

LAYOUT 4/16/2012 INSP 4 5/22/2012
INSP 2 5/2/2012 INSP 5 5/23/2012
INSP 3 5/4/2012 INSP 6 5/24/2012

ISSUE DATE: 4/27/2012 **PERMIT** P 537261

APPROVAL DATE: 5/31/2012 A _____

**SANDMOUND SYSTEM
ON-SITE SEWAGE DISPOSAL SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH**

Steven Neil Mulloy IS PERMITTED TO INSTALL ALTER

ADDRESS: P.O. Box 207, West Friendship 21794 PHONE NUMBER: 410-984-4643

SUBDIVISION: PLEASANT VALLEY FARM LOT NUMBER: 2

ADDRESS: 13955 FORSYTHE ROAD PROPERTY OWNER: JUSTIN & CHRISTINA
SYKESVILLE, MD 21784 RIZZUTTO

SEPTIC TANK CAPACITY (GALLONS): 2000
Top Seam _____

PUMP CHAMBER CAPACITY (GALLONS): 1500 Pump System with 3 floats; alarm and control
Top Seamed _____ box on a separate circuit.

Materials specs: "The gravel shall be free of fines and be between 3/4 inch and 2 inches in size" [COMAR 26.04.02.05(h)]. "The sand beneath the gravel bed shall be of an effective size between 0.25 and 0.5 mm and have uniformity coefficient of 3.5 or less" [COMAR 26.04.02.05(l)]. 'Alternative sand' may be allowed though its use is subject to approval per results of sieve analysis. If 'alternative sand' is used, an effluent filter will be required on the outlet of the septic tank.

LOCATION:	Sand Mound System to be installed per Plot Plan (B11002423) approved on 9/12/2011.
NOTES:	Call for layout inspection. Stake all three sand mound footprints. Observation pipes must be installed. The Sand Mound Septic System must be operational and approved, including the Pump & Alarm components, prior to release of Use and Occupancy.

PLANS APPROVED: Robert Bricker RB 4/22/12 DATE: 9/26/2011

NOTES: PERMIT VOID AFTER 2 YEARS
CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
WATERTIGHT SEPTIC TANKS REQUIRED
ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED
MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED
CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS PERMIT

**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
ALL 410-313-2640 FOR INSPECTION OF SEPTIC SYSTEM**

5/23/2012 Installer grveled bed area. Bed dimensions O.K. (BB)

5/24/2012 Laterals and turn-ups installed. Hole spacing and lateral lengths appear correct. Checked the head in the laterals with the valve all the way open. There was 3' of head in all turn-ups. Alarm working. Checked cap material. (BB)

See As-Built Drawing
On Separate Sheet

5/31/2012 Mound cap and observation ports installed. Got distance of mound from house. Grading in front of mound is adequate to divert water around mound. Mound finished except for seeding/grass. Mound approved "as is" due to incomplete inspection. (BB)

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	Yes
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	0.5-2'
BAFFLES	Yes
BAFFLE FILTER	No
MANHOLE LOC	Front
6" PORT LOC	Rear
WATERTIGHT TEST	No
PUMP TANK LEVEL	Yes
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	1-2'
BAFFLES	Front
BAFFLE FILTER	No
MANHOLE LOC	Rear
6" PORT LOC	None
WATERTIGHT TEST	No

BED DATA

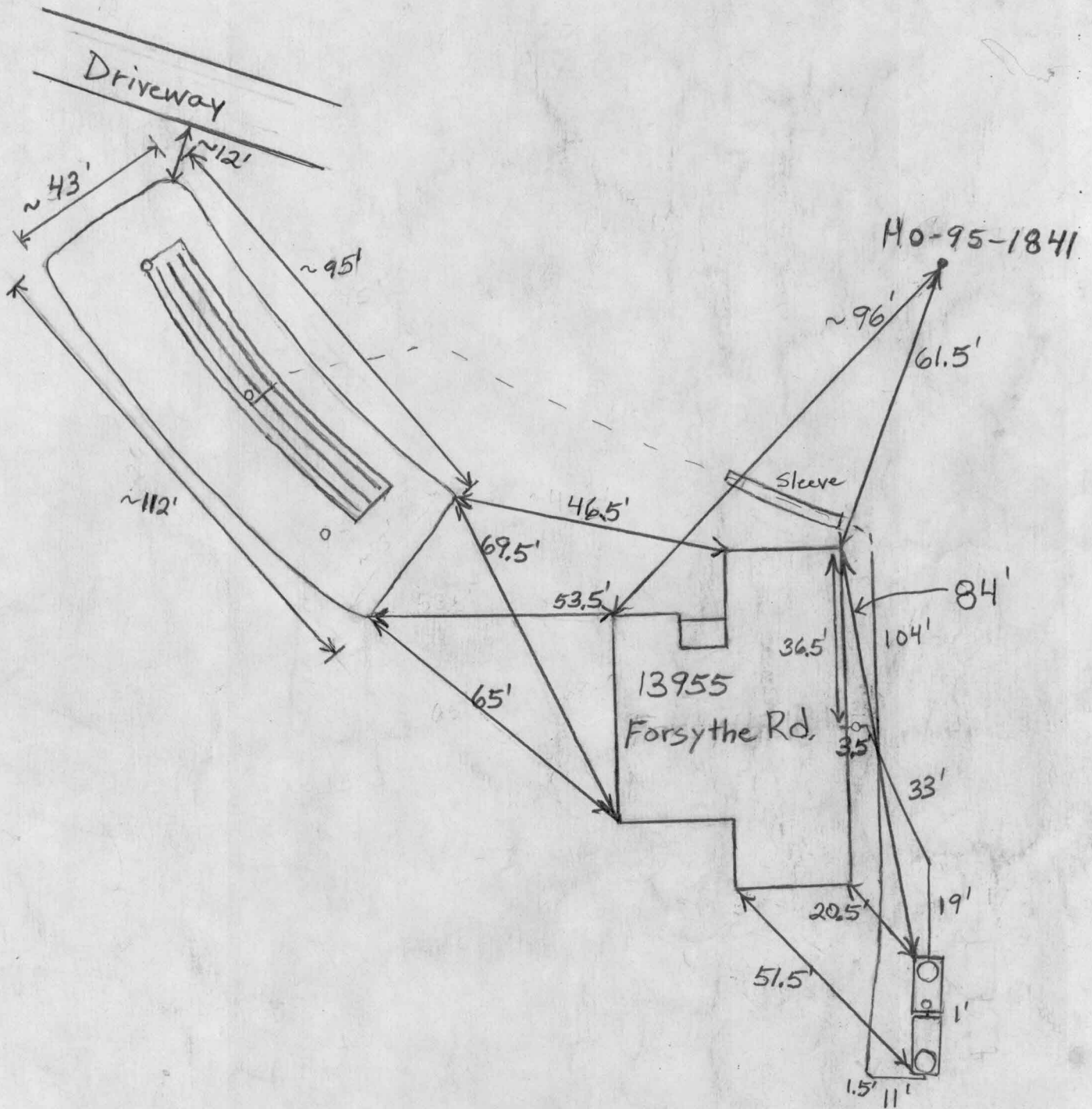
BED LENGTH	67'
BED WIDTH	9'
BED AREA	603 SQ FT
INLET	
BOTTOM	
LATERALS	6 x 32'
HOLE SPACING	3.5'

