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: 10/07/2022 **ONSITE SEWAGE DISPOSAL SYSTEM** P 572195

APPROVAL DATE: 3/15/2023 **PERMIT: CONSTRUCTION** A

PROPERTY ADDRESS: 15433 Rivercrest Court, Brookeville, MD 20833

SUBDIVISION: Rivercrest RS LT 1 BUICE LOT: 4 TAX ID: 04-370597

CONTRACTOR: Hatfield's Equipment EMAIL:

CONTRACTOR ADDRESS: PO Box 519, Annapolis Junction, MD 20701 PHONE: (301) 490 - 4289

PROPERTY OWNER: Wolfe, Edward Charles JR; Wolfe, Michelle Lynn EMAIL:

OWNER ADDRESS: 4109 Briggs Chaney Road, Beltsville, MD 20705 PHONE:

SEPTIC TANK SIZE (GALLONS): 2000 g TANK MANUFACTURER: Backriver or Equivalent

PUMP MODEL: Goulds WE07H PUMP SIZE ¾ HP PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: ☒ GRAVITY ☐ PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: 58'	INLET DEPTH: 2'
	TRENCH WIDTH: 3'	MAXIMUM BOTTOM DEPTH: 5'
	MINIMUM SPACE BETWEEN TRENCHES: 10'	EFFECTIVE AREA BEGINNING DEPTH: 4'
LOCATION:	**PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.**	
NOTES:	Install 3 x 58' Trenches	

ISSUED BY: Cabahug 001997 ISSUE DATE: 10/13/2022 EXPIRATION DATE: 10/13/2023

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 22006878

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

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	5'

NUMBER OF TRENCHES 3

TOTAL LENGTH 174 F

ABSORPTION AREA 522 SF + 1' SIDE WALL

DISTRIBUTION BOX LEVEL PUMP

DISTRIBUTION BOX BAFFLE CONC.

DISTRIBUTION BOX PORT YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL YES

MANUFACTURER BABYLON

CAPACITY 2000 GAL

SEAM LOC TOP

TANK LID DEPTH 5' - 1' TB

BAFFLES YES

BAFFLE FILTER —

MANHOLE LOC FRONT/BACK

6" PORT LOC —

WATERTIGHT TEST —

SLOTTED YES

DATE ON LID 07/21/2022

PUMP/SEPTIC TANK LEVEL YES

MANUFACTURER BABYLON

CAPACITY 2000 GAL

SEAM LOC TOP

TANK LID DEPTH 2' - 3'

