

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: 9/29/20 **ONSITE SEWAGE DISPOSAL SYSTEM** P 567996
 APPROVAL DATE: 11/18/2020 (SS) **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 12245 Mayapple Drive
 SUBDIVISION: Walker Meadows LOT: 33 TAX ID: 03-601591
 CONTRACTOR: South Carroll Backhoe EMAIL: sbackhoe@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: janastasia@nvrinc.com
 OWNER ADDRESS: 9720 PATUXENT WOODS DRIVE, COLUMBIA, MD 21046 PHONE: 410-379-5956

BAT UNIT MODEL: HOOT 600 BNR PUMP SIZE: 0.3 Hp PUMP TANK CAPACITY: 1500

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: _____ DATE RECORDED: _____

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

TRENCHES:	LINEAR FEET REQUIRED: <u>150</u>	INLET DEPTH: <u>2.0</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>5.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5</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:	INSTALL 4 CLEANOUTS IN SHC AT LOCATIONS ILLUSTRATED ON BAT SITE PLAN. INSTALL SLEEVE ON SHC UNDER DRIVEWAY RECOMMENDED EFFLUENT PUMP (FOR LPD SYSTEM) IS WE-03L, OR EQUIVALENT. SYSTEM MUST PASS A PUMP AND ALARM TEST PRIOR TO ISSUE OF ICOP.	

ISSUED BY: Robert Bricker ISSUE DATE: 10-7-20 EXPIRATION DATE: 9-29-21

- 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 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 B20003165
- 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

*see attached
diagram

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	5'
NUMBER OF TRENCHES		3
TOTAL LENGTH		150 F
ABSORPTION AREA		450 SF + SIDE WALL
DISTRIBUTION BOX LEVEL		-LPD-
DISTRIBUTION BOX BAFFLE		-
DISTRIBUTION BOX PORT		-

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	
MANUFACTURER	BACKRIVER
CAPACITY	600 BNR GAL
SEAM LOC	TOP
TANK LID DEPTH	3.5(1)-3(1)
BAFFLES	HOOT
BAFFLE FILTER	HOOT
MANHOLE LOC	CENTER
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	HOOT
DATE ON LID	HOOT

PUMP/SEPTIC TANK LEVEL

MANUFACTURER	/
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	~3'
BAFFLES	-
BAFFLE FILTER	-
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	-
DATE ON LID	DNI

PRE-CONSTRUCTION:

10/16/2020 CONFIRM CONTOUR ON LATERALS. SDA WAS FENCED w/ ORANGE NET FENCES FOR PROTECTION FROM CONSTRUCTION ACTIVITIES. HOWEVER CLEARLY ALTERED AND DISTURBED. DISTAL ENDS OF TRENCH A 2" HIGHER; TRENCH B 1" HIGHER. LOWER PART OF SDA HAS FILL COVERING PARTS OF 1ST REP TRENCH LOCATION (P) 11/10/2020 Laid out 3x50' trenches acc. to red-lined plan. (S)

INSTALLATION: 10/16/2020 ON SITE FOR SETTING OF HOOT TANK. (P)

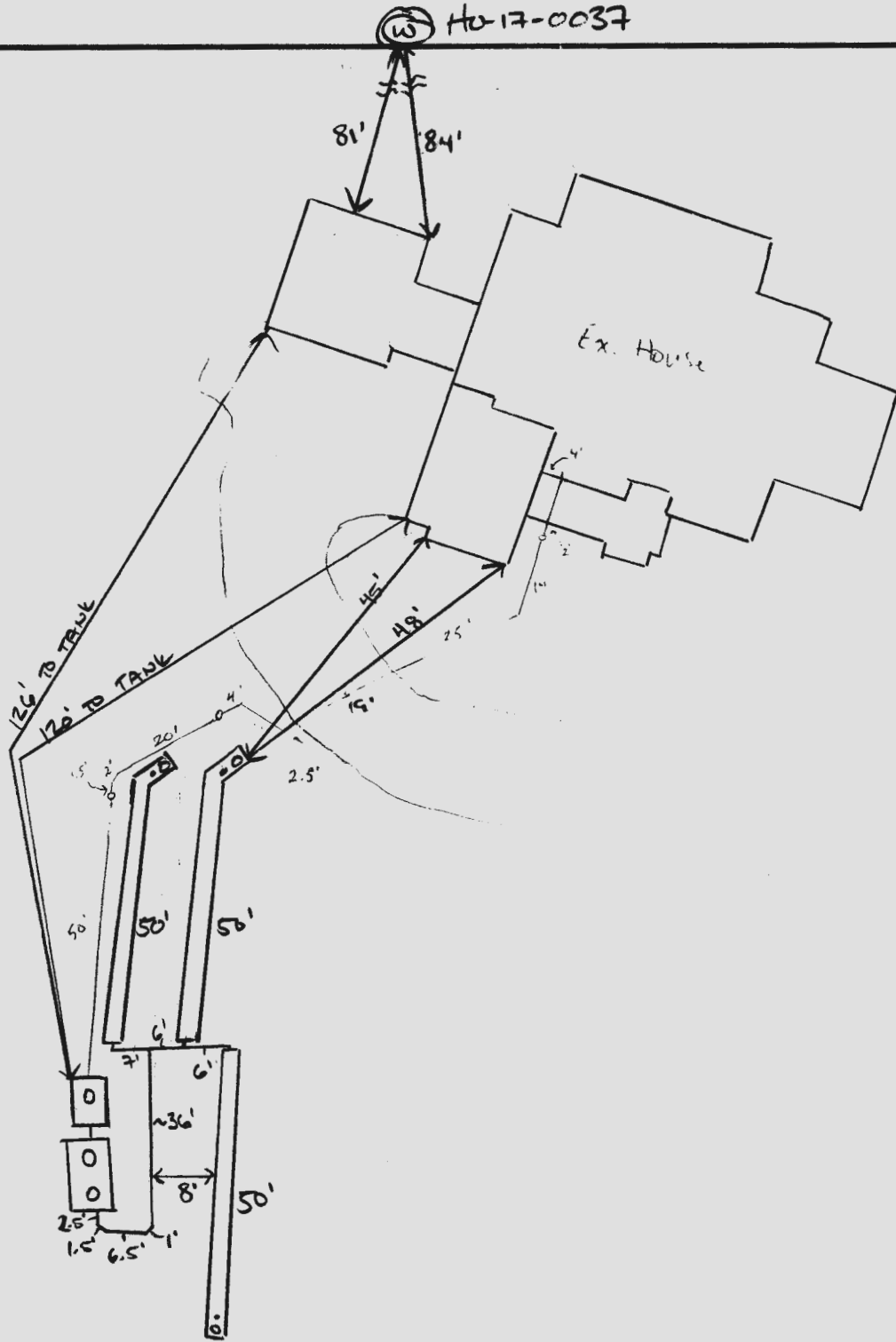
11/10/2020 SHC and SL installed (beneath sidewalk and drive). Reinspect for baffle into already set tanks (S) 11/12/2020 TRENCHES INSTALLED w/ LATERALS. REINSPECT PUMP + ALARM (P) 11/18/2020 Septic pump, alarm and hoot observed to be one separate breakers. Alarm located next to tank. Alarm observed to function, and pump with adequate head pressure and ends of laterals. Hoot alarm, recirculation and aerator functioning. (S)

FINAL INSPECTOR

Susan Thomas

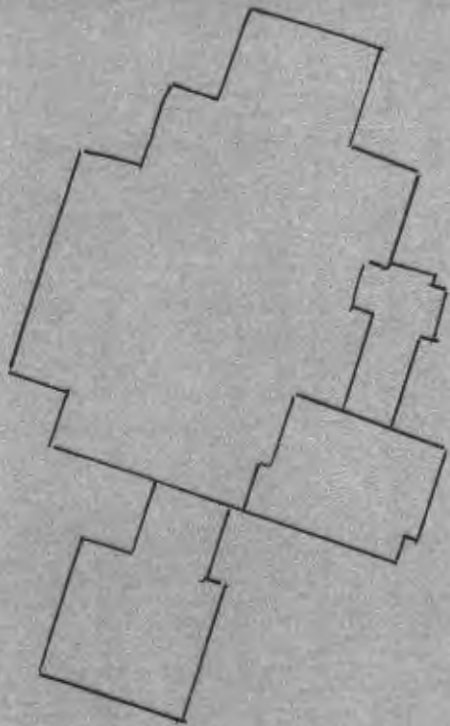
DATE OF APPROVAL

11/19/2020

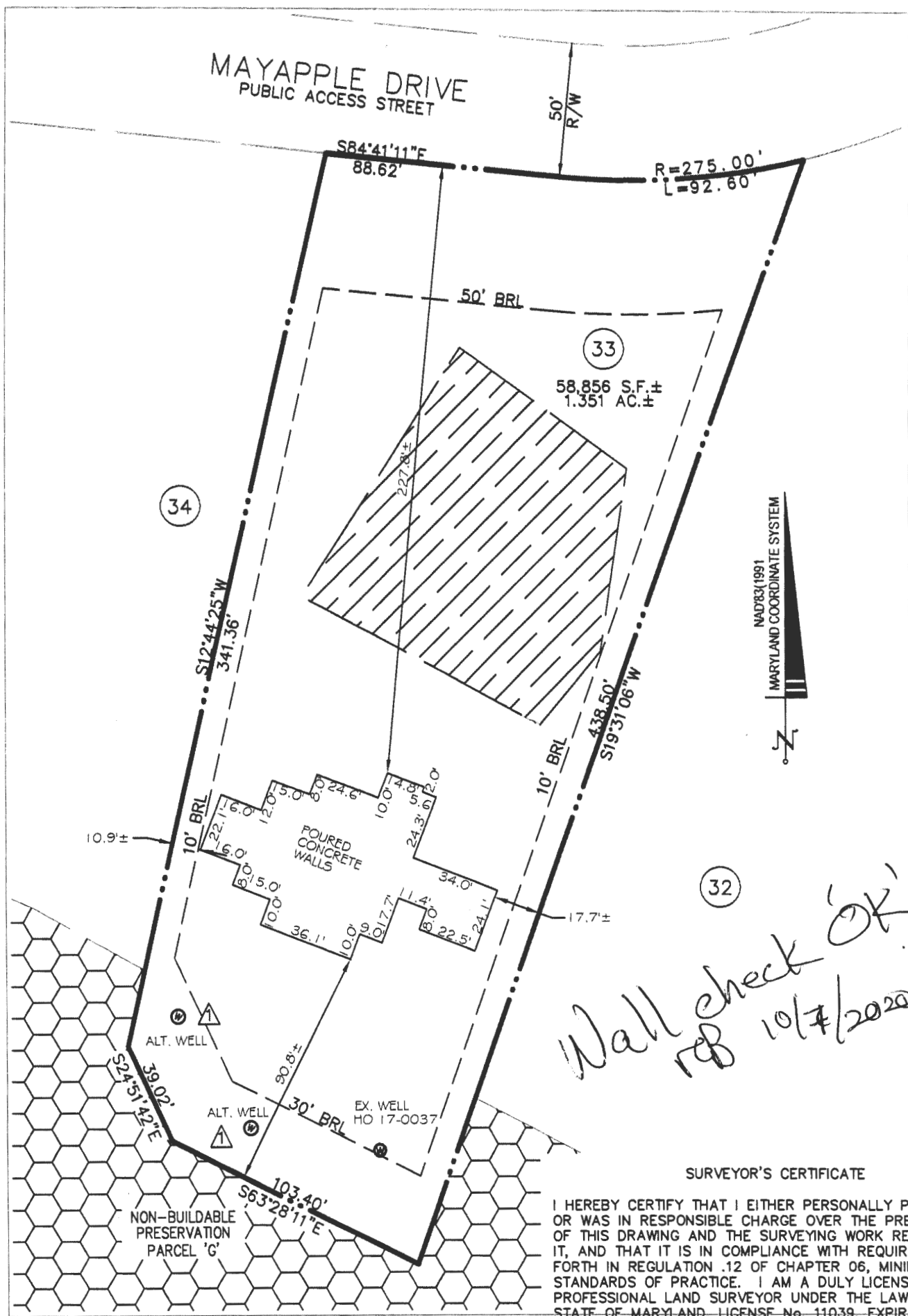


NOT TO SCALE 1" = 30'

NOT TO SCALE



MAYAPPLE DRIVE
PUBLIC ACCESS STREET



*Wall check OK
RB 10/7/2020*

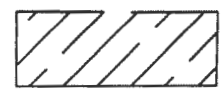
SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 11039, EXPIRATION DATE 09/16/20.

