HOWARD COUNTY HEALTH DEPARTMENT

61448

DATE 7/5/17

Received From Hatfields Equip PHONE # 301/490-1289

For Septic Permit #-14718
Dorsey Mill Rd.

☐ CASH
☐ CHECK
NO. 3798

three hundred ninety Six Dollars

$ 396.00

Received By

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth

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

RECEIPT DATE: 2/22/17 **ONSITE SEWAGE DISPOSAL SYSTEM** P 560549

APPROVAL DATE: 8/11/17 (EC) **PERMIT:** BRF **REPAIR** A

PROPERTY ADDRESS: **14718 Dorsey Mill Road**

SUBDIVISION: LOT: TAX ID: **04-312129**

CONTRACTOR: **Hatfield's Equipment** EMAIL: **ken@hatfieldsequipment.com**

CONTRACTOR ADDRESS: **P.O. Box 519 Annapolis Junction, Maryland 20701** PHONE: **301-490-4289**

PROPERTY OWNER: **Bruce Montgomery** EMAIL:

OWNER ADDRESS: **14718 Dorsey Mill Road, Glenwood, MD 21738** PHONE: **410-884-0500**

SEPTIC TANK SIZE (GALLONS): Norweco Singular INT Green PUMP CHAMBER CAPACITY (GALLONS): 1500 (existing tank) PUMP SIZE: 1/3 hp

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. APPLICATION RATE: 1.2

DISTRIBUTION SYSTEM: GRAVITY FED ☐ LOW PRESSURE DOSED ☑

TRENCHES:	LINEAR FEET REQUIRED:	70'	INLET DEPTH:	1.5'
	TRENCH WIDTH:	3'	MAXIMUM BOTTOM DEPTH:	5'
	MINIMUM SPACE BETWEEN TRENCHES:	—	EFFECTIVE AREA BEGINNING DEPTH:	3'
LOCATION:	**TO BE STAKED BY SANITARIAN DURING PRE-CONSTRUCTION INSPECTION.**			
NOTES:	Pump must be Gould's WE03L 1/3 hp pump or equivalent. Install force main as shallow as possible to ensure line drains to laterals.			

ISSUED BY: Sarah Collins ISSUE DATE: 7/26/17 EXPIRATION DATE: 7/26/18

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 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

☐ *ELECTRICAL PERMIT ISSUED* E

NOTE: THE HCHD DOES NOT WARRANTY ANY SYSTEM AND CANNOT GUARANTEE THE PERFORMANCE OF THIS SYSTEM AS DESIGNED. BY ACCEPTING THIS PERMIT, THE OWNER AND/OR APPLICANT ACKOWLEDGE THAT THE SPECIFICATIONS DETAILED IN THIS DESIGN ARE ONE POSSIBLE OPTION AND THAT THE HCHD WILL REVIEW OTHER PROPOSALS. YOU HAVE THE OPTION TO SEEK THE ADVICE OF A QUALIFIED DESIGN CONSULTANT OR PROFESSIONAL ENGINEER FOR FURTHER GUIADNCE.

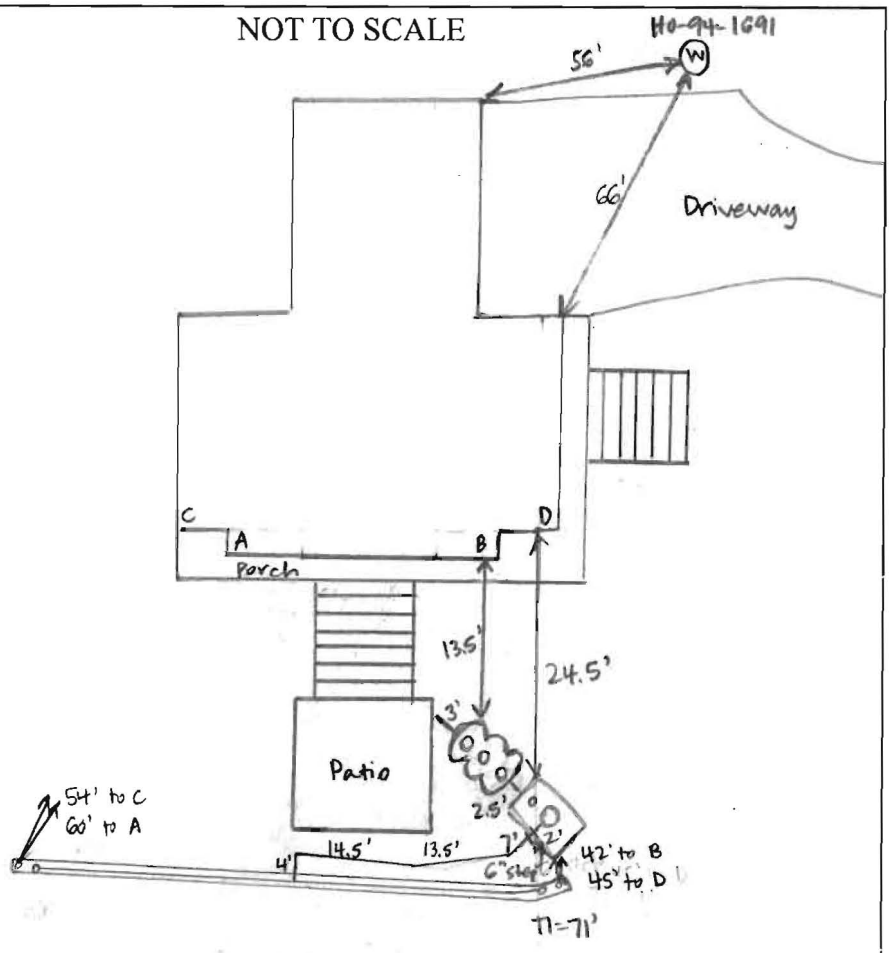
NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

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



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	1.5'	5'

NUMBER OF TRENCHES 1
TOTAL LENGTH 71'
ABSORPTION AREA 213' + SIDEWALL
DISTRIBUTION BOX LEVEL —
DISTRIBUTION BOX BAFFLE —
DISTRIBUTION BOX PORT —

