

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: 11/29/18 **ONSITE SEWAGE DISPOSAL SYSTEM** P 564080

APPROVAL DATE: 12/26/18 SEC **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 13875 Mill Creek Court

SUBDIVISION: Crawford and O'Keefe Property LOT: 16 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 APPLICATION RATE 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>312.61</u>	INLET DEPTH: <u>3</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>9</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>8</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Dana Bernard ISSUE DATE: 11/29/18 EXPIRATION DATE: 11/29/19

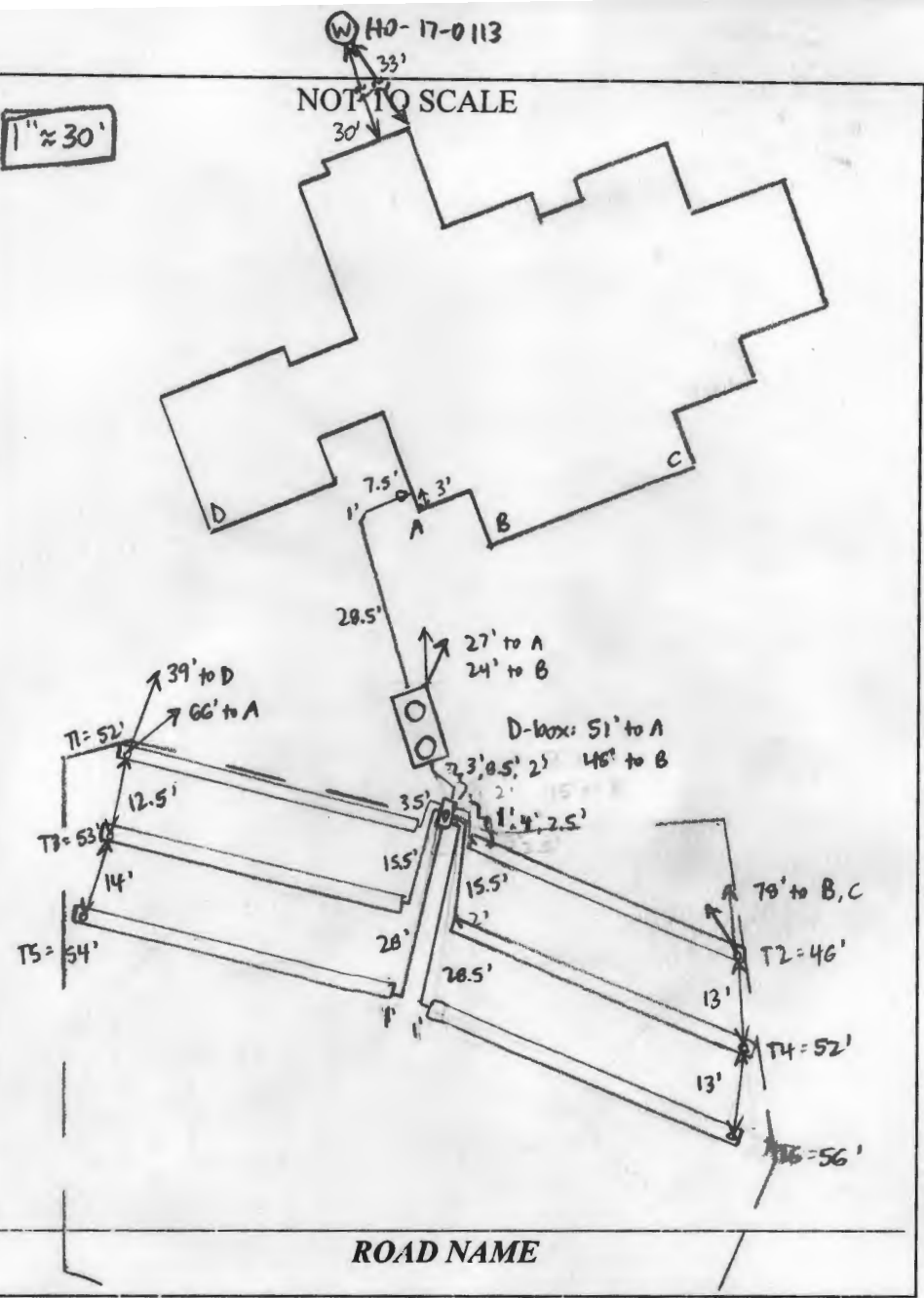
- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- 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 _____
- 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.