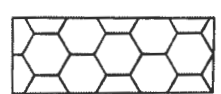


Auth 8-13-20

BRL - BUILDING RESTRICTION LINE



PRIVATE SEWAGE DISPOSAL AREA



FOREST CONSERVATION EASEMENT

TOP OF WALL = 570.4

REVISION TO ADD ALTERNATE WELL LOCATIONS 10/5/20

WALL CHECK
12245 MAYAPPLE DRIVE
LOT 33
WALKER MEADOWS
PLAT NO. 24977
3rd ELECTION DISTRICT HOWARD COUNTY, MD

DDC JOB#:	12064.3
DATE:	8/13/20
SCALE:	1"=50'
DRN. BY:	CWJ
CHK. BY:	JLM



Planners
Surveyors
Engineers
Landscape Architects

192 East Main Street
Westminster, MD 21157
410.386.0560
410.386.0564 (Fax)
DDC@DDCinc.us
www.DDCinc.us



Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

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

THIS AGREEMENT is made this 17th day of June, ~~May~~ 2020, among NVHomes/Adrian Dupree and Tracy Dupree, 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 12245 Mayapple Dr Marriottsville, MD 21104, in the 3 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 # 9, Block # , Parcel # 66, Deed Reference # 24974-79 and Tax Account # 601591 ("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.

Beit Nufon 6/17/2020
Howard County Health Department

[Signature] 6/11/2020
Owner #1 Signature Date

Jimmy Anastasia
Owner #1 Print Name

Owner #2 Signature Date

Owner #2 Print Name

DocuSigned by:
Tracy Dupree 5/1/2020
57AC301A8F4AA4D

Buyer #1 Signature Date

Tracy Dupree

Buyer #1 Print Name

DocuSigned by:
Adrian Dupree 5/1/2020
CCFB102B33F341B...

Buyer #2 Signature Date

Adrian Dupree

Buyer #2 Print Name

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

MEMORANDUM

TO: Property Owner
James Anastasia
NVR Inc

FROM: **Joseph Cabahug**
Licensed Environmental Health Specialist 001997
Howard County Health Department
Well & Septic Program

RE: **Septic Pre Construction Inspection_12245 Mayapple Drive_(P 567996)**

DATE: October 16th 2020

During the preconstruction inspection at 12245 Mayapple Drive, Walker Meadows Subdivision Lot 33 on 10/16/2020, the following issues were discovered:

- The sewer house connection was relocated out of the house, reducing fall substantially from the 1.8% proposed on the OSDS and raising the inlet under the driveway. The minimum fall required is 1.0%, if the system cannot be installed to meet the minimum 1.0% fall, the Septic System will not be approved.
- The elevation difference between the proximal and distal ends of Trench A was observed, using a laser level, to be 24". The maximum difference allowable is 6".
- The elevation difference between the proximal and distal ends of Trench B was observed, using a laser level, to be 17" with 9" of discovered fill. The maximum allowable difference is 6".
- Construction activities were evident over the septic disposal area. The designed systems are 2' invert low pressure dose trenches. Construction traffic, activities, and heavy machinery can compress the soil, changing the loading rate. A note has been added to the file.

In order to move forward, the Septic Disposal Area must be returned to original contour.

Call for reinspection. 410-313-1771

Thomas, Susan

From: Thomas, Susan
Sent: Tuesday, October 6, 2020 3:55 PM
To: ddc@ddcinc.us
Cc: Williams, Jeffrey; Bricker, Robert; 'sbackhoe@comcast.net'; 'janastas@nvrinc.com'
Subject: Walker Meadows Lots 33 and 34 Wall Checks

To Whom It May Concern:

I have reviewed the 'Wall Checks' for lots 33 and 34 in the Walker Meadows subdivision and found both to be faulted.

Both wall checks as submitted on 8.5"x14" sheets are not at the 1:50 scale. This is most obvious on the Lot 33 measurement of 227.8' and the Lot 34 measurement of 121.1'. Both of these distances are 5' different from their labels.

Paper revisions of these drawings may be re-submitted directly to the Health Department by DDC, Inc., a builders representative, or the septic system contractor. Septic system permits cannot be released until 'Wall Checks' are approved.

Sincerely,

Susan

Susan M. Thomas
Environmental Health Specialist
Well & Septic Program
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
410-313-6287
sathomas@howardcountymd.gov
www.hchealth.org



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Bricker, Robert

From: Bricker, Robert
Sent: Friday, October 2, 2020 12:05 PM
To: 'ddc@ddcinc.us'
Cc: Williams, Jeffrey; 'scbackhoe@comcast.net'; 'janastas@nvrinc.com'
Subject: Walker Meadows_Lots 33 and 34_wall checks

To Whom It May Concern:

I have reviewed 'Wall Checks' for Lots 33 and 34 in the Walker Meadows subdivision and found both to be faulted.

1. As submitted on 8.5" x 14" sheets, neither of the drawings are at scale.
2. Neither of the drawings include the Alternate wells' locations which are required content on foundation location surveys.
3. On the drawing for Lot 34, the distance label from front line to front-right corner of foundation is not accurate.

Paper revisions of these drawings may be re-submitted directly to the Health Department by DDC, Inc., a builders representative, or the septic system contractor. Septic system permits cannot be released until 'Wall Checks' are approved.

Robert Bricker, REHS/RS, L.E.H.S.
Environmental Sanitarian II
Howard County Health Department, Bureau of Environmental Health

(410)313-2691

FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
	Diehl Property, Lot 2 Proposed Lot # 25 #33 reB 6/25/14
*	Any septic system drain field installed in the area of this lot must have low-pressure distribution (LPD) design or an approved alternative design.
	K. Binkley 6/5/2014
9/28/15	Septic systems installed on this lot must include a BAT unit Trench bottoms are limited to 5-ft depth
K. Binkley	

Bricker, Robert

From: Lori Cunningham <LCunningham@ddcinc.us>
Sent: Wednesday, August 5, 2020 6:18 AM
To: Bricker, Robert
Subject: RE: Walker Meadows_Lot 33_control panel issue

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

Robert,

Let's go with the north wall near the 564.0 elevation label.

Thanks again!

Lori

From: Bricker, Robert [mailto:RBricker@howardcountymd.gov]
Sent: Tuesday, August 04, 2020 3:11 PM
To: Lori Cunningham
Subject: Walker Meadows_Lot 33_control panel issue

Hi Lori,
I marked three locations on this photocopy: two on the south side of a garage (between the doors, or on the south wall near the back corner, and a location on the north wall near the 564.0 elevation label. What do you think?
Robert Bricker

From: Bricker, Robert <RBricker@howardcountymd.gov>
Sent: Tuesday, August 4, 2020 11:37 AM
To: Lori Cunningham <LCunningham@ddcinc.us>
Subject: Re: Walker Meadows_Lot 33_control panel issue

OK, there's only a spot or two. I'll probably put a mark on a photocopy and send it to you later today.

From: Lori Cunningham <LCunningham@ddcinc.us>
Sent: Monday, August 3, 2020 6:30 PM
To: Bricker, Robert <RBricker@howardcountymd.gov>
Subject: Re: Walker Meadows_Lot 33_control panel issue

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

Robert,

I am not at my computer - can you show it where you think makes sense or do I need to send that to you? It will be a little bit before I have access to my computer

Thanks,

Lori

From: Bricker, Robert <RBricker@howardcountymd.gov>
Sent: Monday, August 3, 2020 12:18 PM
To: Lori Cunningham <LCunningham@ddcinc.us>
Subject: Walker Meadows_Lot 33_control panel issue

Lori, I forgot to check the Control Panel location on Lot 33. Send me a proposed location so that I can mark it on the plan. Thanks

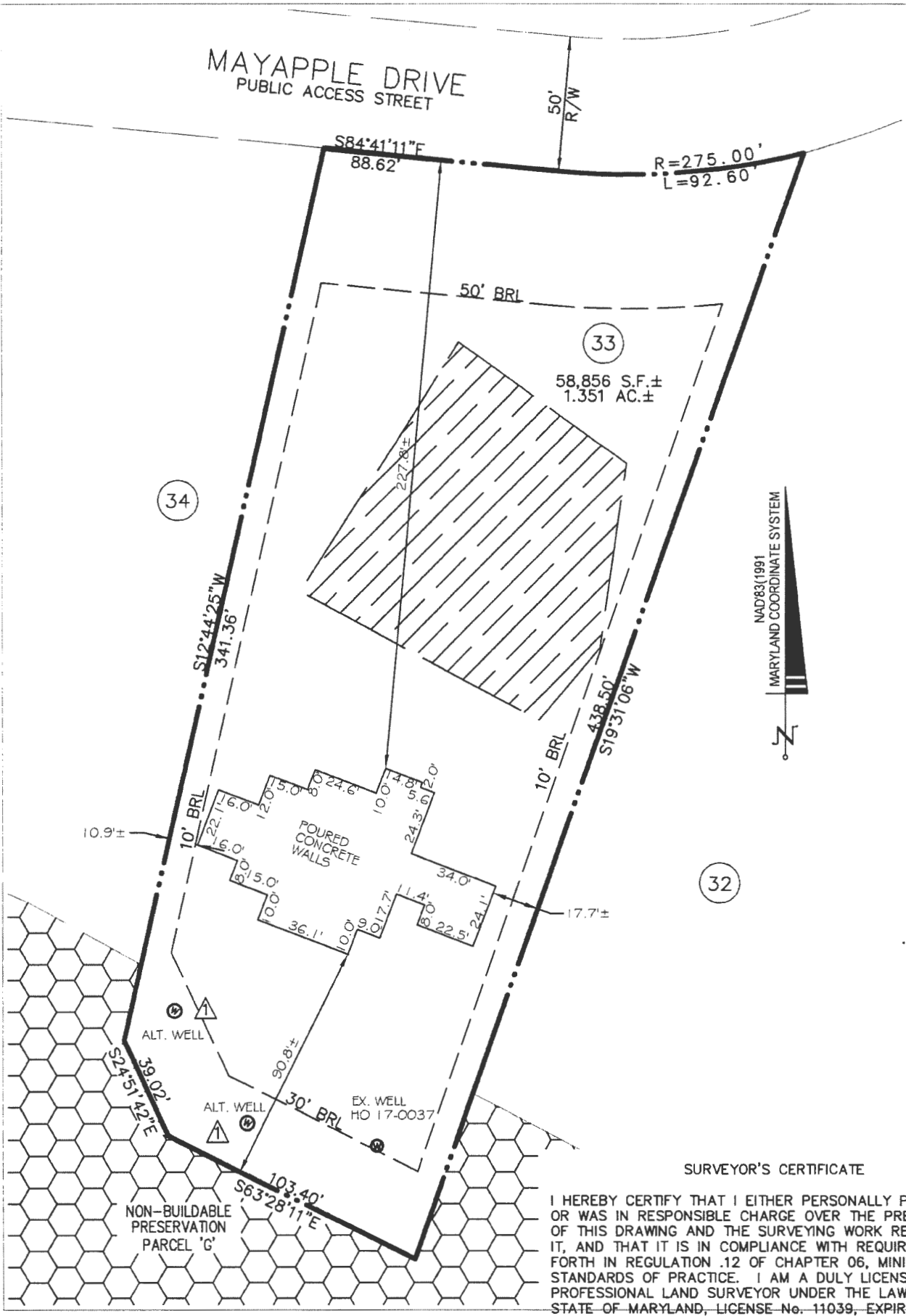
Robert Bricker, REHS/RS, L.E.H.S.

