

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: 8/5/18

ONSITE SEWAGE DISPOSAL SYSTEM

P 563970

APPROVAL DATE: 10/9/18 SEC

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 1028 Thunderbird Drive

SUBDIVISION: Fairlane Farm

LOT: 39

TAX ID: _____

CONTRACTOR: South Carroll Backhoe

EMAIL: scbackhoe@comcast.com

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157

PHONE: 410-596-3618

PROPERTY OWNER: NV Homes

EMAIL: _____

OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046

PHONE: 410-379-5956

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babyln

PUMP MODEL: Zoeller

PUMP SIZE

0.4 HP

PUMP TANK CAPACITY: 1500

DISTRIBUTION SYSTEM:



GRAVITY



PRESSURE DOSED

BEDROOMS: 5

APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>131</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6.5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Hank Oswald

ISSUE DATE: 8/5/18

EXPIRATION DATE: 8/5/19

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 DOWNGRADE 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

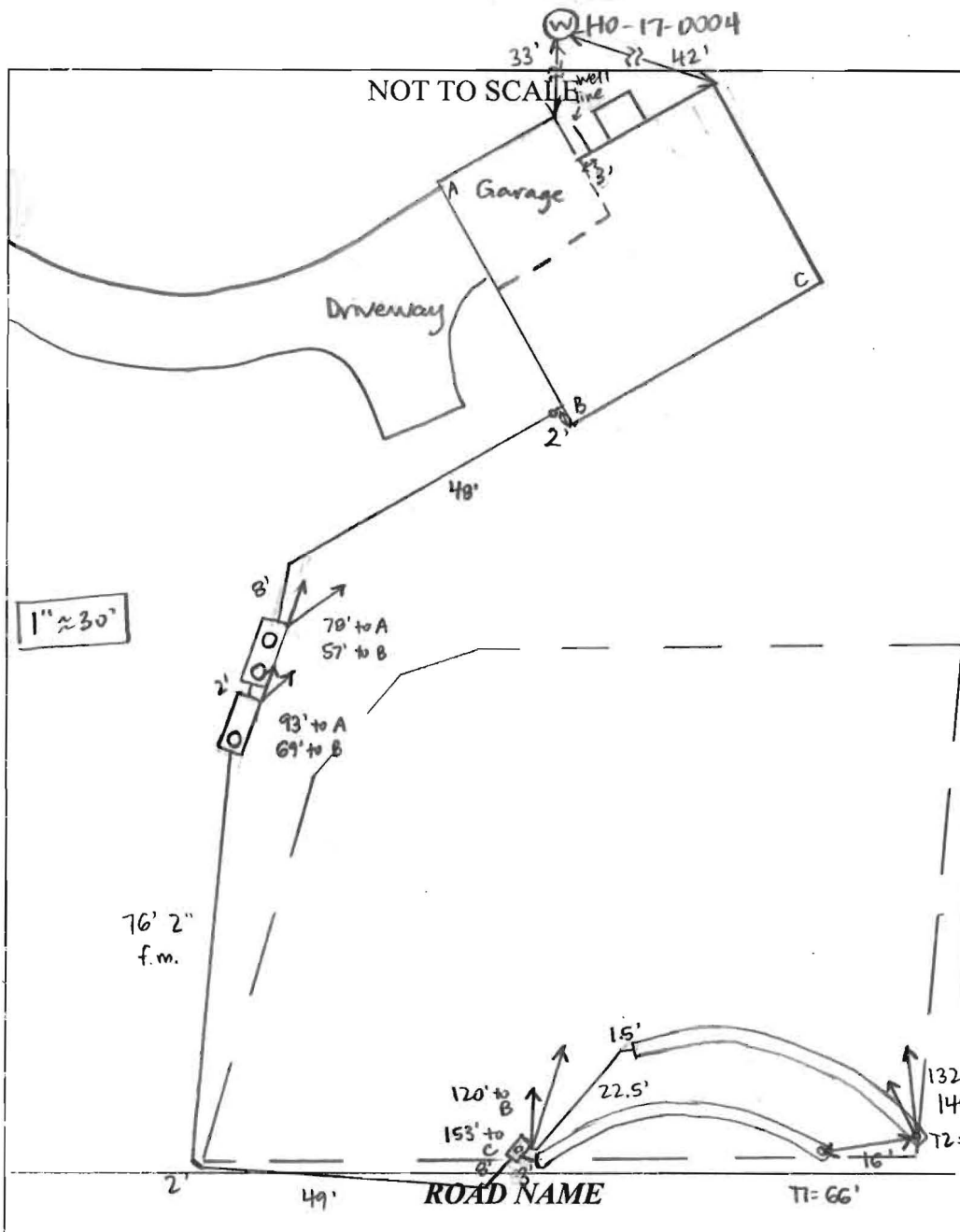
☐ ELECTRICAL PERMIT ISSUED E N/A 18003072

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.



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4'	6.5'
NUMBER OF TRENCHES		2
TOTAL LENGTH		130'
ABSORPTION AREA		390' + SIDEWALL
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		ELBOW
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA	
SEPTIC TANK I 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	7-16-18
PUMP/SEPTIC TANK LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	3'
BAFFLES	No
BAFFLE FILTER	NO
MANHOLE LOC	REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	NO
DATE ON LID	7-6-18
Pump: Gould's PE41PI (1/4 hp)	

PRE-CONSTRUCTION:

8/14/18 Met S. Carroll on site for layout. Tanks + SDA corners staked. Shot elevations @ house + septic tank will have 3' of cover, more on pump tank. Turn tanks to be parallel w/ driveway to reduce cover. Shot elevations in SDA + laid out 2x66' trenches on contour. (SC)

INSTALLATION: 8/24/18 Pump tank set. On site while septic tank was set - no obvious cracks

on bottom or sides of tank. Tanks set per plan, cover $\leq 3'$. (SC) 8/28/18 Trenches complete, T1 left open @ ends for inspection + T2 left open. 3' wide, 3.5' to stone. force main run from pump tank to D-box. D-box connected to trenches. Need house connection and pump + alarm test. (SC) 9/10/18 House connection made. (SC)

10/3/18 On site for pump + alarm. Not enough water to do pump test. Had S. Carroll move alarm float down for 1d storage above float. Need 6" block under pump [corrective action]. (SC) 10/9/18 On site for pump + alarm test. Alarm sounds, pump pumps effluent to D-box. 6" block installed beneath pump [corrective action completed]. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 10/9/18

**FISHER, COLLINS
& CARTER, INC.**

**CIVIL ENGINEERING CONSULTANTS
and LAND SURVEYORS**

Terrell A. Fisher, P.E., L.S.
Earl D. Collins, P.E.
Charles J. Crovo, Sr., P.E., L.S.

Paul W. Kriebel, P.E.
Mark L. Robel, P.L.S.
Aldo M. Vitucci, P.E.
Frank Manalansan II, L.S.
Stephanie Tuite, RLA, P.E., LEED AP BD&C

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, Maryland 21046-4544

Attn: **HANK**
Fax:
Phone: **410-313-2640**

From: **Tony Fertitta**

CC:

Re: **Fairlane Farms, Lot 39**

W.O.# **05106-3003**

Date: **MAY 16, 2018**

Pages: **0** 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:

Re: Fairlane Farm, Lot 39, 1028 Thunderbird Drive.

Here are 3 new copies of the OSDS for Lot 39 for your review. Please let me know if you have any questions.

