPD

PUMP CHAMBER CAPACITY (GALLONS): \_\_\_\_\_ PUMP SIZE: \_\_\_\_\_

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. \_\_\_\_\_ APPLICATION RATE: 0.8

DISTRIBUTION SYSTEM:  GRAVITY FED  LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 159'</u>	INLET DEPTH: <u>SEE BAT PLAN 4'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 3'</u>	MAXIMUM BOTTOM DEPTH: <u>8'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</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:	Set BAT unit per plan. <u>3 x 53' Trenches</u>	

ISSUED BY: Jeff Williams ISSUE DATE: 10-20-14 EXPIRATION DATE: 10-20-15

- 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 DOWNGRADIENT 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

**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

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	3.5-4'	7.5-8'
NUMBER OF TRENCHES		3
TOTAL LENGTH		161'
ABSORPTION AREA		483+Sidewall
DISTRIBUTION BOX LEVEL		Levelers
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL \_\_\_\_\_

MANUFACTURER ECOPOD

CAPACITY 600 GPD GAL

SEAM LOC TOP SEAM

TANK LID DEPTH 1.5'

BAFFLES \_\_\_\_\_

BAFFLE FILTER \_\_\_\_\_

MANHOLE LOC FRONT + REAR

6" PORT LOC CENTER

WATERTIGHT TEST \_\_\_\_\_

SLOTTED \_\_\_\_\_

DATE ON LID \_\_\_\_\_

**PUMP/SEPTIC TANK LEVEL**

MANUFACTURER \_\_\_\_\_

CAPACITY \_\_\_\_\_ GAL

SEAM LOC \_\_\_\_\_

TANK LID DEPTH \_\_\_\_\_

BAFFLES \_\_\_\_\_

BAFFLE FILTER \_\_\_\_\_

MANHOLE LOC \_\_\_\_\_

6" PORT LOC \_\_\_\_\_

WATERTIGHT TEST \_\_\_\_\_

SLOTTED \_\_\_\_\_

DATE ON LID \_\_\_\_\_

See As-Built Drawing  
On Separate Sheet

ROAD NAME \_\_\_\_\_

**PRE-CONSTRUCTION:**

11/12/2014 Put tank just inside top corner of septic easement. Install three 53' trenches similar to plan. (BB)

INSTALLATION: 11/14/2014 Trenches and dist. box installed. No septic tank. (BB)

11/20/14 ~~septic~~ House connection not made. Need cleanout between tank and distribution box (total length = 80 ft.). Spoke with Kevin from Fogle's - they will add a cleanout. (SC/PR)

1/20/15 Everything was covered on site. Fogle's did install a cleanout between the tank and D-box. I couldn't verify house connection but we will accept pictures that Jake took. Needs BAT startup certification. (SC)

FINAL INSPECTOR \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_



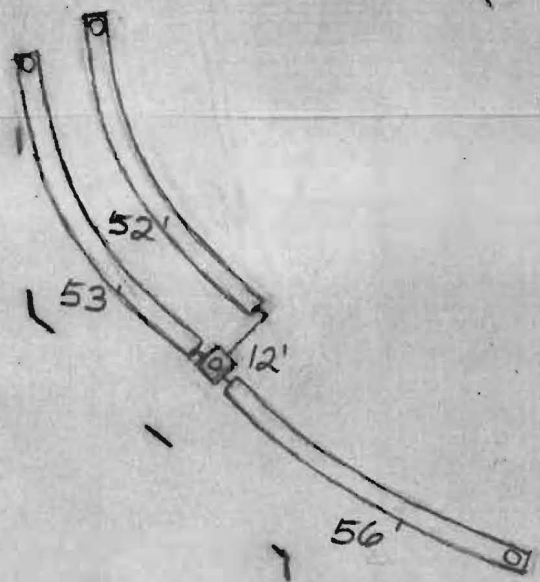
H0-95-1057

~81'

69'

14528  
Edgewoods  
Way

NOT TO SCALE



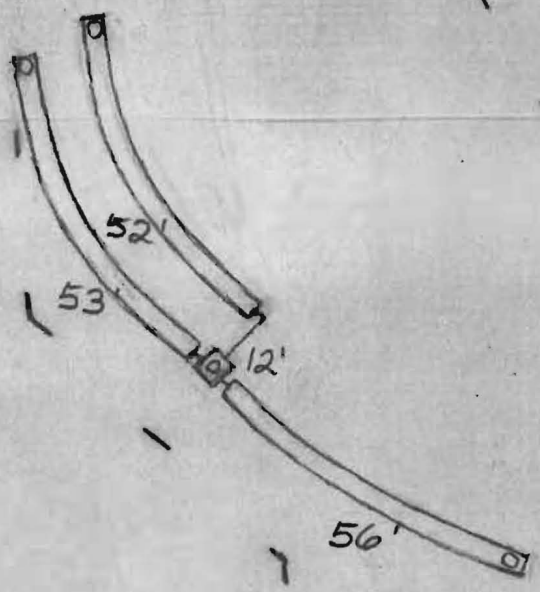
HO-95-1057

~81'

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Edgewoods  
Way

NOT TO SCALE





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

Twitter: HowardCoHealthDep

000162

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

OCT 27 2014

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

THIS AGREEMENT is made this 21st day of October 2014, among TOLL MD, 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 4528 Edgewoods Way, Glenelg, MD, in the 5th 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 10677 Folio 461.

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 ECOPOD E6ONCA

NOW, THEREFORE, the parties hereto agree as follows:

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.

Bert Nufen 10/21/2014  
 ✓ Howard County Health Department

[Signature] 10/19/14  
 Owner #1 Signature Date

David Erat  
 Owner #1 Print Name *Senior manager*

[Signature] 10/14/14  
 Buyer #1 Signature Date

Yongheon Lee  
 Buyer #1 Print Name

[Signature] \_\_\_\_\_  
 Owner #2 Signature Date

Owner #2 Print Name

[Signature] \_\_\_\_\_  
 Buyer #2 Signature Date

Buyer #2 Print Name

LR - Agreement  
 Recording Fee 20.00  
 Grantor/Grantee Name:  
 TOLL MD V  
 Reference/Control #: 162  
 LR - Agreement  
 Surcharge 40.00  
 SubTotal: 60.00  
 Total: 240.00  
 10/21/2014 11:46  
 CC13-ES  
 #2438952 CC0503 -  
 Howard Co  
 Columbia/CC05.03.08 -  
 Register 08

# Babylon

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**V A U L T**

S I N C E 1 9 3 0

## Burial Vaults - Septic Tanks

925 WAKEFIELD VALLEY ROAD  
NEW WINDSOR, MD 21776

PHONE:  
410-848-0393  
FAX:  
410-848-3551

**Five Year Initial Service Policy  
On Site Wastewater Treatment System**

Brand Name: <u>ECORCP</u>	Model Number: <u>ECOPod Co</u>
Purchase Date: <u>12/16/14</u>	Serial Number: <u>E60N-C2217CA</u>

**INITIAL POLICY:**

A five (5) year service policy shall be furnished to the user by the Installer.

This policy is included in the original purchase price and shall provide the following:

1. An inspection/service call every six months which includes inspections, adjustment and servicing of the mechanical and electrical component parts as necessary to ensure proper function for the first year. And once a year there after..
2. An effluent quality inspection every six months consisting of a visual check for color, turbidity, scum overflow, and an examination for odors for the first year. And then once a year there after.
3. A sample shall be pulled from the aeration tank once a year as described in the "Solids Removal" Section to determine if there is an excess of solids in the treatment plant. If the test results determine if there is an excess of solids in the treatment plant. If the rest results determine a need for solids removal, the user will bear the cost and responsibility for doing so.
4. If any improper operation is observed which cannot be corrected at that time, the user shall be notified immediately in writing of the conditions and the estimated date of correction.

Violations of Warranty including shutting off the electric current to the system for more than 24 hours, disconnecting the alarm system restricting ventilation to the aerator, overloading the system above its rated capacity, or introducing excessive amounts of harmful matter into the system, or any other form of unusual abuse.

**THIS POLICY DOES NOT INCLUDE PUMPING  
SLUDGE FROM UNIT IF NECESSARY**

**PERMITTING AUTHORITY:**

Howard County

**SYSTEM OWNER:**

Lee Choi  
same as installation

**INSTALLATION LOCATION:**

4528 Edgewoods Way  
Glenelg MD 21737

**DISTRIBUTOR:**

Babylon Vault Co

**INSTALLER:**

Fogles Septic

**SERVICE COMPANY:**

Steven R. Kuntz Babylon Vault Co.  
Service Operators License Number: \_\_\_\_\_

I agree to abide by the service policy as stated above: \_\_\_\_\_

Witness: \_\_\_\_\_

# e3 Environmental LLC

302-725-0788 www.e3onsite.com

## ECOPOD-N Completion Statement

### Installation Information

Owners Name	Lee Choi	# of Bedrooms / GPD	600
Street	14528 Edgewoods Way	Repair	<input type="checkbox"/>
City	Glenelg	New Construction	<input checked="" type="checkbox"/>
State	MD		
Zip	21737		

### Installation Company

Company	Fogles	Installed Date	12/10/14
Certified Installer	GARY POOLE	Startup Date	1/21/15
Street	Obrecht Rd		
City	Sussexville		
State	MD		
Zip	21784		

### ECOPOD-N

Model #		Serial #
E50	<input type="checkbox"/>	
E60	<input checked="" type="checkbox"/>	EG60N - 02217 CA
E75	<input type="checkbox"/>	
E100	<input type="checkbox"/>	
E150	<input type="checkbox"/>	

