

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: 2-21-19 **ONSITE SEWAGE DISPOSAL SYSTEM** P 564767-A
 APPROVAL DATE: 5/22/19 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 13835 Mill Creek Court
 SUBDIVISION: Mill Creek LOT: 20 TAX ID: _____
 CONTRACTOR: South Carroll Backhoe EMAIL: Scbackhoe@comcast.net
 CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: NVR INC. EMAIL: _____
 OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 410-379-5956

BAT UNIT MODEL: Hoot 600 BNR PUMP SIZE: 0.5 HP PUMP TANK CAPACITY: 1500

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 3-15-19 DATE RECORDED: 3-15-19

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

TRENCHES:	LINEAR FEET REQUIRED: <u>130.4</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>6</u>

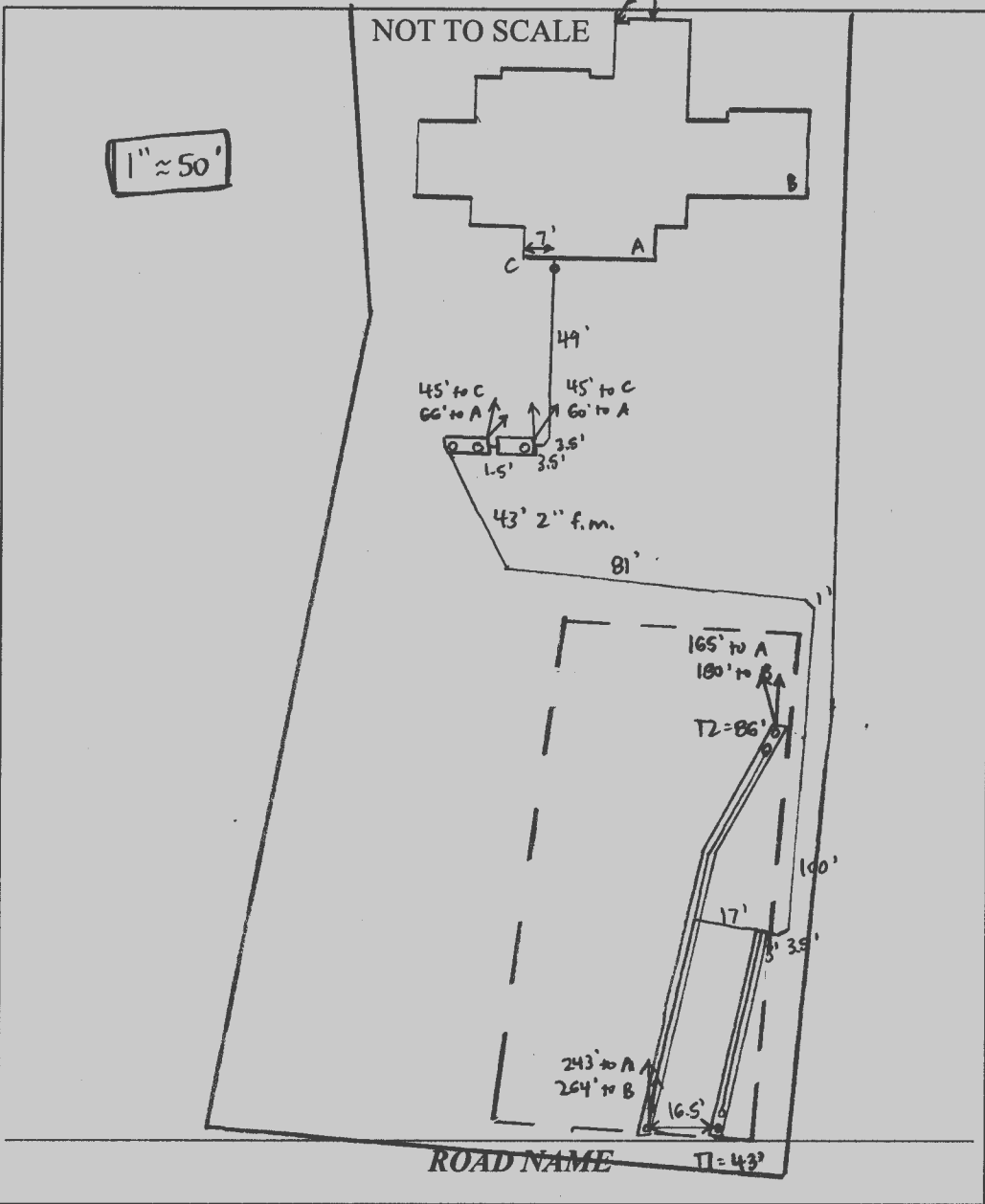
LOCATION: **PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.**

NOTES: BAT and LPD Design

ISSUED BY: Dana Bernard ISSUE DATE: 3/20/19 EXPIRATION DATE: 3/20/20

- 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 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 1900506
- 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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	2'	8'
NUMBER OF TRENCHES		3
TOTAL LENGTH		129'
ABSORPTION AREA		387' + SIDEWALL
DISTRIBUTION BOX LEVEL		---
DISTRIBUTION BOX BAFFLE		---
DISTRIBUTION BOX PORT		---

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	MAYER BROS./HOOT
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-2.5'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	NO
DATE ON LID	3/29/19

PUMP/SEPTIC TANK LEVEL	
SEPTIC TANK 2 LEVEL	YES
MANUFACTURER	MAYER BROS./HOOT
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-2.5'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	2/15/19

PRE-CONSTRUCTION:

3/25/19 Met S. Carroll on site for layout. SDA corners, trenches, and tanks staked. Shot elevations of trench ends - within a few inches. Sewer line will be deep coming through basement wall - builder came by and the plumber can raise the sewer line 8". Also OK to turn tanks to reduce cover on tanks. Set tanks parallel to street no closer than stakes to keep setback from drywells. Plan shows 1" hole at manifold of T2 lateral - must change hole spacing. (SC)

INSTALLATION: 3/27/19 Tank hole dug for 1st tank, contractor waiting for delivery. Some rock hit ~7' at inlet side of hole. (SC) 3/28/19 Hoot tank set. Large area of patched concrete around outlet pipe - need watertight test. 180' of 2" force main installed. (SC) 3/29/19 S. Carroll filled tank with water to 1" below lid yesterday at 5:30 pm. By today at 10:30 am, level was 21" below lid in front compartment, ~30" from lid in rear compartment. Need new tank. (SC)

4/1/19 S. Carroll adding stone to lower trenches, using laser to check depths. 3' wide, 8' bottom, 2' inlet. (SC) 4/3/19 Trenches dug, laterals installed. Hole spacing per revised specs. (SC) 4/9/19 House connection made. Tanks set + connected to force main. Need pump + alarm test and turf boxes installed over lateral turnups. (SC) 5/22/2019 DISTAL HEAD > 2". ALAEM WORKS. PUMP AND

FINAL INSPECTOR J. Caba DATE OF APPROVAL 5/22/19
 5/22/19 ALAEM ow sep. BREAKERS (P)



MAYER BROS., INC.

Precast Concrete Products

6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: 13835 Mill Creek Ct.
Highland, MD, 20777

Date of Final Inspection: 5/22/19

Installer South Carroll Backhoe Service

Hoot Technician/Inspector: Mike Sample

I hereby certify that the Hoot system installed at the property listed above has been installed according to proper Hoot installation practices. I have also verified the startup of the system and it is in proper working order.

Sincerely,

N. Michael Sample

Name of Inspector
Mayer Bros., Inc.

PH: 410-796-1434

WBE

FX: 410-796-1438

www.mayerbrosprecast.com

Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors,
Bench Barrier, Water Meter Vaults, Sectional Valve Vaults, Top Stairs, Curb Heads, Curb Risers,
Custom Precast Products



MAYER BROS., INC.
Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075

April 2, 2019

RE: Production dates of tanks

To whom it may concern;

Mayer Bros ships tanks after a minimum 7 day cure period. This insures minimum strength requirements are met. We will date tanks with the production dates. Additional paperwork is always available in our office.

Specifically, the 2 modified pump chambers for lots 20 and 22 at Mill creek were initially produced on 1/28/19 and 2/15/19. Today we plan on shipping the 1/28/19 tank.

Please contact me with any further questions.

Nancy J Mayer

Nancy J. Mayer
President
Mayer Bros., Inc.

