

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: 7/20/17 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 561471

APPROVAL DATE: 9/7/17 **PERMIT: CONSTRUCTION**

A

PROPERTY ADDRESS: 15046 Scottswood Court

SUBDIVISION: Country Springs

LOT: 19 TAX ID: 04-351819

CONTRACTOR: South Carroll Backhoe EMAIL: sbackhoe@comcast.net

CONTRACTOR ADDRESS: 440 Salem Bottom Rd Westminster, MD 21157 PHONE: 410-596-3618

PROPERTY OWNER: Ryan and Jennifer George EMAIL: Ryangeorge15@yahoo.com

OWNER ADDRESS: 3075 Mullineaux Lane PHONE: 443-629-9255

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Babylon

PUMP MODEL: EP0411A PUMP SIZE: .4HP PUMP TANK CAPACITY: 1500

DISTRIBUTION SYSTEM: ☒ GRAVITY ☐ PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>188</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	May need heavy load bearing tank	

ISSUED BY: Robert Freemon

ISSUE DATE: 7/31/17

EXPIRATION DATE: 7/20/18

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 TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRAIENT 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

☐ ELECTRICAL PERMIT ISSUED

E

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.

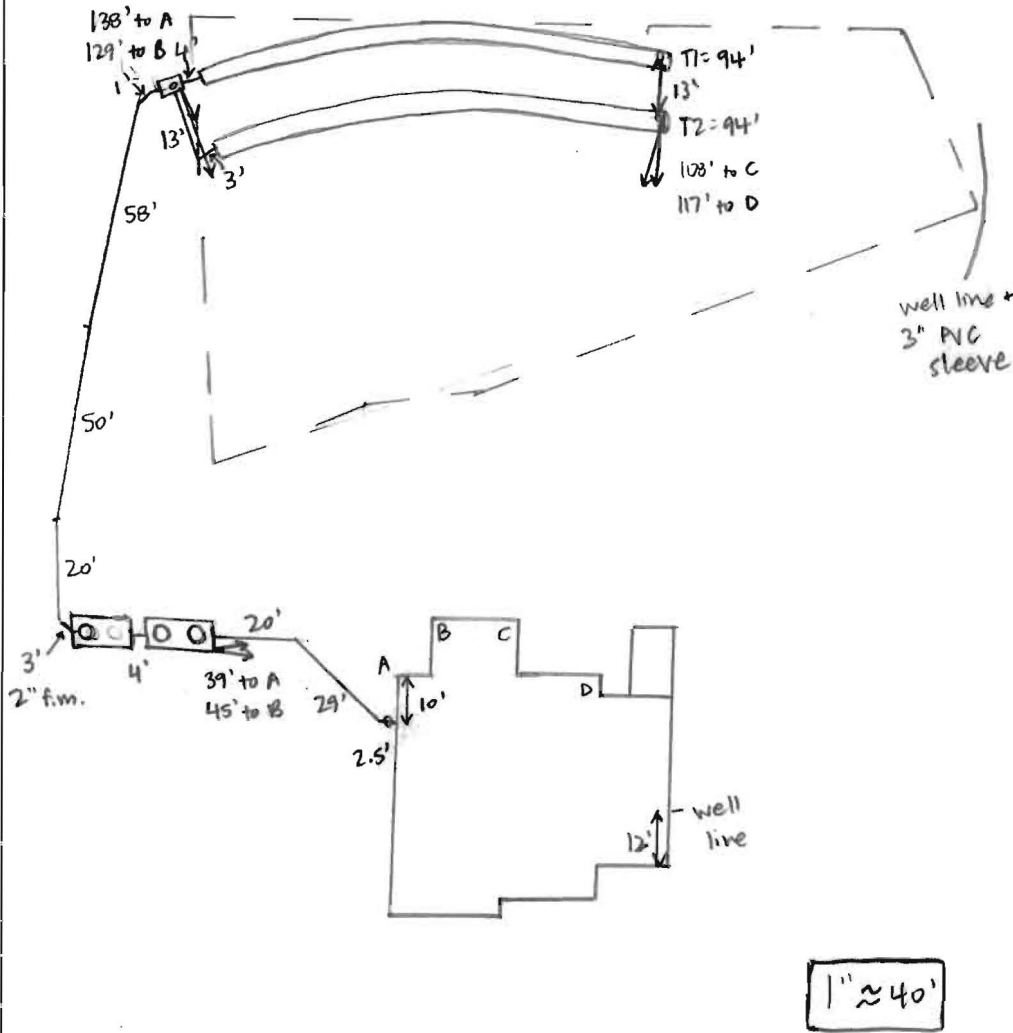
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE

W HO-93-0291

~325' to house



ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES	2	
TOTAL LENGTH	188'	
ABSORPTION AREA	564' + SIDEWALL	
DISTRIBUTION BOX LEVEL	YES	
DISTRIBUTION BOX BAFFLE	ELBOW	
DISTRIBUTION BOX PORT	YES	

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	YES	
MANUFACTURER	BABYLON	
CAPACITY	2000	GAL
SEAM LOC	TOP	
TANK LID DEPTH	2 - 2.5'	
BAFFLES	YES	
BAFFLE FILTER	NO	
MANHOLE LOC	FRONT + REAR	
6" PORT LOC	NONE	
WATERTIGHT TEST	NO	
SLOTTED	YES	
DATE ON LID	6-20-17	

PUMP/SEPTIC TANK LEVEL

SEPTIC TANK 2 LEVEL	YES	
MANUFACTURER	BABYLON	
CAPACITY	1500	GAL
SEAM LOC	TOP	
TANK LID DEPTH	2.5-3'	
BAFFLES	NO	
BAFFLE FILTER	NO	
MANHOLE LOC	REAR	
6" PORT LOC	NONE	
WATERTIGHT TEST	NO	
SLOTTED	NO	
DATE ON LID	5-9-17	

PRE-CONSTRUCTION:

8/2/17 Met S. Carroll on site for layout. All SDA and tank stakes present. Adjusted tank placement to keep even cover over both tanks. Trenches staked - checked elevations at stakes. Trenches staked at 13' center-to-center - moved T2 uphill to keep 13' center-to-center. Well line installed crossing through NE corner of SDA - plumber must move it outside + sleeve when $\leq 10'$ from SDA. (SC)

INSTALLATION:

8/2/17 House connection made. On site while septic tank was set - no cracks on sides or bottom. Also saw pump tank setting, but had to leave before final depth/level was reached. (SC) 8/3/17 T1 complete + left open @ ends for inspection. S. Carroll adding stone to T2. 3' wide, 8' bottom @ T2, T1 3.5' to stone + 3' wide. Pump tank set. Well line now sleeved w/ 3" PVC when $\leq 10'$ within SDA. (SC) 8/9/17 D-box installed + connected to trenches. 2" force main run from pump tank to D-box. Need pump + alarm test. (SC) 9/5/17 Met S. Carroll on site for pump + alarm test. Alarm sounds, pump pumps effluent to D-box. Alarm wire needs to be in conduit - fix + retest alarm. (SC) 9/7/17 Alarm wire in conduit, alarm sounds when triggered. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 9/7/17

Clerk of the Circuit Court for
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

=====

LR - Agreement Recording Fee		
	1x	20.00 20.00

Name: George
Ref: 39

LR - Agreement Surcharge		
	1x	40.00 40.00

=====

SubTotal:	60.00
Total:	60.00

=====

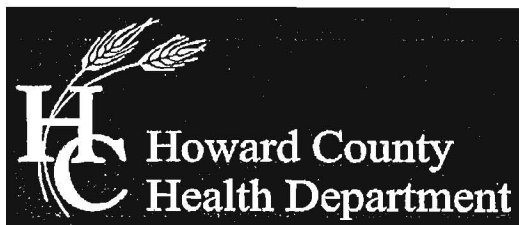
CRD-Credit	60.00
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Credit Card Confirmation : 53531P

09/08/2017 11:03
#9032414 /1246/109

CC13-DS

Thank you for visiting us today~



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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

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Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Ryan + Jennifer Coarse ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 15046 Scottswood Court, Woodbine MD 21797 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 14, Block # 03, Parcel # 240, Deed Reference # 17272/00173 and Tax Account # 04-351819 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have and individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO-93-0291 that has been tested by the Health Department (or a private laboratory certified to perform testing) for Nitrate-nitrogen. The results of the tests have shown that the Nitrate level meets or exceeds the Maximum Contaminant Level (MCL) of 10 milligrams per liter.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the MCL for Nitrate.

WHEREAS, MDE has determined that Nitrate can be effectively removed from the drinking water by the use of treatment devices (e.g. reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce Nitrate.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

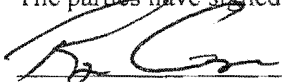
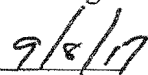
NOW THEREFORE, the parties have agreed to the following terms and conditions:

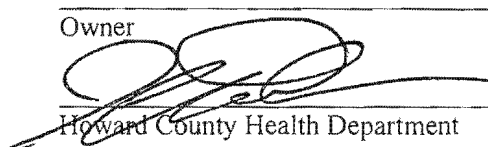
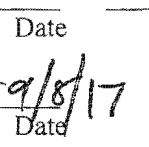
1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the Nitrate below the MCL. The Health Department shall verify that the treatment device is

operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).