Blower Voltage	good
Blower Running Amps	good
Inches of water over media with blower turned off	2 inch
Vent Installed	yes
Tanks and Risers Water tight	yes
Alarm Functional	yes

I hereby certify that the ECOPOD-N wastewater treatment system has been installed and started up in accordance with the construction permit and is in compliance with the manufacturers recommendations

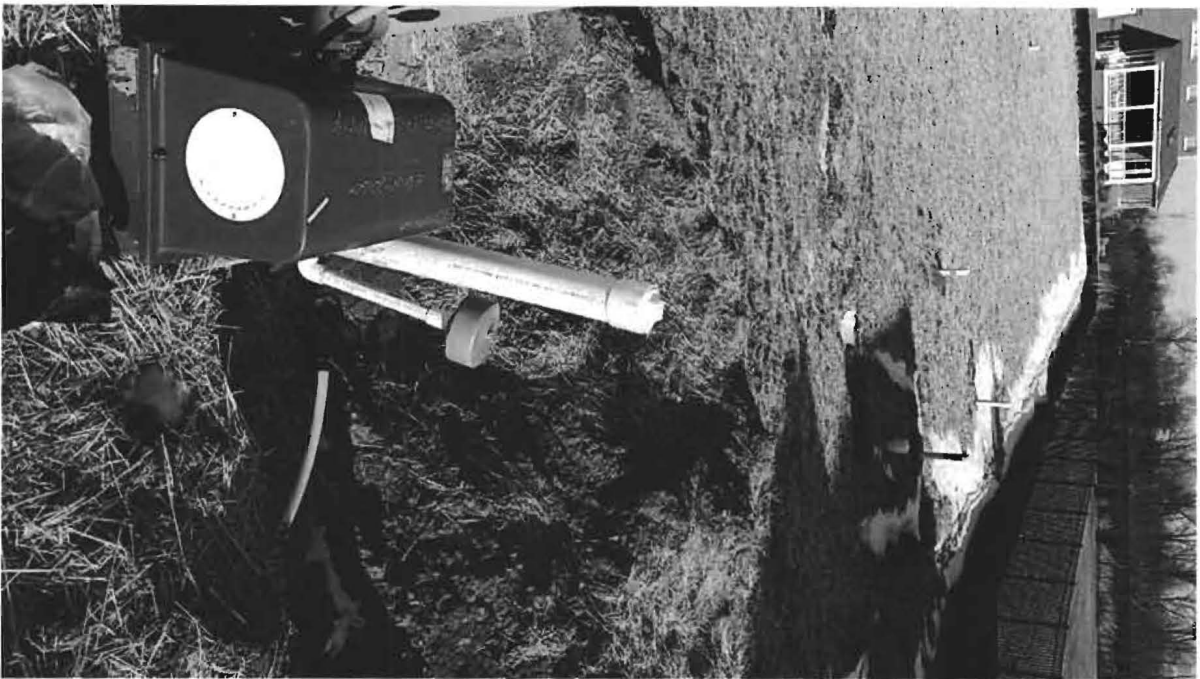
Company Babylon Vault Co Date 1/21/15  
 Signature Steven R Koontz  
 Printed Name STEVEN R KOONTZ

14528 Edgewoods Way  
Images of house connection from Jake at Fogle's

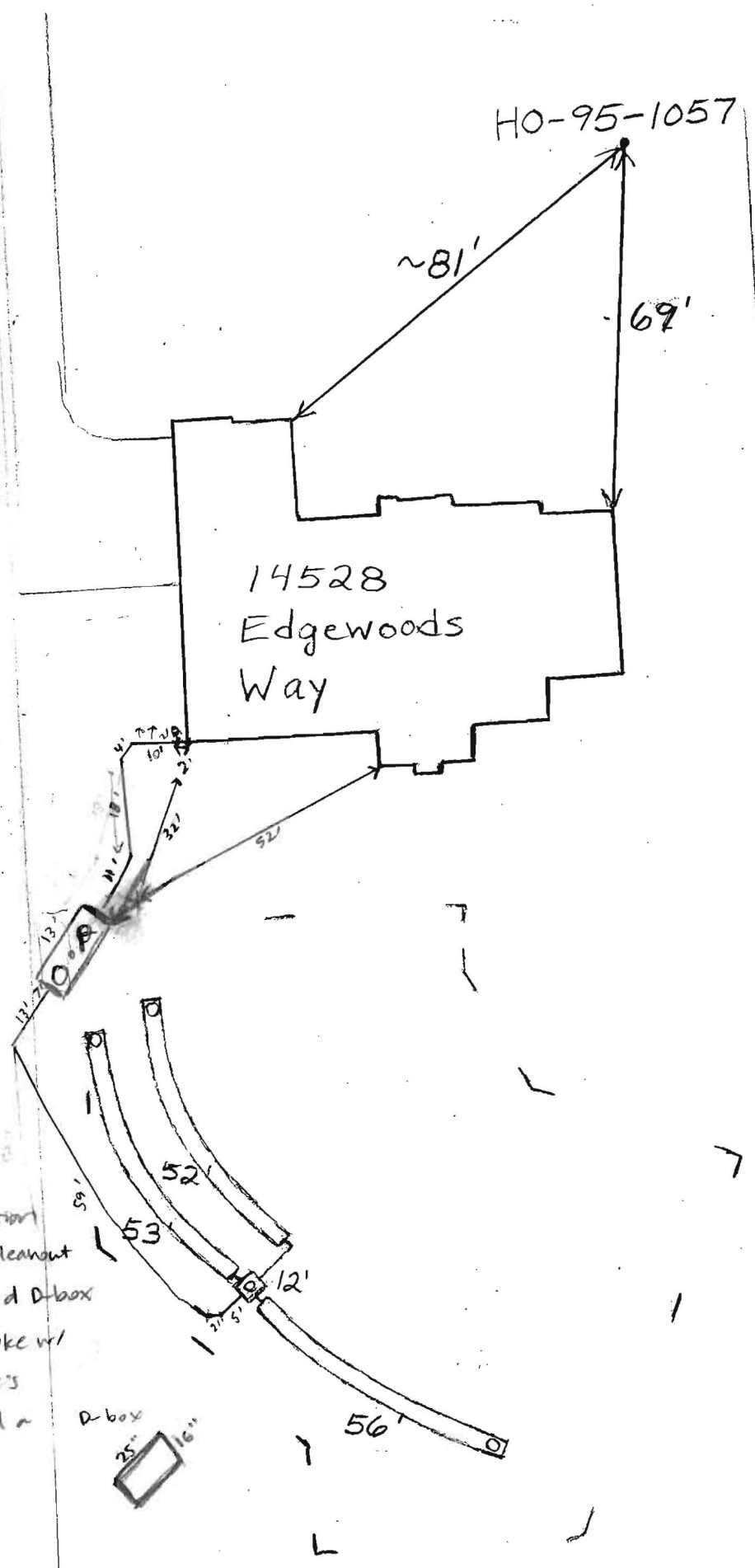


14528 Edgewoods Way

Images of house connection from Jake at Fogle's



NOT TO SCALE



14528 Edgewoods Way

HO-95-1057

~81'

69'