Thank You,

Tony.

Fisher, Collins, & Carter, Inc. Ph. 410-461-2855

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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.



FEATURES

- Corrosion resistant construction
- Cast iron body
- Thermoplastic impeller and cover.
- Upper sleeve and lower heavy duty ball bearing construction.
- Motor is permanently lubricated for extended service life.
- Powered for continuous operation.
- All ratings are within the working limits of the motor.
- Quick disconnect power cord, 20' standard length, heavy duty 16/3 SJTW with 115 or 230 volt grounding plug.
- Complete unit is heavy duty, portable and compact.
- Mechanical seal is carbon, ceramic, BUNA and stainless steel.
- Stainless steel fasteners

PE

SUBMERSIBLE EFFLUENT PUMP



APPLICATIONS

Specially designed for the following uses:

- Mound Systems
- Effluent/Dosing Systems
- Low Pressure Pipe Systems
- Basement Draining
- Heavy Duty Sump/Dewatering

SPECIFICATIONS

Pump - General:

- Discharge: 1½" NPT
- Temperature: 104°F (40°C) maximum, continuous when fully submerged.
- Solids handling: ½" maximum sphere.
- Automatic models include a float switch.
- Manual models available.
- Pumping range: see performance chart or curve.

PE31 Pump:

- Maximum capacity: 53 GPM
- Maximum head: 25' TDH

PE41 Pump:

- Maximum capacity: 61 GPM
- Maximum head: 29' TDH

PE51 Pump:

- Maximum capacity: 70 GPM
- Maximum head: 37' TDH

MOTOR

General:

- Single phase
- 60 Hertz
- 115 and 230 volts
- Built-in thermal overload protection with automatic reset.
- Class B insulation
- Oil-filled design
- High strength carbon steel shaft

PE31 Motor:

- .33 HP, 3000 RPM
- 115 volts
- Shaded pole design

PE41 Motor:

- .40 HP, 3400 RPM
- 115 and 230 volts
- PSC design

PE51 Motor:

- .50 HP, 3400 RPM
- 115 and 230 volts
- PSC design

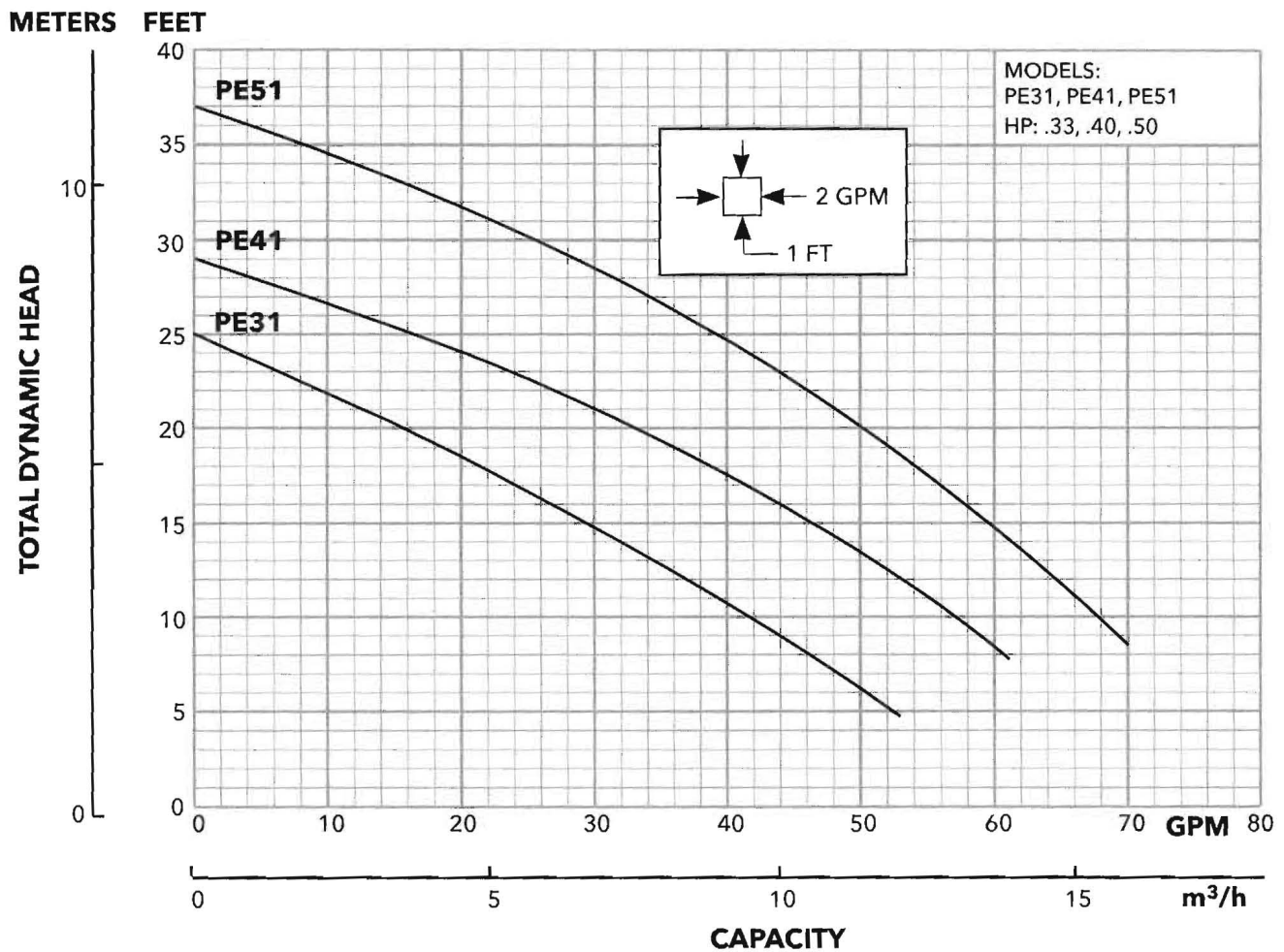
AGENCY LISTINGS



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

PUMP INFORMATION

Order No.	HP	Volts	Amps	Minimum Circuit Breaker	Phase	Float Switch Style	Cord Length	Discharge Connection	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight lbs/kg
PE31M	0.33	115	12	20	1	Manual / No Switch	20'	1.5"	18"	.5"	31 / 14.1
PE31P1						Piggyback Float Switch					
PE41M	0.4	230	7.5	15		Manual / No Switch					
PE41P1						Piggyback Float Switch					
PE42M	0.5	115	3.7	10		Manual / No Switch					
PE42P1						Piggyback Float Switch					
PE51M	0.5	230	4.7	10		Manual / No Switch					
PE51P1						Piggyback Float Switch					
PE52M						Manual / No Switch					
PE52P1						Piggyback Float Switch					