3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable Nitrate levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department 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 their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

			
Owner	Date	Buyer	Date

			
Howard County Health Department	Date	Buyer	Date

SOILS LEGEND				
SOIL	NAME	CLASS	K FACTOR	
GaC	Gaia loam, 0 to 15 percent slopes	B	0.24	
GaA	Glenelg loam, 0 to 3 percent slopes	B	0.37	
GaB	Glenelg loam, 3 to 8 percent slopes	B	0.37	
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43	

- LEGEND**
- EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - EXISTING TREE LINE
 - SOIL LINES AND TYPES
 - ⊙ DENOTES EXISTING WELL

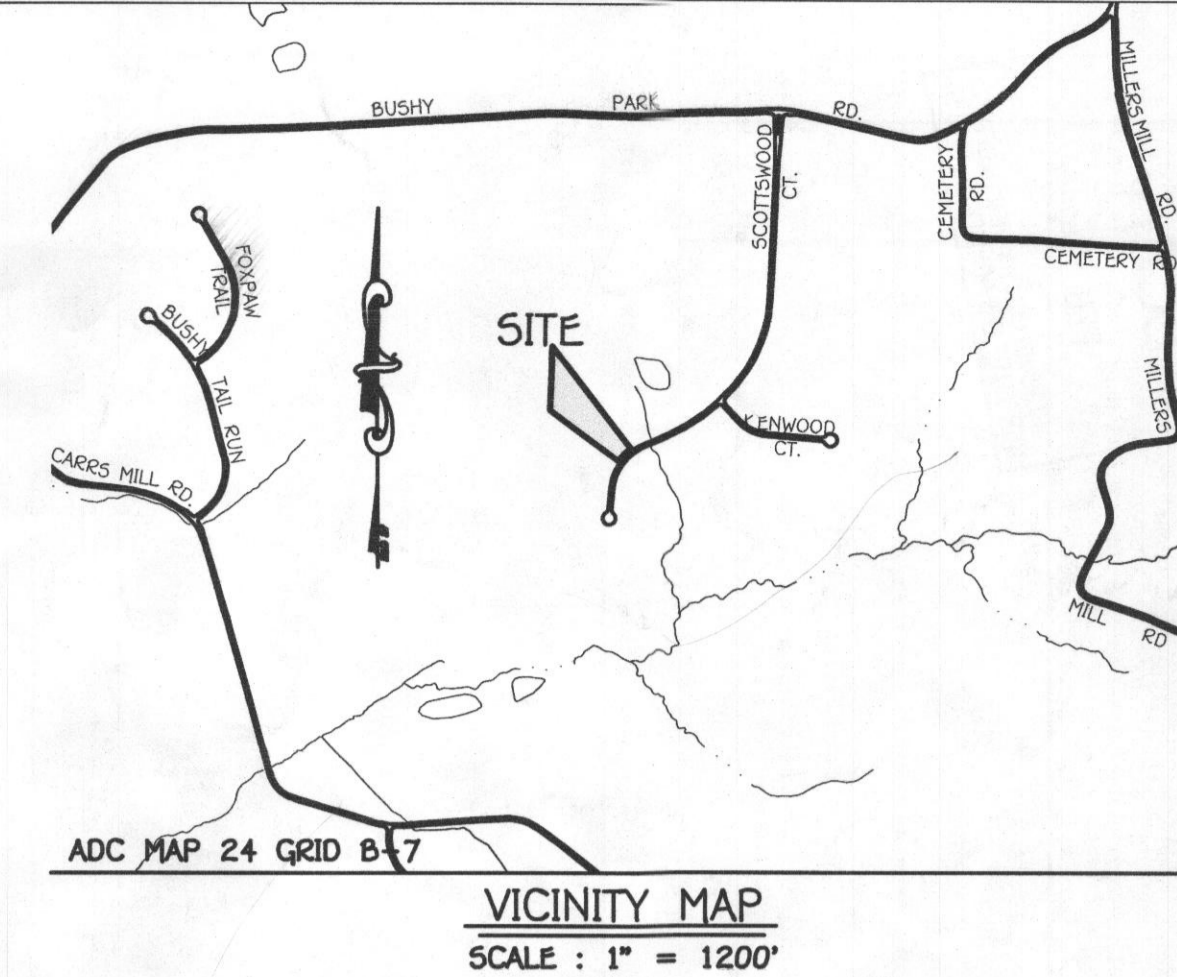
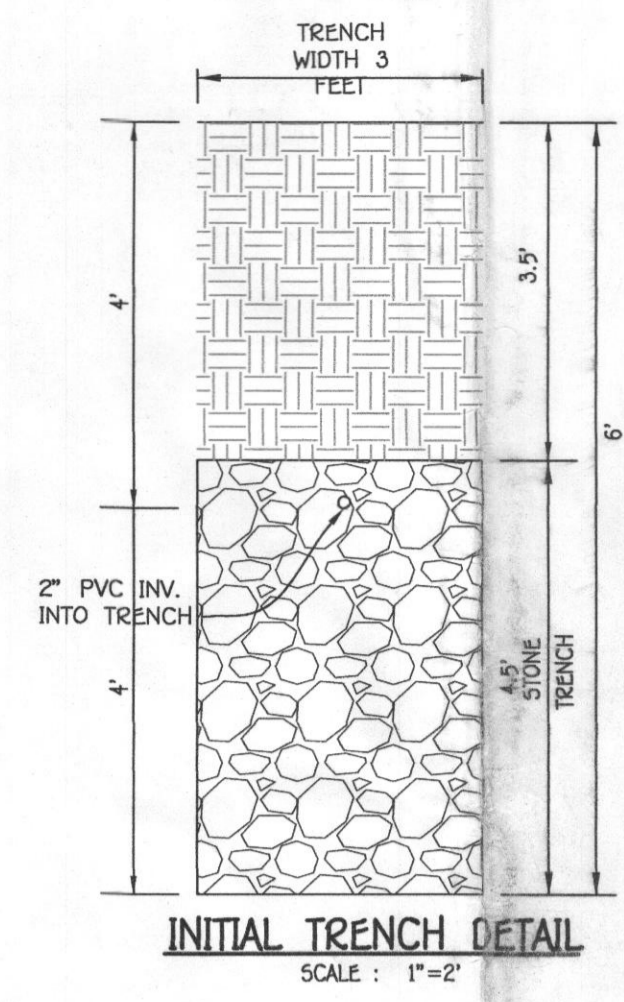
2" SCH. 40 PVC = 98 LF
 1 1/8" HD 4" EQUIVALENT FEET = 4 LF
 TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 102 LF

DYNAMIC HEAD
 102 LF X 3.11 FT PER 100 LF OF 2" PIPE = 3.17 FT OF FRICTION HEAD
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 3.59 FT OF FRICTION HEAD
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 3.56 FT
 TOTAL DYNAMIC HEAD = 10.32 FT

1/8" DESIGN FLOW (1,050 GPD / 175)
 USE 175 GALLON DOSE (175 GALLON MINIMUM)
 (RUN TIME = 4 MIN (43.75 GPM X 4 = 175 GALLON DOSE))
 PUMP NEEDS TO HANDLE 43.75 GPM AT 10.3 FT OF HEAD
 USE 0.4 HP (EP04 PUMP)

SEPTIC SYSTEM ELEVATIONS
 FFE = 553.4
 BSE = 543.4
 INV. OUT OF HOUSE = 549.46
 EX. GROUND AT TANK = 551.7
 TOP OF TANK = 549.98
 COVER OVER TANK = 1.7
 INV. INTO TANK = 548.98
 INV. OUT OF TANK = 548.81
 EX. GROUND AT PUMP TANK = 553.0
 PROP. GROUND AT PUMP TANK = 552.5
 TOP OF TANK = 549.52
 COVER OVER TANK = 3 FT
 PROP. INV. INTO TANK = 548.77
 INV. OUT OF TANK = 548.69
 EX. GROUND AT DISTRIBUTION BOX = 557.0
 INV. INTO DISTRIBUTION BOX = 553.25
 INV. OUT OF DISTRIBUTION BOX = 553.0

SEWAGE DISPOSAL SYSTEM DATA
 7 BEDROOMS
 LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1,050 GPD
 APPLICATION RATE = 0.8
 INITIAL EFFECTIVE SIDEWALL BEGINS AT 4 FEET
 TRENCH DEPTH = 8 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 1,050 GPD / 0.8 = 1,350 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
 (W+2)/(W+1+2D) = (3+2)/(3+1+(2x4)) = 0.417
 TRENCH LENGTH = 1,350 SF x 0.417 / 3 = 187.7 FEET
 (USE 188 FEET)
 TRENCH SPACING = 20+W = ((2x4) + 3) = 11 USE 11'



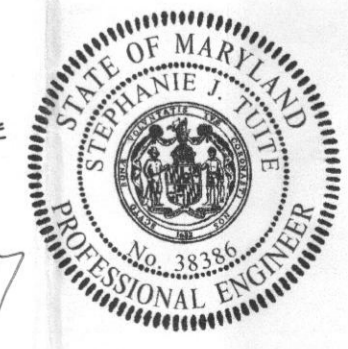
- GENERAL NOTES:**
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
 - ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION.
 - TOPOGRAPHY SHOWN IN THE AREA OF THE LOT BEING DISTURBED IS BASED ON A TOPOGRAPHIC SURVEY BY FISHER, COLLINS & CARTER, INC. IN NOVEMBER, 2016 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 2' CONTOUR INTERVAL.
 - BOUNDARY OF LOT BASED ON PLAT #9650 AND FIELD SURVEY BY FISHER, COLLINS & CARTER, INC. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
 - DEED REFERENCE: LIBER 17272 FOLIO 173.
 - SUBJECT PROPERTY ZONED: RC-DEO
 - TOTAL AREA OF PROPERTY: 3.0 AC.
 - WETLANDS, STREAMS, THEIR BUFFERS, FLOODPLAIN, AND STEEP SLOPES DO NOT EXIST ON THIS LOT.
 - SOILS SHOWN HEREON ARE BASED ON NRCS WEB SOIL SURVEY AND HOWARD COUNTY SOILS MAP 3.
 - ANY ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
 - 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 EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK. (IF NOT A LOAD BEARING SEPTIC TANK.)
 - THE WELL HO-93-0291 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC.



