

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: 7/18/14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 554547

INSTALLATION APPROVAL DATE: 10/31/14 **PERMIT**
CONSTRUCTION A _____

PROPERTY ADDRESS: 14836 Meriwether Drive

SUBDIVISION: Cattail Overlook LOT: 41 TAX ID: _____

CONTRACTOR: Fogle's Septic Clean Inc. EMAIL: kurt@foglesinc.com

CONTRACTOR ADDRESS: 580 Obrecht Road, Sykesville, MD 21784 PHONE: 410-795-5670

PROPERTY OWNER: _____ EMAIL: _____

OWNER ADDRESS: Toll MD VIII LP PHONE: _____

7164 Columbia Gateway Drive, Columbia, MD 21046

BAT UNIT MODEL: Ecopod BAT UNIT SIZE: 600 GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: _____ HOUSE SQ. FT. _____ APPLICATION RATE: _____

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>See Bat Plan 255'</u>	INLET DEPTH: <u>See Bat Plan 4.5'</u>
	TRENCH WIDTH: <u>See Bat Plan 3'</u>	MAXIMUM BOTTOM DEPTH: <u>See Bat Plan 8.5'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>See Bat Plan</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>See Bat Plan 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:	Set BAT unit per plan. Set distribution box per plan. Install trenches per plan. <u>3x85' Trenches</u>	

ISSUED BY: Jeff Williams ISSUE DATE: 8-4-14 EXPIRATION DATE: 8-4-15

- 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

See As-Built Drawing
On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH 3' INLET 4.5' BOTTOM 8.5-9'
NUMBER OF TRENCHES 3
TOTAL LENGTH 255'
ABSORPTION AREA 765+Sidewall
DISTRIBUTION BOX LEVEL Levelers
DISTRIBUTION BOX BAFFLE Yes
DISTRIBUTION BOX PORT Yes

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes
MANUFACTURER Babylon Eco-pod
CAPACITY 2000 GAL
SEAM LOC Top
TANK LID DEPTH 1.5'-2.5'
BAFFLES Front
BAFFLE FILTER No
MANHOLE LOC Front+Rear
6" PORT LOC Middle
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:

9/24/2014 Three easement stakes and tank location missing. Layout cancelled. (BB)
9/30/2014 Three 85' trenches laid out across the top of the easement. Trenches shortened to save repair area. Shorter trenches were easier to keep on contour. I install tank near where shown on plan. (BA)

INSTALLATION:

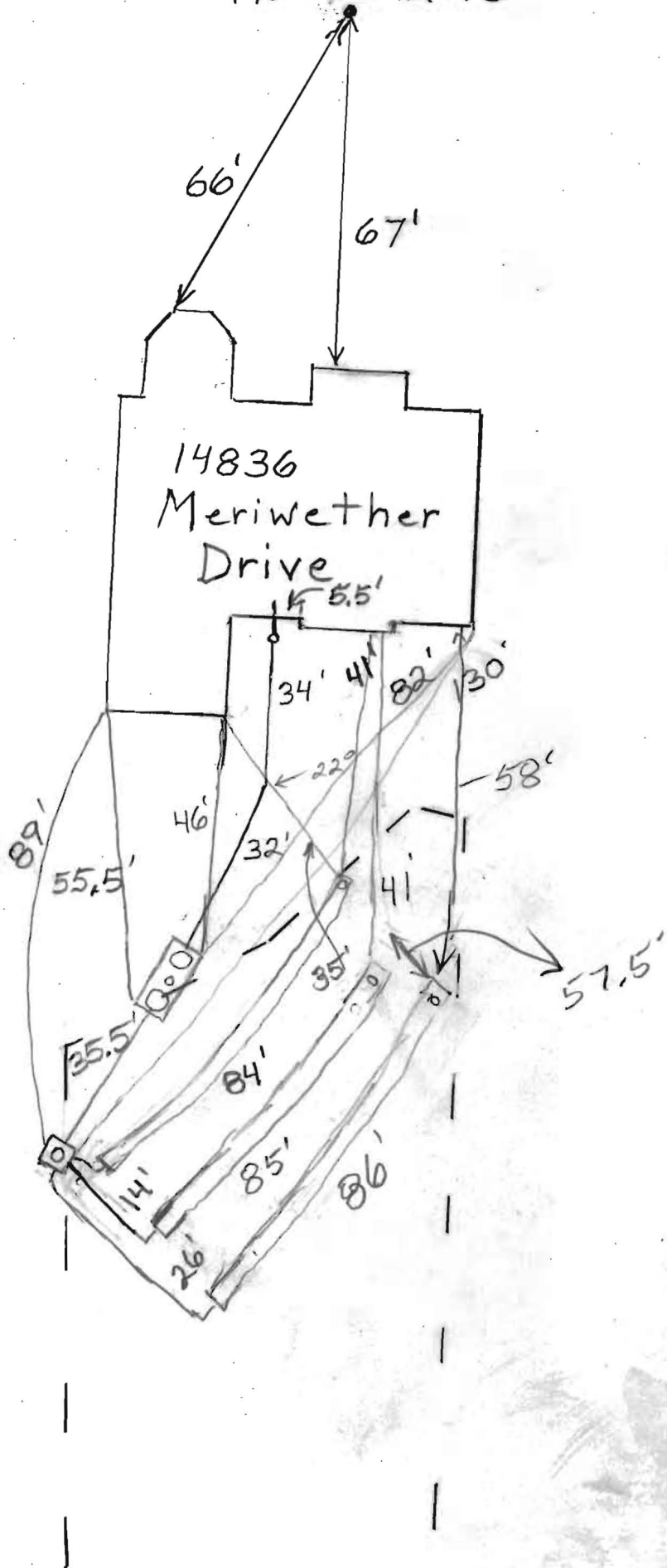
10/1/2014 Need house connection. Tank, box and top trench installed. (BB)
10/2/2014 Trenches finished. Need house connection and BAT approval. (BB)
10/15/2014 House connection made. (BB)
10/31/14 - Start-up cert. rec'd. JW

