



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: 8/6/19

ONSITE SEWAGE DISPOSAL SYSTEM

P 565583

APPROVAL DATE: 1/29/2020

PERMIT: CONSTRUCTION

A

PROPERTY ADDRESS: 12538 Westland Court

SUBDIVISION: Westland Farm Estates

LOT: 7

TAX ID: _____

CONTRACTOR: Hatfield's Equipment

EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 21701

PHONE: 301-490-4289

PROPERTY OWNER: Williamsburg Group Westland Farm LLC

EMAIL: billmcbride@williamsburgllc.com

OWNER ADDRESS: 5485 Harpers Farm Road, Columbia, MD 21044

PHONE: 410-997-8800

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon Vault

PUMP MODEL: Zoeller Model 152

PUMP SIZE

0.4 HP

PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: ☒ GRAVITY

☐ PRESSURE DOSED

BEDROOMS: 7

APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>182</u>	INLET DEPTH: <u>1.5</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>7</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: Robert Freeman

ISSUE DATE: 8/6/19

EXPIRATION DATE: 8/6/20

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 19004441

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

* see attached
as built

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH INLET BOTTOM

3' 1.5' 7'

NUMBER OF TRENCHES 4

TOTAL LENGTH 183 F

ABSORPTION AREA 549 SF

DISTRIBUTION BOX LEVEL N/A

DISTRIBUTION BOX BAFFLE TURN DOWN

DISTRIBUTION BOX PORT YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL yes

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC top

TANK LID DEPTH 2'

BAFFLES back

BAFFLE FILTER

MANHOLE LOC front + back

6" PORT LOC

WATERTIGHT TEST -

SLOTTED yes

DATE ON LID 8-1-19

PUMP/SEPTIC TANK LEVEL yes

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC top

TANK LID DEPTH 2'

BAFFLES -

BAFFLE FILTER -

MANHOLE LOC back

6" PORT LOC -

WATERTIGHT TEST -

SLOTTED no

DATE ON LID 7-5-19

PRE/CONSTRUCTION:

08/29/2019 NEED SDA STAKE. CALL FOR REINSPECTION (P) SDA, TANK LOCATION STAKED. MAINTAINED TRENCHES PER PLAN. OK TO START (P).

INSTALLATION: 9/13/19 SHC, septic and pump tank installed. 180' of force main installed. Reinspect for incoming baffle. (ST) 9/16/2019 FORCE MAIN COMPLETED. D BOX SET. TURN DOWN FOR EXCESS FLOW. TRENCHES COMPLETED. OK TO BACKFILL. (P) 9/17/2019 PHOTO OF D BOX TURN DOWN RECEIVED. NEED P/A (P) 1/29/2020 Pump is functional - water observed flowing through d-box. Pump is functional + located next to tank. Circuits on two separate breakers. (ST)