PRE-CONSTRUCTION 4/16/2012 Layout done. Gave O.K. to set tanks and run pump line. O.K. to use 1500 gallon compartmented tank. House has no second floor. Do not start on mound. (BB)

INSTALLATION 5/2/2012 Tanks set. House connection made. Starting on pump line. (BB) 5/4/12 Inspector called in. No one on-site. F.m. maybe ran but work covered. (Kw) 5/22/2012 Received call from installer saying that they had plowed and sanded mound area during the weekend. The mound area was never checked for moisture content and was plowed and covered

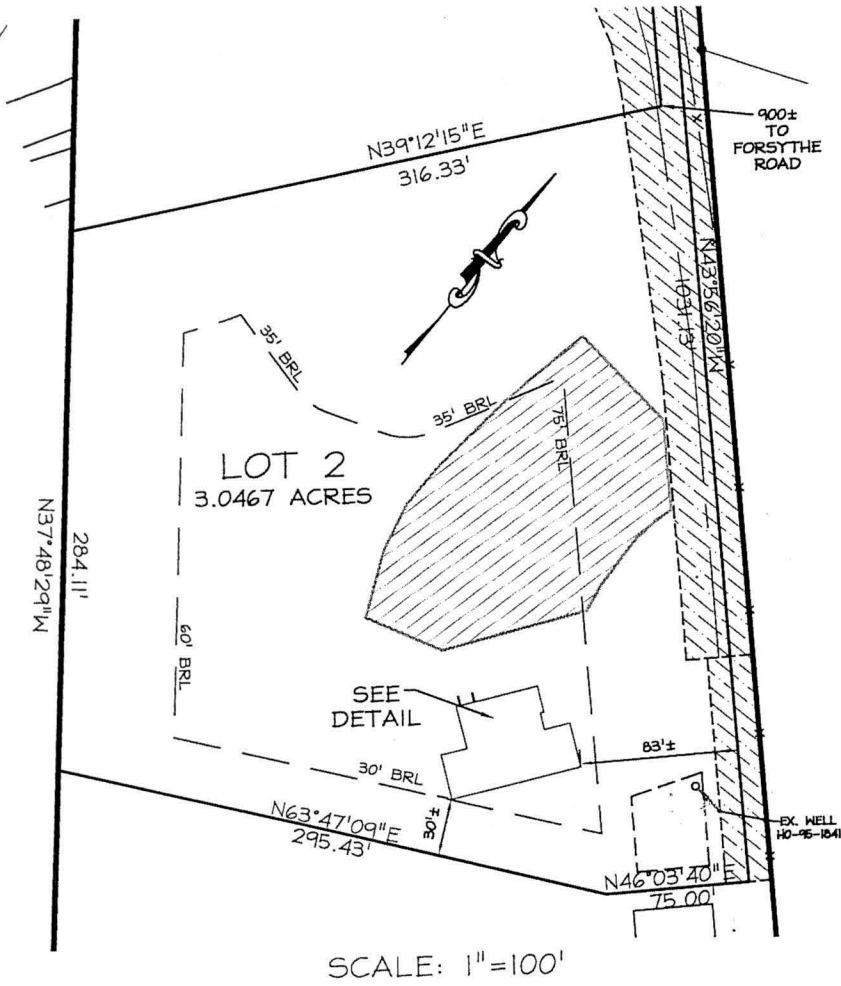
FINAL INSPECTOR B. Baker DATE OF APPROVAL 5/31/2012

without inspection and approval. The soil near the mound area appeared to be dry enough to be plowed. Checked the mound dimensions



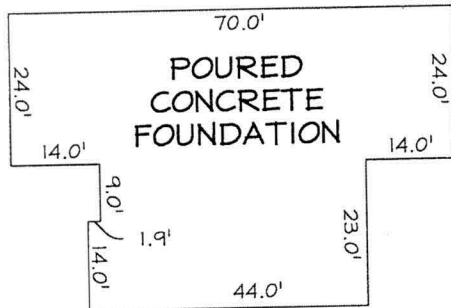
PROPERTY KNOWN AS:
 13955 FORSYTHE ROAD
 LOT 2 "PLEASANT VALLEY FARM LOTS 1-3"
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PLAT# 21665, 21666, 21667

THIS PLAT CAN NOT BE USED TO ESTABLISH
 PROPERTY LINES OR CORNERS.

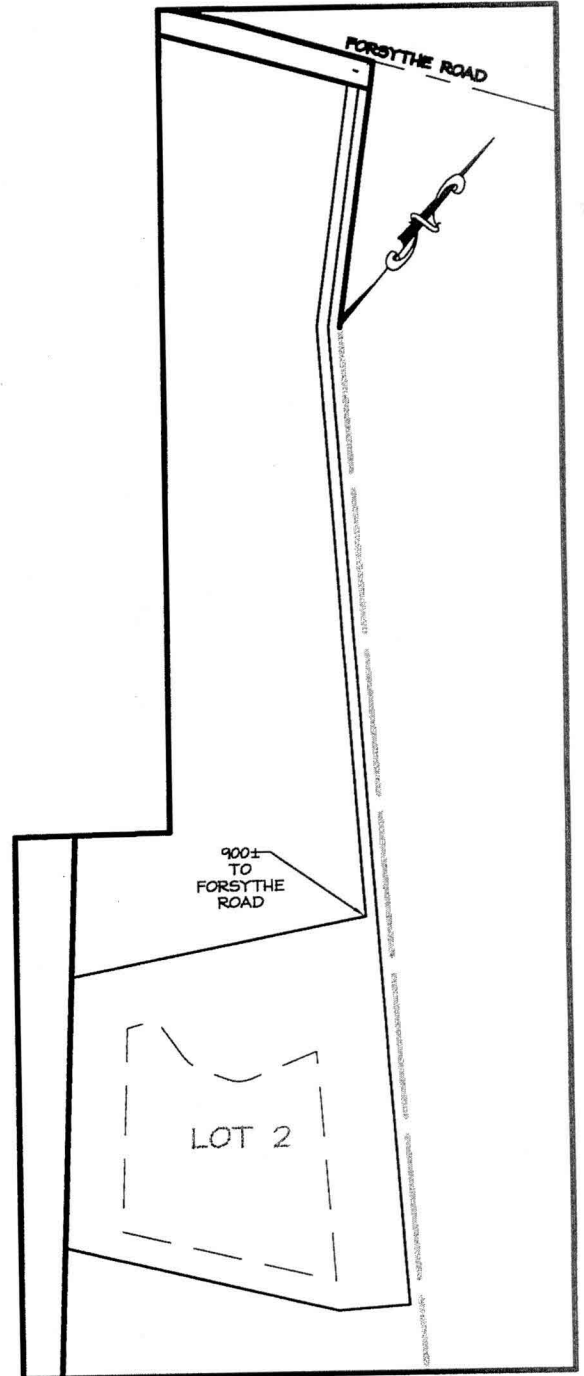


SCALE: 1"=100'

