

**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: 12/13/18 **ONSITE SEWAGE DISPOSAL SYSTEM** P 564095

APPROVAL DATE: 1/3/19 SEC **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 13858 Mill Creek Court

SUBDIVISION: Crawford and O'Keefe Property LOT: 10 TAX ID: \_\_\_\_\_

CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.com

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618

PROPERTY OWNER: NVR INC. EMAIL: \_\_\_\_\_

OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 410-379-5956

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Mayer Brothers or Equivalent

PUMP MODEL: N/A PUMP SIZE N/A PUMP TANK CAPACITY: N/A

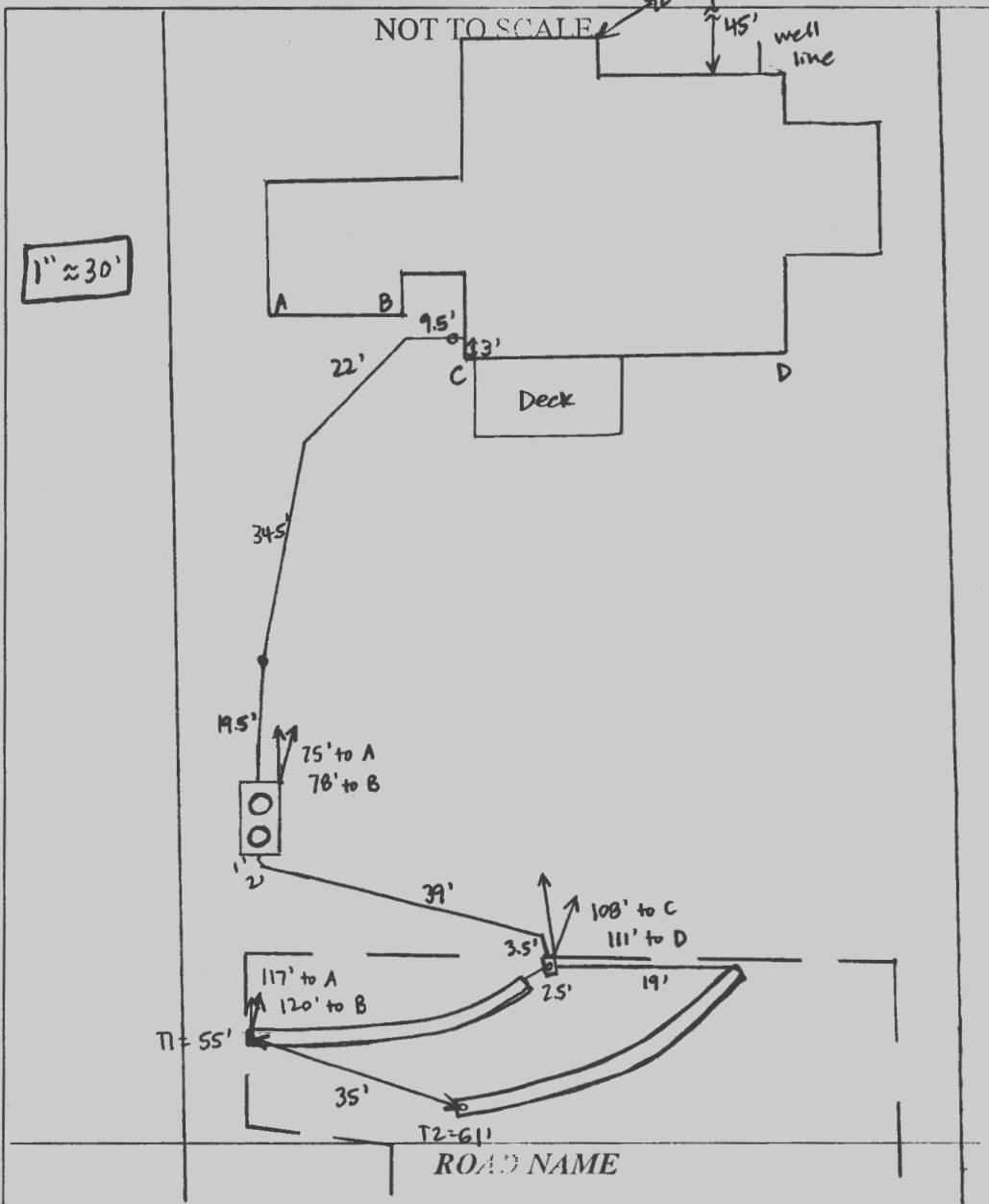
DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 5/6 APPLICATION RATE 0.8 l.2

TRENCHES:	LINEAR FEET REQUIRED: <u>104.4</u> <u>112.5</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>4.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install 3 x 38' trenches.	

