



Howard County
Health Department

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

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

RECEIPT DATE: _____

ONSITE SEWAGE DISPOSAL SYSTEM

P ~~572653~~ 572653

APPROVAL DATE: 9/1/22

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 12505 Westland Court

SUBDIVISION: Westland Farm Estates

LOT: 14

TAX ID: 4309278

CONTRACTOR: H. H. H. Equipment

EMAIL: hhequipment.com

CONTRACTOR ADDRESS: P.O. Box 511, Annapolis, MD 20701

PHONE: _____

PROPERTY OWNER: Ryan & Kelly Bruffey

EMAIL: _____

OWNER ADDRESS: 11289 Terrace Lane

PHONE: _____

SEPTIC TANK SIZE (GALLONS): 2000 GAL

TANK MANUFACTURER: Babylon Vault

PUMP MODEL: Model 151

PUMP SIZE: N/A 1/3 HP

PUMP TANK CAPACITY: 2000 GAL

DISTRIBUTION SYSTEM:

☐ GRAVITY

☒ PRESSURE DOSED

BEDROOMS: 5

APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>53' X 5</u>	INLET DEPTH: <u>4'</u>
	TRENCH WIDTH: <u>3'</u>	MAXIMUM BOTTOM DEPTH: <u>8'</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:	Will need a pump, alarm, and electrical check.	

ISSUED BY: Zack Silvast

ISSUE DATE: _____

EXPIRATION DATE: _____

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 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 2200 5094

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

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH INLET BOTTOM

3 4 8

NUMBER OF TRENCHES 3

TOTAL LENGTH

ABSORPTION AREA

DISTRIBUTION BOX LEVEL yes

DISTRIBUTION BOX BAFFLE yes

DISTRIBUTION BOX PORT yes

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL

MANUFACTURER

CAPACITY GAL

SEAM LOC

TANK LID DEPTH

BAFFLES

BAFFLE FILTER

MANHOLE LOC

6" PORT LOC

WATERTIGHT TEST

SLOTTED

DATE ON LID 10/07/2022

PUMP/SEPTIC TANK LEVEL

MANUFACTURER

CAPACITY GAL

SEAM LOC

TANK LID DEPTH

BAFFLES

BAFFLE FILTER

MANHOLE LOC

6" PORT LOC

WATERTIGHT TEST

SLOTTED

DATE ON LID 10/07/2022

PRE-CONSTRUCTION:

11/14/2022 Laid out 5x53' Trenched

INSTALLATION: 11/15/2022 SHC, SL, TANKS SET; 2x UPPER TRS

COMPLETE

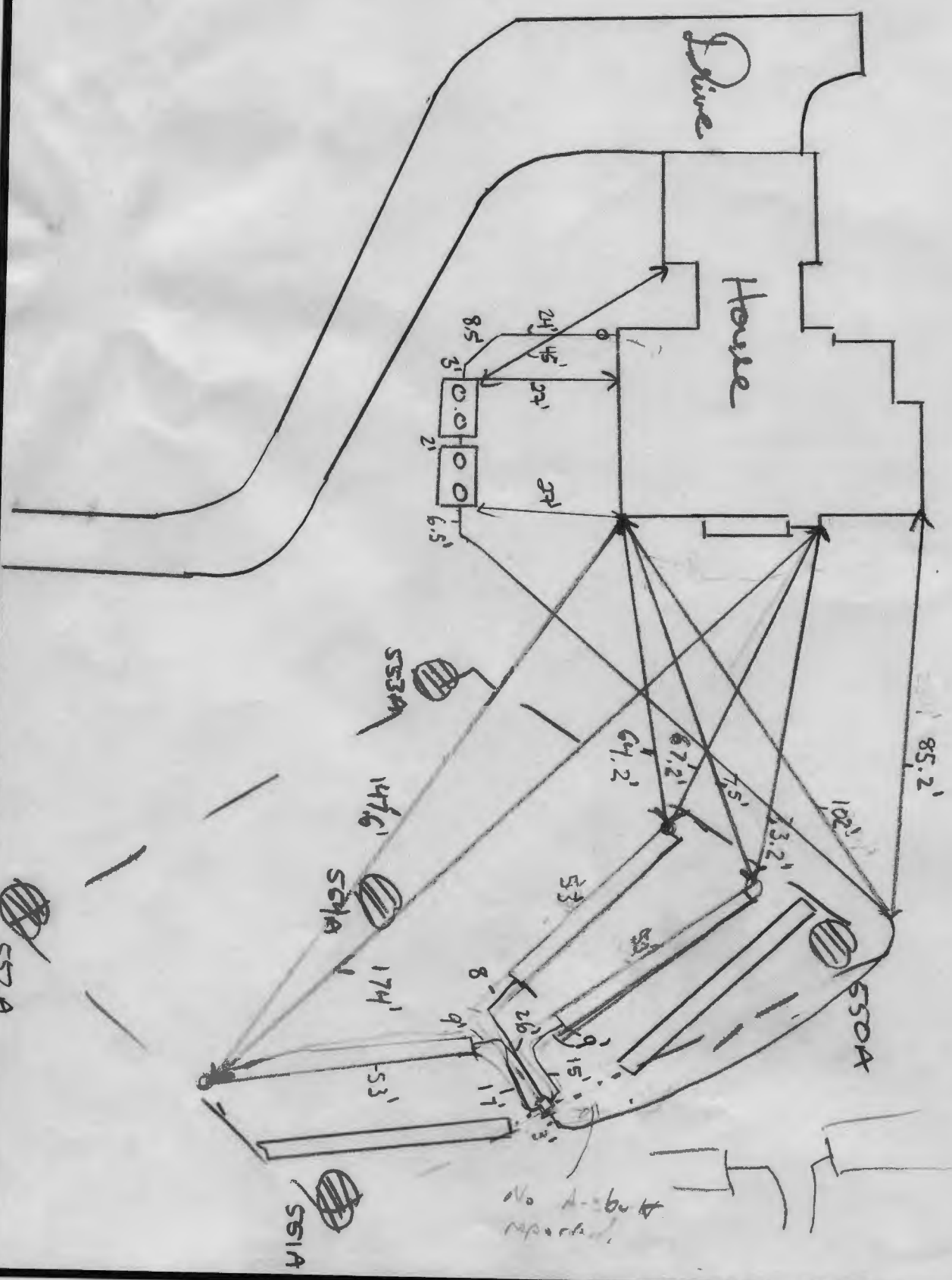
11/15/2022 Contractor on site. Large man installed. D-box level.

Stone OK. Trench matched plan length. OK to backfill. Call for reinspection. KR/SP

3/31/2023 - Rhombus Alarm outside of tank. Visual & audible alarm good. Saw
flats, water pumped successfully to D-box. Circuit for septic tank in house.
Pump & Alarm outside tank. SP

FINAL INSPECTOR Shepsara Page DATE OF APPROVAL 3/31/2023

NOT TO SCALE 21:30



Westland Court

Silvast, Zackary

From: Tony Fertitta <tonyf@fcc-eng.com>
Sent: Friday, April 29, 2022 9:29 AM
To: Silvast, Zackary
Cc: Paul Cavanaugh
Subject: Septic Spec WESTLAND FARM ESTATES
Attachments: Tony Fertitta.vcf

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Good Morning Zack

Could I please get the septic Spec for lot 14 Westland Farms 12505 Wetland Court

Thank you

Tony



Sent 5/3/22

Silvast, Zackary

From: Silvast, Zackary
Sent: Tuesday, July 19, 2022 12:08 PM
To: Tony Fertitta
Cc: Bernard, Dana; Williams, Jeffrey
Subject: Regarding OSDS for 12505 Westland Court

To Whom It May Concern,

There are a few fixes that this OSDS plan needs.

1. Label 10,000 sf SDA
2. Label 2000 GAL septic tank
3. Label 1500 GAL pump pit
4. Label all the trench lengths.
5. Fix the layout of the three systems. You're showing one trench going across the whole SDA.
 - a. You must fix the orientation to not make the curves in the pipes so severe.
 1. I understand getting the pipes on contour but these bends are too severe.
 - b. A portion of the SDA and property should not be cut off to where the pipe is not visible.
 - c. Overall, I should be able to decipher which trenches go with which system: as in initial, 1st replacement, or 2nd replacement.

We look forward to your re-submittal. Thank you.

- ZS

Zack Silvast (LEHS)

Plan Review Supervisor - Water & Sewer Division

410-313-1777

Environmental Health Bureau
Howard County Health Department

Silvast, Zackary

From: Silvast, Zackary
Sent: Thursday, August 18, 2022 8:55 AM
To: Tony Fertitta; Paul Cavanaugh
Cc: Williams, Jeffrey
Subject: RE: Regarding OSDS for 12505 Westland Court

Good Morning Everyone,

I think the topography is an issue on this site after made my field visit late yesterday afternoon. I would ask that the 10,000 sf SDA be staked out and the grass mowed down. And that 20' circumference around the outside edge of the SDA also be mowed down so we can determine just how the reconfiguration would work. There is a very apparent swale in the SDA area paired with a couple contour tips/toes. I am about 90% sure we will need to adjust the SDA through a new perc certification. I would also like the surveyor to stake out their current drainfield proposal, both the initial and 2 replacements. Thank you all for your cooperation and consideration.

- ZS

From: Tony Fertitta <tonyf@fcc-eng.com>
Sent: Tuesday, August 2, 2022 10:52 AM
To: Silvast, Zackary <zsilvast@howardcountymd.gov>; Paul Cavanaugh <PaulC@fcc-eng.com>
Cc: Bernard, Dana <dbernard@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>
Subject: RE: Regarding OSDS for 12505 Westland Court

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Zack/Jeff

Attached is a new layout for the Initial trenches. If you ok with this layout I will send paper copies in.

Thanks
Tony

From: Silvast, Zackary <zsilvast@howardcountymd.gov>
Sent: Tuesday, July 19, 2022 2:19 PM
To: Tony Fertitta <tonyf@fcc-eng.com>; Paul Cavanaugh <PaulC@fcc-eng.com>
Cc: Bernard, Dana <dbernard@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>
Subject: RE: Regarding OSDS for 12505 Westland Court

Jeff,

After my phone call with Tony, it was brought to my attention that my comments were not within normal Howard County practices so we'll have to have a quick meeting to discuss the current layout of these septic systems. And having clean, neat, well-labeled schematics are not necessary on the plot plan if all of the information is present although scattered across the entire plan(s) within the details.

- ZS

From: Tony Fertitta <tonyf@fcc-eng.com>

Sent: Tuesday, July 19, 2022 1:30 PM

To: Silvast, Zackary <zsilvast@howardcountymd.gov>; Paul Cavanaugh <PaulC@fcc-eng.com>

Cc: Bernard, Dana <dbernard@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>

Subject: RE: Regarding OSDS for 12505 Westland Court

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hey Zack,

Give me a call on this all that info in on the plan,

1. **Label 10,000 sf SDA**
The sda label is in the middle of the sda 10,306 sq.ft
2. **Label 2000 GAL septic tank**
Is labeled on the tank detail
3. **Label 1500 GAL pump pit**
It's a 2000 gal tank and is labeled on the tank detail
4. **Label all the trench lengths.**
I have the trench lengths in the sewage disposal system data (Initial system 6 trenches)
5. **Fix the layout of the three systems. You're showing one trench going across the whole SDA.**
Those are 3 trenches in a row so we have equal lengths it has 2 breaks in it 3' apart spacing
 - a. **You must fix the orientation to not make the curves in the pipes so severe.**
 1. **I understand getting the pipes on contour but these bends are too severe.**
We draw them to match with the understanding that field adjustments are made.
 - b. **A portion of the SDA and property should not be cut off to where the pipe is not visible.**
Not sure what you looking at all of the sda is shown on the plan
 - c. **Overall, I should be able to decipher which trenches go with which system: as in initial, 1st replacement, or 2nd replacement.**
All trenches are labeled as to the Initial system, 1st replacement system and 2nd replacement system with leaders pointing to them.

Attached is the plan which was submitted with everything requested now highlighted in red .

Tony

From: Silvast, Zackary <zsilvast@howardcountymd.gov>

Sent: Tuesday, July 19, 2022 12:08 PM

To: Tony Fertitta <tonyf@fcc-eng.com>

Cc: Bernard, Dana <dbernard@howardcountymd.gov>; Williams, Jeffrey <jewilliams@howardcountymd.gov>

Subject: Regarding OSDS for 12505 Westland Court

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4. **Label all the trench lengths.**
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- a. You must fix the orientation to not make the curves in the pipes so severe.
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We look forward to your re-submittal. Thank you.

- ZS

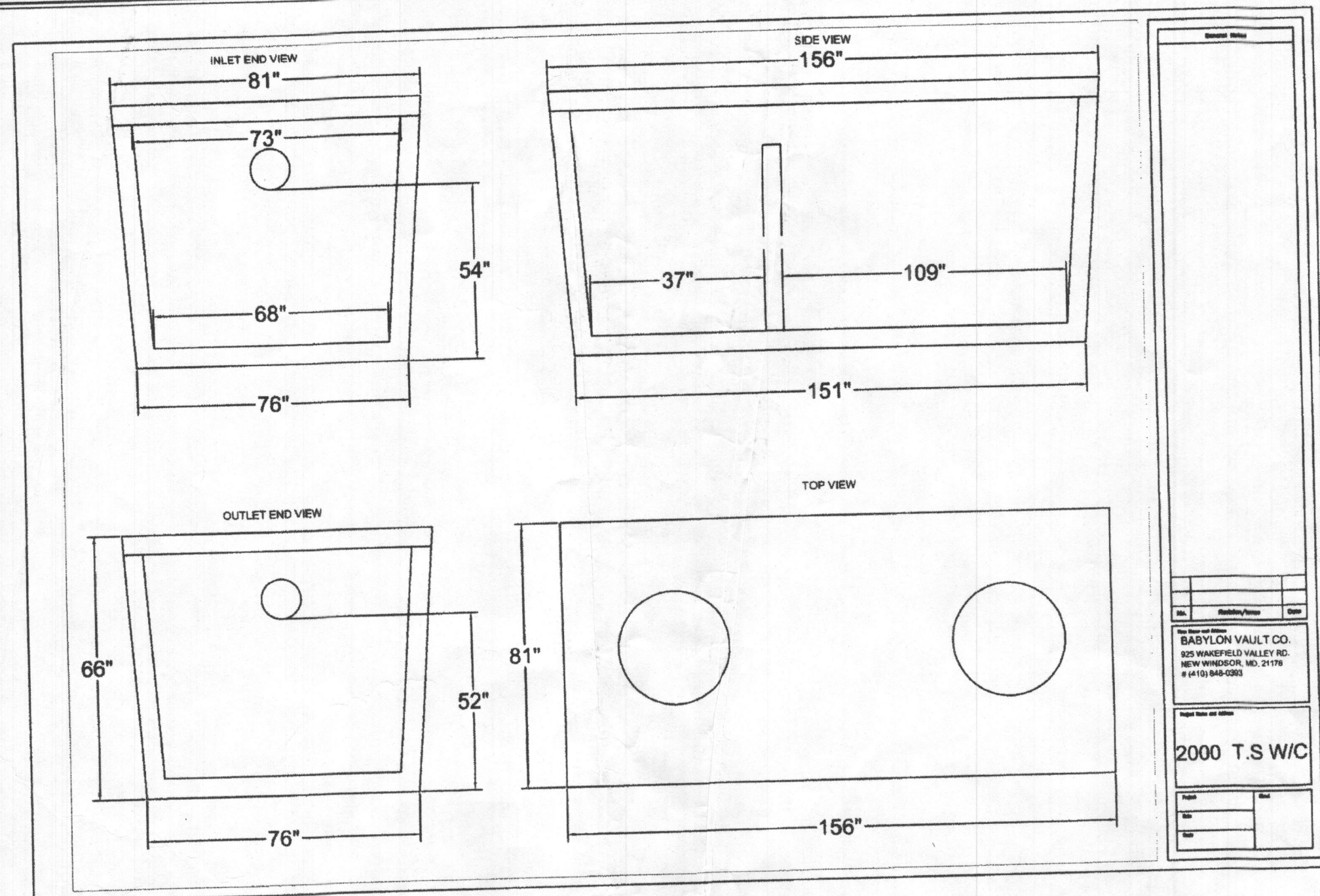
Zack Silvast (LEHS)

