



**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: 5/12/25 **ONSITE SEWAGE DISPOSAL SYSTEM** P 589089

APPROVAL DATE: 8/20/2025 **PERMIT: NEW CONSTRUCTION** A _____

PROPERTY ADDRESS: 15105 Devlin Drive

SUBDIVISION: Cattail Overlook LOT: 1 TAX ID: _____

CONTRACTOR: Hatfields Equipment EMAIL: Kene.hatfields@equip.net

CONTRACTOR ADDRESS: P.O. Box 59, Annapolis Junction, MD 20701 PHONE: 301-490-4289

PROPERTY OWNER: Williamsburg Builders EMAIL: _____

OWNER ADDRESS: 5485 Harpers Farm Road, Columbia, MD 21044 PHONE: 410-997-8800

SEPTIC TANK SIZE: 2000 PUMP SIZE: 0.4 PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>208.5</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7.5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	SYSTEM TO BE STAKED BY DESIGNER AND VERIFIED BY APPROVING AUTHORITY DURING PRE-CONSTRUCTION INSPECTION.	
NOTES:	<u>Install 3 trenches @ 69.5'</u>	

ISSUED BY: [Signature] ISSUE DATE: 5/12/25 EXPIRATION DATE: 5/12/25

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR REGISTERED WITH THE STATE OF MD ON-SITE WASTEWATER PROFESSIONALS BOARD: CONFIRMED
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT SEPTIC TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET 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 25002178
- NOTE: THE HCHD DOES NOT WARRANT ANY SYSTEM AND CANNOT GUARANTEE THE PERFORMANCE OF THIS SYSTEM AS DESIGNED. BY ACCEPTING THIS PERMIT, THE OWNER AND/OR APPLICANT ACKNOWLEDGE THAT THE SPECIFICATIONS DETAILED IN THIS DESIGN ARE ONE POSSIBLE OPTION AND THAT THE HCHD WILL REVIEW OTHER PROPOSALS. YOU HAVE THE OPTION TO SEEK THE ADVICE OF A QUALIFIED DESIGN CONSULTANT OR PROFESSIONAL ENGINEER FOR FURTHER GUIDANCE.
- NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.
- 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

5/23/25 Contractor completed upper trench. Top of stone to grade is 1.5'. Geotextile fabric added and obs port added. OK to back fill trench. (MS)

5/27/2025 - Installer onsite for inspection verified 17. Fall of front line. Middle & lower trenches finished. Lengths @ 72' & 71' < 10' ISTE, inlet @ 2'. Stone & fabric ok. D-box has baffle & 90° turn down. Saw obs ports @ end of trenches & d-box. OK to backfill. Reinspect for pump test. (SP)

8/20/2025 - Installer onsite for Pt A. Alarm 46" high. Audible & visual alarm outside OK. Pump successfully goes to d-box. Approved. (SP)

* See Separate Sheet For As-Built
ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	7.5'
NUMBER OF TRENCHES		3'
TOTAL LENGTH _____		
ABSORPTION AREA _____		
DISTRIBUTION BOX LEVEL _____		
DISTRIBUTION BOX BAFFLE <u>yes</u>		
DISTRIBUTION BOX PORT <u>yes</u>		

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	<u>yes</u>
MANUFACTURER	<u>Bayton</u>
CAPACITY	<u>2000</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>1.5'</u>
BAFFLES	<u>4" Back</u>
BAFFLE FILTER	<u>—</u>
MANHOLE LOC	<u>Front/Back</u>
6" PORT LOC	<u>—</u>
WATERTIGHT TEST	<u>—</u>
SLOTTED	<u>Yes</u>
DATE ON LID	<u>4-14-25</u>

PUMP/SEPTIC TANK LEVEL yes

MANUFACTURER	<u>Bayton</u>
CAPACITY	<u>2000</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>1.5'</u>
BAFFLES	<u>—</u>
BAFFLE FILTER	<u>—</u>
MANHOLE LOC	<u>Front & back</u>
6" PORT LOC	<u>—</u>
WATERTIGHT TEST	<u>—</u>
SLOTTED	<u>—</u>
DATE ON LID	<u>3-7-25</u>

SEPTIC CONTRACTOR ONSITE INSTALLING SYTEM: Nathan Heath
SEPTIC CONTRACTOR ONSITE LICENSED WITH THE STATE OF MD: YES/NO

PRE-CONSTRUCTION NOTES:

5/19/25 Site staked by surveyor verified SDA trench, septic tank, and pump tank stakes with installer. Trenches are on contour and all stakes are located per plan. SDA has some small bumps and dips due to forest. Clearance toward wall and added to as-built OK to start. (MS)

INSTALLATION NOTES:

5/21/25 Contractor has septic tank, pump tank, and D-box installed and located on 57 stone. Contractor encountered a lot of rock from tanks to D-box will be guiding the 2" PSE line with 57 stone to prevent the stress in the fill from breaking the pressure line. Back baffle on ST installed. Risers installed < 3' of cover. OK to backfill around tanks. (MS)

5/28/25 Contractor drilled at house and connected to septic tank. 1% fall achieved at tank and 46' bend. 1% fall not achieved at first 15' from house to 46' bend. Sch. 40 pipe used. Contractor to fix house connection so that 1% fall can be gotten. 1" trench (top) being dug while in site. Contractor is string trench while digging. 7.5' trench depth. (MS)

FINAL INSPECTOR S. Pese DATE OF APPROVAL 8/20/2025

CONTROL PANEL DATA

CONTROL PANEL HEIGHT	<u>40"</u>
(MIN 30")	
INSPECTION DATE	<u>8/20/2025</u>
INSPECTION: <u>PASS</u> /FAIL (CIRCLE ONE)	

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, June 8, 2023 8:43 AM
To: 'Luke Groom'
Subject: OSDS Plan_15105 Devlin Drive

Hi Luke:

The revised OSDS Plan for 15105 Devlin Drive shows the septic tank within 25 feet of the micro-bioretenion pond. In addition, the legend symbol for passed perc test holes aren't consistent. There are smaller green circles with/without an "x" inside, and larger green circles with no "x" inside. Please adjust accordingly.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
(410) 313 - 1786
www.hchealth.org

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Oswald Jr, Woodin

From: Oswald Jr, Woodin
Sent: Monday, April 21, 2025 11:50 AM
To: Paul Cavanaugh
Subject: OSDS Plan_15105 Devlin Drive

Hi Paul,

The revised OSDS Plan for 15105 Devlin Drive has been reviewed with the following comments:

1. Show 8 in. roof leader in the septic profile.
2. Adjust inlet grate on future pool deck to be 25 feet from the septic tanks.
3. Initial trench detail - The effective depth should 2.5 feet (not 3.5 ft.).

Should you have any questions or concerns, please don't hesitate to contact me.

Regards,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
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Oswald, Hank

From: Oswald, Hank
Sent: Monday, June 12, 2023 8:28 AM
To: Luke Groom
Subject: RE: OSDS Plan_15105 Devlin Drive

Hi Luke:

Good morning. I should be more clear in my plan response regarding the setback distance to the pond. The setback distance is from the spill way elevation line.

Please let me know if you have any questions.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
Howard County Health Department
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From: Oswald, Hank
Sent: Thursday, June 8, 2023 8:43 AM
To: Luke Groom <L.groom@fcc-eng.com>
Subject: OSDS Plan_15105 Devlin Drive

Hi Luke:

The revised OSDS Plan for 15105 Devlin Drive shows the septic tank within 25 feet of the micro-bioretenion pond. In addition, the legend symbol for passed perc test holes aren't consistent. There are smaller green circles with/without an "x" inside, and larger green circles with no "x" inside. Please adjust accordingly.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
Howard County Health Department

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, May 11, 2023 10:56 AM
To: Luke Groom
Subject: OSDS Plan Review Comments_15105 Devlin Drive_Cattail Overlook Lot 1
Attachments: sdat.pdf

Hi Luke:

The OSDS Plan for 15105 Devlin Drive (Cattail Overlook Lot 1) has been reviewed with the following comments:

1. Add address to plan. The address is 15105 Devlin Drive. See SDAT attached. Grid # appears to be 20
2. Show appropriate trench spacing on layout (Spacing is measure edge to edge).
3. Show trenches more on contour.
4. Maintain 25 ft. setback distance from swale & steep slopes to OSDS and SDA.
5. Initial trench length calc should be 208.5 ft. (not 206.25 ft.).
6. Show steep slopes on plan.
7. Change legend symbol from "boring (perc) test hole" to "passed perc test hole". Ensure legend symbol matches symbol used on plan.
8. Show failed perc test holes and add legend symbol. Avoid placing tanks near test hole 1975 due to rock at 4 feet.

Should you have any questions, please don't hesitate to ask.