PH: 410-796-1434
FX: 410-796-1438

WBE

info@mayerprecast.com
www.mayerprecast.com

Grease Interceptors, HOOT Aerobic Treatment Units, Septic Tanks, Holding Tanks, Bench Barrier, Water Meter Vaults,
Sectional Valve Units, Top Slabs, Curb Heads, Curb Bumpers, Custom Precast Products

Collins, Sarah

From: Collins, Sarah
Sent: Monday, March 25, 2019 2:19 PM
To: 'Kristy Pierce'
Subject: Mill Creek lot 20 septic plan

Hi Kristy,

I met with the septic contractor for the layout at Mill Creek lot 20 and we noticed that the plan has a center feed trench with the first hole where the manifold meets the lateral (odd # of holes for a center feed system). We propose the contractor lowers the elevation of the upper trench to be the same at the lower trench. Here are the changes in the table of calculations on the plan (shown in red):

Trench	Trench length (ft)	Feed	Pipe Inv. Elev (ft)	Head (ft)	Hole Diam. (in)	Hole Flow Rate (gpm)	Hole Spacing (ft)	Number of Holes	Trench Flow Rate (gpm)	Lateral Length (ft)	Flow (gpm) per LF Trench	Gal per LF Trench	Lateral Diam (in)	Type
1	43.5	End	465.6	2.0	5/16	1.63	5.44	8	13.04	40.78	0.299		1.5	SCH 40
2	87	Center	465.6	2.0	5/16	1.63	5.44	16	26.08	81.56	0.299		1.5	SCH 40

I didn't fill in the gal per LF of trench- I believe this depends on the pump run time, and the pump changed to a WE07H pump. Let me know if that looks alright.

We met with the builder and turned the tanks so they're parallel with the road but not any closer to the house. The change was to reduce cover to 3' or less over the tanks. The builder wanted me to let you know about the change.

Thanks,
Sarah

Sarah Collins, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
410-313-6287
SCollins@howardcountymd.gov

CONFIDENTIALITY NOTICE

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Collins, Sarah

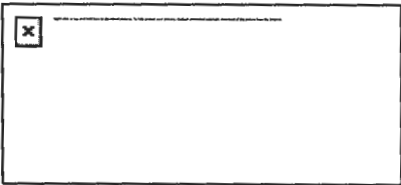
From: Kristy Pierce <kpierce@glwpa.com>
Sent: Monday, February 25, 2019 11:37 AM
To: Collins, Sarah
Cc: Mike Tran
Subject: Re: Mill Creek lot 20 septic plan
Attachments: Crawford Lot 20-LPD Calcs with 4 45 bends.pdf

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

Good Morning Sarah,

See attached spreadsheet updated to include 4 45 degree bends... It looks like a WE07H pump will be needed. Thank you for checking this.

Kristy Pierce



3909 National Drive, Suite 250 | Burtonsville, MD 20866
PH: 301-421-4024 | PH (Baltimore): 410-880-1820
PH (Northern VA): 301-989-2524 | FAX: 301-421-4186

Check out our new website: WWW.GLWPA.COM

The information transmitted is intended only for the addressee shown above.

Any design information (calculations, drawings, etc.) included in this transmission is intended for the sole purpose agreed upon with Gutschick, Little & Weber, P.A. (GLW). If this information is to be used for any other purpose or transmitted to any other persons, prior consent must be received from GLW.

On Mon, Feb 25, 2019 at 10:33 AM Collins, Sarah <SCollins@howardcountymd.gov> wrote:

Hi Kristy,

The septic plan for Mill Creek lot 20 is another low pressure dosed system that will need some bends in the force main. Specifically, the line will need 2x45 degree bends from the pump tank near the lower septic corner and 2x45 degree bends when it turns to go into the manifold. Also, the pump may be undersized per the pump curve shown on the plan. Can you do the calculations to include 4x45 degree bends and determine which size pump is needed?

Thanks,

Sarah

LOW PRESSURE DISTRIBUTION SYSTEM CALCULATIONS

Per MDE BASIC LPD DESIGN - Draft Version 1 - Date July 3, 2014

ADDRESS: **13835 Mill Creek Court**

SUBDIVISION: **Crawford (Mill Creek)**

LOT: **20**

DATE: **December 2018**

Number of Manifolds: **1**

Design Flow: 750 gpd
 Pump Off Elevation: 450.30
 Inv. Out of Pump Tank: 453.55
 Pump Bottom Elevation: 449.30

Manifold 1

Trench **1** Elev: **466.5** Length: **43.5**
 Trench **2** Elev: **465.6** Length: **87.0**
 Trench Elev: Length:

0.9' Elev. Range, Single Manifold OK

Manifold Length 18 ft Type: SCH 40
 Hoiz. Force Main Length 218.0 ft Type: SCH 40

Manifold	Trench	Trench Length (ft)	Feed	Pipe Inv. Elev (ft)	Head (ft)	Hole Diam. (in)	Hole Flow Rate (gpm)	Hole Spacing (ft)	Number of Holes	Trench Flow Rate (gpm)	Lateral Length (ft)	Flow (gpm) per LF Trench	Gal. per LF Trench	Lateral Diam. (in)*	Type
	1	43.5	End	466.5	2.0	5/16	1.63	4.83	9	14.65	38.67	0.337	0.956	1.5	SCH 40
2	87	Center	465.6	2.9	5/16	1.96	5.80	15	29.41	81.20	0.338	0.959	1.5	SCH 40	

Max/Min Flow Ratio (should be <1.10) : 1.00 * Min. Per Figure 4.4

Min. System Discharge Rate: 44.1 gpm

Manifold Diam. 2.0 in Vel. 4.5 fps Friction Loss (Table 4.4) 3.148
 Force Main Diam. 2.0 in Vel. 4.5 fps Friction Loss (Table 4.4) 3.148
 Minimum Dose: 125.0 gal (Vol. in FM, Man, 5x Lat. = 104.6 gal. < 1/6 Design Flow = 750/6 = 125 gal.)

Calculate Total Design Head

1. Friction Loss in FM & Mnfold: 7.6 ft
 Friction Loss from Fittings: 73 ft X 3.148 = 2.3 ft

No.	Type	Equ. Length	No.	Type	Equ. Length
<u>5</u>	90 Deg. Std Ell	7.0	<u>0</u>	Gate Valve	1.3
<u>4</u>	45 Deg. Std Ell	4.0		Globe Valve	55
<u>2</u>	90 Deg. Side Tee	10.0		Angle Valve	28
<u>1</u>	Coupling or Str. Run of Tee	2.0			

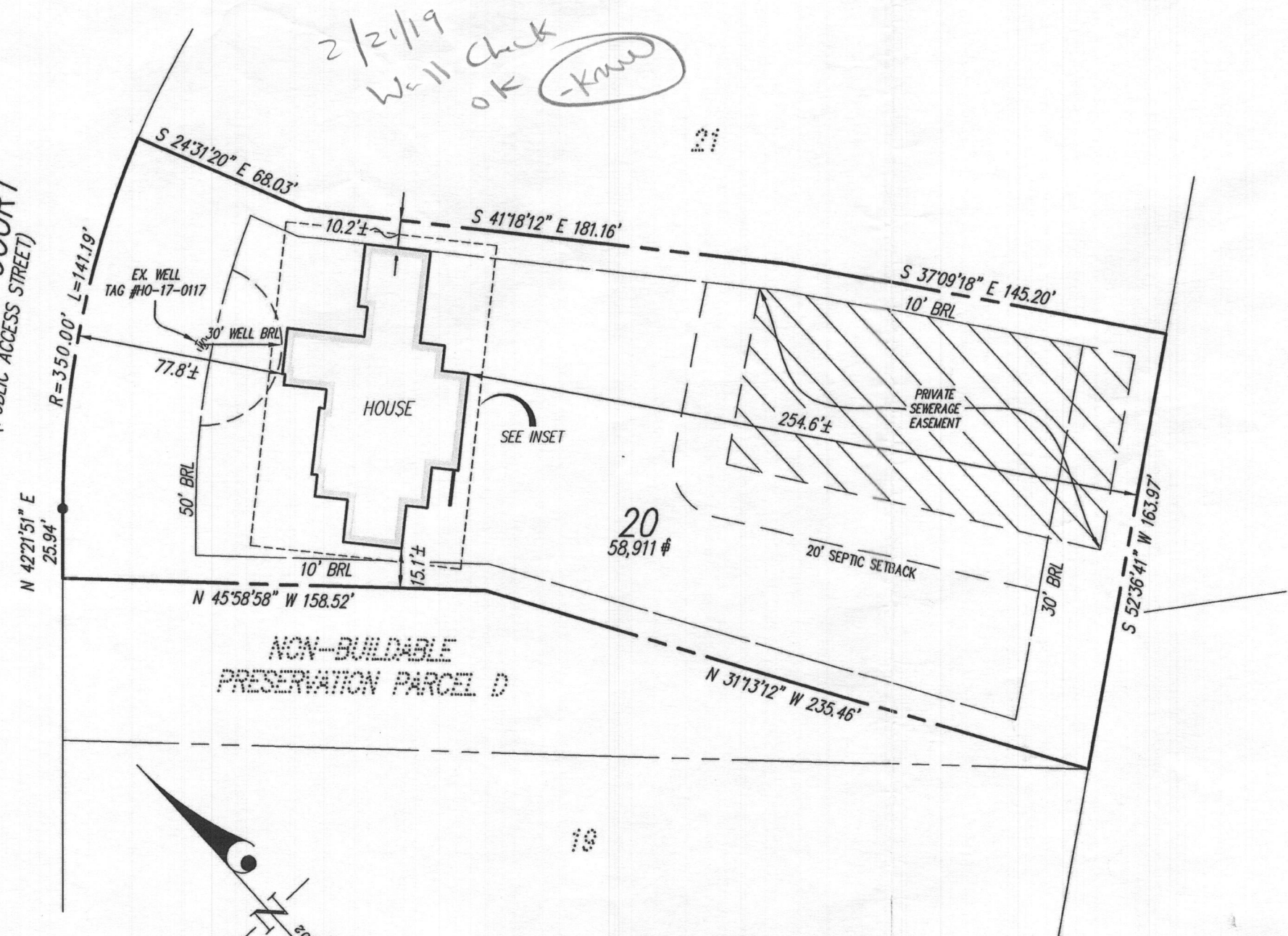
Friction Loss from Laterals: 1.5 ft
 2. Static Head: 16.20 ft
 3. Min. Distal (discharge) head: 2 ft

TDH= 29.6 ft

Note #1: The minimum dose is the greater value of either 1/6 the Design Flow or [(5 x lateral volume)+ one volume the manifold + one volume of the force main]

S:\Survey Drawings\WALLCHECK\MILL CREEK-1707\WCK-1707\WCK-20.dwg, 2/19/2019 12:56:02 PM, morgantb, 5501_SURVEY (COLOR).pc3, 1:1

MILL CREEK COURT
(PUBLIC ACCESS STREET)



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.