W HO-17-0113

NOT TO SCALE

1" = 30'



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	3'	8'
NUMBER OF TRENCHES	6	
TOTAL LENGTH	313'	
ABSORPTION AREA	939' + SIDEWALL	
DISTRIBUTION BOX LEVEL	YES	
DISTRIBUTION BOX BAFFLE	YES	
DISTRIBUTION BOX PORT	YES	

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	BARTON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	1-2'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	11-5-18

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	

PRE-CONSTRUCTION:

12/12/18 Met S. Carroll on site for layout. SDA corners staked, very tall grass in SDA. Shot contour + laid out upper two trenches. OK for upper two trenches to be 1-2' short to stay off perc hole + length will be made up on lower trenches. S. Carroll will lay out lower trenches after plowing down grass, 13' CTC. (SC) 12/17/18 Laid out bottom four trenches at 53' CTC. (SC)

INSTALLATION:

12/17/18 House connection made. Pipe laid from house to tank location - S. Carroll setting tank. No obvious cracks or holes. (SC) 12/18/18 T2 complete + left open for inspection - 3' wide, 2.5' to stone. S. Carroll digging T4 - 3' wide, 8' bottom. Using laser to check depths. (SC) 12/19/18 T1 + T6 complete. T6 left open for inspection and T1 left open @ ends. 3' wide, 2.5' to stone. S. Carroll adding stone to T6, 8' bottom. T6 hits a perc hole on the lower edge @ start. Using a laser to check depths. (SC) 12/26/18 T5 complete - left open for inspection. 3' wide + 2.5' to stone. Levelled speed levelers in D-box. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 12/26/18



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

Twitter: HowardCoHealthDep

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

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Crawford & O'keefe Property Lot: 16

Initial system: Application rate: 0.8 Effective area beginning depth: 8 Bottom maximum depth: 8
1st Replacement: Application rate: 1.2 Effective area beginning depth: 7 Bottom maximum depth: 8
2nd Replacement: Application rate: 0.8 Effective area beginning depth: 3 Bottom maximum depth: 8

Design Flow = 150 gallons per day per bedroom

Design flow ÷ application rate = square footage of drainfield required

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

Sidewall reduction credit formula:

(W + 2) / (W + 1 + 2D) x 100 = Percent of length of standard trench where W=trench width and D= depth between effective area beginning depth and trench bottom.