FINAL INSPECTOR

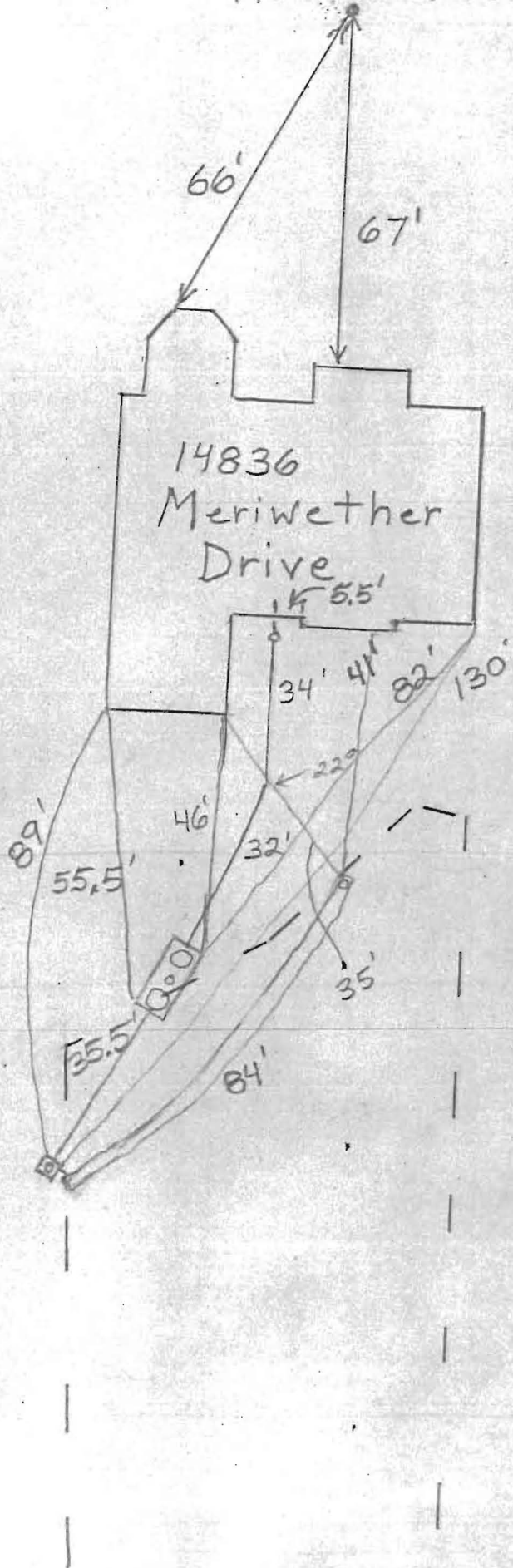
DATE OF APPROVAL

10/31/14

HO-95-2118



HO-95-2118

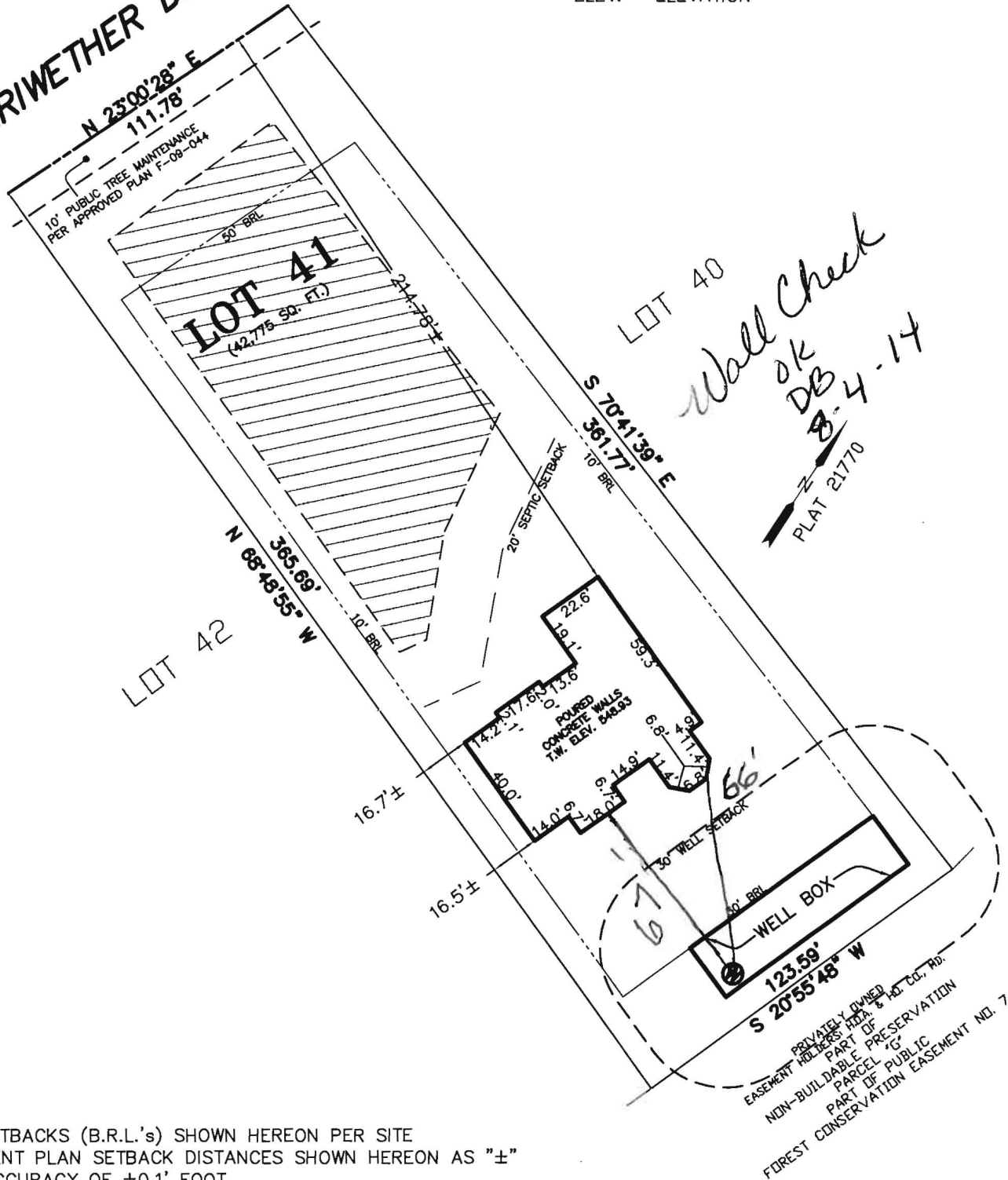


PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/15.

LEGEND:

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

MERIWETHER DRIVE



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

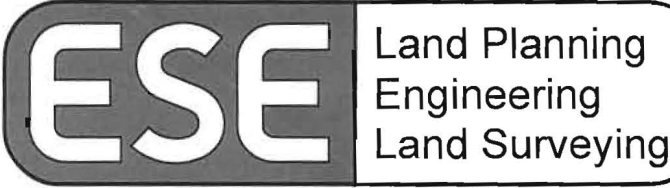
ADDRESS: 14836 MERIWETHER DRIVE
 GLENELG, MARYLAND 21737

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. DATE: 07/23/14

WALL CHECK
 LOT #41
 MERIWETHER FARMS
 LIBER 13779, FOLIO 484
 PLAT No. 21770
 FOURTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND



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

DATE: 07/23/14 SCALE: 1"=50' FILE: 3184 WC LOT 41
 CHK'D: M.J.B JOB#: 3184 DRAWN: V.X.P

Julius Mackard

MEMBER N. C. B. V. A.