PLAN
 SCALE: 1"=30'

TRENCH DESIGN									
TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF TRENCH (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STARTS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)
1	557.0	553.5	553.0	3.5'	4.5'	549.0	4.0'	4.0'	3.0'
2	555.9	552.4	551.9	3.5'	4.5'	547.9	4.0'	4.0'	3.0'

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. 36386, EXPIRATION DATE: 01/12/2018.
 Signature: Stephanie L. Lutz 2/14/17
 DATE



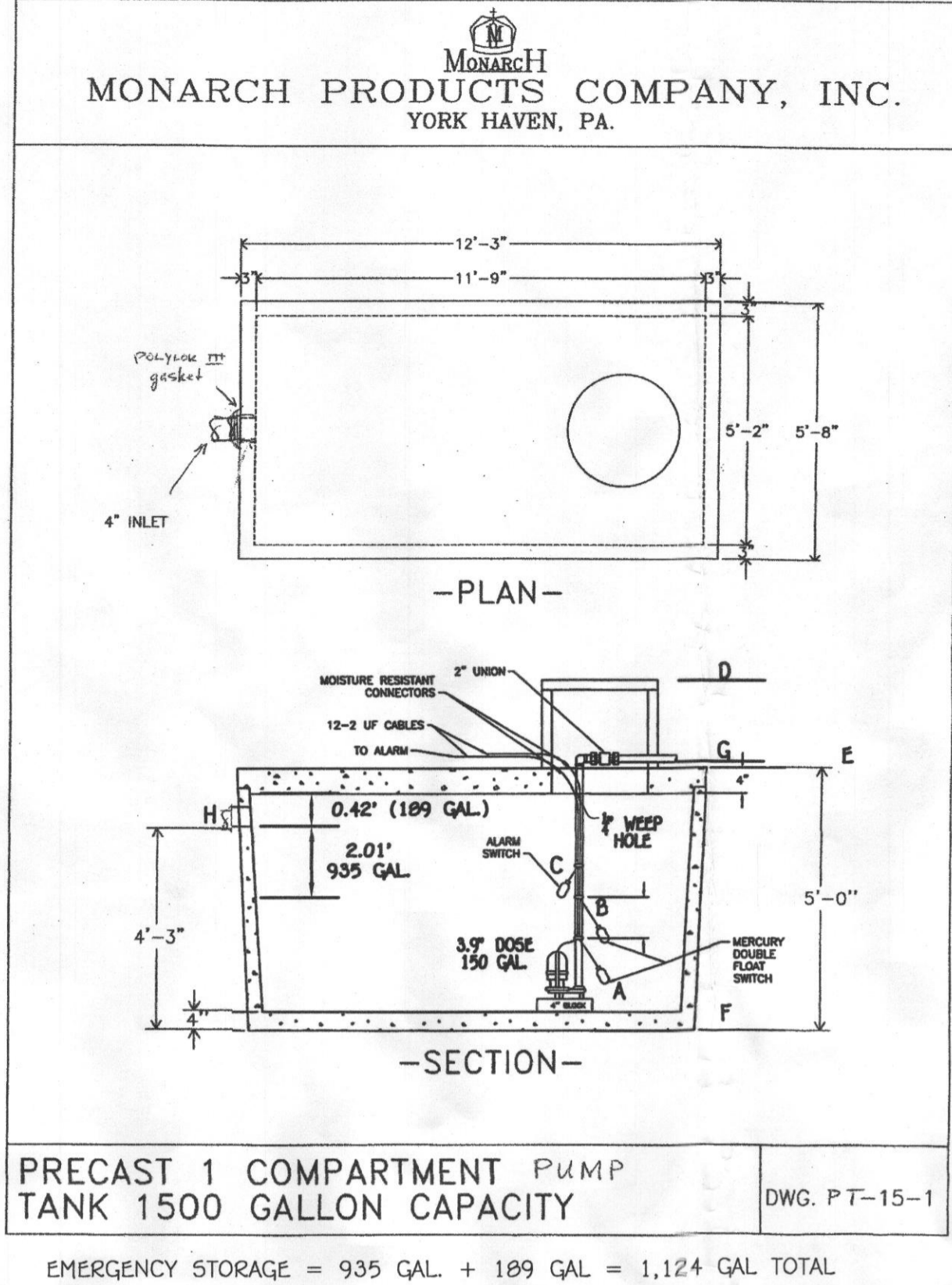
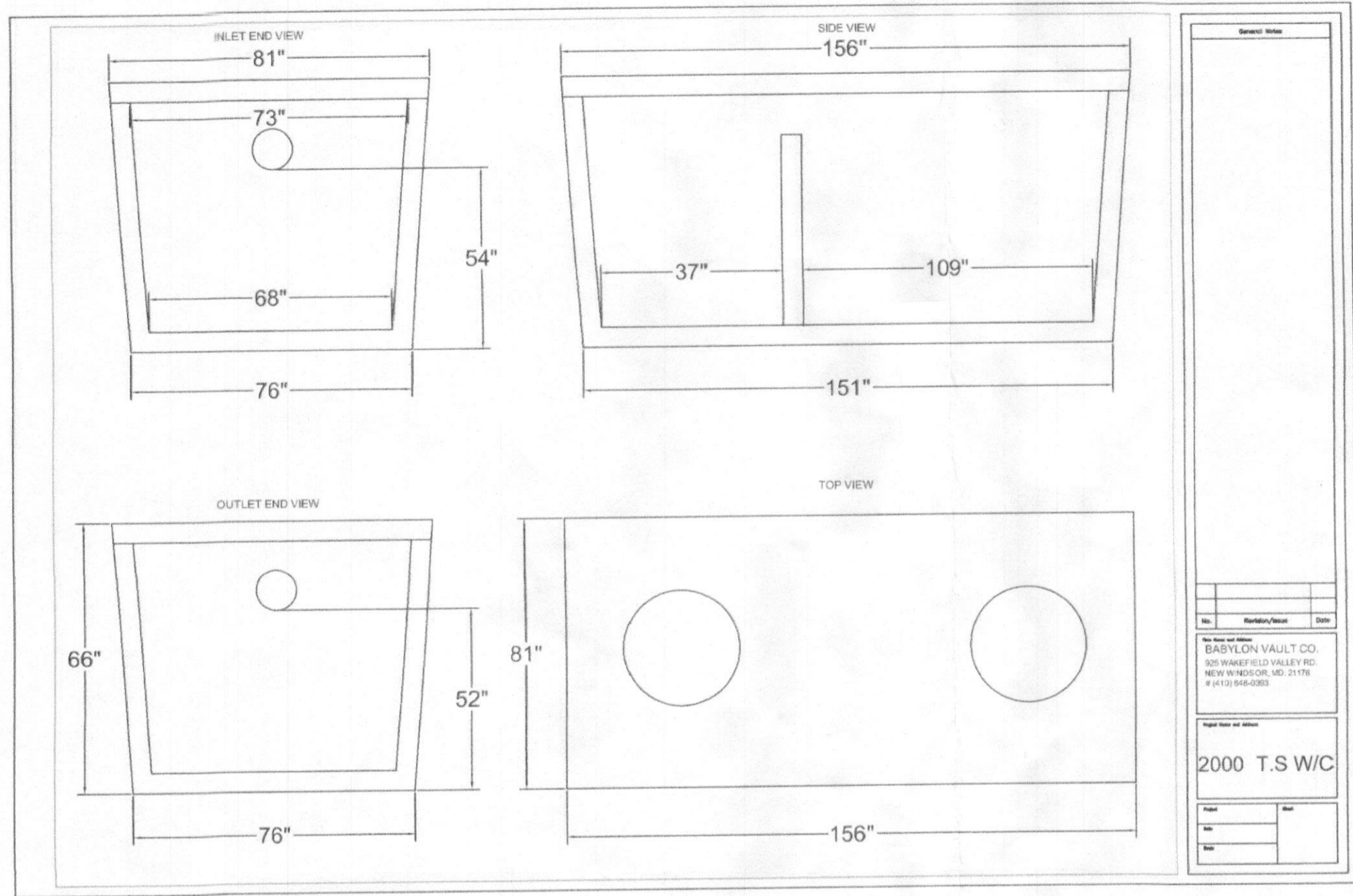
SEPTIC PLAN
COUNTRY SPRINGS
 LOT 19
 15046 SCOTTSDOOD COURT

ZONING: RC-DEO
 TAX MAP No. 14 GRID No. 0003 PARCEL No. 240
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: FEBRUARY, 2017 SHEET 1 OF 2