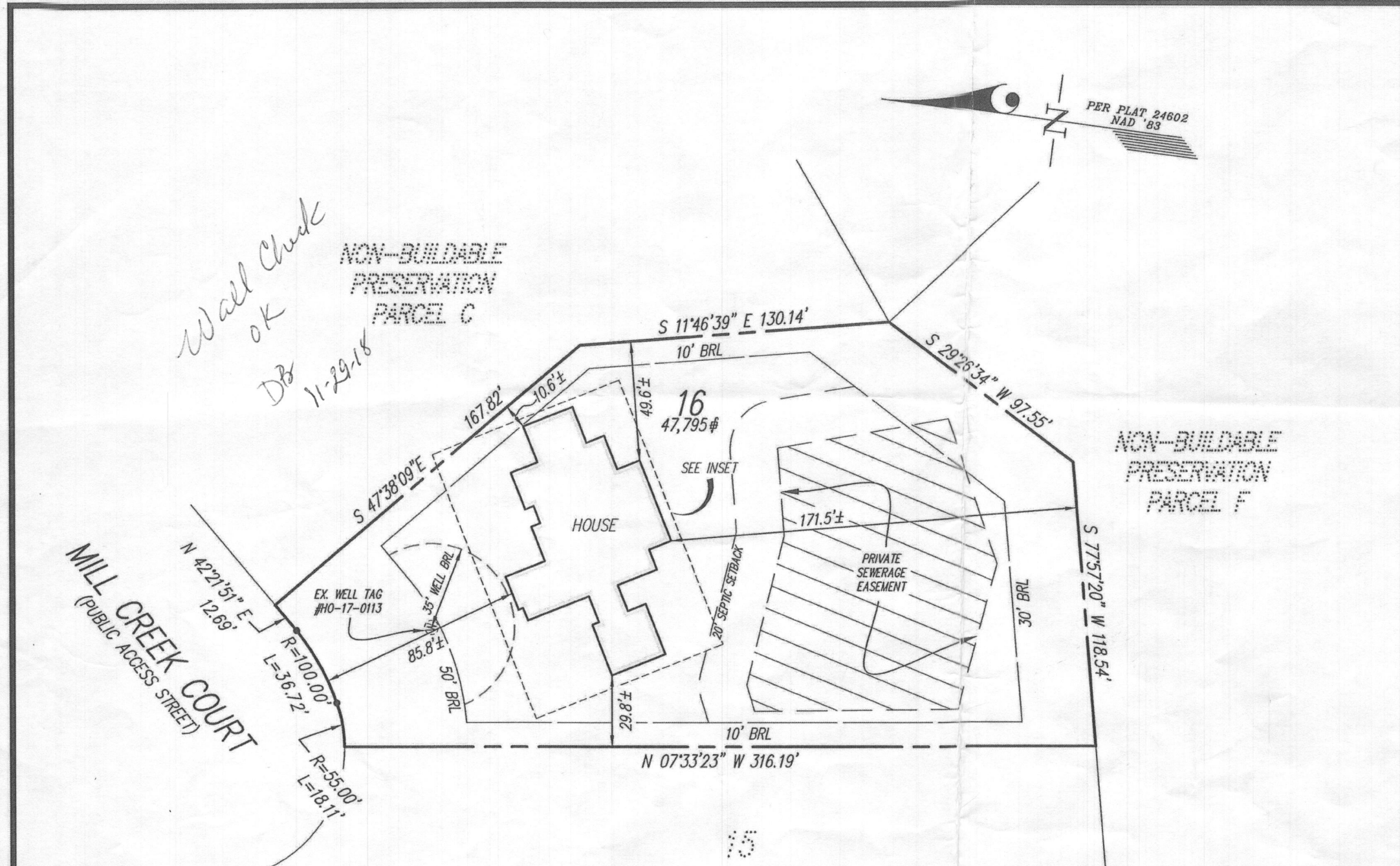
Standard design requirements:

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

Additional requirements:

Approved: Dana Bernard Date: 2/20/2018

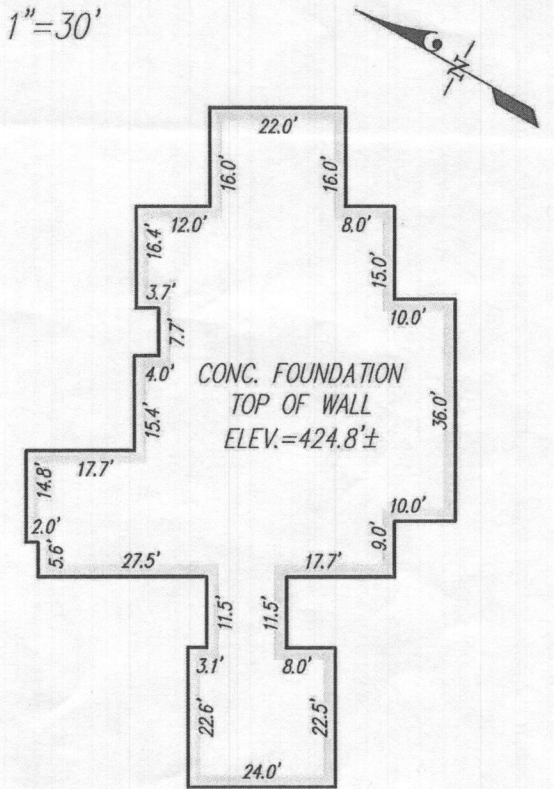
S:\Survey Drawings\WALLCHECK\MILL CREEK-1707\WCK\1707\WCK-16.dwg, 11/13/2018 3:36:20 PM, mrgantb, 5501_SURVEY (COLOR).pc3, 1:1



Wall Check
OK
DB
11-29-18

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.

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] 11/13/2018

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.