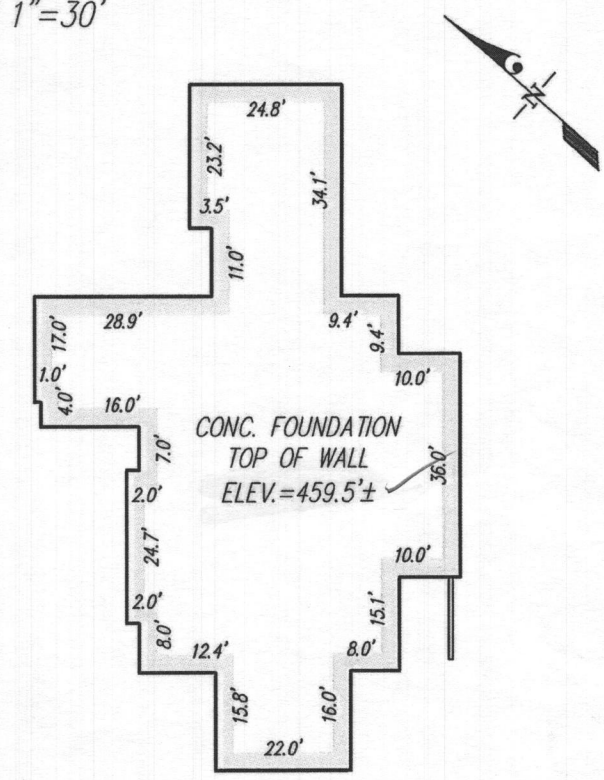
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

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] 2/18/2019
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 20
13835 MILL CREEK COURT

HOWARD COUNTY, MARYLAND	
DATE OF LATEST FIELD WORK: 2/15/2019	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.	

13835 Mill Creek Ct.

Clerk of the Circuit Court for
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

LR - Agreement Recording Fee
1x 20.00 20.00

Name: abu
Ref: 43

LR - Agreement Surcharge
1x 40.00 40.00

SubTotal: 60.00
Total: 60.00

CRD-Credit 60.00
Credit Card Confirmation : 054897

03/15/2019 14:42 CC13-MT
#11798774/495/109
***** DUPLICATE #001 *****

03/15/2019 14:43 CC13-MT
Thank you for visiting us today

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

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

MC-0020

THIS AGREEMENT is made this 15 day of March 2019, among NVR + Erhivvie E Abu, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 13835 Mill Creek Ct. Clarksville MD 21029, in the 5 Election District of Howard County, Maryland, and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 34, Block # 19, Parcel # 52, Deed Reference # 08967/00532 and Tax Account # Plot # 24602 ("the Property").

WHEREAS, The Property is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective November 24, 2016. The pre-treatment device being installed is hoot 600.

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Property at any reasonable time with prior notice for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Property shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as

the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Property that the system shall require maintenance or other attention. Upon taking title to the Property, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed this agreement on the date indicated above.

Bert Nifon 3/15/2019
Howard County Health Department

Phil On 3/15/19

Owner #1 Signature Date

Owner#2 Signature Date

NUR INC.
Owner #1 Print Name

Owner #2 Print Name

[Signature] 3/14/19
Buyer #1 Signature Date

Buyer #2 Signature Date

ERHIVIE ABU
Buyer #1 Print Name

Buyer #2 Print Name



GLW
 PLANNING | ENGINEERING | SURVEYING

3909 NATIONAL DR. SUITE 250
 BURTONSVILLE, MD 20866
 301-421-4024 | FAX: 301-421-4186
 WWW.GLWPA.COM

LETTER OF TRANSMITTAL

DATE	12-12-2018	JOB NO.	17071
PROJECT	Crawford Subdivision		
	Lot 20 (13835 Mill Creek Ct.)		

TO: Bureau of Environmental Health
 8930 Stanford Blvd.
 Columbia, MD 21045

ATTN: _____

- WE ARE SENDING THE FOLLOWING ITEMS:**
- ATTACHED
 - UNDER SEPARATE COVER
 - MYLARS
 - PRINTS
 - COST ESTIMATES
 - DESCRIPTIONS
 - GRADE SHEETS
 - COPY OF LETTER
 - APPLICATIONS
 - COMPUTATIONS
 - OTHER _____
- VIA:**
- MAIL
 - OVERNIGHT
 - GLW COURIER
 - COURIER
 - OTHER _____

COPIES	DATE	PAGES	DESCRIPTION
3		1 of 1	OSDS Site Plan for Crawford Subdivision - Lot 20 (13835 Mill Creek Ct.)

- THESE ARE TRANSMITTED as checked below:**
- FOR APPROVAL
 - FOR YOUR USE
 - FOR REVIEW & COMMENT
 - PER YOUR REQUEST
 - SIGN & RETURN
 - AS SUBMITTED TO _____
 - AS REQUESTED BY _____
 - _____

REMARKS: _____

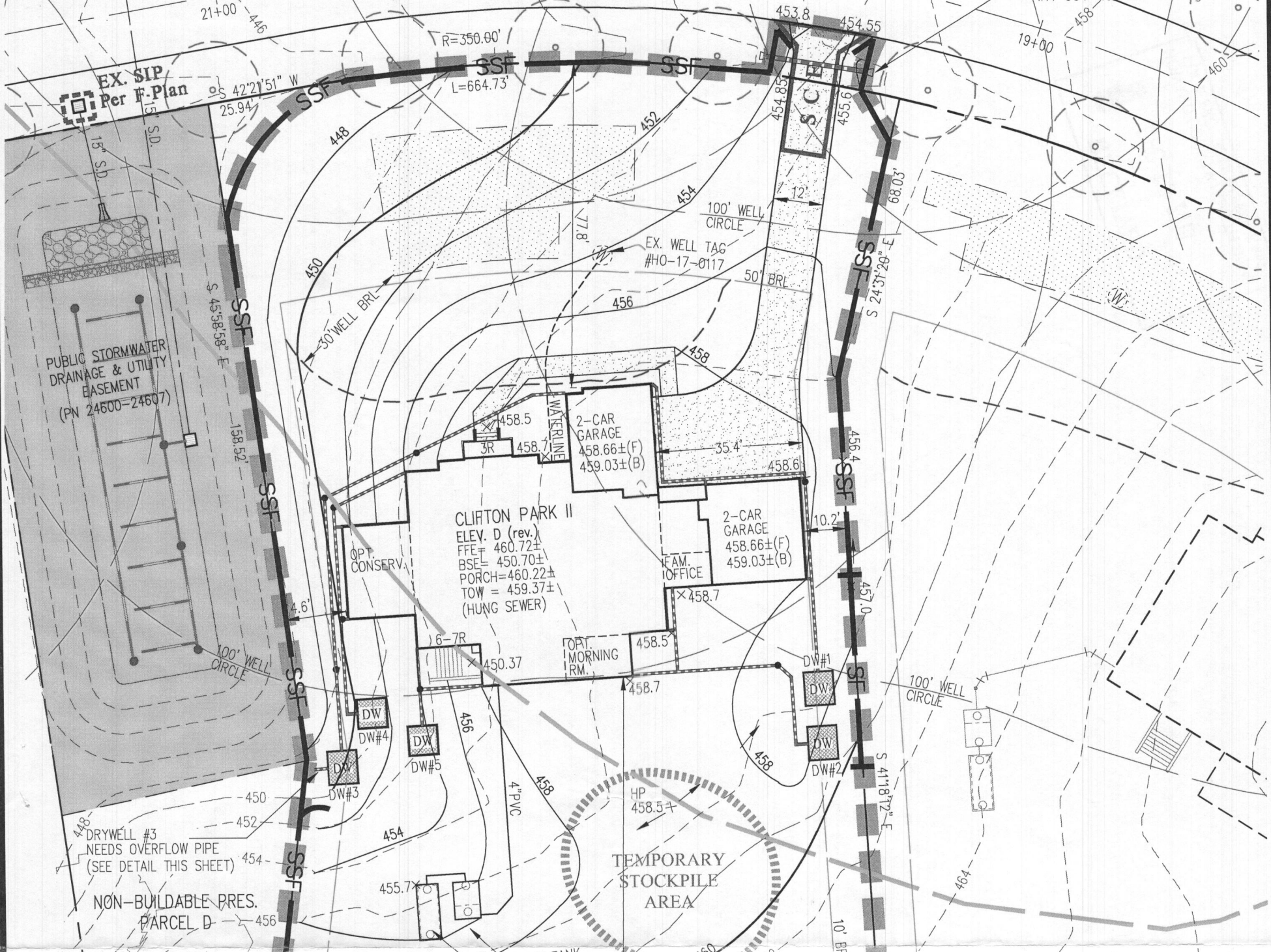
COPY TO: _____

SIGNED: Kristy Pierce
 Kristy Pierce

If enclosures are not as noted, kindly notify us at once.