BAFFLES —

BAFFLE FILTER —

MANHOLE LOC FRONT/BACK

6" PORT LOC —

WATERTIGHT TEST —

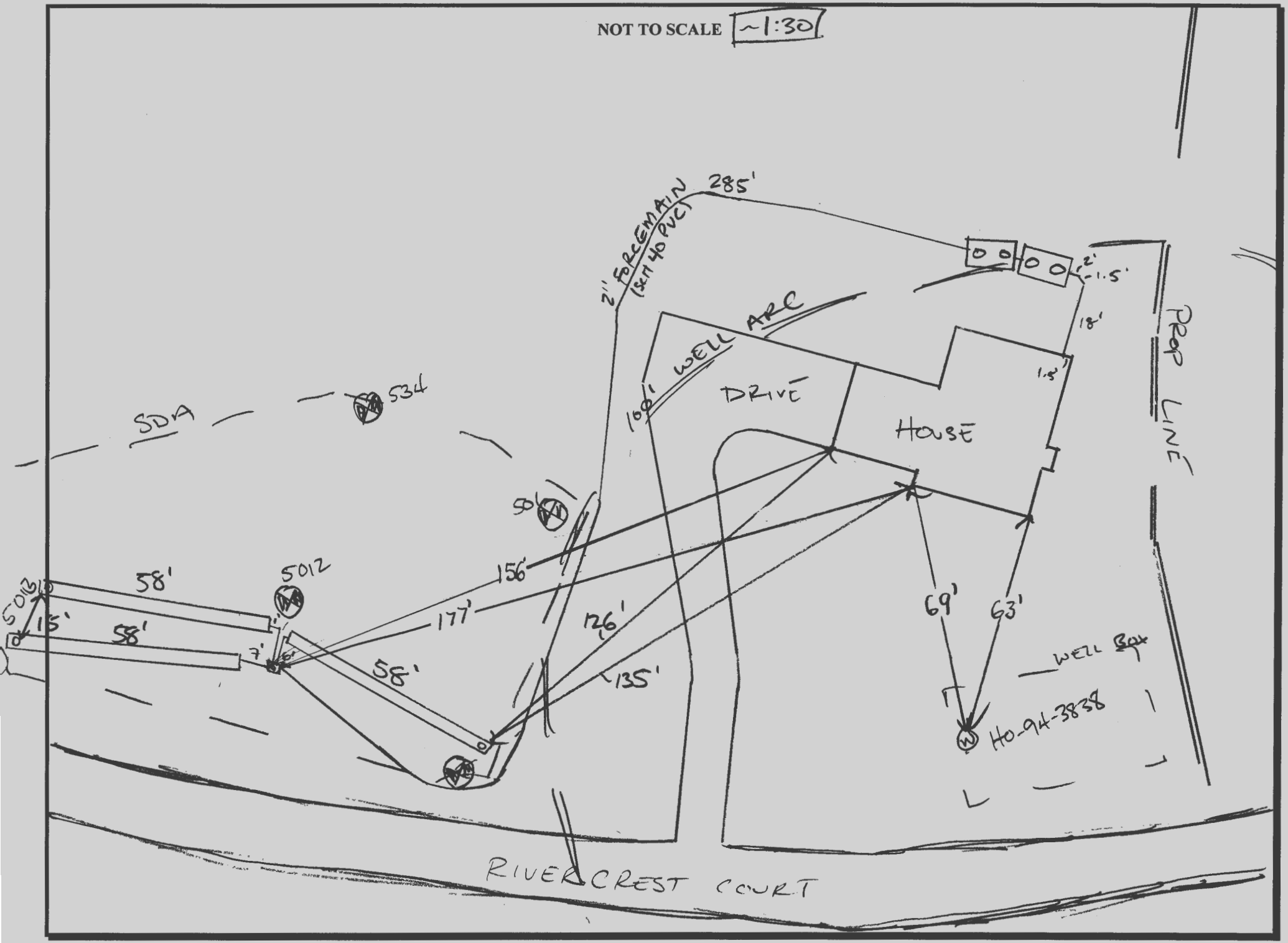
SLOTTED —

DATE ON LID

PRE-CONSTRUCTION:
10/13/2022 CONFIRMED TRENCH CONTOURS. LEVEL FROM LOWEST POINT DUE TO ROAD CUTS.

INSTALLATION: 10/19/2022 TANKS SET. FM INSTALL. 10/20/2022 SHC SL, FM COMPLETED. D BOX SET. 10/21/2022 TRS COMPLETE
3/15/2023 - Audible & visual Alarm outside of Tank/on its own post. Alarm successful. Pump successfully [illegible] D box. Measured well to House.