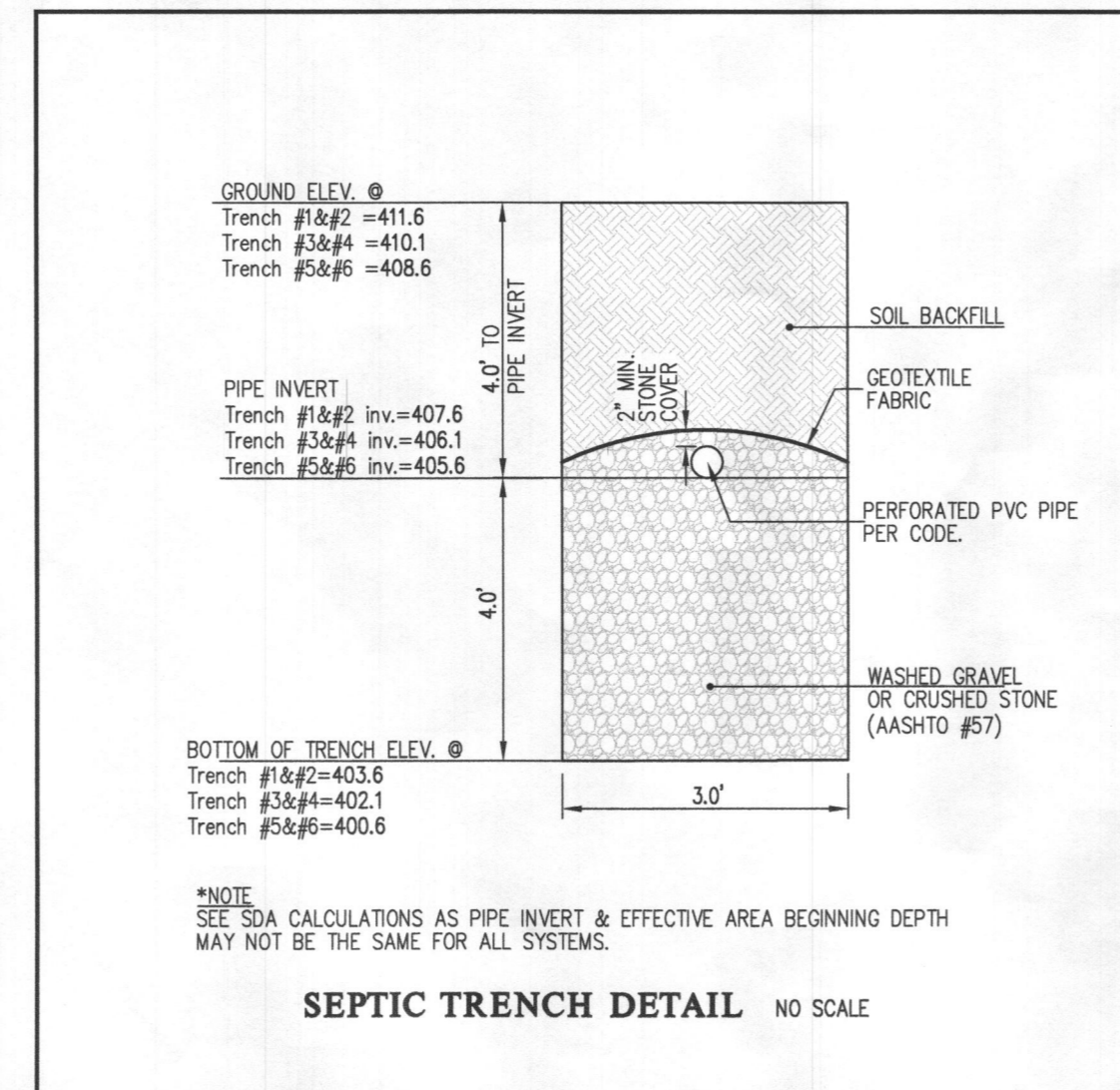
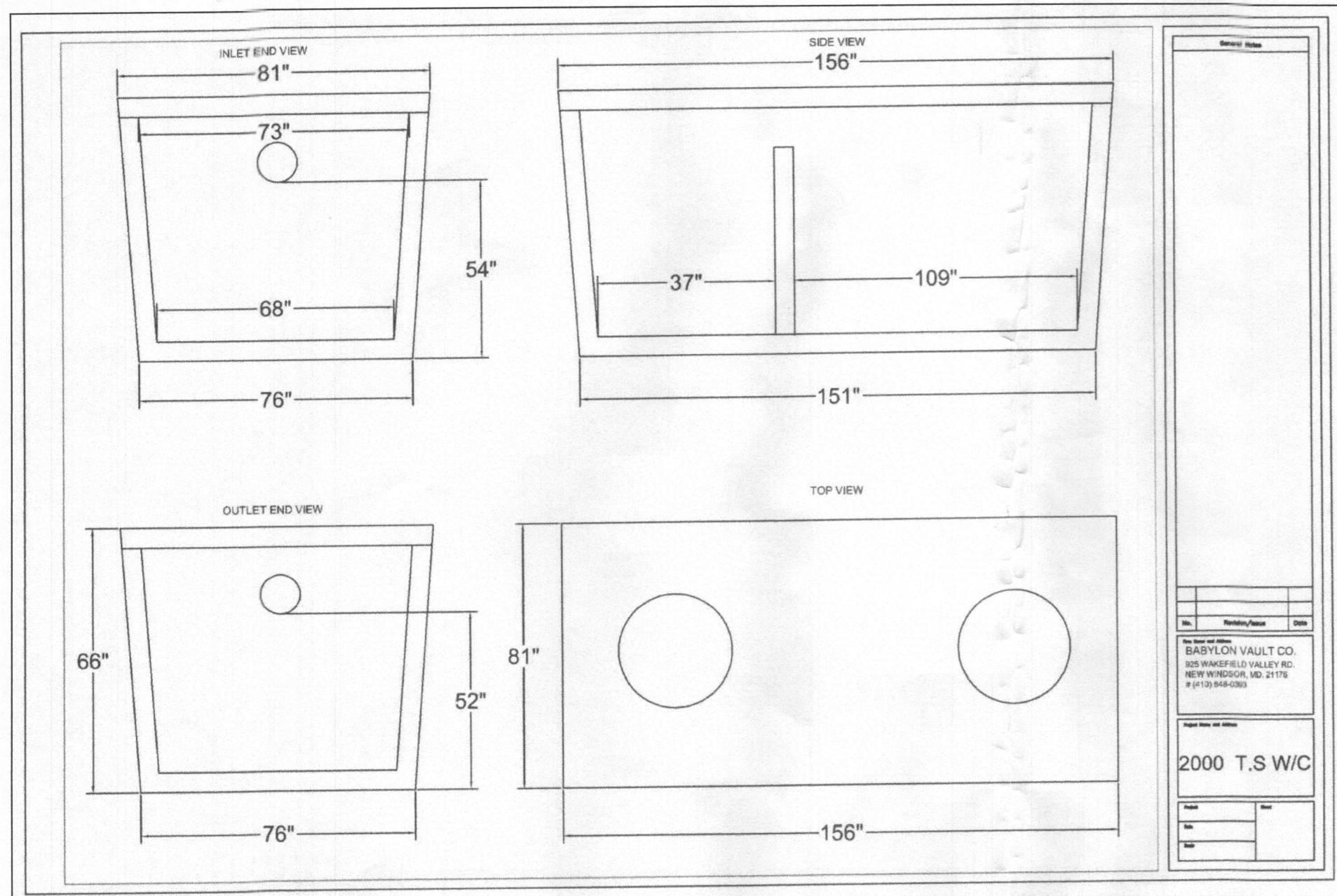
WALLCHECK
(SPECIAL PURPOSE SURVEY)