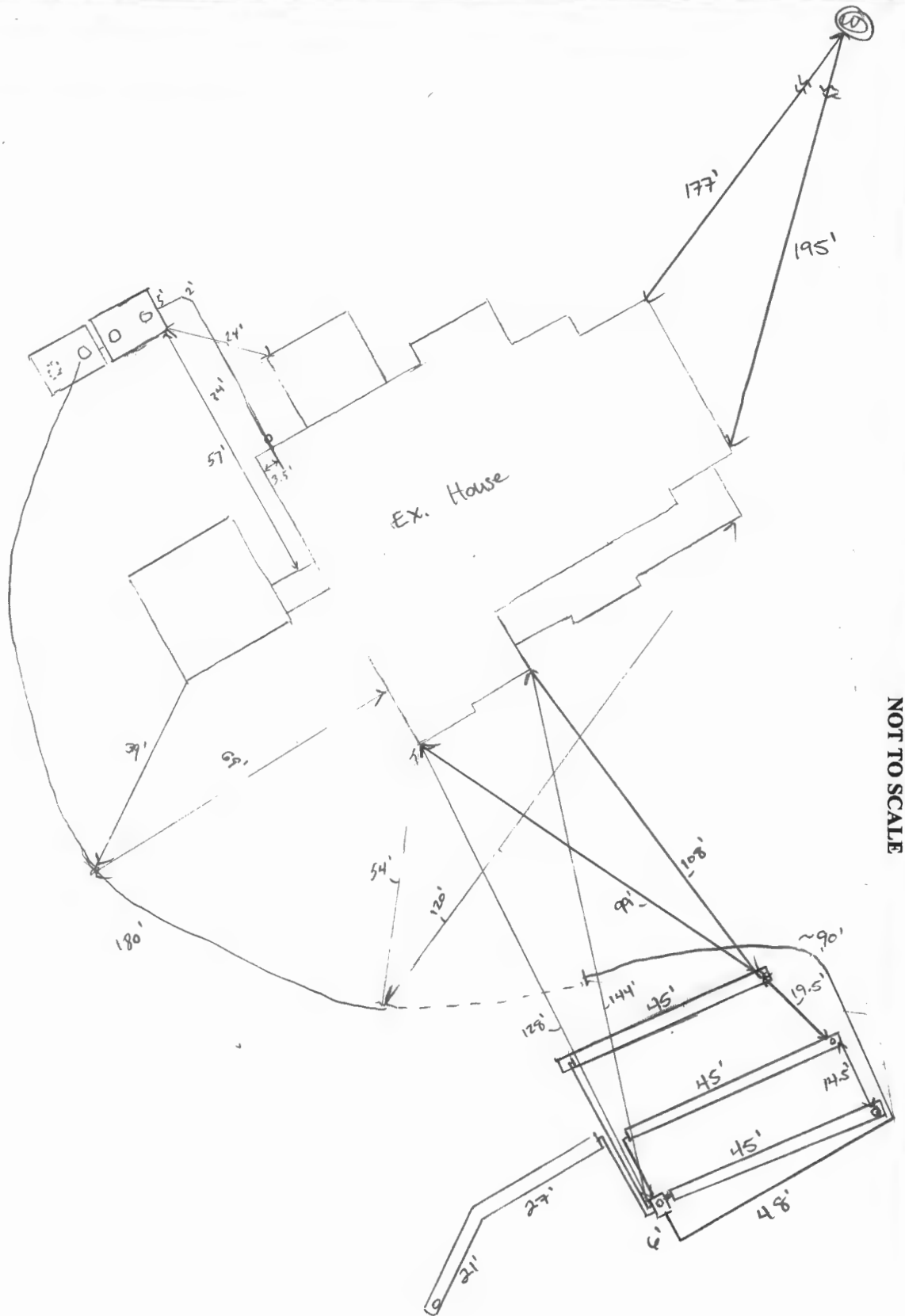
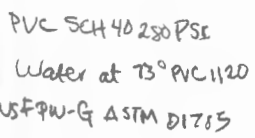
FINAL INSPECTOR

Susan Thomas

DATE OF APPROVAL

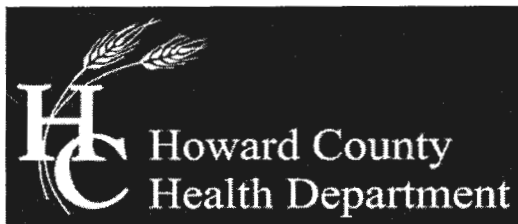
1/29/2020

12538 Westland Court



NOT TO SCALE

Westland Court



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SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Westland Farm Estates Lot: 7

Initial system: Application rate: 1.2 Effective area beginning depth: 5' Bottom maximum depth: 7'

1st Replacement: Application rate: 1.2 Effective area beginning depth: 5' Bottom maximum depth: 7'

2nd Replacement: Application rate: 0.8 Effective area beginning depth: 5' Bottom maximum depth: 7'

Design Flow = 150 gallons per day per bedroom

Design flow ÷ application rate = square footage of drainfield required

Linear length of trench required = drainfield square footage x sidewall reduction percentage ÷ trench width

Sidewall reduction credit formula:

$$\frac{W + 2}{W + 1 + 2D} \times 100 = \text{Percent of length of standard trench where } W = \text{trench width and } D = \text{depth between effective area beginning depth and trench bottom.}$$

Standard design requirements:

- Trenches must be located to provide room for 3 systems in the disposal area
- All trenches must be equal length unless low pressure dosed
- All trenches must be on contour
- Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any trench using over 3.5' of effective sidewall. In those cases, the spacing formula is $2D + W$ up to a maximum spacing of 18'.
- Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench (spacing is measured edge to edge)
- Maximum trench length is 100'
- Maximum pipe depth is 4'

Additional requirements:

Approved: _____ Date: _____



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SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Westland Farm Estates Lot: 7

Initial system:	Application rate: <u>1.2</u>	Effective area beginning depth: <u>5</u> '	Bottom maximum depth: <u>7</u> '
1 st Replacement:	Application rate: <u>1.2</u>	Effective area beginning depth: <u>5</u> '	Bottom maximum depth: <u>7</u> '
2 nd Replacement:	Application rate: <u>0.8</u>	Effective area beginning depth: <u>5</u> '	Bottom maximum depth: <u>7</u> '

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Design flow ÷ application rate = square footage of drainfield required

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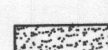


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- Maximum trench length is 100'
- Maximum pipe depth is 4'

Additional requirements:

Approved: _____ Date: _____

Legend


-  Private Use-In-Common Driveway Access Easement For The Use And Benefit Of Lots 5, 6, 7 And 8
-  10' Public Tree Maintenance Easement (Maintenance Agreement Recorded Simultaneously With The Plat)
-  Public Forest Conservation Easement

PUBLIC FOREST
CONSERVATION
EASEMENT NO.4

GENERAL NOTES:

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INsofar AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C01400 EFFECTIVE 11/06/2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-15-0162 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2020.
- 7) BUILDING PERMIT # B-18003546

PROPERTY OF
THOMAS L. DOLAN AND
BETTE DOLAN
L. 1393, F. 118
TAX MAP 40
PARCEL 265
ZONED: RR-DEO

WELL # 
HO-15-0162

Lot 7
SEE DETAIL

J. THOMPSON
PROPERTY
LOTS 1 THRU 6
PLAT NOS. 19162
THRU 19164
ZONED: RR-DEO

8/7/19

Well Check
Approved
Kneel

Private
Sewerage
Easement

LOT 6

LOT 5

10' PUBLIC TREE
MAINTENANCE EASEMENT

Private Use-In-Common Driveway
Access Easement For The Use
And Benefit Of Lots 5, 6, 7 And
8. Maintenance Agreement
Recorded Simultaneously With This
Plat

DETAIL:
1"=20'

POURED
CONCRETE
FOUNDATION

Westland Court
Private Access Street
(50' R/W)

LOT 7
WESTLAND FARM ESTATES
PHASE II
LOTS 3 THRU 14 AND
OPEN SPACE LOT 15
PLAT NOS. 23985 THRU 23987
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2255