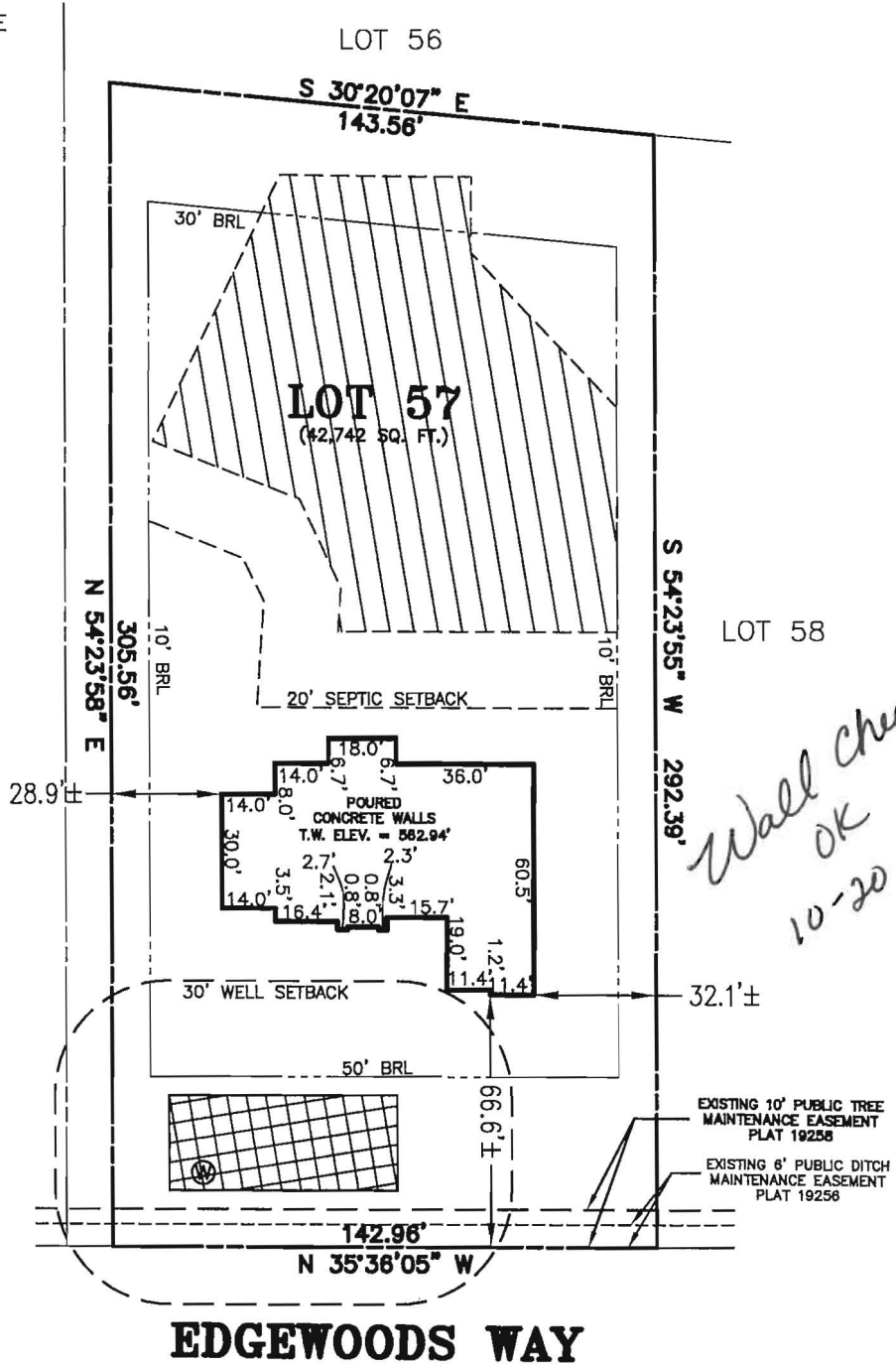


11/20/14  
 Sewerhouse connection  
 not made. Need cleanout  
 between tank and D-box  
 (total ~80'). Spoke w/  
 Kevin from Figley's  
 and they'll add a  
 cleanout.

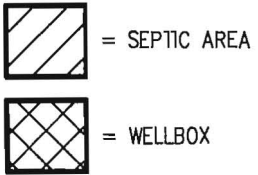
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/15.

**LEGEND:**

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



*Wall check  
 OK  
 10-20-14*



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

ADDRESS: 14528 EDGEWOODS WAY  
 GLENELG, MD 21737

**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. 08/15/14 DATE

WALL CHECK  
 LOT 57  
**EDGEWOOD FARM**  
 LIBER 10677, FOLIO 461  
 PLAT No. 19268  
 ELECTION DISTRICT No. 4  
 HOWARD COUNTY, 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: 08/15/14 SCALE: 1"=50' FILE: WC LOT 57  
 CHK'D: M.J.B JOB NO: 1498 DRAWN: R.C.K

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Tuesday, September 23, 2014 3:03 PM  
**To:** 'JEREMY@APPLIEDANDAPPROVED.COM'  
**Subject:** B14003081\_14528 Edgewood  
**Attachments:** HO.PDF

Hi Jeremy:

The propane tank needs to be 5 feet off of the proposed septic line "in bold" as indicated in my letter dated 9.5.14 and this attachment (which is the most recent revision received just today). Please contact me with any questions.

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Well & Septic Program  
8930 Stanford BLVD  
Columbia, MD 21045  
410-313-1786  
410-313-2648 (Fax)



## Williams, Jeffrey

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**From:** Nathan Brandenburg [NBRANDENBURG@tollbrothersinc.com]  
**Sent:** Wednesday, July 09, 2014 11:56 AM  
**To:** Williams, Jeffrey  
**Subject:** RE: Edgewood lot 57

Jeff,

I spoke to our sales office and they'd rather keep the original floor plan with the playroom. I will have the BAT system redesigned for a 5 bedroom house.

Nathan Brandenburg  
Project Manager - Toll Brothers Inc.  
Patuxent Chase & The Reserve at Triadelphia Crossing  
Field Office (410) 489-2275 ~ Fax (410) 489-2278

Learn more about our homes at [www.tollbrothers.com](http://www.tollbrothers.com)

 Become a fan of Toll Brothers Howard County, MD on Facebook



The information provided herein is for informational purposes only. Nothing contained herein is intended to obligate or bind Toll Brothers, Inc., its affiliates, or subsidiaries unless signed by all parties in an Agreement of Sale.

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**From:** Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]  
**Sent:** Monday, July 07, 2014 10:24 AM  
**To:** Nathan Brandenburg  
**Subject:** RE: Edgewood lot 57

That looks fine. We will need to see the revision posted in Accela to verify the removal of the playroom. The current BP indicates the playroom. Once that is there, you can let me know and once I can verify it, we can sign off on the BP.

Thanks

Jeff

---

**From:** Nathan Brandenburg [mailto:NBRANDENBURG@tollbrothersinc.com]  
**Sent:** Monday, July 07, 2014 9:36 AM  
**To:** Williams, Jeffrey  
**Subject:** RE: Edgewood lot 57