Thanks,

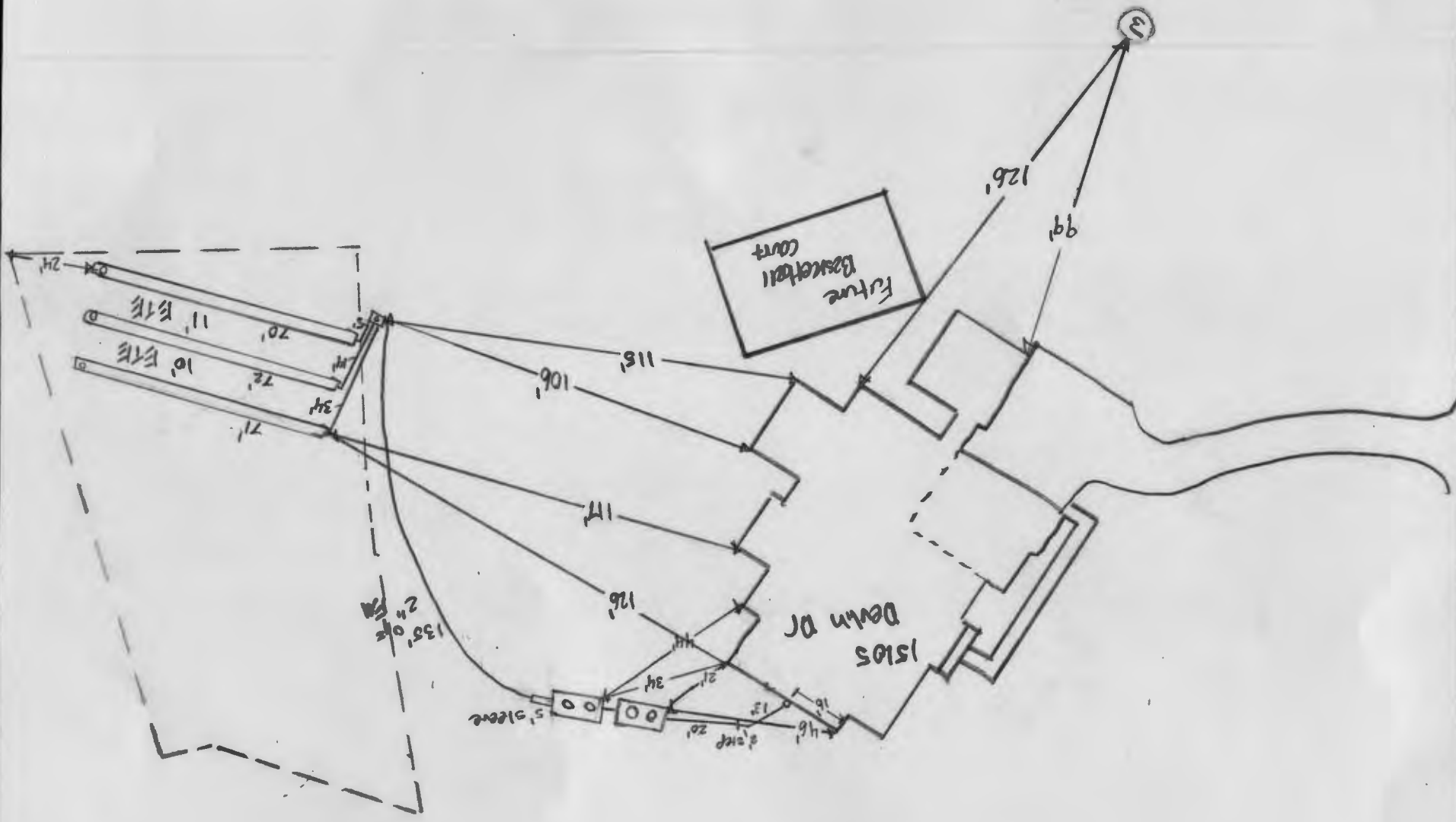
Hank

Hank Oswald
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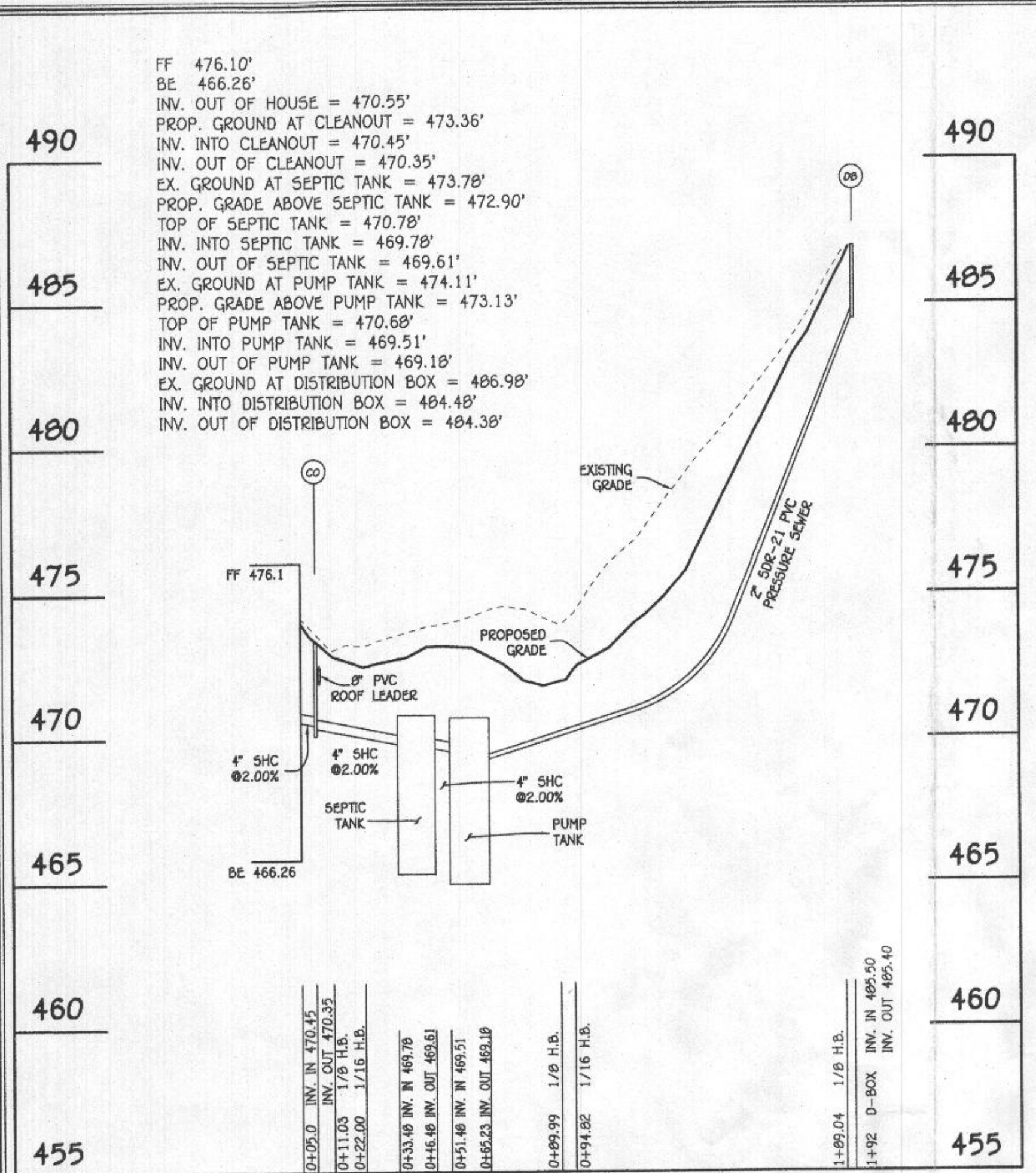
HO: 14-0103

3



~~NOT TO SCALE~~

1:40



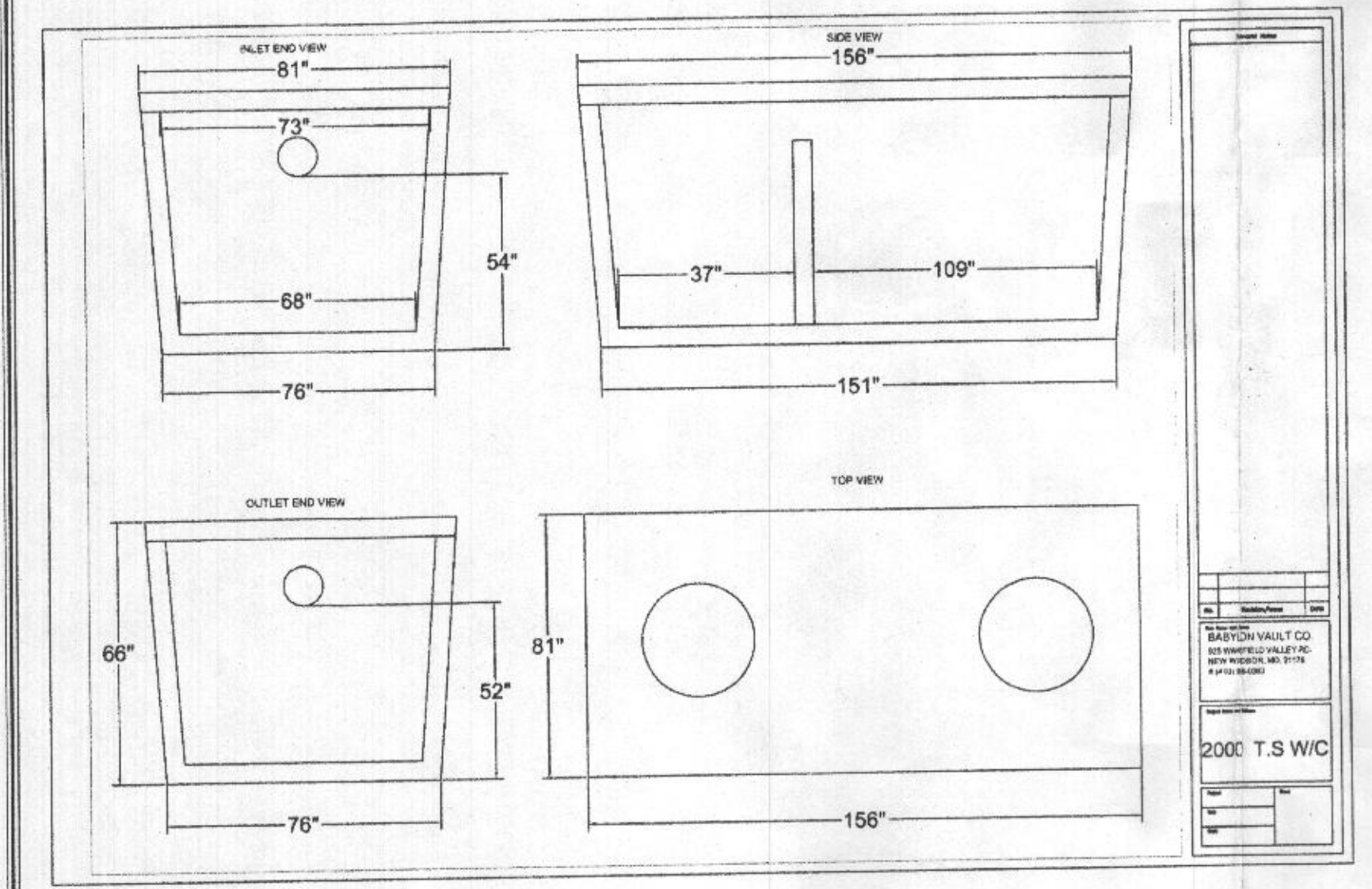
PROFILE SEPTIC CL.
SCALE HORIZ. 1" = 40'
VERT. 1" = 4'

1 UNION @ 2" SCH. 40 PVC = 126.77 LF
7 1/8 HB @ 4 EQUIVALENT FEET = 8 LF
3 1/16 HB @ 4 EQUIVALENT FEET = 4 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 139 LF

DYNAMIC HEAD
139 LF X 2.05 FT PER 100 LF OF 2" PIPE = 2.85 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGHEST POINT IN PUMP CHAMBER = 2.25 FT OF HEAD
HIGHEST POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 16.32 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD = 21.42 FT

1/8" DESIGN FLOW (900/6=150) PLUS VOLUME OF 2" PIPE (20.69 GALLONS)
USE 170.7 GALLON DOSE (150 GALLON MINIMUM)
RUN TIME = 4.27 MIN (40 GPM X 4.27 = 170.7 GALLON DOSE)