Plan Review Supervisor - Water & Sewer Division

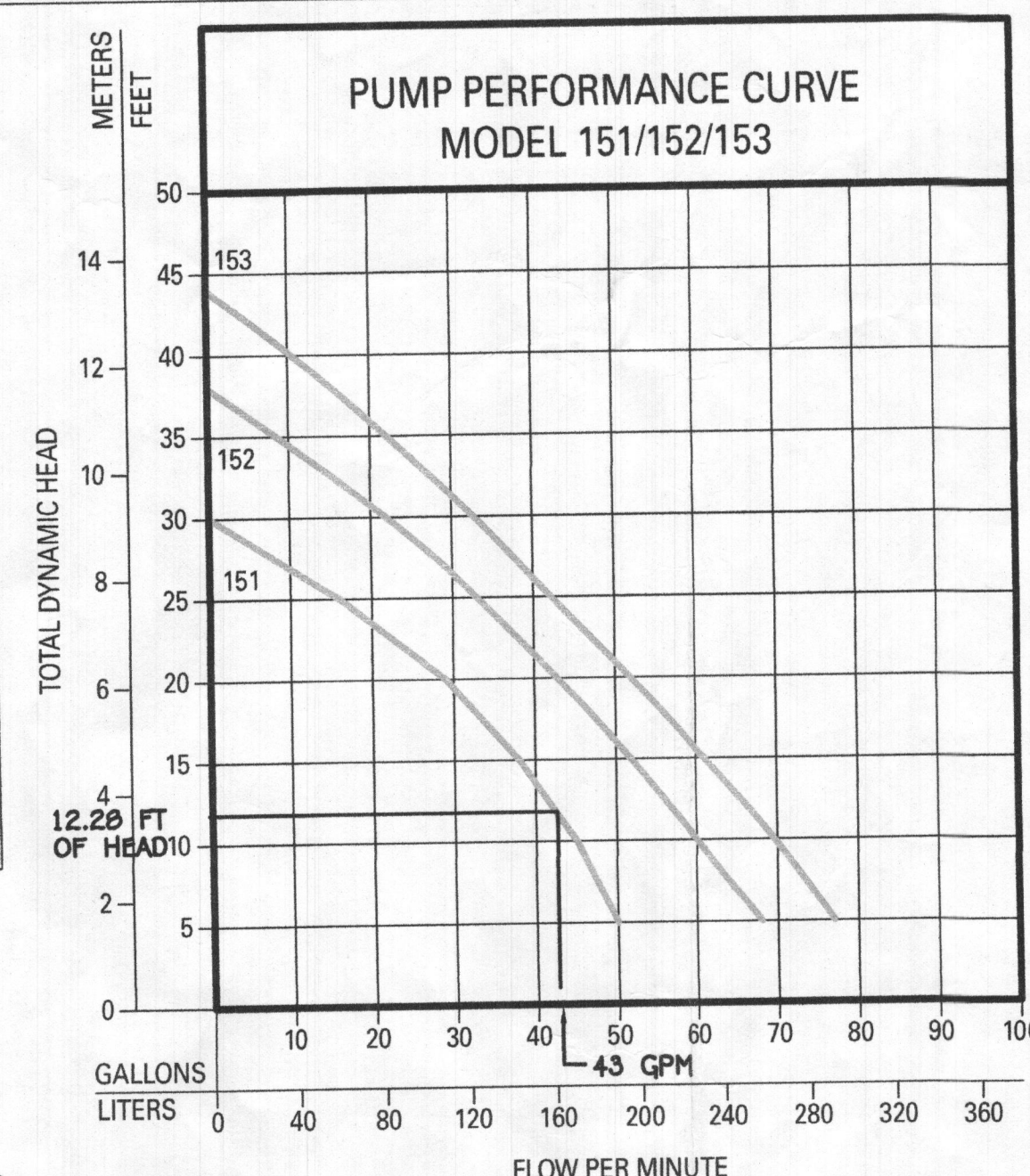
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Environmental Health Bureau

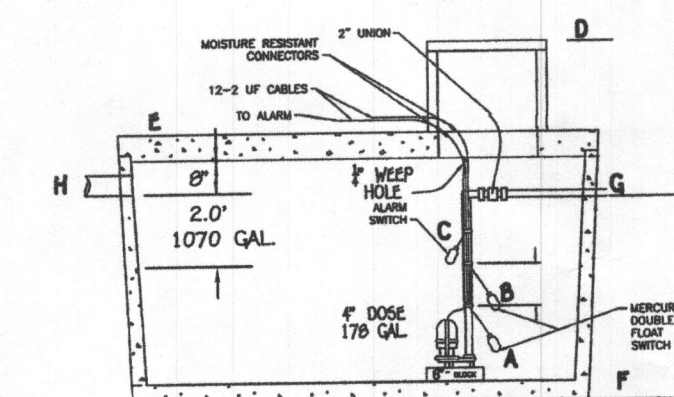
Howard County Health Department



* BASEMENT SEWAGE TO BE PUMPED



PUMP ALARMS / INFORMATION
 A. PUMP OFF : 403.72
 B. PUMP ON : 404.05
 C. HIGH WATER ALARM : 404.55
 D. TOP OF ACCESS COVER : 410.3
 E. TOP OF TANK : 407.3
 F. BOTTOM OF TANK : 401.55
 G. DISCHARGE OUT OF TANK : 406.05
 H. INVERT INTO TANK : 406.3



1070 + 300 = 1370 GALLONS 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.

2" SCH. 40 PVC = 107 LF
 1 UNION @ 2 EQUIVALENT FEET = 2 LF
 1 1/8 HB @ 4 EQUIVALENT FEET = 16 LF
 TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 205 LF

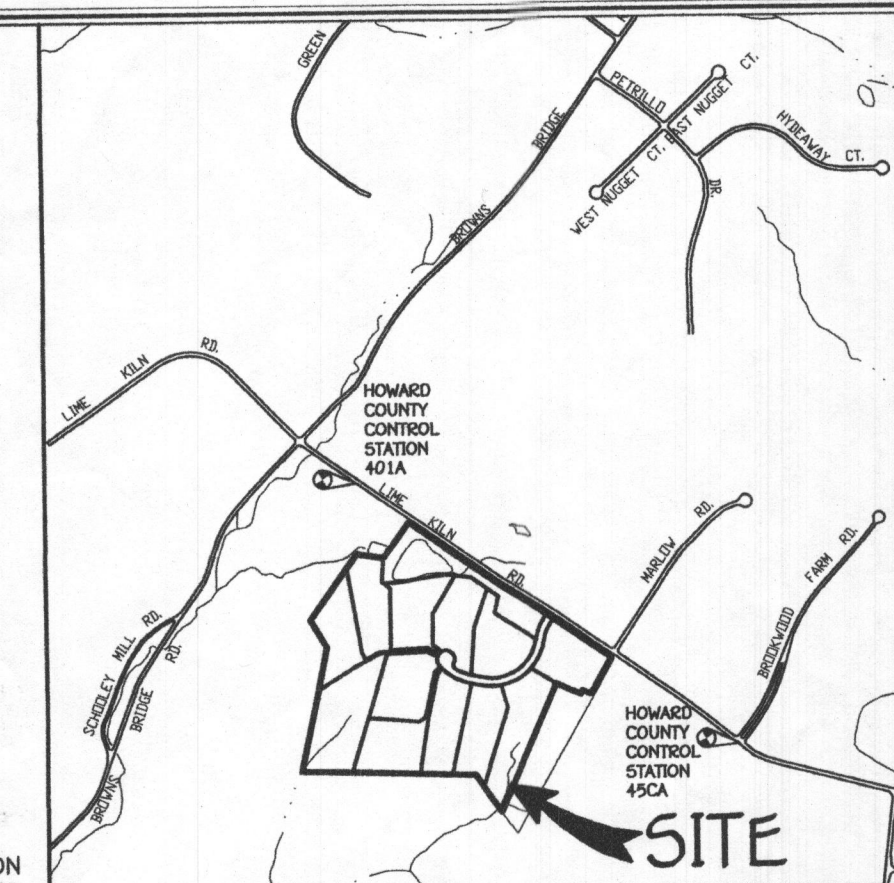
DYNAMIC HEAD
 205 LF X 2.05 FT PER 100 LF OF 2" PIPE = 4.20 FT OF FRICTION HEAD
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.03 FT OF FRICTION HEAD
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 6.05 FT (DISTRIBUTION BOX IS THE HIGHEST POINT)
 TOTAL DYNAMIC HEAD = 12.28 FT

1/6 DESIGN FLOW (750/6=125) PLUS VOLUME OF 2" PIPE (33.45 GALLONS)
 USE 178 GALLON DOSE (159 GALLON MINIMUM)
 RUN TIME = 4.1 MIN (43 GPM X 4.1 = 178 GALLON DOSE)

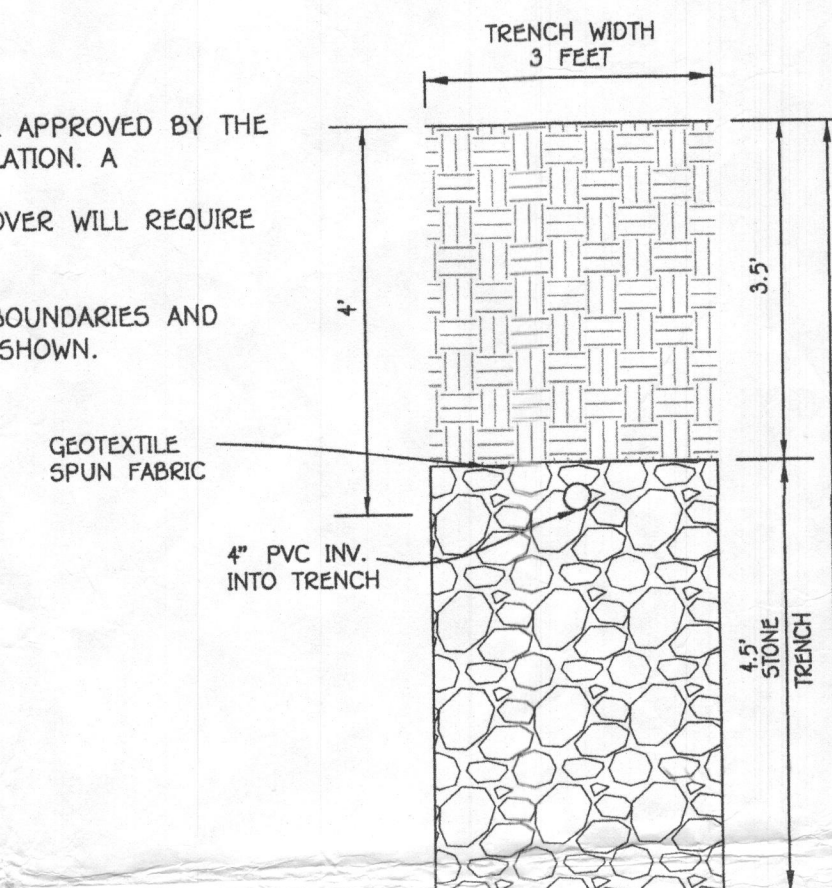
PUMP NEEDS TO HANDLE 43 GPM AT 12.28 FT OF HEAD
 USE 1/3 HP (ZOLLER MODEL 151 PUMP)

1. 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.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.

VICINITY MAP
 SCALE: 1" = 1200'



INITIAL TRENCH DETAIL
 SCALE: 1"=2'



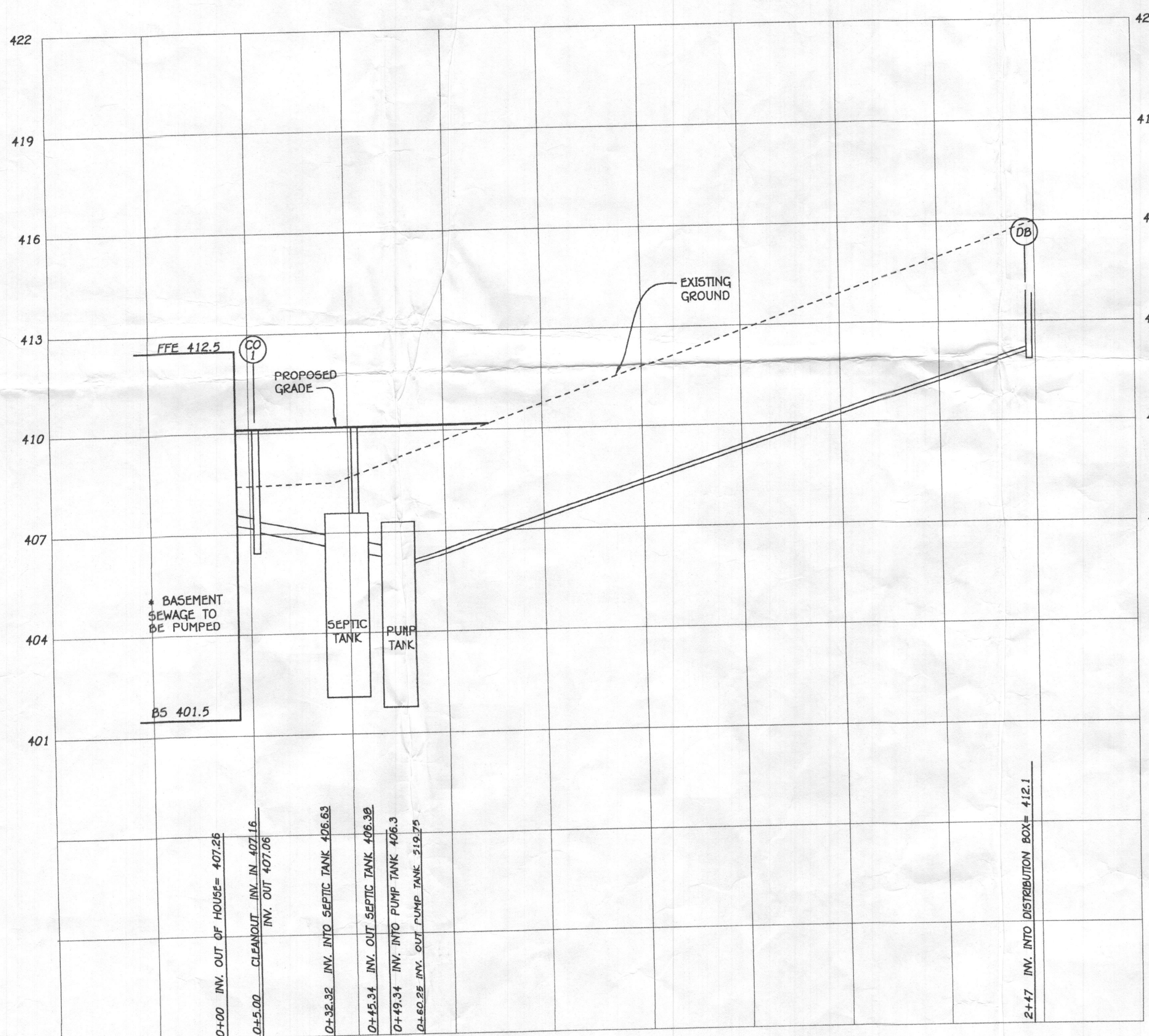
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 7 FEET
 TRENCH DEPTH = 8 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 1 FEET
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x1)) = 0.833
 TRENCH LENGTH = 937.5 SF x 0.833 / 3 = 260.42 FEET
 (6 TRENCHES AT 43.40')

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT SYSTEM
 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 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 = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2)) = 0.625
 TRENCH LENGTH = 937.5 SF x 0.625 / 3 = 195.31 FEET
 (4 TRENCHES AT 48.83')

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM
 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 5 FEET
 TRENCH DEPTH = 7 FEET
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 TRENCH LENGTH = 937.5 SF x 0.625 / 3 = 195.31 FEET
 (4 TRENCHES AT 48.83')

SEPTIC PLAN
WESTLAND FARM ESTATES
LOT 14
 12505 WESTLAND COURT

TAX MAP #45 PARCEL: 28
 ZONED: R8-60
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 3, 2022



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. 20748, EXPIRATION DATE: 02/22/2023.