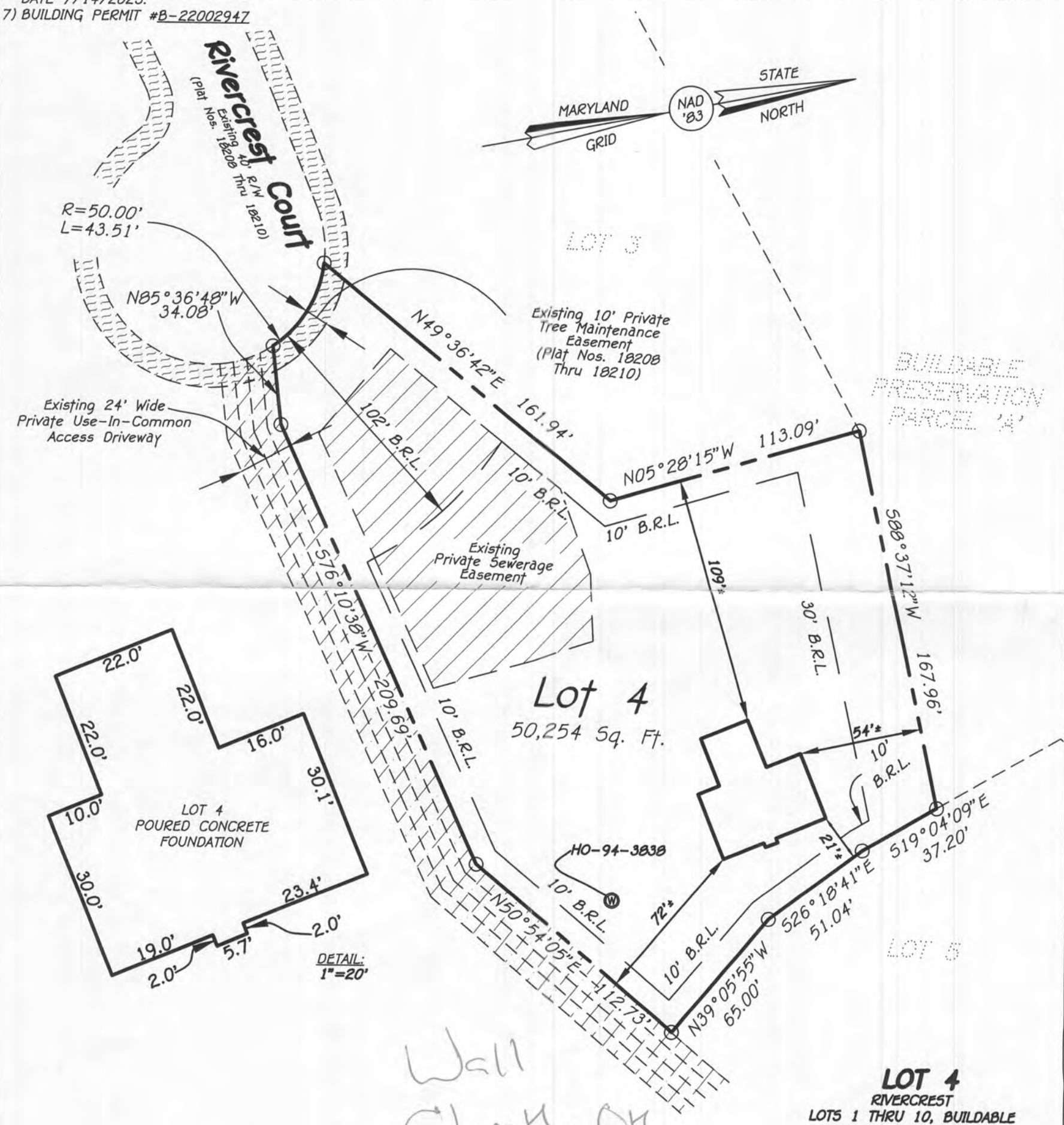
FINAL INSPECTOR Shepsra Page DATE OF APPROVAL 3/15/2023



15433 RIVERCREST COURT

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 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. 24027C0045D EFFECTIVE 11/6/2013.
3) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-94-3838 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
4) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
5) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
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-22002947



Wall
Check OK
JLC 10/7/2022

#15433 RIVERCREST COURT
B.R.L = BUILDING RESTRICTION LINE
FIRST FLOOR ELEVATION = 435.9'±

LOT 4

RIVERCREST
LOTS 1 THRU 10, BUILDABLE
PRESERVATION PARCEL 'A',
NON-BUILDABLE PARCEL 'B' & 'C' AND
NON-BUILDABLE BULK PARCEL 'D'
PLATS #18208 THRU #18210
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND · FRANK JOHN MANGIAMELI II · NO. 21476 · REGISTERED PROFESSIONAL LAND SURVEYOR

PROFESSIONAL LAND SURVEYOR LICENSE #21476 — 10/3/22 DATE

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 9/20/22
FINAL LOCATION: _____
BOUNDARY SURVEY: _____

SCALE: 1"=50'
DATE: 9/22/22
DRAWN BY: WAS
CHECKED BY: _____
PROJECT No.: 30636-2001

Location Plot 4.dwg, 10/3/2022 10:36:21 AM, Downstairs General Printer, 30636 House Location Plot NAD 83.dwg

SOILS LEGEND

SOIL	NAME	CLASS	"K" VALUE
MaC	Manor loam, 8 to 15 percent slopes	B	.32
McD	Manor loam, 15 to 25 percent slopes, very rocky	B	.28

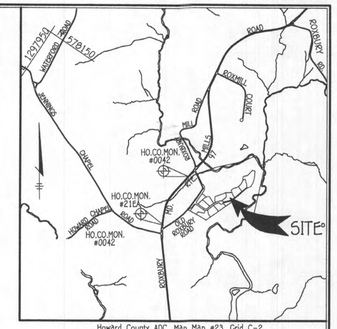
NOTES:

- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

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 HO-94-3838 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.