ISSUED BY: Dana Bernard ISSUE DATE: 12/13/18 EXPIRATION DATE: 12/13/19

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET 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 N/A
- 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.**



DRAINFIELD DATA		
	INLET	BOTTOM
	3'	8'
NUMBER OF TRENCHES	2'	
TOTAL LENGTH	116'	
AREASITION AREA	348' + SIDEWALK	
DISTRIBUTION BOX LEVEL	YES	
DISTRIBUTION BOX BAFFLE	YES	
DISTRIBUTION BOX PORT	YES	

TANK DATA	
SEWER TANK LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
INSTALL LOC	TOP
INSTALL DEPTH	1-2.5'
INVERT	
INVERT FILTER	NO
INVERT LOC	FRONT + REAR
INVERT LOC	NONE
INVERT TEST	NO
INVERT	YES
INVERT ID	11-2-18
<del>INVERT TANK LEVEL</del>	
<del>MANUFACTURER</del>	
<del>CAPACITY</del> GAL	
<del>INSTALL LOC</del>	
<del>INSTALL DEPTH</del>	
<del>INVERT</del>	
<del>INVERT FILTER</del>	
<del>INVERT LOC</del>	
<del>INVERT TEST</del>	
<del>INVERT</del>	

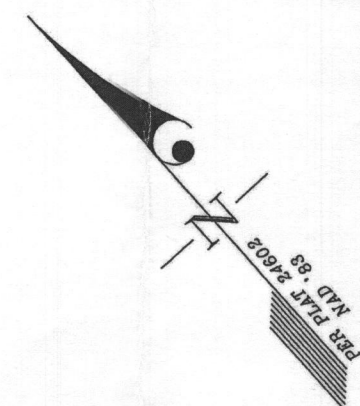
**PRE-CONSTRUCTION:**

12/18/18 Met S. Carroll on site for layout. Tank + SDA corners staked. Shot contour + laid out 3 x 38' trenches. (SC)

**INSTALLATION:**

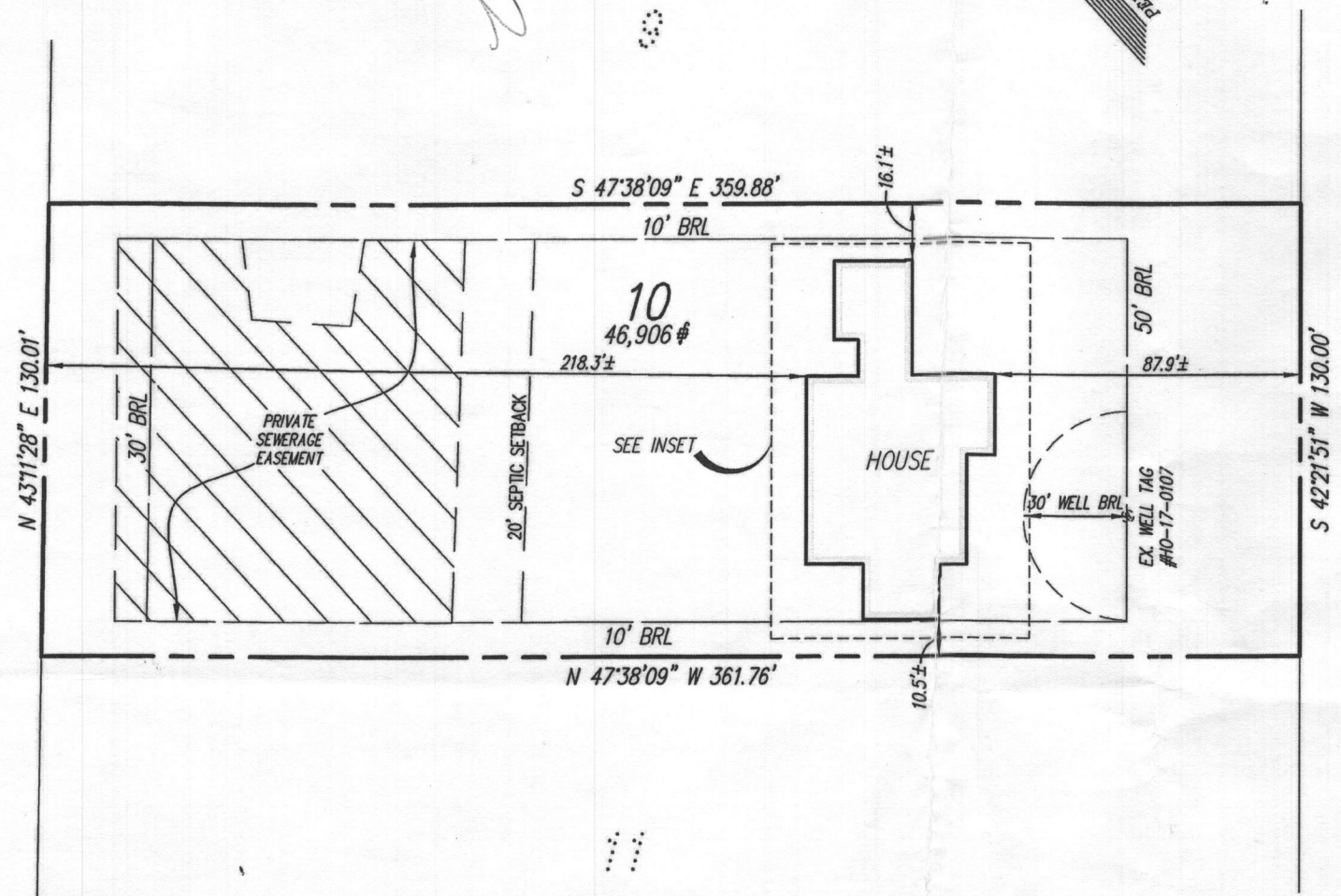
12/26/18 Dug a test hole near upper trench to determine if soil is suitable (#37 failed hole w/ refusal @ 9' nearby). 30-40% Saprolite 10-12' poured water @ bottom of hole (12'), ~5 mins/inch. OK to set trenches as shown on plan. (SC) 12/27/18 Tank set, house connection made. Tank hole is rocky at outer end - contractor will let HCHD know if T1 has excessive rock deeper than 4-5'. (SC) 1/1/19 T1 dug, S. Carroll left open before adding stone 50% + rock for first 15' of trench 5-7'. Do not include trench in system. Laid out 2 x 57' trenches, extending other trenches already laid out. OK for upper trench to be 54', lower to be 60' to maximize separation. (SC) 1/2/19 T1 complete + left open for inspection, 3' wide + 3.5' to stone. S. Carroll said soil was less rocky. (SC) 1/3/19 T2 complete - 3' wide, 3.5' to stone. Levelled speed FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 1/3/19 levelers in D-box. (SC)