MILL CREEK COURT
(PUBLIC ACCESS STREET)

15" D/W CULVERT, 24 L.F.
(per Ho.Co. Det. R-6.06)
INV IN= 453.1±
INV OUT= 452.05±

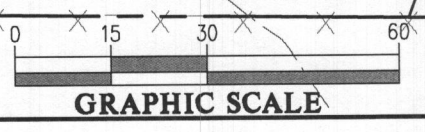


DRYWELL (M-5) SIZE CHART

DRYWELL No.	LENGTH x WIDTH	DEPTH OF STONE
1	7'x8'	5'
2	7'x8'	5'
3	7'x8'	5'
4	7'x7'	5'
5	7'x7'	5'

FOR CONSTRUCTION DETAILS OF DRYWELL(S) SEE F-17-016, SHEET 33.

Approved Septic System Plan
Howard County Health Department
Carole Bernard 1-4-19
Signature Date



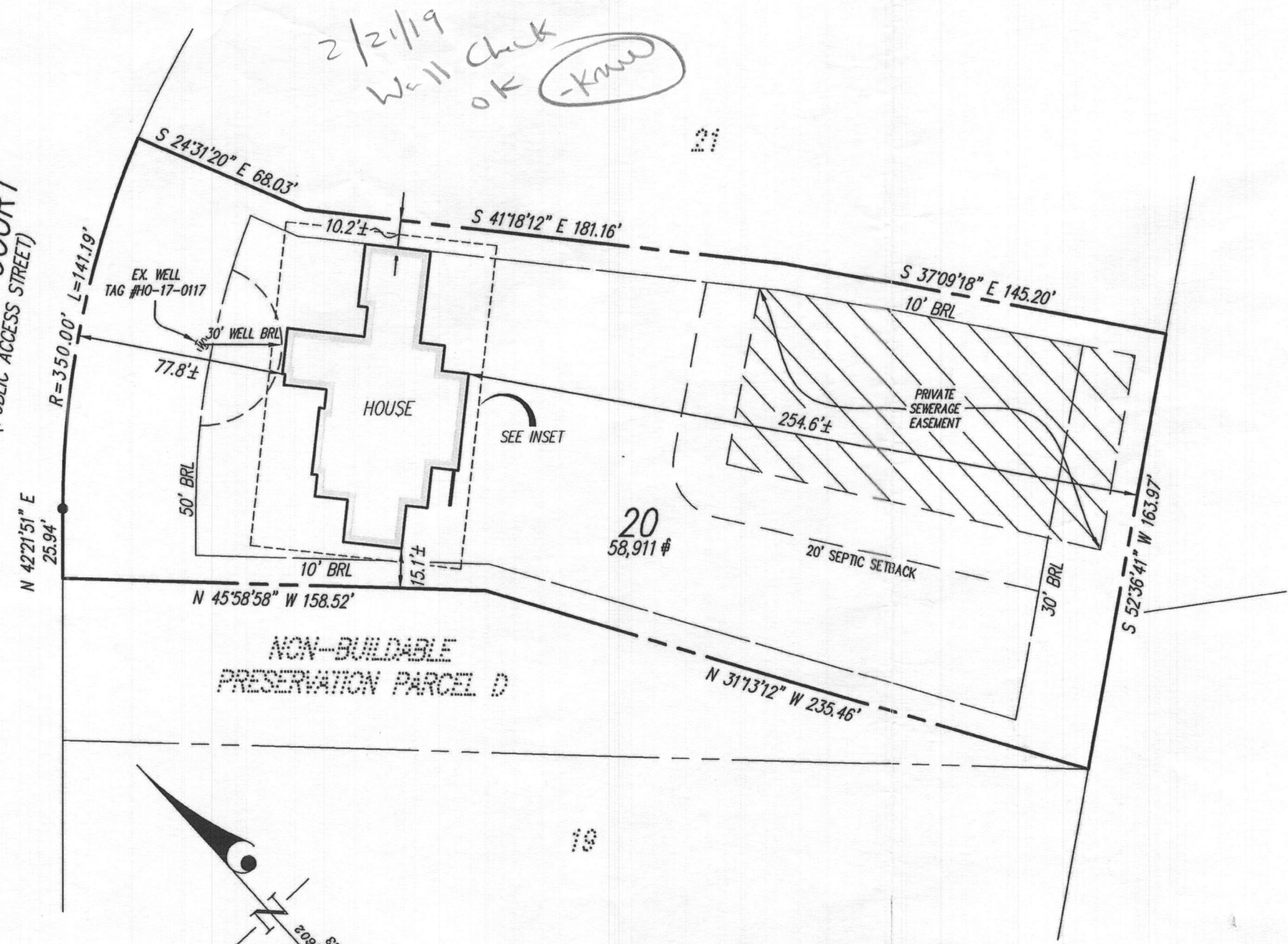
NOTE: THE FRONT DOOR FOR LOT 20 FACES NORTH.

BUILDING PERMIT PLOT PLAN

	DES.	PREPARED FOR : NVR INC. 9720 PATUXENTS WOODS DRIVE COLUMBIA, MD 21045 PH: 410-379-5956	CRAWFORD SUBDIVISION LOT 20 (13835 MILL CREEK CT.) Plat No. 24600-24607	G. L. W. No.	17071
	DRN.			ZONING	RR-DEO
	CHK.			TAX MAP/GRID	34&39-19&6
L:\CADD\DRAWINGS\17071\PLANS BY GLW\LOT PLANS\LOT 20\17071 MC_PLOT PLAN LOT 20.dwg				DATE	Nov. 2018
				SCALE	1"=30'
				SHEET	1 OF 1

S:\Survey Drawings\WALLCHECK\MILL CREEK-1707\WCK-1707\WCK-20.dwg, 2/19/2019 12:56:02 PM, morgantb, 5501_SURVEY (COLOR).pc3, 1:1

MILL CREEK COURT
(PUBLIC ACCESS STREET)



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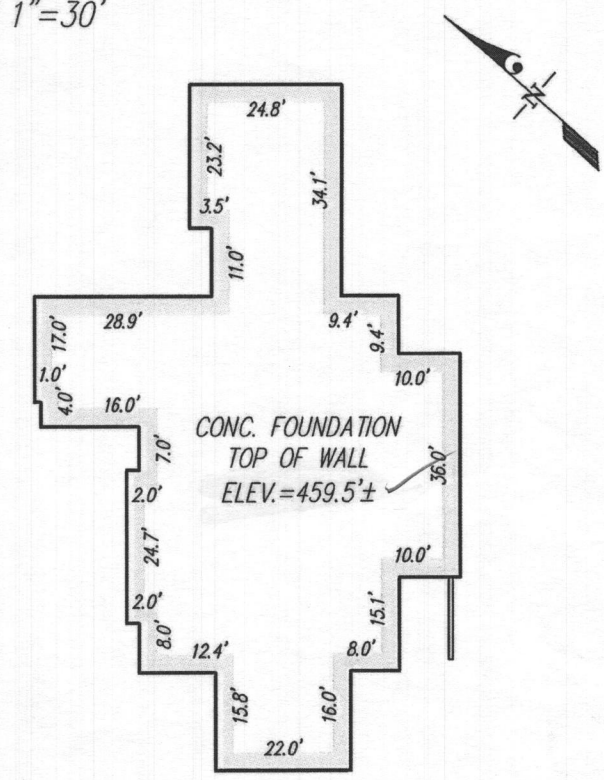
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BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER PLOT PLAN.

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] 2/18/2019
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.