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL YES
MANUFACTURER NORWECO
CAPACITY 1300 GAL
SEAM LOC MID
TANK LID DEPTH 1.5-2.5'
BAFFLES NO
BAFFLE FILTER NO
MANHOLE LOC FRONT, MID REAR
6" PORT LOC NONE
WATERTIGHT TEST NO
SLOTTED NO
DATE ON LID —

PUMP/SEPTIC TANK LEVEL YES
MANUFACTURER [existing]
CAPACITY 1500' GAL
SEAM LOC TOP
TANK LID DEPTH 0.5-1'
BAFFLES NO
BAFFLE FILTER NO
MANHOLE LOC MIDDLE
6" PORT LOC FRONT
WATERTIGHT TEST NO
SLOTTED NO
DATE ON LID —
Pump: Gould's 1/3 hp WED311M

8/11/17 On site for pump + alarm test. Alarm sounds. Gate valve turns 12x to completely close - started pump and lateral head > 3! Closed gate valve 1/2 (6 turns) and head still 3'+. Norweco alarm sounds + aerator runs. (SC)

ROAD NAME

PRE-CONSTRUCTION:
7/31/17 Hatfield's on site to install tank. Shot contour + extended treach to 70' from previous stake out. Kept trench center 7' of tank edge. Marked center / manifold connection at 35'. (SC)

INSTALLATION: 7/31/17 First holding tank pumped + removed. Norweco Singulair Green installed, gravel @ bottom of hole. Hatfield's will backfill with gravel. Norweco + 2nd holding tank (now the pump tank) connected to each other + tied into existing sewer line. (SC) 8/1/17 Trench dug + stone added - 3' wide, 1.5' to stone. Hatfield's measuring lateral pipe + drilling perforations. Spacing correct, perforations free of burrs. Pump + float tree set, force main installed + connected to lateral. Force main exits pump tank through riser, not tank outlet as shown on plan. Need BAT startup certification and pump + alarm. (SC) 8/7/14 BAT startup certification received. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 8/11/17

Back River Pre-Cast, LLC
PO BOX 329
Glyndon, MD 21071
Phone # 410-833-3394
Fax # 410-833-4116

Letter of Certification

This is to certify that the Norweco Singulair Green Septic Tank installed at 14718 Dorsey Mill Rd., Glenwood, MD 21738 was installed on July 31, 2017 according to the manufacture's specifications.

Installer: Jeff Reiter

Property Owner: Bruce Montgomery

Permit#

THIS CERTIFICATION IS FOR INSTALLATION ONLY. THE 2-YEAR OPERATIONS & MAINTENANCE AGREEMENT FROM DATE OF INSTALLATION WILL ONLY GO INTO EFFECT AFTER BACK RIVER PRE-CAST, LLC RECEIVES FINAL AND FULL PAYMENT FOR THE SYSTEM

MATTHEW GECKLE

Vice-President

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: montgomery
Ref: 94

LR - Agreement Surcharge
1x 40.00 40.00

==========

SubTotal: 60.00
Total: 60.00

==========

CRD-Credit 60.00
Credit Card Confirmation : 848374

06/13/2017 13:09 CC13-SB
#8552476 /496/109
~ Thank you for visiting us today~

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

AGREEMENT AND EASEMENT FOR INSTALLATION OF BEST AVAILABLE TECHNOLOGY SYSTEMS WITH BAY RESTORATION FUNDS.

THIS AGREEMENT is made this 13 day of JUNE 2014 among BRUCE G. MONTGOMERY hereinafter referred to as "Owner," the Howard County Health Department hereinafter collectively referred to as the "County," and the Department of the Environment, hereinafter referred to as the "Department."

WHEREAS, Owner owns a tract of land located on 14718 DORSEY MILL ROAD, in the Election District of Howard County, Maryland, and the deed to same is recorded among the Land Records of Howard County, Maryland, in Columbia and in Liber _____ Folio _____.

WHEREAS, the Bay Restoration Fund (BRF) may provide a grant for the cost attributable to upgrading an onsite sewage disposal system to the Best Available Technology (BAT) for the removal of nitrogen.

WHEREAS, the BRF may also provide a grant for the cost difference between a traditional onsite sewage disposal system and a system that utilizes the BAT for the removal of nitrogen.

WHEREAS, Owner understands that participation in the Bay Restoration Fund is voluntary.

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the Department and the County the right to enter upon the property at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data requested and needed by the Department to develop accurate and thorough test results.
B. Owner acknowledges and agrees that a MDE certified and manufacturer-approved installer will install the BAT system.
C. Owner acknowledges and agrees the manufacturer or manufacturer's authorized service provider will provide for Operation and Maintenance of the BAT for a period of 5 years as a condition of sale of the BAT. After the initial 5 year period an Operation and Maintenance contract with a certified service provider must be maintained in perpetuity by the property owner.
D. Owner acknowledges and agrees that the manufacturer appointed Operation and Maintenance provider will have access to the BAT system at all times.
E. Owner acknowledges and agrees that the manufacturer or manufacturer's authorized service provider will have access to sample the effluent of the BAT system. Owner acknowledges and agrees that the proposed installation of a BAT system funded by the BRF is voluntary. Owner agrees that there shall be no liability on the part of the County or Department to Owner if this BAT system fails, and that the County and the Department do not warrant or guarantee that the BAT system will adequately or properly function.
F. Owner acknowledges and agrees that neither the County nor the Department nor any of its

agents or employees, either officially or individually, underwrites the operation of any system approved by them.