*Lot 2 wall checks OK
 B11002423 RBuckner 4/27/2*



DETAIL
 SCALE: 1"=30'



SCALE: 1"=200'

TOP OF WALL 572.0

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. 10685, Expiration Date 12/9/2011.

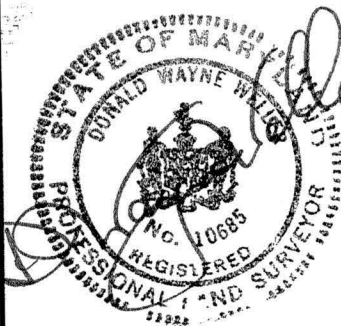
FOUNDATION
 LOCATION DRAWING

CERTIFICATION

This is to certify that I have surveyed the property known as:
13955 FORSYTHE RD.

The information shown has been established by current acceptable survey procedures and from available record information. This drawing is to be used for Title Transfer Financing, or Refinancing Only and IS NOT to be used for the Establishment of Property Lines, Location for Fences, Garages, Buildings, or other Existing or Future Improvements.

SEAL



SCALE: SHOWN DATE: 11/2011

LDE Inc.

Engineers • Surveyors • Planners

Historic Carriage House
 7520 Main Street • Suite 203
 Sykesville, Maryland • 21784

(410)795-6391 • (410)795-6392 • FAX(410)795-9:
 www.Landsurveyormd.com

DRAWING:

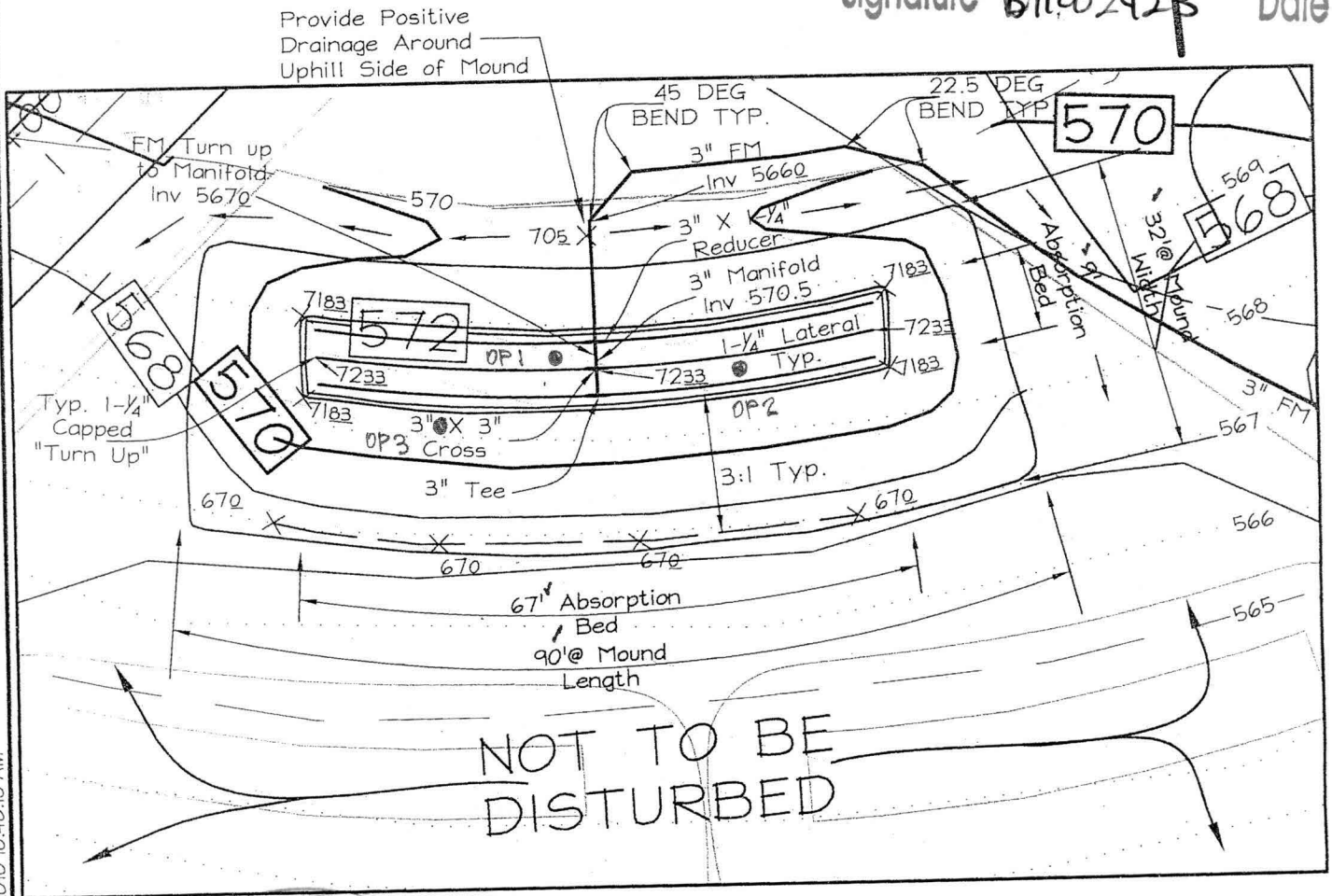
JOB# 07-017.