Robert Bricker, REHS/RS, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.2691 (Office)
rbricker@howardcountymd.gov



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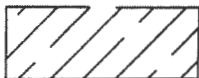


NAD83(1991)
MARYLAND COORDINATE SYSTEM

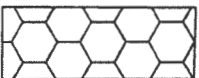
SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 11039, EXPIRATION DATE 09/16/20.

BRL - BUILDING RESTRICTION LINE



PRIVATE SEWAGE DISPOSAL AREA



FOREST CONSERVATION EASEMENT



John 8-13-20

TOP OF WALL = 570.4

REVISION TO ADD ALTERNATE WELL LOCATIONS 10/5/20

WALL CHECK
12245 MAYAPPLE DRIVE
LOT 33
WALKER MEADOWS
PLAT NO. 24977
3rd ELECTION DISTRICT HOWARD COUNTY, MD

DDC JOB#: 12064.3
DATE: 8/13/20
SCALE: 1"=50'
DRN. BY: CWJ
CHK. BY: JLM



Planners
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Landscape Architects

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410.386.0564 (Fax)
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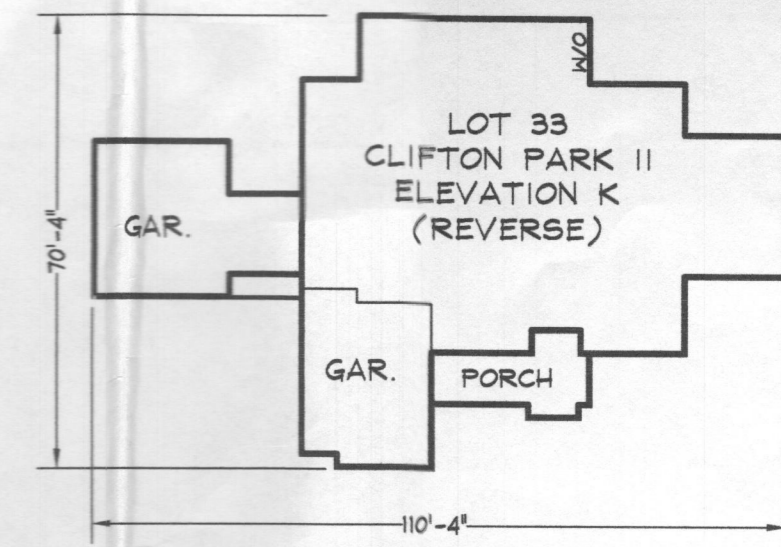
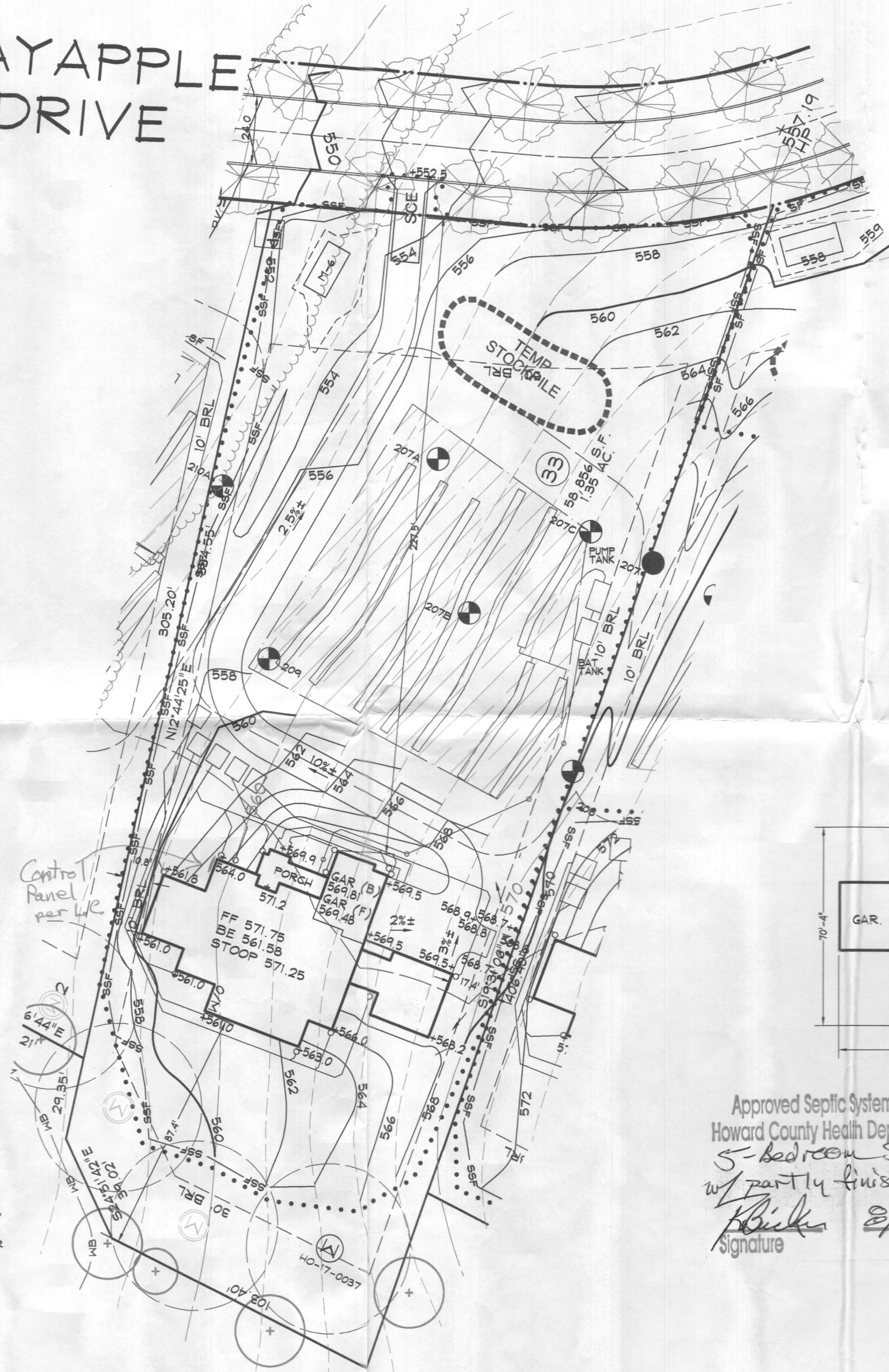
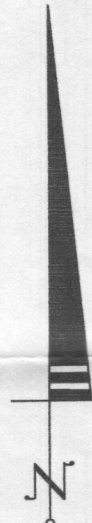
THE FRONT DOOR FOR LOT 33 FACES NORTH

NO GRADING IN SEWAGE DISPOSAL AREA.
LOD SHOWN IS FOR THE INSTALLATION OF
THE INITIAL SEPTIC SYSTEM ONLY.

A PUMP WILL BE REQUIRED
TO SEWER THE BASEMENT

STORMWATER MANAGEMENT ON LOT 33
WILL BE PROVIDED THROUGH THE USE OF
DRYWELLS AND M-6 BIORETENTION.

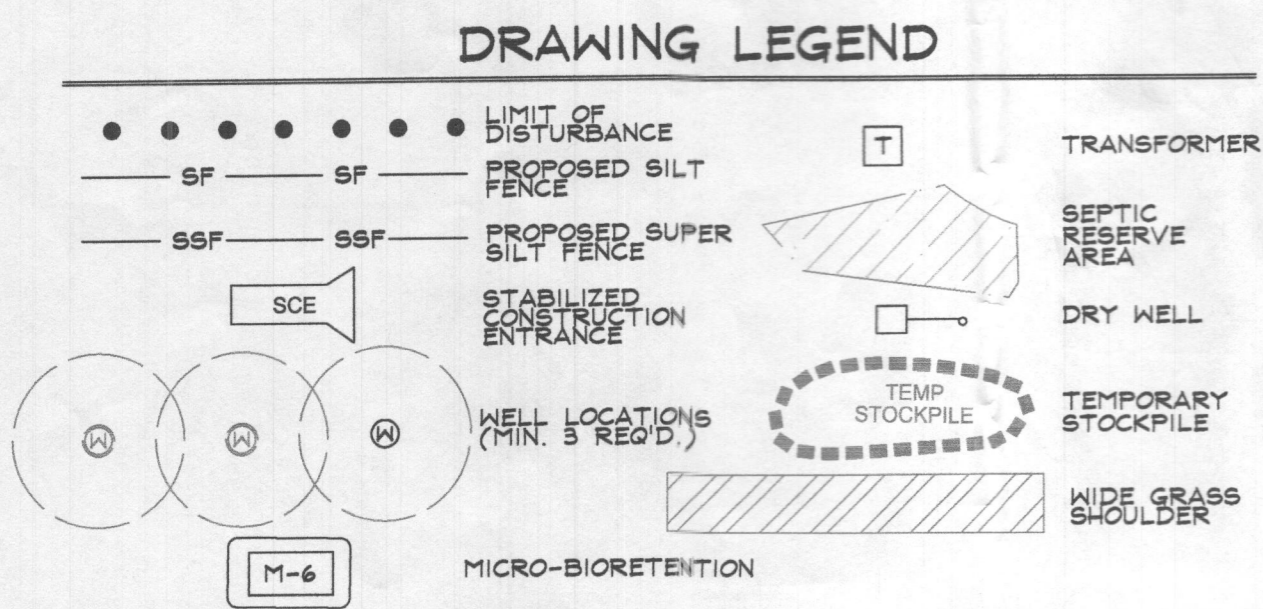
MAYAPPLE DRIVE



Approved Septic System Plan
Howard County Health Department
5-bedroom SFD
w/ partly finished basement
Walker
Signature Date *8/5/2020*

RECEIVED
JUL 22 2020
LICENSES & PERMITS
DIVISION

**LOT 33
PLOT PLAN**



WALKER MEADOWS
LOT 33
12245 MAYAPPLE DR.
PLAT #24974-24979
DDC JOB#: 12064.3
DATE: 7/20/2020
SCALE: 1" = 30'
CHK. BY: WRD
DRN. BY: LJC/AJS