LEGEND

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING TREE LINE
- SOIL LINES AND TYPES
- DENOTES PROPOSED WELL
- DENOTES PASSED PERC
- DENOTES 15%-24.9% SLOPES
- DENOTES 25% AND GREATER SLOPE



Howard County ADC, Map Map #23, Grid C-2

VICINITY MAP

SCALE: 1" = 2000'

ADDRESS
15433 RIVERCREST COURT

INITIAL SYSTEM

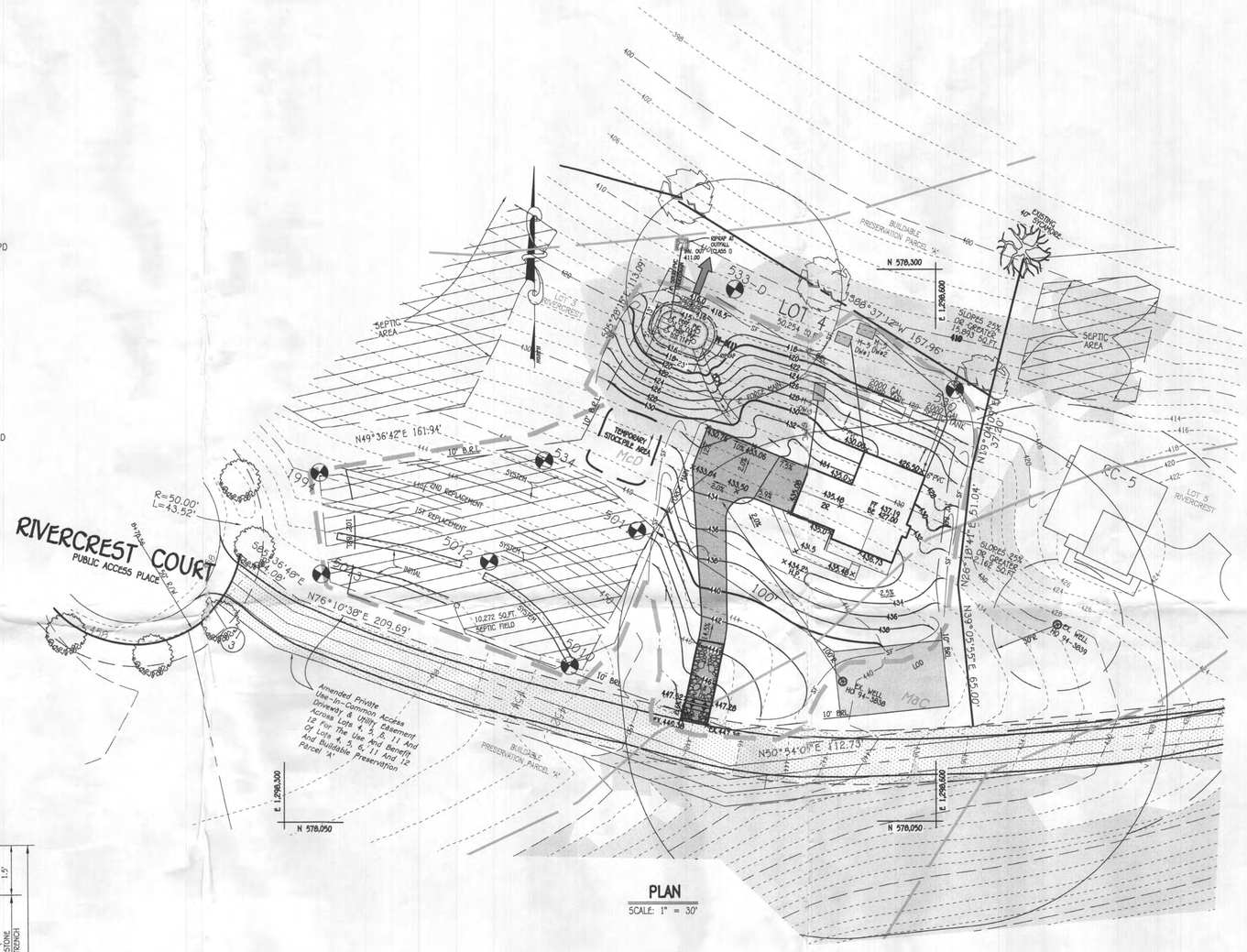
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS 750
LOADING RATE = 4 BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x1))=0.833
TRENCH LENGTH = 208.33 SF x 0.833 = 173.61 FEET
(USE 3 TRENCHES AT 57.87 L.F.)
TRENCH SPACING = 2D+W = ((2*1) + 3) = 5' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS 750
LOADING RATE = 4 BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 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+(2x1))=0.833
TRENCH LENGTH = 208.33 SF x 0.833 = 173.61 FEET
(USE 3 TRENCHES AT 57.87 L.F.)
TRENCH SPACING = 2D+W = ((2*1) + 3) = 5' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS 750
LOADING RATE = 4 BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 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+(2x1))=0.833
TRENCH LENGTH = 208.33 SF x 0.833 = 173.61 FEET
(USE 3 TRENCHES AT 57.87 L.F.)
TRENCH SPACING = 2D+W = ((2*1) + 3) = 5' USE 10'