1. 4" PVC @ Foundation Wall, Inv. Elev. = 560.0
2. 1500 Gal. Septic Tank
Inv. In Elev. = 559.0, Ground Over Tank @ 563.0
Inv. Out Elev. = 558.7, Ground Over Tank @ 562.3
3. 1500 Gal. Pump Tank
Inv. In Elev. = 558.3, Ground Over Tank @ 562.0
Inv. Out Elev. = 558.6, Ground Over Tank @ 561.0
4. Effluent Pump = Gould - Model 3885 WE Series
WE Submersible Effluent Pump - Item # ~~WE2012H~~ WE1512H
1.52 Horsepower, 230 Volt, 1 Phase or Equal *
5. 3" Force Main (Maintain 4 ft cover)
6. 3" Central Distribution Manifold; Inv 570.5; As shown hereon
7. (6) 31.75 LF - 1-1/4" Distribution Laterals w/ 10 Perforations each spaced @ 3'-4 3/8" (Perforation Size = 5/16"), Perforations located @ Invert of Lateral Pipe
8. First perforation = 1.67' from CL 3" Manifold Pipe
9. Last perforation at crown of lateral pipe in a turn-up, see detail, Sheet 5
10. Spacing between laterals = 2.99'
11. Spacing between Lateral & edge Absorption Bed = 1.49'

* For Substitute Effluent Pump; The septic installer shall provide Pump Specifications & Performance Curves at Time of Septic Permit Application

Approved Septic System Plan
Howard County Health Department

Sand Mound
for Lot 2
approved as shown
600' Bed OK for
F. Buckner 4/27/12
Signature Bill 002423 Date


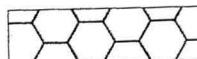


LOT 2 - SAND MOUND SYSTEM & DISTRIBUTION DETAILS

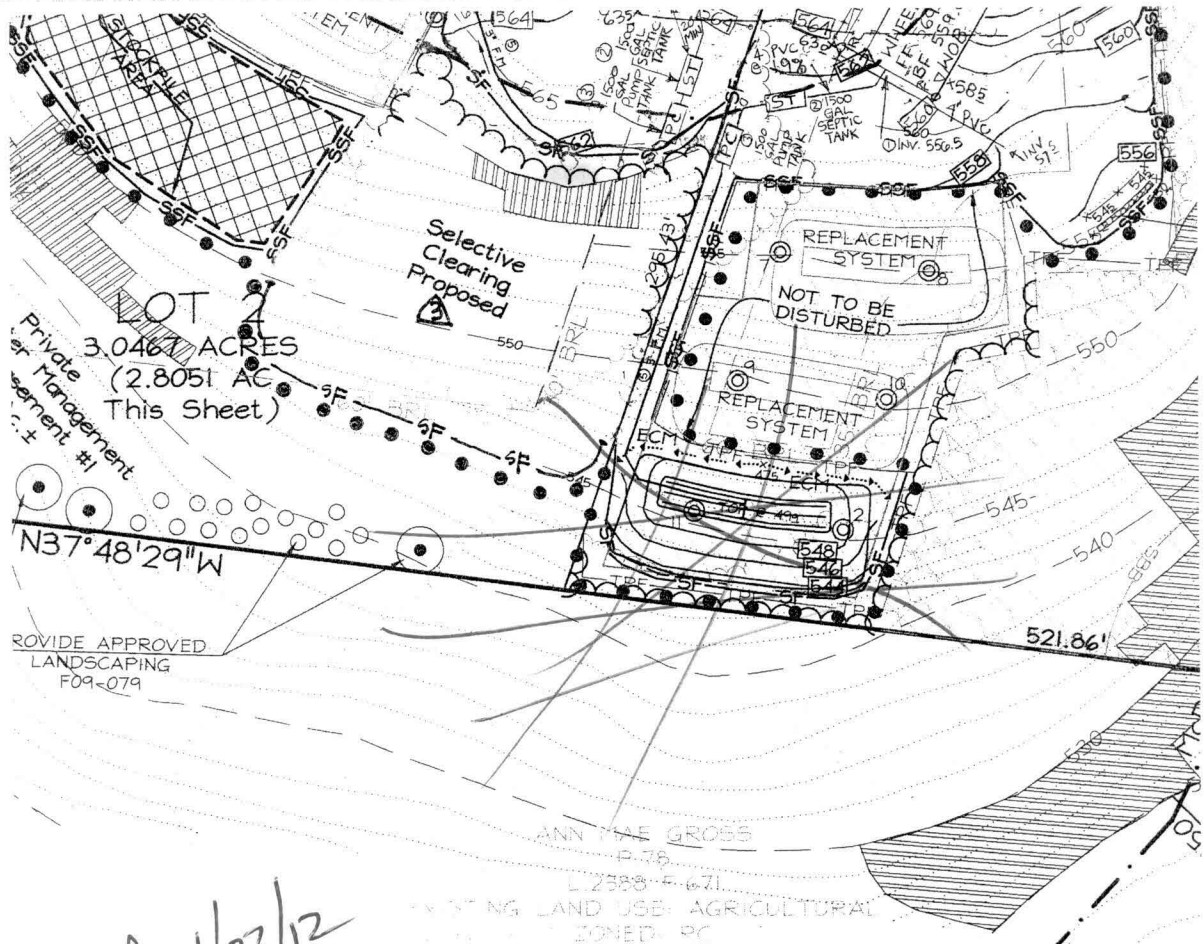
SCALE 1" = 20'

NOTES:

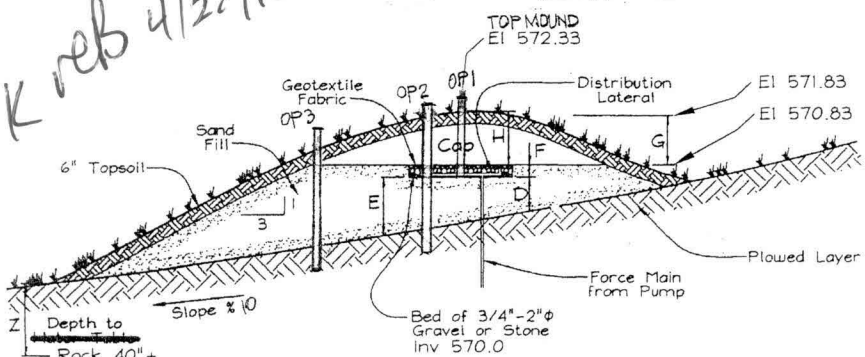
1. Refer to Typical "Central" Manifold Distribution Details for proper transition from 3" Manifold to 1-1/4" Lateral

	PRIVATE CREDIT
	FOREST (RETEN)