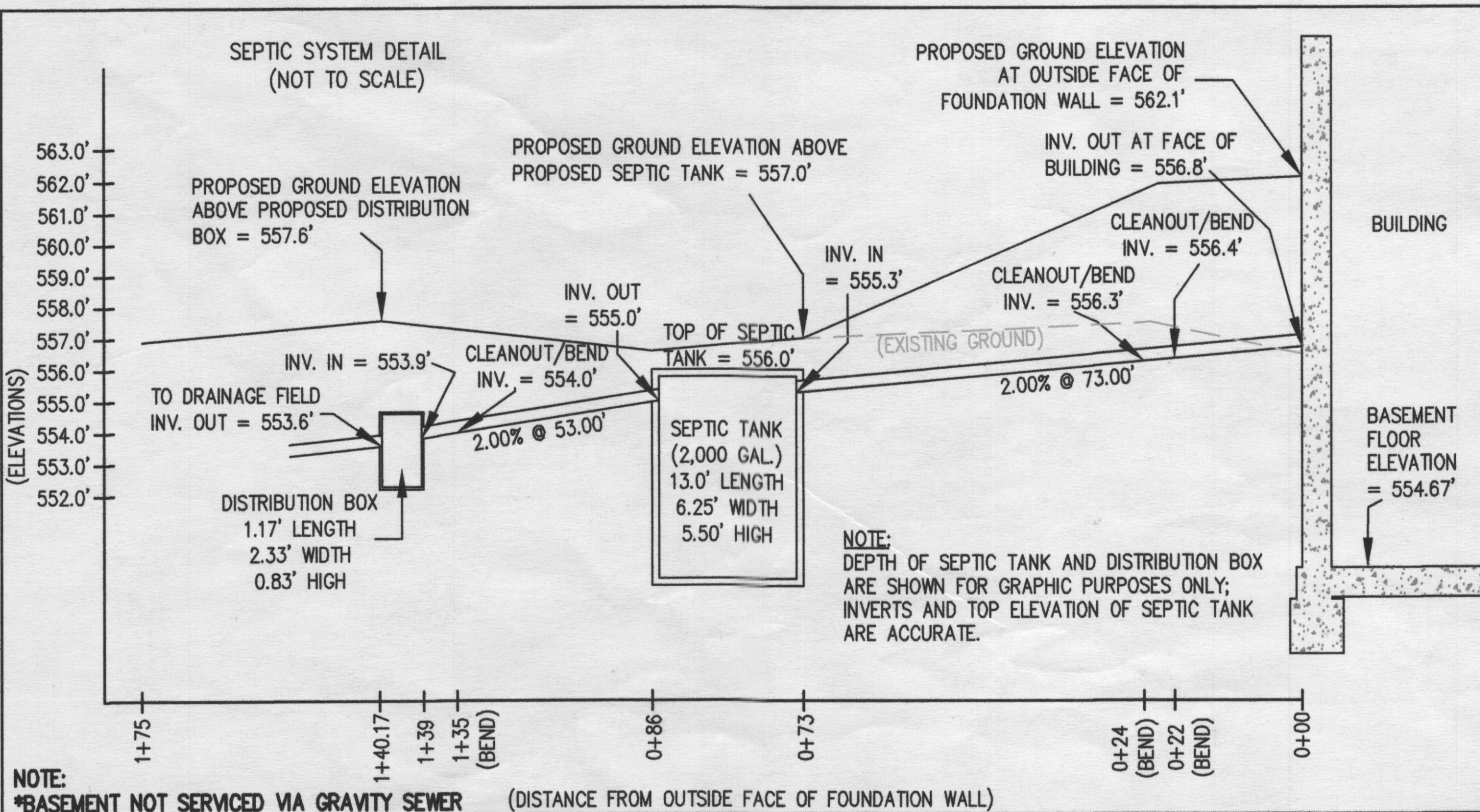
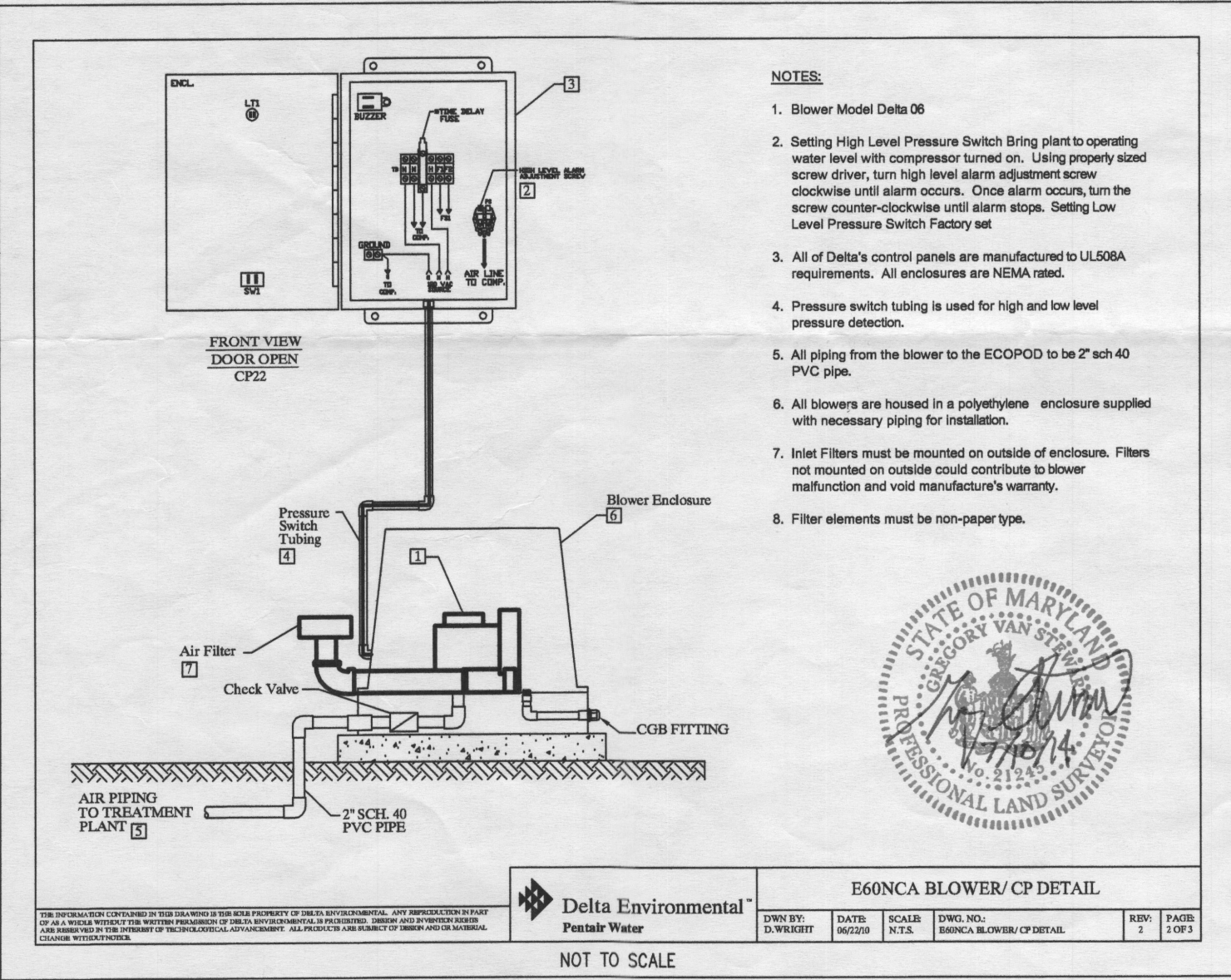
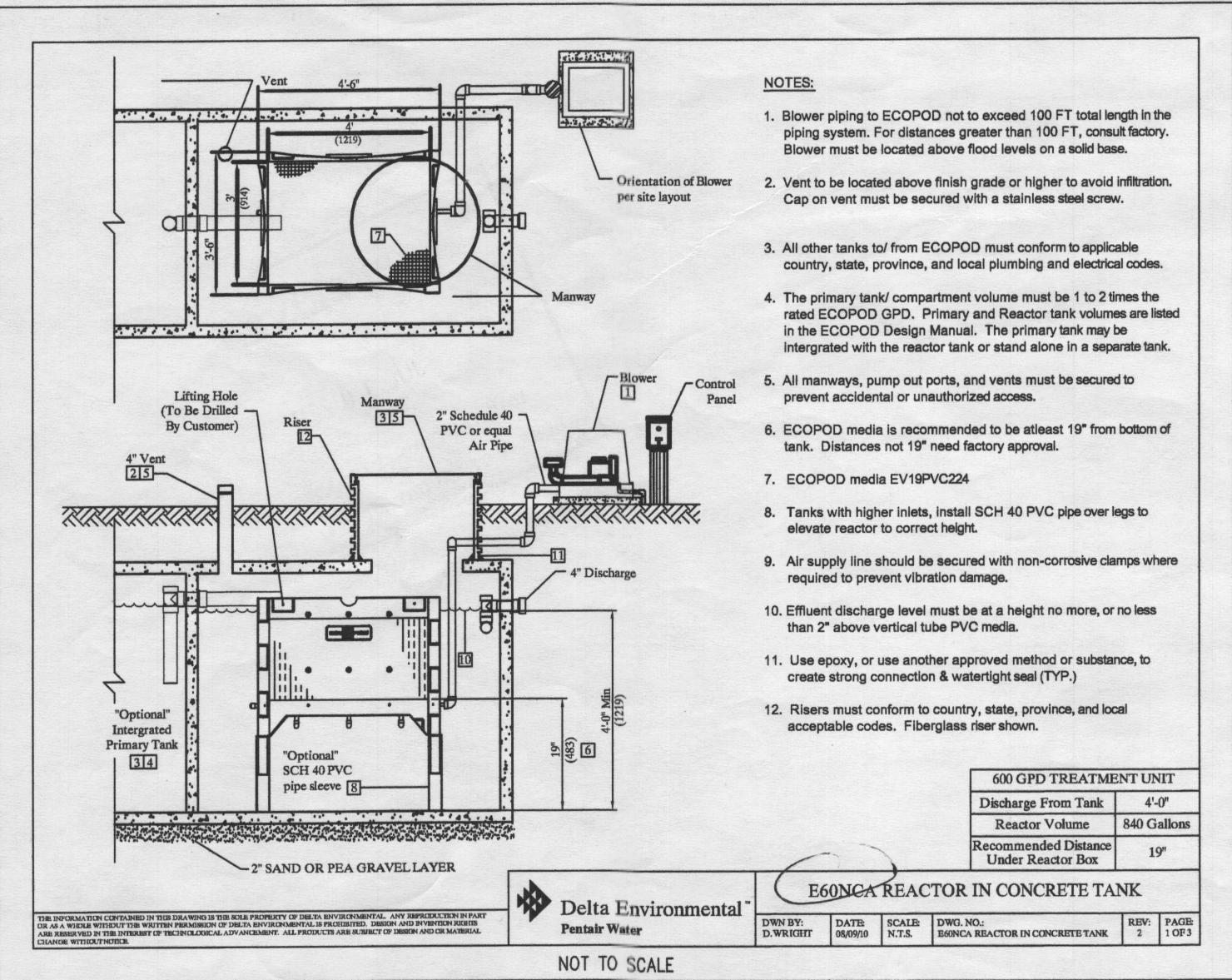
Jeff,

Attached are the revised floor plans. I've changes the second floor to delete the playroom.

Thanks.

Nathan Brandenburg

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. 21245, EXPIRATION DATE 1/27/15.



**SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:**

1. 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.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

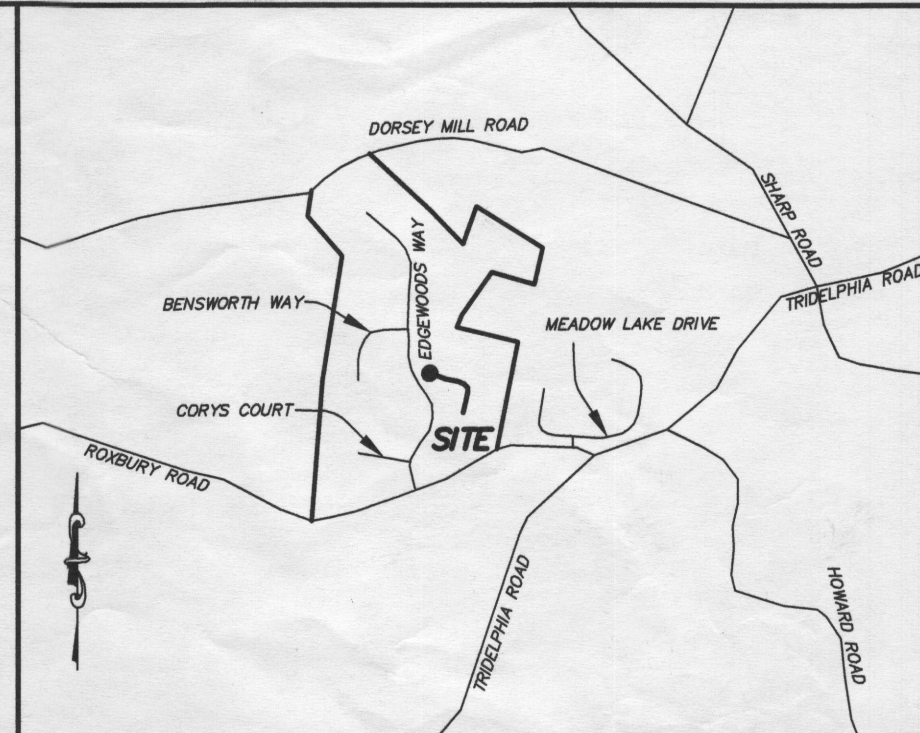
**SEWAGE DISPOSAL SYSTEM DATA (5 BDRM):**