PROFESSIONAL LAND SURVEYOR
REQ. #339

DATE

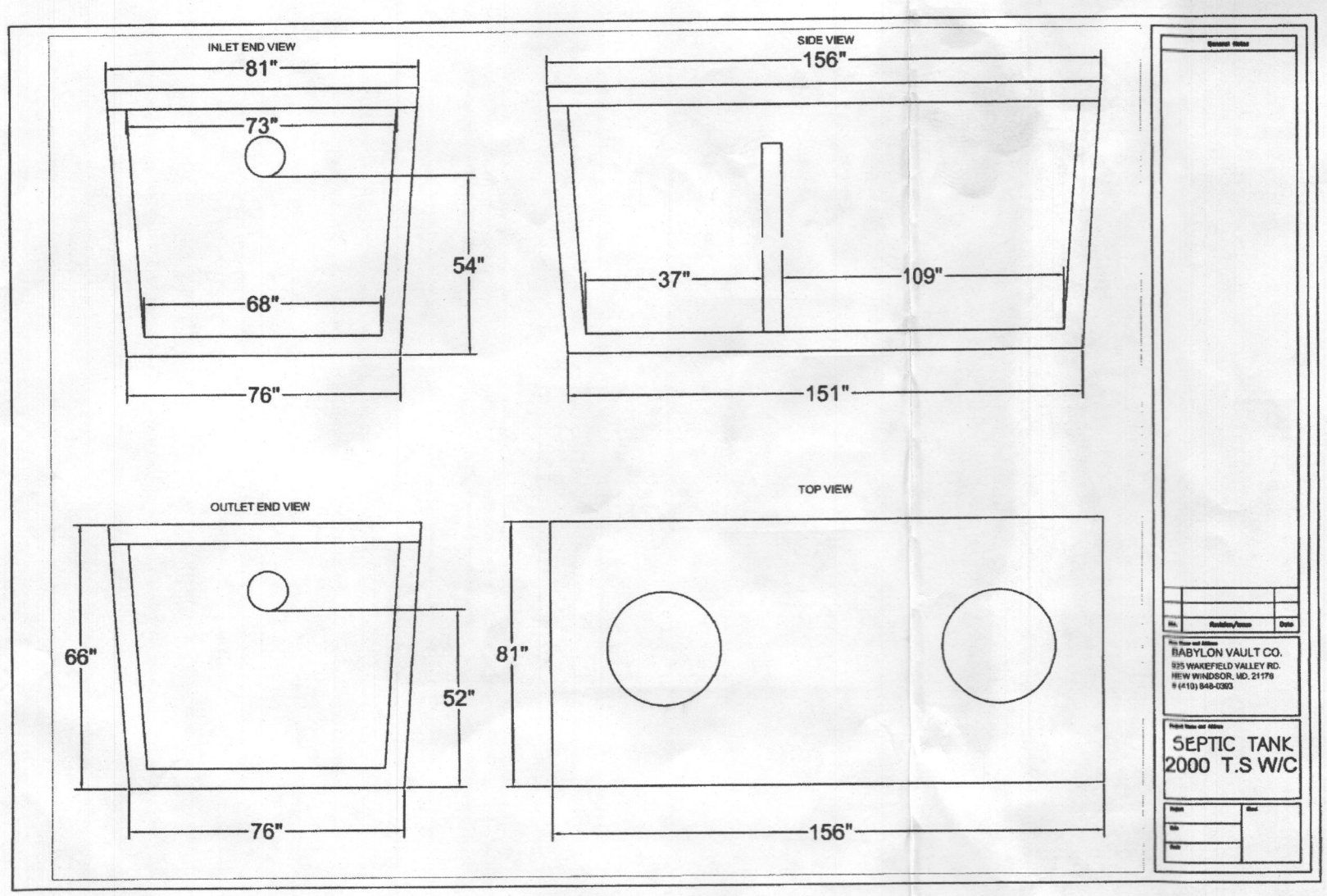
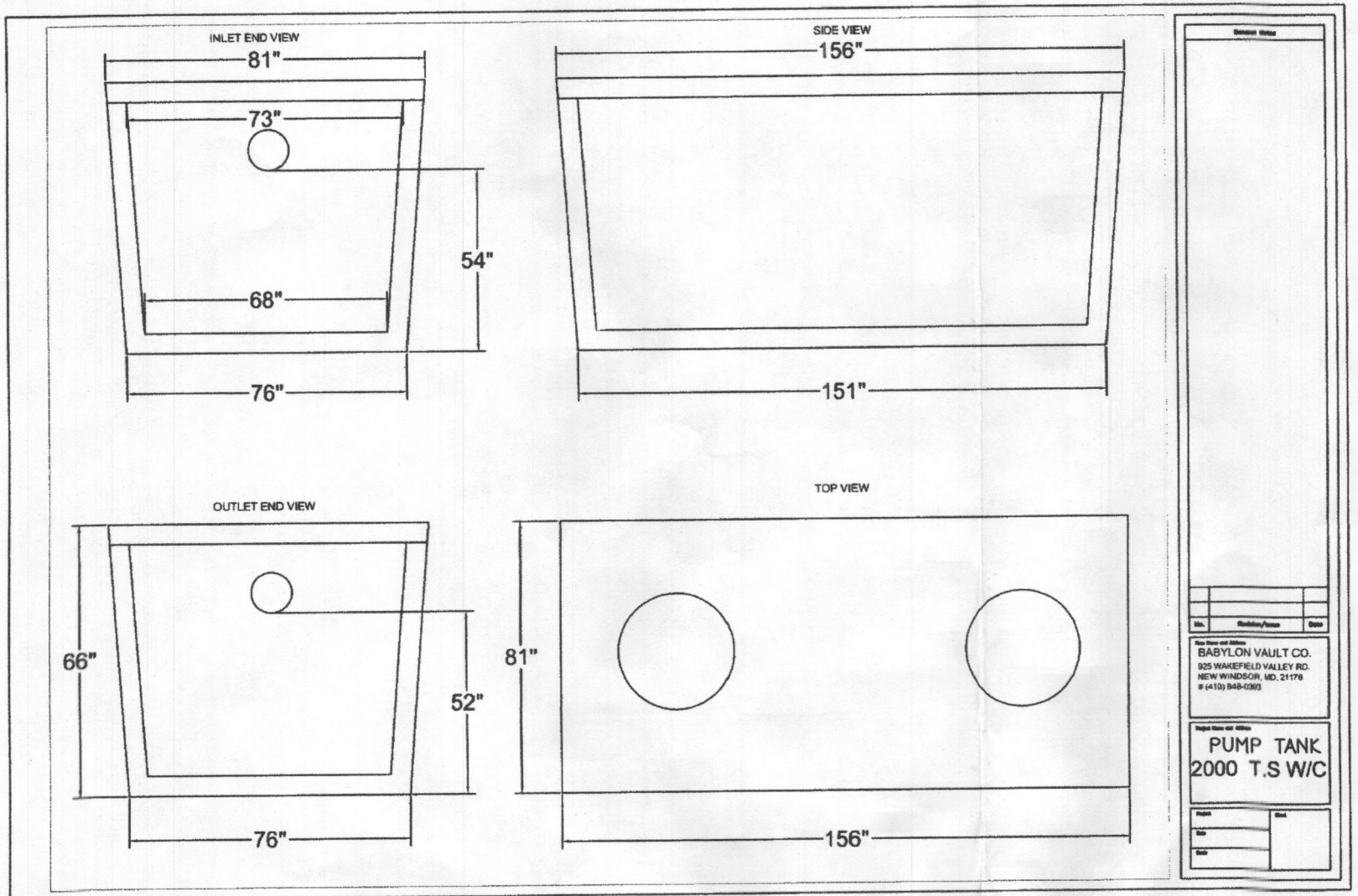
HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 4/15/19
FINAL LOCATION:
BOUNDARY SURVEY: _____