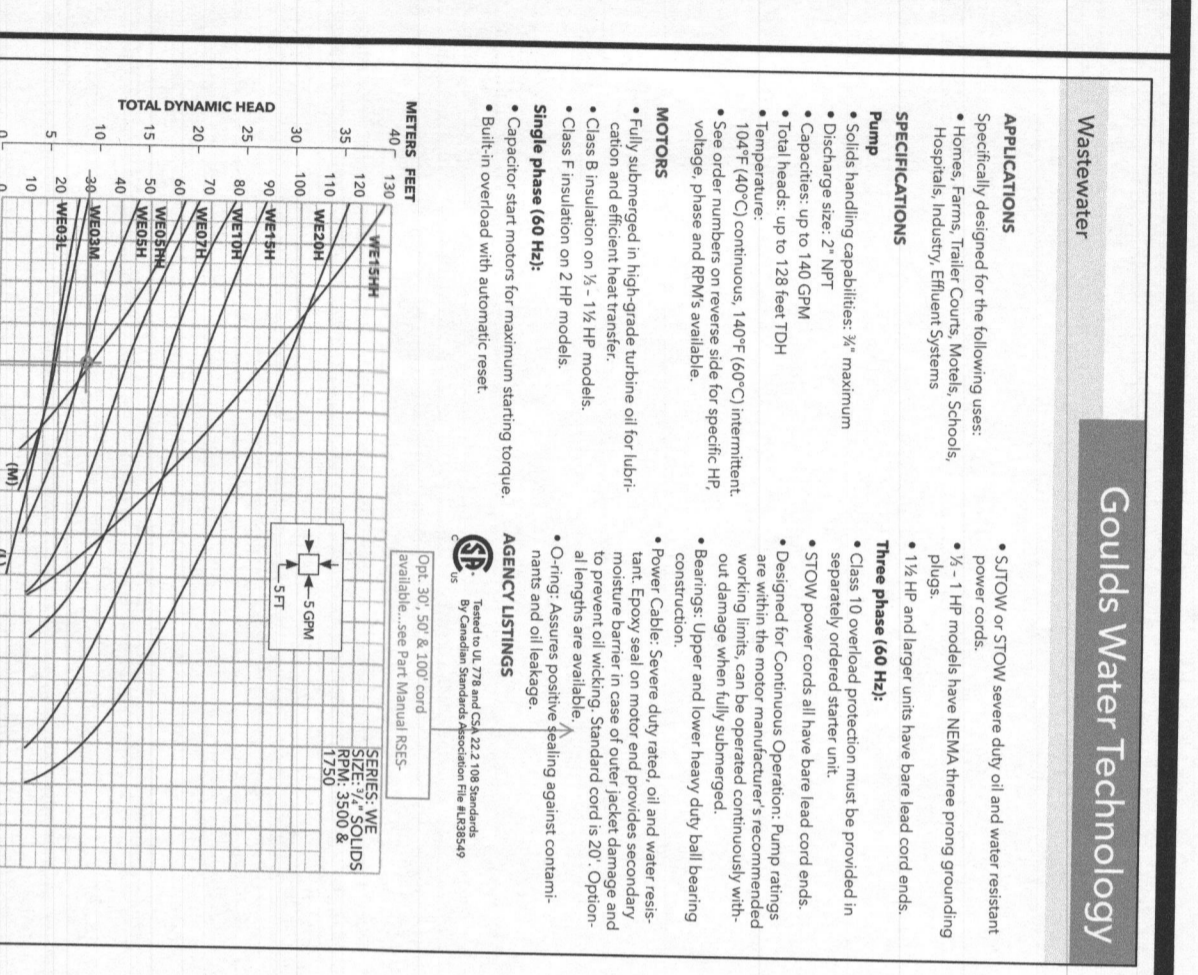
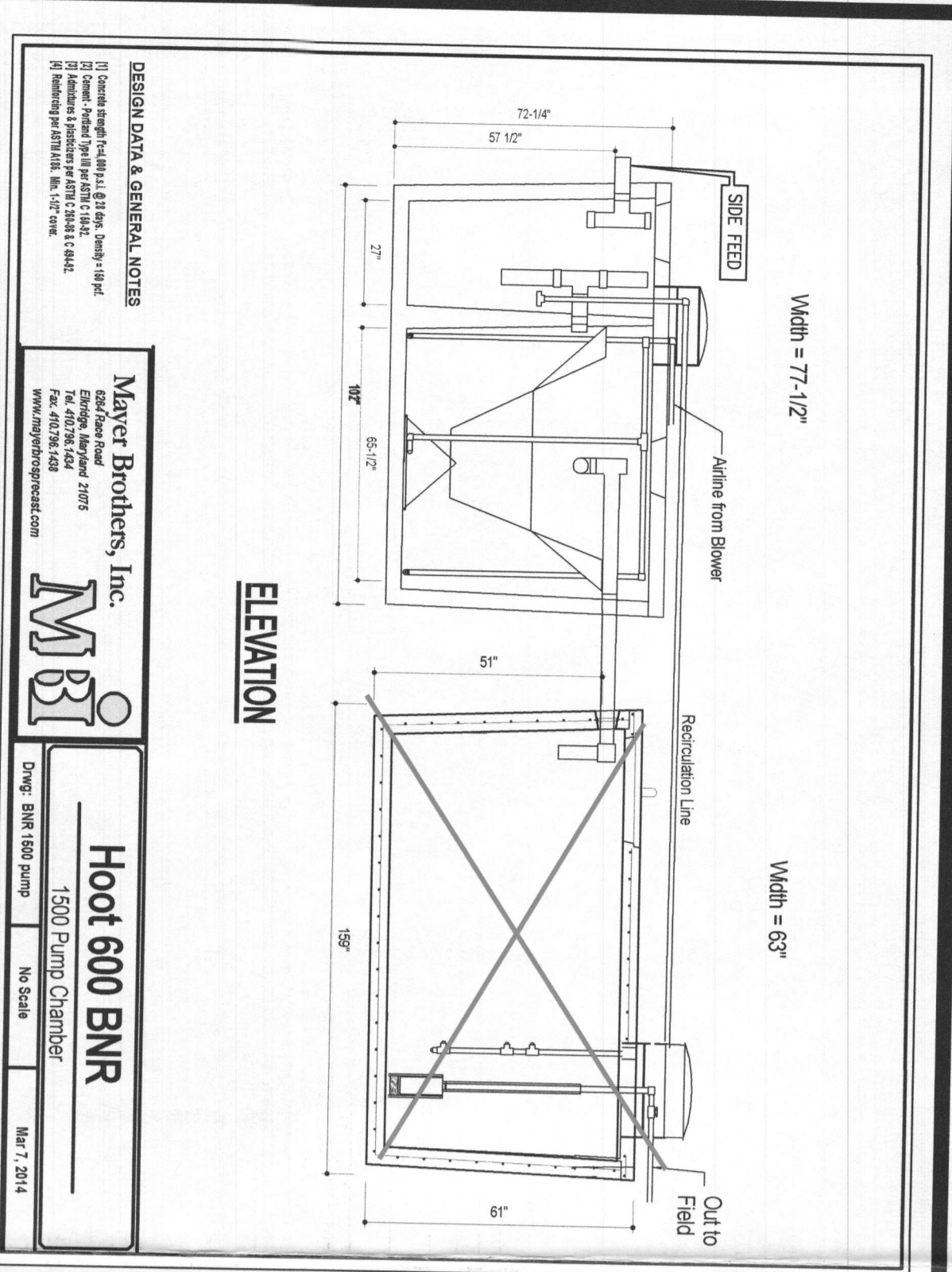
WALLCHECK
(SPECIAL PURPOSE SURVEY)