Wall Check  
OK 12-13-18  
AWB



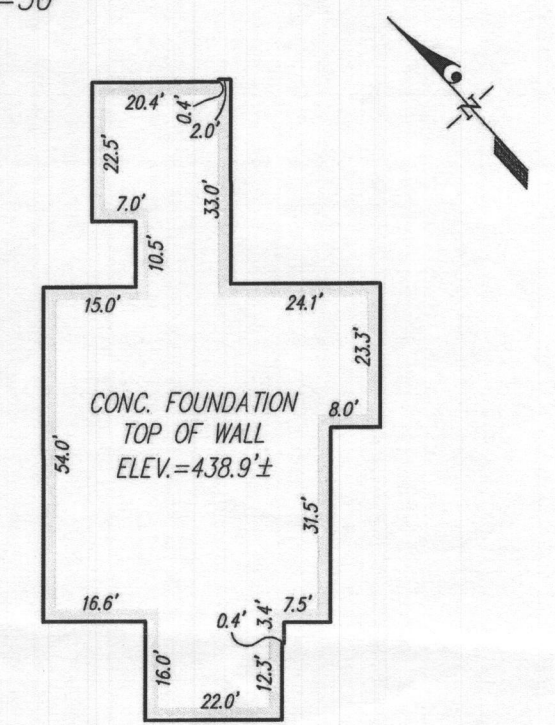
**NOTES:**  
THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS-OF-WAY, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED.  
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.  
  
THE PROPERTY SHOWN HEREON LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP, MAP NUMBER 24027C0140D, EFFECTIVE DATE NOVEMBER 6, 2013.  
  
BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER PLOT PLAN.  
  
SETBACK DISTANCES SHOWN HEREON ARE TO THE OUTERMOST FACE OF THE FOUNDATION WALLS AND HAVE AN ACCURACY OF ± 0.1' FOOT.

NO-BUILDABLE  
PRESERVATION  
PARCEL F



MILL CREEK COURT  
(PUBLIC ACCESS STREET)

INSET 1"=30'



**SURVEYOR'S CERTIFICATE**

THIS IS TO CERTIFY TO:  
'NVR, INC.;

THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF,  
THE POSITION OF THIS BUILDING FOUNDATION  
HAS BEEN ESTABLISHED BY ACCEPTED FIELD PRACTICES.

*[Signature]* 11/21/2018  
For Gutschick, Little and Weber, P.A. :  
Thomas C. O'Connor, Jr.,  
Professional Land Surveyor, No. 10954 (EXP. DATE: 07/03/2020)

THIS WALLCHECK IS VALID ONLY WITH AN ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE SURVEYOR.