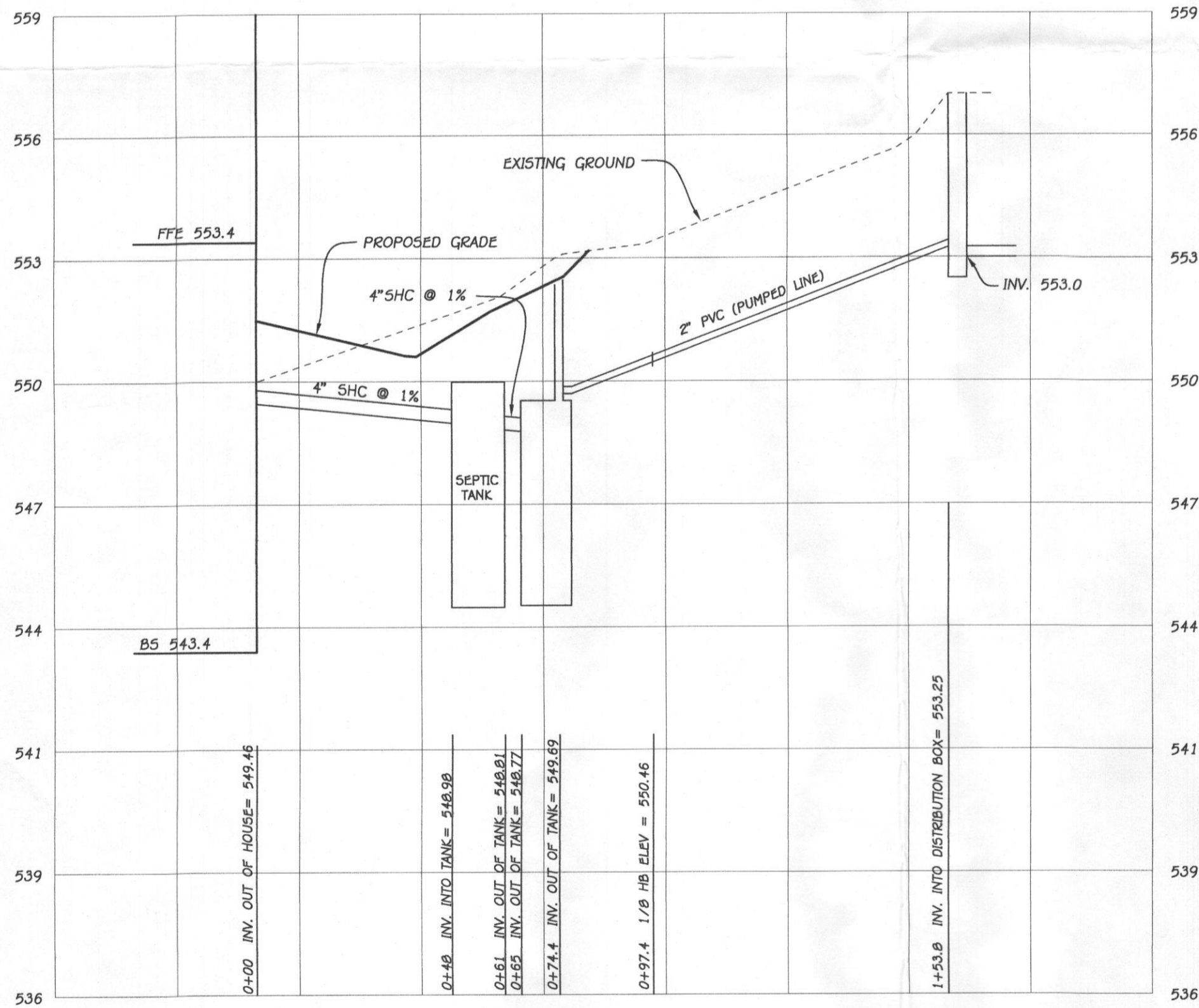
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNER
 RYAN & JENNIFER GEORGE
 15046 SCOTTSDOOD COURT
 WOODBINE, MD 21797
 443-629-9299

BUILDER
 LAKESTONE HOMES, LLC
 11619 PRINCESS LANE
 ELLICOTT CITY, MD 21042
 443-555-5599



PUMP ALARMS / INFORMATION
A PUMP OFF : 546.50
B PUMP ON : 547.19
C HIGH WATER ALARM : 547.88
D TOP OF ACCESS COVER : 552.70
E TOP OF TANK : 550.00
F BOTTOM OF TANK : 544.67
G DISCHARGE OUT OF TANK : 550.17
H INVERT INTO TANK : 548.92



GOULDS PUMPS
Wastewater



GOULDS PUMPS
Wastewater

APPLICATIONS

- Specifically designed for the following uses:
- Effluent systems
- Homes
- Farms
- Heavy duty sump
- Water transfer
- Dewatering

SPECIFICATIONS

- Solids handling capability: 3/4" maximum.
- Capacities: up to 60 GPM.
- Total heads: up to 31 feet.
- Discharge size: 1 1/2" NPT
- Mechanical seal: carbon-rotary/ceramic-stationary, BUNA-N elastomers.
- Temperature: 100°F (40°C) continuous, 140°F (60°C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor:

- EP04 Single phase: 0.4 HP 115 or 230 V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- EP05 Single phase: 0.5 HP 115 V or 230V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- Power cord: 10 foot standard length, 16/3 SJTW with three prong grounding plug. Optional 20 foot length, 16/3 SJTW with three prong grounding plug (standard on EP05).
- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer.

Available for automatic and manual operation. Automatic models include Mechanical Float Switch assembled and preset at the factory.

MODEL INFORMATION

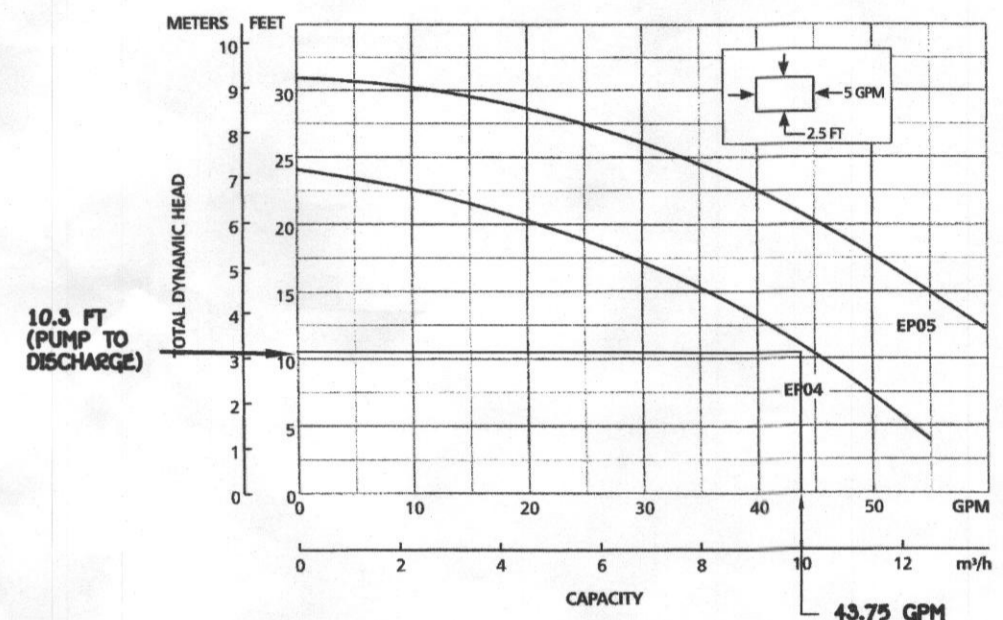
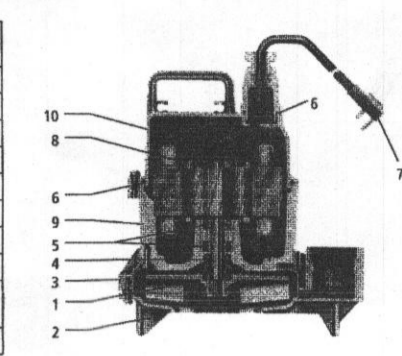
Order No.	HP	Volts	Amps	Minimum Circuit Breaker	Phase	Float Switch Style	Cord Length	Discharge Connection	Minimum On Level	Minimum Off Level	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight (lbs)
EP0411						Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411A						Piggyback / Wide Angle	10'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0411F	115	12	20			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411AC						Piggyback / Wide Angle	20'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0412	230	6	10		1	Plug / No Switch	10'	1 1/2"	Manual	Manual	15"	3/4"	20 / 9.1
EP0412F						Piggyback / Wide Angle	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0511F	115	13	20			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10
EP0511AC						Piggyback / Wide Angle	20'	1 1/2"	Manual	Manual	15"		23 / 10.4
EP0512F	230	6.5	10			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10

PERFORMANCE RATINGS

Total Head (ft. of water)	Gallons Per Minute	EP04	EP05
5	53	-	-
10	46	62	-
15	36	55	-
20	21	46	-
25	0	33	-
30	-	11	-

COMPONENTS

Item No.	Description
1	Impeller
2	Base
3	Pump Casing
4	Mechanical Seal
5	Ball Bearings
6	O-Rings
7	Power Cord
8	Off Filled Motor
9	Motor Housing/ Stator Assembly
10	Motor Cover



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. 36386, EXPIRATION DATE: 01/12/2018.