SCALE: 1"=50'
DATE: 8/6/19
DRAWN BY: JMP
CHECKED BY: MLR
PROJECT No. 025062-3003

#12538 WESTLAND COURT
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 421.5'

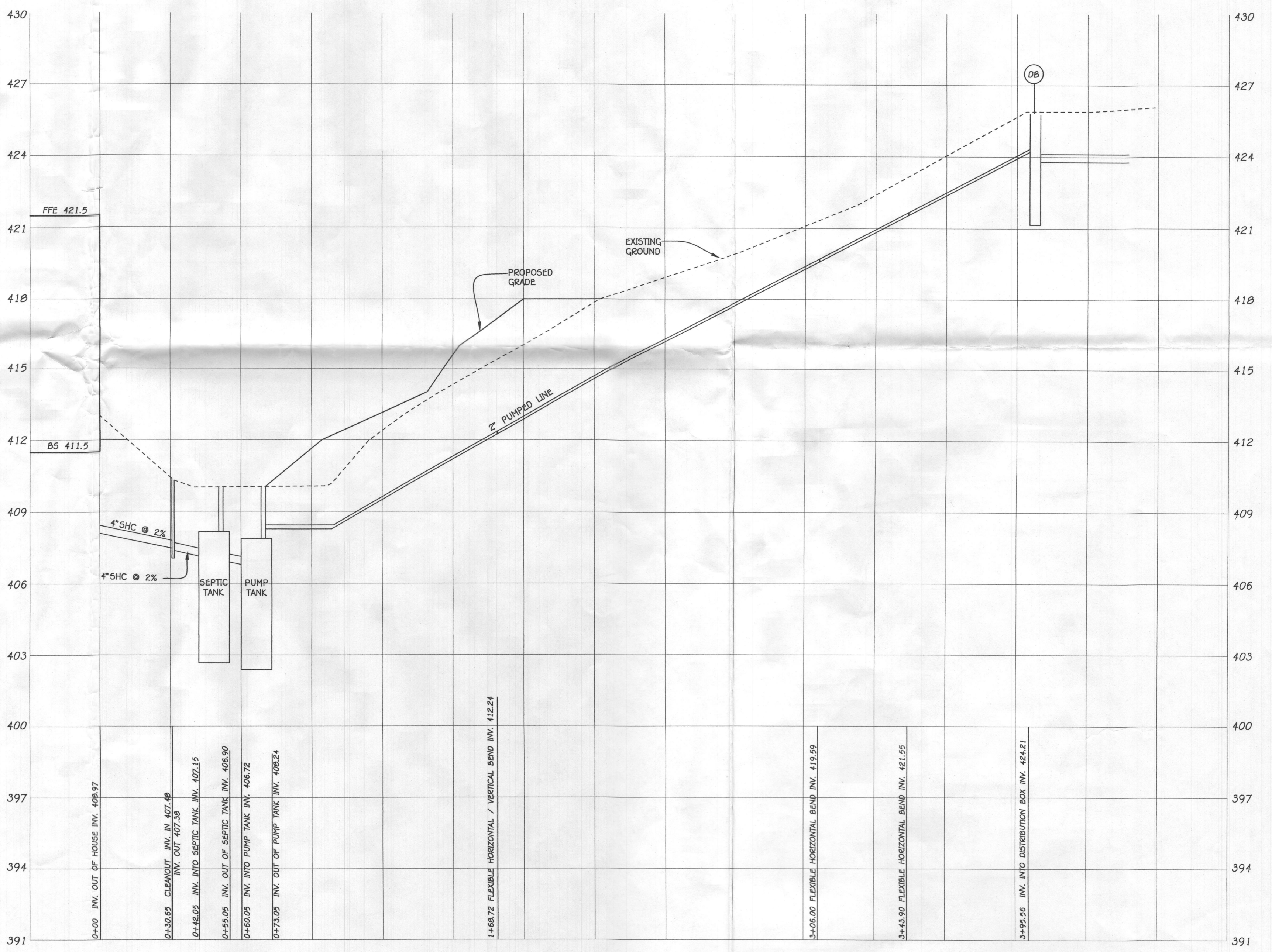
Approved Septic System Plan
Howard County Health Department
[Signature] 3/13/2019
Signature Date



0' 30' 60' 120'
SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21044
(410) 461 - 2895

OWNER
WILLIAMSBURG GROUP, LLC
C/O 8006 CORBETT
5405 HARBERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800



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

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. 38366, EXPIRATION DATE: 01/12/2020.