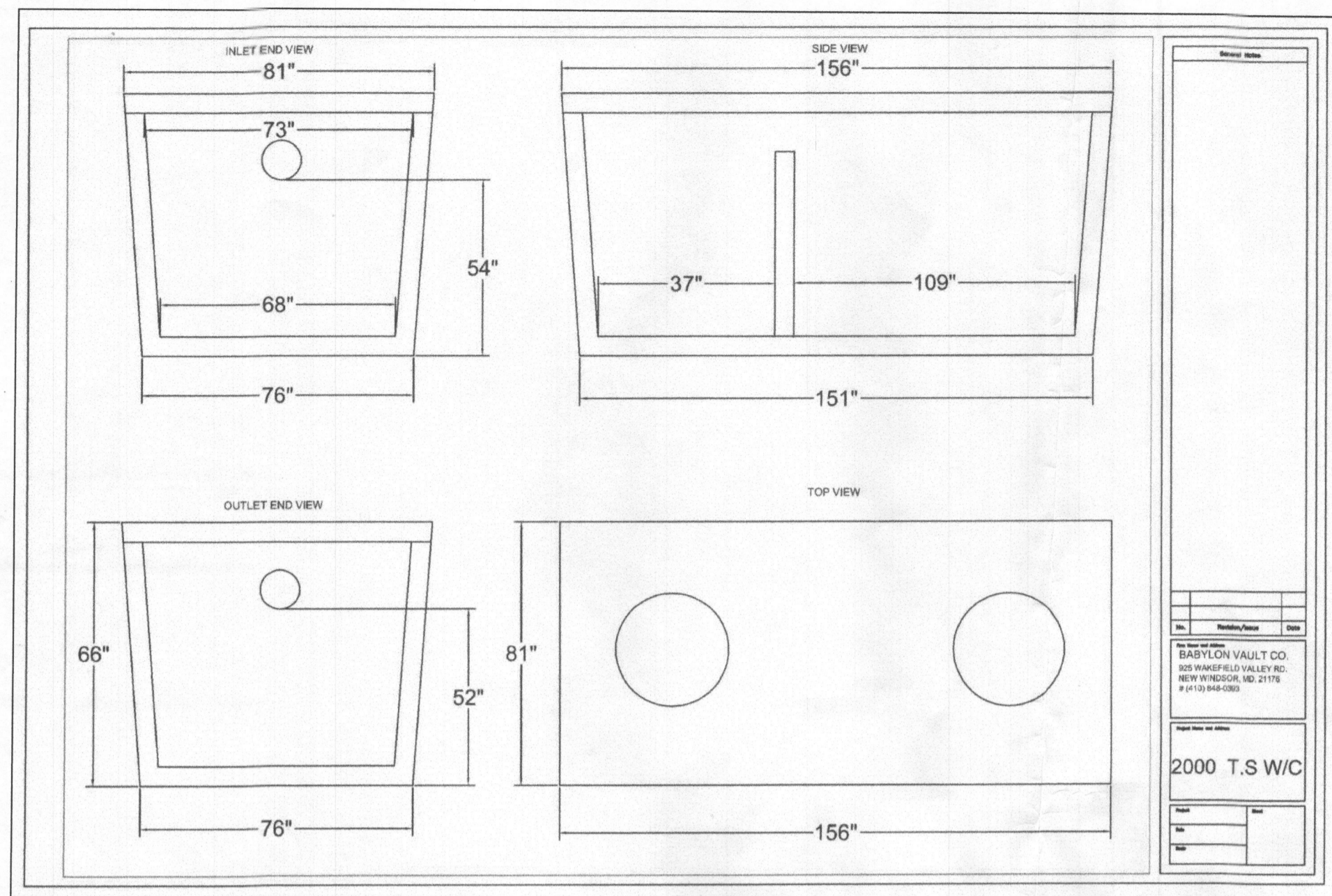
WALLCHECK  
(SPECIAL PURPOSE SURVEY)