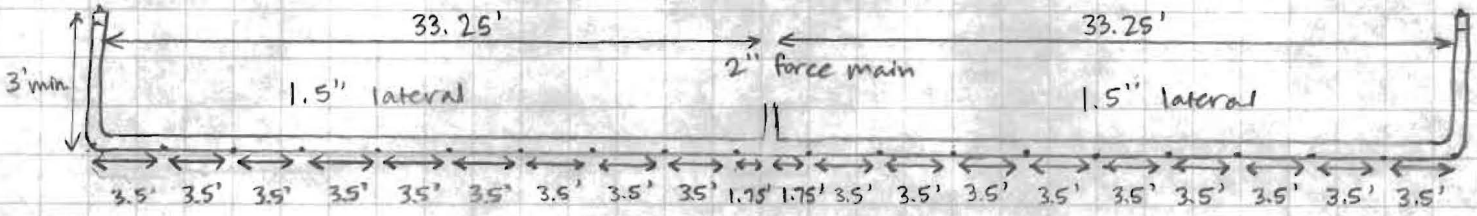
G. The Owner will devote such care and effort to the maintenance of the BAT system so that any malfunction is not the result of poor maintenance, faulty operation, or neglect.
H. The Canaan Valley Institute agrees to grant up to $_____toward the cost of installation of the BAT system, and financial responsibility is limited to this amount. Operating costs will be at the Owners expense.
I. The Owner acknowledges that the BRF grant can only be used for that portion of the OSDS attributable to (BAT) for the removal of nitrogen.
J. Owner acknowledges in the event the total project cost is greater than $25,000 the proposal will have to be approved by the Maryland State Board of Public Works.
K. The Owner agrees to contact both the Water Management Administration, On-Site Systems Division of the Wastewater Permits Program and the County at least forty-eight (48) hours prior to system installation, so that the Department has the opportunity to be present at the time of installation or thereafter for inspection.
L. The Owner must install BAT system according to the manufacturer recommended plans and specifications approved by the Department.
M. The Owner agrees and acknowledges that if installation deviates substantially from the approved plans or changes such that performance of the system is compromised or reduced, BRF funding will not be provided.
N. This agreement shall run with the land and binds the Owner, his heirs, successors, assigns. Owner further agrees that he shall inform in writing any purchaser or lessee of the property that the system may require maintenance or other attention. The Owner agrees to record this agreement in the land records of Howard County.
O. This agreement shall not be construed to limit any authority of the Department to protect the public health, safety or comfort or to issue any other orders to take any other action that is now or may hereafter be within its authority.
P. This agreement may be voided at the discretion of the Department if the system construction is not completed within six (6) months of the effective date of this agreement.
Q. This agreement contains the entire agreement and understanding between the County and the Owner and the Department. 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.
R. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

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

DATE: June 12, 2017 — Owner

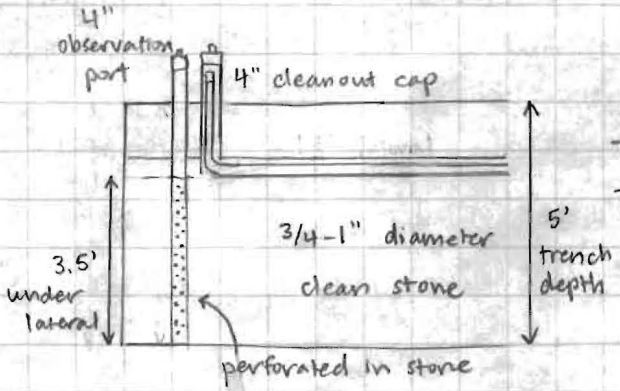
DATE: June 13, 2017 — Howard County Health Department

LATERAL DETAIL



- turn-ups must be at least 3'
- perforations are 1/4"
- last perforation to be drilled at bend of turn-up

END OF TRENCH DETAIL



- stone to cover lateral pipe 2"
- geotextile fabric covering stone

TRENCH / LOW PRESSURE DOSE SYSTEM DETAIL

Trench	Trench length	Trench depth	Trench width	Depth of stone	Lateral length	Distal head	# of perf.	Flow per perf.	Trench flow rate
T1	35'	5'	3'	3.5'	33.25'	3'	10	1.28 gpm	12.8 gpm
T2	35'	5'	3'	3.5'	33.25'	3'	10	1.28 gpm	12.8 gpm

below pipe

Total flow per system discharge = 25.6 gpm

14718 Dorsey Mill Rd Septic System Design

Design: 4 Bedrooms — Application Rate = 1.2
Flow = 600 gpd

* All Elevations based on relative field conditions. No benchmarks given. All septic system components to be staked.

Pump Tank / BAT unit - Norweco Singulair Green TNT:
[w/ Ex tank to be converted to pump tank]

- Ground elevation over P.T. = 33.5"
- Bottom elevation of P.T. = 104.5"
- Pump off elevation = 92.5" → 7.71'

Laterals: T1, T2
- Elevation of lateral ground Elevation = 58"
- Lateral Elevation = 76" → 6.33'

Hole Diameter = 1/4" (.25")

Manifold: Length = 0'
Diameter = N/A

Forcemain: Length = 45'
Diameter = 2"

Friction:
- 90° bends = 3 → 21' equiv.
- 45° bends = 3 → 12 equiv.
- Tee's = 1 → 2' equiv. Totals = 81.3'
- Check Valve = 1 → 1.3' equiv.
- Forcemain length = 45'

81.3' @ 25.6 gpm, 2" pipe — 81.3' × 1.10'/100' = .894' friction loss

laterals: 66.5'

Static Head: Elevation of upper lateral − Pump off Elevation

76" − 92.5" = 16.5" = 1.38'

Flow: $Q = 11.82 \times (d)^2 \times \sqrt{h}$

D = Diameter of holes
h = Distal Head

= **1.28 gpm**

Total Perforations = 20

D = 1/4"

h = 3'

Dose:

- Length of F.M + manifold =
  (40' + 0 = 40') ⇒ 45' × $\frac{17.4 \text{ gal}}{100'}$ = 7.83 gal
- Length of laterals =
  (33.25 × 2 = 66.5') ⇒ 66.5' × $\frac{10.6 \text{ gal}}{100'}$ = 7.05 gal

* Volume of lateral 1.5" Diameter / per 100' = 10.6 gal

* Volume of 2" F.M (17.4 gal/per 100' = 17.4 gal

Dose = Volume of FM + Manifold + (5 × Volume of laterals)
7.83 gal 5 × 7.05 gal = 35.25