CRAWFORD SUBDIVISION
LOT 16
13875 MILL CREEK COURT

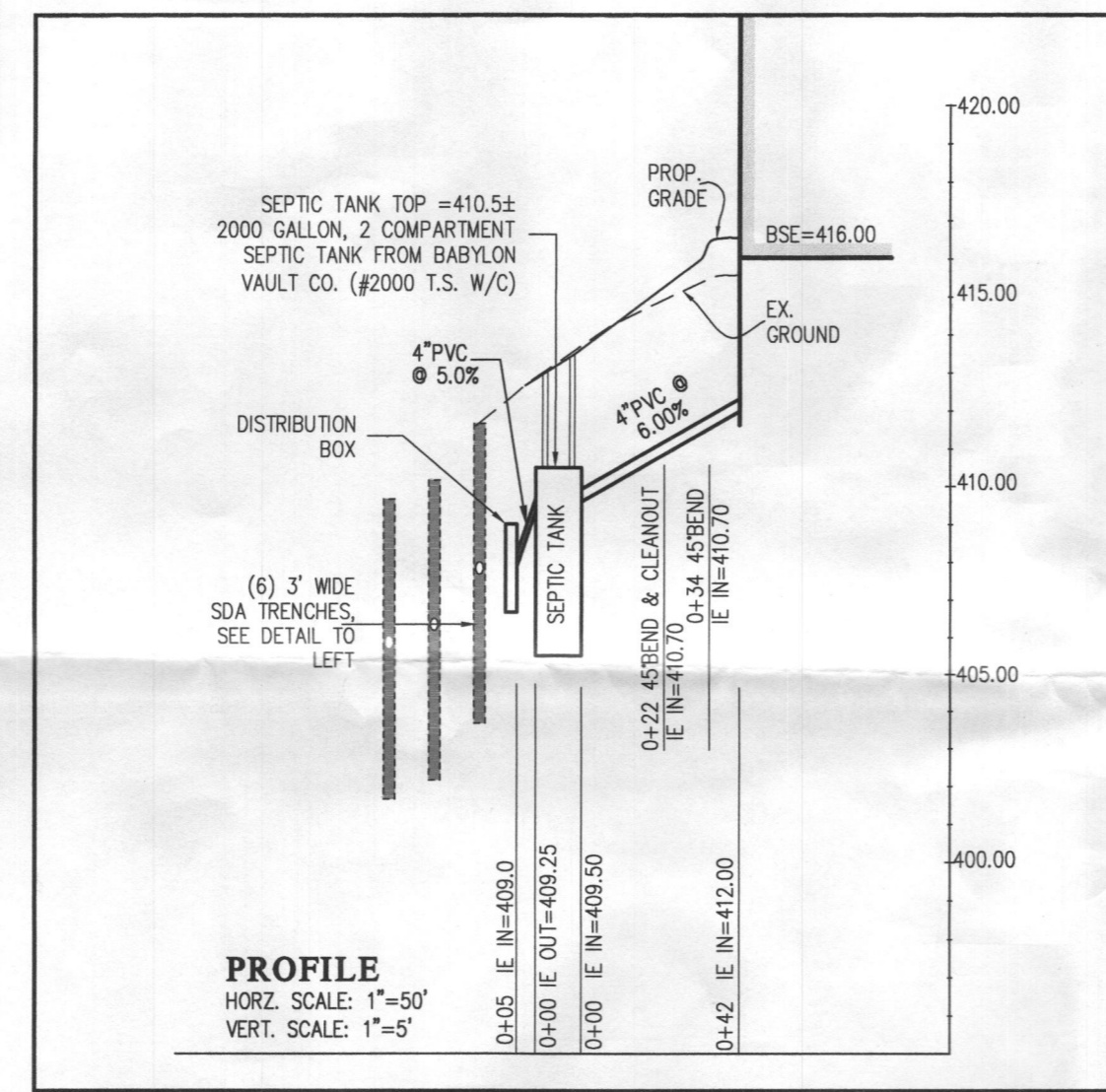
HOWARD COUNTY, MARYLAND	
DATE OF LATEST FIELD WORK: 11/13/2018	G.L.W. FILE No. 17071
REFERENCE: PLAT No.: 24602	SCALE: 1"=50'