Signature: *Stephanie J. Tate* 2/14/17
Signature Of Professional Engineer DATE



SEPTIC PLAN COUNTRY SPRINGS

LOT 19
15046 SCOTTWOOD COURT

ZONING: RC-DEO
GRID No. 0003 PARCEL No. 240
TAX MAP No. 14
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: FEBRUARY, 2017 SHEET 2 OF 2

Approved Septic System Plan
Howard County Health Department
Signature: *Robert J. Tate* 2/16/17
Date

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 851 - 2295

OWNER
RYAN & JENNIFER GEORGE
15046 SCOTTWOOD COURT
WOODBINE, MD 21797
443-629-9255

BUILDER
LAKESTONE HOMES, LLC
11619 PRINCESS LANE
ELICOTT CITY, MD 21042
443-535-5555

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GaC	Gaia loam, 0 to 15 percent slopes	B	0.24
GgA	Glenelg loam, 0 to 3 percent slopes	B	0.37
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43

LEGEND

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING TREE LINE
- SOIL LINES AND TYPES
- DENOTES EXISTING WELL

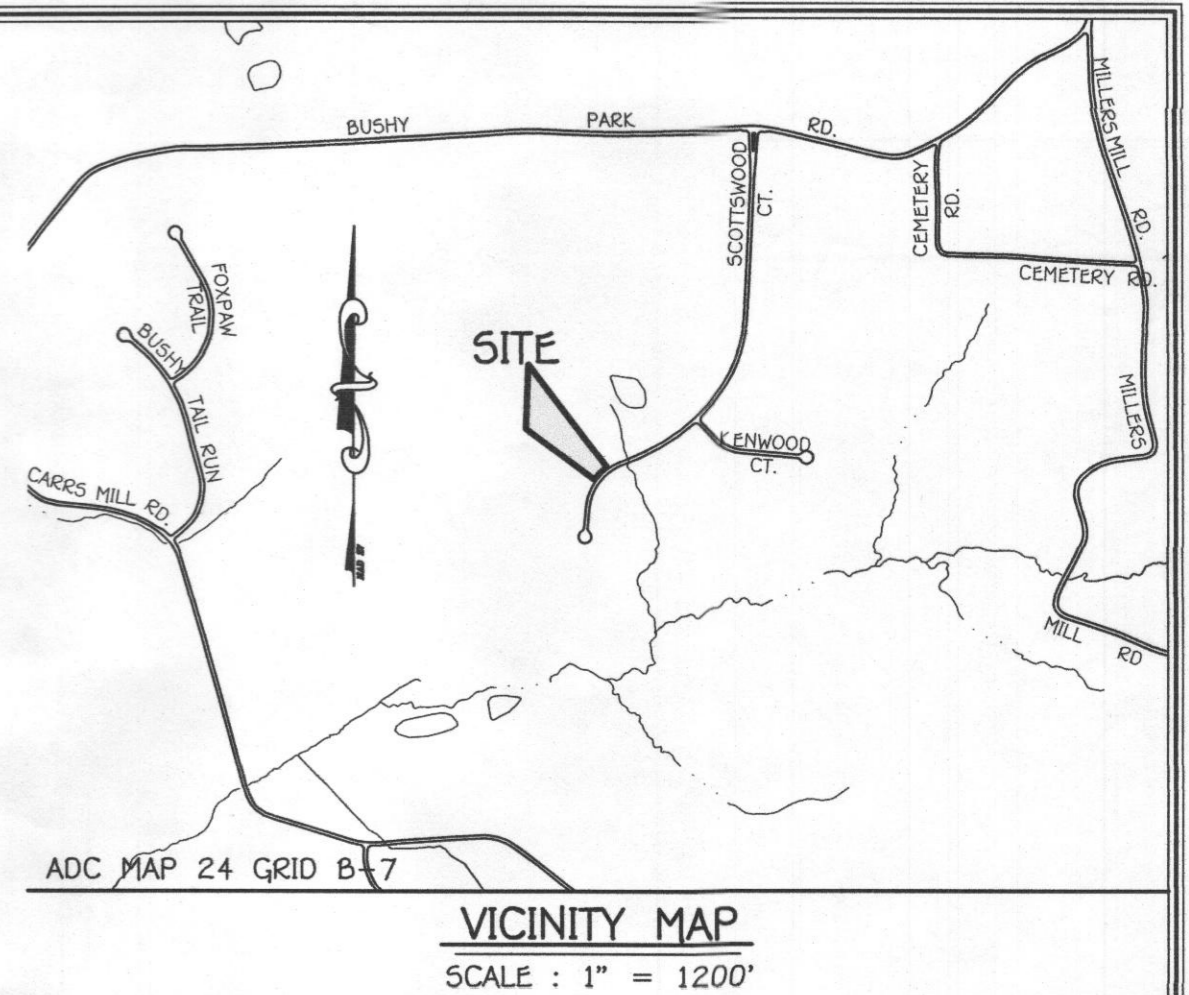
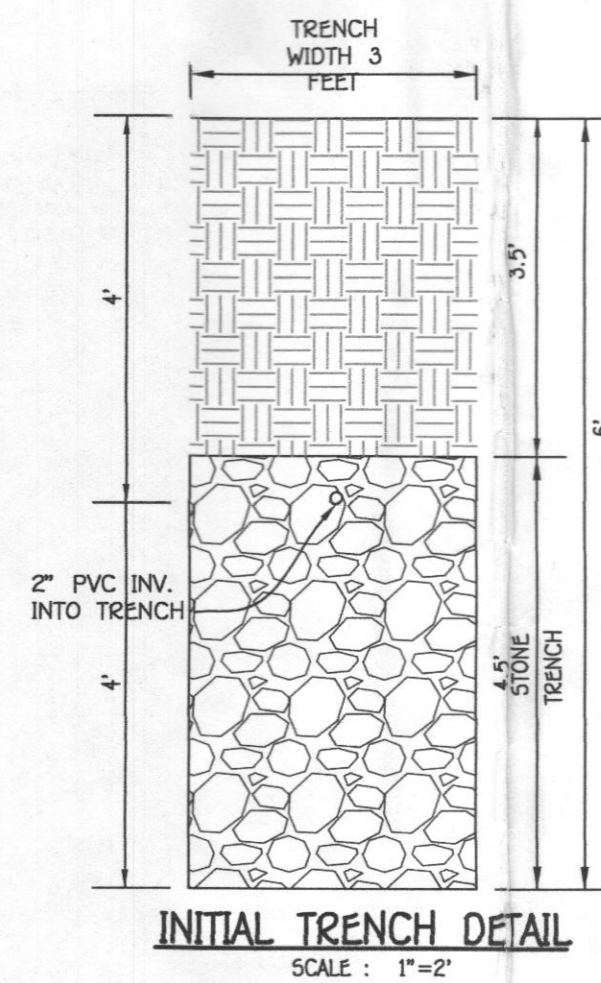
1 1/8 HB @ 4 EQUIVALENT FEET = 4 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 102 LF

DYNAMIC HEAD
102 LF X 3.11 FT PER 100 LF OF 2" PIPE = 3.17 FT OF FRICTION HEAD
VERTICAL FROM PUMP OUT TO HIGH POINT IN PUMP CHAMBER = 3.59 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 3.56 FT
TOTAL DYNAMIC HEAD = 10.32 FT

1/6 DESIGN FLOW (1,050 GPM=175)
USE 175 GALLON DOSE (175 GALLON MINIMUM)
(RUN TIME = 4 MIN (43.75 GPM X 4 = 175 GALLON DOSE)
PUMP NEEDS TO HANDLE 43.75 GPM AT 10.3 FT OF HEAD
USE 0.4 HP (EP04 PUMP)

SEPTIC SYSTEM ELEVATIONS
FFE = 553.4
BSE = 543.4
INV. OUT OF HOUSE = 549.46
EX. GROUND AT TANK = 551.7
TOP OF TANK = 549.98
COVER OVER TANK = 1.7
INV. INTO TANK = 548.98
INV. OUT OF TANK = 548.81
EX. GROUND AT PUMP TANK = 553.0
PROP. GROUND AT PUMP TANK = 552.5
TOP OF TANK = 549.52
COVER OVER TANK = 3 FT
PROP. INV. INTO TANK = 548.77
INV. OUT OF TANK = 549.69
EX. GROUND AT DISTRIBUTION BOX = 557.0
INV. INTO DISTRIBUTION BOX = 553.25
INV. OUT OF DISTRIBUTION BOX = 553.0

SEWAGE DISPOSAL SYSTEM DATA
7 BEDROOMS
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1,050 GPD
APPLICATION RATE = 0.8
INITIAL EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 4 FEET
SF OF DRAINFIELD = 1,050 GPD / 0.8 = 1,350 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x4))=0.417
TRENCH LENGTH = 1,350 SF X 0.417 / 3 = 187.7 FEET (USE 188 FEET)
TRENCH SPACING = 2D+W = ((2x4) + 3) = 11 USE 11'



GENERAL NOTES:

- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. 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 SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
- ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION.
- TOPOGRAPHY SHOWN IN THE AREA OF THE LOT BEING DISTURBED IS BASED ON A TOPOGRAPHIC SURVEY BY FISHER, COLLINS & CARTER, INC. IN NOVEMBER, 2016 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 2' CONTOUR INTERVAL.
- BOUNDARY OF LOT BASED ON PLAT #9650 AND FIELD SURVEY BY FISHER, COLLINS & CARTER, INC.
- ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
- DEED REFERENCE: LIBER 17272 FOLIO 173.
- SUBJECT PROPERTY ZONED: RC-DEO
- TOTAL AREA OF PROPERTY: 3.0 AC.
- WETLANDS, STREAMS, THEIR BUFFERS, FLOODPLAIN, AND STEEP SLOPES DO NOT EXIST ON THIS LOT.
- SOILS SHOWN HEREON ARE BASED ON NRCS WEB SOIL SURVEY AND HOWARD COUNTY SOILS MAP 3.
- ANY ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- 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 EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK. (IF NOT A LOAD BEARING SEPTIC TANK)
- THE WELL HO-93-0291 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC.



PLAN
SCALE: 1"=30'

TRENCH DESIGN									
TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF STONE (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STARTS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)
1	557.0	553.5	553.0	3.5'	4.5'	549.0	4.0'	4.0'	3.0'
2	555.9	552.4	551.9	3.5'	4.5'	547.9	4.0'	4.0'	3.0'

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. 38306, EXPIRATION DATE: 01/12/2018.