THIS DEVELOPMENT PLAN IS



OK rev 4/27/12



APPROVED PLAN

SCD *Jeh N. N.*

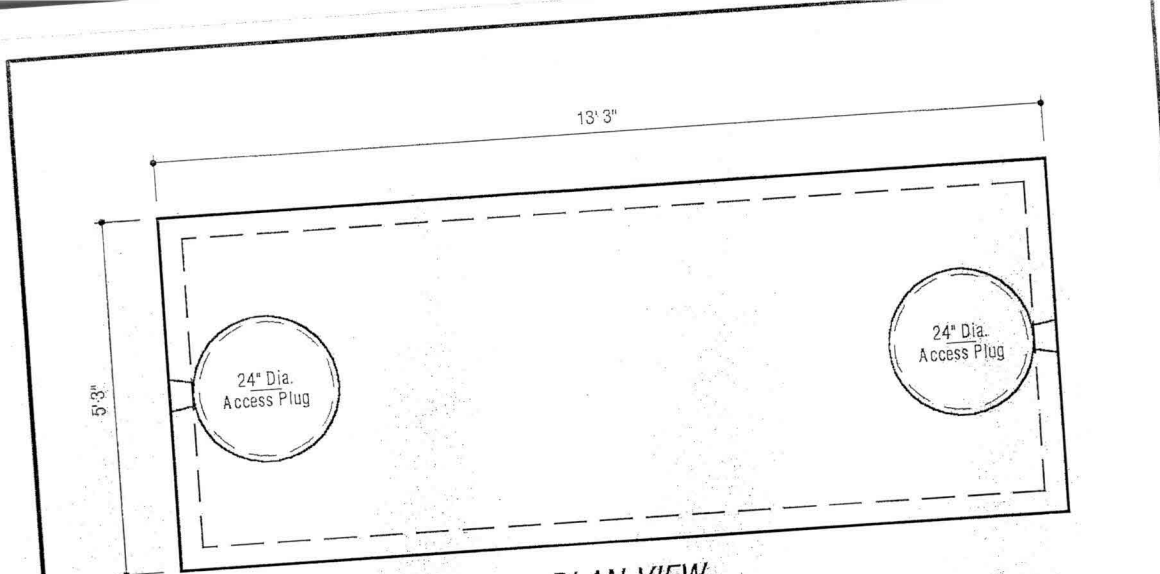
NRCS *MN* Technical Review

- OP= OBSERVATION PORT
- D = Upslope Sand Fill Depth(inches) -----12"
- E = Downslope Sand Fill Depth(inches) -----22.75"
- F = Bed Depth(inches) -----10"
- G = Cap and Topsoil Height at Bed Edges(inches) -----12"
- H = Cap and Topsoil Height at Bed Center(inches) -----18"
- Z = Depth to Water Table(inches) -----N/A

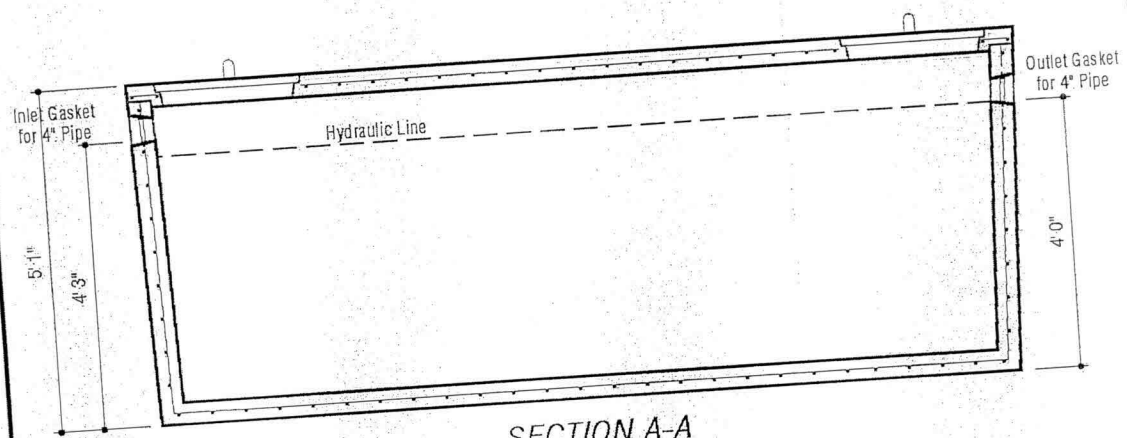
LOT 2 - SAND MOUND DETAIL
Not to Scale

REV. 4/20/12

ENGINEER'S CERTIFICATE



PLAN VIEW



SECTION A-A

DESIGN DATA & GENERAL NOTES

- [1] Concrete strength $f_c = 4,000$ p.s.i. @ 28 days. Density = 150 pcf.
- [2] Cement - Portland Type I/II per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 260-86 & C 494-92.
- [4] Reinforcing per ASTM A185. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, base, & top thickness.



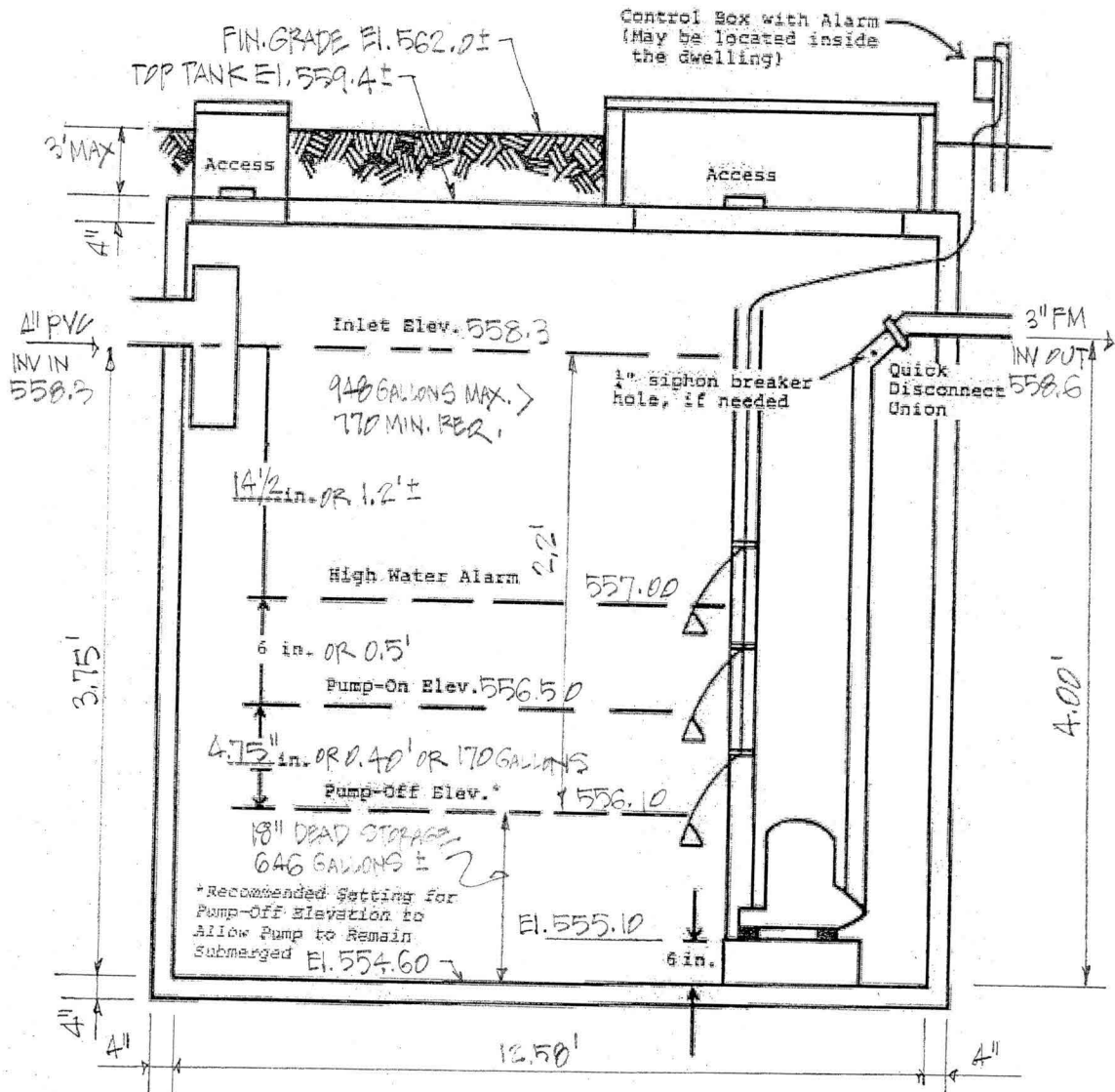
6264 Race Road
 Elkridge, Maryland 21075
 Tel. 410.796.1434
 Fax. 410.796.1438
 www.mayerbrosprecast.com