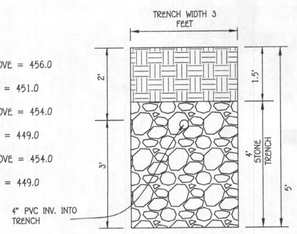


PLAN

SCALE: 1" = 30'

TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 456.0
INV. IN =454.0
BOTTOM TRENCH = 451.0
TRENCH 2:
EX. GROUND ABOVE = 454.0
INV. IN = 452.0
BOTTOM TRENCH = 449.0
TRENCH 3:
EX. GROUND ABOVE = 454.0
INV. IN = 452.0
BOTTOM TRENCH = 449.0



INITIAL TRENCH DETAIL

SCALE : 1"=2'

Approved Septic System Plan
Howard County Health Department
Robert [illegible] 9/1/2022
Signature Date

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.

STATE OF MARYLAND · KEVIN MICHAEL VITUCCI · No. 20748 · PROFESSIONAL ENGINEER

Signature Of Professional Engineer — 8/23/22 DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

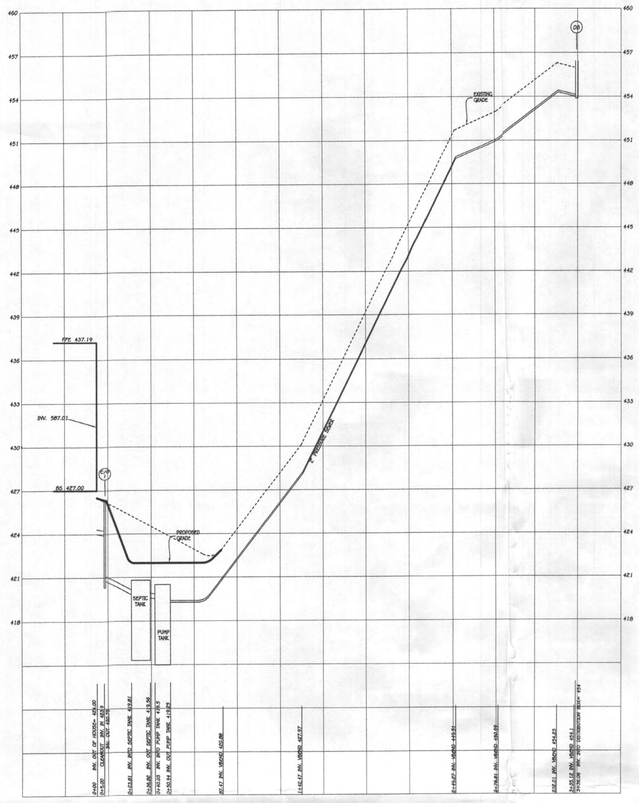
OWNER
ROXBURY FARM, LLC
C/O COLUMBIA DEVELOPERS LLC
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3940