- PROPOSED INVERT AT FOUNDATION WALL: 556.8'
1. E60 ECOPOD SYSTEM  
EX. GRADE OVER TANK: 557.0'  
PROPOSED GRADE OVER TANK: 557.0'  
INVERT IN: 555.3' INVERT OUT: 555.0'
  2. DISTRIBUTION BOX  
EXISTING GRADE OVER TANK: 557.6'  
PROPOSED GRADE OVER TANK: 557.6'  
INVERT IN: 553.9' INVERT OUT: 553.6'
  3. TRENCH DESIGN (5 BDRM x 150 GPD/BDRM = 750 GPD)  
750 GPD + 0.8 APP. RATE = 937.50 SF  
USE 3' WIDE TRENCH WITH 48" GRAVEL BELOW PIPE  
9' MIN. SPACING BETWEEN TRENCH EDGES  
937.50 SF + 3' WIDTH = 312.50 LF x 0.50 = 156.25 LF MIN. TRENCH  
USE 3 53" LONG TRENCHES = 159 LF
- BASEMENT NOT SERVICED VIA GRAVITY SEWER**

**TRENCH DATA:**

- BOTTOM MAX. DEPTH (8')
- TRENCH 1 (T1):**  
GROUND ABOVE = 556.0'  
INV. IN = 552.0'  
BOTTOM TRENCH = 548.0'
- TRENCH 2 (T2):**  
GROUND ABOVE = 556.0'  
INV. IN = 552.0'  
BOTTOM TRENCH = 548.0'
- TRENCH 3 (T3):**  
GROUND ABOVE = 554.0'  
INV. IN = 550.0'  
BOTTOM TRENCH = 546.0'

15. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN. CHANGES TO SEPTIC AREA WERE MADE PER "PERC CERT REVISION PLAN" DATED 06/03/14 AND ARE CURRENTLY UNDER REVIEW.
16. 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.
17. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-07-054.
18. A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN GP-14-031, DATED 10/31/13.
19. THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-1057) HAS BEEN FIELD LOCATED BY ESE CONSULTANTS - PROFESSIONAL LAND SURVEYOR(S), AND IS ACCURATELY SHOWN.
20. BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
21. CULVERT FOR DRIVEWAY PER F-07-054.



**GENERAL NOTES:**

1. THE SUBJECT PROPERTY IS ZONED RC-DE0 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS DATED 7/28/06.
2. PLAT REFERENCE: PLAT No. 19268.
3. 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 4/27/11.
4. SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO TAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE ESE CONSULTANTS INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
5. 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.
6. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
7. TOTAL LIMIT OF DISTURBANCE: 37,327 SQ. FT. / 0.86 AC.±
8. STORMWATER MANAGEMENT PER PLAN F-07-054.
9. 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.

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Development Engineering Division