PERFORMANCE RATINGS

PE31

Total Head (feet of water)	GPM
5	52
10	42
15	29
20	16
25	0

PE41

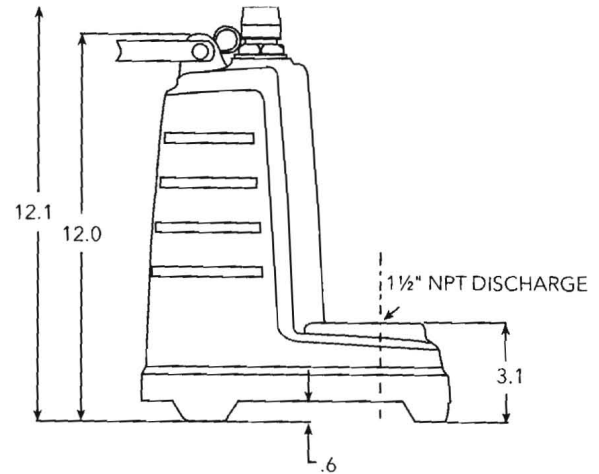
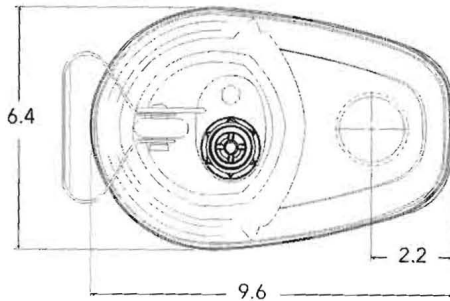
Total Head (feet of water)	GPM
8	61
10	57
15	46
20	33
25	16

PE51

Total Head (feet of water)	GPM
10	67
15	59
20	50
25	39
30	26
35	8

DIMENSIONS

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



xylem
Let's Solve Water

Xylem Inc.
2881 East Bayard Street Ext., Suite A
Seneca Falls, NY 13148
Phone: (866) 325-4210
Fax: (888) 322-5877
www.gouldswatertechnology.com

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Oswald, Hank

From: Oswald, Hank