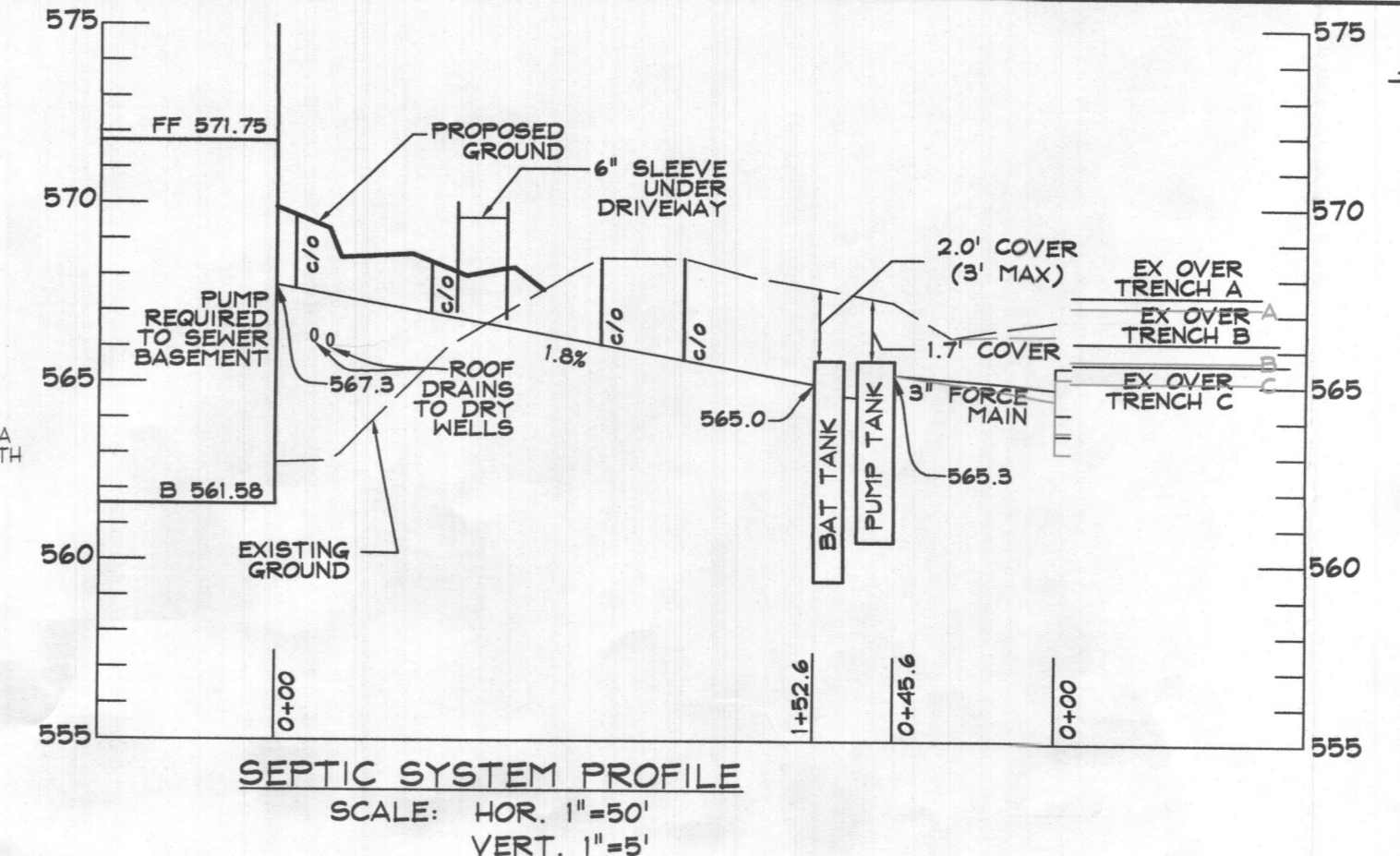
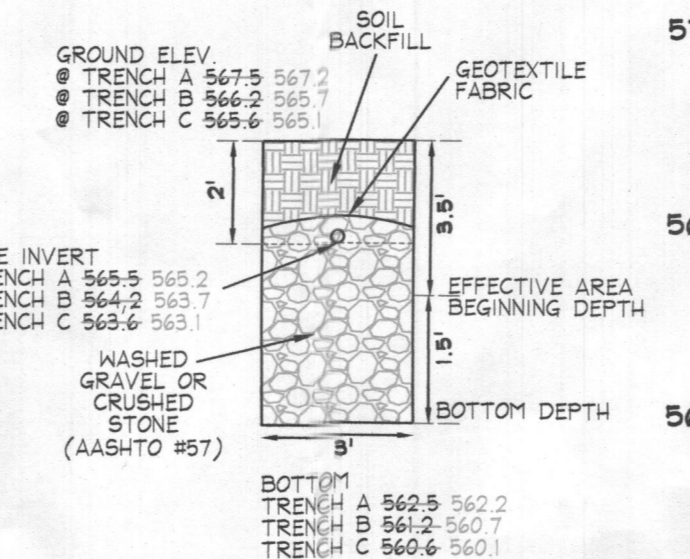
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MAYAPPLE TRAIL

REFER TO SHEET 25 (F-17-045) FOR DRYWELL DETAIL D-9.01.

IF THE LOCATION OF THE OF THE STANDARD PROBE STAFF IN THE PUMP TANK IS MORE THAN 50' FROM THE CONTROL PANEL, A FLOAT TREE MUST BE INSTALLED TO CONTROL THE RECIRCULATION PUMP INSTEAD OF THE STANDARD PROBE STAFF. CALL MAYER BROS. IN ADVANCE TO ORDER PARTS AND DISCUSS.

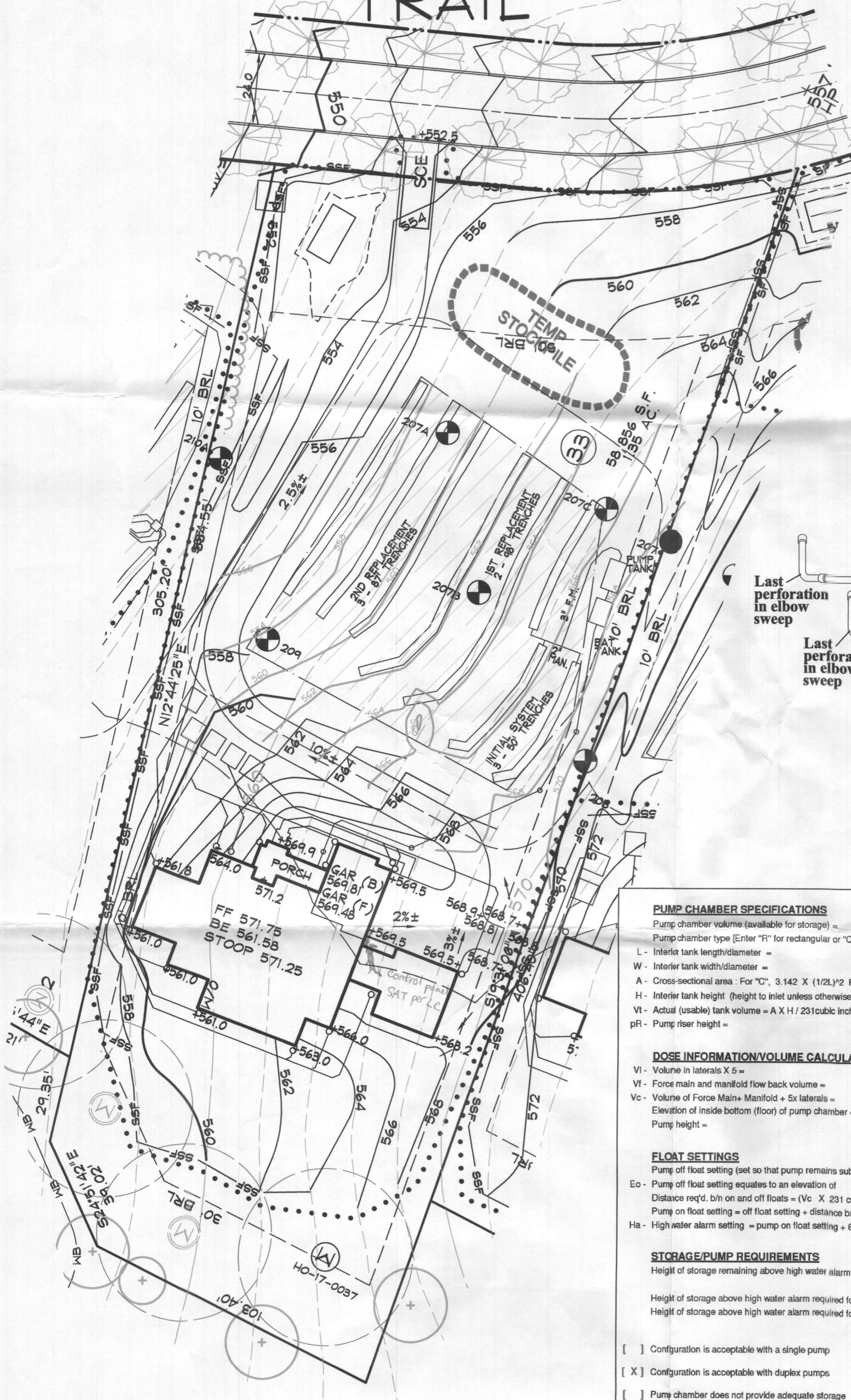
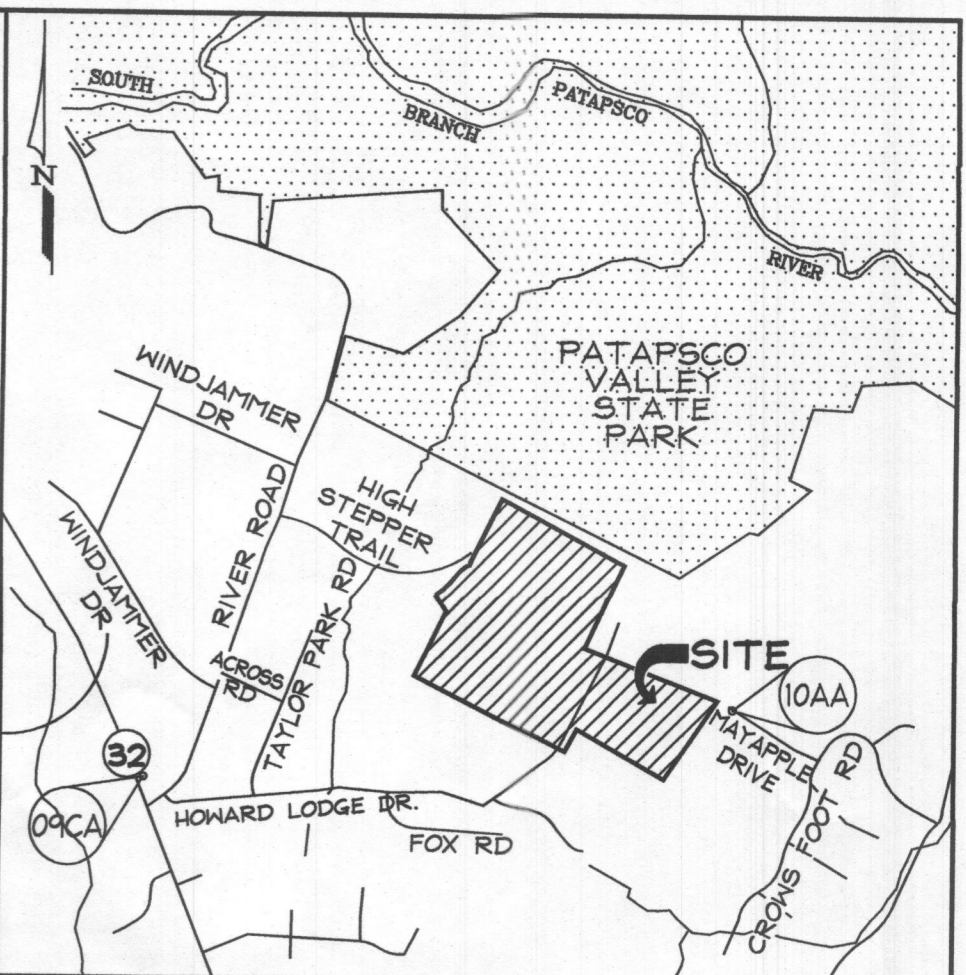