MEMBER P. C. B. V. A.

Babylon

V A U L T
S I N C E 1 9 3 0

Burial Vaults - Septic Tanks

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

925 WAKEFIELD VALLEY ROAD
NEW WINDSOR, MD 21776

Five Year Initial Service Policy On Site Wastewater Treatment System

Brand Name: <u>ECOPD</u>	Model Number: <u>E-600</u>
Purchase Date:	Serial Number: <u>E-600-02196 CA</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 test 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:

INSTALLATION LOCATION:

14536 Mcei Wether Way
Glenside MD 21737

DISTRIBUTOR:

Babylon Vault Co
925 Wakefield Valley Rd
New Windsor MD 21776

INSTALLER:

Fogle Septic
5800 Obrecht Rd
Spkerville MD 21784

SERVICE COMPANY:

Same AS ABOVE
Service Operators License Number: Steven P. Kelly

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

Witness: _____

e3 Environmental LLC

302-725-0765 www.e3onsite.com

ECOPOD-N Completion Statement

Installation Information

Owners Name		# of Bedrooms / GPD	<u>600</u>
Street	<u>14836 Meriwether Drive</u>	Repair	<input type="checkbox"/>
City	<u>Glenweth</u>	New Construction	<input checked="" type="checkbox"/>
State	<u>MD</u>		
Zip	<u>21737</u>		

Installation Company

Company	<u>Fogle</u>	Installed Date	<u>9/24/14</u>
Certified Installer	<u>GARY PAUL</u>	Startup Date	<u>10/29/14</u>
Street	<u>580 Obercht Rd</u>		
City	<u>Sykesville</u>		
State	<u>MD</u>		
Zip	<u>21784</u>		

ECOPOD-N

Model #	Serial #
E50 <input type="checkbox"/>	
E60 <input checked="" type="checkbox"/>	<u>E-60N-02196-CA</u>
E75 <input type="checkbox"/>	
E100 <input type="checkbox"/>	
E150 <input type="checkbox"/>	

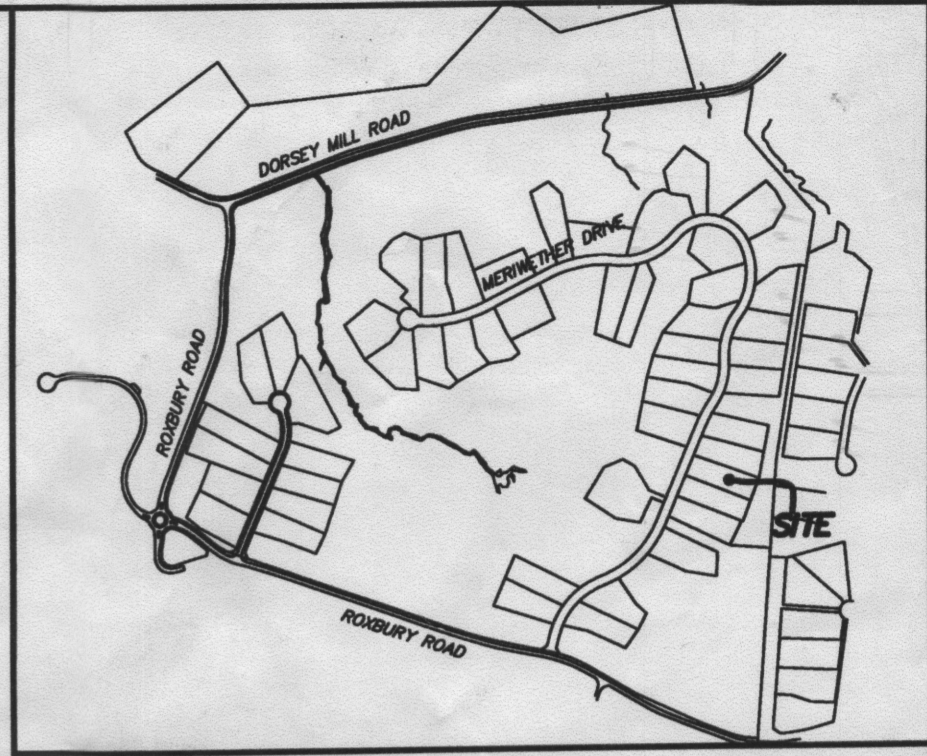
Blower Voltage	<u>Good</u>
Blower Running Amps	<u>Good</u>
Inches of water over media with blower turned off	<u>2 inches</u>
Vent Installed	<u>yes</u>
Tanks and Risers Water tight	<u>yes</u>
Alarm Functional	<u>yes</u>