Sent: Monday, May 14, 2018 9:24 AM
To: 'Tony Fertitta'
Subject: OSDS Plan_1028 Thunderbird Drive_Lot 39
Attachments: OSDS Memo To FCC__2018.pdf

Hi Tony:

Attached, please find a memo pertaining to the OSDS Plan for 1028 Thunderbird Drive, Lot 39.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

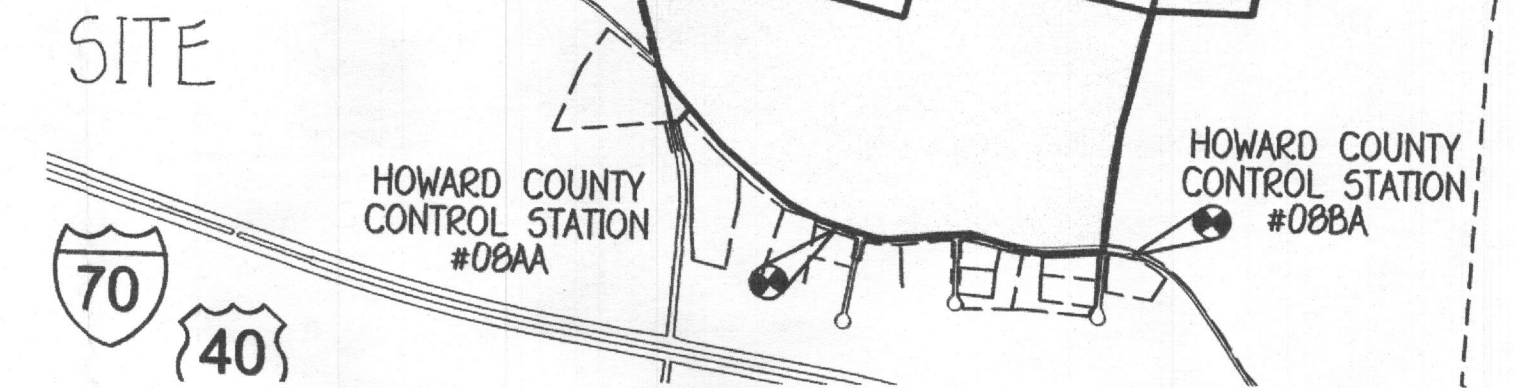
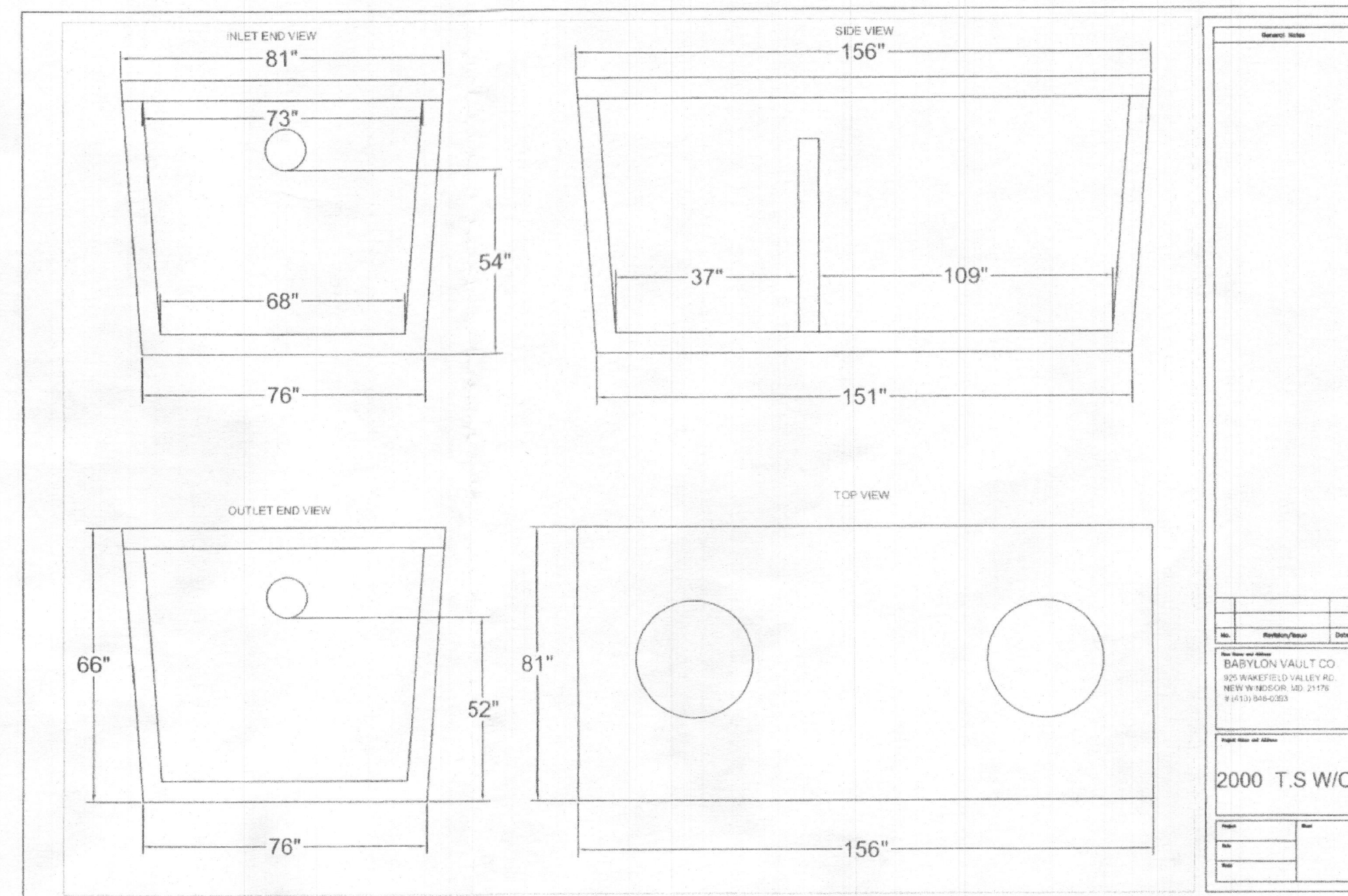
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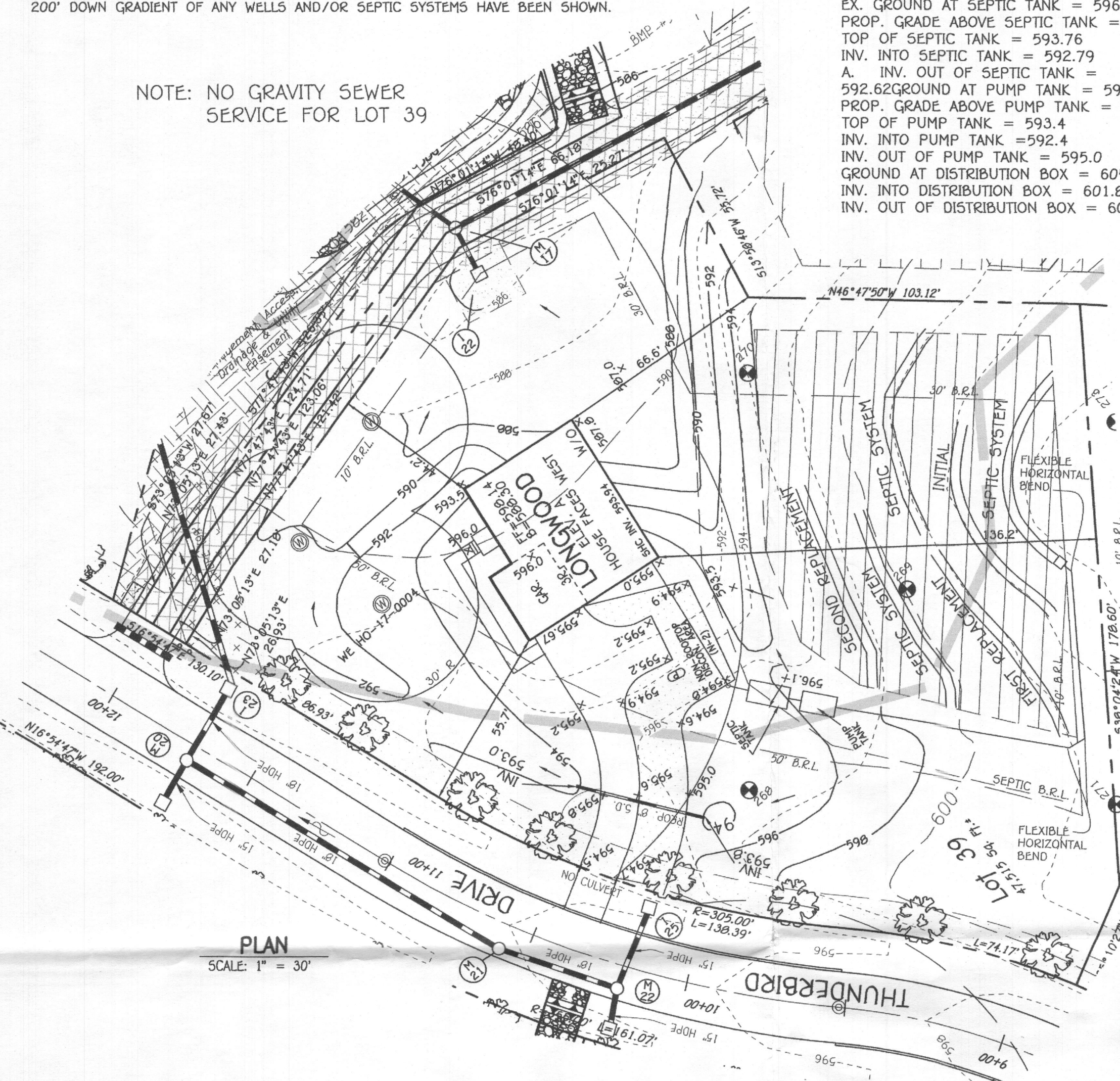
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2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-17-0004 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