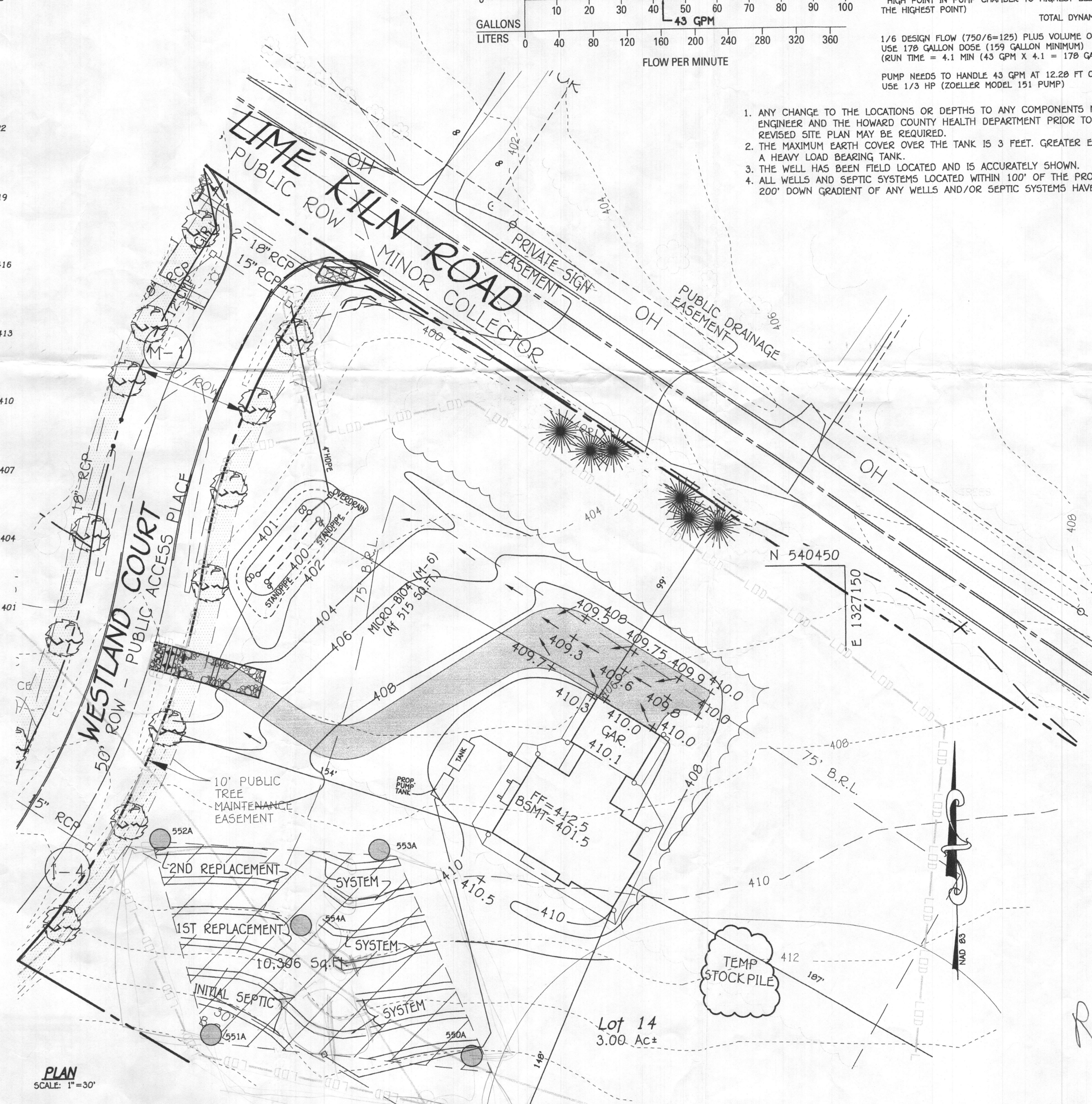


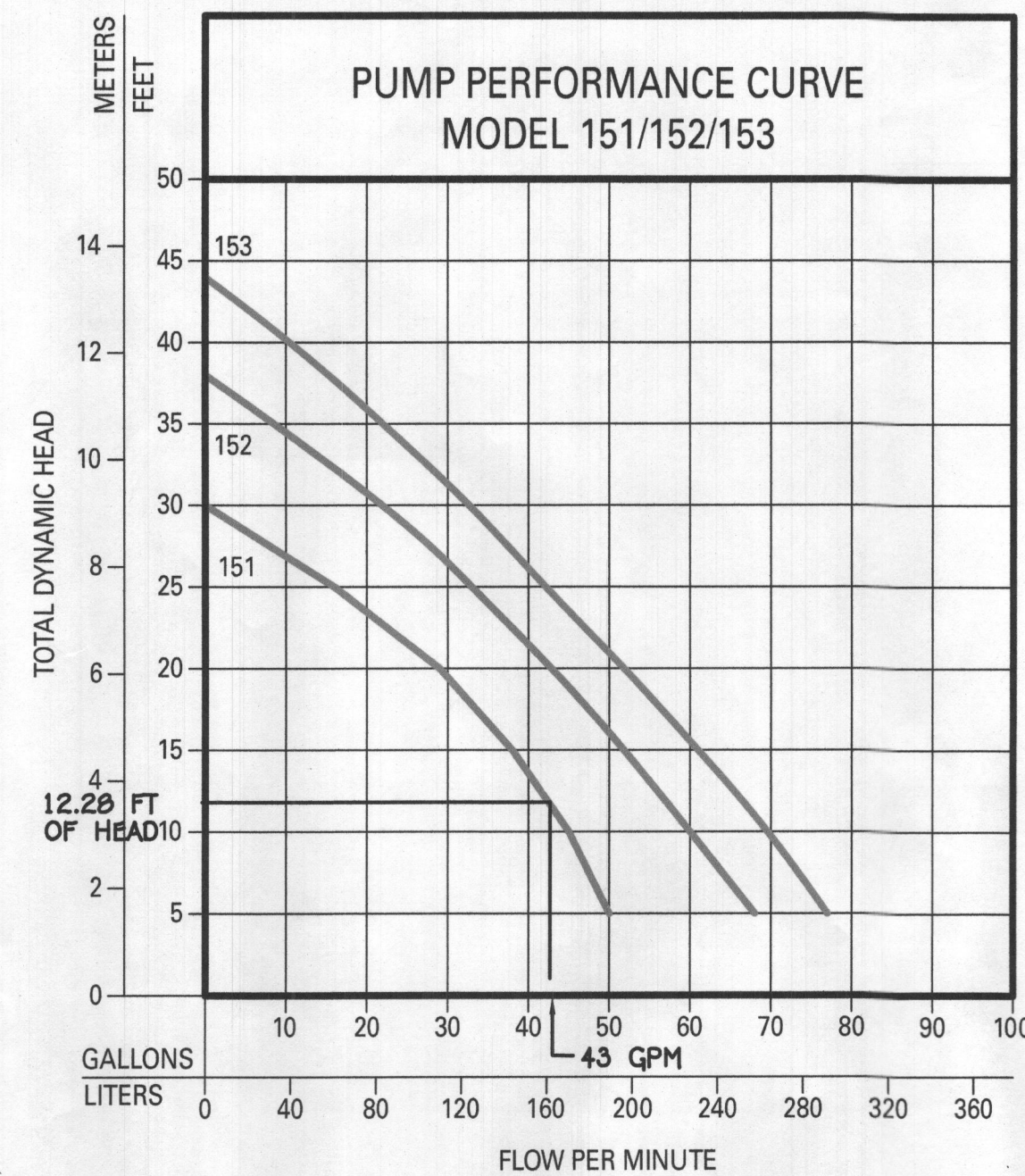
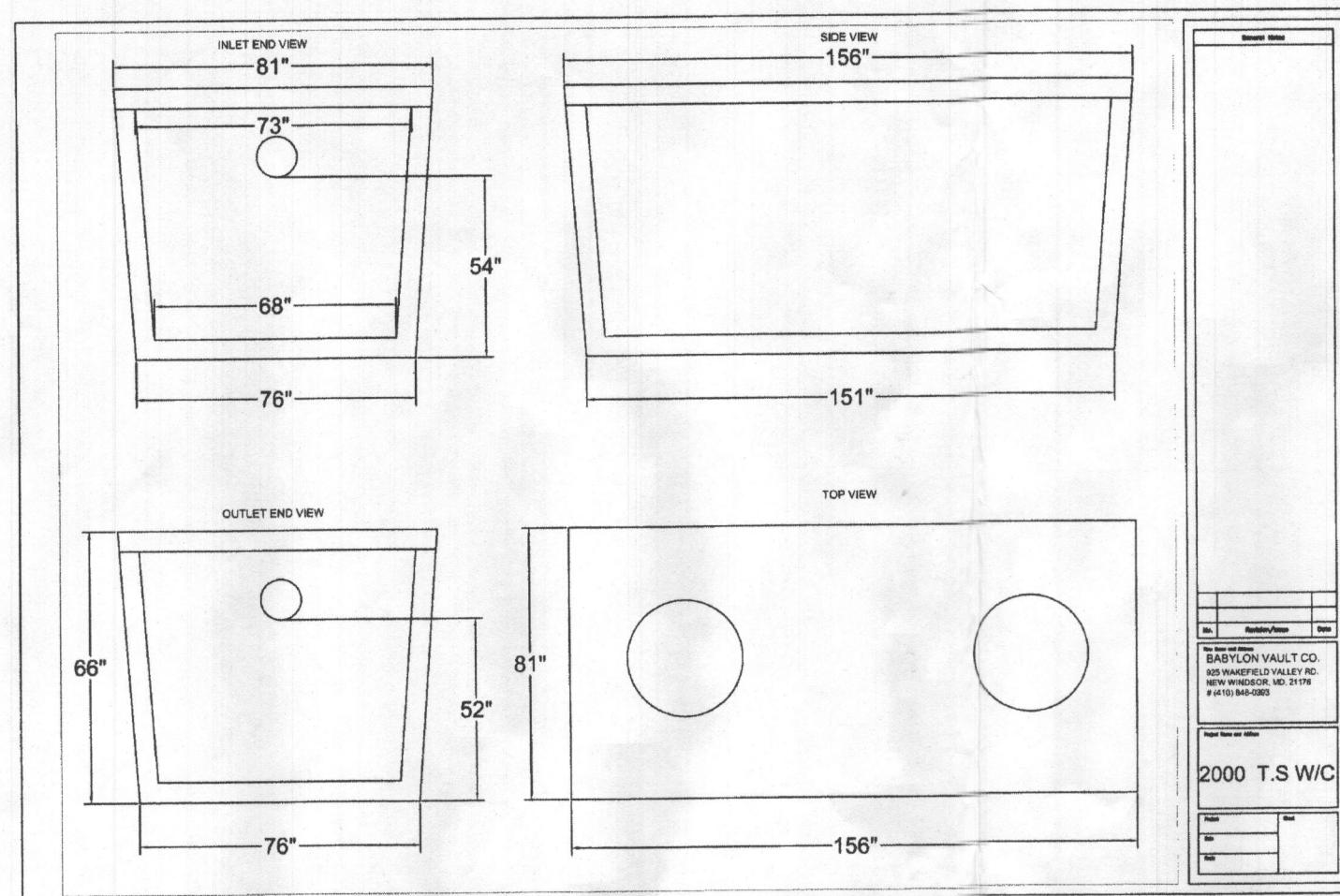
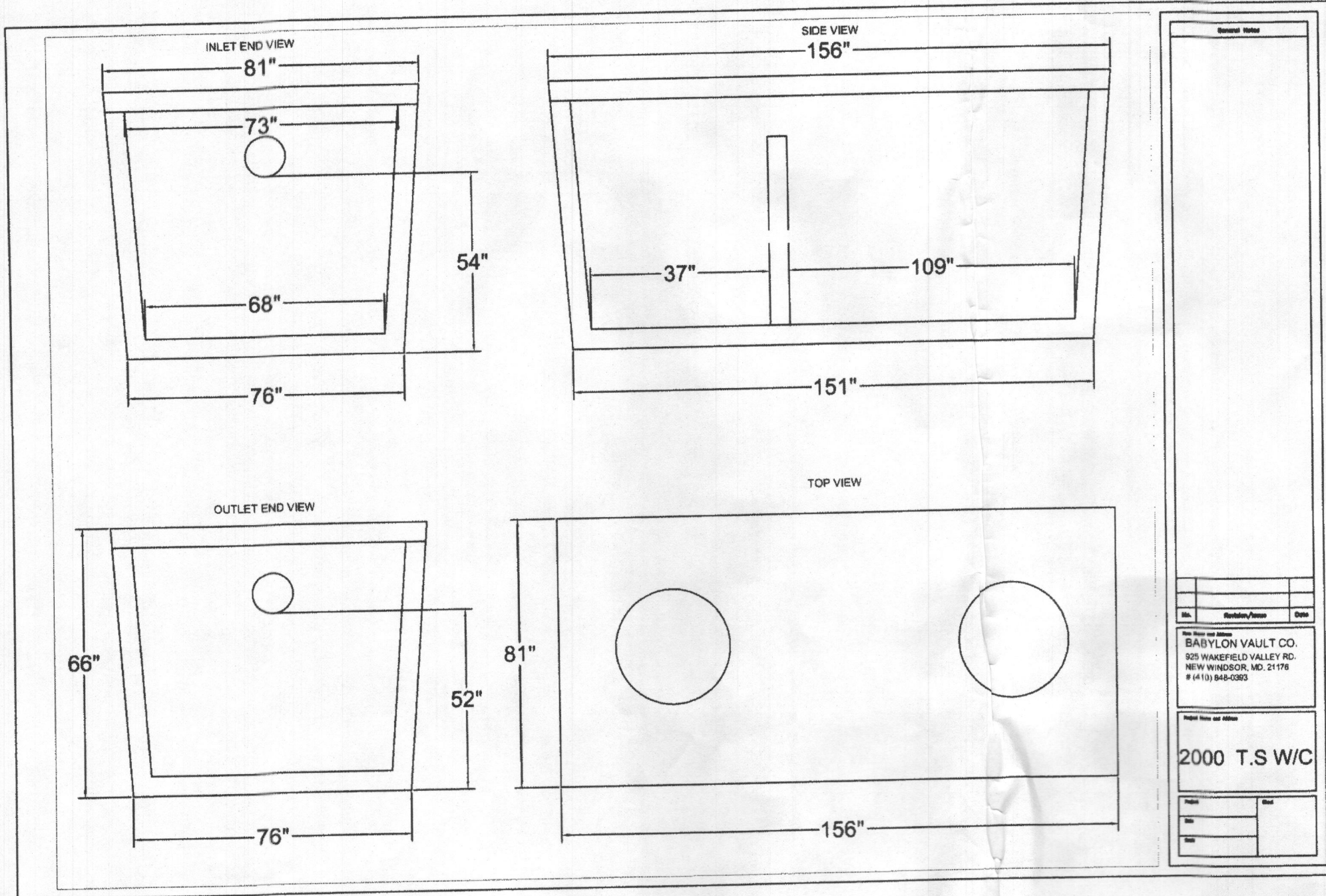
Signature Of Professional Engineer

6/16/22
 DATE

FFW 412.5
 BSE 401.5
 INV. OUT OF HOUSE = 407.26
 INV. INTO CLEANOUT # 1 = 410
 PRCP. GROUND AT CLEANOUT = 407.16
 INV. OUT OF CLEANOUT = 407.06
 EX. GROUND AT SEPTIC TANK = 408.5
 PROP. GRADE ABOVE SEPTIC TANK = 410.3
 TOP OF SEPTIC TANK = 407.63
 INV. INTO SEPTIC TANK = 406.63
 INV. OUT OF SEPTIC TANK = 406.38
 EX. GROUND AT PUMP TANK = 409
 PROP. GRADE ABOVE PUMP TANK = 410.3
 TOP OF PUMP TANK = 407.3
 INV. INTO PUMP TANK = 406.3
 INV. OUT OF PUMP TANK = 406.05
 EX. GROUND AT DISTRIBUTION BOX = 416
 INV. INTO DISTRIBUTION BOX = 412.1
 INV. OUT OF DISTRIBUTION BOX = 412