CRAWFORD SUBDIVISION
LOT 20
13835 MILL CREEK COURT

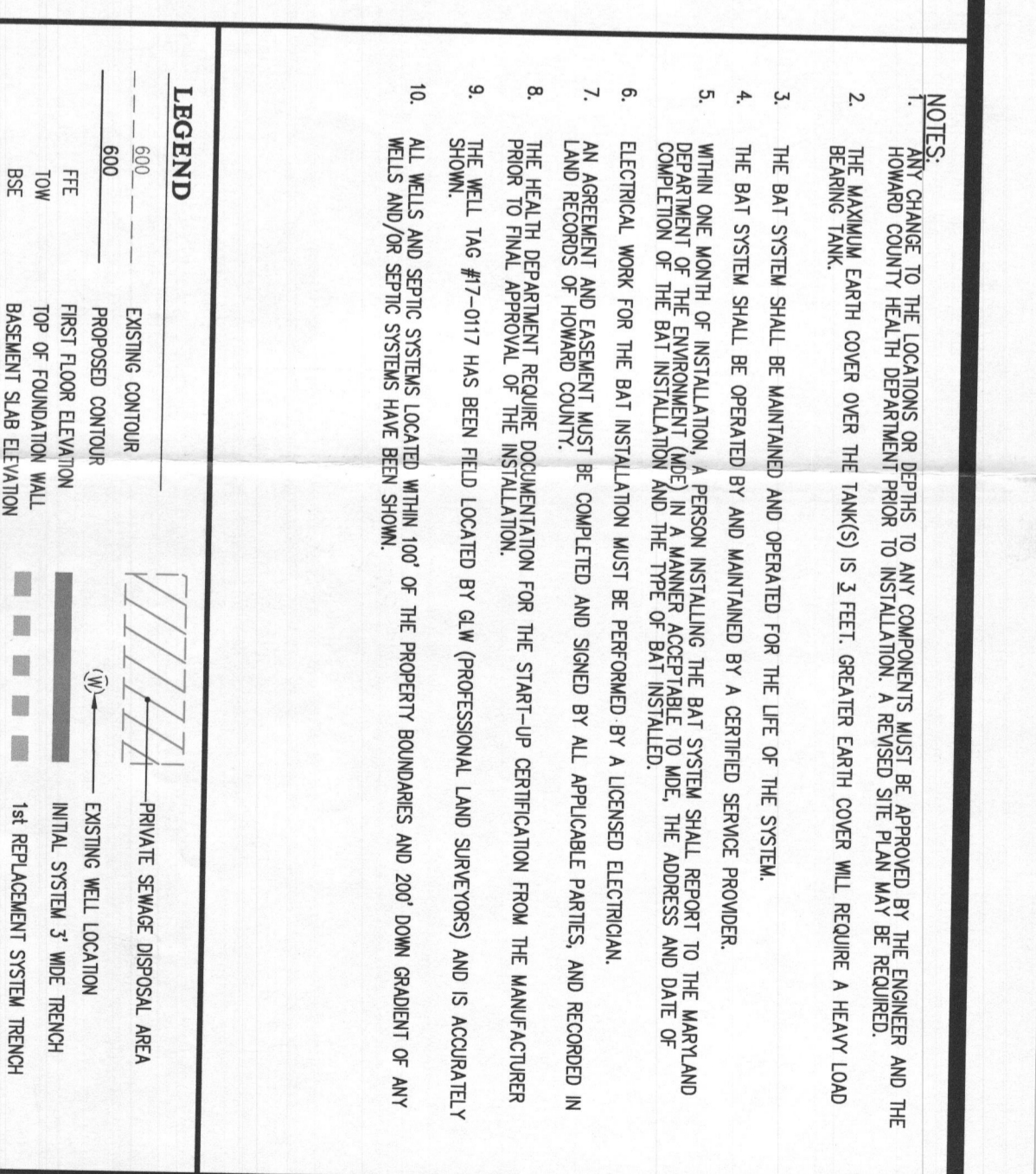
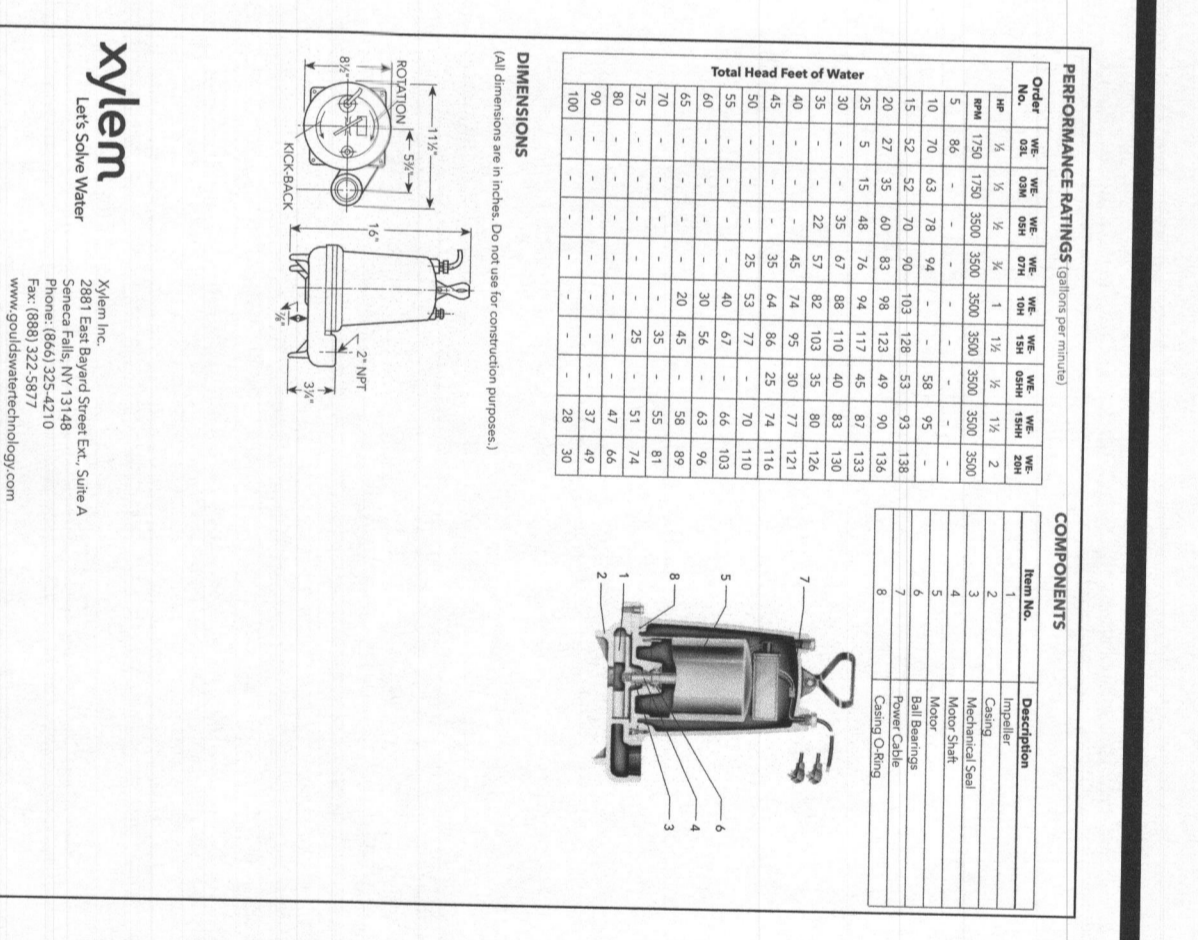
HOWARD COUNTY, MARYLAND	
DATE OF LATEST FIELD WORK: 2/15/2019	G.L.W. FILE No. 17071
REFERENCE: PLAT No.: 24602	SCALE: 1"=50'



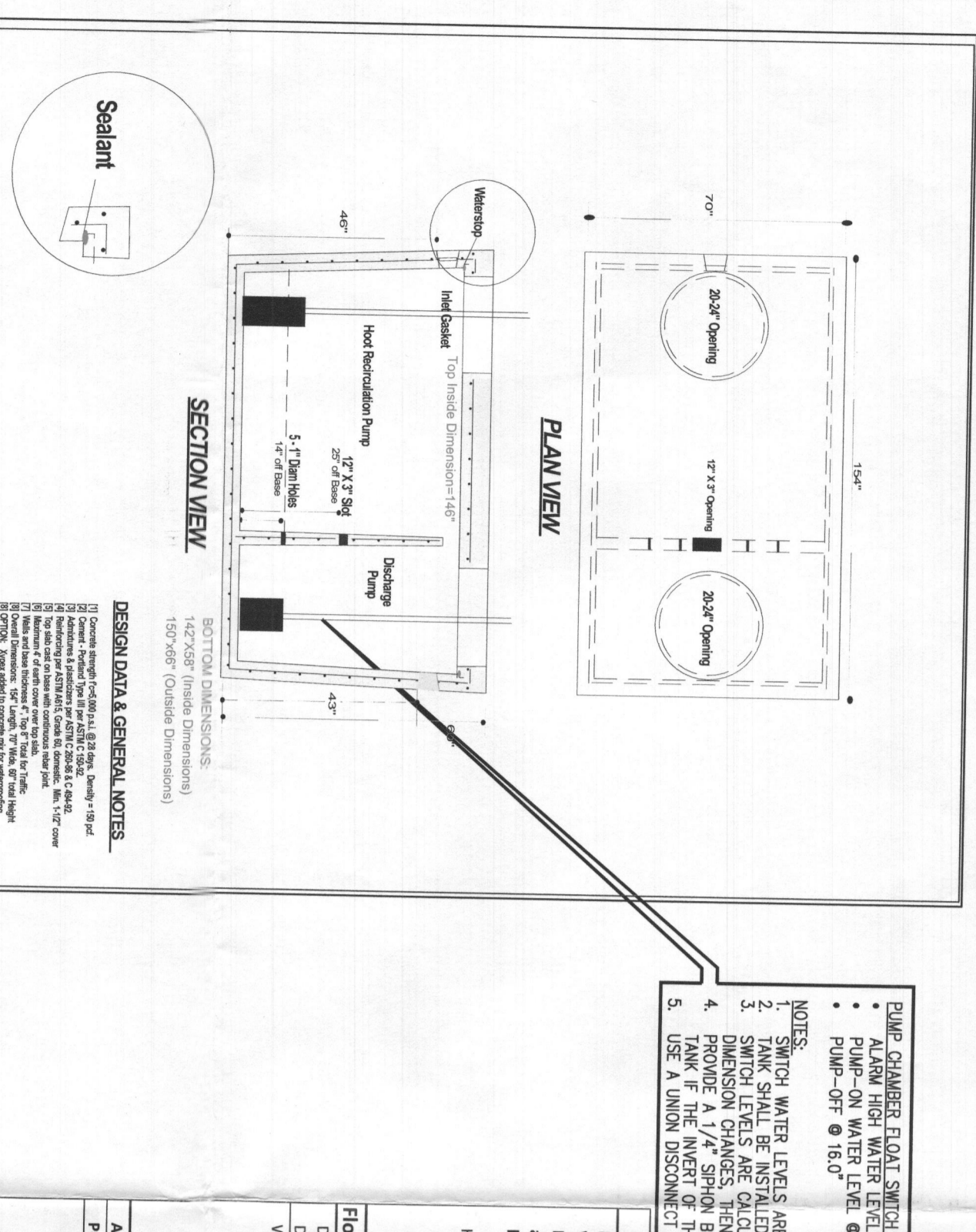
DES.	PREPARED FOR: NVR, INC. 9720 PATUXENT WOODS DRIVE COLUMBIA, MD 21046
DRN. MAB	
CHK.	