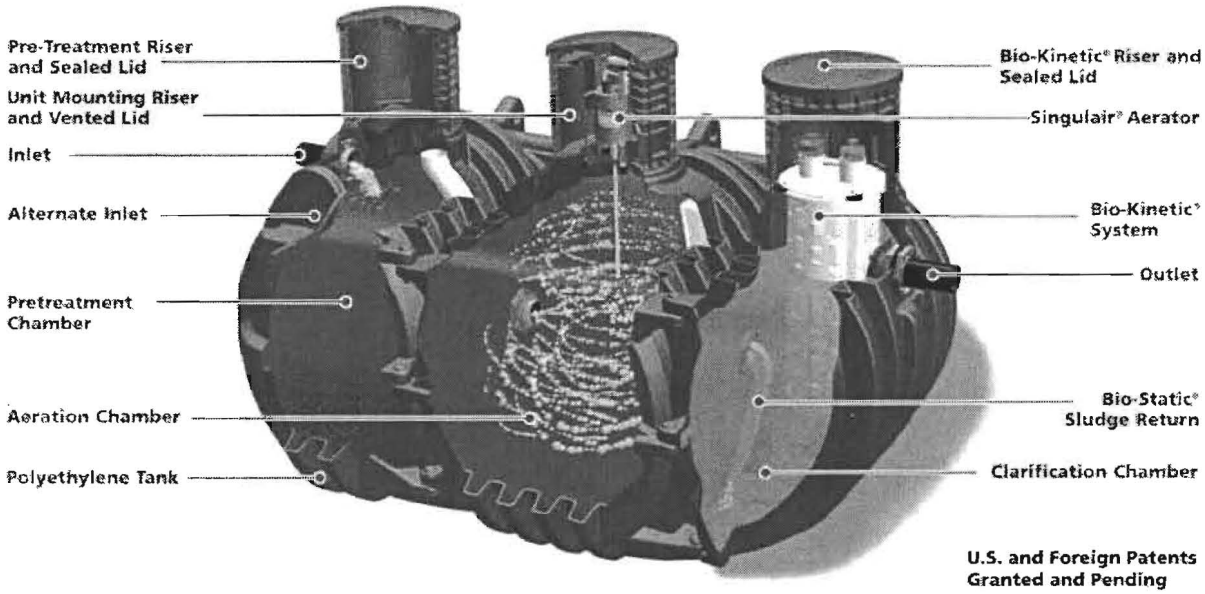
= 43.1 gal

(minimum)
1/6 Design Flow = 1/6 (600) = **100 gal**

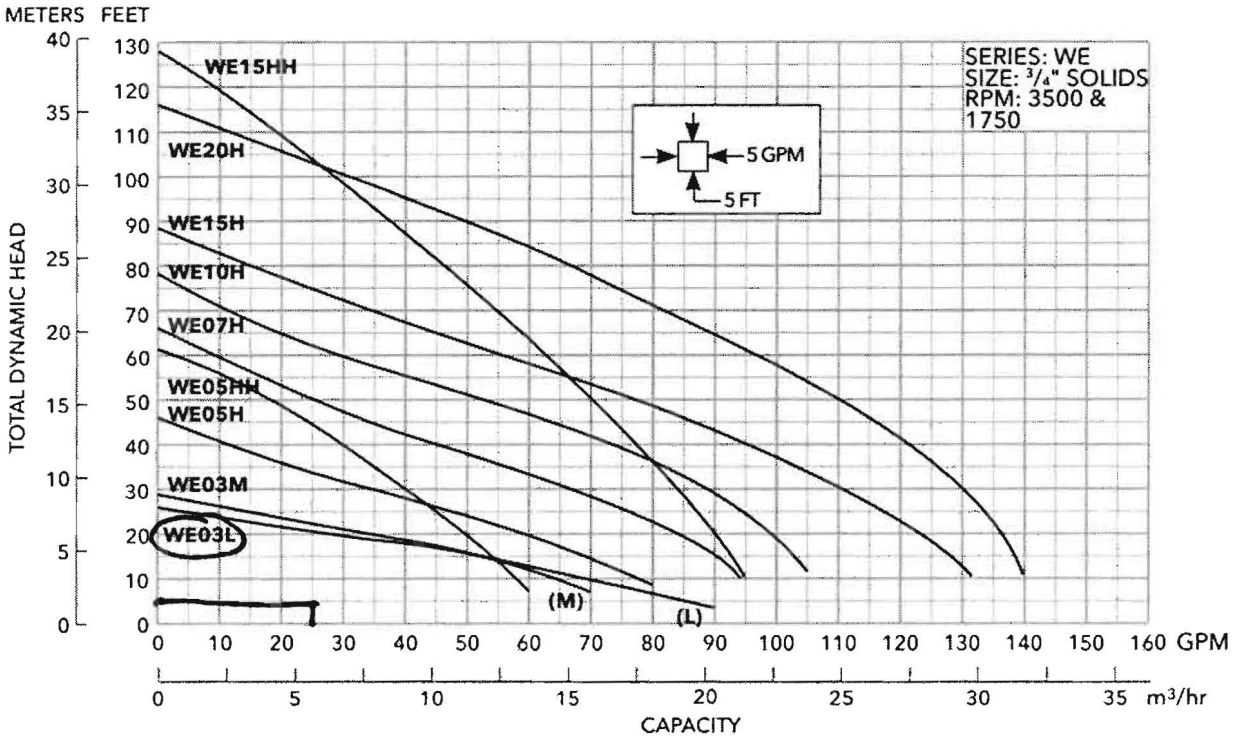
Design Head: Static Head + Friction Head + Distal Head
1.38' 0.89' 3'

Total Dynamic Head = 5.27'