Signature: \_\_\_\_\_ DATE: 7/14/14

DIRECTOR DATE

PROFESSIONAL ENGINEER DATE

PLOT PLAN FOR BAT INSTALLATION  
LOT 57

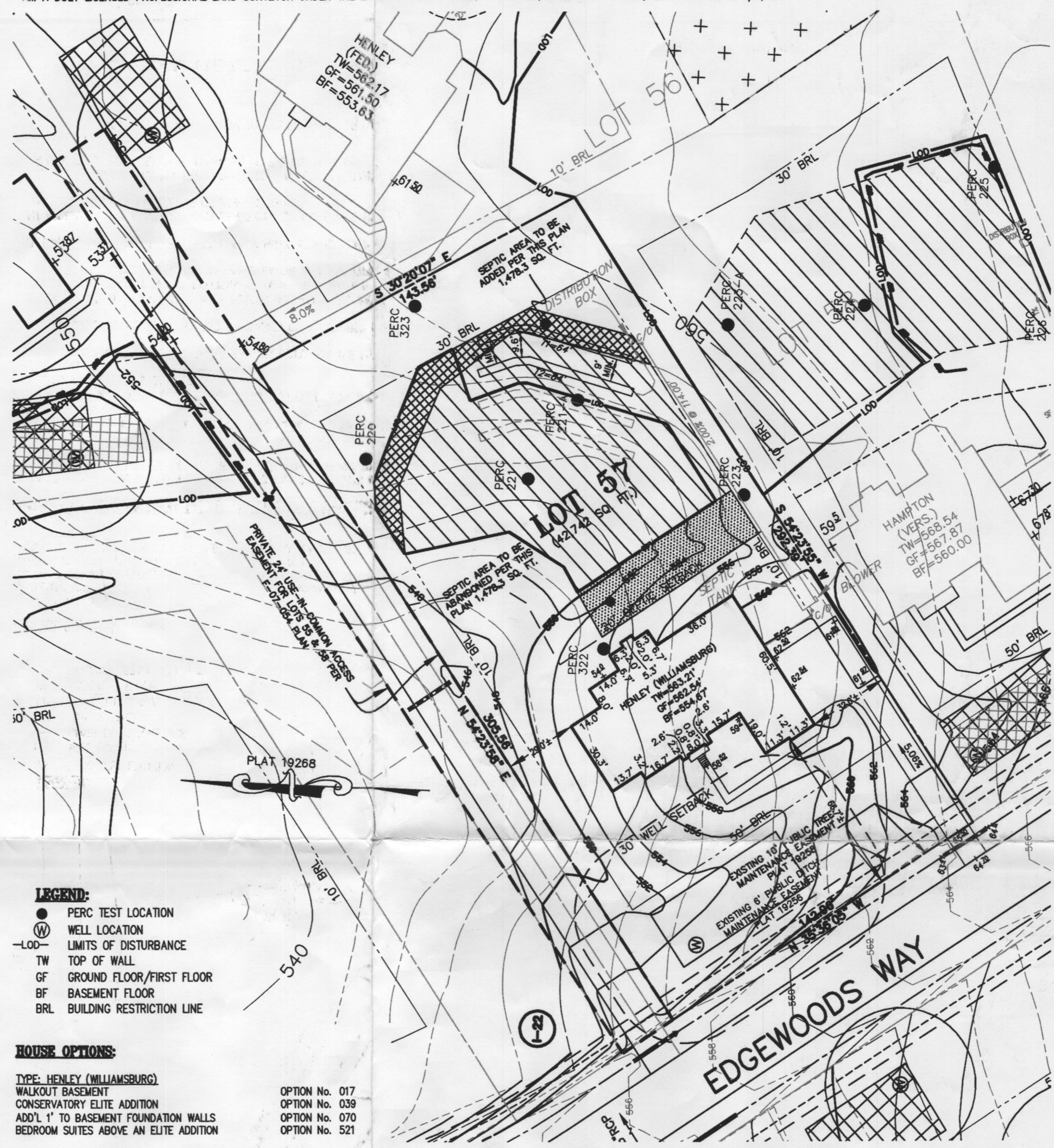
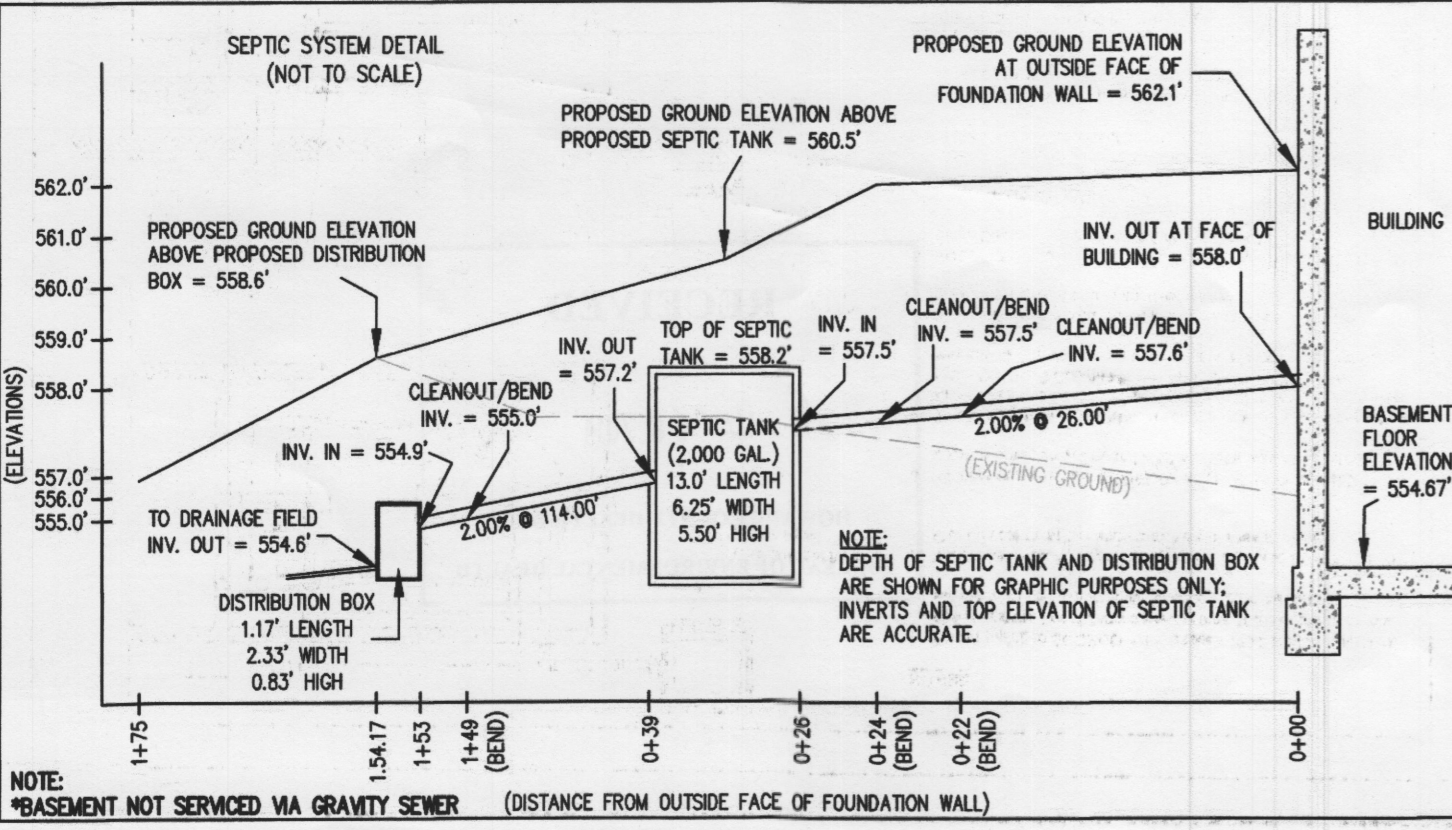
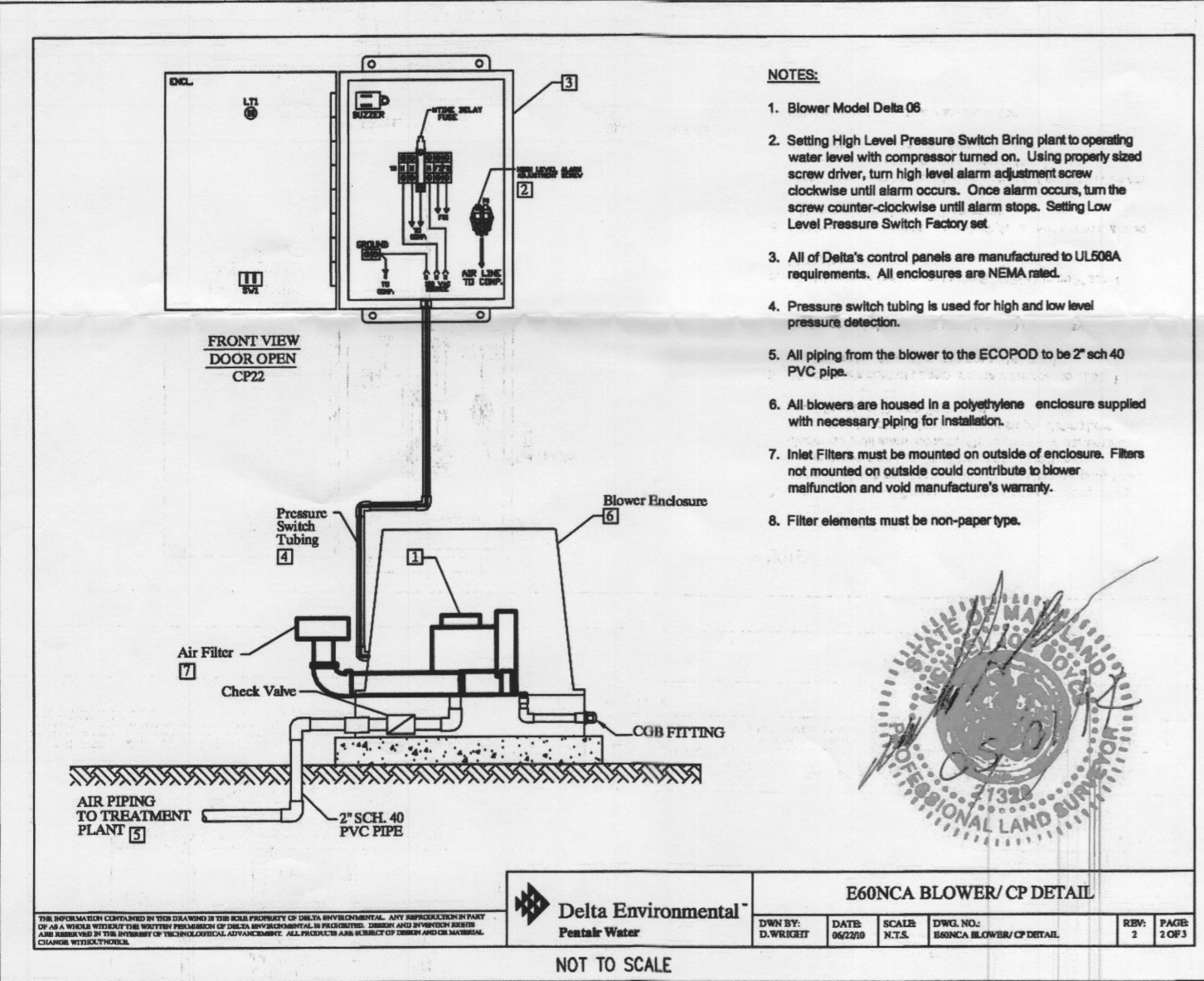
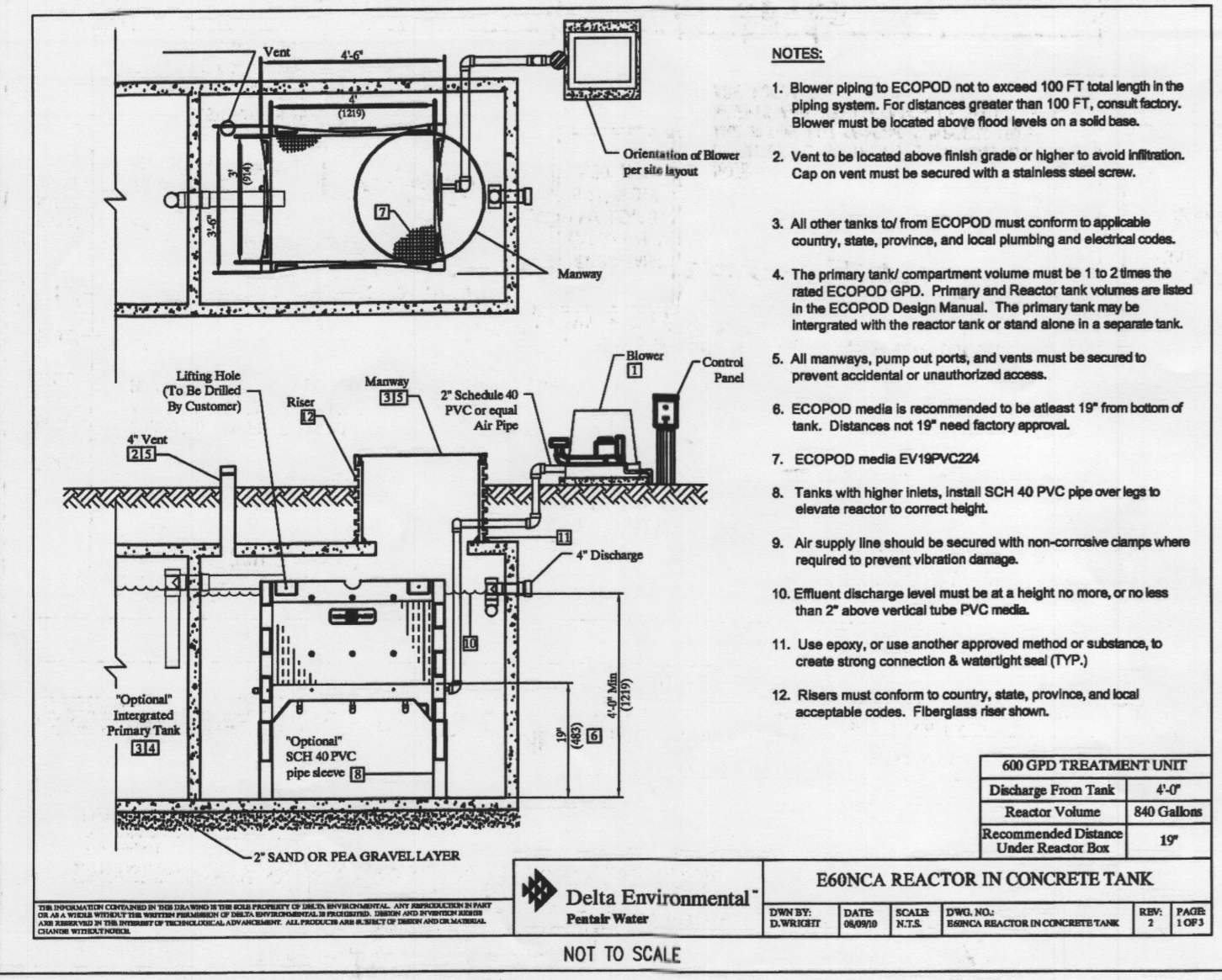
**EDGEWOOD FARM**  
LIBER 10677, FOLIO 461  
PLAT No. 19268  
TAX No. 04-372867  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ADDRESS: 1452B EDGEWOODS WAY  
GLENELG, MARYLAND

**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: 07/10/14 SCALE: 1"=40' FILE: PP LOT 57\_rev 2  
CHK'D: G.V.S JOB NO: 1498 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.



APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

\_\_\_\_\_  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

\_\_\_\_\_  
DIRECTOR

\_\_\_\_\_  
PROFESSIONAL ENGINEER

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

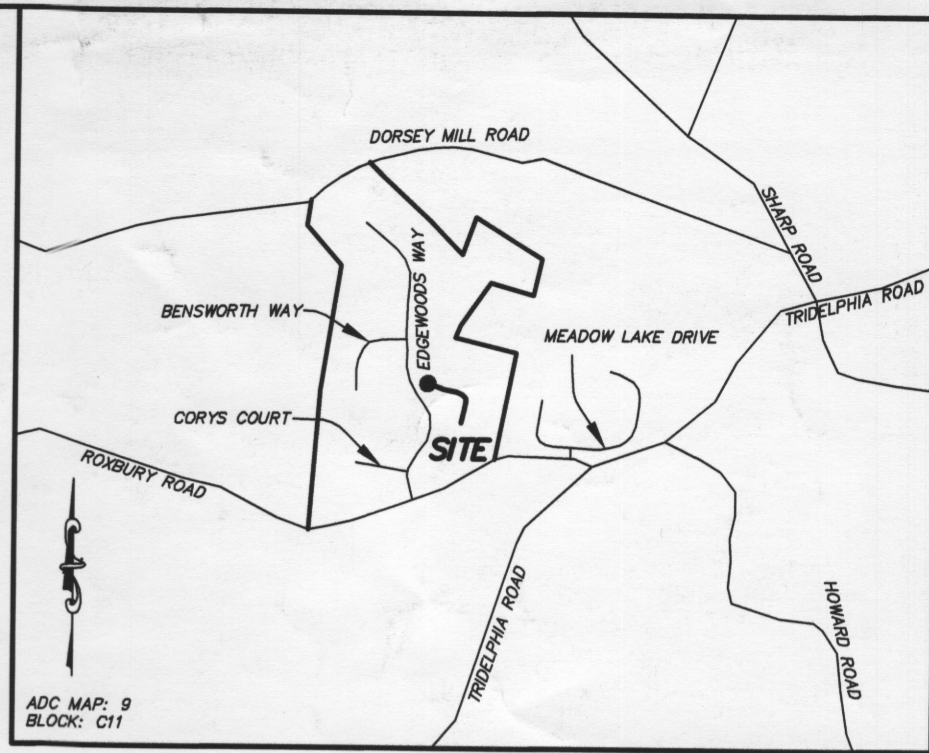
PLOT PLAN FOR BAT INSTALLATION AND PERT CERTIFICATION PLAN  
LOT 57  
**EDGEWOOD FARM**  
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DATE: 04/28/14 SCALE: 1"=40' FILE: PP LOT 57  
CHK'D: M.J.B. JOB NO: 1498 DRAWN: R.C.K.

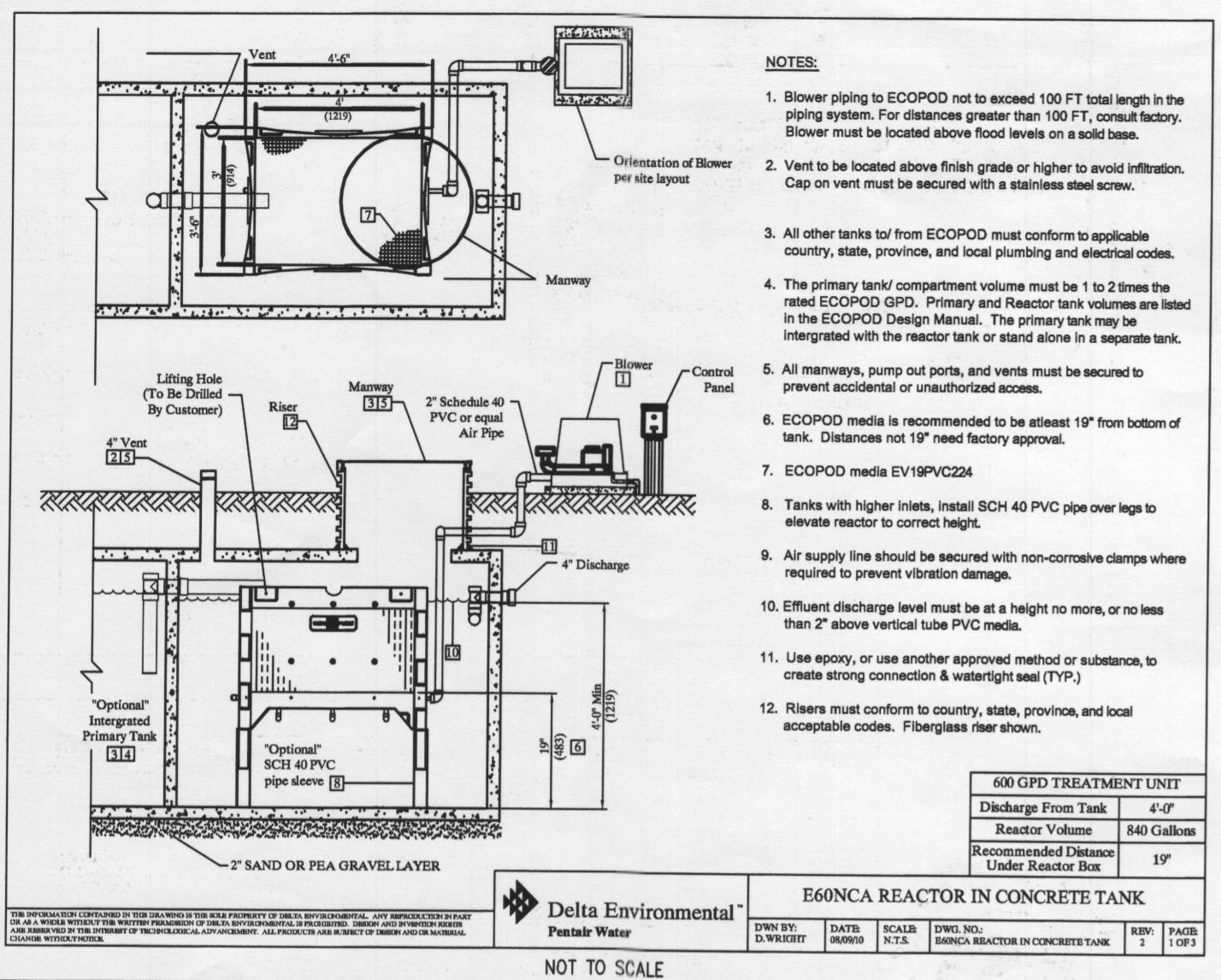
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**VICINITY MAP**  
1" = 2000'

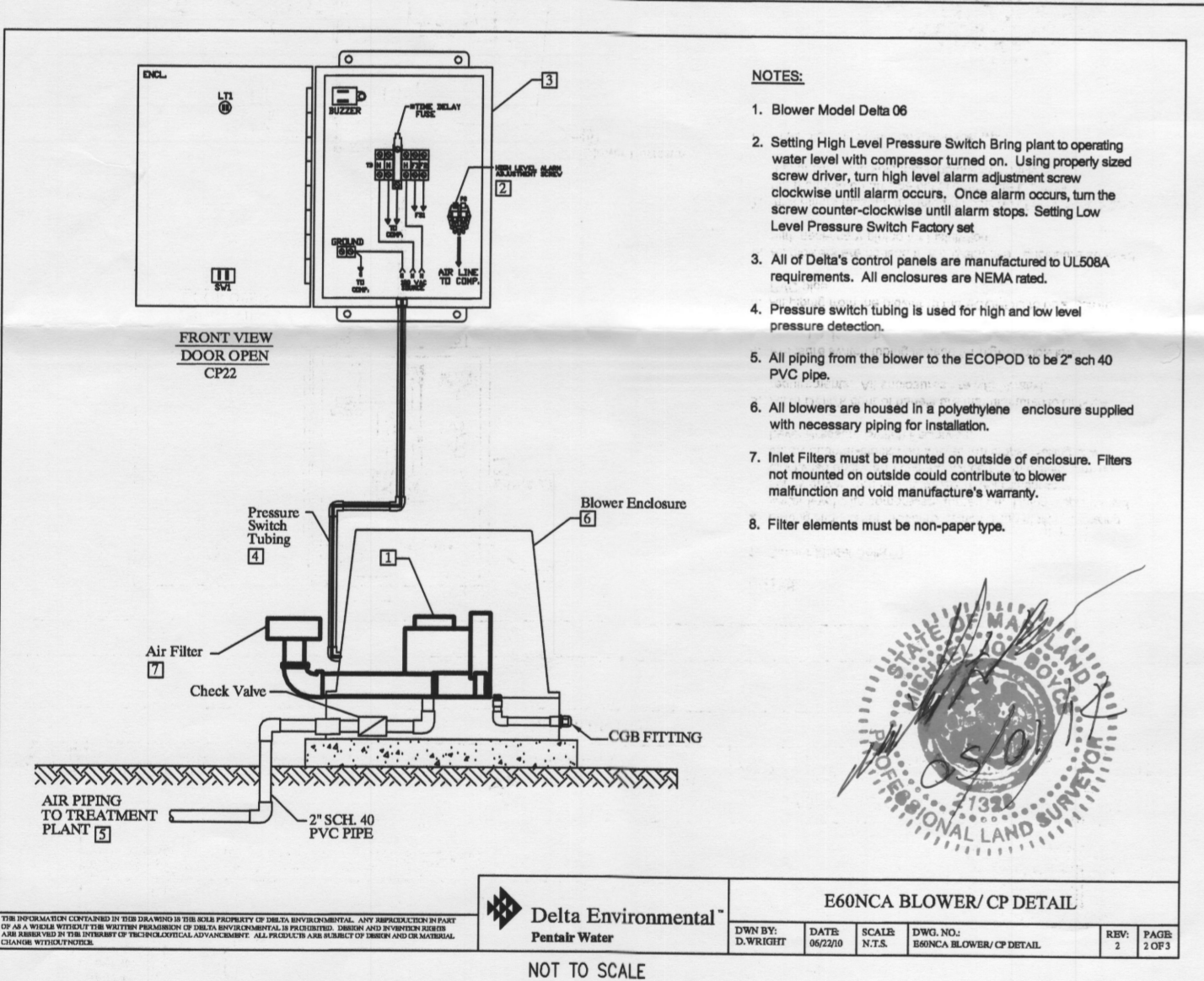
**GENERAL NOTES:**

- 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. 19268.
- 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 4/27/11.
- 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: 35,274 SQ. FT. / 0.81 AC.±
- STORMWATER MANAGEMENT PER PLAN F-07-054.
- 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-07-054.
- A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN GP-14-031, DATED 10/31/13.
- THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-1057 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.
- SEPTIC RESERVE AREA HAS BEEN ALTERED PER THIS PLAT, ADJUSTMENT HAD TO BE MADE FOR BUILDING PURPOSES. ADJUSTMENT SHOWN HEREON TO SEPTIC RESERVE AREA DOESN'T AFFECT THE 10,000 SQUARE FOOT MINIMUM.
- CULVERT FOR DRIVEWAY PER F-07-054.