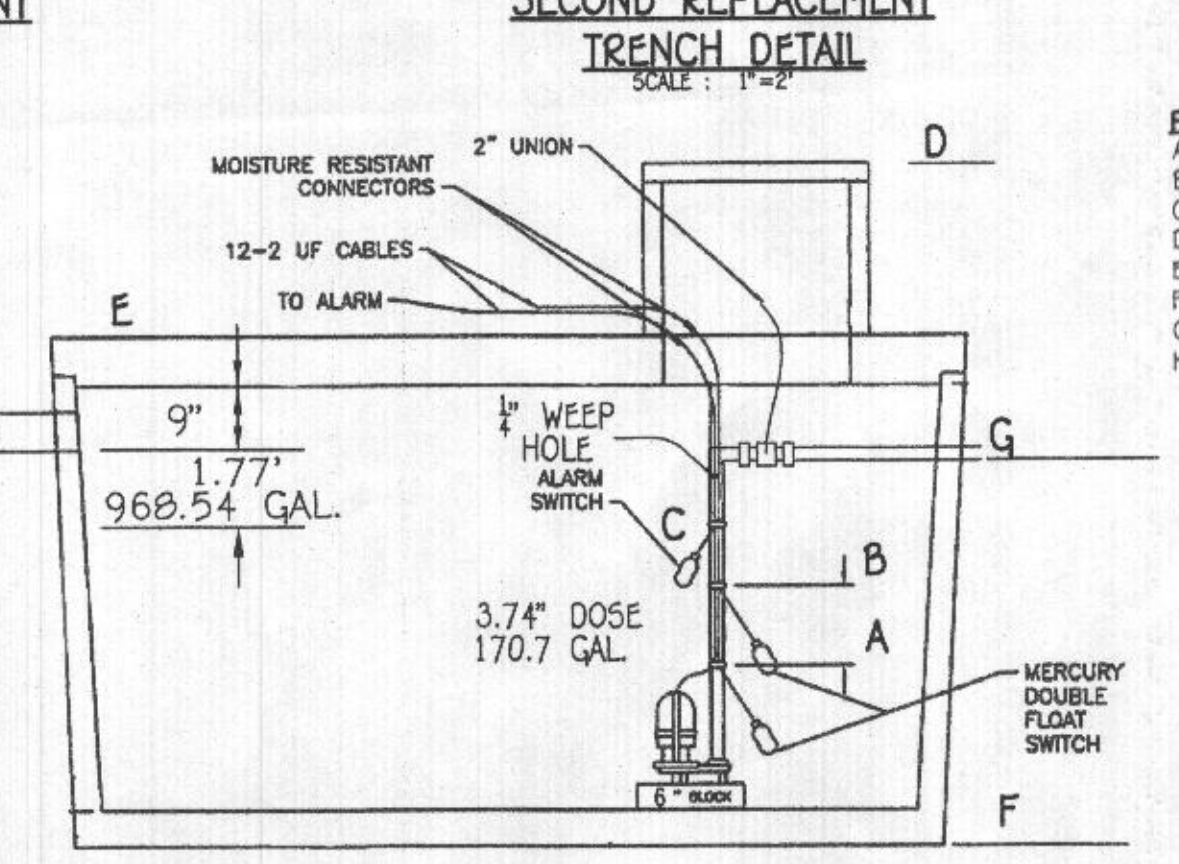
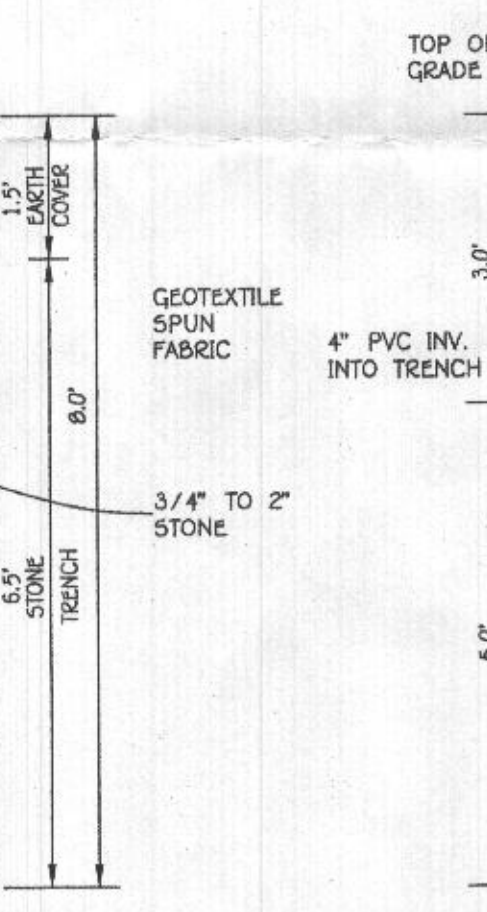
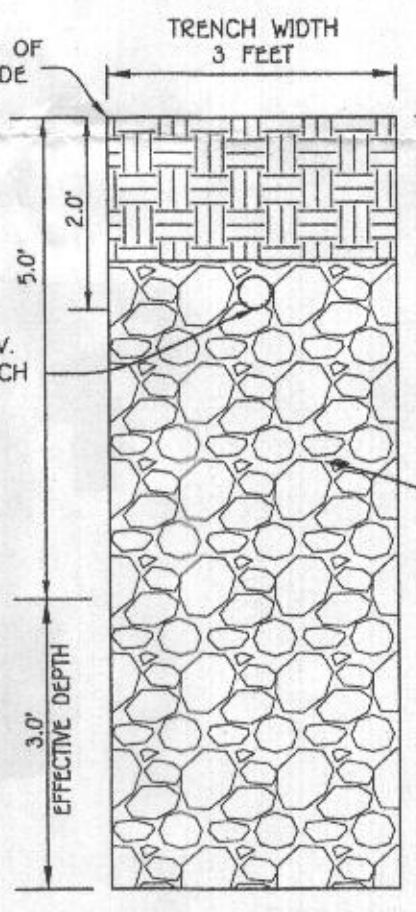
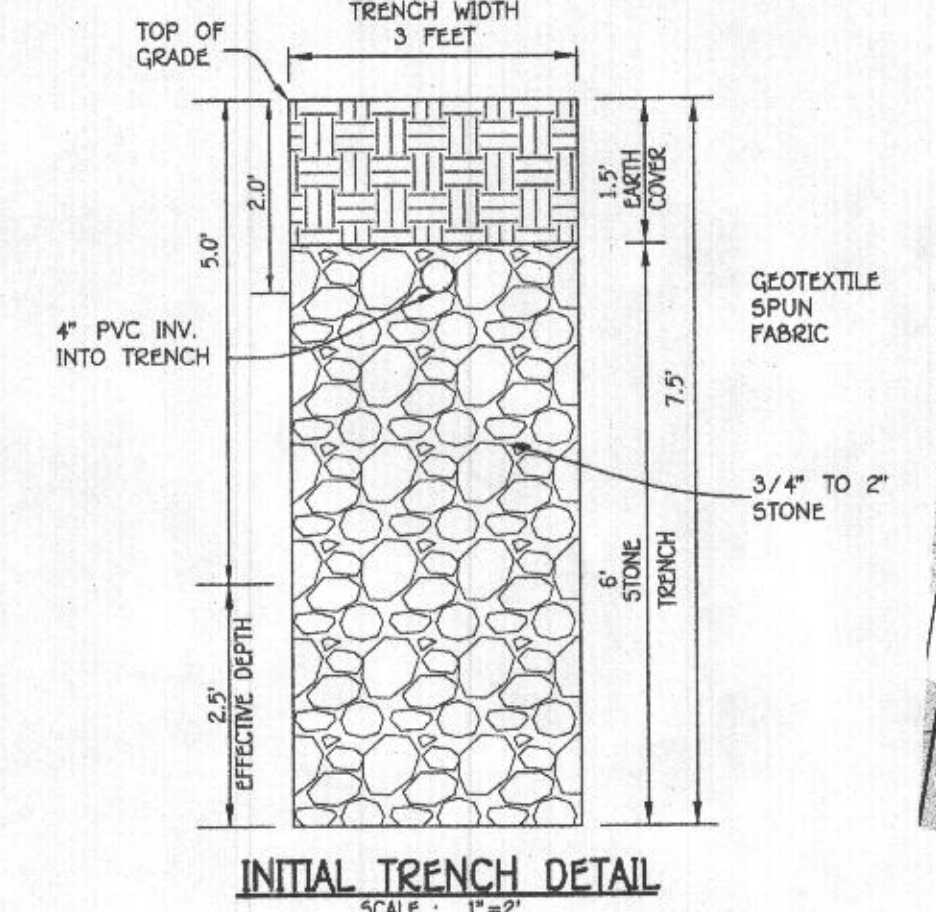
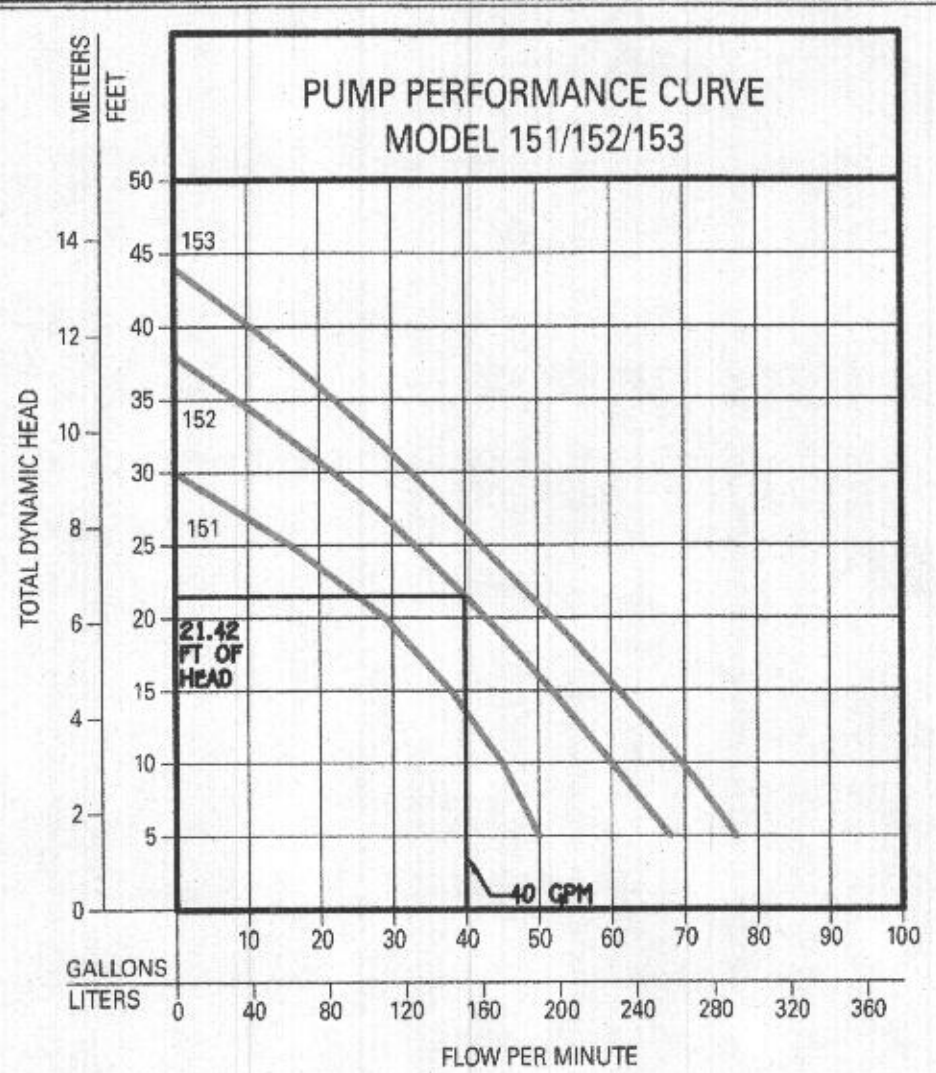
PUMP NEEDS TO HANDLE 40 GPM AT 21.42 FT OF HEAD
USE 0.4 HP (ZOELLER MODEL 152 PUMP)



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. 27020, EXPIRATION DATE: 01/25/26.