1,500 GALLON SEPTIC/PUMP TANK
1-Compartment
 NON-TRAFFIC MAX 3 ft. OF COVER

Dwg. No. 1500-1C No Scale Jan 1, 2000

ok ab 4/22/12





TANK SIZE: 12.50'(L) x 4.58'(W) x 3.75'(D) = 216 CF x 7.48 = 1616 GALLONS

FIGURE 4.6 - TYPICAL PUMP CHAMBER DETAIL
 1500 GALLON/MAYER BROS./DWG. 1500-1C

OK RB 4/27/12
 43
 (9)

EQUATIONS FOR CALCULATING SAND MOUND DIMENSIONS

Initial System - LOT 2

USE ALTERNATE SAND MEDIA = 1.0 gpd/ft²

+ Bedrooms
150 gpd/BR
600 gpd
600 sqft max
750 sqft max

1. Absorption Bed (sq.ft.) a x b = $\frac{\text{Design Flow}}{1.0 \text{ gpd/ft}^2}$ =

Max 1.2 = = =

Min 0.8 = = =

600 sq.ft.

2. Bed Length (B) 600 ft = 42 to 104 depends on site conditions

3. Bed width (A) = $\frac{\text{Bed Area}}{\text{Bed Length}}$ = $\frac{600}{67}$ sqft/ft

= 9.0 12 ft or less

4. Upslope sand fill depth (D) = 48 in - 2in.

= 12 12 in min.

5. Downslope sand fill depth (E) = (12 A x % slope) + D in

A = 9.0

% Slope = 0.1

= 22.75

6. Cap + topsoil at bed center (H) = 18 inches

7. Cap + topsoil at bed edge (G) = 12 inches

8. Total bed depth (F) = 10 inches

9. Sideslope setback (K) = $\frac{((D+E)/2) + 28 \text{ inches}}{3}$

D = 12

E = 22.7463

= 136.119403 inches

= 11.34 ft

10. Upslope setback (J) = (22 in + D) x 3 x Upslope Corr Factor

D = 12

= 78.54 inches

= 6.55 ft

%	Factor
0	1
2	0.94
4	0.89
6	0.86
8	0.8
10	0.77
12	0.73

11. Downslope setback (I) = (22 in + E) x 3 x Downslope Corr Factor

E = 22.7463

= 193.303881 inches

= 16.11 ft

%	Factor
0	1
2	1.06
4	1.14
6	1.22
8	1.32
10	1.44
12	1.57

12. Total Width of Mound (W) = (12 A + J + I)

A = 8.96

J = 78.54

I = 193.30

= 379.31 inches

= 31.61 ft

12. Total Length of Mound (L) = (12 B + K + K)

B = 67.00

K = 136.12

= 1076.24 inches

= 89.69 ft

OK
12/27/12

EQUATIONS FOR CALCULATING SAND MOUND DISTRIBUTION NETWORK

Absorption Bed Length = 67 ft. Central Feed

End Feed = <51 ft
Central Feed = >41 ft

Use Central Feed

Lateral Length = $1/2$ Bed Length - $1/2$ Perforation Spacing

Perforation Spacing = 3.5 ft.

Lateral Length = $[(0.5 \times 67 \text{ ft}) - (0.5 \times 3.5 \text{ ft})]$
= 31.75
= 31.75 ft.

Number of Perforations = $[(0.5 \times \text{Bed Length}) / \text{Perforation Spacing}]$
= 9.57143 Perforations
Use 10 Perforations

Actual Perforation Spacing = $[(0.5 \times \text{Bed Length}) / \text{Number of Perforations}]$
= 3.35 ft.
= 3.00 ft. 4 - $\frac{3}{16}$ inches

Diameter of Perforations = 5/16 "

Diameter of Laterals = 1-1/4 " Table 4.1 & Figure 4.4

L = 31.75 ft

Lateral Length	Diameter
L less than 23 feet	1
L between 23 and 36	1-1/4
L between 36 and 47	1-1/2
L between 47 and 50	2

Spacing & Number of Laterals =

Bed Width = 9.0 ft

Note: The number of laterals should be between two & four feet

Use 3 laterals = 3 2 sides = 6 @ 31.75
Spacing between laterals = Bed width / # of laterals
= 2.99 ft

Spacing between laterals = $0.5 \times \text{Space between Lateral}$
= 1.49254

Bed Width Check = 8.955 ft

*Calculations
'OK'
RBB 4/27/12*

*Spacing
between*

*lateral
to edge
of bed*

EQUATIONS FOR CALCULATING SAND MOUND PUMPING SYSTEM

4.3.1 MINIMUM DOSE COMPUTATIONS

Min. Dose = > 1/6 Design Flow = 100 gallons
 or
 (Volume of Force Main & Manifold) + (5 x Volume of the Laterals) =

Inv In Pump Chamber = 556.50
 Inv Manifold = 570.30
 + 13.80 feet difference

Pipe Volume per Table 4.2

Length of Force Main & Manifold = 246 ft of 3" Pipe
 Length of Laterals = 190.5 ft of 1-1/4" Pipe

246	x	35.4	gal per 100 feet =	94.464	
190.5	x	7.8	gal per 100 feet =	14.859	
				109.323	