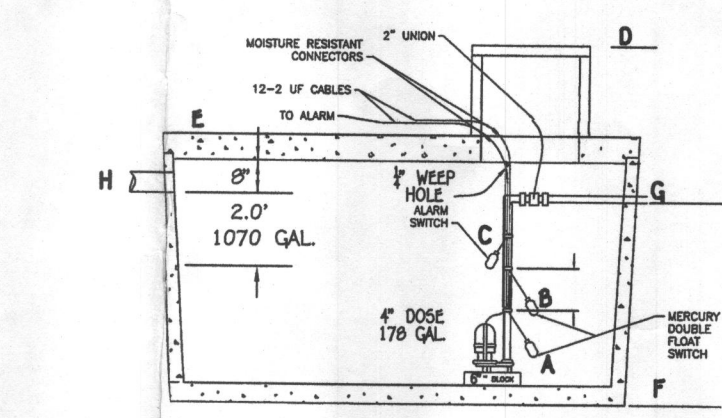
PLAN
 SCALE: 1"=30'





PUMP ALARMS / INFORMATION

A. PUMP OFF: 403.72
B. PUMP ON: 404.05
C. HIGH WATER ALARM: 404.55
D. TOP OF ACCESS COVER: 410.3
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2" SCH. 40 PVC = 187 LF
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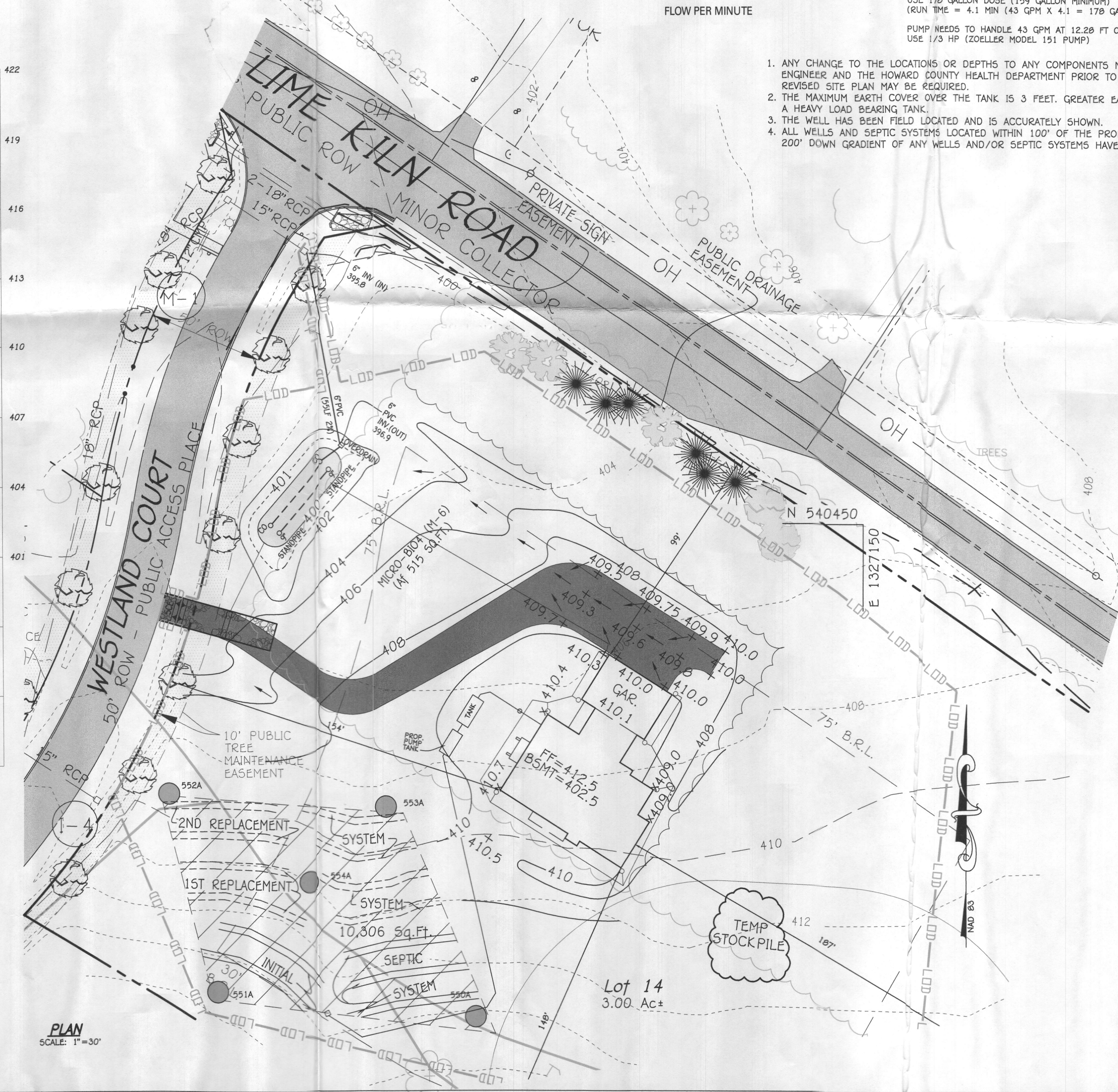
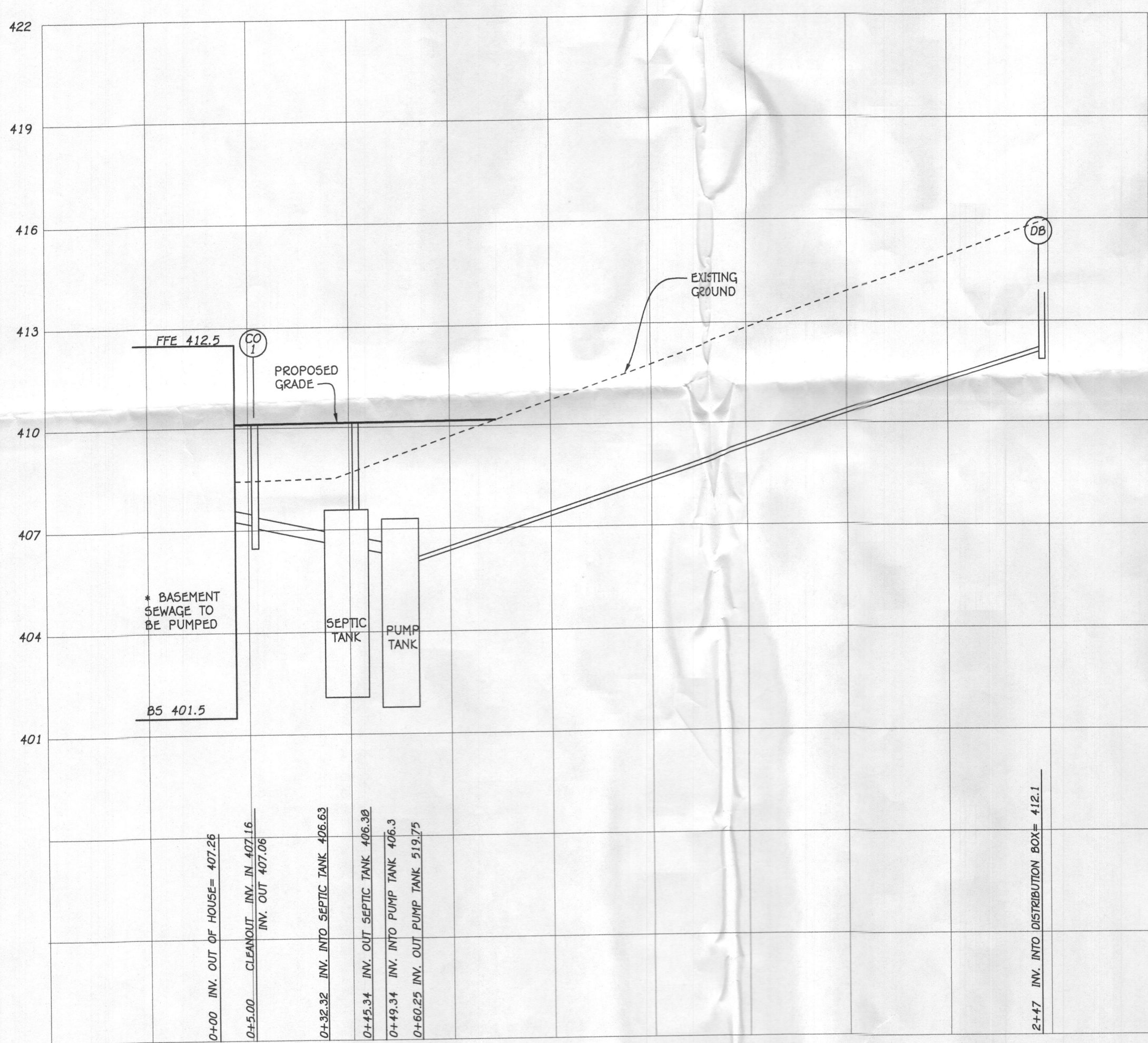
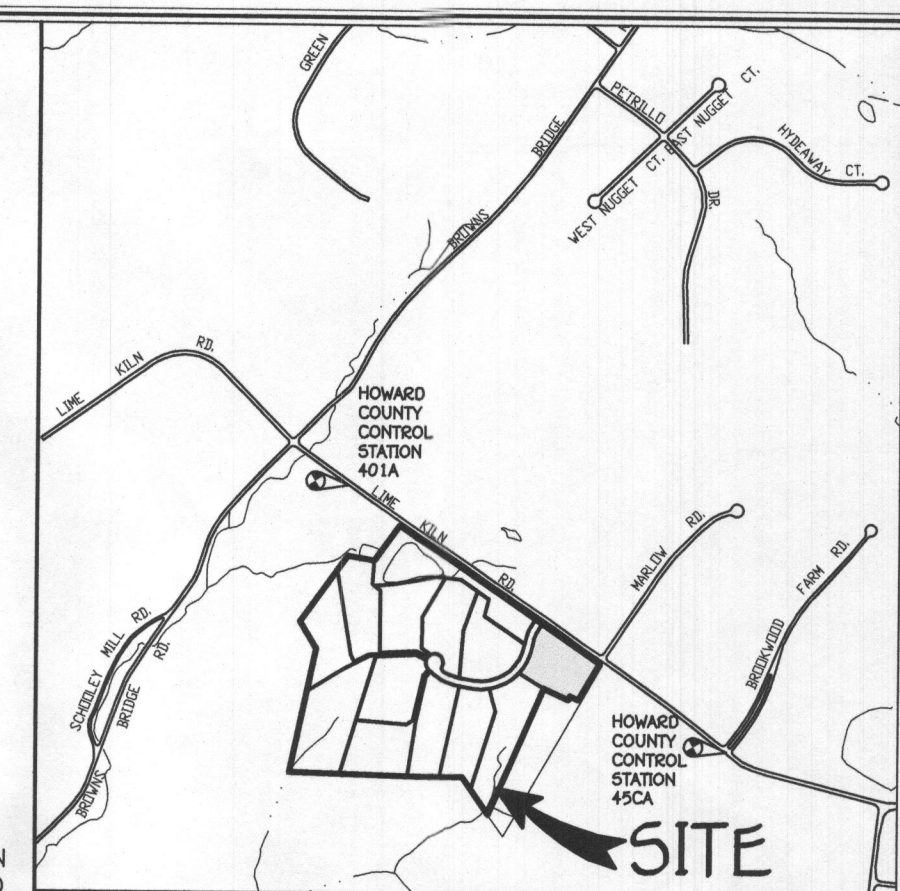
DYNAMIC HEAD

205 LF X 2.05 FT PER 100 LF OF 2" PIPE = 4.20 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.03 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 6.05 FT (DISTRIBUTION BOX IS THE HIGHEST POINT)

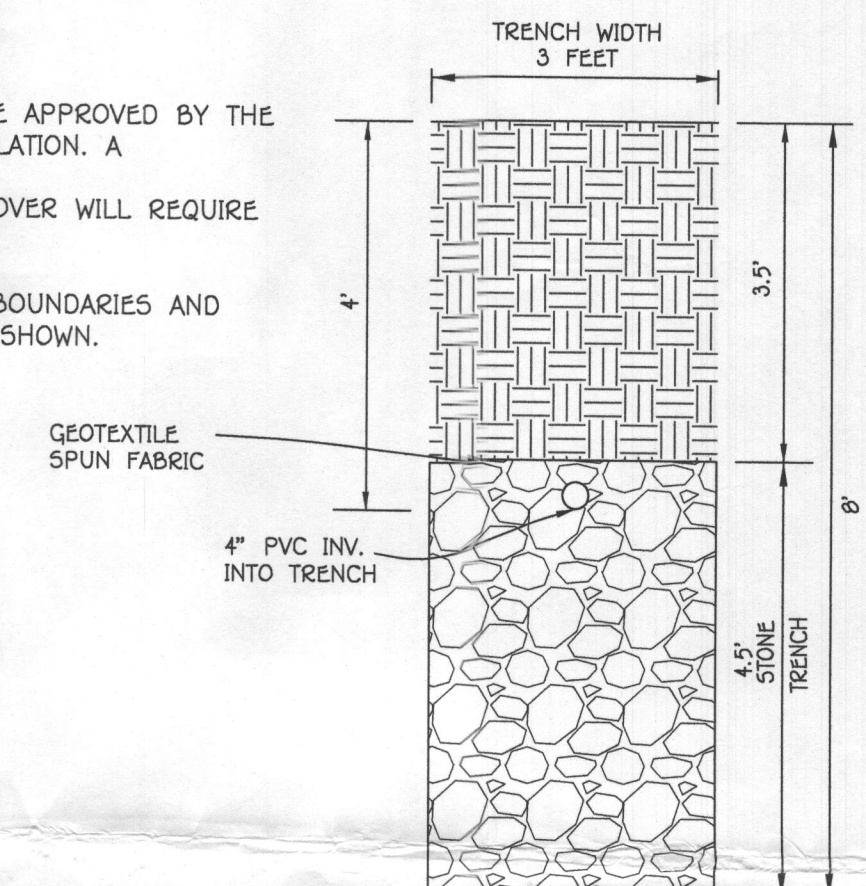
TOTAL DYNAMIC HEAD = 12.28 FT

1/6 DESIGN FLOW (750/6=125) PLUS VOLUME OF 2" PIPE (33.45 GALLONS)
USE 178 GALLON DOSE (159 GALLON MINIMUM)
(RUN TIME = 4.1 MIN (43 GPM X 4.1 = 178 GALLON DOSE))

PUMP NEEDS TO HANDLE 43 GPM AT 12.28 FT OF HEAD
USE 1/3 HP (ZOELLER MODEL 151 PUMP)



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SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM

5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 7 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x1))=0.833
TRENCH LENGTH = 937.5 SF X 0.833 / 3 = 260.42 FEET
(5 TRENCHES AT 52.08')
TRENCH SPACING = 20+W = ((2x1) + 3) = 5' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT SYSTEM

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LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
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COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 937.5 SF X 0.625 / 3 = 195.31 FEET
(4 TRENCHES AT 48.83')
TRENCH SPACING = 20+W = ((2x2) + 3) = 7' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM

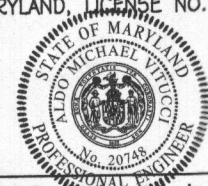
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(4 TRENCHES AT 48.83')
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SEPTIC PLAN
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LOT 14
12505 WESTLAND COURT

TAX MAP #45 PARCEL 28
ZONED: BR-150
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SCALE: AS SHOWN DATE: MAY 3, 2022