NOTE: NO GRAVITY SEWER SERVICE FOR LOT 39

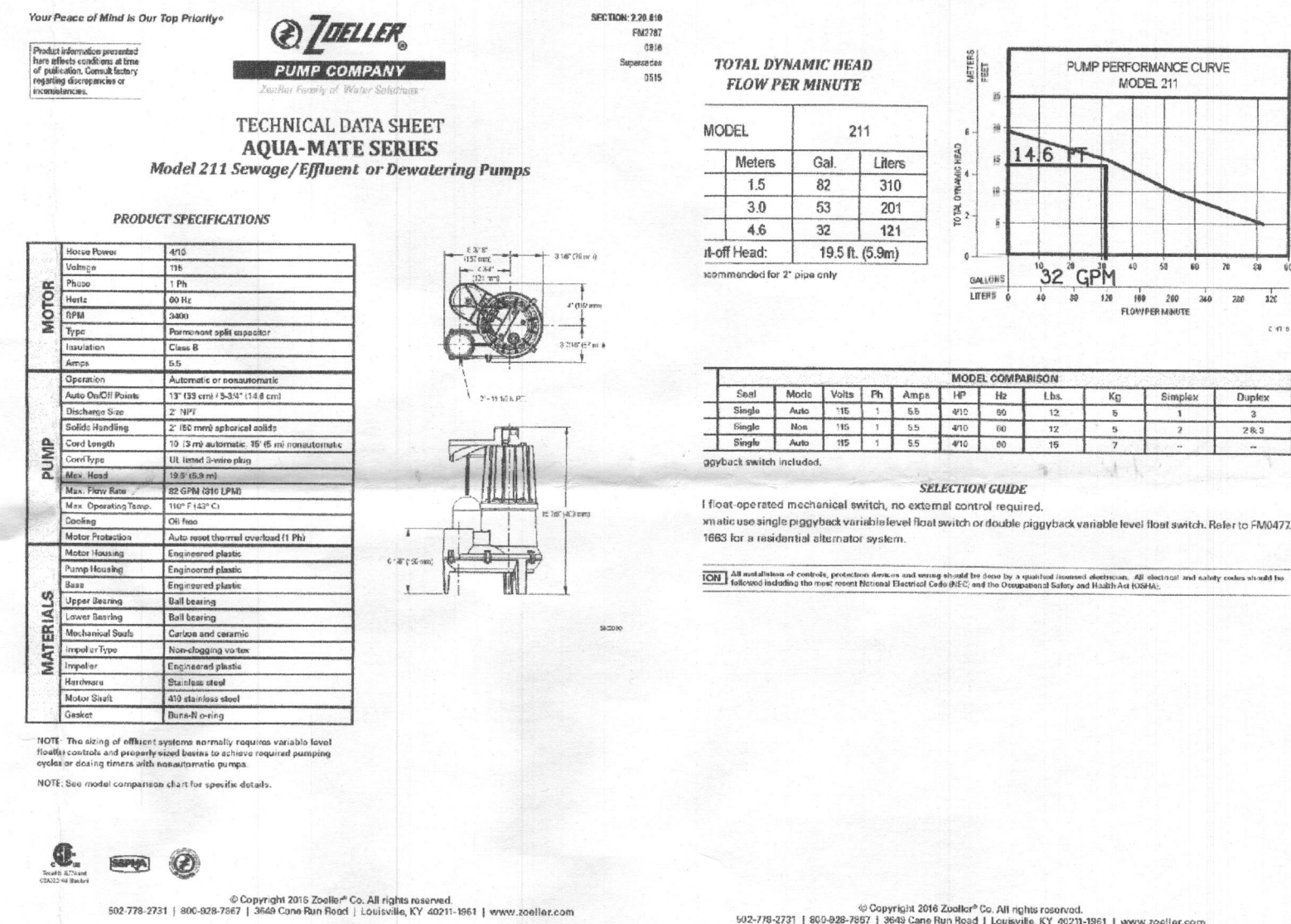
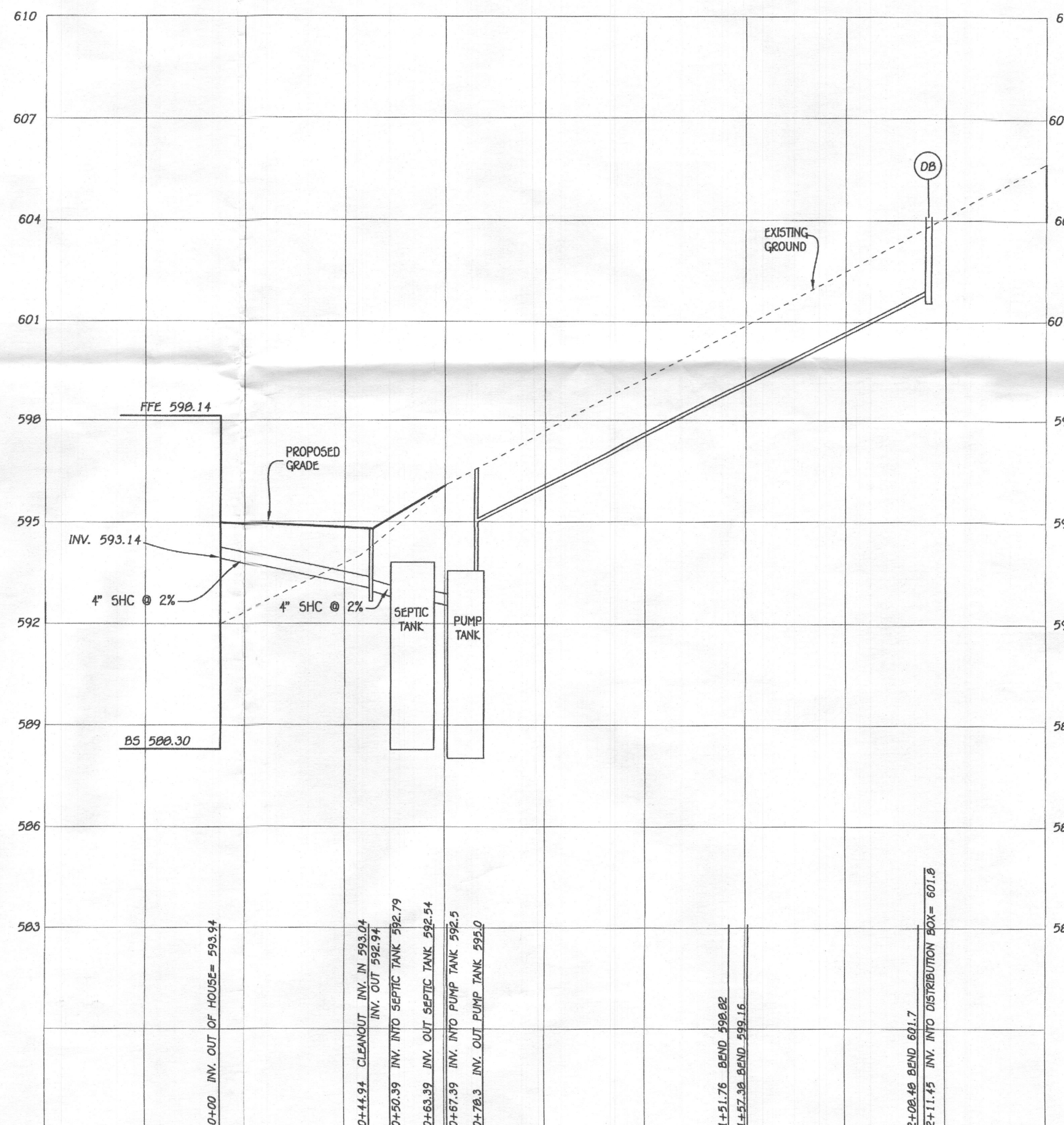
FFE 590.14
BSE 500.30
INV. OUT OF HOUSE = 593.94
PROP. GROUND AT CLEANOUT = 594.8
INV. INTO CLEANOUT = 593.04
INV. OUT OF CLEANOUT = 592.94
EX. GROUND AT SEPTIC TANK = 596.1
PROP. GRADE ABOVE SEPTIC TANK = 596.1
TOP OF SEPTIC TANK = 593.76
INV. INTO SEPTIC TANK = 592.79
A. INV. OUT OF SEPTIC TANK = 592.62
GROUND AT PUMP TANK = 596.5
PROP. GRADE ABOVE PUMP TANK = 596.5
TOP OF PUMP TANK = 593.4
INV. INTO PUMP TANK = 592.4
INV. OUT OF PUMP TANK = 595.0
GROUND AT DISTRIBUTION BOX = 605.7
INV. INTO DISTRIBUTION BOX = 601.8
INV. OUT OF DISTRIBUTION BOX = 601.7



VICINITY MAP
SCALE: 1" = 1200'



TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 605.7
INV. IN = 601.7
BOTTOM TRENCH = 599.7
TRENCH 2:
EX. GROUND ABOVE = 604
INV. IN = 600.0
BOTTOM TRENCH = 598



INITIAL SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 L.F.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 L.F.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

2ND REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 L.F.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 9' USE 10'

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
39	1028 THUNDERBIRD DRIVE

SEPTIC SYSTEM
INSTALLATION SITE PLAN
LOT 39
1028 THUNDERBIRD DRIVE
FAIRLANE FARMS
PHASE TWO
ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=30' DATE: MAY 16, 2017
SHEET 1 OF 1

PUMP TANK

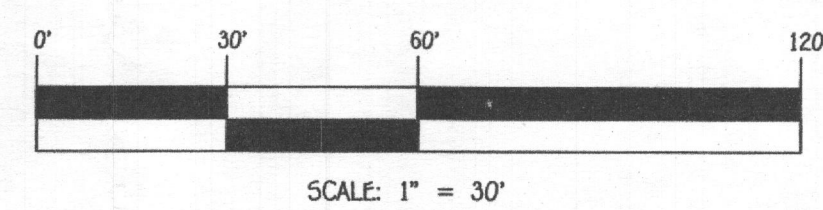
PROFESSIONAL CERTIFICATION

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. 20746, EXPIRATION DATE: 02/22/2019.