= 94.464 + 14.859 x 5
 = 168.759 gallons

Min. Dose =	168.8 gallons
-------------	---------------

*OK
 RLB
 4/22/12*

4.3.2 PUMPING CHAMBER DESIGN

A. Watertight

B. Sizing: One Day Capacity = 600 gallons
 Dose = 168.8 gallons
 Total = 768.8 gallons

4.3.3 PUMPING CHAMBER SIZING

A. Sizing: (Flow) # Laterals = 6
 Perforation Size = 5/16
 Perforation Discharge Rate = 1.63 gpm @ 2 feet head
 # Perforations = 10

Perforations = 60 5/16" Perforations

Flow = 60 x 1.63 gpm

Flow =	97.8 gpm @ 2 feet head
--------	------------------------

B. Design Head =

Static Head
 + Friction Head
 + 2 feet Head @ Distal end of Laterals

Design Head

Elevation of Highest Component of Distribution System
 - Relative Elevation of pump off float switch

Static Head = Answer

570.3 Elevation of Highest Component of Distribution System
 556.5 Relative Elevation of pump off float switch

Static Head =	13.8 feet
---------------	-----------

Friction Head =

Estimated Fittings

	1-1/4	3	#	Equivalent Length of Pipe
90 Degree	4	10		0.0
45 Degree	2.4	8	10	60.0
90 Tee	6	15	3	45.0
Lateral Coupling	1.2	5	16	48.0
Run Coupling	1.2	3	16	48.0

201 linear feet

Length of Force Main & Manifold = 246 ft of 8" Pipe
 Friction Loss Length of Pipe Equiv. = 201 ft of 8" Pipe
 447 ft of 8" Pipe @ 97.8 gpm
 Loss 97.8 gpm

100 foot length of 8" Pipe = 2.01 foot friction loss (interpolated)
 = 447 / 100
 = 4.47 correction
 = 8.98 foot friction loss

TABLE A.4

$\frac{7.8}{10} = \frac{x}{0.36} = 2.01$

Design Head =

- Static Head
- + Friction Head
- + 2 feet Head @ Distal end of Laterals

= 14.88 feet
 = 8.98 feet
 = 2 feet
 24.78 feet
 24.98

REQUIRED PUMP HORSEPOWER CALCULATION

= $\frac{\text{Flow} \times \text{Total Dynamic Head} \times \text{Specific Gravity (Water @ 68 degrees = 1)}}{3960 \times \text{efficiency}}$
 = $\frac{97.8 \times 24.98 \times 1}{3960 \times 0.4}$
 = $\frac{2443.04}{1584}$
 = 1.542
 = 1.5303 Min Horsepower Pump Required

Pump Selected or Equal

Gould - Model 3885 WE Series - WE Submersible Effluent Pump
 Item # WE2012H - 2 Horsepower, 230 Volt, 1 Phase (EQUAL OR BETTER)
 WE1512H 1.5

Dosing Schedule

= $\frac{600 \text{ gpd}}{168.8 \text{ Dose}}$
 = 3.56
 = 4 Events in 24 hours

Pump Run Time

168.8 Dose x 4 Events = $\frac{600 \text{ gallons}}{97.8 \text{ gpm}}$
 = 6.1 minutes / day
 = 1.7 minutes / dose event

OK
 ref
 4/22/12



SAND MOUND CALCULATIONS - LOT 2

1. Design Requirement: Proposed dwelling with 4 bedrooms
2. Design Flow: 4 bedrooms x 150 gpd = 600 gpd
3. Absorption Bed Size: Design Flow
 Loading Rate = Area of Bed
 - a. Loading Rate: 0.75 gpd/SF for loams (Table 3.3)
 - b. Minimum Bed Area: $\frac{600 \text{ gpd}}{0.75 \text{ gpd/SF}} = 800 \text{ SF}$ (Total Area)
 - c. Minimum Bed Dimensions: $\frac{\text{Total Area}}{\text{Max Width}} = \text{Min. Length}$
 $\frac{800 \text{ SF}}{12 \text{ FT}} = 67 \text{ FT}$

Due to physical constraints within Lot #2's approved upper portion of the Septic Reserve Area) consider using alternate sand media

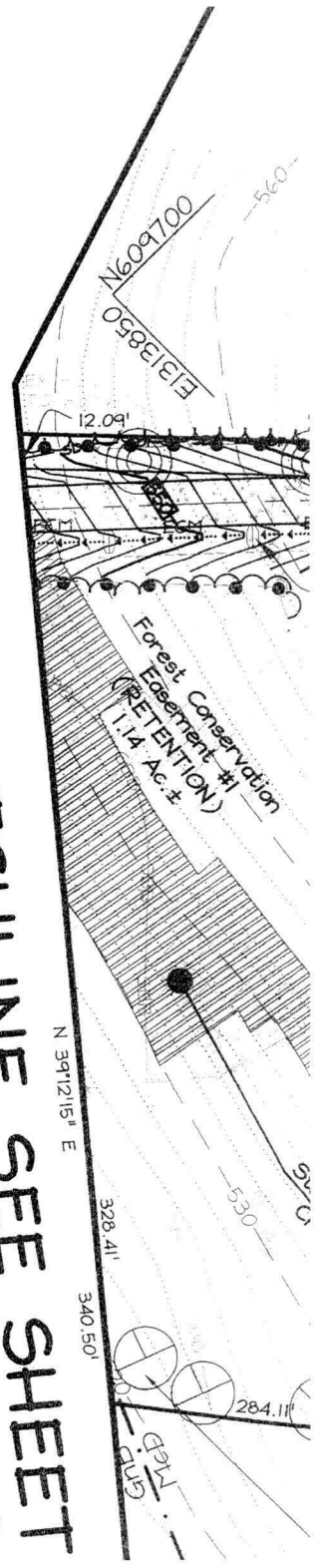
4. Absorption Bed size using alternate sand media:
Design Flow
 Loading Rate = Area of Bed
 - a. Loading rate: 1.0 gpd/SF (Alternate sand media)
 - b. Minimum Bed area: $\frac{600 \text{ gpd}}{1.0 \text{ gpd/SF}} = 600 \text{ SF}$ (Total Area)
 - c. Minimum Bed dimensions: $\frac{\text{Total Area}}{\text{Max Width}} = \text{Min. Length}$
 $\frac{600 \text{ SF}}{12 \text{ FT}} = 50 \text{ FT}$