PAUL G. CAVANAUGH
APRIL 21, 2025
DATE

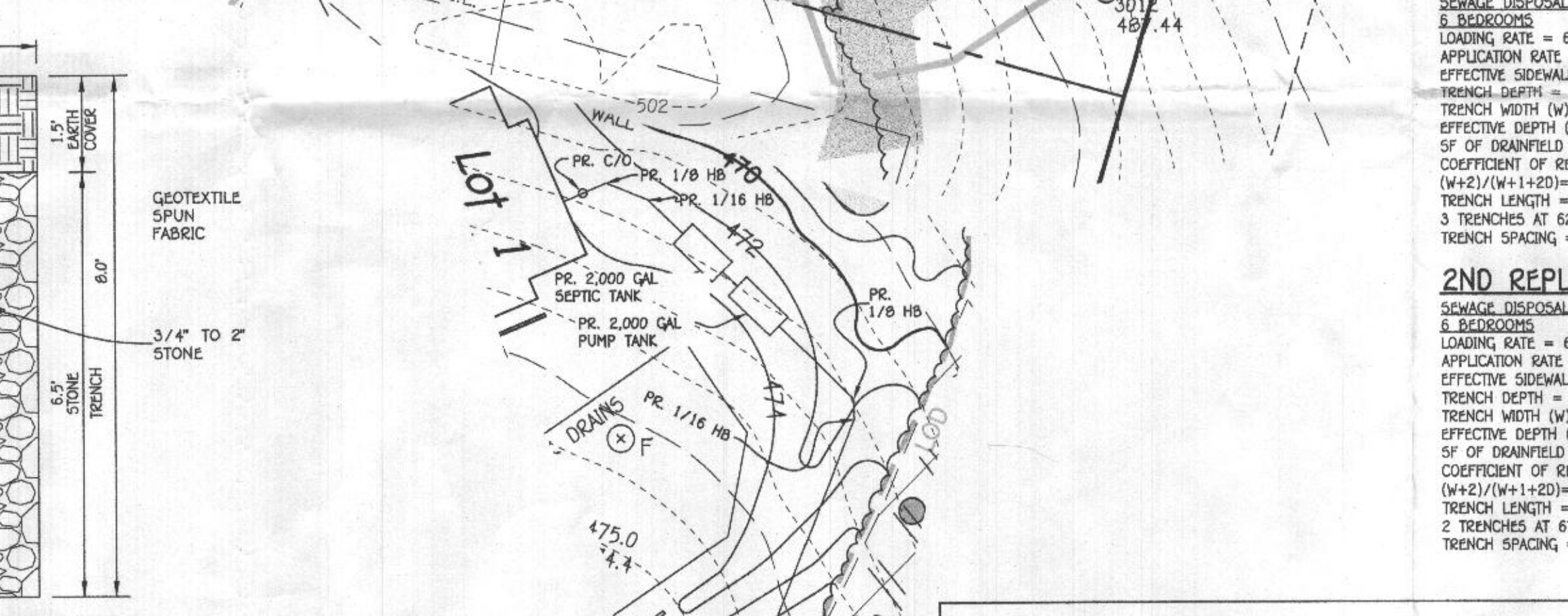
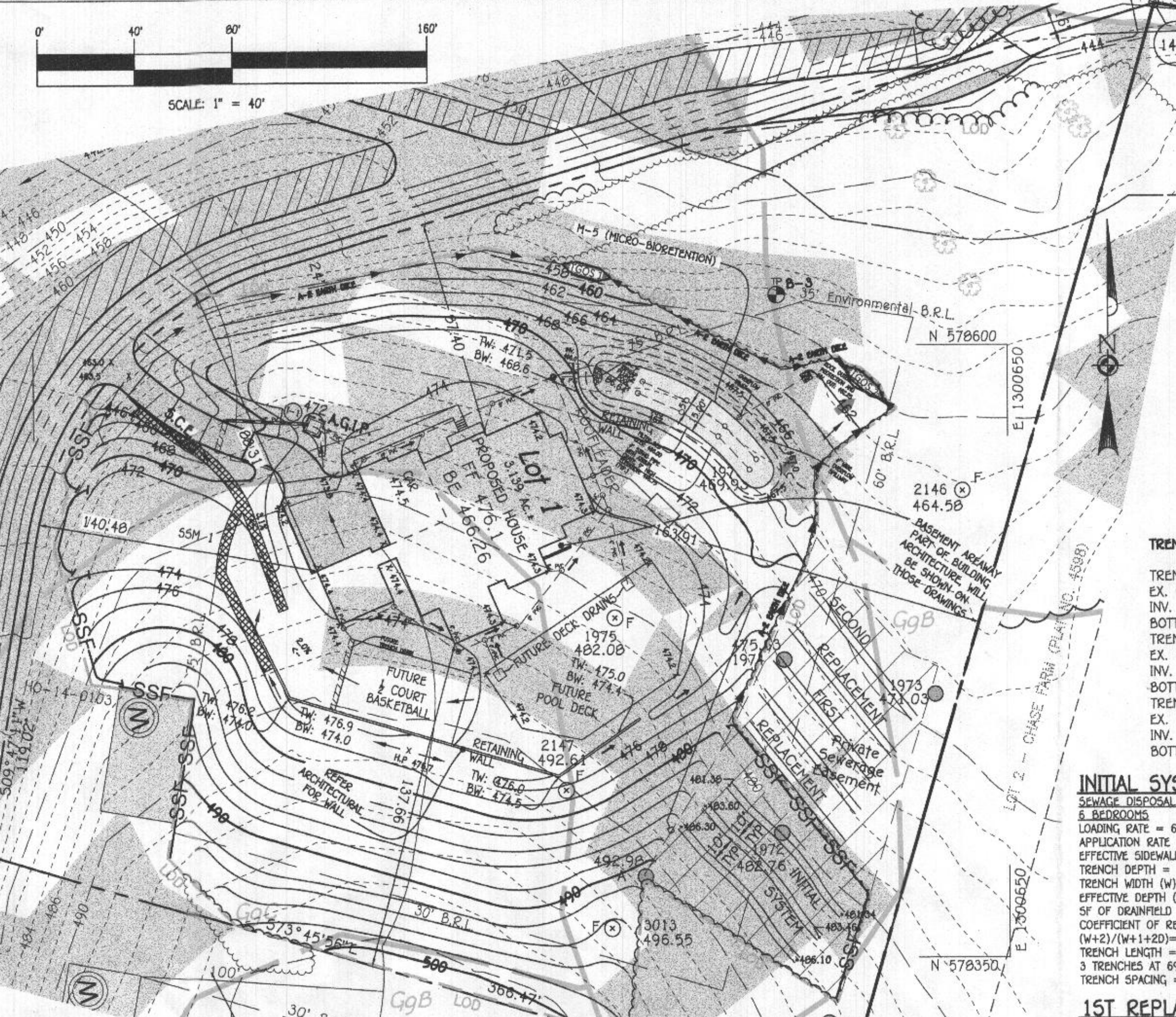


968.54 GAL EMERGENCY STORAGE

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

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

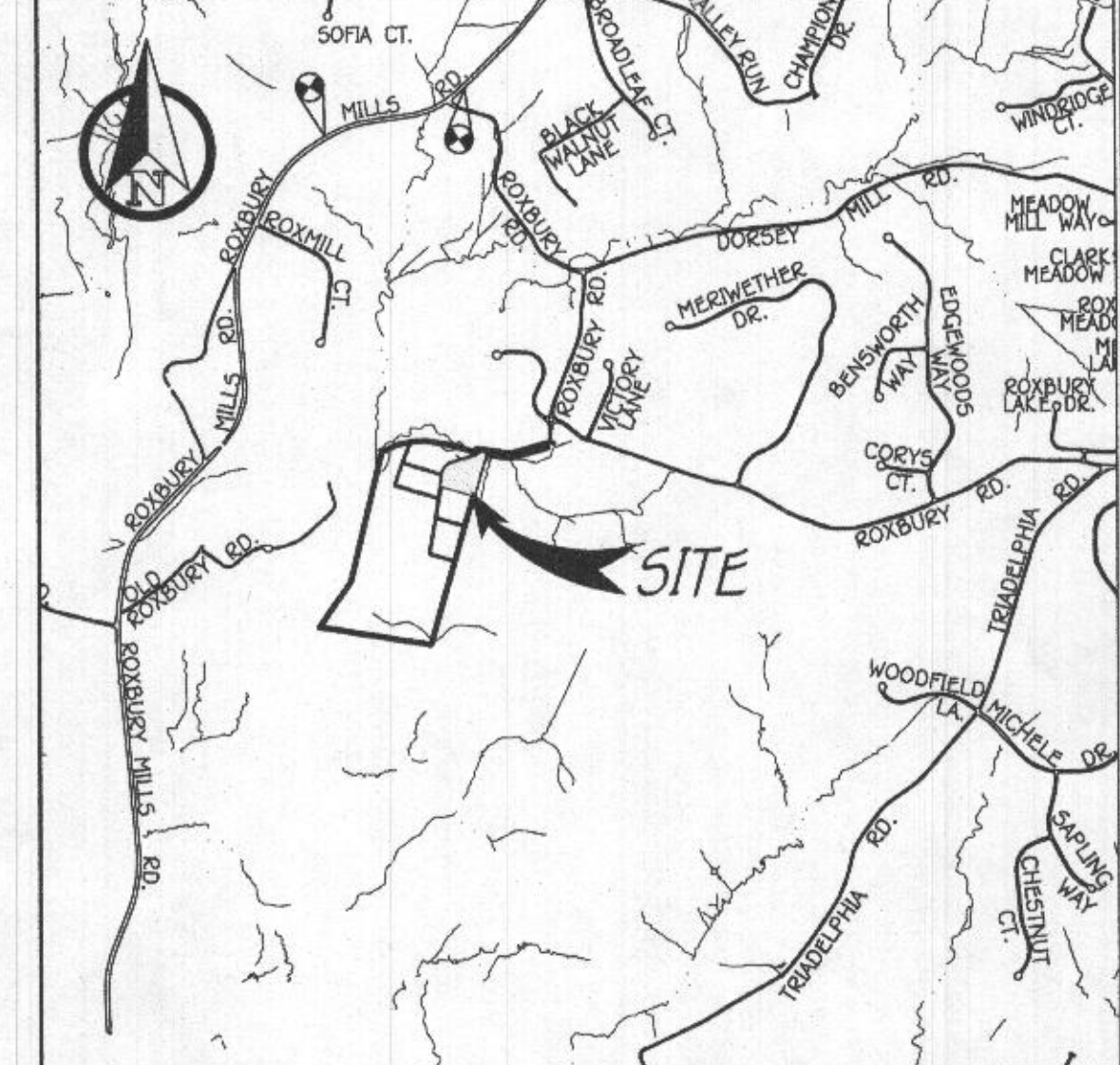
OWNER / DEVELOPER
WILLIAMSBURG BUILDERS
5495 HARPERS FARM ROAD
COLUMBIA, MARYLAND 21044
410-997-8800



PUMP ALARMS / INFORMATION
A. PUMP OFF: 466.93'
B. PUMP ON: 467.24'
C. HIGH WATER ALARM: 467.74'
D. TOP OF ACCESS COVER: 473.13'
E. TOP OF TANK: 4470.68'
F. BOTTOM OF TANK: 464.93'
G. DISCHARGE OUT OF TANK: 469.18'
H. INVERT INTO TANK: 469.51'

- 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.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- THE WELL HO-14-0103 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- 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.
- THE ENGINEER IS REGISTERED WITH HIDE TO PERFORM ON-SITE WASTEWATER SERVICES IN MARYLAND.

PURPOSE NOTE:
THE PURPOSE OF THIS REVISED SEPTIC INSTALL PLAN IS TO SHOW THE ADJUSTED ELEVATIONS OF THE PROPOSED HOUSE AND REDESIGN THE SEPTIC PUMP SYSTEM TO WORK WITH THE PROPOSED ELEVATIONS.