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

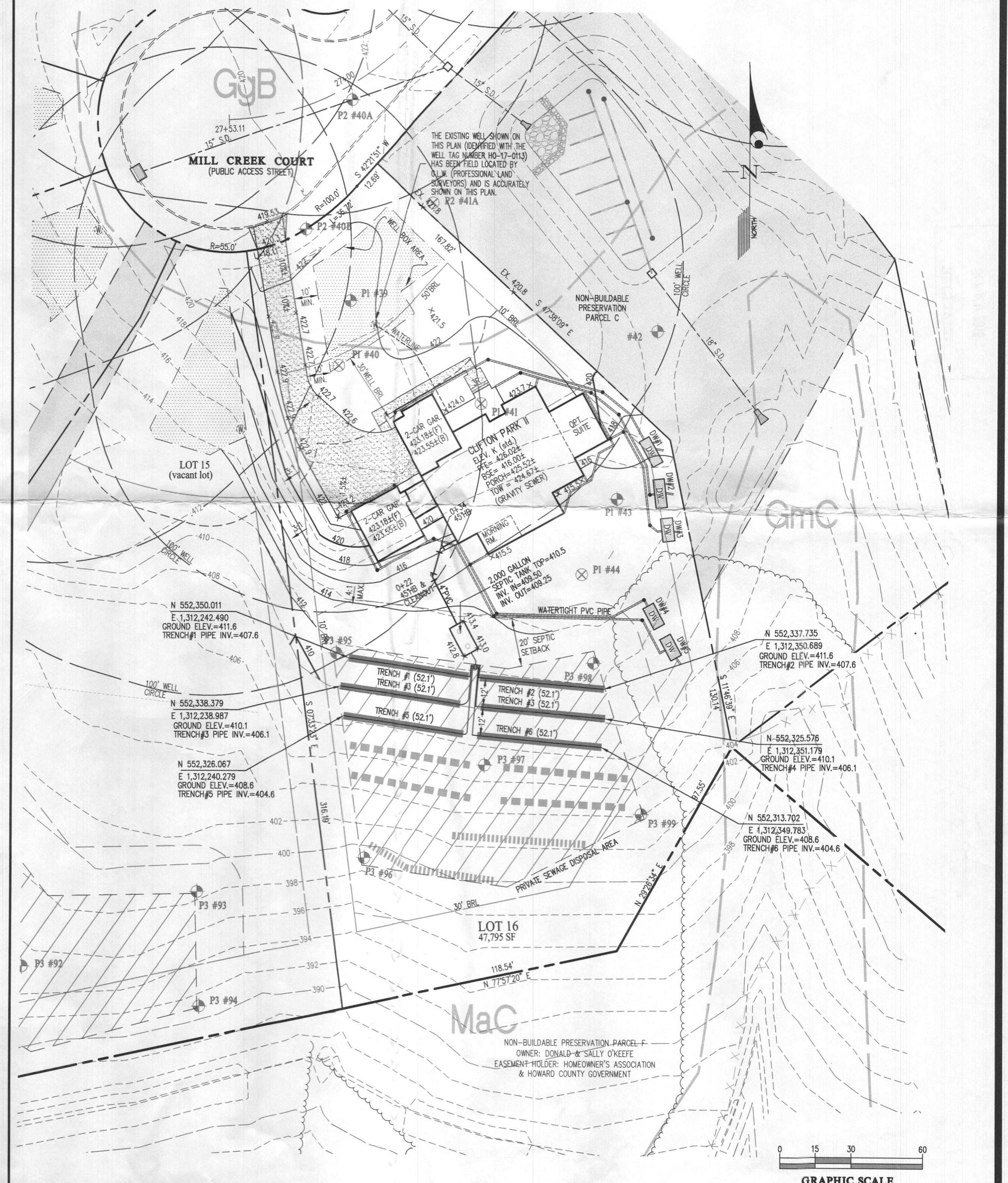