CRAWFORD SUBDIVISION  
  
LOT 10  
13858 MILL CREEK COURT

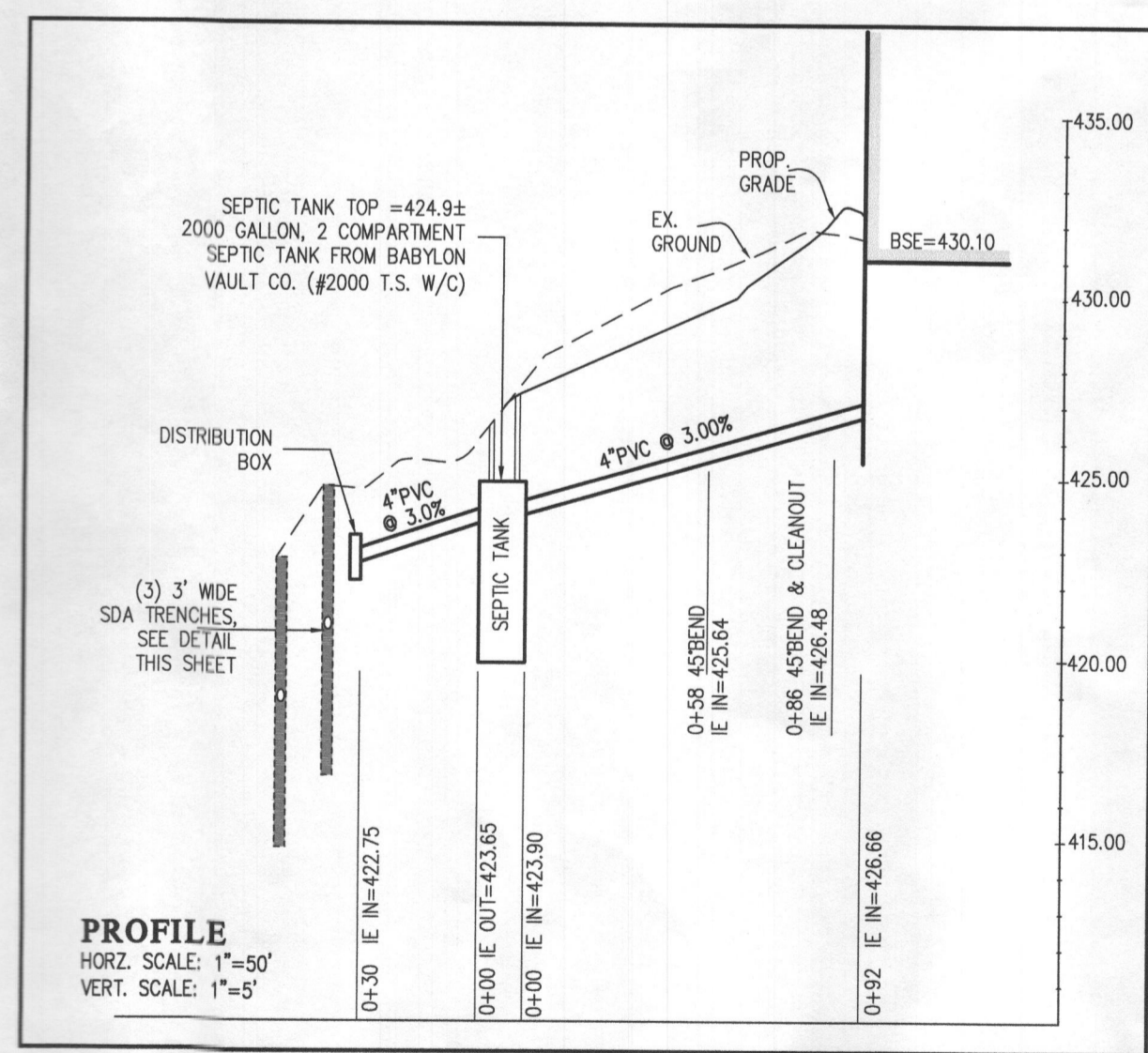
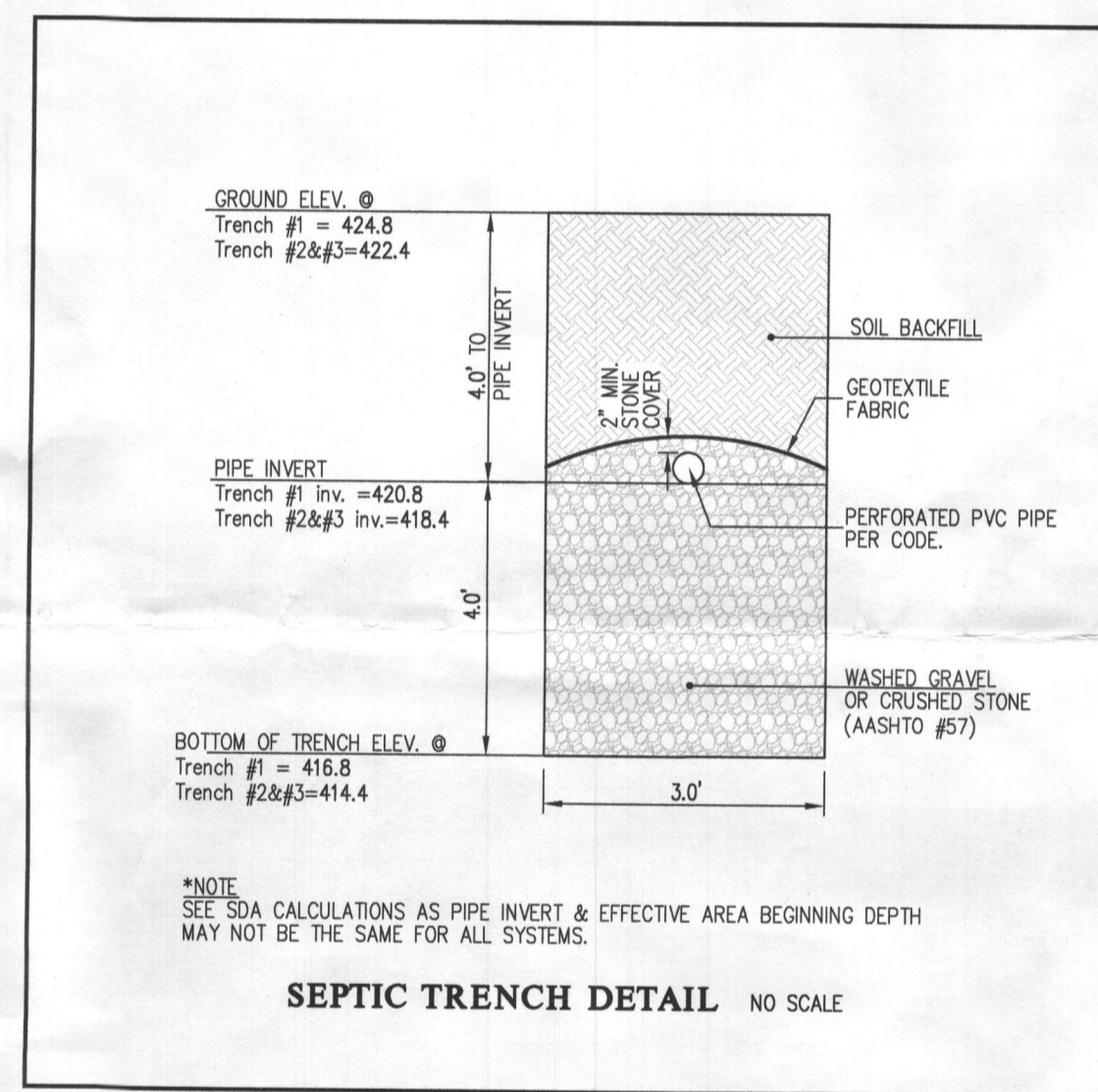