Signature Of Professional Engineer

DATE



SEPTIC PLAN COUNTRY SPRINGS LOT 19

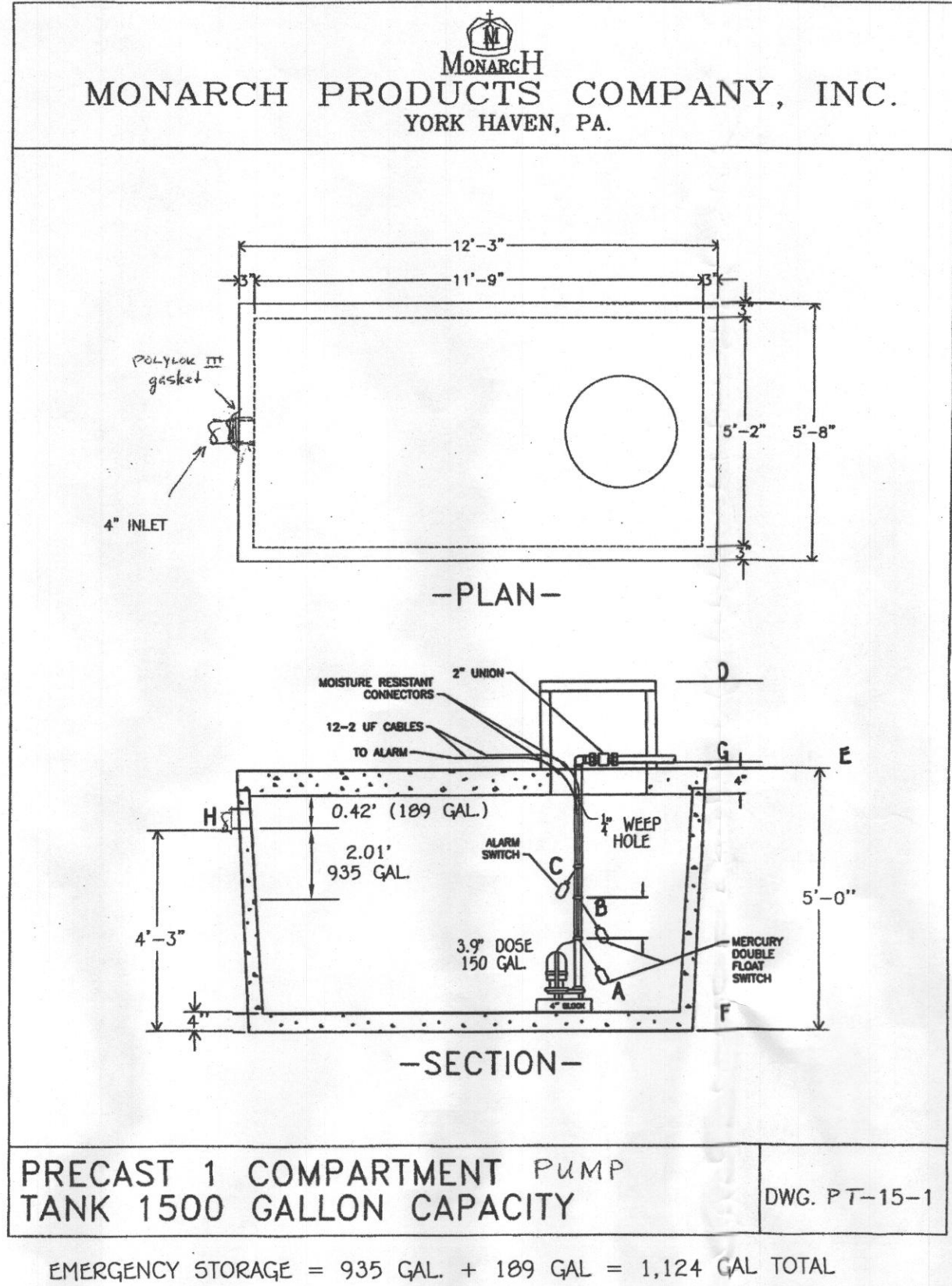
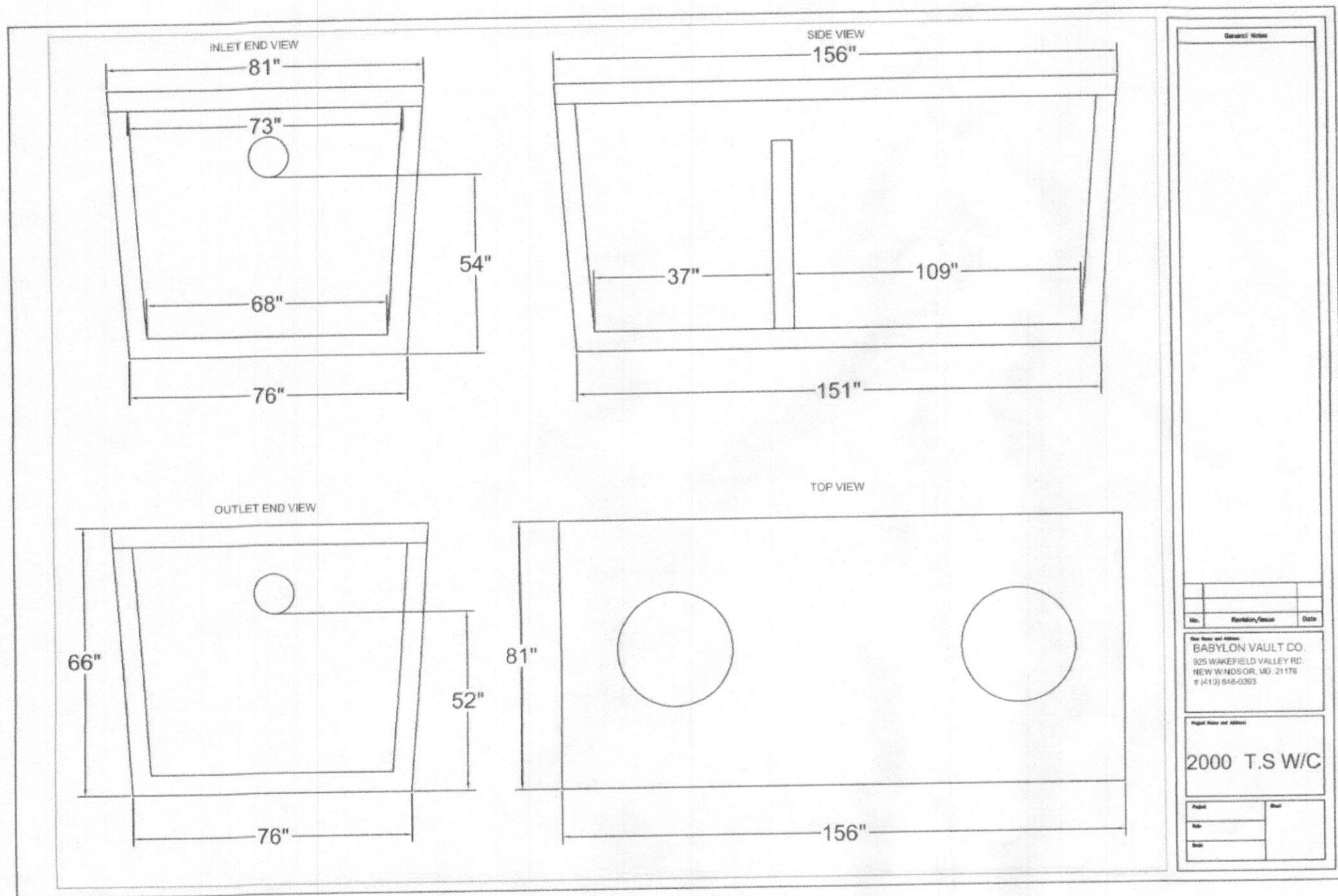
15046 SCOTTSWOOD COURT

ZONING: RC-DEO
TAX MAP No. 14 GRID No. 0003 PARCEL No. 240
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: FEBRUARY, 2017 SHEET 1 OF 2