Norweco Singulair Green 600GPD



Gould's Effluent Pumps



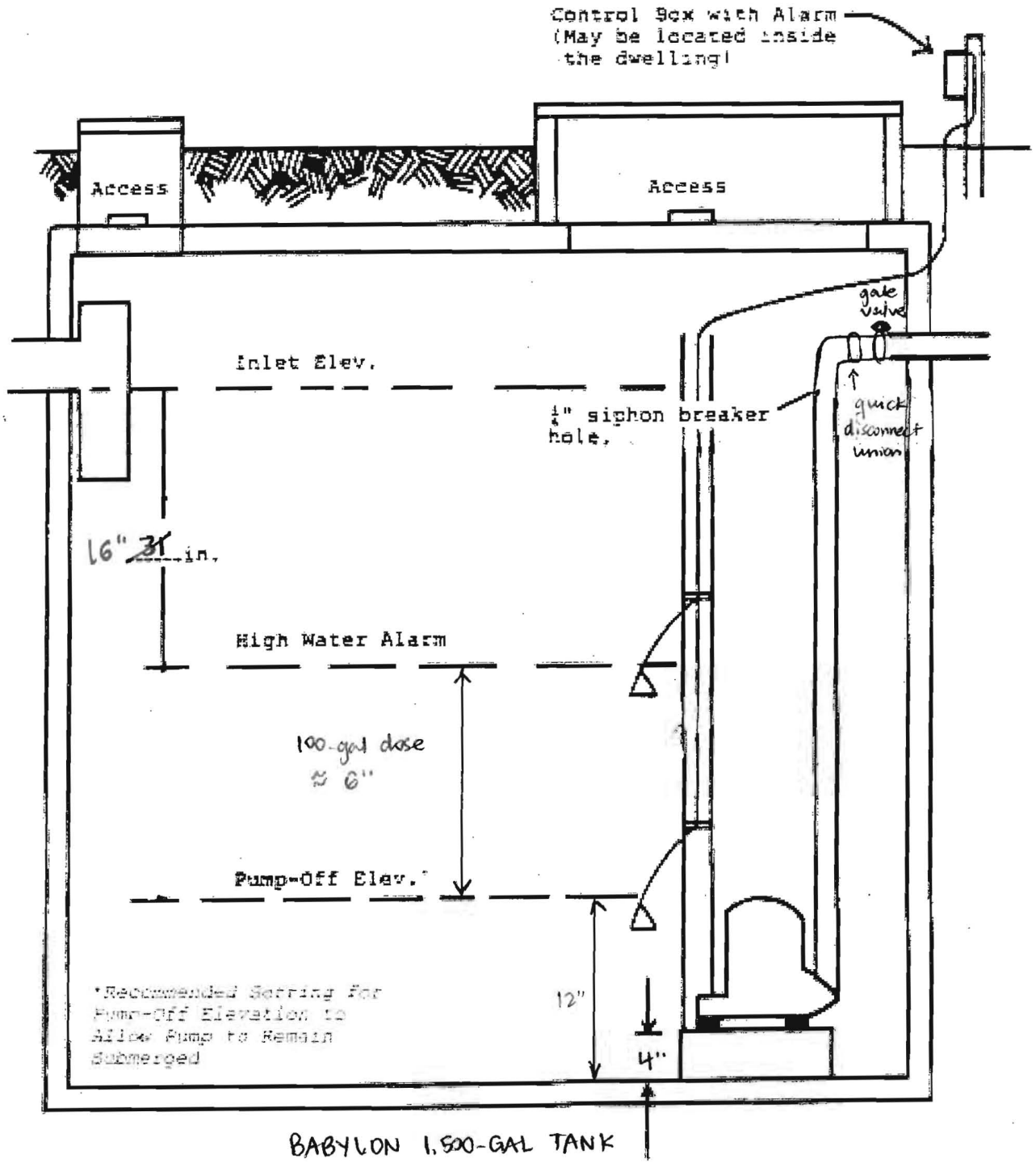


FIGURE 4.6 – TYPICAL PUMP CHAMBER DETAIL

DESIGN FLOW (in gallons/day)?	600		
Elevation of the PUMP OFF SWITCH, in feet?	7.71		Yellow cells inputs
Elevation of the upper LATERAL, in feet?	6.33		
DELIVERY PIPE distance, from pump to manifold, in feet?	50		
DELIVERY PIPE diameter, in inches (if not 2"--use 2" min)?	2.067	**(Inside Diameter)**	
Design DISTAL PRESSURE, in feet (if not 2.5)? (hd)	3		
IS MANIFOLD CENTER-FED & SYMETRICAL (yes or no)?	yes	YES	
How many orifices in the MANIFOLD?	0	**(Ignore)**	
MANIFOLD ORIFICE diameter, in inches (if not 5/16")	0	0.3125	**(Ignore)**
MANIFOLD DIAMETER (if not 2"--use 2" min)?	2.067	2.067	**(Inside Diameter)**
TOTAL LENGTH OF MANIFOLD	0		
Does MANIFOLD drain to FIELD after dose (yes or no)?	yes	(Are you pumping downhill)	
How many LATERALS?	2		
Pumping chamber weep hole size (usually .25")	0.25	USE 0 IF FORCE MAIN DOES NOT DRAIN Back to Pump Chamber	

PROGRAM WILL CALCULATE UP TO 26 LATERALS AND UP TO 50 ORIFICES PER LATERAL

TRENCH LENGTH	35	35
Your HIGHEST elevation lateral MUST be LATERAL 1:		
(first orifice from lateral 1/2 of orifice spacing)	**Lateral 1:**	**Lateral 2:**
Length of each LATERAL, in feet?	33.25	33.25
Diameter of each LATERAL, in inches (1.5" min)?	1.5	1.5
Elevation of each LATERAL, in feet?	6.33	6.33
Number of ORIFICES per lateral	10	10
Distance from Manifold to closest Orifice, in feet	1.75	1.75
ORIFICE SPACING, in feet (2-6 ft ok 3-6 preferred)	3.50	3.50
Diameter of ORIFICES, in inches? (D)	0.25	0.25
Square feet of leachfield per laterals (can ignore)	105	105
Maximum number of orifices in any one lateral	10	
Minimum lateral diameter	1.5	

RESULTS

FRICTION CALCULATIONS (using Hazen Williams friction ft= Ld((3.55Qm/Ch(Dd^2.63)))^1.85)
PRESSURE CALCULATIONS (using orifice dischage equation Q=11.79 D^2 hd^.5