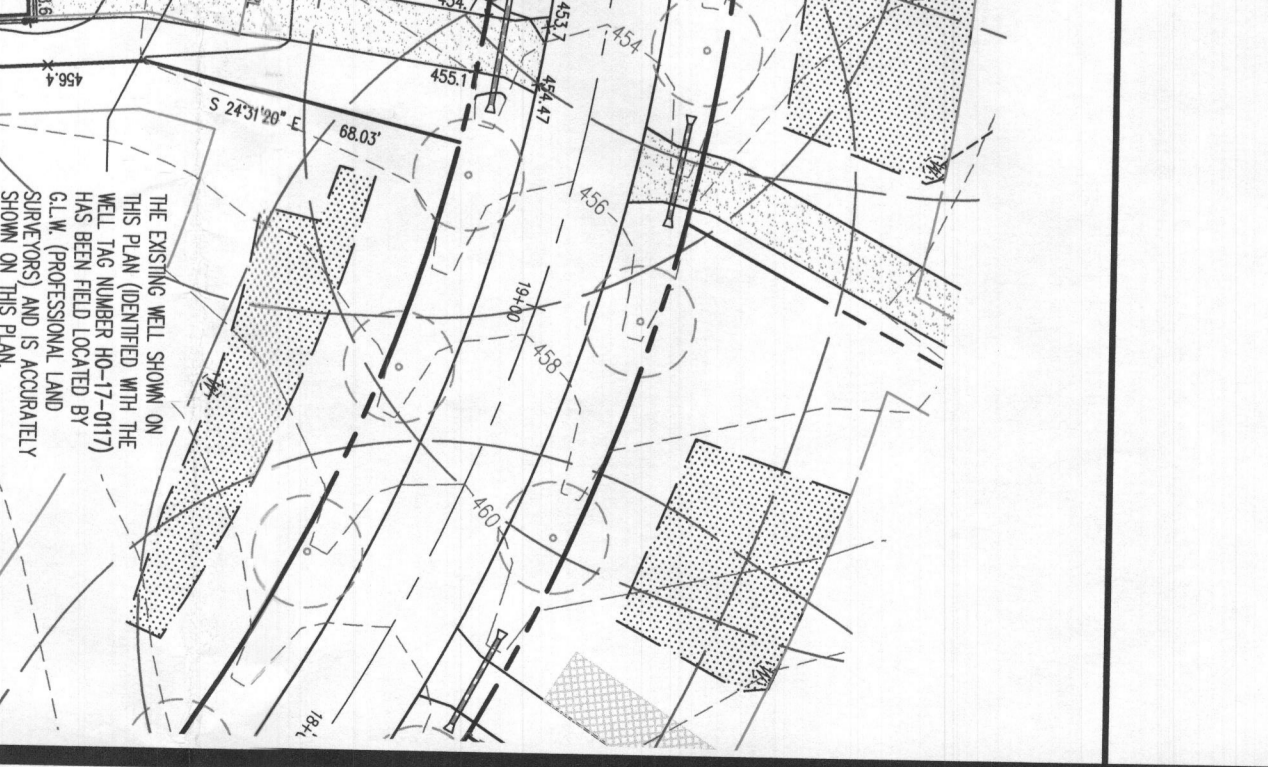
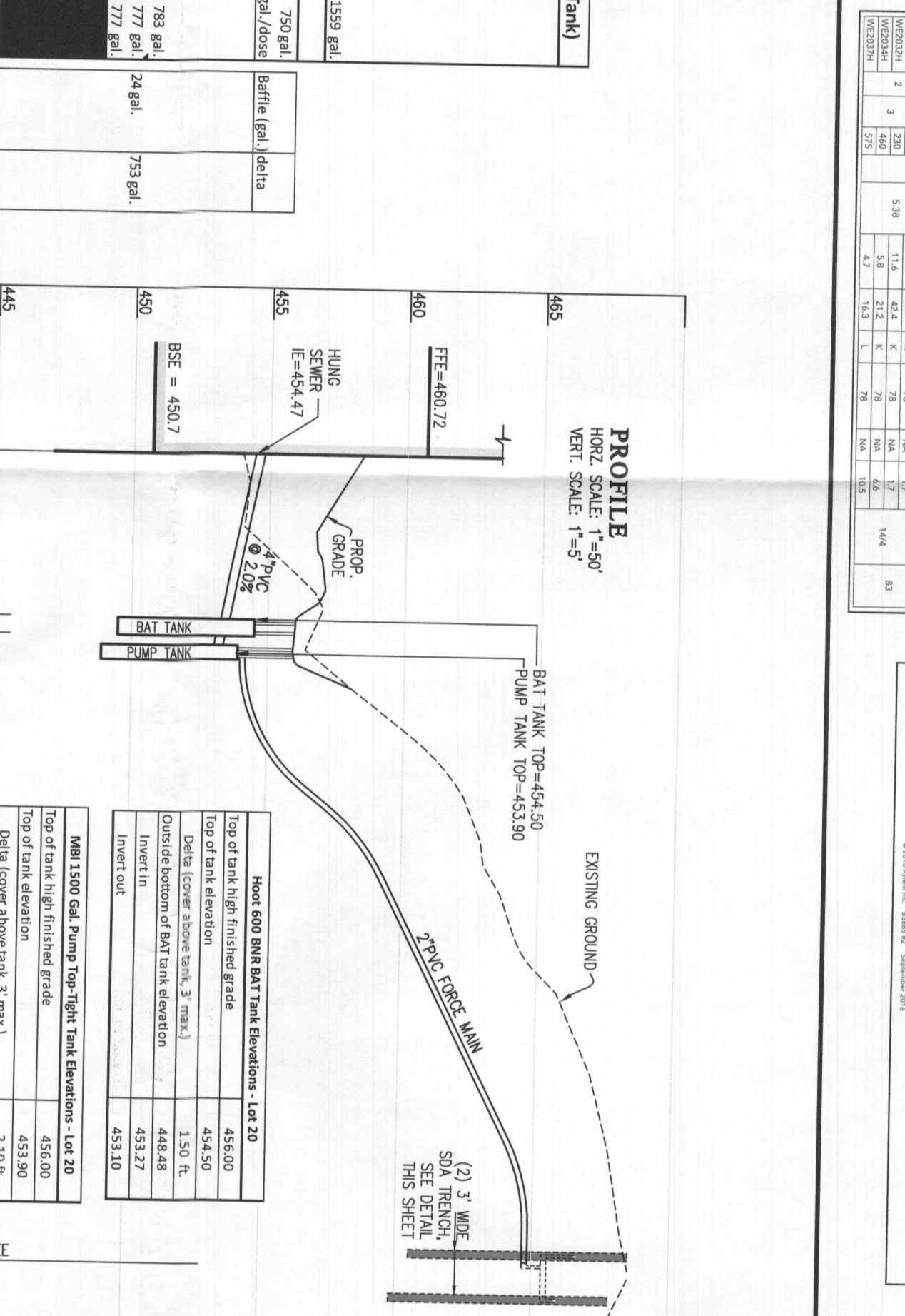
Flow (GPM)	Head (ft)	Efficiency (%)	Power (HP)
0	150		
100	145	75	1.5
200	140	78	3.0
300	135	80	4.5
400	130	81	6.0
500	125	82	7.5
600	120	83	9.0
700	115	84	10.5
800	110	85	12.0
900	105	86	13.5
1000	100	87	15.0
1100	95	88	16.5
1200	90	89	18.0
1300	85	90	19.5
1400	80	91	21.0
1500	75	92	22.5



---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	FEE
---	FIRST FLOOR ELEVATION
---	TOP OF FOUNDATION WALL
---	BASEMENT SOLE ELEVATION
---	DRYWELL LOCATION
---	PRIVATE SERVICE DISPOSAL AREA
---	EXISTING WELL LOCATION
---	INSTALL SYSTEM 3" WIRE TRENCH
---	14" REB. JOINT SYSTEM TRENCH
---	24" REB. JOINT SYSTEM TRENCH
---	PROPORTION TEST HOLES (P.T.H.)
---	PROPORTION TEST HOLES (P.T.H.)