BENCHMARK

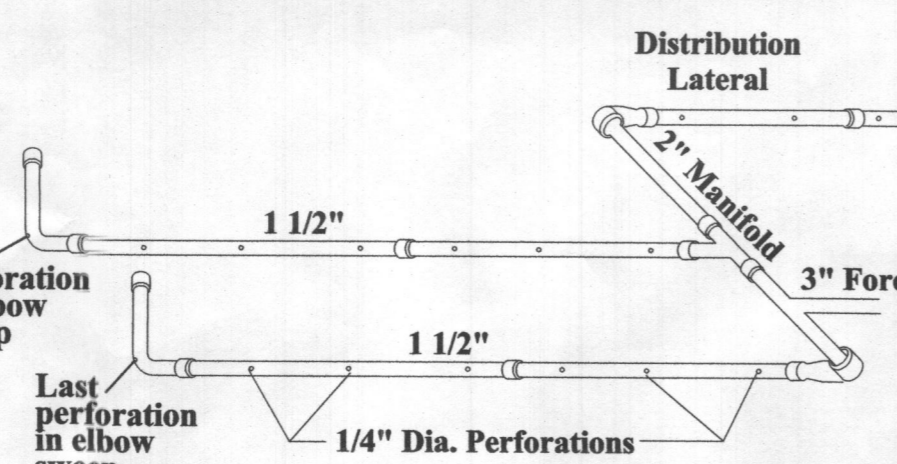
BENCHMARK 09CA
N. 60929.546
E. 132901.308
B.M. 09CA - CONC MON
ELEV.N. 549.090

BENCHMARK 10AA
N. 609763.341
E. 1331648.810
B.M. 10AA - CONC MON
ELEV. 563.089

ADP MAP COORDINATES
MAP 5 GRID E9
N 39°20'00", E 76°57'30"



IF LATERAL TURN-UPS ARE CUT OFF BELOW THE SOIL SURFACE, THERE ARE NOT TO BE CUT OFF BEFORE A PRESSURE TEST IS CONDUCTED. CUT OFF TURN-UPS ARE TO BE PROTECTED BY TURF BOX WHICH IS SUPPORTED BY BRICKS RESTING ON GRAVEL.



15 Perforations Evenly Spaced 39.20" OC
14 Perforations Evenly Spaced 42.00" OC
13 Perforations Evenly Spaced 45.23" OC
42 Total Perforations

END FEED MANIFOLD DISTRIBUTION NETWORK
(Modified from EPA Design Manual)
N.T.S.
EACH LATERAL SHALL HAVE 1/4" DIA. PERFORATIONS

LOT 33 - RELATIVE DEPTHS

PIPE INVERT	EFFECTIVE AREA BEGINNING	MAXIMUM TRENCH BOTTOM
INITIAL SYSTEM (A)	2'	3.5'
INITIAL SYSTEM (B)	2'	3.5'
INITIAL SYSTEM (C)	2'	3.5'
1ST REPLACEMENT (A)	2'	3'
1ST REPLACEMENT (B)	2'	3'
2ND REPLACEMENT (A)	2'	3'
2ND REPLACEMENT (B)	2'	3'
2ND REPLACEMENT (C)	2'	3'

LOT 33 - APPROXIMATE ELEVATIONS

INITIAL SYSTEM	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM (A)	567.5 567.2	565.5 565.2	562.5 562.2
INITIAL SYSTEM (B)	566.2 565.7	564.2 563.7	561.2 560.7
INITIAL SYSTEM (C)	565.6 565.1	563.6 563.1	560.6 560.1
1ST REPLACEMENT (A)	564.2 563.7	562.2 561.7	559.2 558.7
1ST REPLACEMENT (B)	562.9 561.8	560.9 559.8	557.9 556.8
2ND REPLACEMENT (A)	561.7 560.1	559.7 558.1	557.7 556.1
2ND REPLACEMENT (B)	559.9 558.7	557.9 556.7	555.9 554.7
2ND REPLACEMENT (C)	558.6 557.2	556.6 555.2	554.6 553.2

LOT 33 - INITIAL SYSTEM LATERALS

LATERAL	ELEV	VARIABLE HEAD	PERF. FLOW RATE	# PERF.	PERF. DIAMETER	LATERAL FLOW RATE	PERF. SPACING	LATERAL LENGTH	TRENCH LENGTH	1/2 PERF. SPACING	DIST FROM MANIFOLD TO 1ST PERF.
A	565.5	3.0	1.28	15	1/4"	19.2	39.20'	50.36'	50	1.63'	4.63'
B	564.2	4.3	1.52	14	1/4"	21.28	42.00'	49.25'	50	1.75'	3.75'
C	563.6	4.9	1.63	13	1/4"	21.19	45.23'	49.11'	50	1.88'	3.88'

SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):
1. INVERT FOUNDATION WALL: 567.3 (BSMT PUMP REQUIRED)
2. HOOT 600 BNR SYSTEM W/ 1,500 GALLON PUMP CHAMBER
EX. GRADE OVER BAT TANK: 564.2 567.6
PROP. GRADE OVER BAT TANK: 564.2 567.6
INVERT: 566.2 564.6

SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:
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 DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
10. THE WELL 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.

PUMP CHAMBER SPECIFICATIONS
Pump chamber volume (available for storage) = 1500 gallons
Pump chamber type [Enter "R" for rectangular or "C" for circular]
L - Interfit tank length/diameter = 153 inches
W - Interfit tank width/diameter = 63 inches
A - Cross-sectional area. For "C", 3.142 X (1/2 L)² For "R", L X W = 9630 sq. inches
H - Interfit tank height (height to inlet unless otherwise approved) = 48 inches
Vt - Actual (usable) tank volume = A X H / 231 cubic inches per gallon = 2002.9 gallons
pH - Pump riser height = 6 inches

DOSE INFORMATION/VOLUME CALCULATIONS
Vt - Volume in laterals X d = 79 gallons
Vf - Force main and manifold flow back volume = 0.00 gallons
Vc - Volume of Force Mains/Manifold + 5x laterals = 79.00 gallons
Elevation of inside bottom (floor) of pump chamber = 562.7 feet
Pump height = 6 inches

FLOAT SETTINGS
Pump off float setting (set so that pump remains submerged) = 22 inches
Eo - Pump off float setting equates to an elevation of 564.53 feet
Distance req'd. b/n on and off floats = (Vc X 231 cubic inches per gallon) / A = 4.5 inches
Pump on float setting = off float setting + distance b/n on and off floats = 26.5 inches
Ha - High water alarm setting = pump on float setting + 6 inches = 32.5 inches

STORAGE/PUMP REQUIREMENTS
Height of storage remaining above high water alarm = H - Ha = 15.5 inches
Height of storage above high water alarm which equates to 648.8 gallons
Height of storage above high water alarm required for ONE DAY'S storage = 18 inches
Height of storage above high water alarm required for A HALF DAY'S storage = 9 inches

SUMMARY
Pump riser height = 6 inches
Pump off float setting = 22 inches
Pump on float setting = 26.5 inches
High water alarm setting = 32.5 inches

HEAD CALCULATIONS
Relative elevation of manifold = 564.6 565.6 feet
Relative elevation of pump-off float = 562.5 564.4 feet
Ha - Static head = relative elevation of manifold - relative elevation of pump-off float = 2.1 0.4 feet
Hf - Friction head = due to friction in the pipe between the pump chamber and the laterals = 1.8 feet
*Friction head is calculated below
Hd - Head required at dist end of laterals = 3.0 feet
Hd - Total dynamic head = Ha + Hf + Hd + lateral friction + operating head = 8.4 feet

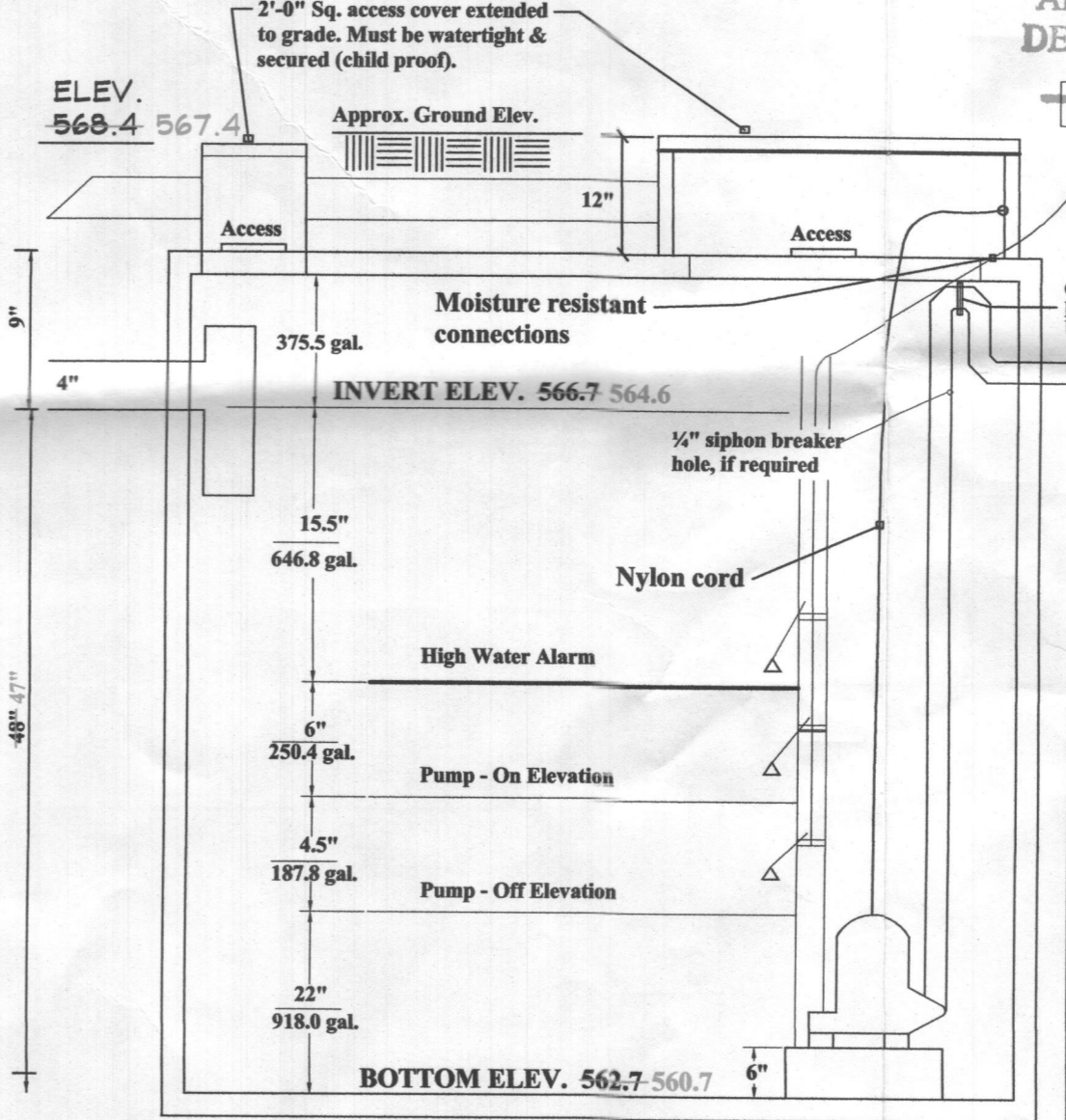
Friction loss

Force main	Manifold	Nominal size in inches	Actual inside diameter in inches	Type of pipe	Length in feet (actual equivalent)	Velocity of flow in feet per second	Friction loss per 100 ft	Friction loss in feet
Force main		3	3.058	Sch40	45.6	2.4	0.7	0.27
Force main Storage		N/A	Sch40	52	0.5	0.7	0.7	0.37
Combined length					98.6			0.64
		2	2.067	Sch40	25.5	5.1	4.6	1.2