DES.	PREPARED FOR: NVR, INC. 9720 PATUXENT WOODS DRIVE COLUMBIA, MD 21046
DRN. MB/SS	
CHK.	

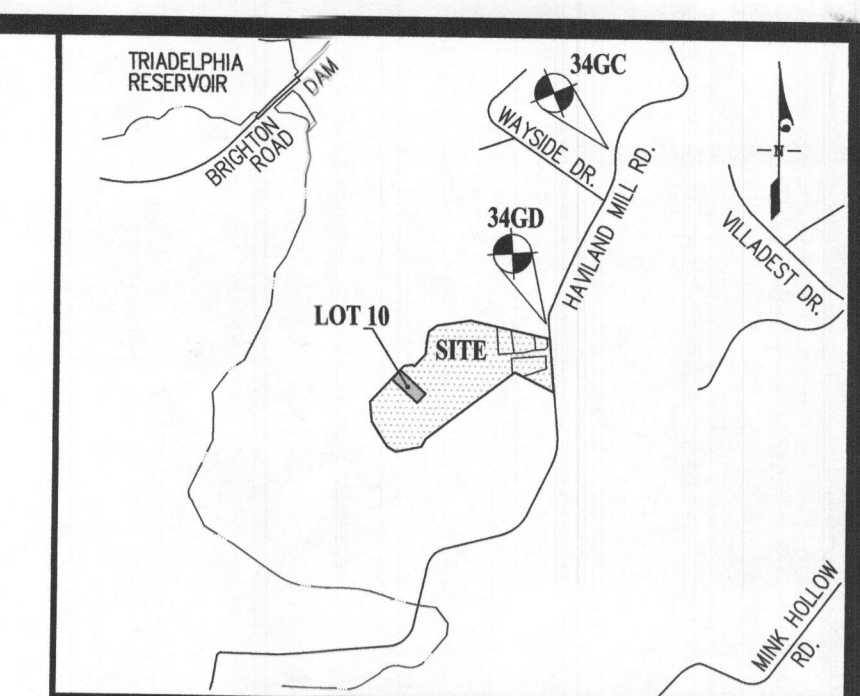
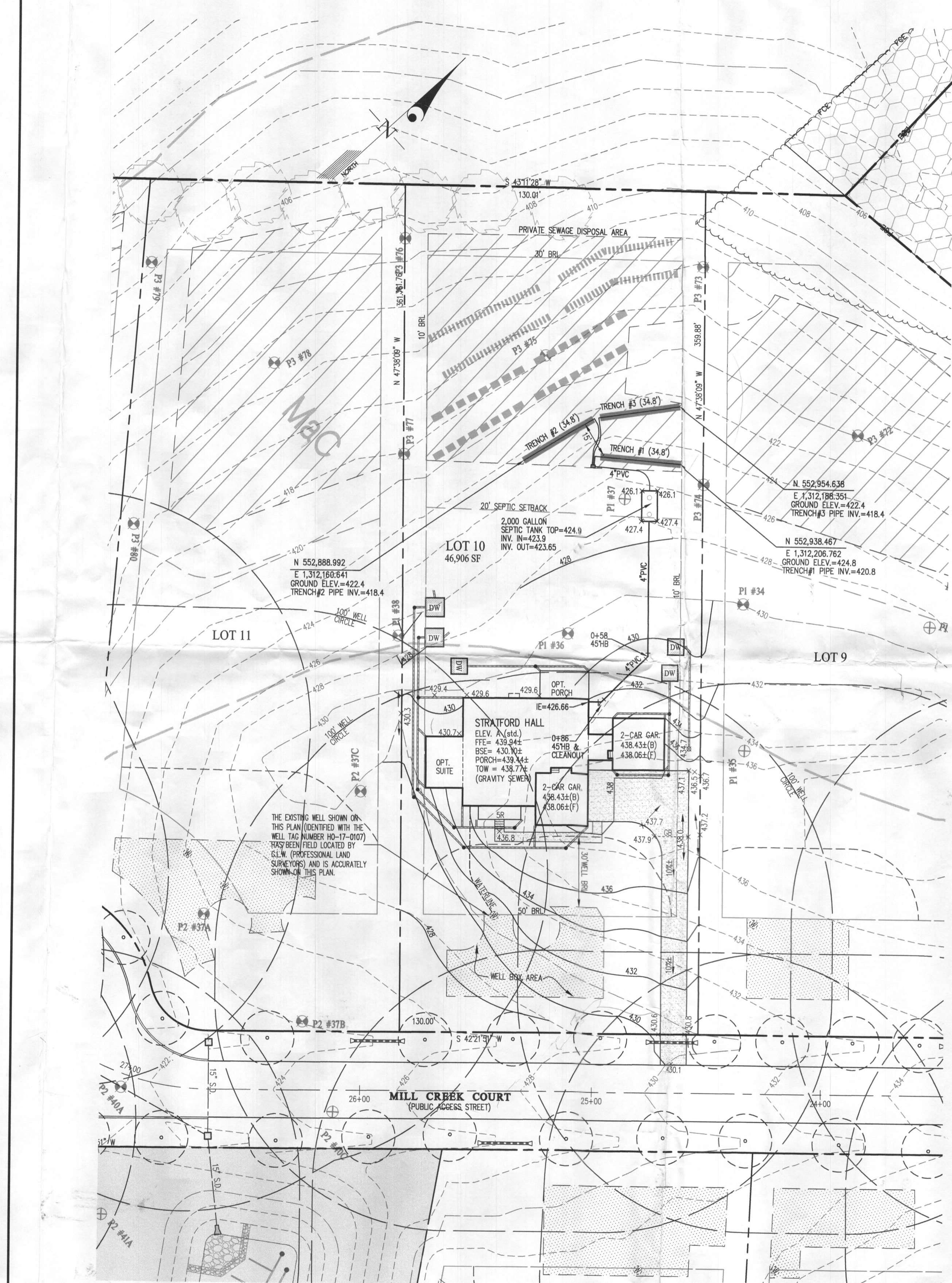
HOWARD COUNTY, MARYLAND	
DATE OF LATEST FIELD WORK: 11/20/2018	G.L.W. FILE No. 17071
REFERENCE : PLAT No.: 24602	SCALE: 1"=50'