	Lateral 1:	Lateral 2:				
LATERAL DISCHAGE (first approximation)	12.76	12.76				
MANIFOLD ORIFICE DISCHARGE	0.00					
TOTAL SYSTEM DISCHAGE (first approximation)	**25.53**					
TOTAL DISCHARGE PER LATERAL	12.80	12.80				
DISCHARGE PER SQUARE FOOT OF LEACHFIELD	**0.12187849**	**0.121878495**				
ORIFICE MAXIMUM DISCHARGE BY LATERAL	1.29	1.29				
ORIFICE MINIMUM DISCHARGE BY LATERAL	1.28	1.28				
ORIFICE % DIFFERENCE DISCHARGE within LATERAL	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%
MAXIMUM DISCHARGE LATERAL	12.80					
MINIMUM DISCHARGE LATERAL	12.80					
MAXIMUM DISCHARGE PER SQUARE FOOT	0.12					
MINIMUM DISCHARGE PER SQUARE FOOT	0.12					
% DIFFERENCE DISCHARGE for SYSTEM by orifice	0.7%	as percent of maximum orifice in system				
% DIFFERENCE DISCHARGE for SYSTEM by laterals	0.0%	as percent of maximum lateral in system				
% DIFFERENCE DISCHARGE for SYSTEM by square feet	0.0%	as percent of maximum square foot in system				

WEEP HOLE DISCHARGE (usually a 1/4" weep hole) #NUM! weep hole= 0.25 inch

VOID VOLUME IN DELIVERY PIPE	8.72					
VOID VOLUME IN MANIFOLD	0.00					
VOID VOLUME IN EACH LATERAL	3.05	3.05	0.00	0.00	0.00	0.00
TOTAL LATERAL VOID VOLUME	6.10					

MINIMUM DOSE MUST INCLUDE MANIFOLD BECAUSE MANIFOLD DRAINS TO FIELD
MINIMUM DOSE VOLUME (based on void volume) 30.52 to 61.04 MIN
ACTUAL MINIMUM IS BASED ON DAILY DESIGN FLOW
(weep hole, usually 1/4", not counted for dose, effluent is repumped during process and not counted for friction, except as fitting headloss)

TOTAL HEAD LOSS IN EACH LATERAL	0.24		0.24		
MAXIMUM TOTAL LATERAL HEADLOSS IN SYSTEM	0.24				
MANIFOLD HEADLOSS (center-fed unless manifold design)	0.07				
DELIVERY PIPE HEADLOSS	0.58	w/ delivery	2.067	inch diameter	
FITTING LOSS (headloss *.15)	0.45	add extra head if fittings are more than absolute minimum			
DISTAL PRESSURE HEAD	3.00				
STATIC HEAD (OFF-SWITCH TO HIGH LATERAL/MANIFOLD)	-1.38				
HEADLOSS PUMP TO WEEPHOLE (assume 3' run)	#NUM!				
PUMP MUST BE ABLE TO PASS SOLIDS AT	#NUM!	G.P.M	#NUM!	FEET OF HEAD	
or					
After OTIS (network losses =1.3*distal head)	#NUM!	G.P.M.	#NUM!	FEET OF HEAD	

ITT

GOULDS PUMPS
Wastewater

APPLICATIONS

Specifically designed for the following uses:

- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on ⅓ – 1½ HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ⅓ – 1 HP models have NEMA three prong grounding plugs.
- 1½ HP and larger units have bare lead cord ends.

Three phase (60 Hz):

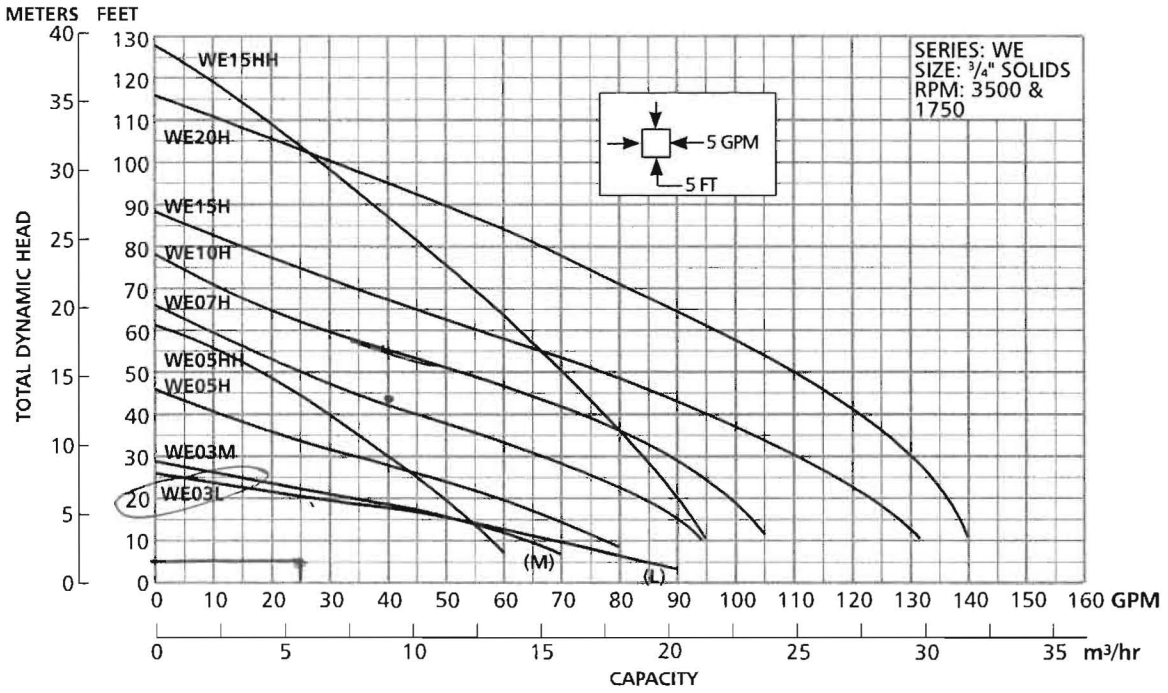
- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

- **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- **Bearings:** Upper and lower heavy duty ball bearing construction.
- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards
By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



B3885

ITT

Wastewater

Goulds Pumps

WE Series Model 3885

Submersible Effluent Pump

EXTENDED WARRANTY AVAILABLE FOR RESIDENTIAL APPLICATIONS.