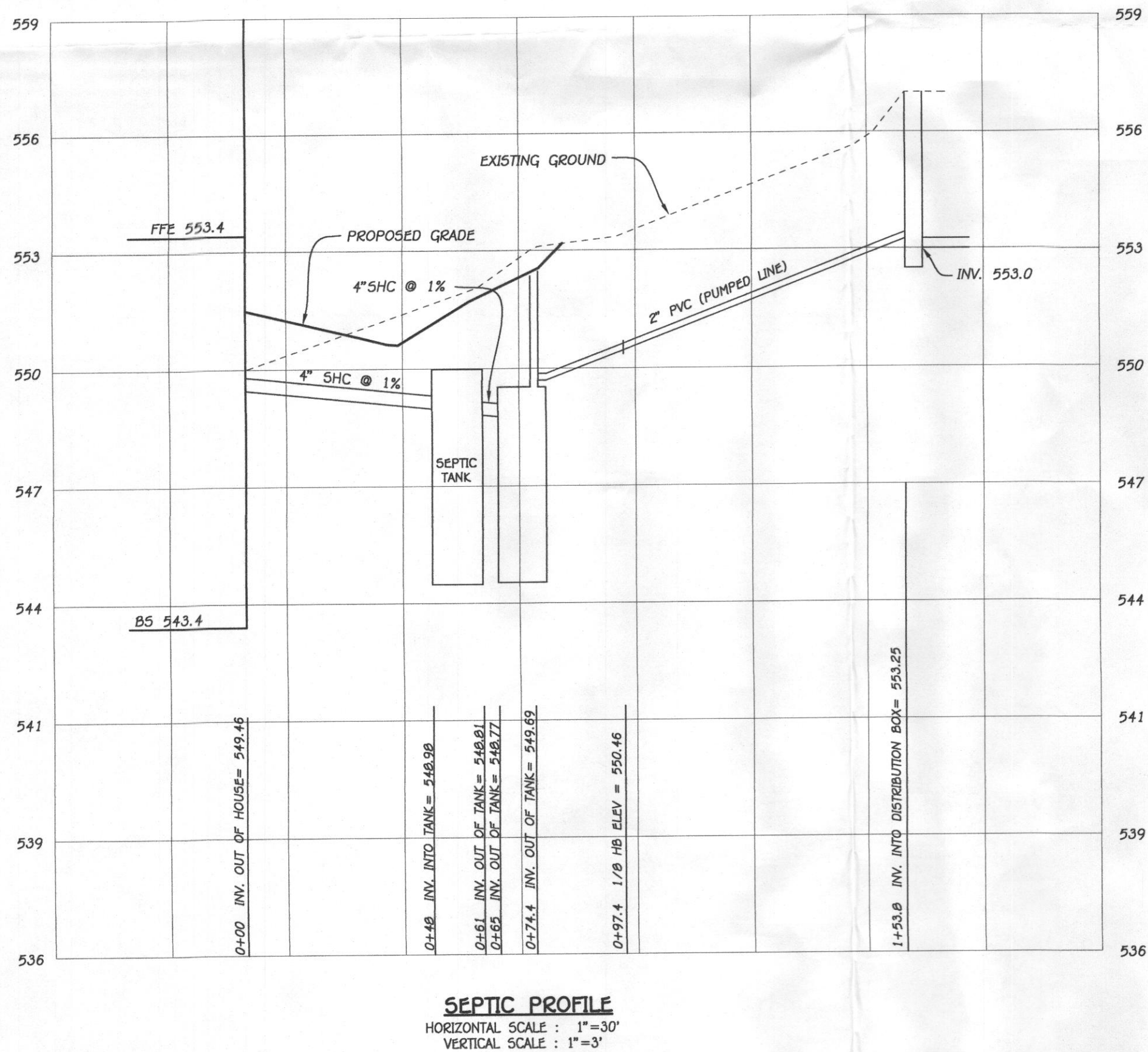
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2995

OWNER
RYAN & JENNIFER GEORGE
15046 SCOTTSWOOD COURT
WOODBINE, MD 21097
443-629-9295

BUILDER
LAKESTONE HOMES, LLC
11619 PRINCESS LANE
ELLICOTT CITY, MD 21042
443-535-5595



PUMP ALARMS / INFORMATION
A PUMP OFF : 546.50
B PUMP ON : 547.19
C HIGH WATER ALARM : 547.88
D TOP OF ACCESS COVER : 552.70
E TOP OF TANK : 550.00
F BOTTOM OF TANK : 544.67
G DISCHARGE OUT OF TANK : 550.17
H INVERT INTO TANK : 548.92



SEPTIC PROFILE
HORIZONTAL SCALE : 1"=30'
VERTICAL SCALE : 1"=3'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 SALTPORE NATIONAL PLE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2899

OWNER
RYAN & JENNIFER GEORGE
15046 SCOTTWOOD COURT
WOODBINE, MD 21797
443-629-9295

BUILDER
LAKESTONE HOMES, LLC
11619 PRINCESS LANE
ELLICOTT CITY, MD 21042
443-535-9595



GOULDS PUMPS
Wastewater



GOULDS PUMPS
Wastewater

APPLICATIONS

- Specifically designed for the following uses:
- Effluent systems
 - Homes
 - Farms
 - Heavy duty pump
 - Water transfer
 - Dewatering

SPECIFICATIONS

- Solids handling capability: 3/4" maximum.
- Capacities: up to 60 GPM.
- Total heads: up to 31 feet.
- Discharge size: 1 1/2" NPT
- Mechanical seal: carbon-rotary/ceramic-stationary, BUNA-N elastomers.
- Temperature: 104° F (40° C) continuous, 140° F (60° C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor:

- EP04 Single phase: 0.4 HP, 115 or 230 V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- EP05 Single phase: 0.5 HP, 115 V or 230V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- Power cord: 10 foot standard length, 16/3 SJTW with three prong grounding plug. Optional 20 foot length, 16/3 SJTW with three prong grounding plug (standard on EP05).
- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer.

Available for automatic and manual operation. Automatic models include Mechanical Float Switch assembled and preset at the factory.

MODEL INFORMATION

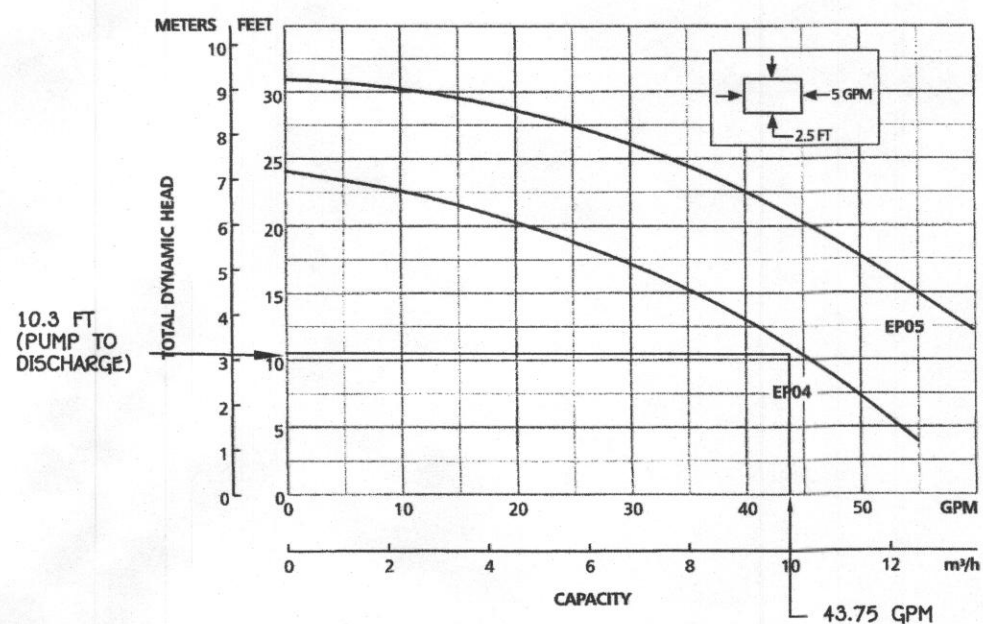
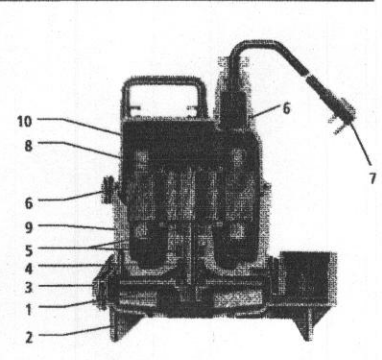
Order No.	HP	Volts	Amps	Minimum Circuit Breaker	Phase	Float Switch Style	Cord Length	Discharge Connection	Minimum On Level	Minimum Off Level	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight (kg)
EP0411	115	12	20			Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411A	115	12	20			Piggyback / Wide-Angle	10'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0411F	115	12	20			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411AC	115	12	20			Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0412	230	6	10			Plug / No Switch	10'	1 1/2"	Manual	Manual	15"	1/4"	20 / 9.1
EP0412F	230	6	10			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0511F	115	13	20			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10
EP0511AC	115	13	20			Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		23 / 10.4
EP0512F	230	6.5	10			Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10

PERFORMANCE RATINGS

Total Head (ft. of water)	Gallons Per Minute	EP04	EP05
5	33	—	—
10	46	62	—
15	36	55	—
20	21	46	—
25	0	33	—
30	—	11	—

COMPONENTS

Item No.	Description
1	Impeller
2	Base
3	Pump Casing
4	Mechanical Seal
5	Ball Bearings
6	G-Rings
7	Power Cord
8	Oil Filled Motor
9	Motor Housing
10	Motor Cover



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. 38386, EXPIRATION DATE: 01/12/2018.

Signature Of Professional Engineer

DATE



SEPTIC PLAN COUNTRY SPRINGS

LOT 19
15046 SCOTTWOOD COURT

ZONING: RC-DEO
TAX MAP No. 14 GRID No. 0003 PARCEL No. 240
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: FEBRUARY, 2017 SHEET 2 OF 2

Freemon, Robert

From: Freemon, Robert
Sent: Monday, January 23, 2017 2:32 PM
To: 'jeff@lakestonehomes.com'
Subject: FW: 15046 Scottswood Ct.
Attachments: 15046 Scottswood Ct.pdf; HCHD BP Process.pdf; OSDS design plan requirements 11.21.16.pdf; Well & Septic SETBACKS.pdf

From: Freemon, Robert
Sent: Monday, January 23, 2017 2:30 PM
To: 'jeff@lackestonehomes.com'
Cc: 'ryangeorge15@yahoo.com'
Subject: 15046 Scottswood Ct.

Hi,

I am reviewing the building permit (B17000150) for 15046 Scottswood Ct. and have some comments (See Attached). If you submitted floor plans to Dept. of Inspections, Licenses, and Permits (DILP) they may not have forwarded them to us due to limited number of copies or were too large to scan. You can send them to me via email or by dropping them off at our office. Let me know if you have any questions.