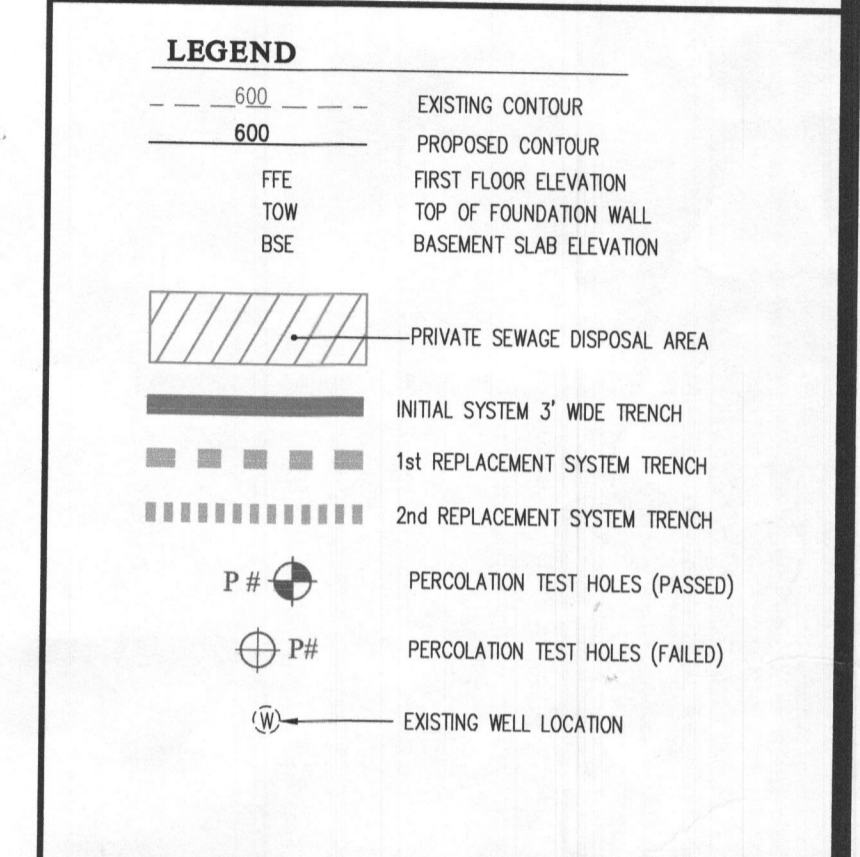
SDA TRENCH SIZE CALCULATIONS			
Crawford Subdivison (Mill Creek)	Lot 10		
<b>System Input Information</b>	Initial System	Replacem't System No.1	Replacem't System No.2
Application Rate	1.2	1.2	1.2
Effective area beginning depth	4.0	6.5	7.0
Effective area maximum bottom depth	8.0	8.0	8.0
Number of Bedrooms	6	6	6
Design flow at 150 gal./day/bedroom	900	900	900
<b>Absorption Trench Calculations</b>			
Drainfield area required (Design flow/application rate)	750 s.f.	750 s.f.	750 s.f.
Effluent pipe depth to invert (cannot exceed 4'. If < 2', then field run top at 1-ft interval is required)	4.0	4.0	4.0
Effective sidewall depth "D" = depth between the effective beginning depth or pipe depth (which ever is deeper) and maximum trench bottom.	4.0	1.5	1.0
Trench Width "W" (2 or 3 feet)	3.0	3.0	3.0
SideWall Reduction Percent = (W+2)/(W+1+2D)	41.67%	71.43%	83.33%
Linear feet of trench required = (drainfield area x sidewall reduction)/W	104.2	178.6	208.3
<b>Trench Layout Information</b>			
Approximate length available on contour & not exceeding 100-ft	65	60	45
Number of trenches to use	3	4	4
Min. length (linear feet)	34.8	44.7	52.1
Total (linear feet)	104.4	178.8	208.4
Minium Trench Spacing: For trenches with no sidewall credit the spacing is 6' for a 2' wide trench and 9' for a 3' wide trench (measured edge to edge). All trenches utilizing sidewall reduction credit must be spaced a min. of 10' for effective sidewall not over 3.5'. If > 3.5', then spacing formula is 2D+W up to a maximum of 18'.	11.0	10.0	10.0
Approx. width of absorption Area	31 ft.		
Approx. drainfield Area (sq. feet)	1,079		



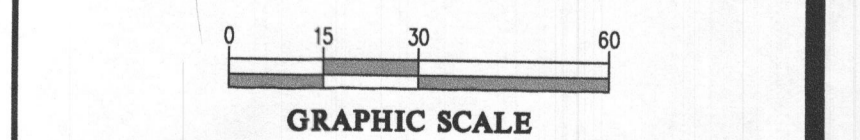
Approved Septic System Plan  
 Howard County Health Department  
 Signature: *Le BR Only* Date: 9-28-18



VICINITY MAP		ADC MAP: 30
SCALE: 1" = 2,000'		GRID: C5
<b>BENCHMARKS</b>		
34GC	ELEV. 482.873	N = 554,882.960 E = 1,314,248.668
34GD	ELEV. 465.288	N = 553,733.762 E = 1,313,736.594



- NOTES:**
- 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 (TAG #17-0107) 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.



**GLW**  
 PLANNING | ENGINEERING | SURVEYING  
 3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM  
 PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:	
MBT	
DRAWN BY:	
KLP	
CHECKED BY:	
CKG	
DATE	REVISION
BY	APPR.

PREPARED FOR:  
 NVR INC.  
 9720 PATUXENT WOODS DRIVE  
 COLUMBIA, MARYLAND 21046  
 PH: 410-379-5956

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975.  
 EXPIRATION DATE: MAY 26, 2020  
 9/20/18

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN  
**CRAWFORD SUBDIVISION**  
 LOT 10 (13858 MILL CREEK COURT)  
 PLAT NO. 24600-24607  
 ELECTION DISTRICT No. 5  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	RR-DEO	17071
DATE	TAX MAP - GRID	SHEET
SEPT. 2018	34&39-19&6	1 OF 1