Signature of Professional Engineer
5/16/19
DATE

OWNER/DEVELOPER

INV HOMES
9720 PATUYENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-9956



SCALE: 1" = 30'

1 ELBOW @ 9" EQUIVALENT FEET = 9 LF
1 1/8" HB @ 4" EQUIVALENT FEET = 12 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 149 LF

DYNAMIC HEAD
154 LF X 1.94 FT PER 100 LF OF 2" PIPE = 2.99 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 4.81 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 6.8 FT (PUMP OUT IS THE TOTAL DYNAMIC HEAD = 14.6 FT

1/8" DESIGN FLOW (750/6=125)
USE 128 GALLON DOME (125 GALLON MINIMUM)
(RUN TIME = 4 MIN (32 GPM X 4 = 128 GALLON DOME))
PUMP NEEDS TO HANDLE 32 GPM AT 14.6 FT OF HEAD
USE 0.4 HP (ZOLLER MODEL 211 PUMP)

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

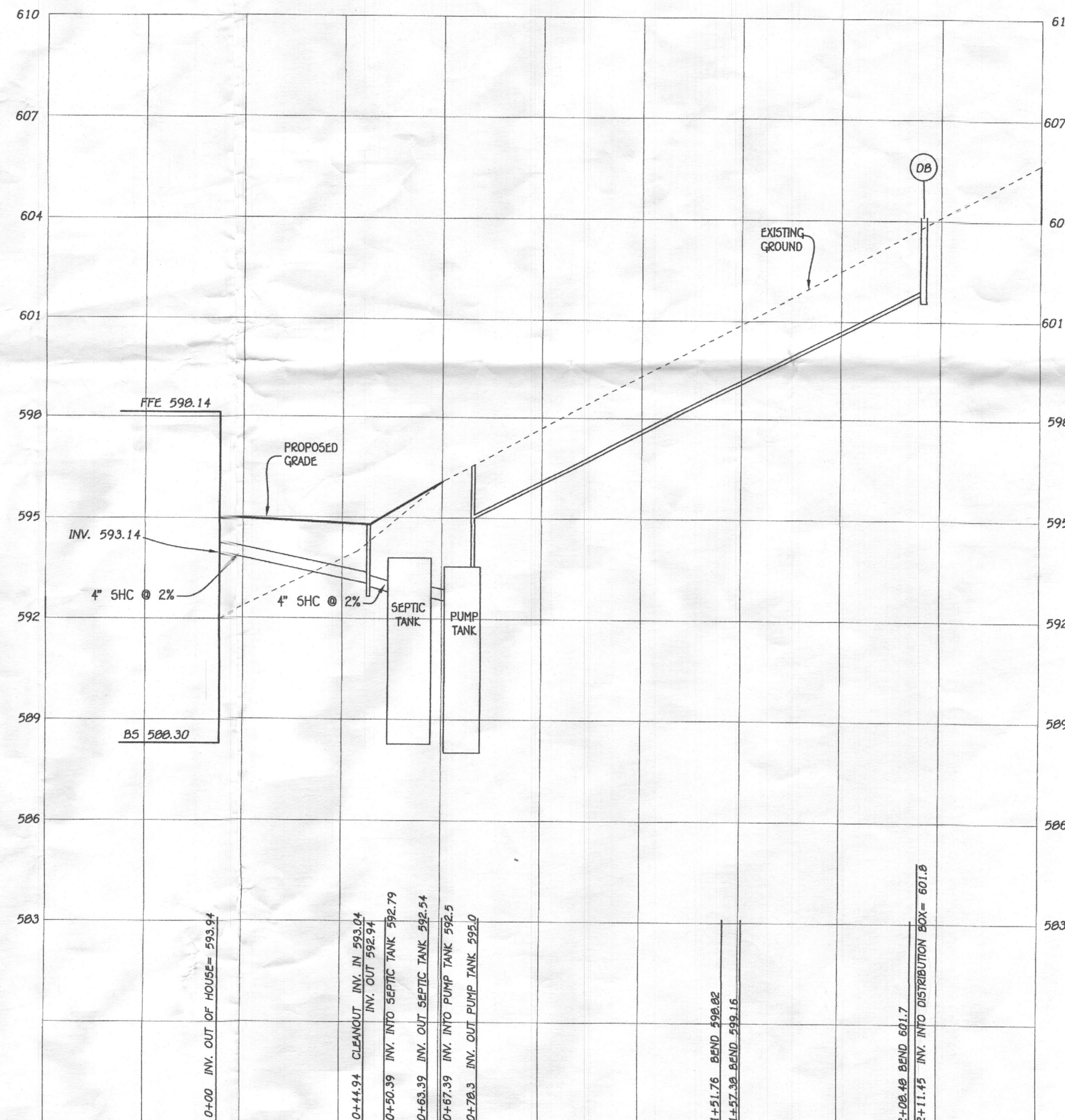
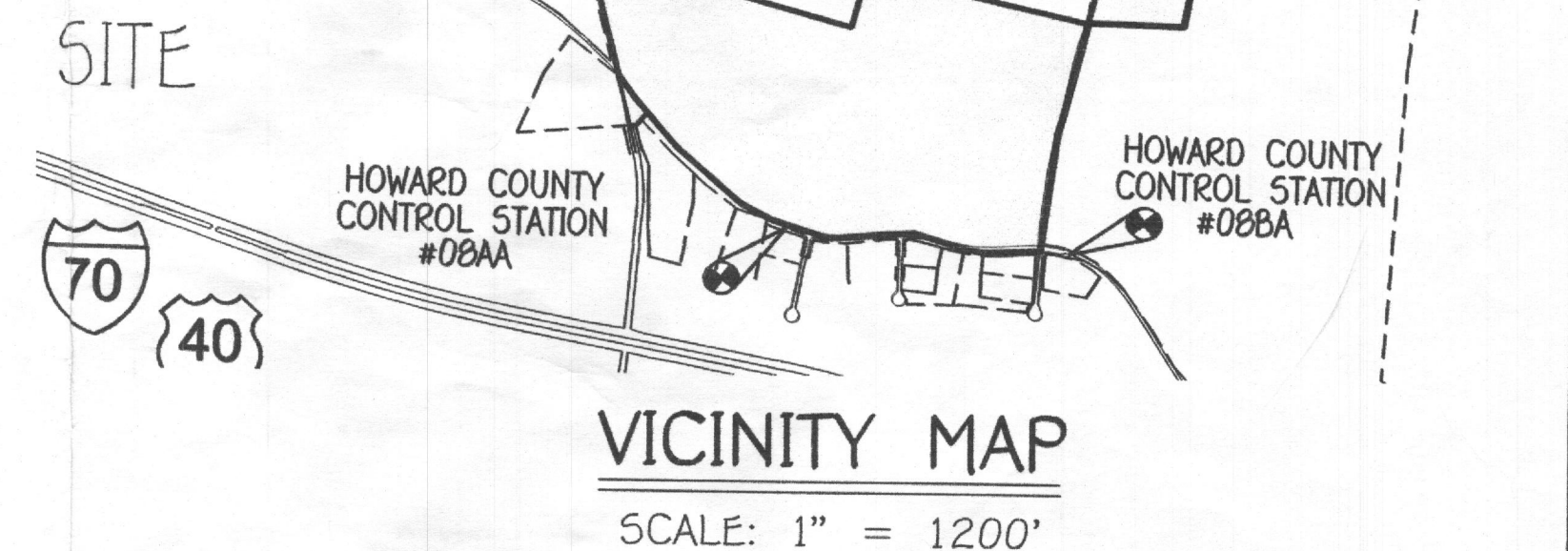
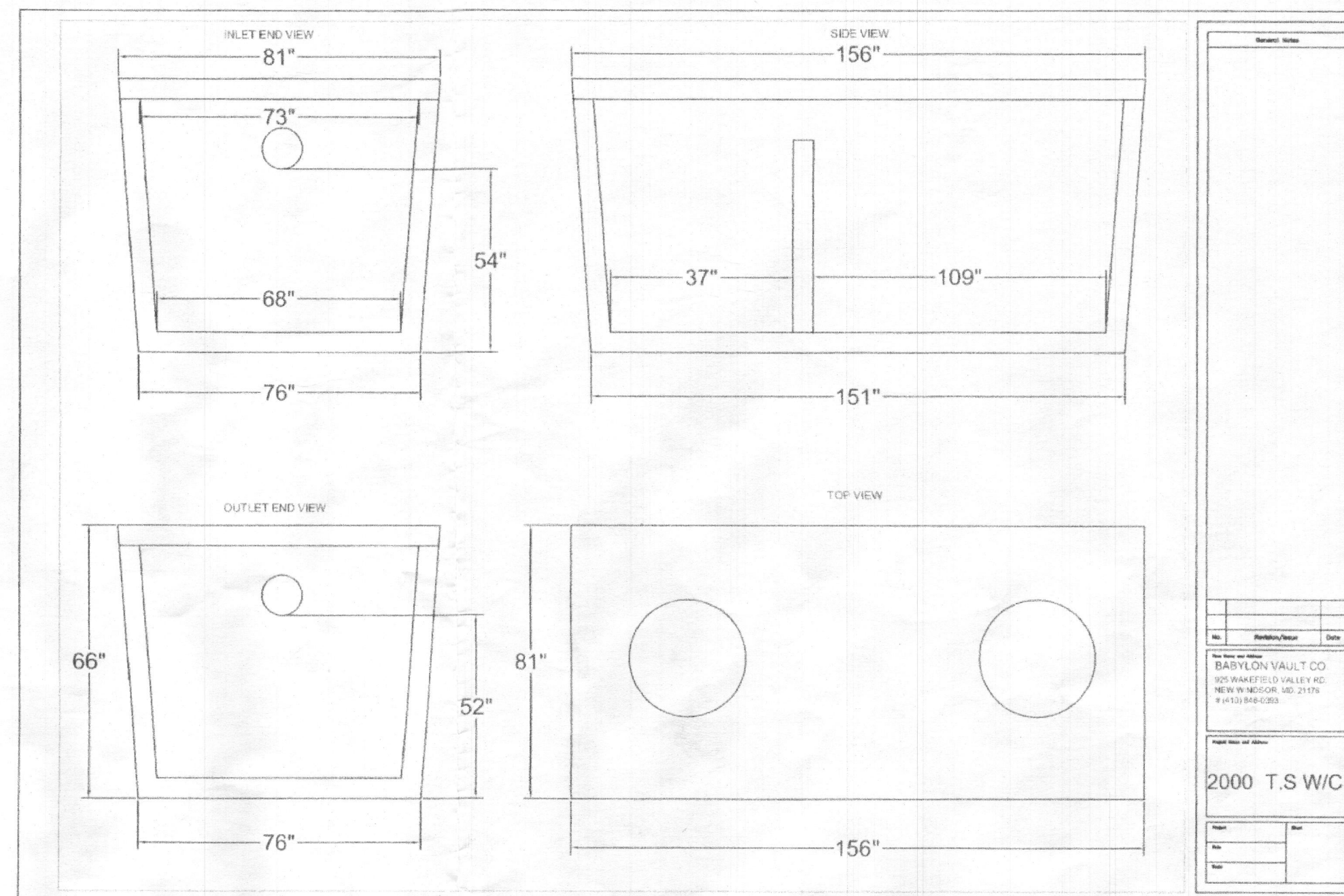
PUMP ALARMS / INFORMATION
A. PUMP OFF : 590.19
B. PUMP ON : 590.53
C. HIGH WATER ALARM : 590.87
D. TOP OF ACCESS COVER : 596.5
E. TOP OF TANK : 593.54
F. BOTTOM OF TANK : 590.29
G. DISCHARGE OUT OF TANK : 595.0
H. INVERT INTO TANK : 592.54