BUILDER/DEVELOPER
COLUMBIA BUILDERS
P.O. BOX 999
COLUMBIA, MARYLAND 21044
410-730-3940

SEPTIC SYSTEM
RIVERCREST
LOT 4
15433 RIVERCREST COURT

ZONED: RC-DEO PLAT NO.: 18208 THRU 18210
TAX MAP NO.: 21 GRID NO.: 20 PARCEL NO.: 270
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: AUGUST 23, 2022

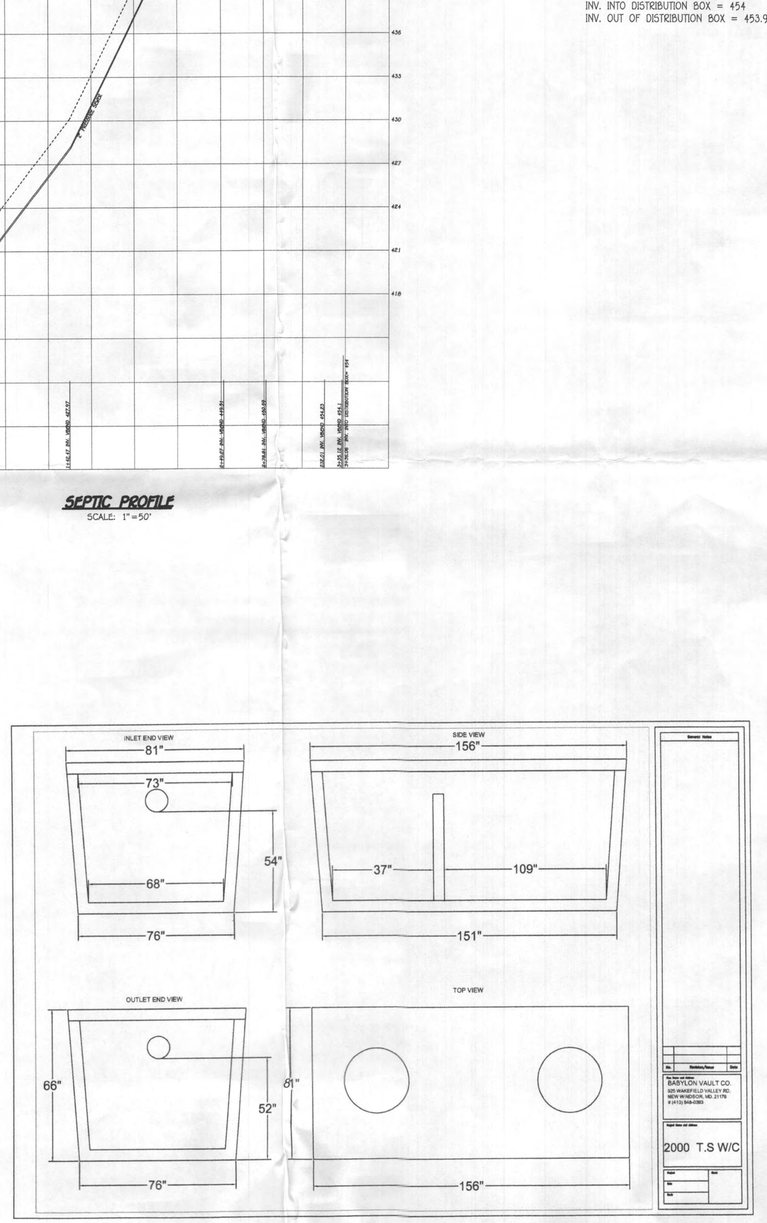
SHEET 1 OF 2



SEPTIC PROFILE

SCALE: 1"=50'

FFE 437.19
BSE 427.00
INV. OUT OF HOUSE = 424.00
PROP. GROUND AT CLEANOUT #1 = 426.3
INV. INTO CLEANOUT = 423.9
INV. OUT OF CLEANOUT = 420.75
EX. GROUND AT SEPTIC TANK = 421.7
PROP. GRADE ABOVE SEPTIC TANK = 422
TOP OF SEPTIC TANK = 420.81
INTO SEPTIC TANK = 419.81
INV. OUT OF SEPTIC TANK = 419.56
EX. GROUND AT PUMP TANK = 421.6
PROP. GRADE ABOVE PUMP TANK = 422.0
TOP OF PUMP TANK = 420.5
INV. INTO PUMP TANK = 419.5
INV. OUT OF PUMP TANK = 419.25
EX. GROUND AT DISTRIBUTION BOX = 456
INV. INTO DISTRIBUTION BOX = 454
INV. OUT OF DISTRIBUTION BOX = 453.9



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(410) 461 - 2855

ITT

GOULDS PUMPS
Wastewater

APPLICATIONS
Specifically designed for the following uses:
- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS
Pump
- Solids handling capabilities: ½" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 126 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP voltage, phase and RPM's available.