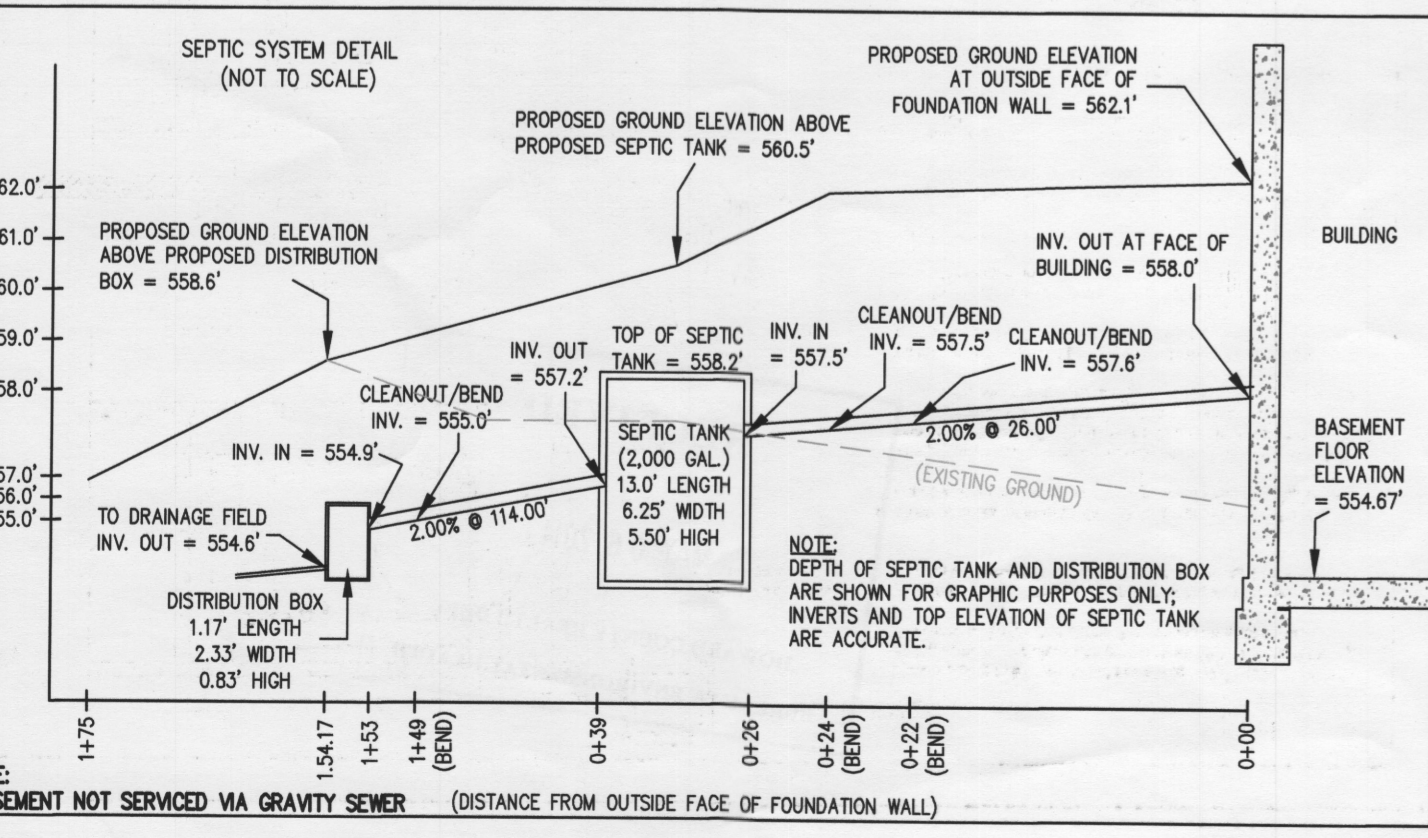
- NOTES:**
- Blower piping to ECOPOD not to exceed 100 FT total length in the piping system. For distances greater than 100 FT, consult factory. Blower must be located above flood levels on a solid base.
  - Vent to be located above finish grade or higher to avoid infiltration. Cap on vent must be secured with a stainless steel screw.
  - All other tanks to/from ECOPOD must conform to applicable country, state, province, and local plumbing and electrical codes.
  - The primary tank/ compartment volume must be 1 to 2 times the rated ECOPOD GPD. Primary and Reactor tank volumes are listed in the ECOPOD Design Manual. The primary tank may be integrated with the reactor tank or stand alone in a separate tank.
  - All manways, pump out ports, and vents must be secured to prevent accidental or unauthorized access.
  - ECOPOD media is recommended to be at least 19" from bottom of tank. Distances not 19" need factory approval.
  - ECOPOD media EV19PVC224
  - Tanks with higher inlets, install SCH 40 PVC pipe over legs to elevate reactor to correct height.
  - Air supply line should be secured with non-corrosive clamps where required to prevent vibration damage.
  - Effluent discharge level must be at a height no more, or no less than 2" above vertical tube PVC media.
  - Use epoxy, or use another approved method or substance, to create strong connection & watertight seal (TYP.)
  - Risers must conform to country, state, province, and local acceptable codes. Fiberglass riser shown.

Delta Environmental  
Pentair Water  
E60NCA REACTOR IN CONCRETE TANK  
NOT TO SCALE



- NOTES:**
- Blower Model Delta 06
  - Setting High Level Pressure Switch Bring plant to operating water level with compressor turned on. Using properly sized screw driver, turn high level alarm adjustment screw clockwise until alarm occurs. Once alarm occurs, turn the screw counter-clockwise until alarm stops. Setting Low Level Pressure Switch Factory set
  - All of Delta's control panels are manufactured to UL508A requirements. All enclosures are NEMA rated.
  - Pressure switch tubing is used for high and low level pressure detection.
  - All piping from the blower to the ECOPOD to be 2" sch 40 PVC pipe.
  - All blowers are housed in a polyethylene enclosure supplied with necessary piping for installation.
  - Inlet Filters must be mounted on outside of enclosure. Filters not mounted on outside could contribute to blower malfunction and void manufacturer's warranty.
  - Filter elements must be non-paper type.

Delta Environmental  
Pentair Water  
E60NCA BLOWER/CP DETAIL  
NOT TO SCALE



- LEGEND:**
- PERC TEST LOCATION
  - ⊙ WELL LOCATION
  - LOD- LIMITS OF DISTURBANCE
  - TW TOP OF WALL
  - GF GROUND FLOOR/FIRST FLOOR
  - BF BASEMENT FLOOR
  - BRL BUILDING RESTRICTION LINE

- HOUSE OPTIONS:**
- TYPE: HENLEY (WILLIAMSBURG)
  - WALKOUT BASEMENT OPTION No. 017
  - CONSERVATORY ELITE ADDITION OPTION No. 039
  - ADD'L 1' TO BASEMENT FOUNDATION WALLS OPTION No. 070
  - BEDROOM SUITES ABOVE AN ELITE ADDITION OPTION No. 521

- 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 BLOWER 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.

**SEWAGE DISPOSAL SYSTEM DATA (4 BDRM):**

PROPOSED INVERT AT FOUNDATION WALL: 558.0'	TRENCH DATA:
1. E60 ECOPOD SYSTEM EX. GRADE OVER TANK: 557.6' PROPOSED GRADE OVER TANK: 560.5' INVERT IN: 557.5' INVERT OUT: 557.2'	BOTTOM MAX. DEPTH (8') <b>TRENCH 1 (T1):</b> GROUND ABOVE = 558.0' INV. IN = 554.0' BOTTOM TRENCH = 550.0'
2. DISTRIBUTION BOX EXISTING GRADE OVER TANK: 558.6' PROPOSED GRADE OVER TANK: 558.6' INVERT IN: 554.9' INVERT OUT: 554.6'	<b>TRENCH 2 (T2):</b> GROUND ABOVE = 556.7' INV. IN = 552.7' BOTTOM TRENCH = 548.7'
3. TRENCH DESIGN (4 BDRM x 150 GPD/BDRM = 600 GPD) 600 GPD + 0.8 APP. RATE = 750 SF USE 3' WIDE TRENCH WITH 48" GRAVEL BELOW PIPE 9" MIN. SPACING BETWEEN TRENCH EDGES 750 SF x 3' WIDTH = 250 LF x 0.50 = 125 LF MIN. TRENCH USE 2 63' LONG TRENCHES = 126 LF	

**BASEMENT NOT SERVICED VIA GRAVITY SEWER**

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
PROFESSIONAL ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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