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 Babelon Vault Co Date 10/29/14
Signature Steven R Koontz
Printed Name Steven Koontz

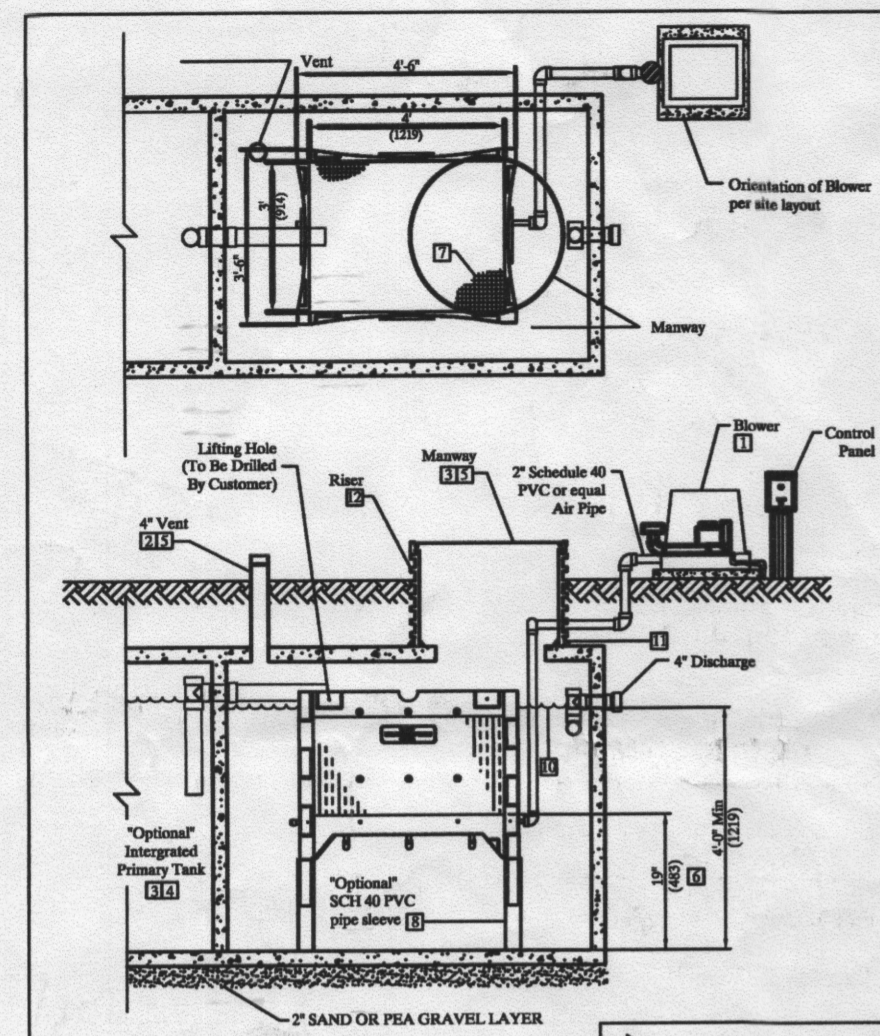
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/15.

- LEGEND:**
- 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
 - ECM EROSION CONTROL MATTING



VICINITY MAP
1" = 1000'