Friction loss/100 feet = 0.002082 X 100 X (100/Hazen-Williams factor)^{1.852} X (1/Qp)^{1.852} / (D^{4.8655})
*This formula assumes a Hazen-Williams friction factor for PVC pipe of 150

Goulds Water Technology

Wastewater
APPLICATIONS
Specifically designed for the following uses:
• Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Etc. Systems
SPECIFICATIONS
• Solids handling capabilities: 1/2" maximum.
• Discharge size: 2" NPT.
• Capacities: up to 140 GPM.
• Total heads: up to 120 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 1/2" - 1 1/2" HP models.
• Class F insulation on 2 HP models.
• O-ring: Assure positive sealing against contaminants and oil leakage.
AGENCY LISTINGS
• Related to 178 and CSA 22.2 108 Standards by Canadian Standards Association File R3235-01



APPROVED
WALKER MEADOWS BUILDING PERMIT
APP SAN 10/19/2018 DATE: 11/9/2018
DESC. OF WORK:
HOOT 600 BNR
w/ 1500-gal Pump Tank
& GOULDS WEP 3L pump

LOT 33
REVISED BAT PLAN

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. 21998 EXPIRATION DATE: 8/8/20

10/28/20
DATE
WILLIAM R. DEMARCO
PROFESSIONAL ENGINEER NO. 21998

Planners
Surveyors
Engineers
Landscape Architects
192 East Main Street
Westminster, MD 21157
410.386.0560
410.386.0564 (Fax)
DDC@DDCinc.us
www.DDCinc.us

DDC inc.
Development Design Consultants

OWNER:
ESC WALKER MEADOWS, L.C.
8774 DORSEY HALL DR., SUITE 205
ELLCOTT CITY, MD 21042
410-720-3021

DEVELOPER:
NY HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-3391

SITE ADDRESS:
S/IE RIVER ROAD
SYKESVILLE, MD 21784

WALKER MEADOWS
A RESUBDIVISION OF LOT 2 OF THE
DIEHL PROPERTY (PLAT #6937)
LOTS 1-34 & BUILDABLE PRESERVATION PARCELS A & NON-BUILDABLE PRESERVATION PARCELS B-C, NON-BUILDABLE BULK PARCELS L-H
12245 MAYAPPLE DRIVE
LOT 33 SITE PLAN FOR
BAT INSTALLATION

5TH COUNCIL DISTRICT
3RD ELECTION DISTRICT
HOWARD COUNTY, MD

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #:	F-17-045	DES. BY:	LJC	
TAX ACC. #:	03-601577	DRN. BY:	LJC	
TAX MAP:	9	CHK. BY:	WRD	
BLOCK / GRID:	6	DATE:	10/28/20	
PARCEL #:	66	DDC JOB#:	12064.3	
ZONE / USE:	RR-DEO	SHEET NUMBER:		
DWG. SCALE:	1" = 30'			

1 of 1

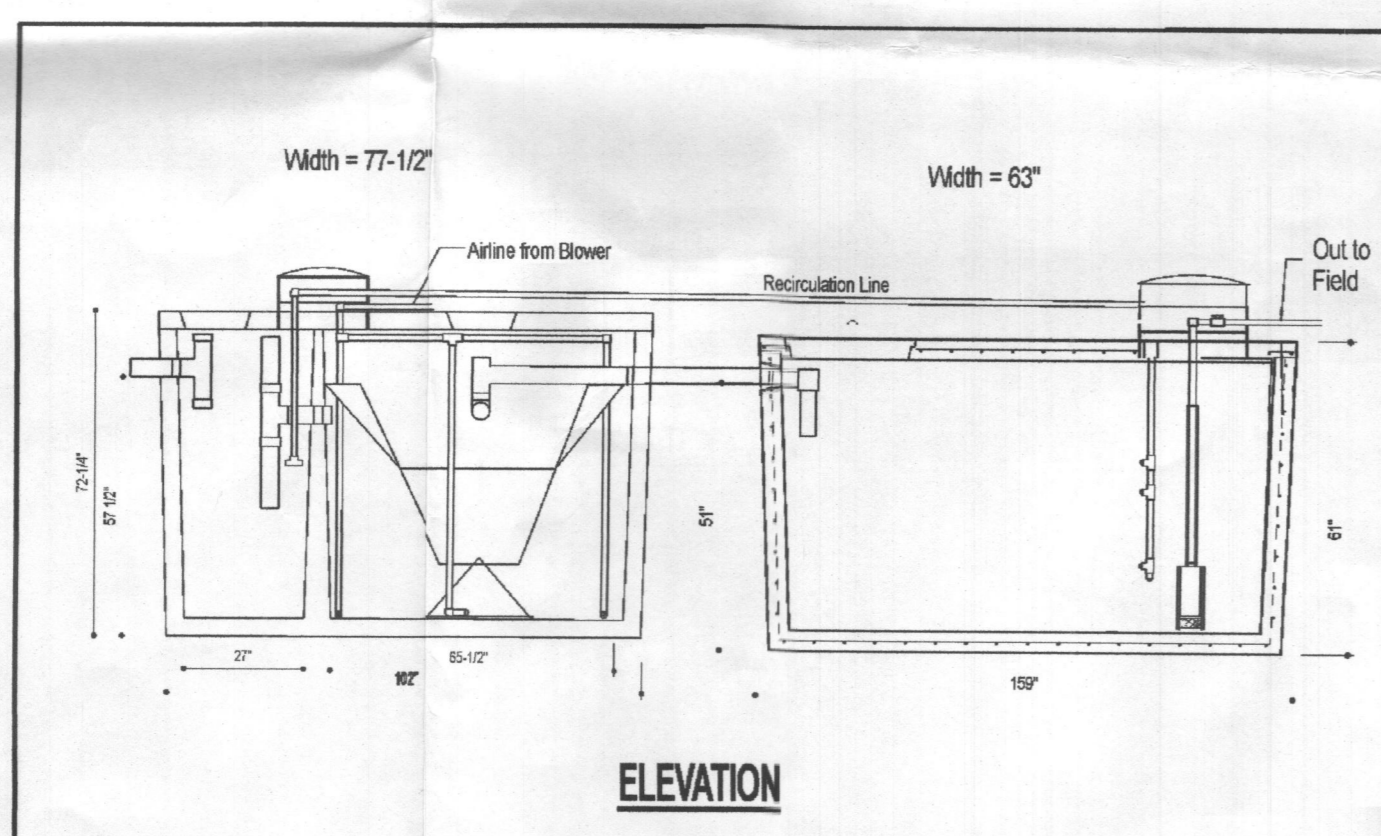
[X] END MANIFOLD SPECIFICATIONS

Pipe Diameter	2 inches
Distance between manifold and end of lateral =	18 inches
Number of laterals =	3 laterals
Distance between laterals =	13 feet

Pipe sizes and diameters

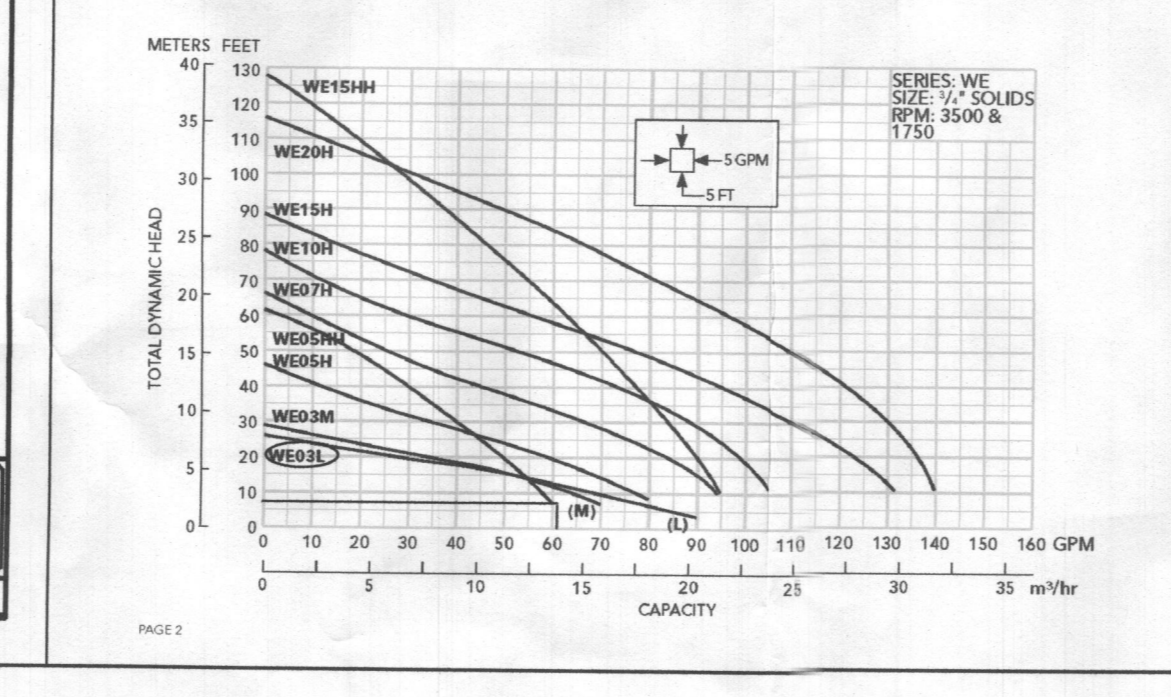
Pipe number (see chart below)	Type of pipe	Nominal size in inches	Actual inside diameter in inches	Volume per 100 feet in gallons	Total length in feet	Volume in gallons (for laterals only)	Length of pipe which will flow back to pump chamber	Volume in gallons (for laterals only)
Laterals (select diameter from chart)	1	1.5	1.41	10.8	148.7	N/A	16.8	0
Force main	1	3.0	2.907	38.2	45.6	0	0	0
Manifold	1	2.0	2.067	17.4	25.5	0	0	0

Check value to be installed downstream from disconnect ("Y" or "N") - generally not advised.