NOTE: SEPTIC SYSTEM ALARM WILL BE ON A CIRCUIT SEPARATE FROM ANY OTHER SEPTIC SYSTEM COMPONENTS OR ALARMS.

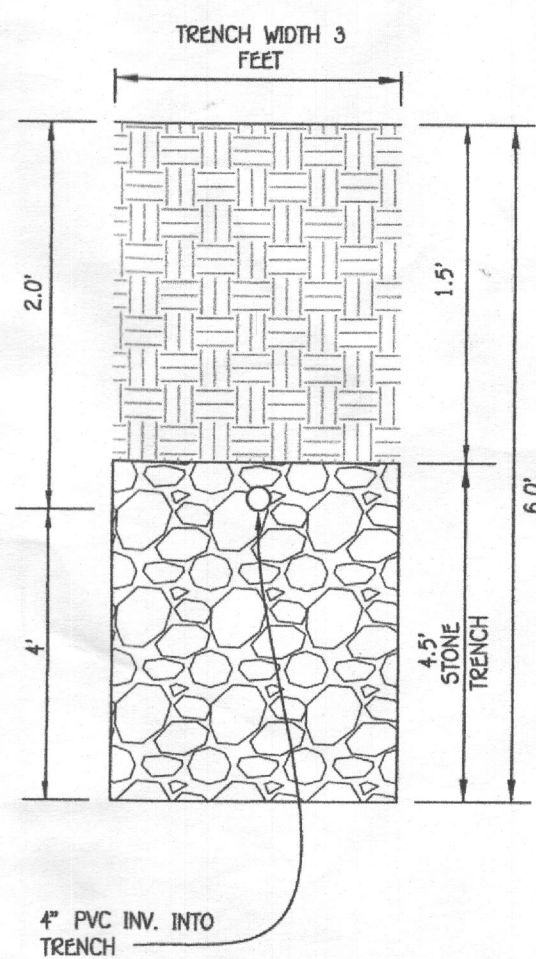
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INV. OUT OF DISTRIBUTION BOX = 601.7



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INV. IN = 600.0
BOTTOM TRENCH = 598



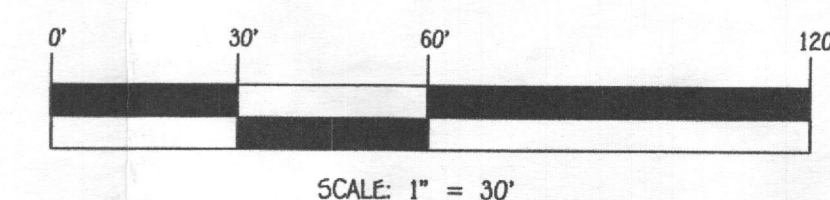
PUMP TANK

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Signature of Professional Engineer
DATE: 5/16/19

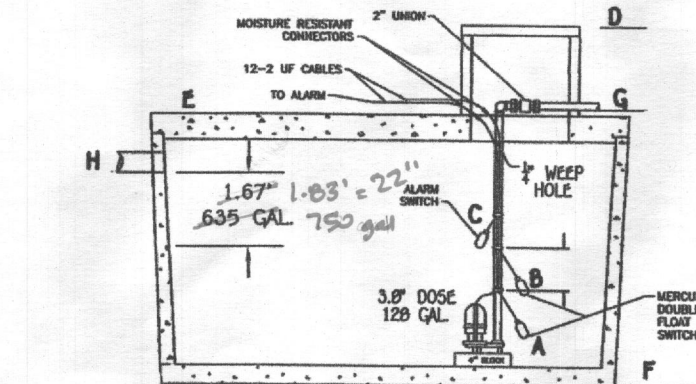
OWNER/DEVELOPER
NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-9956