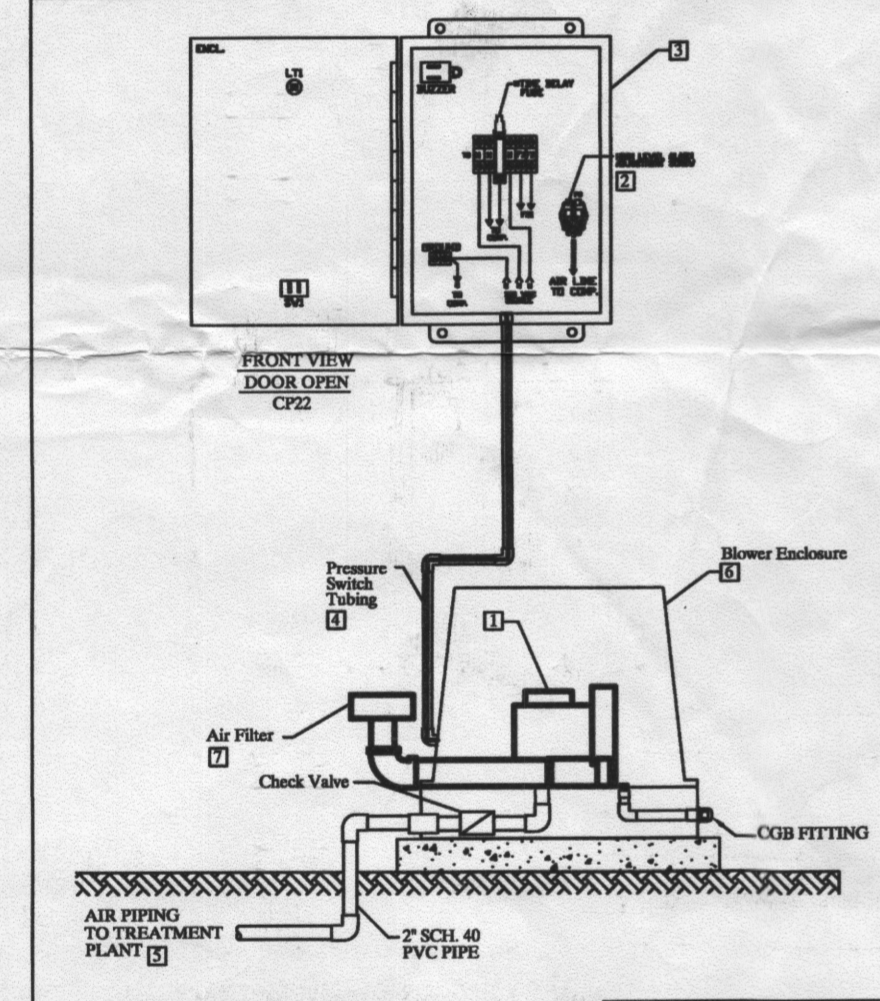
- NOTES:**
- Blower piping to ECOPOD not to exceed 100 FT total length in the piping system. For distances greater than 100 FT, consult factory. Blower must be located above flood levels on a solid base.
 - Vent to be located above finish grade or higher to avoid infiltration. Cap on vent must be secured 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.