FEATURES

- **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.
- **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.
- **Mechanical Seal:** Silicon Carbide vs. Silicon Carbide sealing faces. Stainless steel metal parts, BUNA-N elastomers.
- **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.
- **Fasteners:** 300 series stainless steel.
- Capable of running dry without damage to components.
- Designed for continuous operation when fully submerged.

GOULDS PUMPS

Goulds Pumps is a brand of ITT Corporation.

www.goulds.com

Engineered for life

MODELS

Order Number	HP	Phase	Volts	RPM	Impeller Diameter (in.)	Maximum Amps	Locked Rotor Amps	KVA Code	Full Load Efficiency %	Resistance		Power Cable Size	Weight (lbs.)
										Start	Line-Line		
WE0311L	0.33	1	115	1750	5.38	10.7	30.0	M	54	11.9	1.7	16/3	56
WE0318L			208			6.8	19.5	K	51	9.1	4.2		
WE0312L			230			4.9	14.1	L	53	14.5	8.0		
WE0311M		3	115			10.7	30.0	M	54	11.9	1.7		
WE0318M			208			6.8	19.5	K	51	9.1	4.2		
WE0312M			230			4.9	14.1	L	53	14.5	8.0		
WE0511H	0.5	1	115	3450	3.56	14.5	46.0	M	54	7.5	1.0	14/3	60
WE0518H			208			8.1	31.0	K	68	9.7	2.4	16/3	60
WE0512H			230			7.3	34.5	M	53	9.6	4.0		
WE0538H		3	200			4.9	22.6	R	68	NA	3.8	14/4	60
WE0532H			230			3.3	18.8	R	70	NA	5.8		
WE0534H			460			1.7	9.4	R	70	NA	23.2		
WE0537H			575			1.4	7.5	R	62	NA	35.3		
WE0511HH		1	115		3.88	14.5	46.0	M	54	7.5	1.0	14/3	60
WE0518HH			208			8.1	31.0	K	68	9.7	2.4	16/3	60
WE0512HH			230			7.3	34.5	M	53	9.6	4.0		
WE0538HH		3	200			4.9	22.6	R	68	NA	3.8	14/4	60
WE0532HH			230			3.6	18.8	R	70	NA	5.8		
WE0534HH			460			1.8	9.4	R	70	NA	23.2		
WE0537HH			575			1.5	7.5	R	62	NA	35.3		
WE0718H	0.75	1	208		4.06	11.0	31.0	K	68	9.7	2.4	14/3	70
WE0712H			230			10.0	27.5	J	65	12.2	2.7		
WE0738H		3	200			6.2	20.6	L	64	NA	5.7	14/4	70
WE0732H			230			5.4	15.7	K	68	NA	8.6		
WE0734H			460			2.7	7.9	K	68	NA	34.2		
WE0737H			575			2.2	9.9	L	78	NA	26.5		
WE1018H	1	1	208		4.44	14.0	59.0	K	68	9.3	1.1	14/3	70
WE1012H			230			12.5	36.2	J	69	10.3	2.1		
WE1038H		3	200			8.1	37.6	M	77	NA	2.7	14/4	70
WE1032H			230			7.0	24.1	L	79	NA	4.1		
WE1034H			460			3.5	12.1	L	79	NA	16.2		
WE1037H			575			2.8	9.9	L	78	NA	26.5		
WE1518H	1.5	1	208		4.56	17.5	59.0	K	68	9.3	1.1	14/3	80
WE1512H			230			15.7	50.0	H	68	11.3	1.6		
WE1538H		3	200			10.6	40.6	K	79	NA	1.9	14/4	80
WE1532H			230			9.2	31.7	K	78	NA	2.9		
WE1534H			460			4.6	15.9	K	78	NA	11.4		
WE1537H			575			3.7	13.1	K	75	NA	16.9		
WE1518HH		1	208		5.50	17.5	59.0	K	68	9.3	1.1	14/3	80
WE1512HH			230			15.7	50.0	H	68	11.3	1.6		
WE1538HH		3	200			10.6	40.6	K	79	NA	1.9	14/4	80
WE1532HH			230			9.2	31.7	K	78	NA	2.9		
WE1534HH			460			4.6	15.9	K	78	NA	11.4		
WE1537HH			575			3.7	13.1	K	75	NA	16.9		
WE2012H	2	1	230		5.38	18.0	49.6	F	78	3.2	1.2	14/3	83
WE2038H		3	200			12.0	42.4	K	78	NA	1.7	14/4	83
WE2032H			230			11.6	42.4	K	78	NA	1.7		
WE2034H			460			5.8	21.2	K	78	NA	6.6		
WE2037H			575			4.7	16.3	L	78	NA	10.5		

ITT

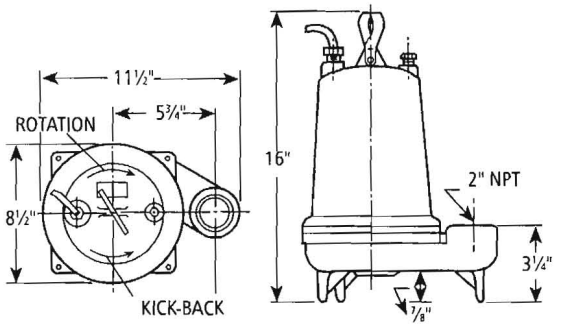
Wastewater

PERFORMANCE RATINGS (gallons per minute)

Order No.		WE03L	WE03M	WE05H	WE07H	WE10H	WE15H	WE05HH	WE15HH	WE20H
	HP	⅓	⅓	½	¾	1	1½	½	1½	2
	RPM	1750	1750	3500	3500	3500	3500	3500	3500	3500
Total Head Feet of Water	5	86	–	–	–	–	–	–	–	–
	10	70	63	78	94	–	–	58	95	–
	15	52	52	70	90	103	128	53	93	138
	20	27	35	60	83	98	123	49	90	136
	25	5	15	48	76	94	117	45	87	133
	30	–	–	35	67	88	110	40	83	130
	35	–	–	22	57	82	103	35	80	126
	40	–	–	–	45	74	95	30	77	121
	45	–	–	–	35	64	86	25	74	116
	50	–	–	–	25	53	77	–	70	110
	55	–	–	–	–	40	67	–	66	103
	60	–	–	–	–	30	56	–	63	96
	65	–	–	–	–	20	45	–	58	89
	70	–	–	–	–	–	35	–	55	81
	75	–	–	–	–	–	25	–	51	74
	80	–	–	–	–	–	–	–	47	66
	90	–	–	–	–	–	–	–	37	49
	100	–	–	–	–	–	–	–	28	30