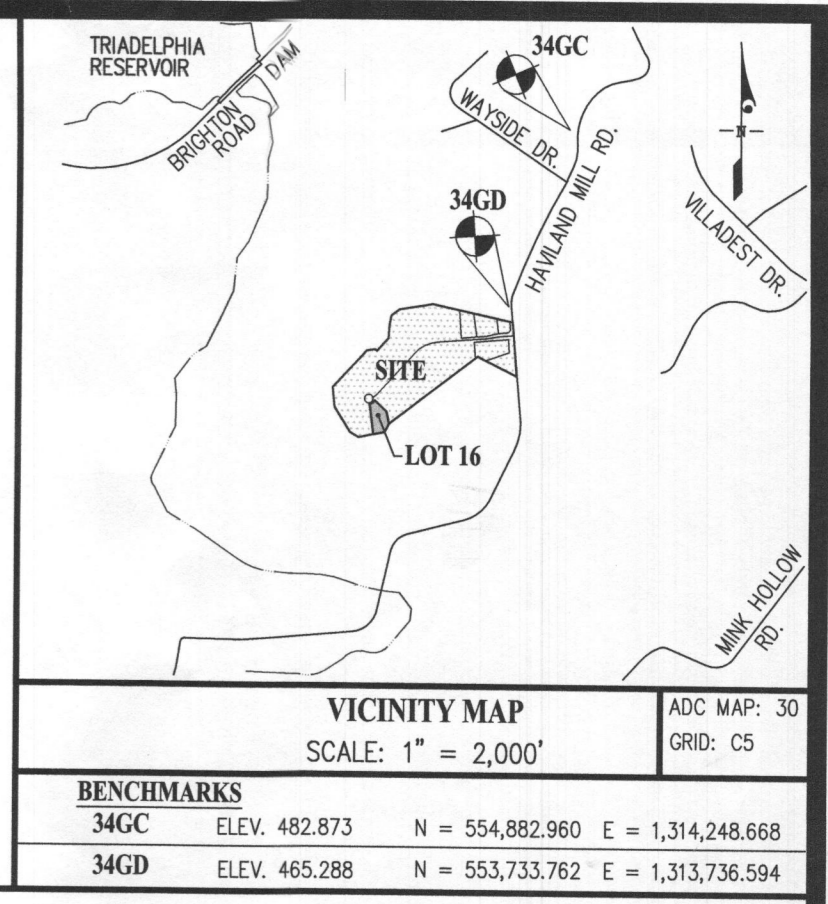
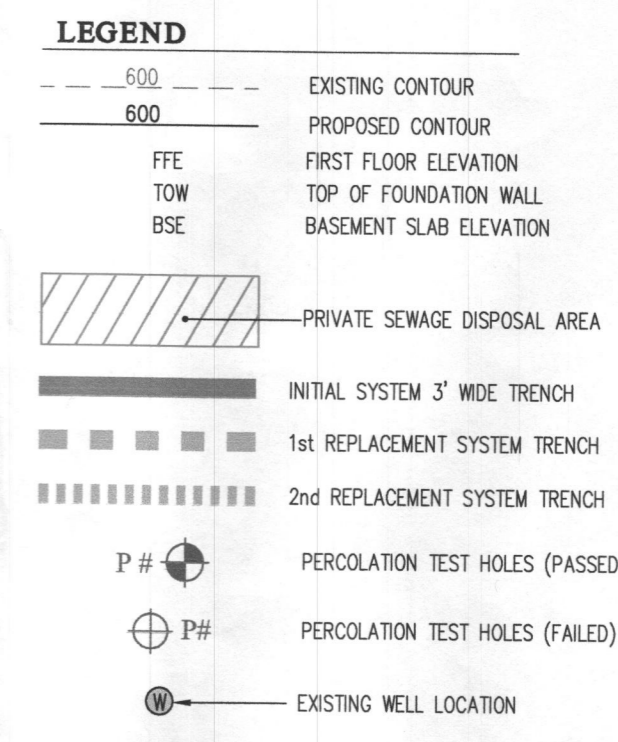