DESIGN DATA & GENERAL NOTES

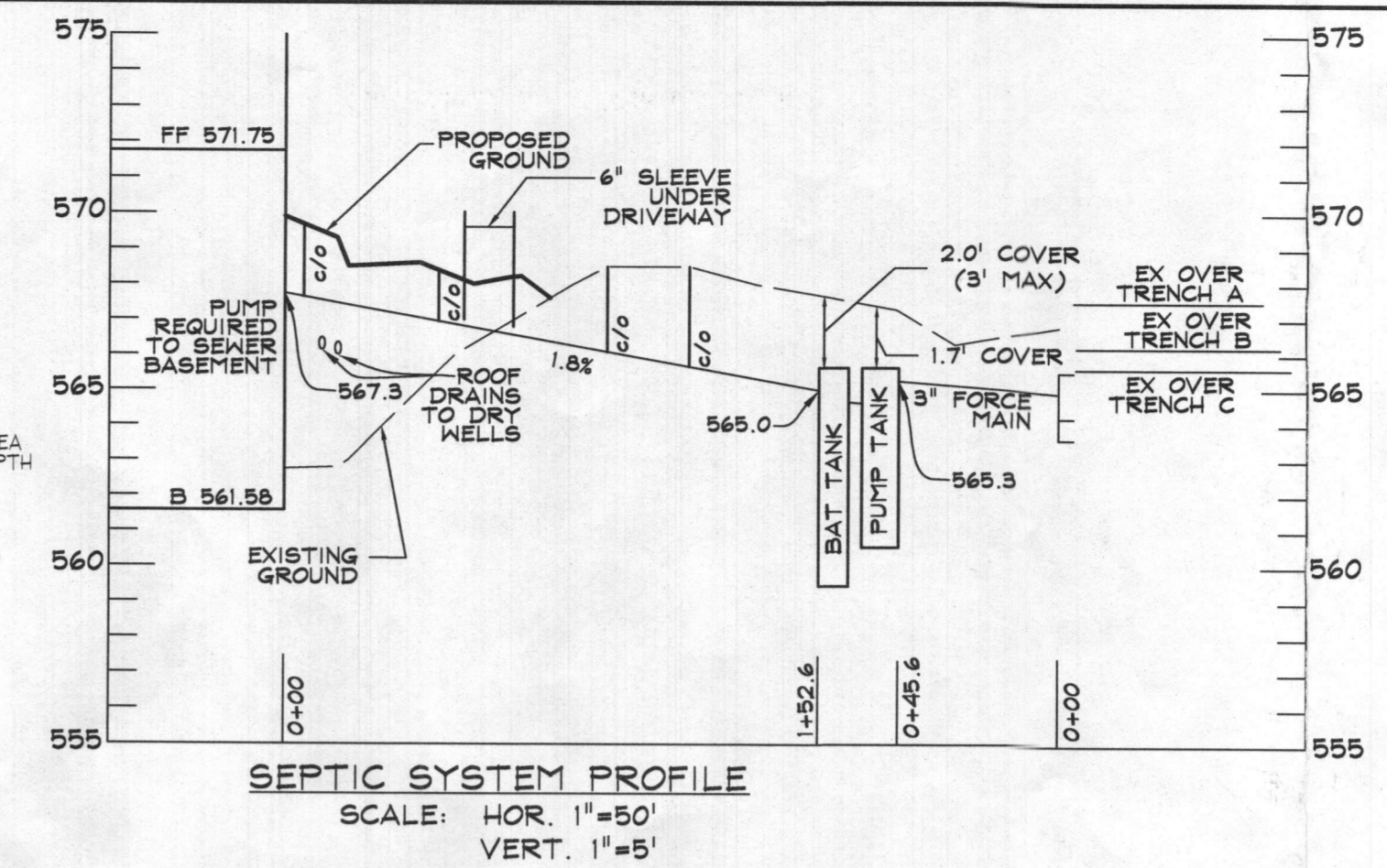
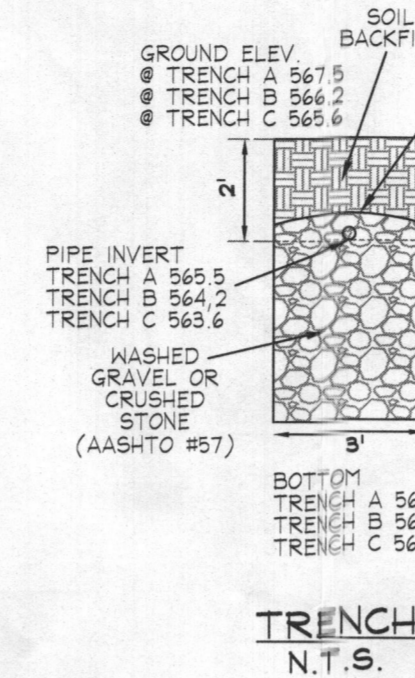
Mayer Brothers, Inc.
Hoot 600 BNR
1500 Pump Chamber
Drawn: BNR 1500 pump No Scale Mar 7, 2014



MAYAPPLE TRAIL

REFER TO SHERT 25 (F-17-045)
FOR DRYWELL DETAIL D-9.01.

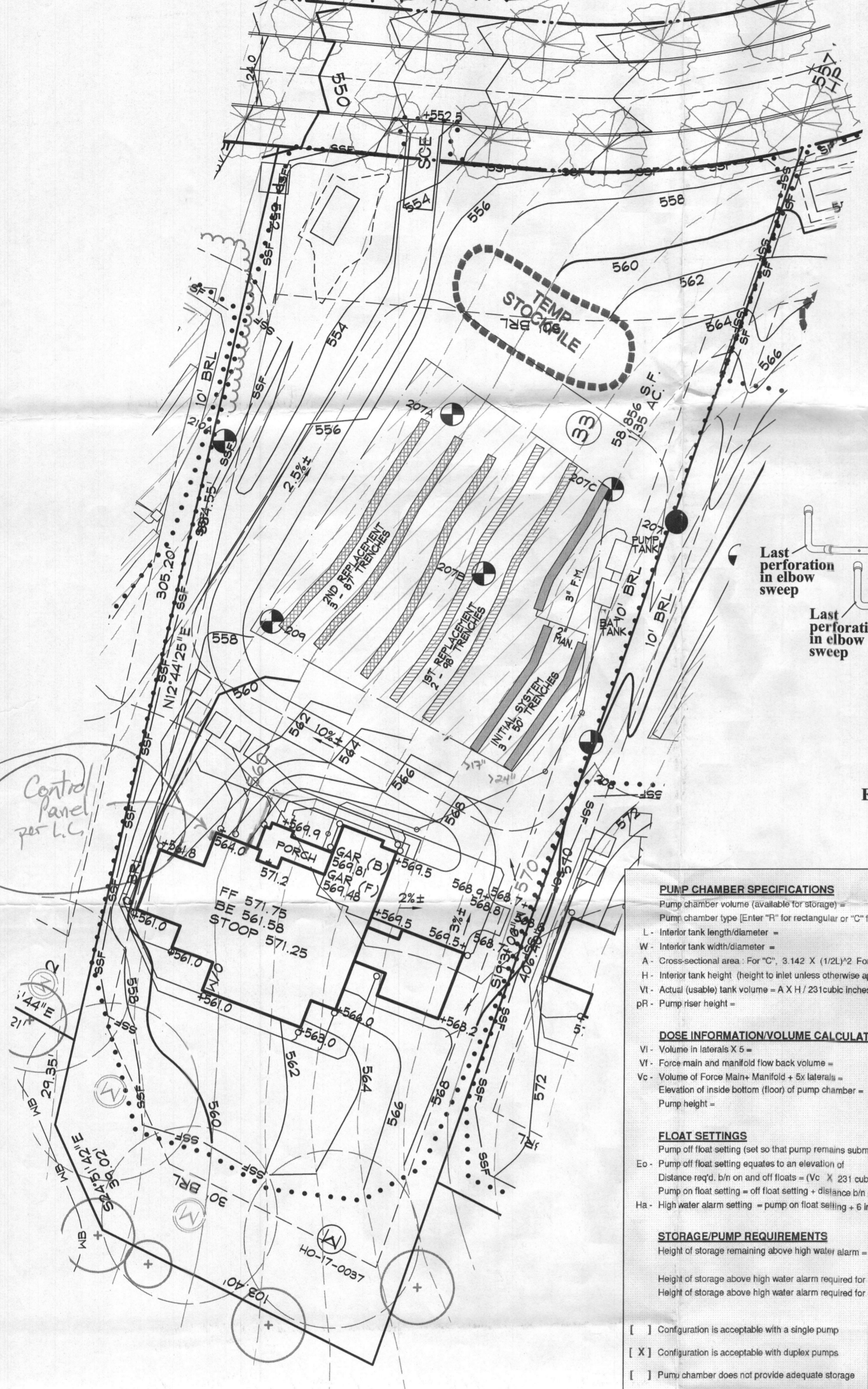
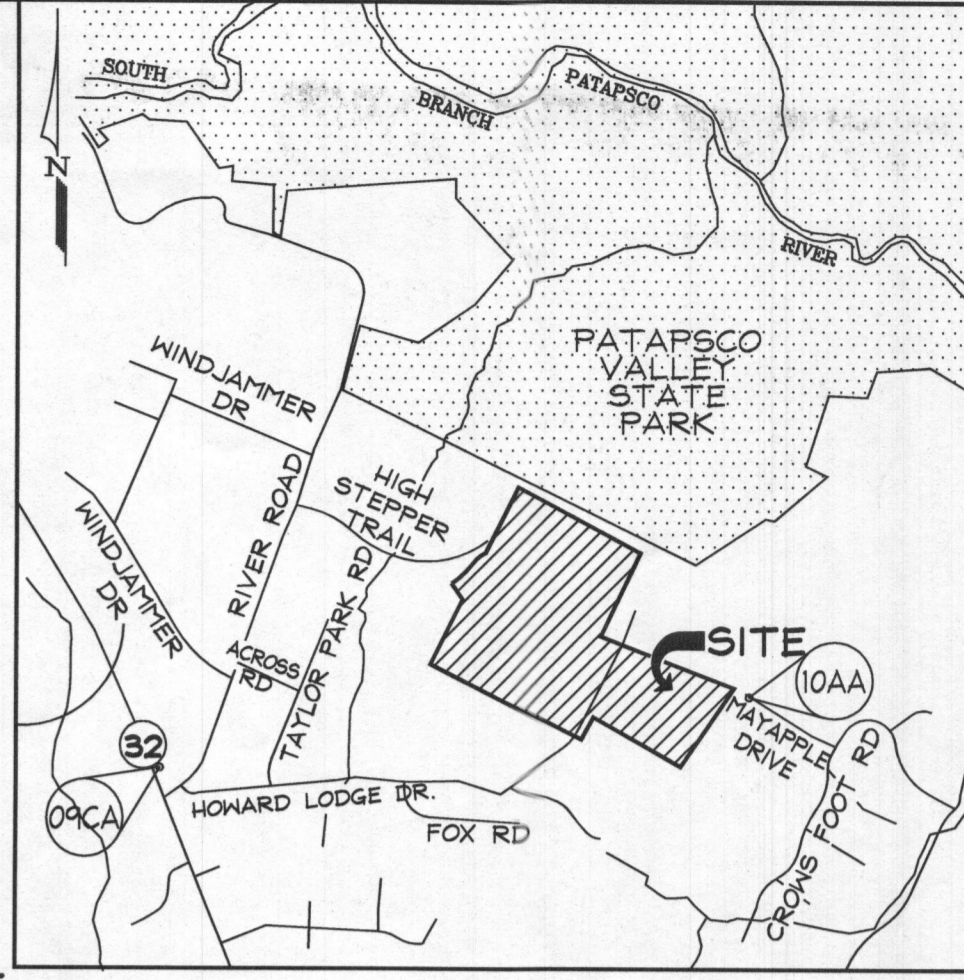
IF THE LOCATION OF THE OF THE STANDARD
PROBE STAFF IN THE PUMP TANK IS MORE
THAN 50' FROM THE CONTROL PANEL, A FLOAT
TREE MUST BE INSTALLED TO CONTROL THE
RECIRCULATION PUMP INSTEAD OF THE
STANDARD PROBE STAFF. CALL MAYER BROS.
IN ADVANCE TO ORDER PARTS AND DISCUSS.