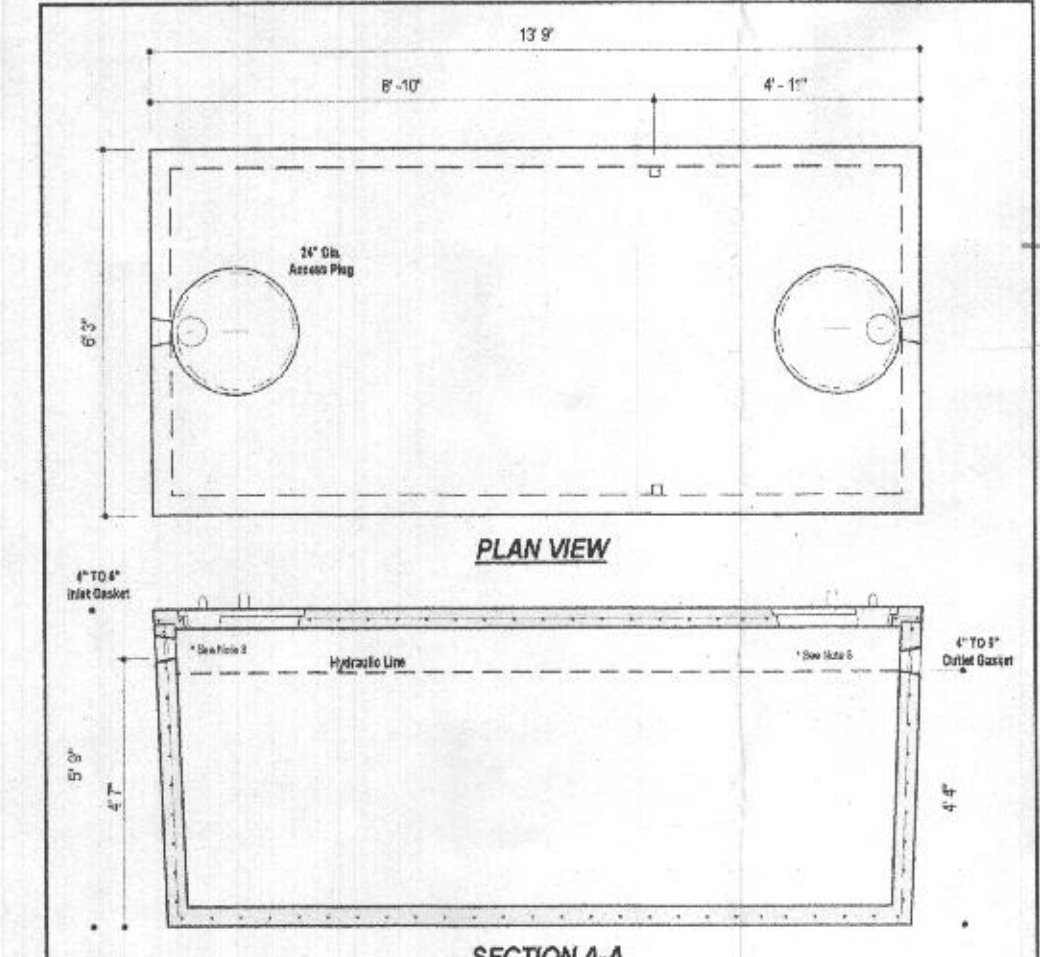
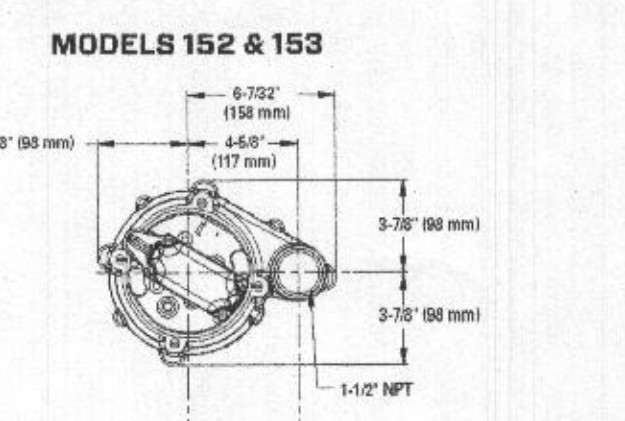
TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 486.20
INV. IN = 484.20
BOTTOM TRENCH = 478.70
TRENCH 2:
EX. GROUND ABOVE = 483.53
INV. IN = 481.53
BOTTOM TRENCH = 475.53
TRENCH 3:
EX. GROUND ABOVE = 481.36
INV. IN = 479.36
BOTTOM TRENCH = 473.36

INITIAL SYSTEM
SEWAGE DISPOSAL SYSTEM DATA - INITIAL 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 = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2.5)) = 0.596
TRENCH LENGTH = 1125 SF X 0.596 / 3 = 208.5 FEET
3 TRENCHES AT 69.5'
TRENCH SPACING = 2D+W = (2x2.5) + 3 = 8' USE 10'

1ST REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA - 1ST 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 = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.50
TRENCH LENGTH = 1125 SF X 0.50 / 3 = 187.50 FEET
3 TRENCHES AT 62.5'
TRENCH SPACING = 2D+W = (2x3) + 3 = 9' USE 10'

2ND REPLACEMENT SYSTEM
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 3 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x5)) = 0.357
TRENCH LENGTH = 1125 SF X 0.357 / 3 = 133.87 FEET
2 TRENCHES AT 67.0'
TRENCH SPACING = 2D+W = (2x5) + 3 = 13' USE 13'

LEGEND	
SYMBOL	DESCRIPTION
- - - -	EXISTING 2' CONTOURS
- - - -	EXISTING 10' CONTOURS
---	PROPOSED CONTOUR
+	SPOT ELEVATION
---	LIMITS OF DISTURBANCE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	PROPOSED PAVING
---	SOILS LINES AND TYPE
---	SUPER SILT FENCE
---	STABILIZES CONSTRUCTION ENTRANCE
---	PROPOSED MICRO BIOTRENTION (M-6)
---	NON-ROOFTOP DISCONNECTION (N-2)
---	ROOFLEADERS
---	UNDERDRAIN PIPE
---	15% TO 24.9% STEEP SLOPES
---	25% AND GREATER STEEP SLOPES
○	PASSED PERC TEST HOLE
○	FAILED PERC TEST HOLE
---	SILT FENCE
---	EARTH DICE
---	SPECIMEN TREE



DESIGN DATA & GENERAL NOTES

- Comply with all applicable codes and standards.
- Use the latest editions of all applicable codes and standards.
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- Use the latest editions of all applicable codes and standards.

BACK RIVER PRE-CAST, LLC
2,000 GALLON SEPTIC TANK
Stock Item (Approx. 19,000 lbs)
Aug 11, 2008

Approved Septic System Plan
Howard County Health Department
Signature: Hank D...
Date: 4/21/25

DAILY STABILIZATION NOTE:
THIS NOTE SHOULD BE USED FOR MINIMAL AREAS WITHIN THE LIMITS OF DISTURBANCE THAT DO NOT DRAIN TO A SEDIMENT CONTROL BASIN AND/OR WHERE THE INSTALLATION OF CONTROLS IS NOT FEASIBLE (ROAD WIDENING, SIDEWALK INSTALLATION, ETC.)

CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:

- FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
- FOR AREAS TO BE VEGETATIVELY STABILIZED:
 - PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
 - PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.

ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

SEPTIC SYSTEM INSTALLATION PLAN
CATTAIL OVERLOOK
LOT 1
15105 DEVLIN DRIVE, GLENELG, MD 21737
ZONED RC-DEO
TAX MAP No. 21 GRID No. 20 PARCEL No. 84
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 21, 2025
SHEET 1 OF 1

GENERAL NOTES:

- 1) THE PURPOSE OF THIS SURVEY IS TO REPRESENT THE POSITION OF THE POURED CONCRETE FOUNDATION AND OTHER VISIBLE IMPROVEMENTS AFFECTING THE SUBJECT PROPERTY BASED OFF OF A FIELD RUN SURVEY PERFORMED FEBRUARY 18, 2025.
- 2) THIS SPECIAL PURPOSE SURVEY IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS; AND DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES.
- 3) DIMENSIONS TO THE BOUNDARY LINES SHOWN HEREON ARE PLUS OR MINUS ONE FOOT (1.0').
- 4) THE SUBJECT PROPERTY LIES WITHIN FLOOD ZONE X, WHICH IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD HAZARD, AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP FOR HOWARD COUNTY, MARYLAND, MAP NUMBER 24027C0045D WITH AN EFFECTIVE DATE OF NOVEMBER 06, 2013.
- 5) B.R.L = BUILDING RESTRICTION LINE
- 6) BUILDING PERMIT: B2400255
- 7) THE EXISTING WELL SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-14-0103) HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN
- 8) NO TITLE REPORT WAS REVIEWED AND IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 9) SURVEYORS CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON WAS OBTAINED USING ACCEPTED LAND SURVEYING PRACTICES; AND THAT THE BOUNDARY INFORMATION SHOWN HEREON IS TAKEN FROM AVAILABLE DEEDS AND RECORDS; AND THAT THIS PLAT AND THE SURVEY ON WHICH IT IS BASED ON WERE PREPARED UNDER MY RESPONSIBLE CHARGE AND ARE IN COMPLIANCE WITH COMAR REGULATION 09.13.06.12; AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 22030, EXPIRATION DATE MAY 11, 2026.

Private Use-In-Common Driveway Access, Drainage And Stormwater Management Easement Line Table

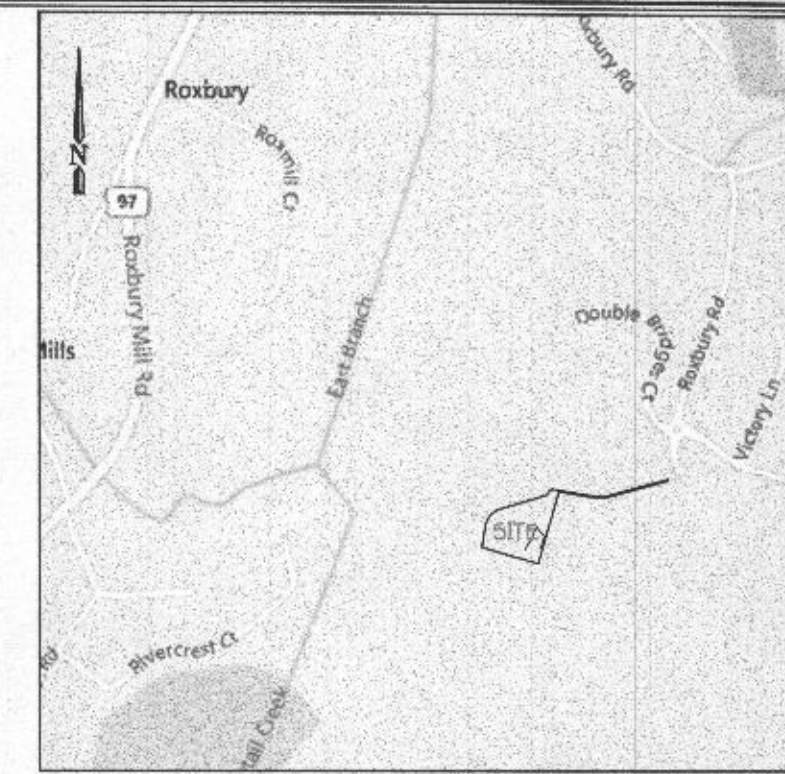
LINE	BEARING	LENGTH
UIC-1	574°30'13"W	407.29'
UIC-2	N89°52'13"W	62.00'
UIC-3	N80°30'13"W	231.56'
UIC-4	S16°13'48"W	14.41'
UIC-5	S76°13'28"W	48.95'
UIC-6	S56°10'47"W	29.32'
UIC-7	S83°59'28"W	101.92'
UIC-8	S73°50'59"W	189.13'
UIC-9	S=138.00'	L=128.17'
UIC-10	S09°47'11"W	12.29'
UIC-11	N09°47'11"E	9.78'
UIC-12	S=174.00'	L=199.29'
UIC-13	N73°30'23"E	283.60'
UIC-14	N09°29'47"E	6.78'
UIC-15	N09°29'47"E	50.00'
UIC-16	S80°30'13"E	323.55'
UIC-17	S89°52'13"E	62.00'
UIC-18	N74°30'53"E	420.20'
UIC-19	S06°05'03"W	53.77'

Property Line Line Table

LINE	BEARING	LENGTH
PL1	N09°47'11"E	119.02'
PL2	RAD=138.00'	126.17'
PL3	N73°30'23"E	288.49'
PL4	N40°57'13"E	58.69'
PL5	S80°53'03"E	279.74'
PL6	S89°52'13"E	60.18'
PL7	N74°30'53"E	409.44'

Legend

- Existing 100 Year Floodplain, Drainage & Utility Easement (Plat Nos. 5426 Thru 5429)
- Private Use-In-Common Driveway Access, Drainage And Stormwater Management Easement



VICINITY MAP
SCALE: 1" = 1200'



SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON WAS OBTAINED USING ACCEPTED LAND SURVEYING PRACTICES; THAT THE BOUNDARY INFORMATION SHOWN HEREON IS TAKEN FROM AVAILABLE DEEDS AND RECORDS; THAT THIS PLAT AND THE SURVEY ON WHICH IT IS BASED WERE PREPARED UNDER MY RESPONSIBLE CHARGE AND ARE IN COMPLIANCE WITH COMAR REGULATION 09.13.06.12.