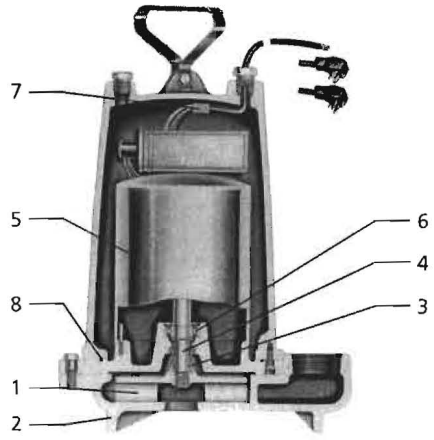
DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



COMPONENTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



GOULDS PUMPS

B3885 June, 2009

Engineered for life

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

APPLICATION FOR VARIANCE

TO COMAR ONSITE WATER/SEWER FOR MDE APPROVAL

Date Submitted 5/24/2017

14718 Dorsey Mill Road
Property Address

Subdivision	Lot	Tax Map	Grid	Parcel	Tax Account #
n/a		0021	0016	0029	04-312139

Provide a brief site history including previously submitted and active plans with the Health Department or the County (subdivision plans, perc test applications, Building Permit applications):

Property currently has holding tanks. Area found for low pressure dose system with pretreatment.

In the area below, list the specific section of the Code of Maryland Regulations (COMAR) to which a variance is being requested and provide a brief summary of the regulation and an explanation of why the variance is being requested (Attach a separate sheet if necessary).

	Regulation Section	Summary and Explanation
1.	26.04.02.04. J.(8) and (9)	Stream bank greater than 3,000 ft upstream from a water intake on a water supply reservoir or intake on a stream used as a potable water supply. Water bodies not serving as potable water supplies including intermittent and perennial streams. (Need to be 100' to stream)
2.		

Bruce C. Montgomery 6/1/17
Property Owner's Signature

Health Department Use Only

Reviewed by _____ 6/2/17
HCHD Staff — Date

Recommendation: [X] Recommended [ ] Not Recommended

_____ 6/2/17
HCHD Supervisor — Date

Comments/Conditions: Design with a low pressure dose trenches with advanced pre-treatment (BAT).
County O & M Agreement required to be recorded. Owner must maintain a service contract on the treatment system.

Approved by: Steven R Krug, LEHS 6/7/17
MDE Representative — Date

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
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Maura J. Rossman, M.D., Health Officer

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Approved by: _____ _____
MDE Representative Date

CANAAN VALLEY INSTITUTE

June 7, 2017

Bruce & Janet Montgomery
14718 Dorsey Mill Road
Glenwood, MD 21738

RE: FY 2017 Howard County Bay Restoration Fund OSDS Upgrade Program

Dear Mr. and Mrs. Montgomery:

Thank you for your application to participate in the Howard County Bay Restoration Fund OSDS Upgrade Program. The Howard County Health Department has verified that your existing septic system is failing and in need of repair. Based on your 2015 income tax return form, you are eligible to receive funding to cover **100%** of the cost to upgrade your system to one of the MDE approved BAT units listed below. The approved price includes the cost of the unit, installation of the unit, and 5 years of operation and maintenance. The price does not include the cost of permits.

System	Vendor	Contact	Phone
Bio-Microbic (RetroFast)	Jones Pump Service	Dwayne Jones	410-836-9206
Orenco (Advantex AX20)	Atlantic Solutions	Robert Johnson	877-214-9283
HOOT 600 BNR	Mayer Bros, Inc	Nancy Mayer	410-796-1434
Norweco Singulair TNT	Back River Precast LLC	Matthew Geckle	410-833-3394
SeptiTech	Jones Pump Service	Dwayne Jones	410-836-9206

In order to receive your OSDS upgrade, **you MUST follow these steps**:

1. **Sign this letter** on the bottom of page 2 **and return it** in the envelope provided within **2 weeks of the date of this letter.**
2. File a septic repair permit application with the Howard County Health Department **within 2 weeks of the date of this letter**. The permit application fee is $396.00 ($165 for tank approval only).
3. Obtain the Agreement and Easement for Installation of Best Available Technology Systems with Bay Restoration Funds from the Howard County Health Department, have it signed by a Howard County Health Department Bureau Director or Designee. Then take it to the Circuit Court and have it recorded in Land Records **within 2 weeks of the date of this letter.**
4. Prepare your property and schedule installation of the system. The system must be installed **within 6 weeks of the date the Agreement and Easement is recorded.**

If assistance is needed in completing any of the steps listed above, you may contact me at 304-940-3443 or kristin.mielcarek@canaanvi.org.

494 RiverStone Road | Davis, WV 26260
Phone: (304) 259.4739 or (800) 922.3601|Fax: (304) 259.4759
www.canaanvi.org

The system vendor may provide a contractor to install your BAT unit. CVI will provide payment directly to the vendor. The vendor may also require proof of insurance from your contractor.

If your system is not installed within the 8 week timeframe listed in the steps on page 1, the funds may be released and used elsewhere. If you cannot complete installation in within this timeframe, please contact me to request an extension. Please note that failure to request an extension may result in termination of your grant and your system must be installed no later than June 27, 2017 in order to retain your funding.

For more information on septic repair permitting, contact:

Jeff Williams
Program Supervisor, Well and Septic
410-313-1771

Please sign and return this original letter and keep a copy for your records. If you have any questions, please contact me at 304-940-3443 or by email at kristin.mielcarek@canaanvi.org.

Sincerely,

Kristin Mielcarek, Watershed Circuit Rider

I have read and agree to the conditions of this Agreement Letter.

Accepted by: Bruce Montgomery, Property Owner

_____

Signature *Date*

Accepted by: Janet Montgomery, Property Owner

_____

Signature *Date*