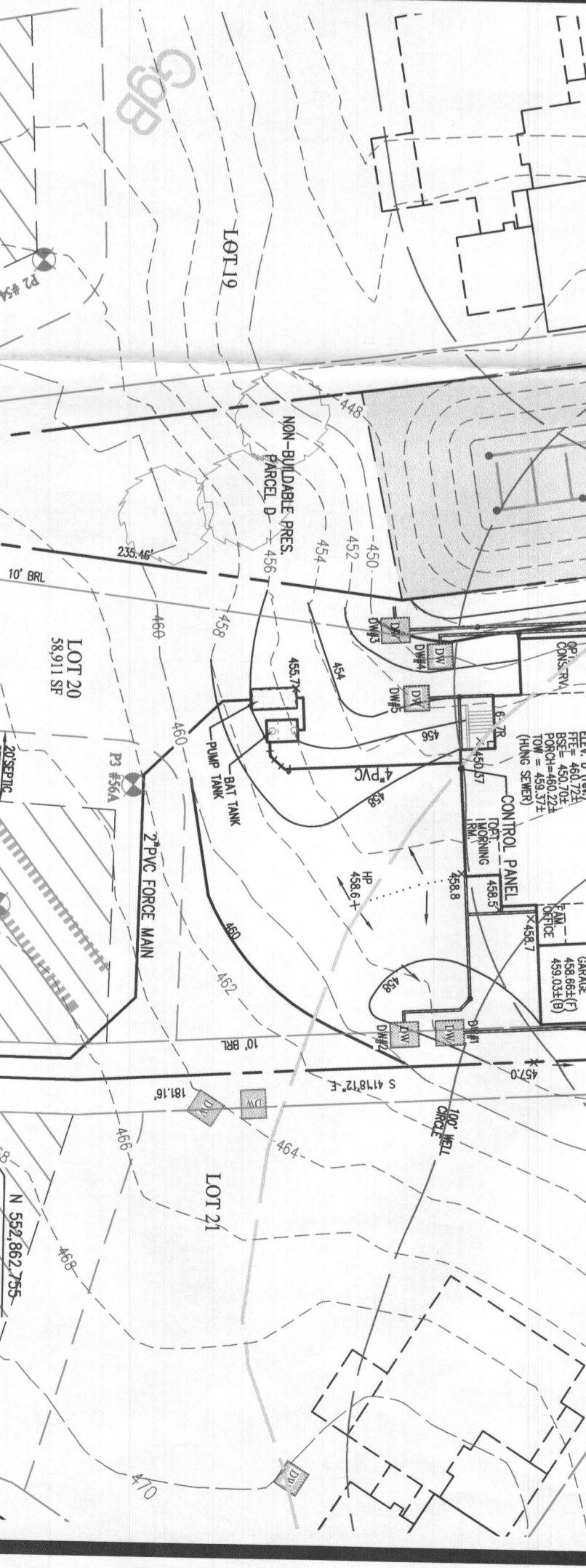
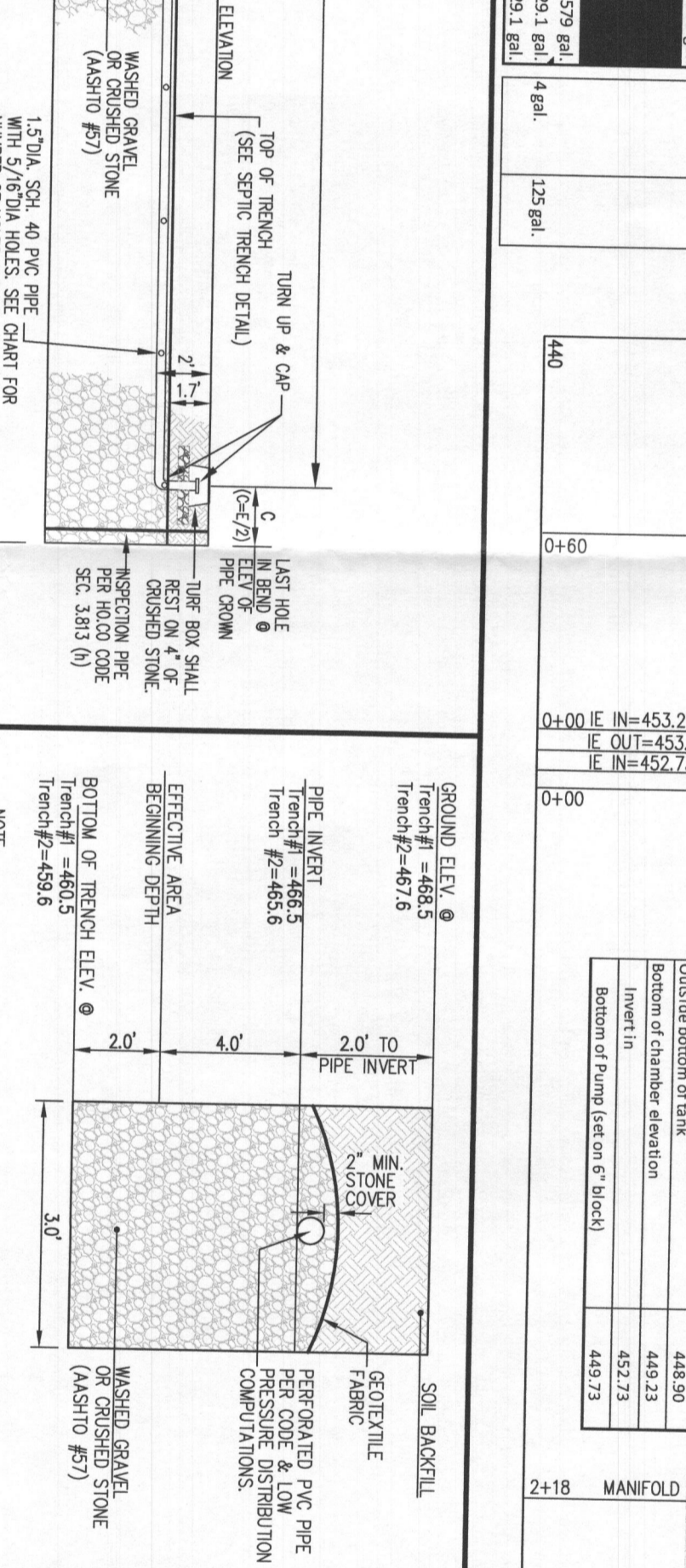


1. TANK SHALL BE DESIGNED FROM THE BOTTOM OF THE TANK CHAMBER.
2. TANK SHALL BE DESIGNED FROM THE BOTTOM OF THE TANK CHAMBER.
3. TANK SHALL BE DESIGNED FROM THE BOTTOM OF THE TANK CHAMBER.
4. TANK SHALL BE DESIGNED FROM THE BOTTOM OF THE TANK CHAMBER.
5. TANK SHALL BE DESIGNED FROM THE BOTTOM OF THE TANK CHAMBER.



ADDRESS: 13835 MILL CREEK COURT
SUBDIVISION: CRAWFORD
DATE: MARCH 26, 2019
DESIGN FLOW: 750 GPM
PUMP OFF ELEVATION: 450.57
PUMP BATTERY ELEVATION: 450.23
DESIGNER: G.L.W.
DATE: MARCH 26, 2019

Item	Length (ft)	Width (ft)	Depth (ft)	Volume (cu ft)
1	43.5	4.0	2.2	380.4
2	87.0	8.0	2.2	1521.6
3	43.5	4.0	2.2	380.4
4	43.5	4.0	2.2	380.4
5	43.5	4.0	2.2	380.4
6	43.5	4.0	2.2	380.4
7	43.5	4.0	2.2	380.4
8	43.5	4.0	2.2	380.4
9	43.5	4.0	2.2	380.4
10	43.5	4.0	2.2	380.4
11	43.5	4.0	2.2	380.4
12	43.5	4.0	2.2	380.4
13	43.5	4.0	2.2	380.4
14	43.5	4.0	2.2	380.4
15	43.5	4.0	2.2	380.4
16	43.5	4.0	2.2	380.4
17	43.5	4.0	2.2	380.4
18	43.5	4.0	2.2	380.4
19	43.5	4.0	2.2	380.4
20	43.5	4.0	2.2	380.4



GLW
PLANNING ENGINEERING SURVEYING

3808 NATIONAL DRIVE (SUITE 250) | BARTONSVILLE, MD 20868 | G.L.W. @ G.L.W.COM
PHONE: 301-421-0224 | FAX: 301-421-1188

DESIGNED BY: G.L.W.
CHECKED BY: G.L.W.
DATE: 3/27/19

Item	Length (ft)	Width (ft)	Depth (ft)	Volume (cu ft)
1	43.5	4.0	2.2	380.4
2	87.0	8.0	2.2	1521.6
3	43.5	4.0	2.2	380.4
4	43.5	4.0	2.2	380.4
5	43.5	4.0	2.2	380.4
6	43.5	4.0	2.2	380.4
7	43.5	4.0	2.2	380.4
8	43.5	4.0	2.2	380.4
9	43.5	4.0	2.2	380.4
10	43.5	4.0	2.2	380.4
11	43.5	4.0	2.2	380.4
12	43.5	4.0	2.2	380.4
13	43.5	4.0	2.2	380.4
14	43.5	4.0	2.2	380.4
15	43.5	4.0	2.2	380.4
16	43.5	4.0	2.2	380.4
17	43.5	4.0	2.2	380.4
18	43.5	4.0	2.2	380.4
19	43.5	4.0	2.2	380.4
20	43.5	4.0	2.2	380.4