Robert E. Walker
ROBERT E. WALKER
PROFESSIONAL LAND SURVEYOR
MD LIC. # 22030 EXP. 5/11/2026

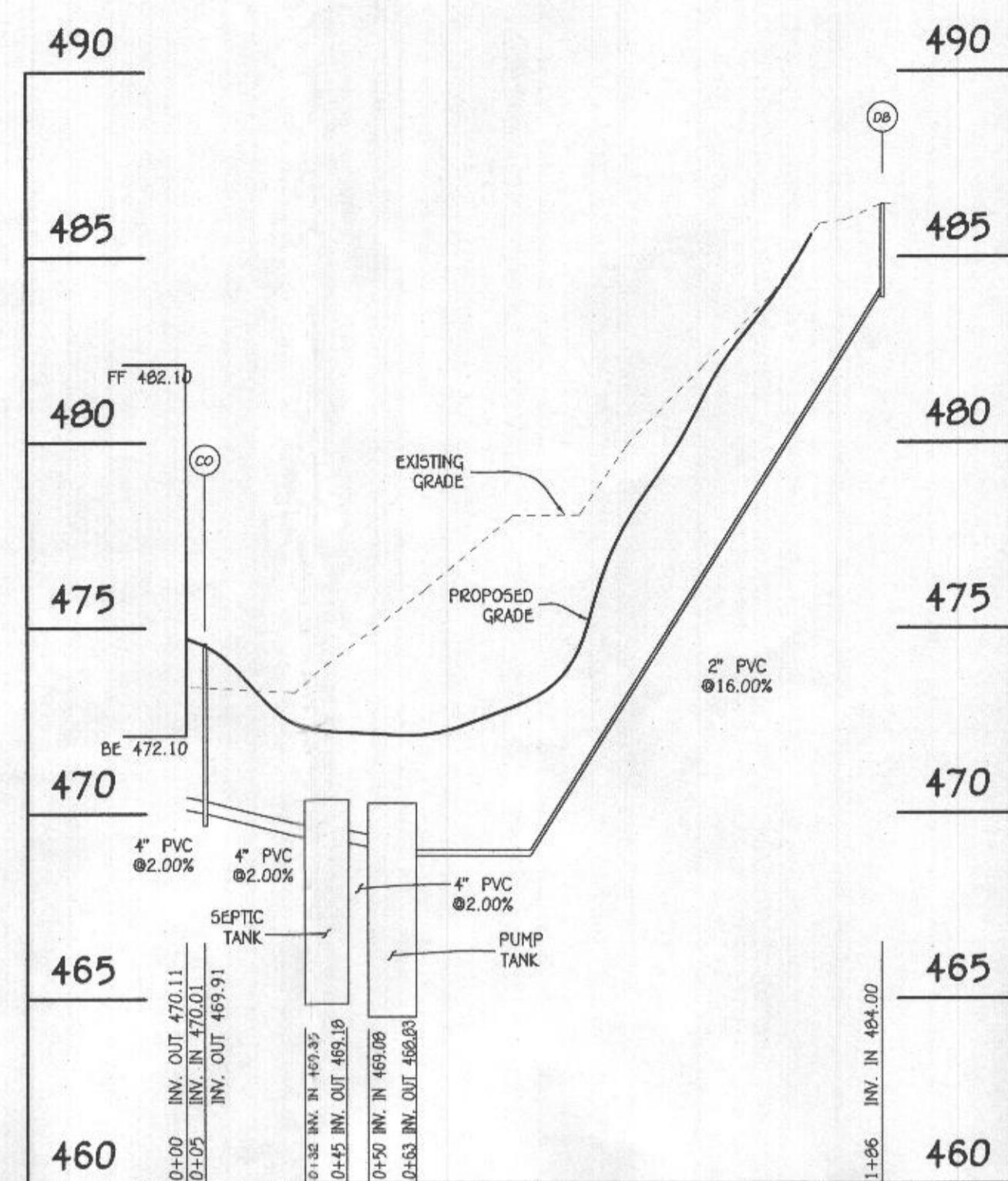


5/06/2025
DATE

SPECIAL PURPOSE SURVEY
CATTAIL OVERLOOK
LOTS 1 THRU 6 AND DENSITY SENDING PLAT OF EASEMENT

#15105 DEVLIN DRIVE
TAX MAP: 21, GRID: 20, PARCEL: 84
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

OWNER(S) DAVID VERNON MCDANIEL & JOY AMBER MCDANIEL 2808 SHADOW ROLL CT GLENWOOD MD 21738 HOWARD COUNTY, MARYLAND	GRAPHIC SCALE 1" = 80' 0 80' 160'
DATE: 02/24/2025 DRAWN BY: WAS CHECKED BY: REW	PROJECT NUMBER 30636-6007
SHEET 1 OF 1	



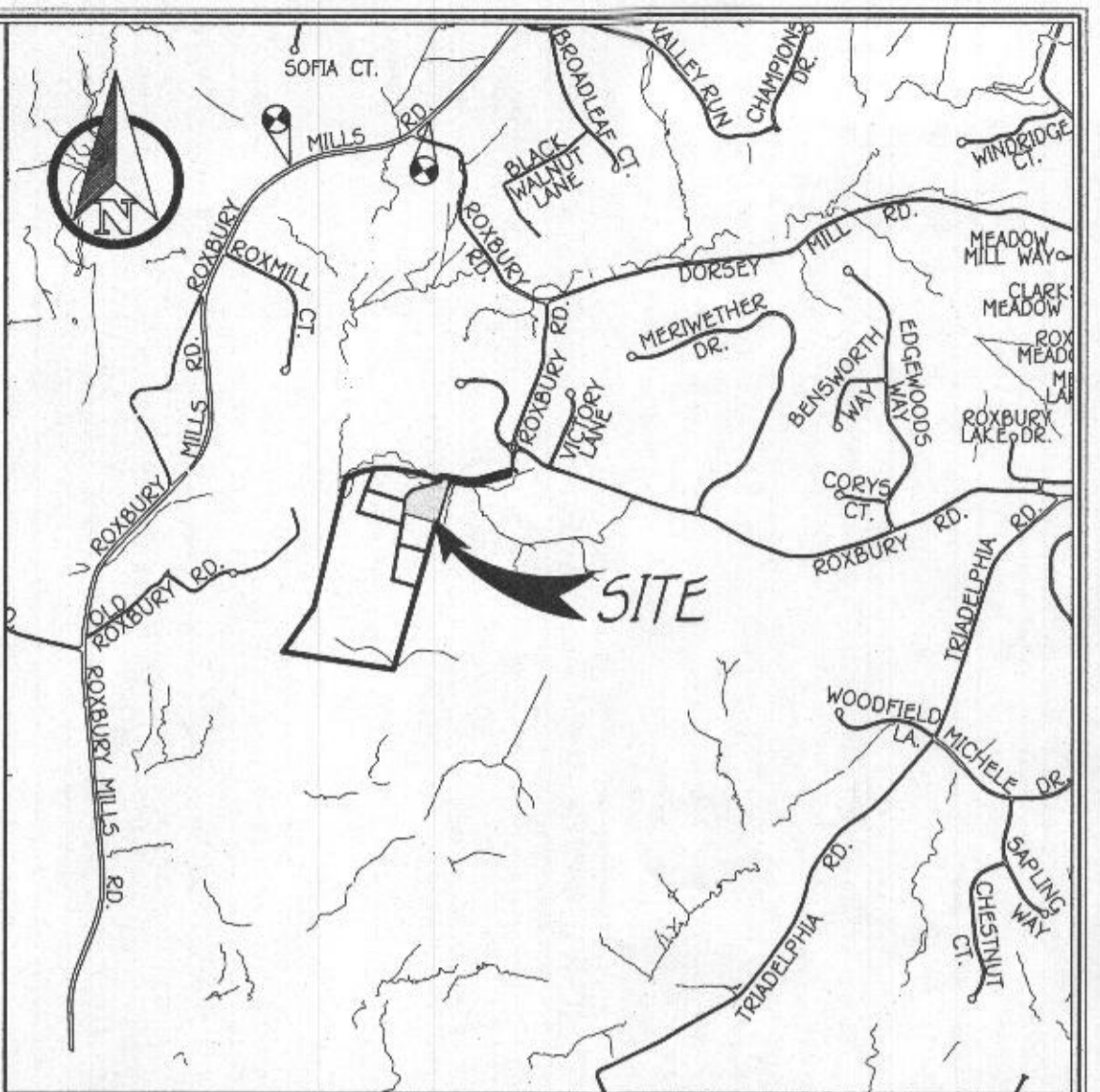
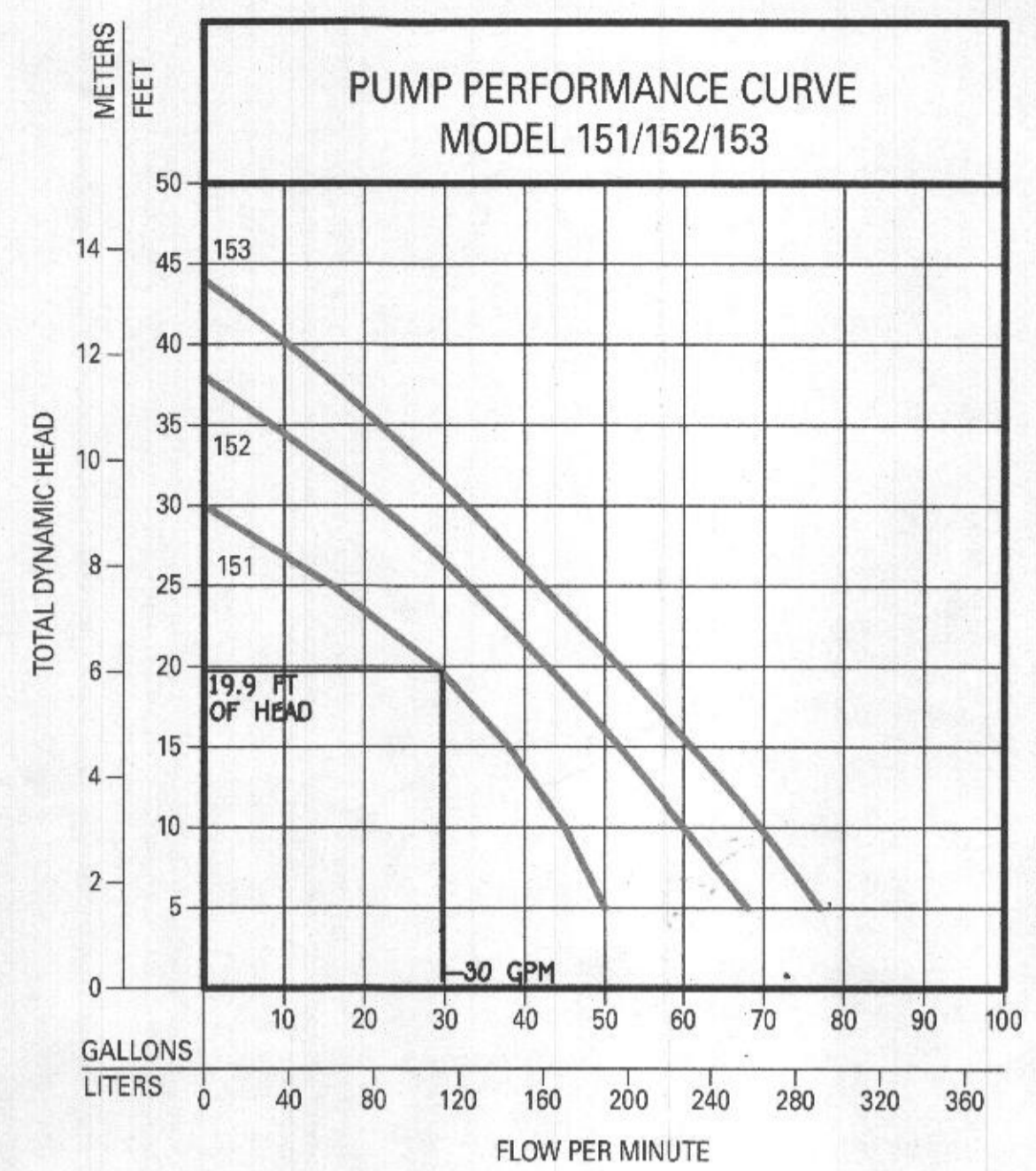
FF 482.10'
BE 472.10'
INV. OUT OF HOUSE = 470.11'
PROP. GROUND AT CLEANOUT = 474.70'
INV. INTO CLEANOUT = 470.01'
INV. OUT OF CLEANOUT = 469.91'
EX. GROUND AT SEPTIC TANK = 473.50'
PROP. GRADE ABOVE SEPTIC TANK = 472.35'
TOP OF SEPTIC TANK = 470.35'
INV. INTO SEPTIC TANK = 469.35'
INV. OUT OF SEPTIC TANK = 469.18'
EX. GROUND AT PUMP TANK = 475.00'
PROP. GRADE ABOVE PUMP TANK = 472.15'
TOP OF PUMP TANK = 470.00'
INV. INTO PUMP TANK = 469.08'
INV. OUT OF PUMP TANK = 468.83'
EX. GROUND AT DISTRIBUTION BOX = 484.41'
INV. INTO DISTRIBUTION BOX = 484.00'
INV. OUT OF DISTRIBUTION BOX = 483.90'