PROFESSIONAL CERTIFICATION

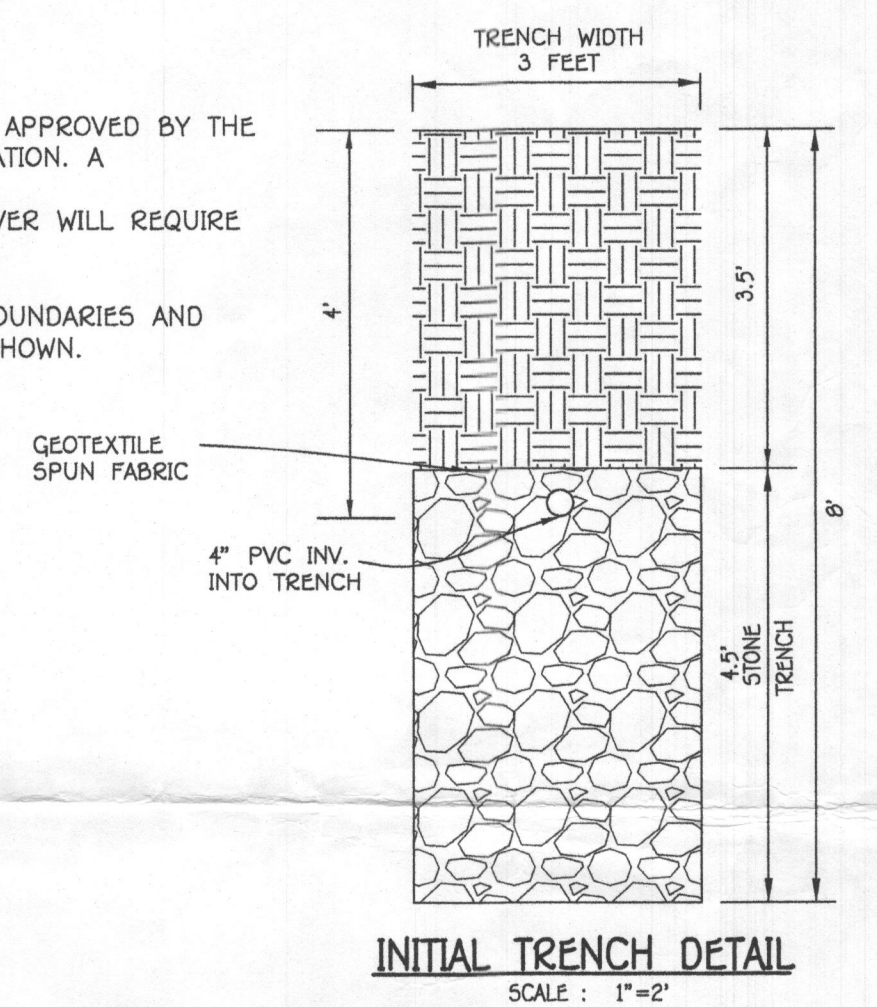
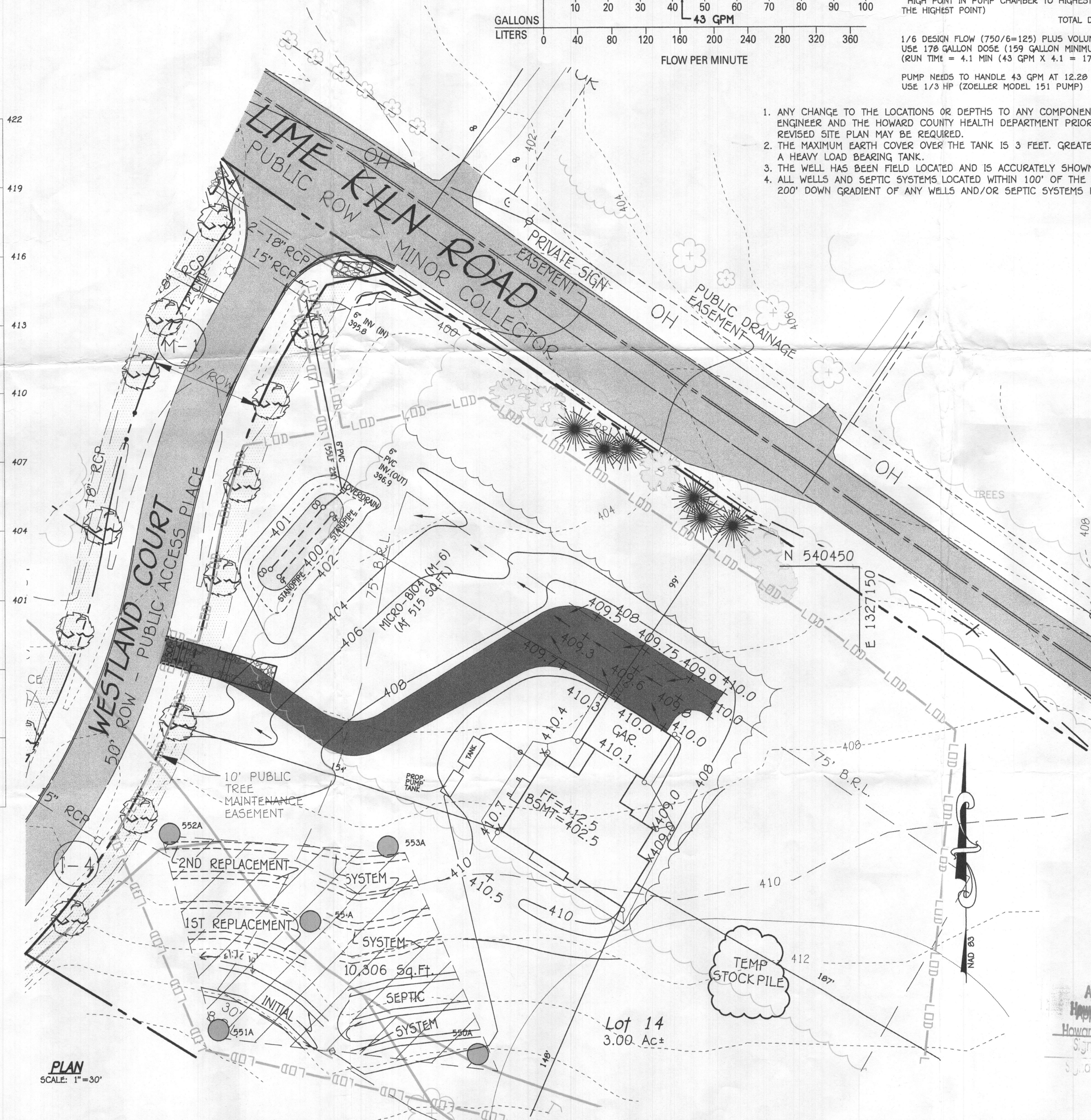
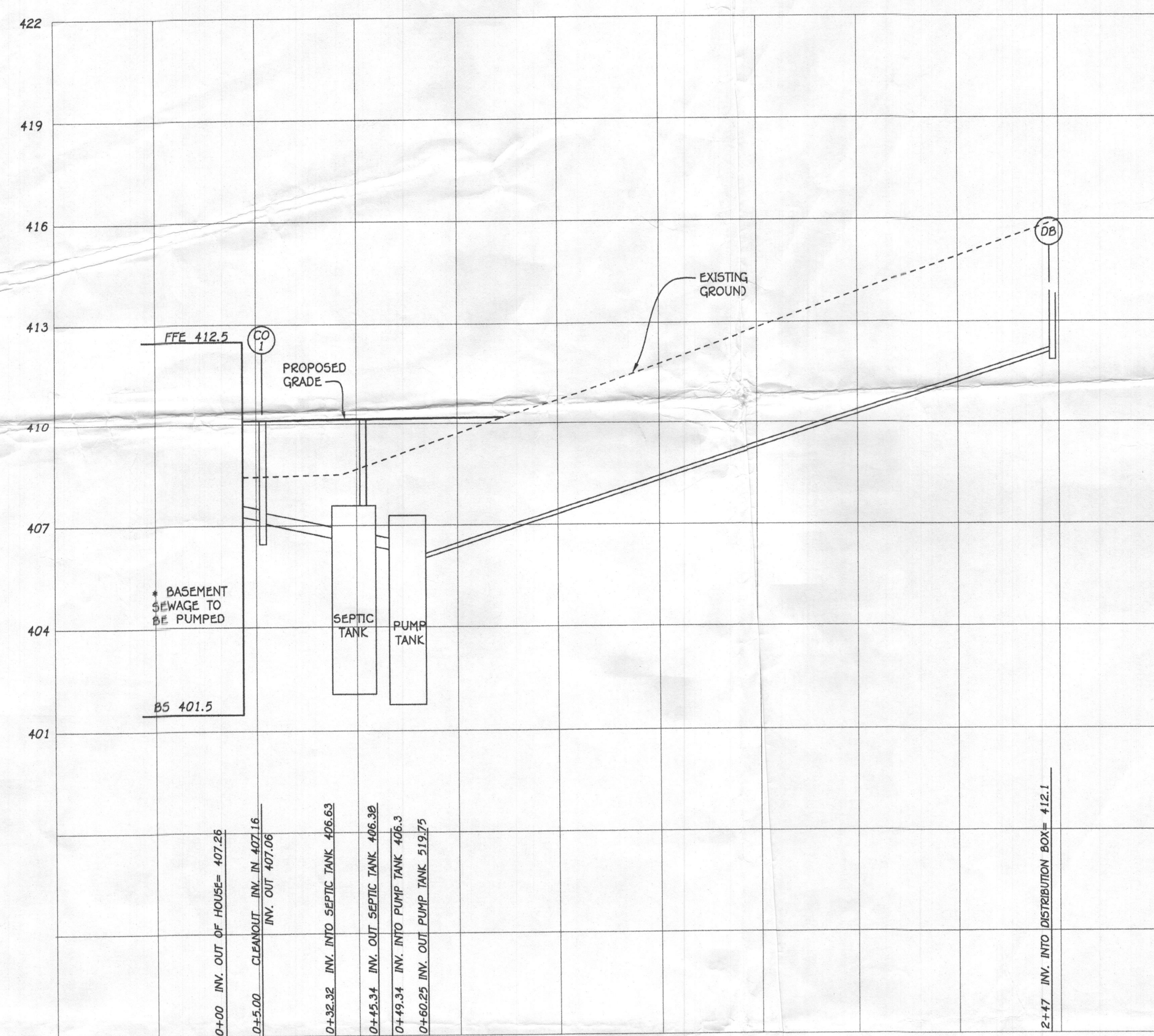
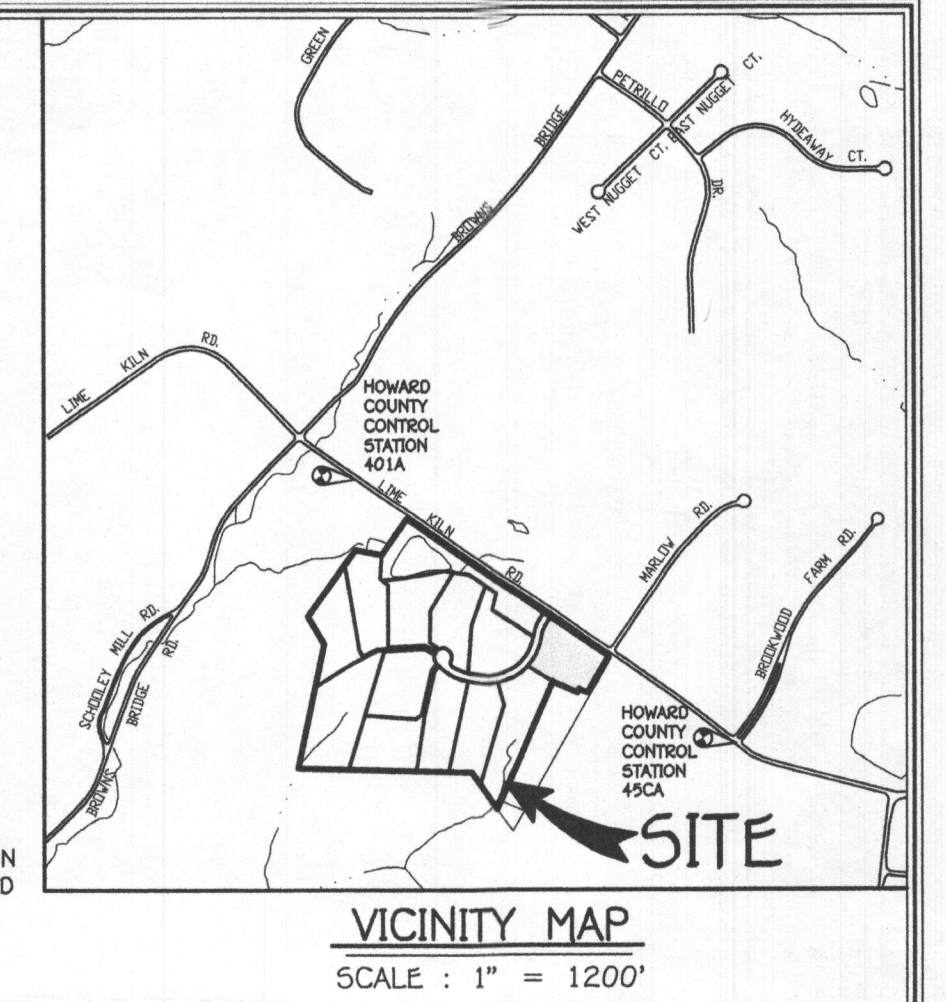
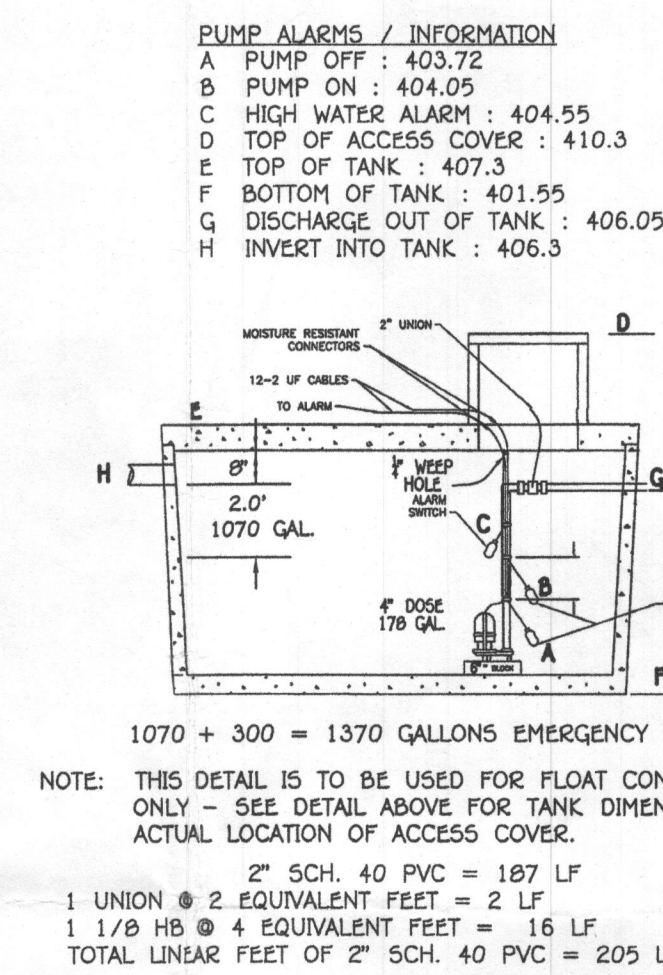
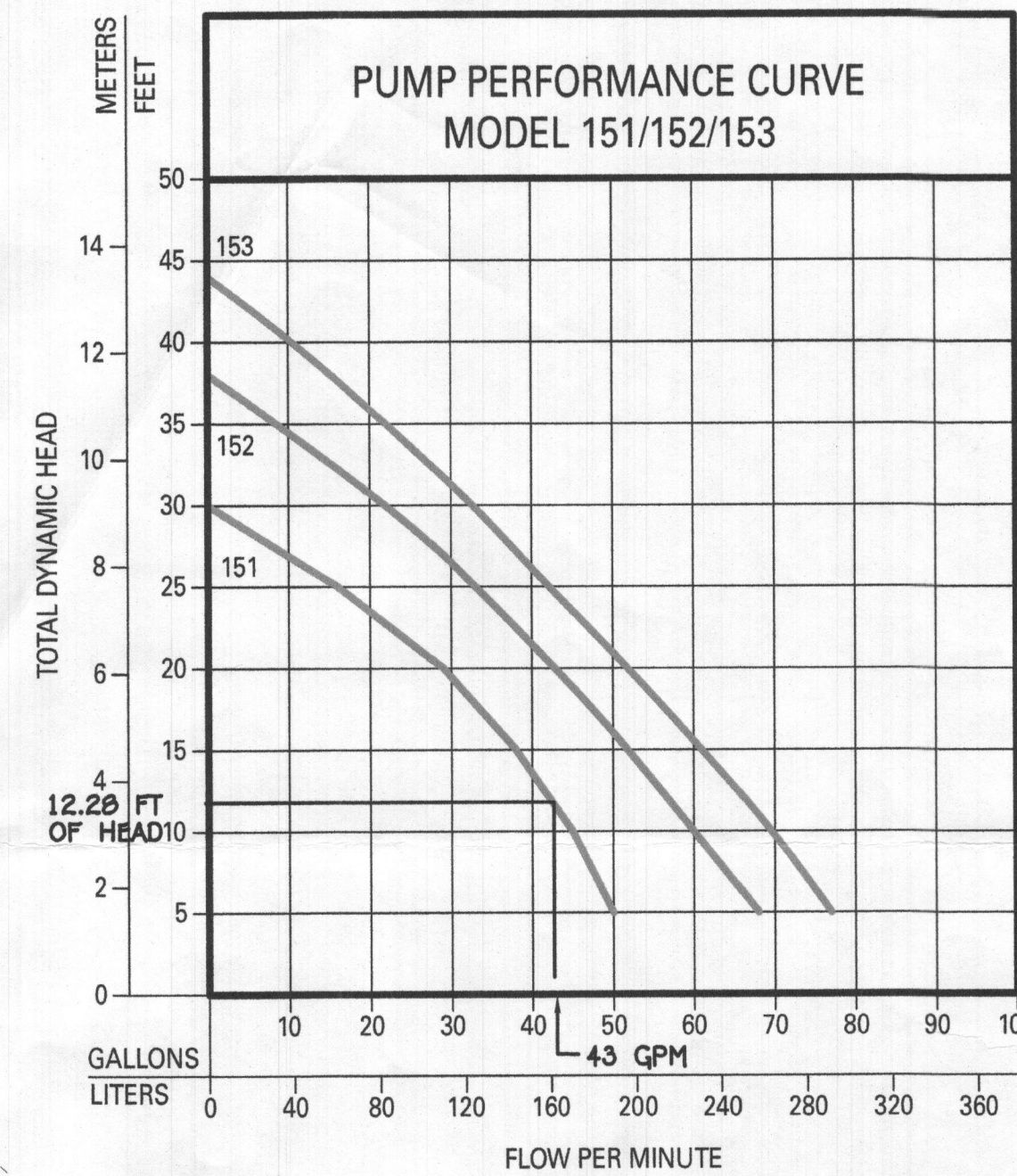
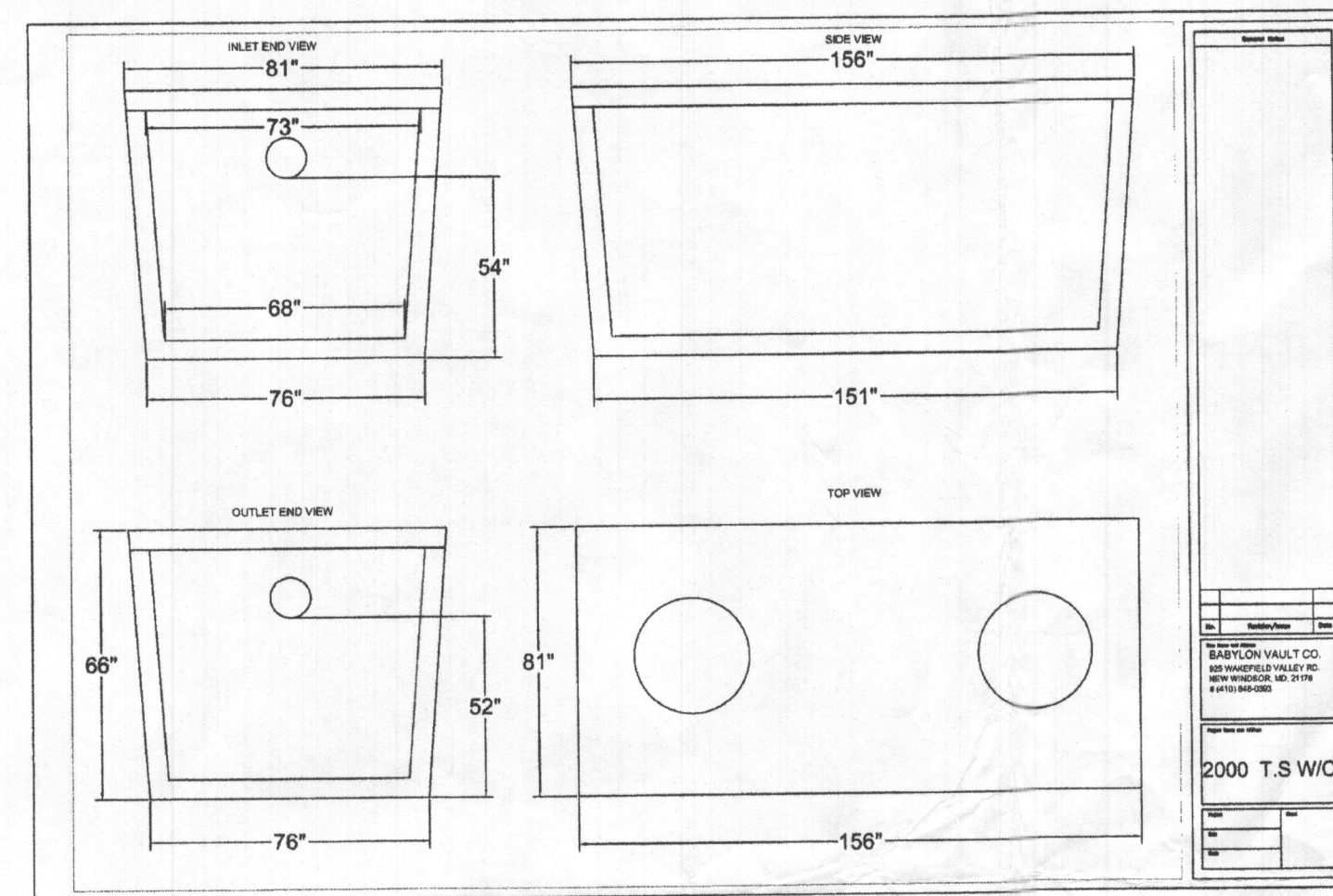
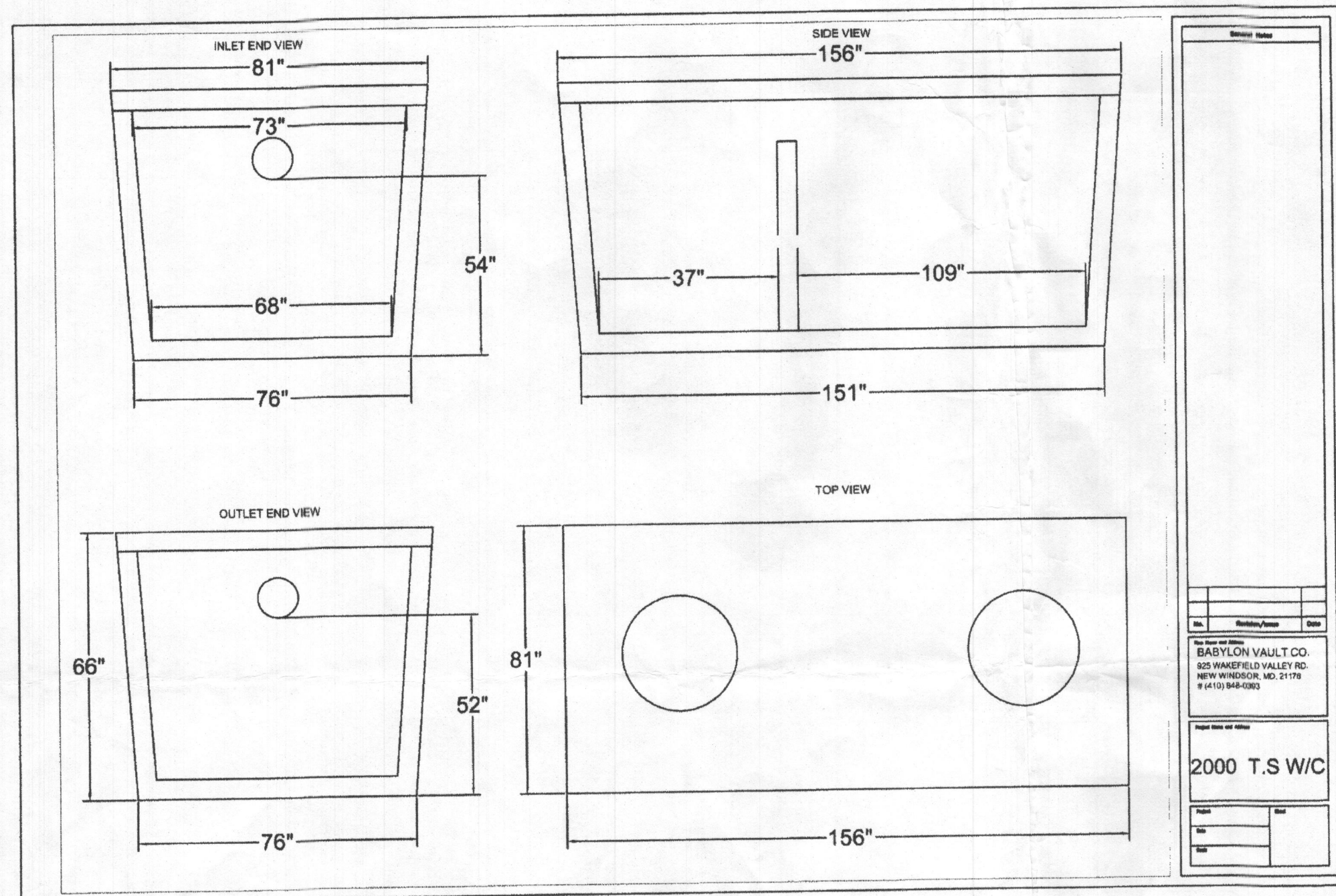
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2023.