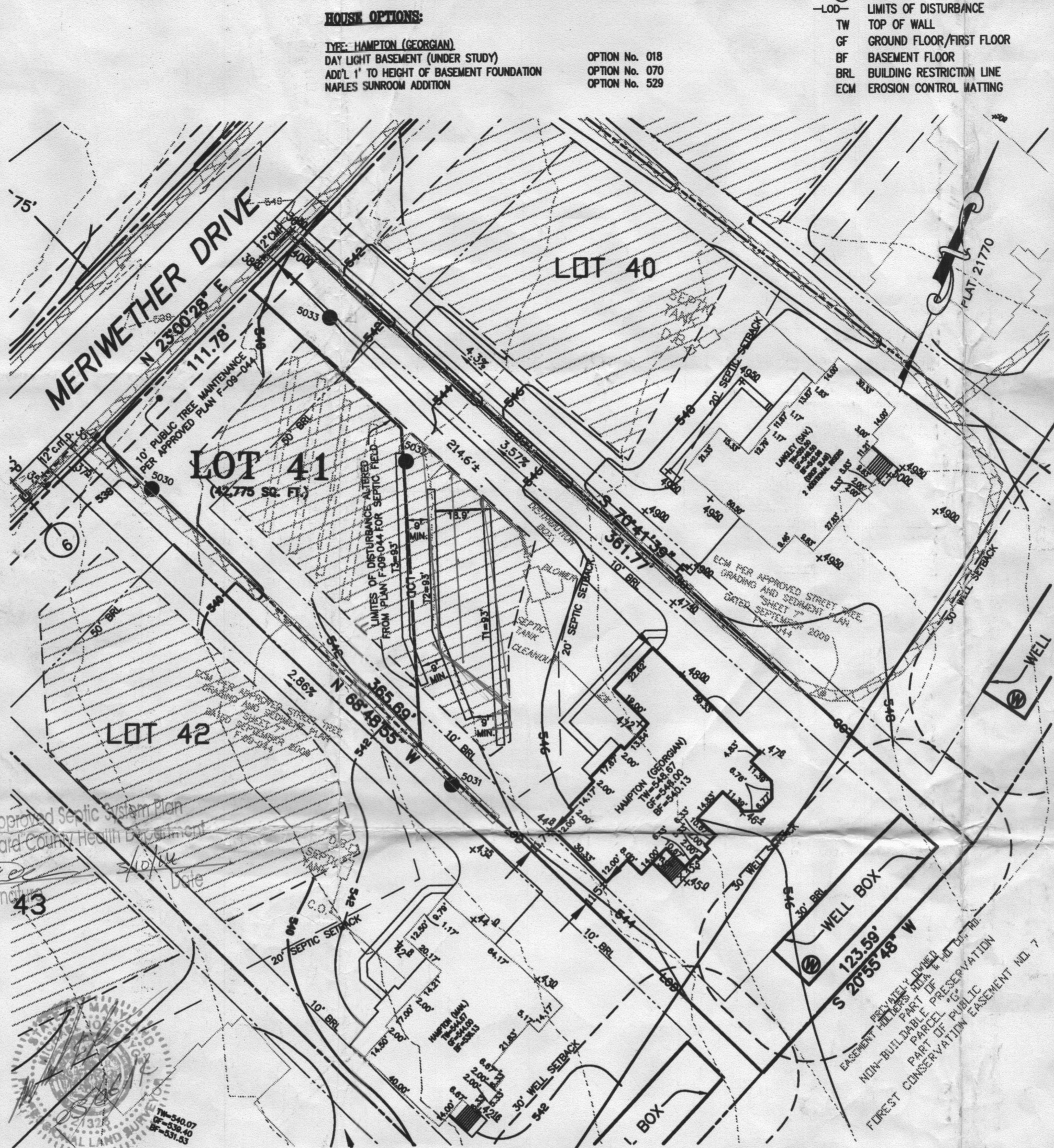
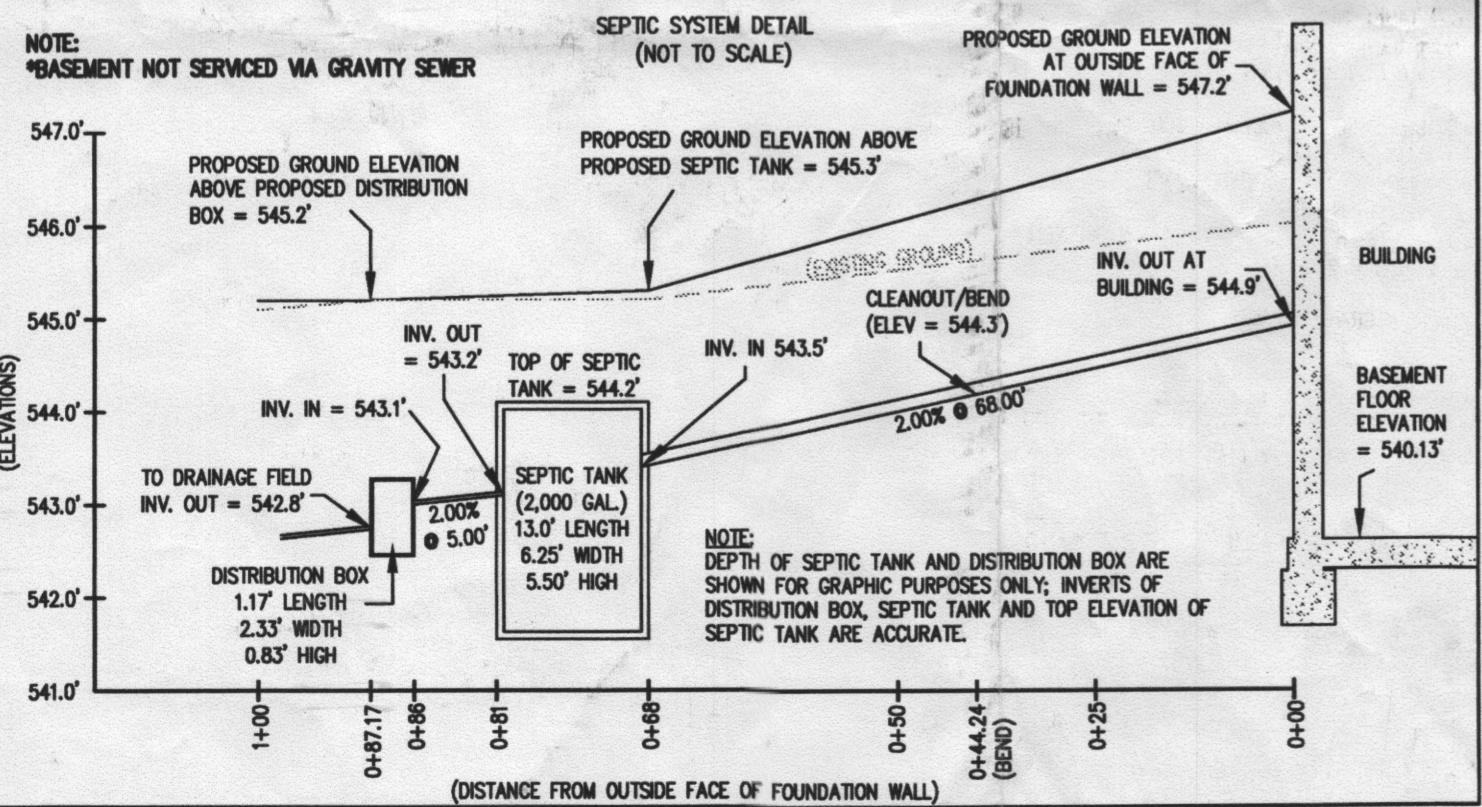
600 GPD TREATMENT UNIT	
Discharge From Tank	4'-0"
Reactor Volume	840 Gallons
Recommended Distance Under Reactor Box	19"