PROFILE SEPTIC SYSTEM
SCALE HORIZ. 1" = 40'
VERT. 1" = 4'

2" SCH. 40 PVC = 123 LF
1 UNION @ 2 EQUIVALENT FEET = 2 LF
2 1/8" HB @ 4 EQUIVALENT FEET = 8 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 133 LF

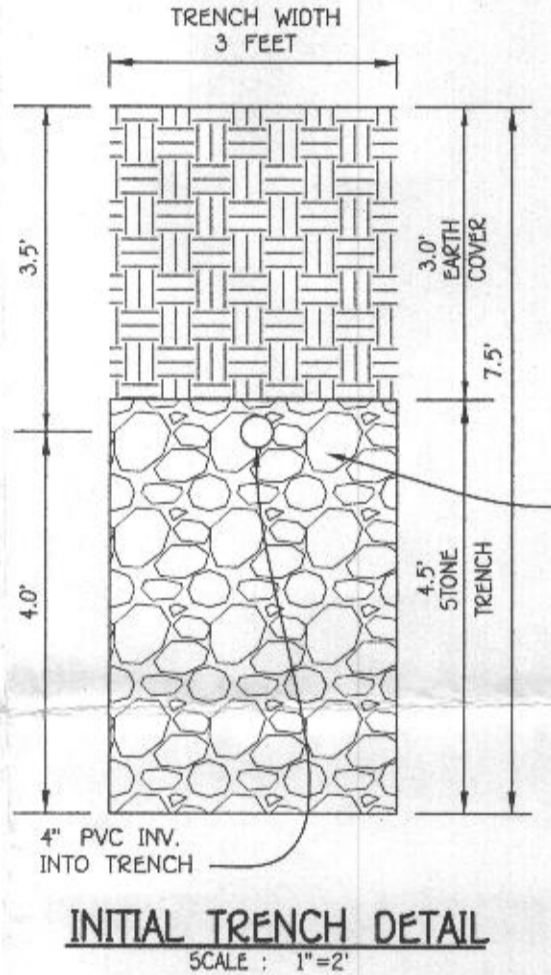
DYNAMIC HEAD
133 LF X 2.05 FT PER 100 LF OF 2" PIPE = 2.73 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.00 FT OF HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 15.17 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD = 19.90 FT

1/6 DESIGN FLOW (900/6=150) PLUS VOLUME OF 2" PIPE (20.2 GALLONS)
USE 170 GALLON DOSE (150 GALLON MINIMUM)
RUN TIME = 5.67 MIN (30 GPM X 5.67 = 170 GALLON DOSE)
PUMP NEEDS TO HANDLE 30 GPM AT 19.90 FT OF HEAD
USE 0.3 HP (ZOELLER MODEL 151 PUMP)



VICINITY MAP
SCALE: 1" = 2,000'

LEGEND	
SYMBOL	DESCRIPTION
(dashed line)	EXISTING 2' CONTOURS
(solid line)	EXISTING 10' CONTOURS
(dotted line)	PROPOSED CONTOUR
(dot)	SPOT ELEVATION
(shaded area)	LIMITS OF DISTURBANCE
(line with dots)	EXISTING TREELINE
(line with triangles)	PROPOSED TREELINE
(line with squares)	PROPOSED PAVING
(line with circles)	SOILS LINES AND TYPE
(line with diamonds)	SUPER SILT FENCE
(line with crosses)	STABILIZES CONSTRUCTION ENTRANCE
(line with stars)	PROPOSED MICRO BIORETENTION (M-6)
(line with triangles)	NON-ROOFTOP DISCONNECTION (N-2)
(line with squares)	ROOFLEADERS
(line with circles)	UNDERDRAIN PIPE
(line with diamonds)	15% TO 24.9% STEEP SLOPES
(line with squares)	25% AND GREATER STEEP SLOPES
(circle with cross)	PASSED PERC TEST HOLE
(circle with dot)	FAILED PERC TEST HOLE
(line with triangles)	SILT FENCE
(line with squares)	EARTH DIKE
(circle with cross)	SPECIMEN TREE



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA - 1ST 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 = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+2(3)) = 0.556
TRENCH LENGTH = 1125 SF X 0.556 / 3 = 208.5 FEET
3 TRENCHES AT 69.5'
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

2ND REPLACEMENT SYSTEM

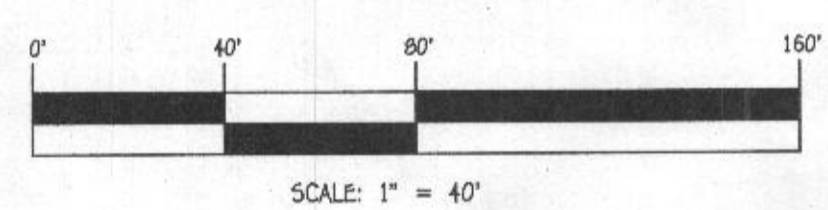
SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+2(5)) = 0.357
TRENCH LENGTH = 1125 SF X 0.357 / 3 = 133.87 FEET
2 TRENCHES AT 67.0'
TRENCH SPACING = 2D+W = ((2x5) + 3) = 13' USE 13'