Signature Of Professional Engineer DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21142
(410) 461-2895

FFE 412.5
BSE 401.5
INV. OUT OF HOUSE = 407.26
PROP. GROUND AT CLEANOUT # 1 = 410
INV. INTO CLEANOUT = 407.16
INV. OUT OF CLEANOUT = 407.06
EX. GROUND AT SEPTIC TANK = 408.5
PROP. GRADE ABOVE SEPTIC TANK = 410.3
TOP OF SEPTIC TANK = 407.63
INV. INTO SEPTIC TANK = 406.63
INV. OUT OF SEPTIC TANK = 406.38
EX. GROUND AT PUMP TANK = 409
PROP. GRADE ABOVE PUMP TANK = 410.3
TOP OF PUMP TANK = 407.3
INV. INTO PUMP TANK = 406.3
INV. OUT OF PUMP TANK = 406.05
EX. GROUND AT DISTRIBUTION BOX = 412.1
INV. INTO DISTRIBUTION BOX = 412
INV. OUT OF DISTRIBUTION BOX = 412



SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 7 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x1))=0.833
TRENCH LENGTH = 937.5 SF x 0.833 / 3 = 260.42 FEET
(5 TRENCHES AT 52.08')

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT SYSTEM
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 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 = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 937.5 SF x 0.625 / 3 = 195.31 FEET
(4 TRENCHES AT 48.83')

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 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 = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 937.5 SF x 0.625 / 3 = 195.31 FEET
(4 TRENCHES AT 48.83')

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. 20748, EXPIRATION DATE: 02/22/2023.

Signature of Professional Engineer
DATE: 9/25/22

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PkE
ELLSWORTH CITY, MARYLAND 21042
(410) 461 - 2995

Approved Septic System Plan
Howard County Health Department

SEPTIC PLAN
WESTLAND FARM ESTATES
LOT 14
12505 WESTLAND COURT
TAX MAP #15 PARCEL 28
ZONED: RR-DEO
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 25, 2022

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 OF 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-15-0208) 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 PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE 7/14/2023.
- 7) BUILDING PERMIT # B-22002348
- 8) IT APPEARS THE DRIVEWAY FOR ADJACENT LOT#1 ENCROACHES ONTO THE SUBJECT PROPERTY.

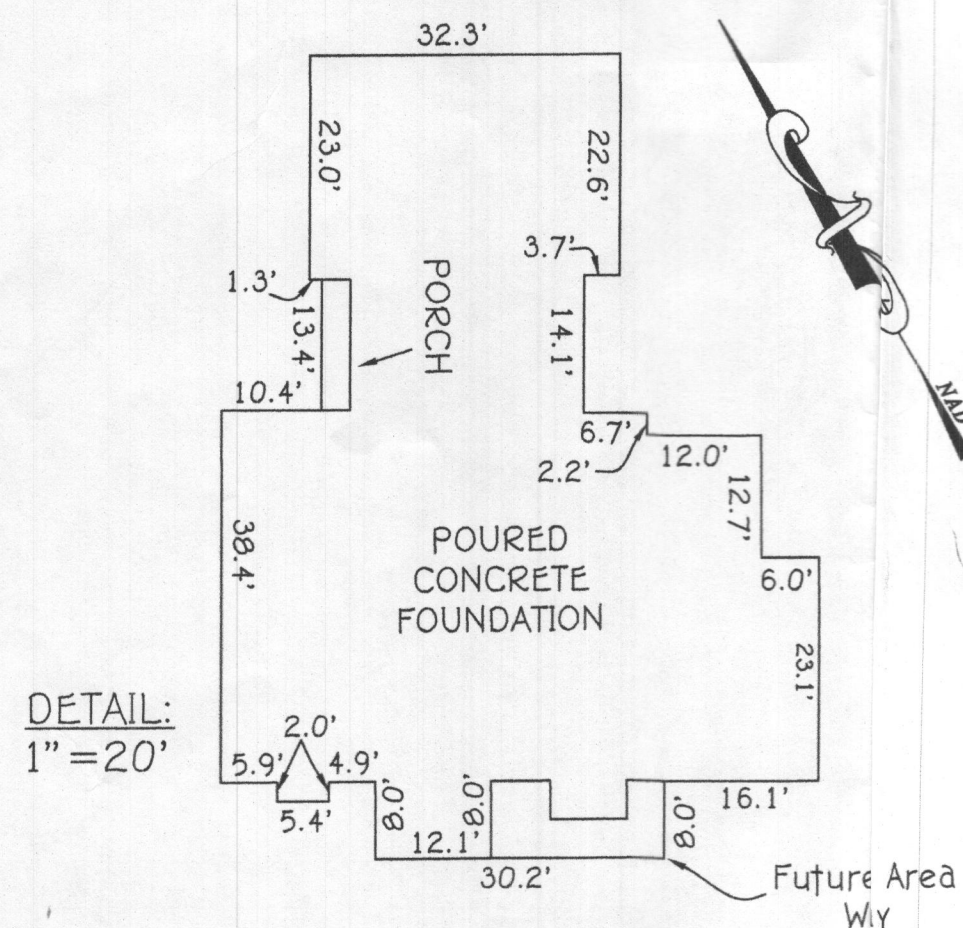
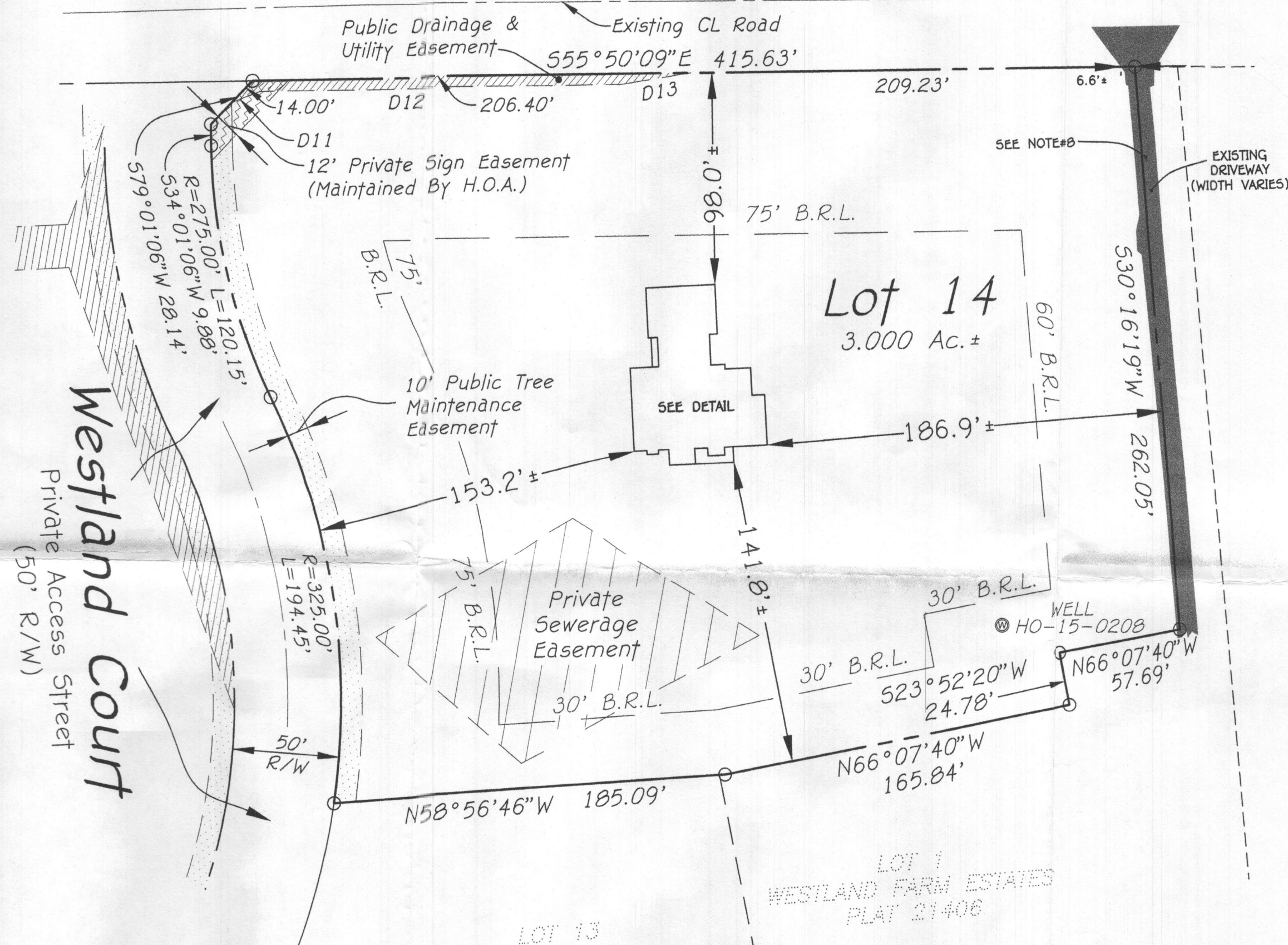
Legend