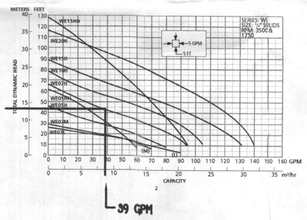
MOTORS
- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on ½ – 1½ HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):
- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- 10TOW or 5TOW severe duty oil and water resistant power cords.
- ½ – 1 HP models have NEMA three prong grounding plugs.
- 1½ HP and larger units have bare lead cord ends.

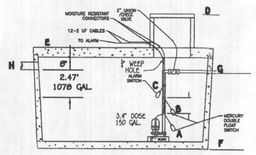
Three phase (60 Hz):
- Class 10 overload protection must be provided in separately ordered starter unit.
- 5TOW power cords all have bare lead cord ends.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
■ **Bearings:** Upper and lower heavy duty ball bearing construction.
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS
Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #1210549
Goulds Pumps is ISO 9001 Registered.



PUMP ALARMS / INFORMATION
A PUMP OFF : 416.92
B PUMP ON : 417.25
C HIGH WATER ALARM : 417.75
D TOP OF ACCESS COVER : 422.0
E TOP OF TANK : 420.5
F BOTTOM OF TANK : 414.75
G DISCHARGE OUT OF TANK : 419.25
H INVERT INTO TANK : 419.5



1078 + 150 = 1228 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.

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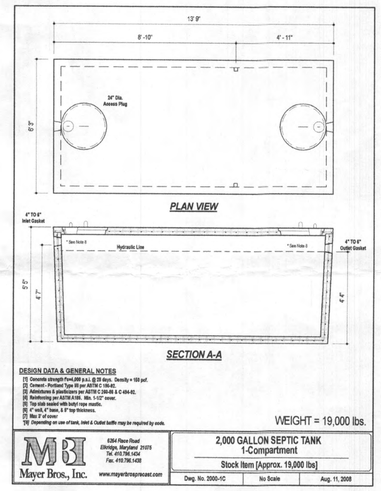
PROFESSIONAL CERTIFICATION

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.

STATE OF MARYLAND · MICHAEL VITTORI · No. 20748 · PROFESSIONAL ENGINEER

Signature Of Professional Engineer — DATE 9/23/22



PUMP TANK DETAIL

NOT TO SCALE

2" SCH. 40 PVC = 285 LF
1 UNION @ 2 EQUIVALENT FEET = 2 LF
6 1/0 HB @ 4 EQUIVALENT FEET = 28 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 315 LF

DYNAMIC HEAD
315 LF X 2.05 FT PER 100 LF OF 2" PIPE = 6.45 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.33 FT OF FRICTION HEAD
POINT IN SYSTEM TO HIGHEST ELEV OF SYSTEM = 34.75 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD = 43.53 FT

720 / 135

1/6 DESIGN FLOW (600/6=100)
USE 150 GALLON DOSE (150 GALLON MINIMUM)
DOSE: 1/6 DESIGN FLOW + VOLUME IN PIPE
100+47= 147 GAL.
(RUN TIME = 3.8 MIN (39 GPM X 3.8 = 150 GALLON DOSE)

PUMP NEEDS TO HANDLE 39 GPM AT 43.53 FT OF HEAD
USE 3/4 HP (GOULDS MODEL WE07H PUMP)

SEPTIC SYSTEM
RIVERCREST
LOT 4
15433 RIVERCREST COURT

ZONED: RC-DEO — PLAT NO.: 18208 THRU 18210
TAX MAP NO.: 21 — GRID NO.: 20 — PARCEL NO.: 270
4TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' — DATE: AUGUST 23, 2022