SDA TRENCH SIZE CALCULATIONS			
Crawford Subdivison (Mill Creek)		Lot 16	
System Input Information			
Application Rate	0.8	1.2	0.8
Effective area beginning depth	8.0	7.0	3.0
Effective area maximum bottom depth	8.0	8.0	8.0
Number of Bedrooms	5	5	5
Design flow at 150 gal./day/bedroom	750	750	750
Absorption Trench Calculations			
Drainfield area required (Design flow/application rate)	938 s.f.	625 s.f.	938 s.f.
Effluent pipe depth to invert (cannot exceed 4'. If < 2', then field run topo at 1-ft interval is required).	4.0	4.0	3.0
Effective sidewall depth "D" = depth between the effective beginning depth or pipe depth (whichever is deeper) and maximum trench bottom.	0.0	0.0	5.0
Trench Width "W" (2 or 3 feet)	3.0	3.0	3.0
Sidewall Reduction Percent = $(W+2)/(W+1+2D)$	n/a	n/a	35.71%
Linear feet of trench required = (drainfield area x sidewall reduction)/W	312.5	208.3	111.6
Trench Layout Information			
Approximate length available on contour & not exceeding 100-ft	65	60	45
Number of trenches to use			
Min. length (linear feet)	52.1	52.1	55.9
Total (linear feet)	312.6	208.4	111.8
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'.	9.0	9.0	13.0
Approx. width of absorption Area	63 ft.		
Approx. drainfield Area (sq. feet)	3,282		



Approved Septic System Plan
Howard County Health Department
D. Bernard
Signature
9-28-16
Date
5 BR only

- 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 #17-0113) 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

3809 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM
PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-889-2524 | FAX: 301-421-4186

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

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. 12825

EXPIRATION DATE: MAY 28, 2020

9/20/18

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

CRAWFORD SUBDIVISION
LOT 16 (13875 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