- 10' Public Tree Maintenance Easement
- Public Drainage and Utility Easement
- Private Sign Easement

Public Drainage & Utility Easement Line Chart		
Line	Bearing	Length
D11	S 76°35'08" E	13.89'
D12	S 55°50'09" E	170.61'
D13	S 64°32'10" E	33.05'

Lime Kiln Road

(Minor Collector)
(Ultimate 60' R/W)



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CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461 - 2955

#12505 WESTLAND COURT
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 411.4'

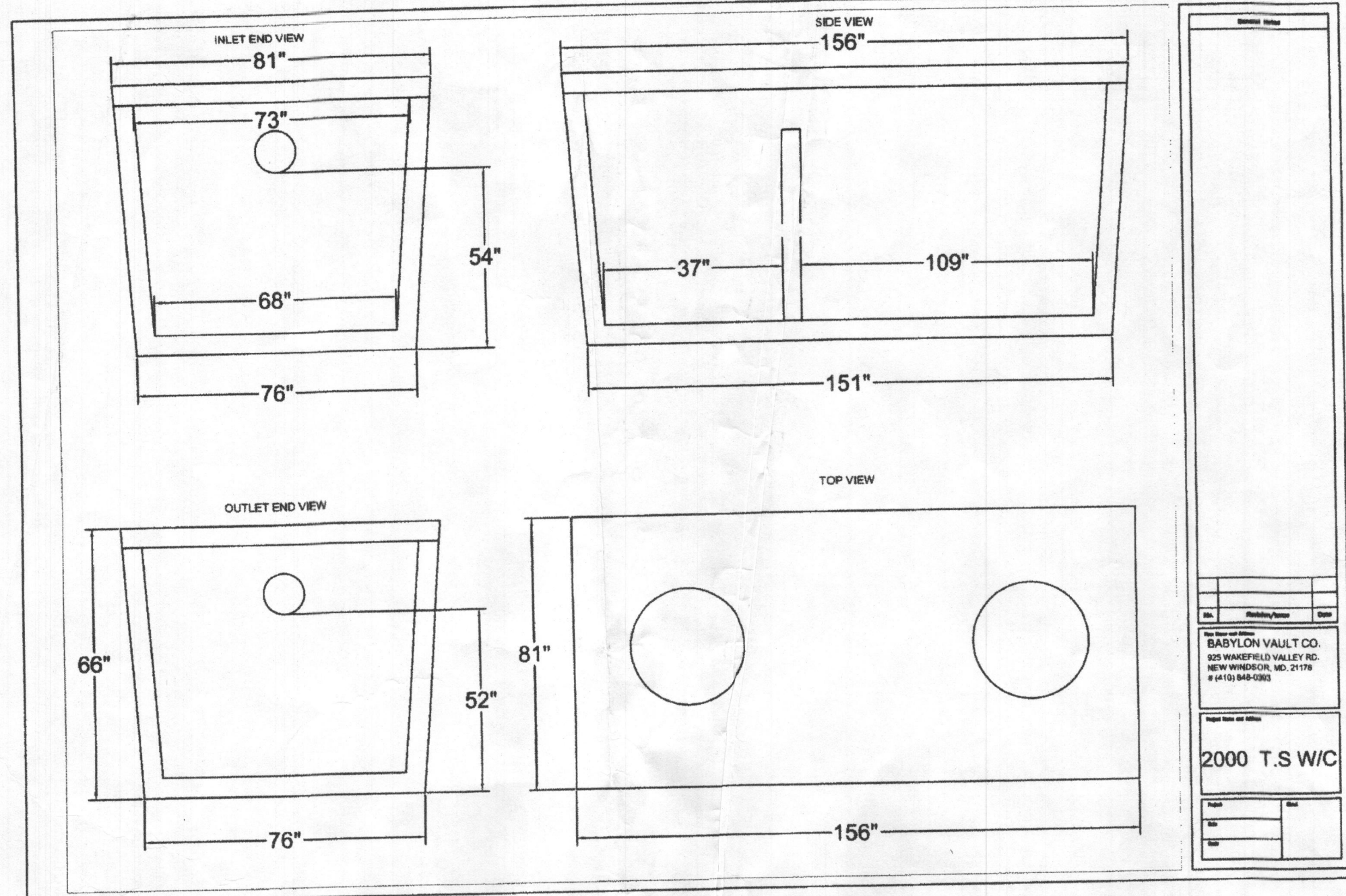
STATE OF MARYLAND
FISH AND GAME
REGISTERED
PROFESSIONAL LAND SURVEYOR
DATE 10/4/22
LIC. #21476

HOUSE LOCATION DRAWING

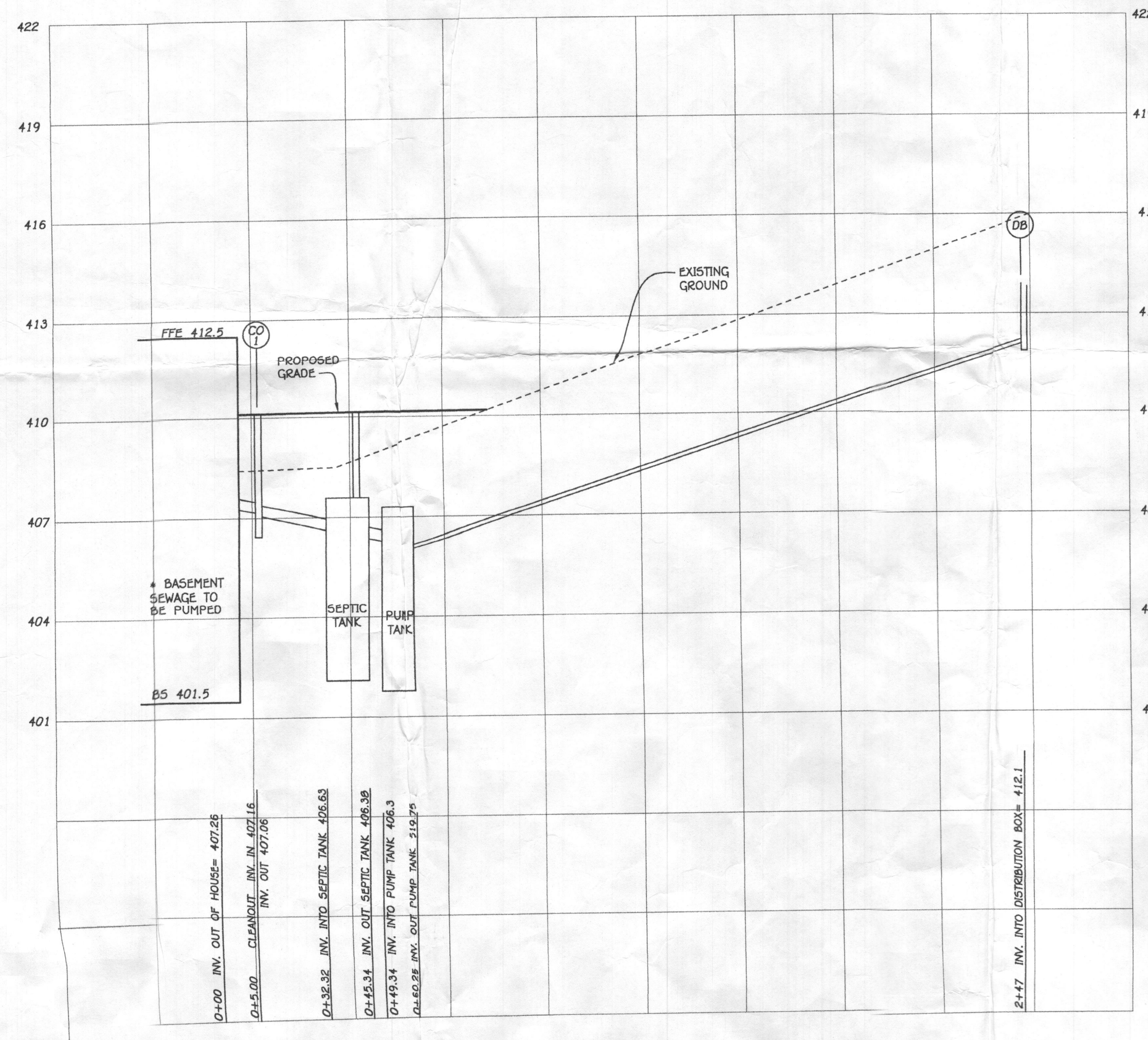
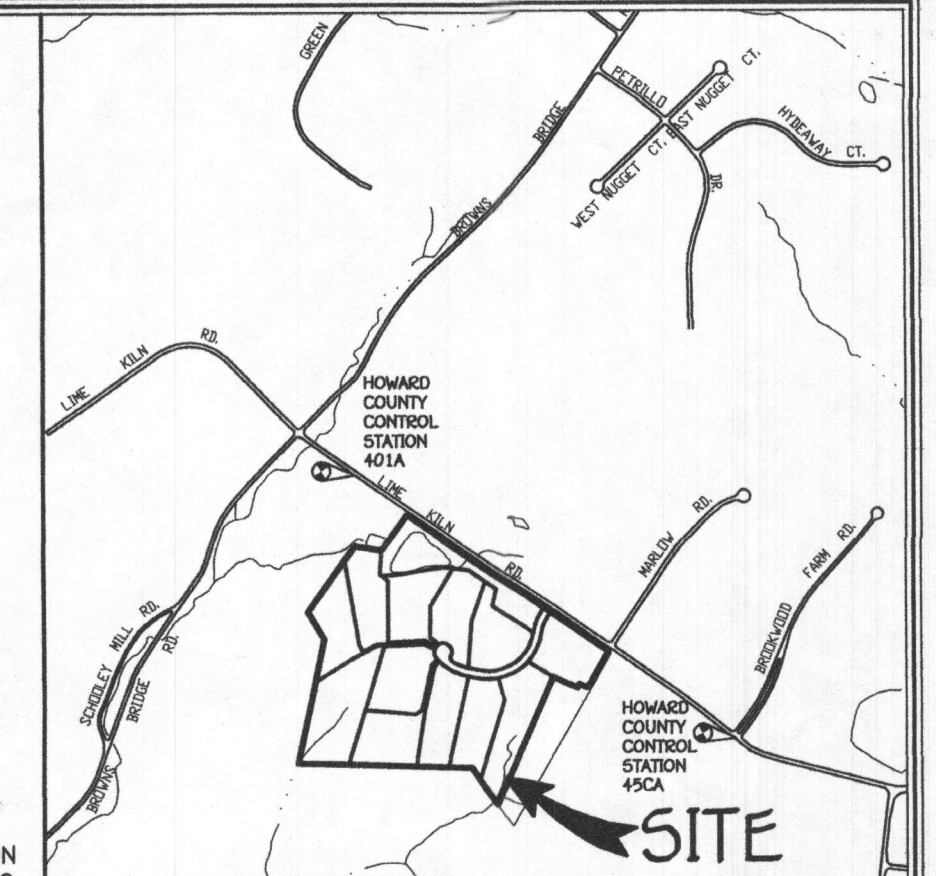
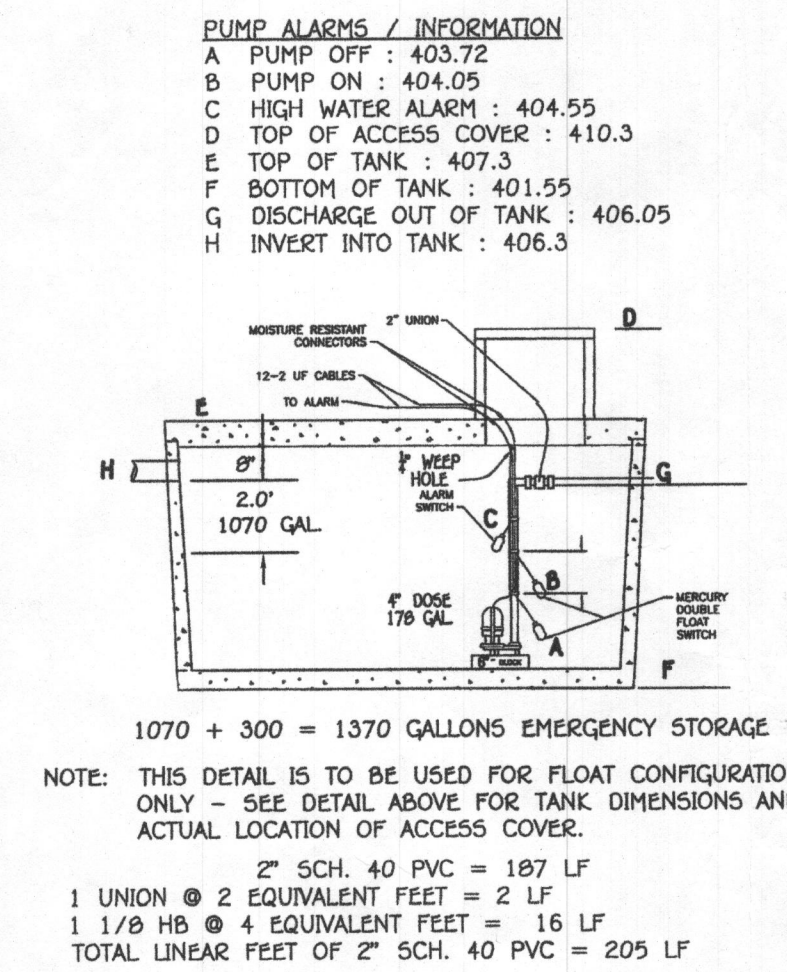
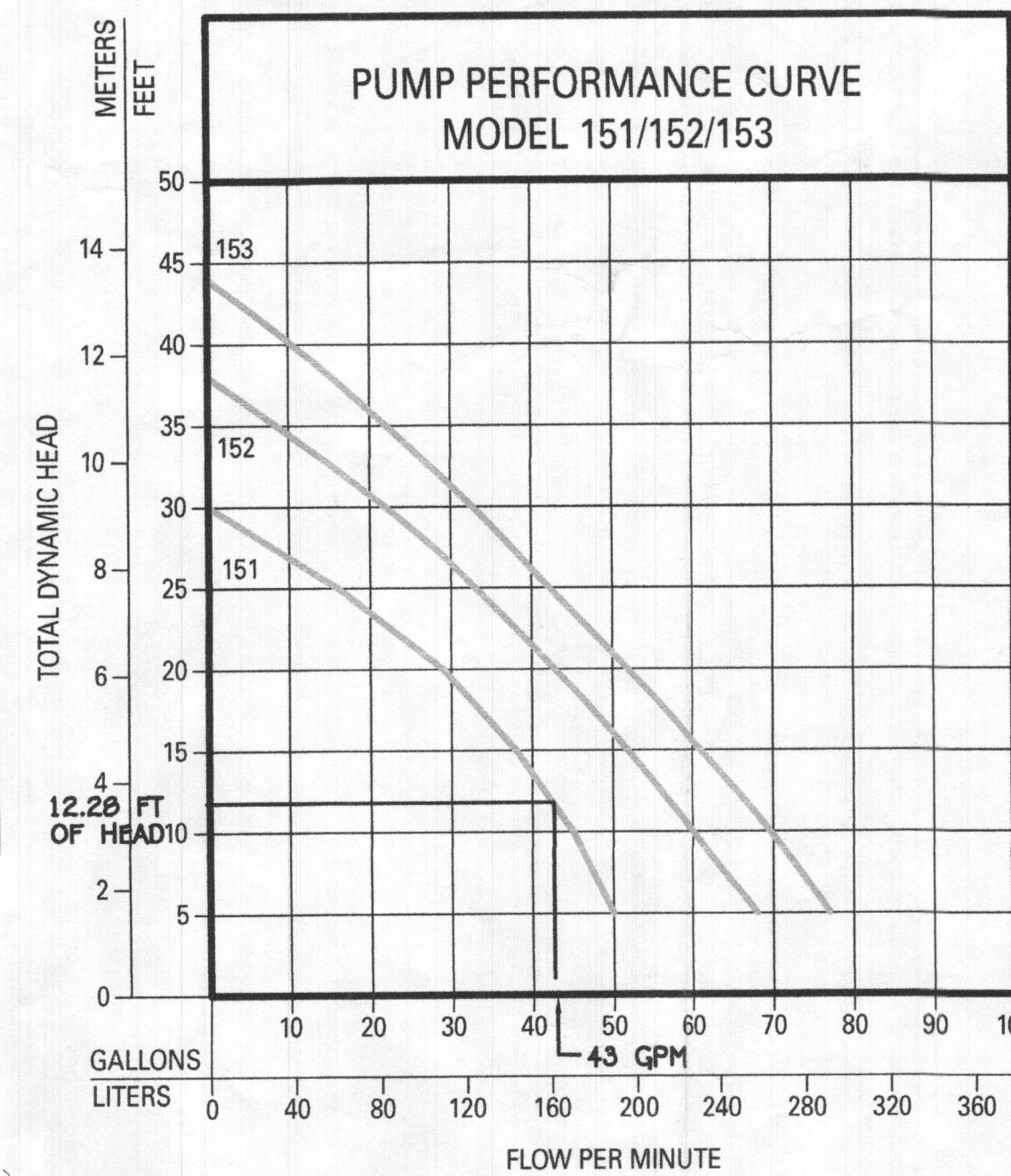
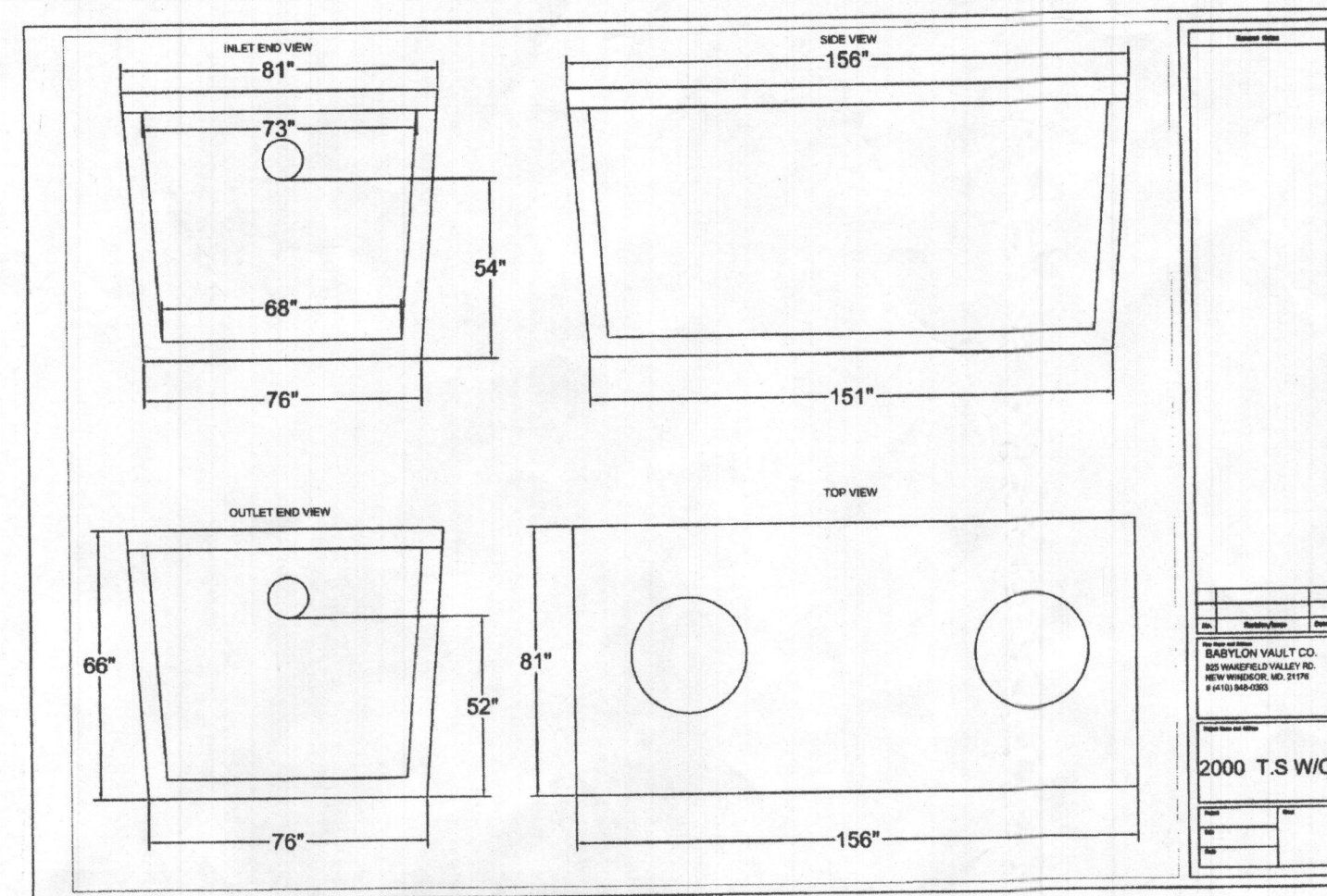
FOUNDATION LOCATION: 9/27/22
FINAL LOCATION:
BOUNDARY SURVEY:
SCALE: 1" = 50'
DATE: 9/27/22
DRAWN BY: WAS
CHECKED BY: FMH
PROJECT No.: 05062-7002