Robert Freemon
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
Well and Septic Program
Bureau of Environmental Health
Phone: 410-313-6357
Email: rfreemon@howardcountymd.gov
<https://www.howardcountymd.gov/Departments/Health/Environmental-Health/Well-and-Septic>



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

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

MEMORANDUM

TO: Lakestone Homes
11619 Princess Ln.
Ellicott City, MD 21042

FROM: Robert Freeman *RIF*
Well & Septic Program

RE: 15046 Scottswood Ct.
Woodbine, MD 21797
"Before BP Approval"

DATE: 1/23/17

I have reviewed the building permit B17000150 for 15046 Scottswood Ct. and here are my comments.

- Floor plans of the proposed house must be sent to the Health Dept.
- An On-Site Sewage Disposal Design Plan (OSDS) must be created and approved by the Health Dept.

Freemon, Robert

From: Freemon, Robert
Sent: Wednesday, January 25, 2017 11:17 AM
To: 'Stephanie Tuite'
Cc: 'Tony Fertitta'
Subject: RE: 15046 Scottswood Ct.

Here are the septic specs.

For all trenches: 4-8 sidewall credit, 0.8 rate

From: Stephanie Tuite [<mailto:Stephanie@fcc-eng.com>]
Sent: Monday, January 23, 2017 8:50 PM
To: Freemon, Robert
Cc: Tony Fertitta
Subject: 15046 Scottswood Ct.
Importance: High

Can you send me septic specs for this property? Attached is the info Jeff sent us, but need specs. Thanks.

Steph



SUBDIVISION: Country Springs

A 42471
LOT NUMBER: 19

DRY WELL OR DRY WELL AND TRENCH

		_____ sq. ft./bedroom
	<u>Septic Tank</u>	<u>Minimum Total Square Feet</u>
3 bedroom	1000 gallon	_____
4 bedroom	1250 gallon	_____
5 bedroom	1500 gallon	_____

Inlet _____ feet below original grade.

Bottom maximum depth _____ feet below original grade.

Effective area begins at _____ feet below original grade.

NOTE: If trench is used to make up absorbent area, run the trench on level ground and leave a 5-foot earth buffer between dry well and trench. No trench is to exceed 100 feet in length. Trench inlet to be same as dry well, with _____ feet of stone below distribution pipe.

TRENCHES

_____ sq. ft./bedroom

Trench to be _____ wide.

Inlet _____ feet below original grade.

Bottom maximum depth _____ feet below original grade.

Effective area begins at _____ feet below original grade.

_____ feet of stone below distribution pipe.

- NOTE:
- (1) No trench to exceed 100 feet in length.
 - (2) If more than one trench used, a distribution box is required.
 - (3) Trenches to be installed on level ground.
 - (4) Call for inspection of trench before gravel is installed.
 - (5) Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank and drywell.
 - (6) If a garbage disposal is used, increase septic tank capacity by 50% and increase absorbent sidewall area by 22%.

LOCATION: _____

Transmittal

Via: ☐ Fax ☐ Mail ☒ Messenger ☐ E-Mail ☐ To Be Picked Up
☐ Fax (original to follow via U.S. Mail)

To: Bureau of Environmental Health 8930 Stanford Blvd Columbia, MD 21046-4544	Attn: Robert Freemon Fax: (410) 313-2648 Phone: (410) 313-2640
--	---

From: Stephanie Tuite	CC:
------------------------------	-----

Re: 15046 Scottswood Court - Septic Plan	W.O.# 30293-1
Date: 02/10/17	Pages: Page(s) Including this cover

We are forwarding:	<input checked="" type="checkbox"/> Prints	<input type="checkbox"/> Copy of Letter	<input type="checkbox"/> Specifications	<input type="checkbox"/> Shop drawings	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Urgent	<input type="checkbox"/> For your use	<input type="checkbox"/> As requested	<input type="checkbox"/> For Review & Comment	

Remarks:

Attached please find three copies of the revised Septic Plan for Permit # B17000150.

Plans have been revised based on discussions between you and Tony Fertitta with our office.

Please call with any questions.

Stephanie Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

CONFIDENTIALITY NOTICE

This transmission contains confidential information which may be legally privileged, and is intended only for the use of the individual named above. If you are not the intended recipient, you are hereby notified that any distribution (except to the intended recipient), copying, or disclosure of this transmission is strictly prohibited.

Freemon, Robert

From: Freemon, Robert
Sent: Wednesday, February 01, 2017 2:50 PM
To: 'Tony Fertitta'
Subject: RE: 15046 Scottswood Ct.

Hey Tony,

The septic tank does not need to be a heavy load bearing tank. It is a precautionary recommendation due to the 1% fall, the grading and the possibility the hung sewer hole is drilled by the plumber before reviewing the septic plan or doing the layout. The pump tank is going to need to be a load bearing tank if the grade goes unchanged. I was informed that the 2 inch slot in the dividing wall of the septic tank does not need to be shown. Hope this helps.

Robert Freemon
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
Well and Septic Program
Bureau of Environmental Health
Phone: 410-313-6357
Email: rfreemon@howardcountymd.gov
<https://www.howardcountymd.gov/Departments/Health/Environmental-Health/Well-and-Septic>

From: Tony Fertitta [<mailto:tonyf@fcc-eng.com>]
Sent: Wednesday, February 01, 2017 12:21 PM
To: Freemon, Robert
Subject: RE: 15046 Scottswood Ct.

the tank is 2.7' in the ground why do I need a load bearing tank. I thought it need to be 3'+ for it needing load bearing.

Thanks
Tony

From: Freemon, Robert [<mailto:rfreemon@howardcountymd.gov>]
Sent: Wednesday, February 01, 2017 9:23 AM
To: Stephanie Tuite
Cc: Tony Fertitta
Subject: RE: 15046 Scottswood Ct.

Here are my comments for the OSDS Plan. Let me know if you have any questions.

Robert Freemon
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
Well and Septic Program
Bureau of Environmental Health
Phone: 410-313-6357
Email: rfreemon@howardcountymd.gov

Transmittal

Via: ☐ Fax ☐ Mail ☒ Messenger ☐ E-Mail ☐ To Be Picked Up
☐ Fax (original to follow via U.S. Mail)

To: **Bureau of Environmental Health**
8930 Stanford Blvd
Columbia, MD 21046-4544

Attn: **Robert Freemon**
Fax: **(410) 313-2648**
Phone: **(410) 313-2640**

From: **Stephanie Tuite**

CC:

Re: **15046 Scottswood Court - Septic Plan**

W.O.# **30293-1**

Date: **02/15/17**

Pages: **Page(s) Including this cover**

We are forwarding: ☒ Prints ☐ Copy of Letter ☐ Specifications ☐ Shop drawings ☒ Other
☐ Urgent ☐ For your use ☐ As requested ☐ For Review & Comment

Remarks:

Attached please find three copies of the revised Septic Plan for Permit # B17000150.

Plans have been revised to show a 2000 gallon septic tank.

Please call with any questions.

Stephanie Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

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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

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

MEMORANDUM

TO: Stephanie Tuite
Fisher, Collins & Carter, Inc.
10272 Baltimore National Pike

FROM: Robert Freemon *RIF*
Well & Septic Program

RE: 15046 Scottswood Ct.
Woodbine, MD 21797
"OSDS"

DATE: 2/1/17

Here are my comments for 15046 Scottswood Ct. Onsite Sewage Disposal System Design Plan.

- don't need* x • Two Alternate well sites or a 1500sqft well box must be added to the plan.
- ✓ Replacement trenches need to be shown on the plan.
- ✓ Elevations between the "Septic Profile" and "Septic System Elevations" are not consistent.
- The septic tank/pump tank is unacceptable. The pump must have its own chamber separate from the two compartments of the septic tank.
 - It is recommended the OSDS design include a heavy load bearing septic tank. The 1% fall in conjunction with grading limits room for error with pouring the foundation slab at the planned elevation.
- Not shown* ✓ A 2 inch in height and 4 foot wide slot must be shown in the dividing wall of the two compartments of the septic tank.
- ✓ There needs to be 6 inches between the pump and the tank floor.
- ✓ The septic tank needs to be 25ft from the storm water management dry well.
- ✓ Add the note: "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."
- ✓ Add the note: "The maximum earth cover over the tank is 3 feet. Greater earth cover will require a heavy load bearing tank." (If not a load bearing septic tank)
- ✓ Add the note: "Electrical work for the installation must be performed by a licensed electrician."
- ✓ Add the note: "The well (tag#) has been field located and is accurately shown."

A 42471

SUBDIVISION: Country Springs

LOT NUMBER: 19

DRY WELL OR DRY WELL AND TRENCH

_____ sq. ft./bedroom

	<u>Septic Tank</u>	<u>Minimum Total Square Feet</u>
3 bedroom	1000 gallon	_____
4 bedroom	1250 gallon	_____
5 bedroom	1500 gallon	_____

Inlet _____ feet below original grade.

Bottom maximum depth _____ feet below original grade.

Effective area begins at _____ feet below original grade.

NOTE: If trench is used to make up absorbent area, run the trench on level ground and leave a 5-foot earth buffer between dry well and trench. No trench is to exceed 100 feet in length. Trench inlet to be same as dry well, with _____ feet of stone below distribution pipe.

TRENCHES

_____ sq. ft./bedroom

Trench to be _____ wide.

Inlet _____ feet below original grade.

Bottom maximum depth _____ feet below original grade.

Effective area begins at _____ feet below original grade.

_____ feet of stone below distribution pipe.

- NOTE:
- (1) No trench to exceed 100 feet in length.
 - (2) If more than one trench used, a distribution box is required.
 - (3) Trenches to be installed on level ground.
 - (4) Call for inspection of trench before gravel is installed.
 - (5) Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank and drywell.
 - (6) If a garbage disposal is used, increase septic tank capacity by 50% and increase absorbent sidewall area by 22%.

LOCATION: _____