- a) Use 9.0' wide (Max. Width) x 67' long Sand Bed
- b) Upslope Sand Fill Depth: 12" min, or 1'
- c) Downslope Sand Fill Depth (10% slope): 22.8" or 1.9'
- d) Cap + Topsoil Fill @ Bed center: 18" or 1.5'
- e) Cap + Topsoil Fill @ Bed edge: 12" or 1'
- f) Total Bed Depth: 10" or 0.83'
- g) Sideslope setback: 136.1" or 11.3'
- h) Upslope setback (0.77 Corr. factor for 10% slope): 78.5" or 6.6'
- i) Downslope setback (1.44 Corr. factor for 10% slope): 193.3" or 16.1'
- j) Total Mound width: 379.3" or 31.6' use 32'
- k) Total Mound length: 1076.2" or 89.7' use 90'
- l) Use Mound size of 32' x 90'
- m) Check Basal area: 800 SF required
 - 1) Area provided:
 Bed width + Downslope setback x Bed length =
 Basal area 9.0' + 16.1' x 67' = 1681.7 SF
 = 1681.7 SF > 800 required

SEPTIC SYSTEM / DISTRIBUTION CALCULATIONS

1. 4" PVC @ Foundation Wall, Inv. Elev. = 560.0
2. 1500 Gal. Septic Tank
 Inv. In Elev. = 559.0, Ground Over Tank @ 563.0
 Inv. Out Elev. = 558.7, Ground Over Tank @ 562.3
3. 1500 Gal. Pump Tank
 Inv. In Elev. = 558.3, Ground Over Tank @ 562.0
 Inv. Out Elev. = 558.6, Ground Over Tank @ 561.0
4. Effluent Pump = Gould - Model 3885 WE Series
 WE Submersible Effluent Pump - Item # ~~WE2012H~~ WE 1512 H
 1.5 Horsepower, 230 Volt, 1 Phase or Equal *
5. 3" Force Main (Maintain 4 ft cover)
6. 3" Central Distribution Manifold; Inv 570.5; As shown hereon
7. (6) 31.75 LF - 1-1/2" Distribution Laterals w/ 10 Perforations each spaced @ 3'-4 3/8" (Perforation Size = 3/8"), Perforations located @ Invert of Lateral Pipe
8. First perforation = 1.67' from 3" Manifold Pipe

MATCHLINE SEE SHEET (MATCHLINE FOLLOWS LOT 1 / LOT 2 LINE OF DIVISION)



OK
 rev
 4/22/12



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: 3/4" 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 1/3 - 1 1/2 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.

- 1/2 - 1 HP models have NEMA three prong grounding plugs.
- 1 1/2 HP and larger units have bare lead cord ends.

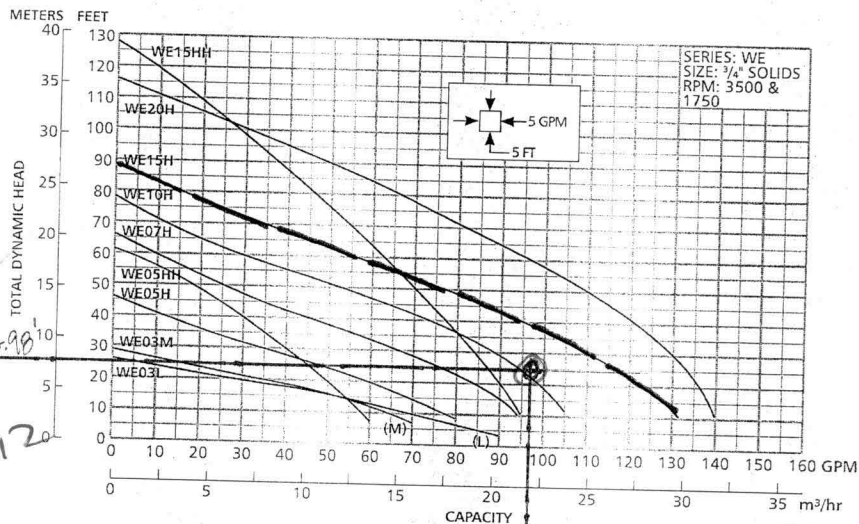
Three phase (60 Hz):

- 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.





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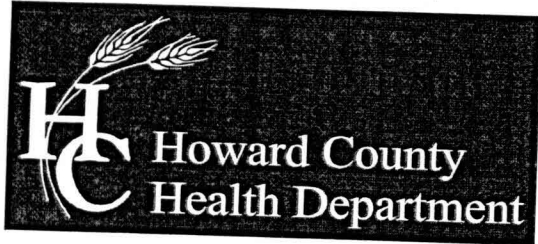
GOULDS PUMPS
Wastewater

MODELS

Order Number	HP	Phase	Volts	RPM	Impeller Diameter (in.)	Maximum Amps	Locked Rotor Amps	KVA Code	Full Load Efficiency %	Resistance Start	Resistance Line-Line	Power Cable Size	Weight (lbs.)			
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			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	1750	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			
WE0512H					230			7.3	34.5	M	53	9.6	4.0			
WE0538H					3			200	4.9	22.6	R	68	NA	3.8		
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	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					
WE0512HH			230	7.3	34.5		M	53	9.6	4.0						
WE0538HH			3	200	4.9		22.6	R	68	NA	3.8					
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	3450	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				
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	3450	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		
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	3450		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		
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	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					
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	3450	5.38	18.0	49.6	F	78	3.2	1.2	14/3	83		
WE2038H				200			12.0	42.4	K	78	NA	1.7				
WE2032H			230	11.6			42.4	K	78	NA	1.7					
WE2034H		3	460	5.8			21.2	K	78	NA	6.6	14/4	83			
WE2037H			575	4.7			16.3	L	78	NA	10.5					

LOT 2

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Bureau of Environmental Health

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Peter L. Beilenson, M.D., M.P.H., Health Officer

September 12, 2012

Level Land
PO Box 100
Lisbon, MD 21765

RE: **Septic Permits P537261: 13955 Forsythe Rd and P537260: 13945 Forsythe Rd**

On April 27, 2012, the Howard County Health Department issued permits to install sandmound septic systems at 13945 and 13955 Forsythe Road. During your installation of those systems, the Health Department observed that the mound areas were plowed without first scheduling an inspection by the Health Department to check soil moisture.

It is essential for the proper functionality of a sandmound system for the mound area to be plowed only when the soil moisture content is low. This decision is to be made by the inspecting Sanitarian on the day the work is to begin. You are hereby instructed to call in an inspection of the sandmound area prior to beginning preparation and during all stages of installation thereafter on all future sandmound installations.

Failure to comply with this directive may result in our recommendation to the Maryland Department of the Environment for sandmound license revocation.

If you have any questions regarding this letter, please contact me at the Bureau of Environmental Health, phone 410-313-1771.

A handwritten signature in black ink, appearing to read 'Jeff Williams', is written over a horizontal line.

Jeff Williams
Program Supervisor
Well and Septic Program
Bureau of Environmental Health