LOT 14
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

Well Check OK
9/14 10/13/2022



* BASEMENT SEWAGE
TO BE PUMPED



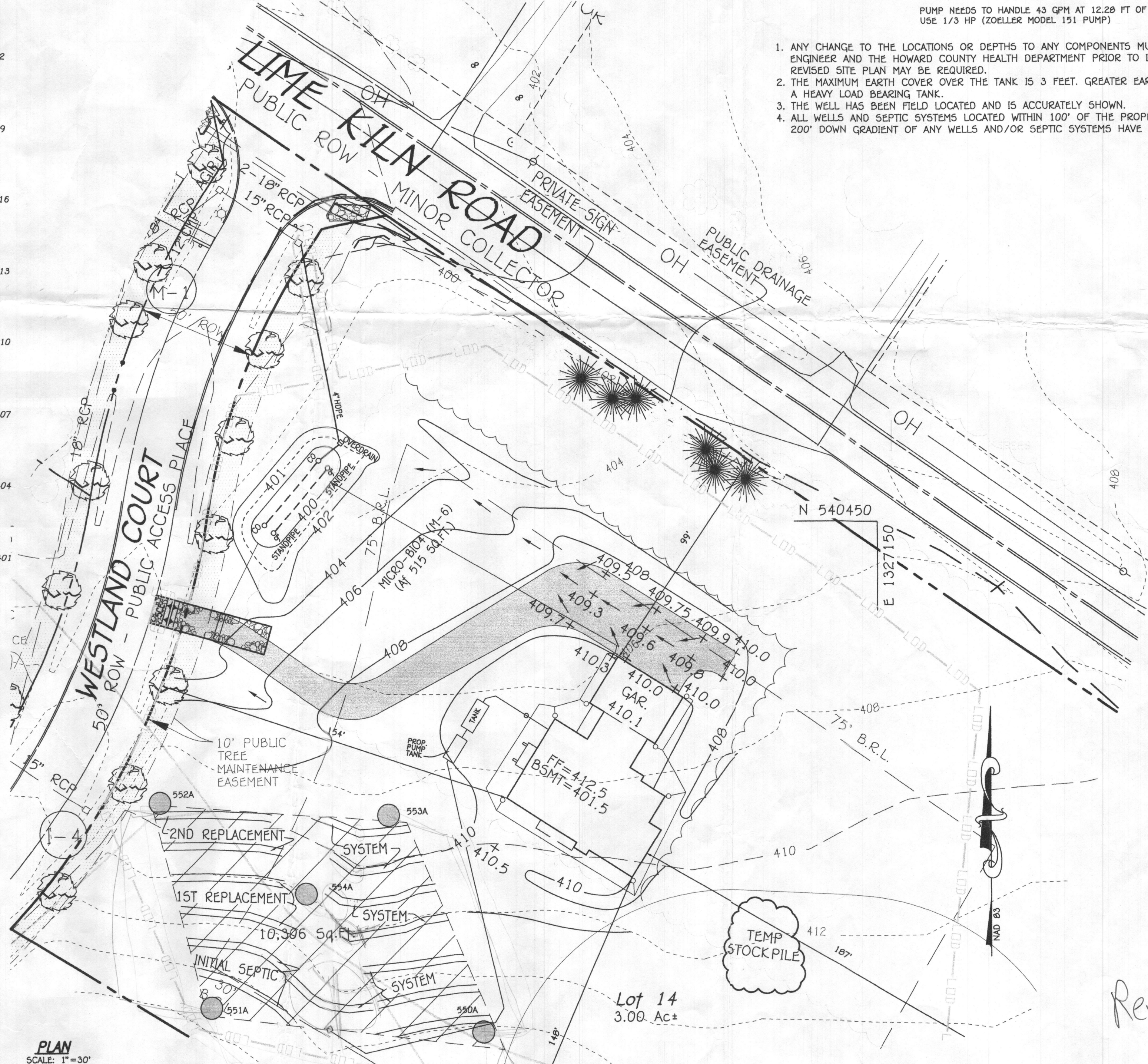
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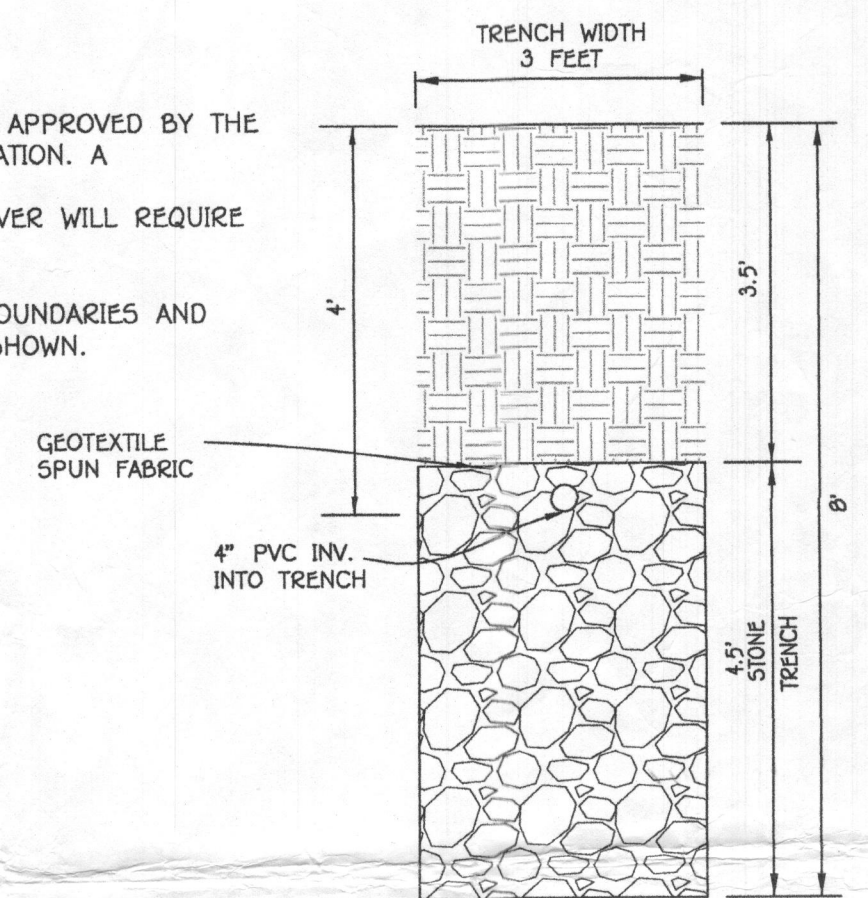
Signature of Professional Engineer

6/16/22
DATE

FF412.5
BS 401.5
INV. OUT OF HOUSE = 407.26
PR. GROUND AT CLEANOUT # 1 = 410
INV. INTO CLEANOUT = 407.16
EX. GROUND AT SEPTIC TANK = 406.5
PR. GRADE ABOVE SEPTIC TANK = 410.3
TO OF SEPTIC TANK = 407.63
INV. INTO SEPTIC TANK = 406.63
INV. OUT OF SEPTIC TANK = 406.39
EX. GROUND AT PUMP TANK = 409
PR. GRADE ABOVE PUMP TANK = 410.3
TO OF PUMP TANK = 407.3
INV. INTO PUMP TANK = 406.3
INV. OUT OF PUMP TANK = 406.05
EX. GROUND AT DISTRIBUTION BOX = 416
INV. INTO DISTRIBUTION BOX = 412.1
INV. OUT OF DISTRIBUTION BOX = 412



1. 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.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.



SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 7 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x3))=0.833
TRENCH LENGTH = 312.50 SF X 0.833 / 3 = 260.42 FEET
(6 TRENCHES AT 43.40')
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT SYSTEM
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
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(4 TRENCHES AT 48.83')
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM
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APPLICATION RATE = 0.8
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SEPTIC PLAN
WESTLAND FARM ESTATES
LOT 14
12505 WESTLAND COURT
TAX MAP #45 PARCEL: 28
ZONED: RR-DEO
THIRD ELECTION DISTRICT: HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 3, 2022