Delta Environmental
Pentair Water
E60NCA REACTOR IN CONCRETE TANK
DWN BY: D.WISSETT DATE: 12/29/13 SCALE: N.T.S. DWG. NO.: E60NCA REACTOR IN CONCRETE TANK REV: 2 PAGE: 1 OF 3
NOT TO SCALE

- NOTES:**
- Blower Model Delta D6
 - 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
DWN BY: D.WISSETT DATE: 12/29/13 SCALE: N.T.S. DWG. NO.: E60NCA BLOWER/ CP DETAIL REV: 3 PAGE: 1 OF 3
NOT TO SCALE



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.

SEWAGE DISPOSAL SYSTEM DATA (4 BDRM):

- PROPOSED INVERT AT FOUNDATION WALL: 544.9'**
- E60 ECOPOD SYSTEM**
EX. GRADE OVER TANK: 545.2'
PROPOSED GRADE OVER TANK: 545.3'
INVERT IN: 543.5' INVERT OUT: 543.2'
 - DISTRIBUTION BOX**
EXISTING GRADE OVER TANK: 545.2'
PROPOSED GRADE OVER TANK: 545.2'
INVERT IN: 543.1' INVERT OUT: 542.8'
 - TRENCH DESIGN (4 BDRM x 150 GPD/BDRM = 600 GPD)**
600 GPD + 0.6 APP. RATE = 1,000 SF
USE 3" WIDE TRENCH WITH 48" GRAVEL BELOW PIPE
9" MIN. SPACING BETWEEN TRENCH EDGES
1,000 SF + 3" WIDTH = 333 LF x 0.83 = 277 LF MIN. TRENCH
USE 3 93' LONG TRENCHES = 279 LF

TRENCH DATA:

- BOTTOM MAX. DEPTH (8')**
- TRENCH 1 (T1):**
GROUND ABOVE = 544.7'
INV. IN = 540.7'
BOTTOM TRENCH = 536.7'
- TRENCH 2 (T2):**
GROUND ABOVE = 544.0'
INV. IN = 540.0'
BOTTOM TRENCH = 536.0'
- TRENCH 3 (T3):**
GROUND ABOVE = 543.4'
INV. IN = 539.4'
BOTTOM TRENCH = 535.4'

BASEMENT NOT SERVICED VIA GRAVITY SEWER

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DIRECTOR	DATE
PROFESSIONAL ENGINEER	DATE

PLOT PLAN FOR BAT INSTALLATION
LOT 41
MERIWETHER FARMS
LIBER 13779, FOLIO 484
PLAT No. 21770
TAX No. 04-593682
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
ADDRESS: 14836 MERIWETHER DRIVE
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: 03/05/14 SCALE: 1"=40' FILE: PP LOT 41
CHK'D: MJB JOB NO: 3184 DRAWN: R.C.K