[Signature] 3/14/19
Signature of Professional Engineer DATE

STATE OF MARYLAND
STEPHANIE J. JEFFRE
PROFESSIONAL ENGINEER
LICENSE NO. 38366

SEPTIC PLAN
WESTLAND FARM ESTATES, LOT 7
12530 WESTLAND COURT
TAX MAP #45 PARCEL 2B
ZONED RS-DOO
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2018

GENERAL NOTES:

1. 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.
2. ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
3. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
4. ALL WELLS AND SEPTIC SYSTEMS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND 200 FEET DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
5. TOPOGRAPHIC CONTOURS BASED ON HARFORD AERIAL SURVEYS, INC. DATED JANUARY 2006 AND SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT APRIL, 2006 AND JANUARY, 2015.
6. BOUNDARY OF LOT BASED ON PLAT #23986 AND FIELD SURVEY BY FISHER, COLLINS & CARTER, INC.
7. PLAT REFERENCE: 23985 THRU 23987.
8. SUBJECT PROPERTY ZONED: R8-DEO
9. TOTAL AREA OF PROPERTY: 3.09 AC.
10. WETLANDS, STREAMS, THEIR BUFFERS, FLOODPLAIN, AND STEEP SLOPES DO NOT EXIST ON THIS LOT.
11. SOILS SHOWN HEREON ARE BASED ON NRCS WEB SOIL SURVEY AND HOWARD COUNTY SOILS MAP 22.
12. 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.
13. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET.
14. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY LICENSED ELECTRICIAN.
15. SEWAGE DISPOSAL AREA MUST BE FENCED OFF WITH SNOW FENCING PRIOR TO BUILDING PERMIT APPROVAL.

LEGEND

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING TREE LINE
- SOIL LINES AND TYPES
- DENOTES EXISTING WELL
- DENOTES PROPOSED TREELINE
- DENOTES 1500 SQ.FT. ALTERNATE WELL SITE
- PASSED PERC HOLES
- FAILED PERC HOLES

SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM

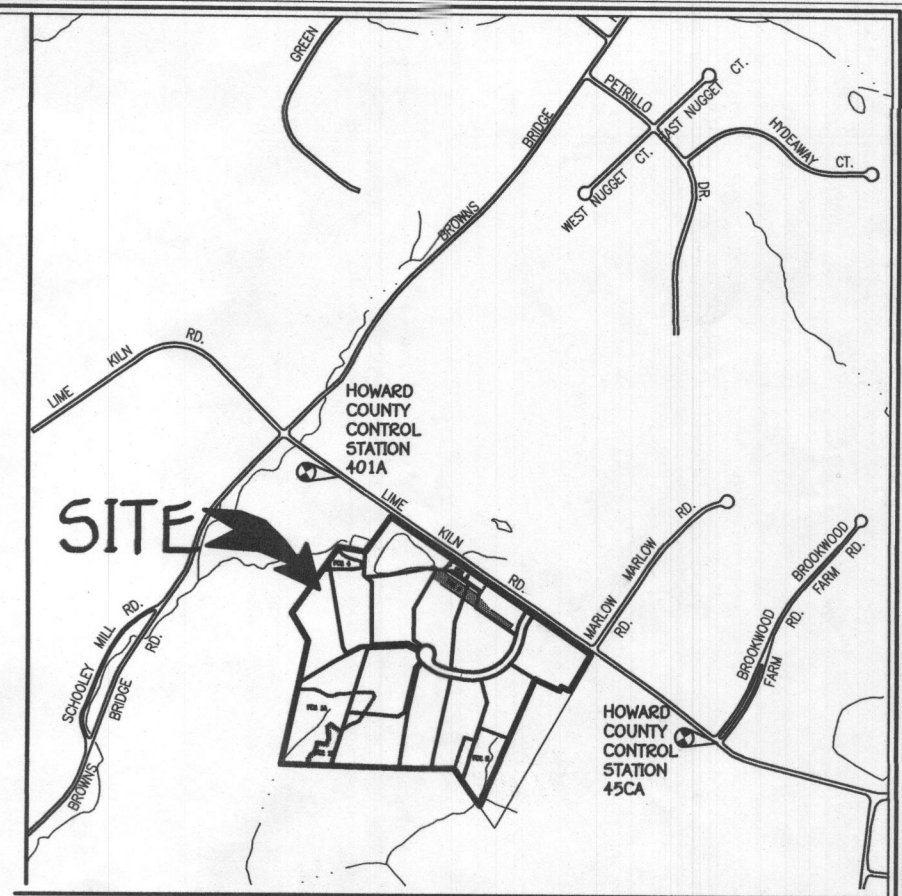
7 BEDROOMS
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+2(2)) = 0.625$
TRENCH LENGTH = $875 \text{ SF} \times 0.625 / 3 = 182.29 \text{ FEET}$
(USE 4 TRENCHES AT 45.57)
TRENCH SPACING = $2D+W = (2(2) + 3) = 7'$ USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM

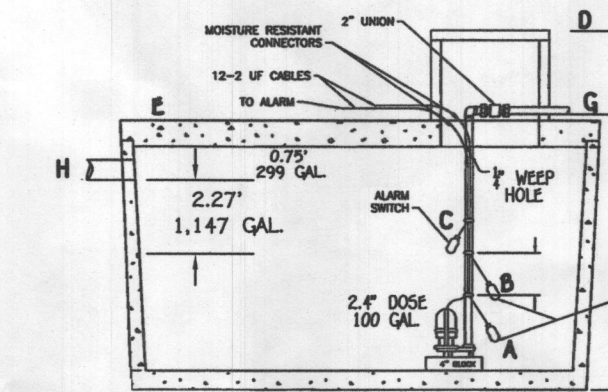
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1,125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+2(2)) = 0.625$
TRENCH LENGTH = $1,125 \text{ SF} \times 0.625 / 3 = 273.44 \text{ FEET}$
(USE 4 TRENCHES AT 68.36)
TRENCH SPACING = $2D+W = (2(2) + 3) = 7'$ USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT

7 BEDROOMS
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+2(2)) = 0.625$
TRENCH LENGTH = $875 \text{ SF} \times 0.625 / 3 = 182.29 \text{ FEET}$
(USE 3 TRENCHES AT 60.76)
TRENCH SPACING = $2D+W = (2(2) + 3) = 7'$ USE 10'



VICINITY MAP
SCALE: 1" = 1200'



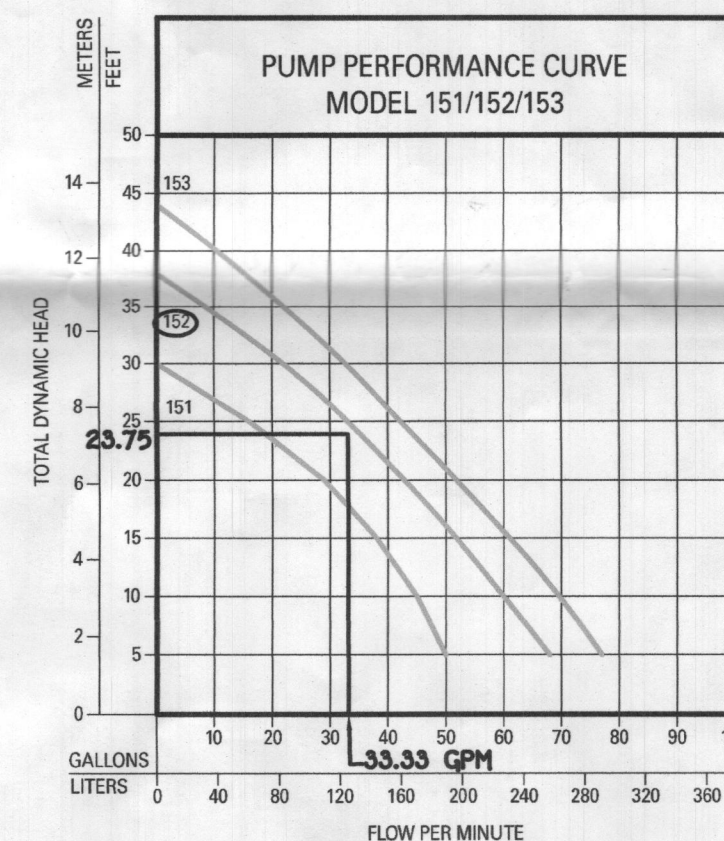
PUMP ALARMS / INFORMATION

- A. PUMP OFF: 404.05
- B. PUMP ON: 404.25
- C. HIGH WATER ALARM: 404.45
- D. TOP OF ACCESS COVER: 409.30
- E. TOP OF TANK: 407.80
- F. BOTTOM OF TANK: 402.22
- G. DISCHARGE OUT OF TANK: 408.24
- H. INVERT INTO TANK: 406.72

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

1,147 GAL + 299 GAL = 1,446 GAL OF EMERGENCY STORAGE.