2" SCH 40 PVC = 133 LF
1 ELBOW @ 9" EQUIVALENT FEET = 9 LF
1 1/2" HD @ 4" EQUIVALENT FEET = 12 LF
TOTAL LINEAR FEET OF 2" SCH 40 PVC = 149 LF

DYNAMIC HEAD:
1.54 LF X 1.94 FT PER 100 LF OF 2" PIPE = 2.99 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 4.81 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 6.8 FT (PUMP OUT IS THE TOTAL DYNAMIC HEAD = 14.6 FT)

1/2" DESIGN FLOW (750 GPM) = 125 GPM
USE 125 GALLON DOSE (125 GALLON MINIMUM)
(RUN TIME = 4 MIN (32 GPM X 4 = 128 GALLON DOSE))
PUMP NEEDS TO HANDLE 32 GPM AT 14.6 FT OF HEAD
USE 0.4 HP (ZOEGLER MODEL 211 PUMP)



PUMP ALARMS / INFORMATION
A. PUMP OFF: 590.19
B. PUMP ON: 590.33
C. HIGH WATER ALARM: 590.87
D. TOP OF ACCESS COVER: 596.5
E. TOP OF TANK: 593.54
F. BOTTOM OF TANK: 588.29
G. DISCHARGE OUT OF TANK: 595.0
H. INVERT INTO TANK: 592.54

NOTE: SEPTIC SYSTEM ALARM WILL BE ON A CIRCUIT SEPARATE FROM ANY OTHER SEPTIC SYSTEM COMPONENTS OR ALARMS.

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

SEPTIC PROFILE

SCALE: 1" = 30'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2)) = 0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2)) = 0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOM)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.0 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2)) = 0.625
TRENCH LENGTH = 208.33 SF x 0.625 = 130.21 FEET
(USE 2 TRENCHES AT 65.10 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
39	1028 THUNDERBIRD DRIVE

SEPTIC SYSTEM INSTALLATION SITE PLAN

LOT 39

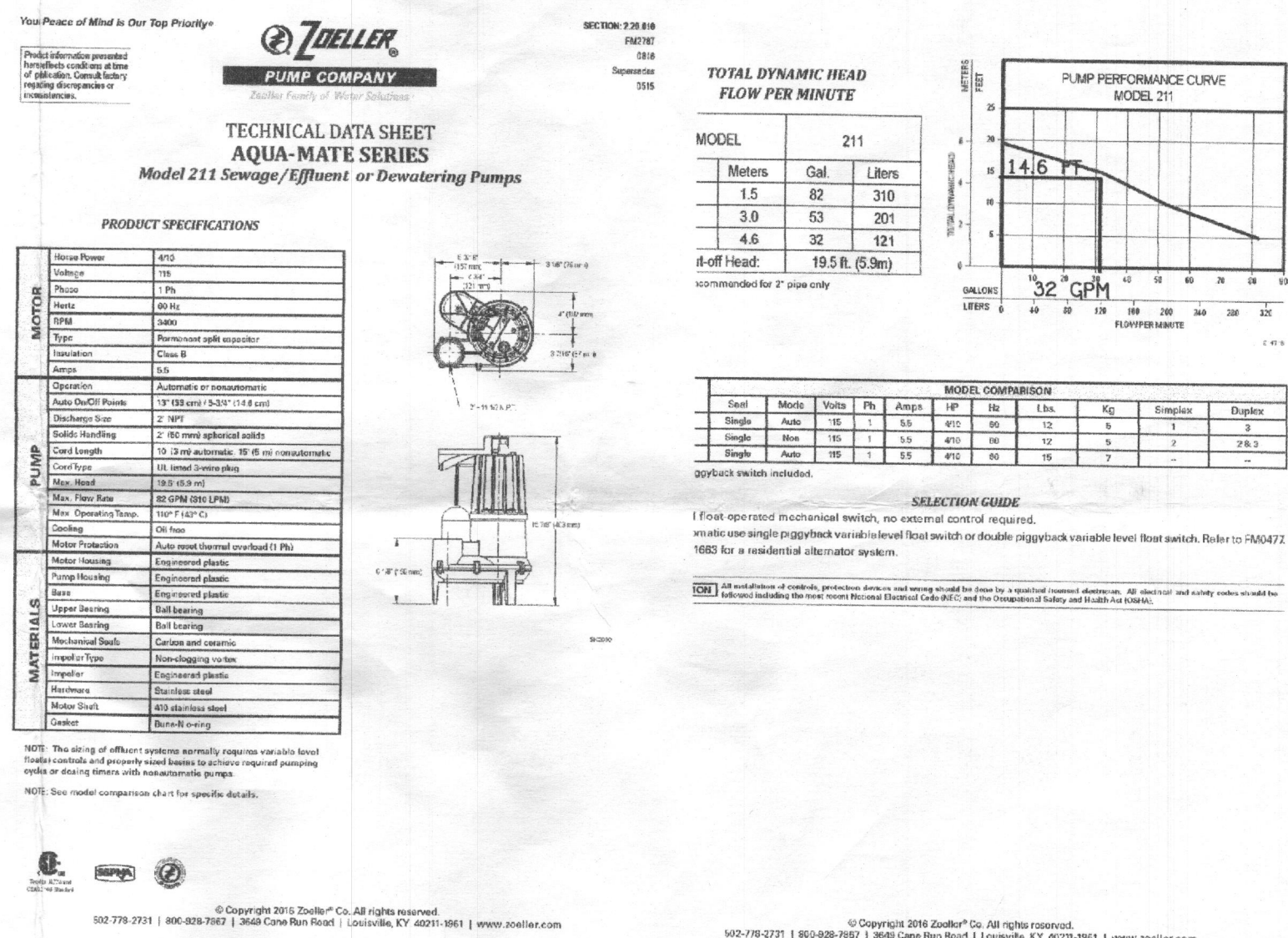
1028 THUNDERBIRD DRIVE

FAIRLANE FARMS

PHASE TWO

ZONED: RC-DEO

TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: MAY 16, 2017
SHEET 1 OF 1



**FISHER, COLLINS
& CARTER, INC.**

**CIVIL ENGINEERING CONSULTANTS
and LAND SURVEYORS**

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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, Maryland 21046-4544	Attn: HANK Fax: Phone: 410-313-2640
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From: Tony Fertitta	CC:
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Re: Fairlane Farms, Lot 39	W.O.# 05106-3003
Date: MAY 10, 2018	Pages: 0 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 type="checkbox"/> Other
<input type="checkbox"/> Urgent <input type="checkbox"/> For your use <input type="checkbox"/> As requested <input checked="" type="checkbox"/> For Review & Comment

Remarks:

Re: Fairlane Farm, Lot 39, 1028 Thunderbird Drive.

Here are 3 new copies of the OSDS for Lot 39 for your review. Please let me know if you have any questions.

Thank You,

Tony.

Fisher, Collins, & Carter, Inc. Ph. 410-461-2855

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