INITIAL SYSTEM

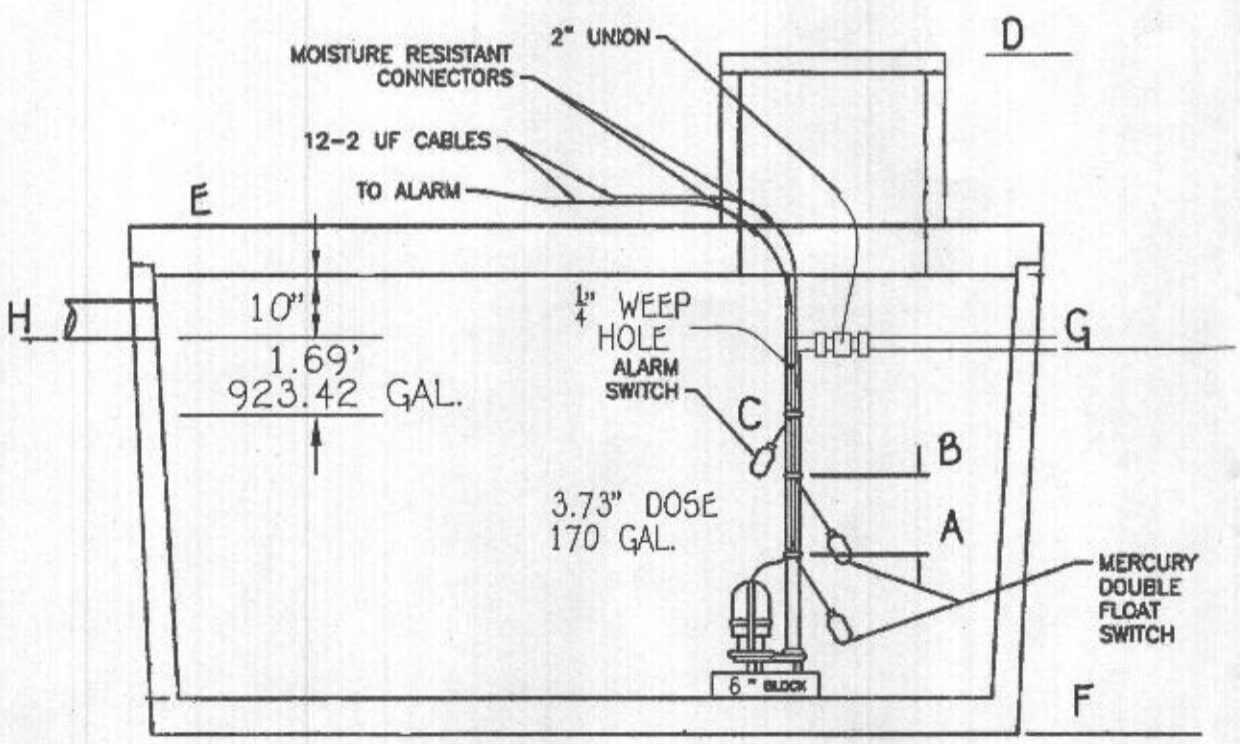
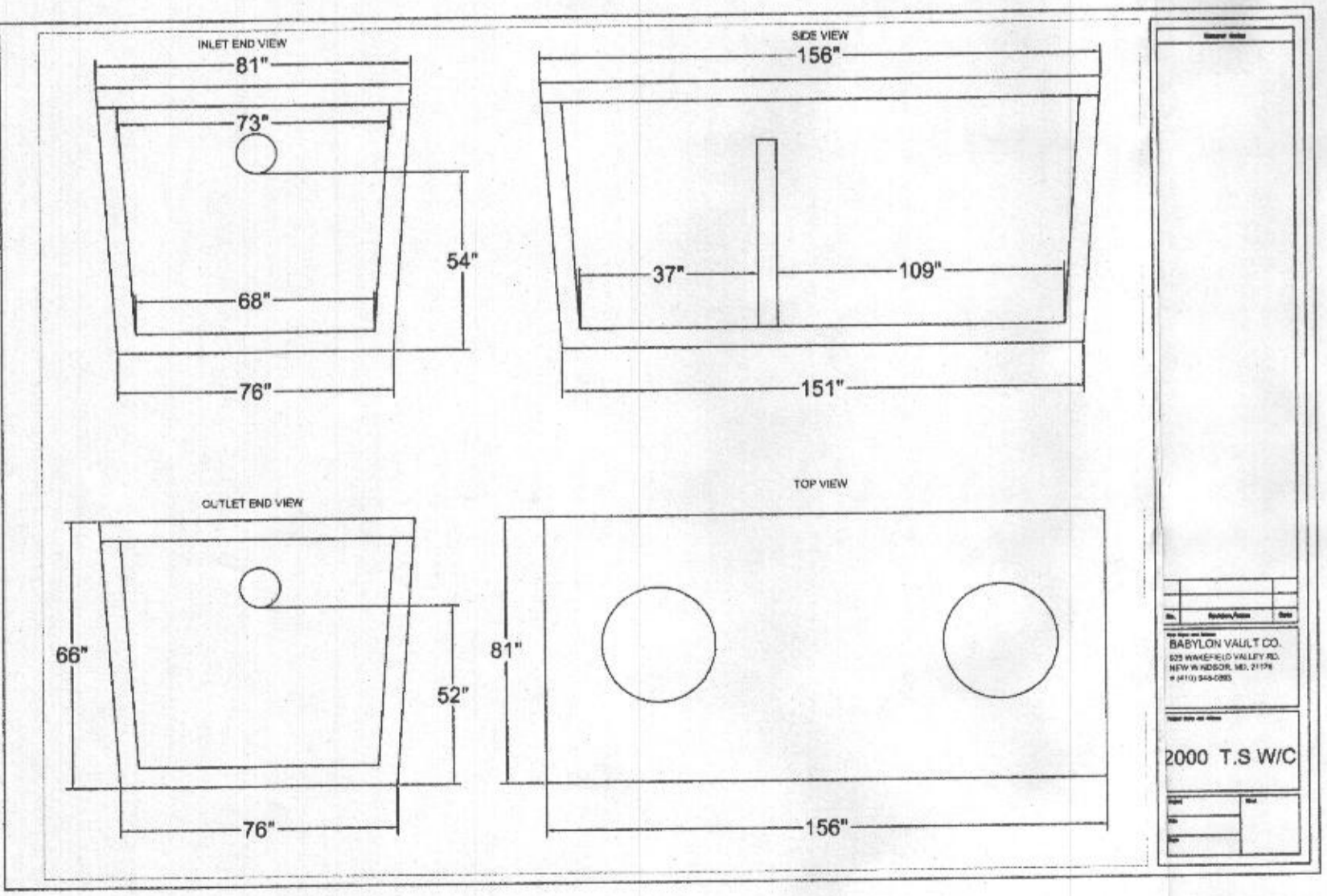
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+2(2.5)) = 0.556
TRENCH LENGTH = 1125 SF X 0.556 / 3 = 208.5 FEET
3 TRENCHES AT 69.5'
TRENCH SPACING = 2D+W = ((2x2.5) + 3) = 8' USE 10'

TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 486.0
INV. IN = 482.5
BOTTOM TRENCH = 478.5
TRENCH 2:
EX. GROUND ABOVE = 483.8
INV. IN = 480.3
BOTTOM TRENCH = 476.3
TRENCH 3:
EX. GROUND ABOVE = 481.0
INV. IN = 477.5
BOTTOM TRENCH = 473.5



SCALE: 1" = 40'



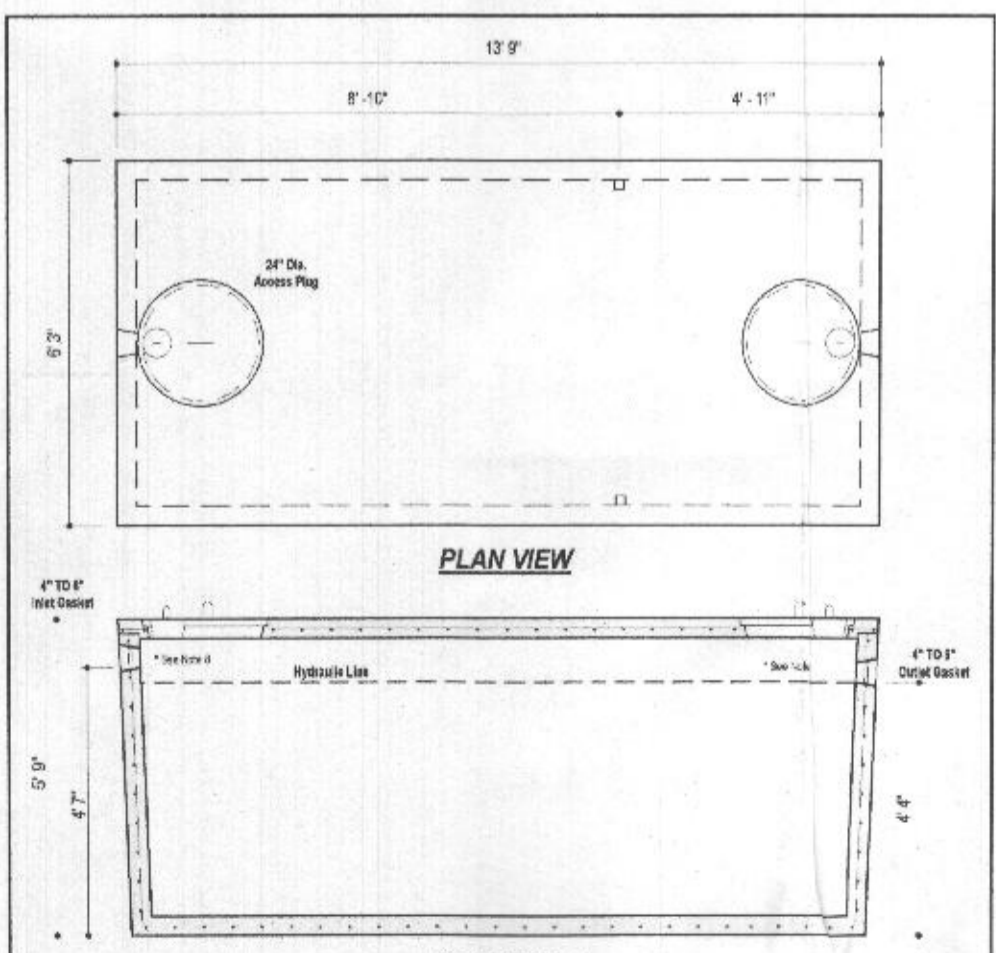
PUMP TANK DETAIL

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

PUMP ALARMS / INFORMATION

- A PUMP OFF : 466.99'
- B PUMP ON : 466.99'
- C HIGH WATER ALARM : 467.39'
- D TOP OF ACCESS COVER : 470.25'
- E TOP OF TANK : 470.25'
- F BOTTOM OF TANK : 464.50'
- G DISCHARGE OUT OF TANK : 468.83'
- H INVERT INTO TANK : 469.08'

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 REVERSED 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 HO-14-0103 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.
5. THE ENGINEER IS REGISTERED WITH MDE TO PERFORM ON-SITE WASTEWATER SERVICES IN MARYLAND.

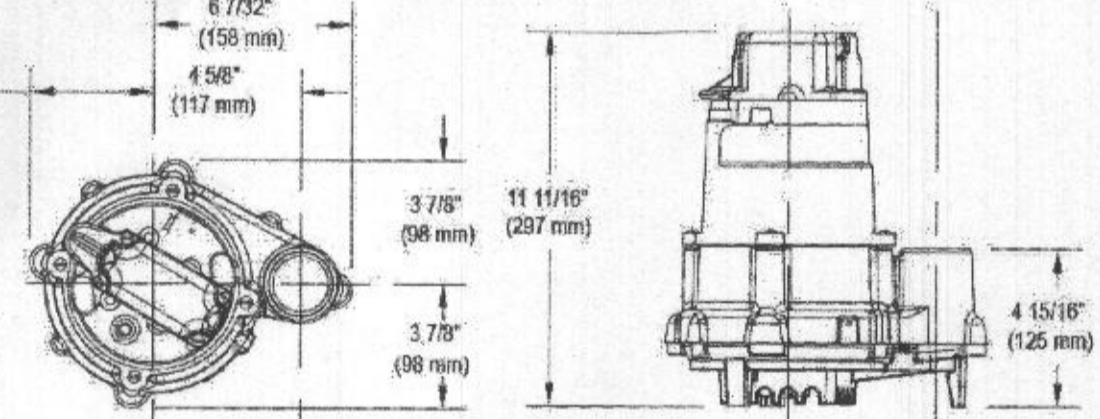


SECTION A-A
PUMP TANK

DESIGN DATA & GENERAL NOTES
1. Tank must be installed on a minimum 2% slope towards the discharge.
2. Cover: Pre-cast Type III or IV 18" x 18" x 4" thick.
3. Manhole: Pre-cast Type III or IV 18" x 18" x 4" thick.
4. Backfill: Backfill with 3/4" to 2" stone.
5. Top 10% must be backfilled with stone.
6. 4" x 4" x 1/2" steel, 8" top flange.
7. See 10' of notes.
8. Depending on use of tank, tank & cover loads may be required by code.

BACK RIVER PRE-CAST, LLC
P.O. Box 520
Crown Point, MD 21031
410-833-4116
www.backriverprecast.com

2000 GALLON SEPTIC TANK
1-Compartment
Stock Item (Approx. 19,000 lbs)
Weight = 19,000 lbs.
Dep. No. 2000-C No Scale Aug. 11, 2008



PUMP DETAIL

Approved Septic System Plan
Howard County Health Department
Mark Dwyer 6/12/23
Signature Date

DAILY STABILIZATION NOTE:
THIS NOTE SHOULD BE USED FOR MINOR AREAS WITHIN THE LIMITS OF DISTURBANCE THAT DO NOT DRAIN TO A SEDIMENT CONTROL MEASURE AND/OR WHERE THE INSTALLATION OF CONTROLS IS NOT FEASIBLE. (ROAD WIDENING, SIDEWALK INSTALLATION, ETC.)

CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1. FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
2. FOR AREAS TO BE VEGETATIVELY STABILIZED:
a. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
b. PREPARATION SEED AND MULCH FOR ALL OTHER AREAS.
ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

SEPTIC SYSTEM INSTALLATION PLAN
CATTAIL OVERLOOK
LOT 1
15105 DEVLIN DRIVE, GLENELG, MD 21737
ZONED RC-DEO
TAX MAP No. 21 GRID No. 20 PARCEL No. 84
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE 15, 2023
SHEET 1 OF 1

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 481-2895



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 46091, EXPIRATION DATE: 05/14/25.
Luke Groom
LUKE A. GROOM

OWNER / DEVELOPER
WILLIAMSBURG BUILDERS
5485 HARPERS FARM ROAD
COLUMBIA, MARYLAND 21044
410-997-8800

6/15/2023
Date