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



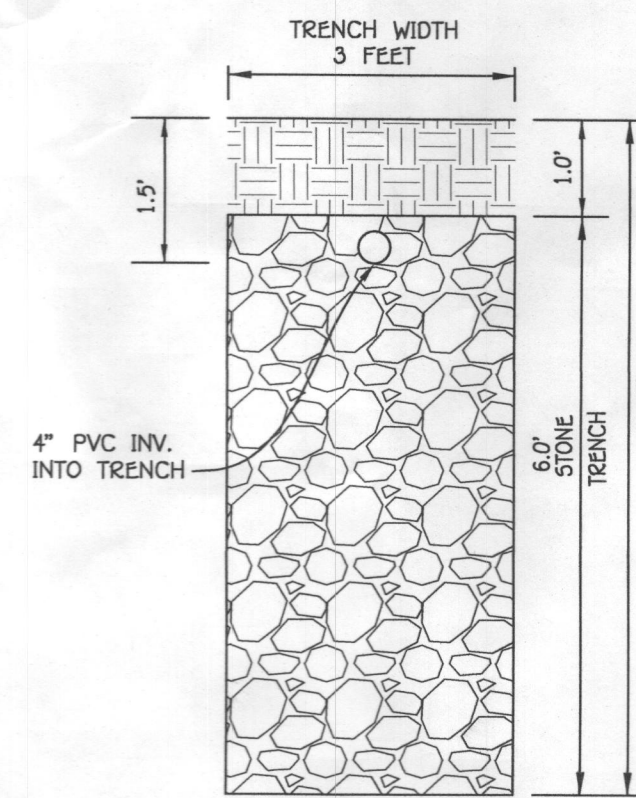
FFE 421.5
BSL 411.5
INV. OUT OF HOUSE = 408.09
PROP. GROUND AT CLEANOUT #1 = 409.8
PROP. INTO CLEANOUT = 407.48
INV. OUT OF CLEANOUT = 407.38
PROP. GROUND AT SEPTIC TANK = 410.0
COVER OVER SEPTIC TANK = 1.85 FEET
TOP OF SEPTIC TANK = 408.15
INV. INTO SEPTIC TANK = 407.15
INV. OUT OF SEPTIC TANK = 406.9
PROP. GROUND AT PUMP TANK = 410.0
COVER OVER PUMP TANK = 2.2 FEET
TOP OF PUMP TANK = 407.8
INV. INTO PUMP TANK = 406.72
INV. OUT OF PUMP TANK = 408.24
EX. GROUND AT DISTRIBUTION BOX = 425.9
INV. INTO DISTRIBUTION BOX = 424.21
INV. OUT OF DISTRIBUTION BOX = 424.19

NOTE:
2" SCH. 40 PVC = 325 LF
1 UNION @ 2 EQUIVALENT FEET = 2 LF
1 ELBOW @ 9 EQUIVALENT FEET = 9 LF
3 1/8" HD @ 4 EQUIVALENT FEET = 12 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 340 LF

DYNAMIC HEAD
340 LF X 1.10 FT PER 100 LF OF 2" PIPE = 3.74 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 4.21 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 15.8 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD = 23.75 FT

USE 100 GALLON DOSE
(RUN TIME = 3 MIN (33.33 GPM X 3 = 100 GALLON DOSE))

PUMP NEEDS TO HANDLE 33.33 GPM AT 23.75 FT OF HEAD
USE 0.4 HP (ZOLLER MODEL 152 PUMP)



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

Approved Septic System Plan
Howard County Health Department
Signature: *[Signature]* Date: 3/13/2019

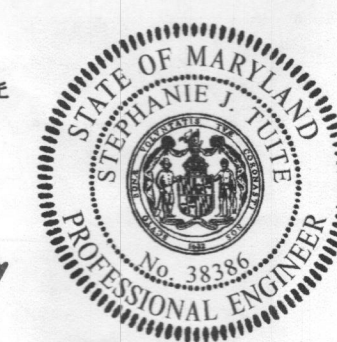
NOTE:
THE EXISTING WELLS SHOWN ON
THIS PLAN, HO-15-0162 HAS
BEEN FIELD LOCATED BY FISHER,
COLLINS & CARTER, INC.,
PROFESSIONAL LAND SURVEYORS
AND IS ACCURATELY SHOWN.

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)
1A1	425.8	424.8	424.3	1.0'	6.0'	418.8	5'	7'	3.0'
1A2	424.1	423.1	422.6	1.0'	6.0'	416.1	5'	7'	3.0'
1A3	424.0	423.0	422.5	1.0'	6.0'	417.0	5'	7'	3.0'
1A4	423.0	422.0	421.5	1.0'	6.0'	416.0	5'	7'	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. 38386, EXPIRATION DATE: 01/12/2020.

Signature: *[Signature]* Date: 3/17/19



SEPTIC PLAN
WESTLAND FARM ESTATES, LOT 7
12538 WESTLAND COURT

TAX MAP #45 PARCEL: 28
ZONED: R8-DEO
THIRD ELECTION DISTRICT: HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY, 2019

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
410.611.2299

OWNER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5405 HARTFORD PARK ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-0600

PLAN
SCALE: 1" = 30'