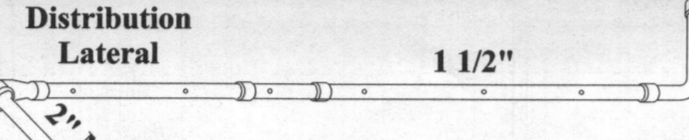
BENCHMARK

BENCHMARK 09CA	N. 604929.846
E. 132501.308	
B.M. 09CA - CONC MON	
ELEV. N. 544.030	
BENCHMARK 10AA	N. 604753.341
E. 1331668.810	
B.M. 10AA - CONC MON	
ELEV. N. 563.084	

ADC MAP COORDINATES
MAP 5 GRID E4
N 34°20'00", E 76°57'30"



IF LATERAL TURN-UPS ARE CUT
OFF BELOW THE SOIL SURFACE
THEY ARE NOT TO BE CUT OFF
BEFORE A PRESSURE TEST IS
CONDUCTED. CUT OFF TURN-UPS
ARE TO BE PROTECTED BY A
TURF BOX WHICH IS SUPPORTED BY
BRICKS RESTING ON GRAVEL.



15 Perforations Evenly Spaced 39.20" OC
14 Perforations Evenly Spaced 42.00" OC
13 Perforations Evenly Spaced 45.23" OC
42 Total Perforations

END FEED MANIFOLD DISTRIBUTION NETWORK
(Modified from EPA Design Manual)
N.T.S.
EACH LATERAL SHALL HAVE 1/4" DIA. PERFORATIONS

LOT 33 - RELATIVE DEPTHS

	PIPE INVERT	EFFECTIVE AREA BEGINNING	MAXIMUM TRENCH BOTTOM
INITIAL SYSTEM (A)	2'	3.5'	5'
INITIAL SYSTEM (B)	2'	3.5'	5'
INITIAL SYSTEM (C)	2'	3.5'	5'
1ST REPLACEMENT (A)	2'	3'	5'
1ST REPLACEMENT (B)	2'	3'	5'
2ND REPLACEMENT (A)	2'	3'	4'
2ND REPLACEMENT (B)	2'	3'	4'
2ND REPLACEMENT (C)	2'	3'	4'

LOT 33 - APPROXIMATE ELEVATIONS

	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM (A)	567.5	565.5	562.5
INITIAL SYSTEM (B)	566.2	564.2	561.2
INITIAL SYSTEM (C)	565.6	563.6	560.6
1ST REPLACEMENT (A)	564.2	562.2	559.2
1ST REPLACEMENT (B)	562.9	560.9	557.9
2ND REPLACEMENT (A)	561.7	559.7	557.7
2ND REPLACEMENT (B)	559.4	557.4	555.4
2ND REPLACEMENT (C)	558.6	556.6	554.6

LOT 33 - INITIAL SYSTEM LATERALS

LATERAL	ELEV	VARIABLE HEAD	PERF. FLOW RATE	# PERF.	PERF. DIAMETER	LATERAL FLOW RATE	PERF. SPACING	LATERAL LENGTH	TRENCH LENGTH	1/2 PERF. SPACING	DIST FROM MANIFOLD TO 1ST PERF.
A	565.5	3.0	1.28	15	1/4	19.2	39.20'	50.36'	50	1.63'	4.63'
B	564.2	4.3	1.52	14	1/4	21.26	42.00'	49.25'	50	1.75'	3.75'
C	563.6	4.9	1.63	13	1/4	21.19	45.23'	49.11'	50	1.88'	3.88'

SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):

- INVERT @ FOUNDATION WALL: 567.3 (BMT PUMP REQUIRED)
- HOOT 600 BNR SYSTEM w/ 1,500 GALLON PUMP CHAMBER
EX. GRADE OVER BAT TANK: 569.2
PROP. GRADE OVER BAT TANK: 569.2
INVERT: 566.4
PUMP TANK
EX. GRADE OVER PUMP TANK: 568.4
PROP. GRADE OVER PUMP TANK: 568.4
INVERT: 566.2
- TRENCH DESIGN (5 BDRM x 150 GPD/BDRM = 750 GPD)

INITIAL SYSTEM
750 GPD / 1.2 GPD/SF (APP. RATE) = 625 SF
USE 3' WIDE TRENCH w/ 18" OF EFFECTIVE AREA DEPTH
625 SF / 3' WIDTH = 208 LF x 0.71 = 149 LF MIN. TRENCH

1ST REPLACEMENT SYSTEM
750 GPD / 0.8 GPD/SF (APP. RATE) = 937.5 SF
USE 3' WIDE TRENCH w/ 24" OF EFFECTIVE AREA DEPTH
937.5 SF / 3' WIDTH = 312.5 LF x 0.63 = 195 LF MIN. TRENCH

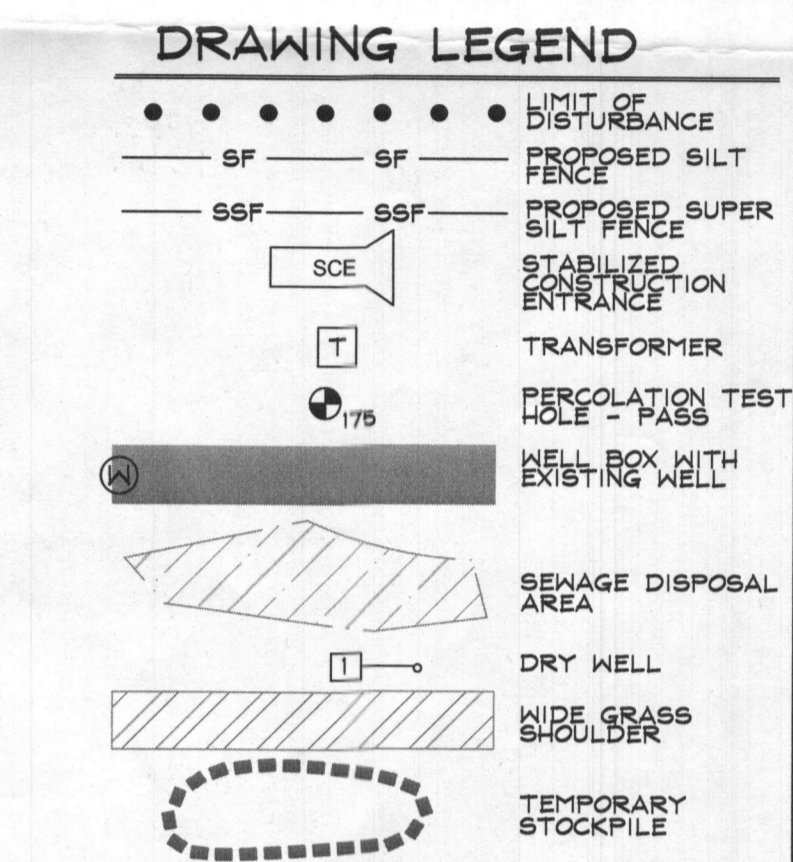
2ND REPLACEMENT SYSTEM
750 GPD / 1.2 GPD/SF (APP. RATE) = 625 SF
USE 3' WIDE TRENCH w/ 12" OF EFFECTIVE AREA DEPTH
625 SF / 3' WIDTH = 208 LF x 0.83 = 260 LF MIN. TRENCH

10' MIN SPACING BETWEEN TRENCH EDGES

USE 3 - 50' LONG TRENCHES FOR INITIAL SYSTEM
USE 2 - 98' LONG TRENCHES FOR FIRST REPL. SYSTEM
USE 3 - 87' LONG TRENCHES FOR SECOND REPL. SYSTEM

SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) 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 DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
- ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
- THE WELL 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.



DATA SOURCES:

EX. BOUNDARY SHOWN PER BOUNDARY SURVEY BY SHANBERGER AND LANE DATED JUNE, 2014. TOPOGRAPHY SHOWN PER AERIAL PHOTOGRAMMETRY AND FIELD RUN TOPOGRAPHY DATED 5/2014. ADJACENT WELL AND SEPTIC INFORMATION APPROXIMATED FROM ADJACENT PLATS. HEALTH DEPARTMENT RECORDS AND FIELD OBSERVATION ON JUNE 28, 2012. EX. ENVIRONMENTAL INFORMATION SHOWN PER FIELD INVESTIGATION BY ECO-SCIENCE SOLUTIONS CONDUCTED ON OR ABOUT JUNE, 2014.

PUMP CHAMBER SPECIFICATIONS

Pump chamber volume (available for storage) =	1500 gallons
Pump chamber type [Enter "R" for rectangular or "C" for circular]	R
L - Interior tank length/diameter =	153 inches
W - Interior tank width/diameter =	63 inches
A - Cross-sectional area - For "C", 3.142 X (1/2 L) ² For "R", L X W =	9639 sq. inches
H - Interior tank height (height to inlet unless otherwise approved) =	43 inches
Vt - Actual (usable) tank volume = A X H / 23 (cubic inches per gallon) =	2092.9 gallons
pH - Pump riser height =	6 inches

DOSE INFORMATION/VOLUME CALCULATIONS

Vt - Volume in laterals X 5 =	79 gallons
Vf - Force main and manifold flow back volume =	0.00 gallons
Vc - Volume of Force Main, Manifold & Sx laterals =	79.00 gallons
Elevation of inside bottom (floor) of pump chamber =	562.7 feet
Pump height =	6 inches

FLOAT SETTINGS

Pump off float setting (set so that pump remains submerged) =	22 inches
Eo - Pump off float setting equates to an elevation of	564.53 feet
Distance req'd. b/n on and off floats = (Vc X 231 cubic inches per gallon) / A =	4.5 inches
Pump on float setting = off float setting + distance b/n on and off floats =	26.5 inches
Ha - High water alarm setting = pump on float setting + 6 inches	32.5 inches

STORAGE/PUMP REQUIREMENTS

Height of storage remaining above high water alarm - H - Ha =	15.5 inches
which equates to	646.8 gallons
Height of storage above high water alarm required for ONE DAY'S storage =	18 inches
Height of storage above high water alarm required for HALF DAY'S storage =	9 inches

SUMMARY

Pump riser height	6 inches
Pump off float setting	22 inches
Pump on float setting	26.5 inches
High water alarm setting	32.5 inches

[] Configuration is acceptable with a single pump
[X] Configuration is acceptable with duplex pumps
[] Pump chamber does not provide adequate storage

HEAD CALCULATIONS

Relative elevation of manifold =	565.5 feet
Relative elevation of pump-off float =	564.4 feet
Static head = relative elevation of manifold - relative elevation of pump-off float =	0.1 feet
Hf - Friction head = due to friction in the pipe between the pump chamber and the laterals =	1.8 feet
*Friction head is calculated below	
Hd - Head required at distal end of laterals:	3.0 feet
Ht - Total dynamic head = Hs + Hf + Hd + lateral friction + operating head =	6.4 feet

Friction loss

	DI	Actual inside diameter in inches	Length in feet (actual or equivalent)	Velocity of flow in feet per second	Friction loss in feet per 100 ft.	Friction loss in feet
Force main	3	N/A	Sch40 53	2.4	0.7	0.7
Force main fittings					0.7	0.7
Combined length					0.7	0.7
Manifold	2	2.067	Sch40 25.6	5.1	4.6	1.1

Friction loss/100 feet = 0.00262 X L X 100 X (100/Hazen-Williams factor)^{1.852} X ((Q/1.487) / (D^{4.87}))^{1.852}

*This formula assumes a Hazen-Williams friction factor for PVC pipe of 150

[X] END MANIFOLD SPECIFICATIONS

Pipe Diameter =	2 inches
Distance between manifold and end of lateral =	10 inches
Number of laterals =	3 laterals
Distance between laterals =	13 feet

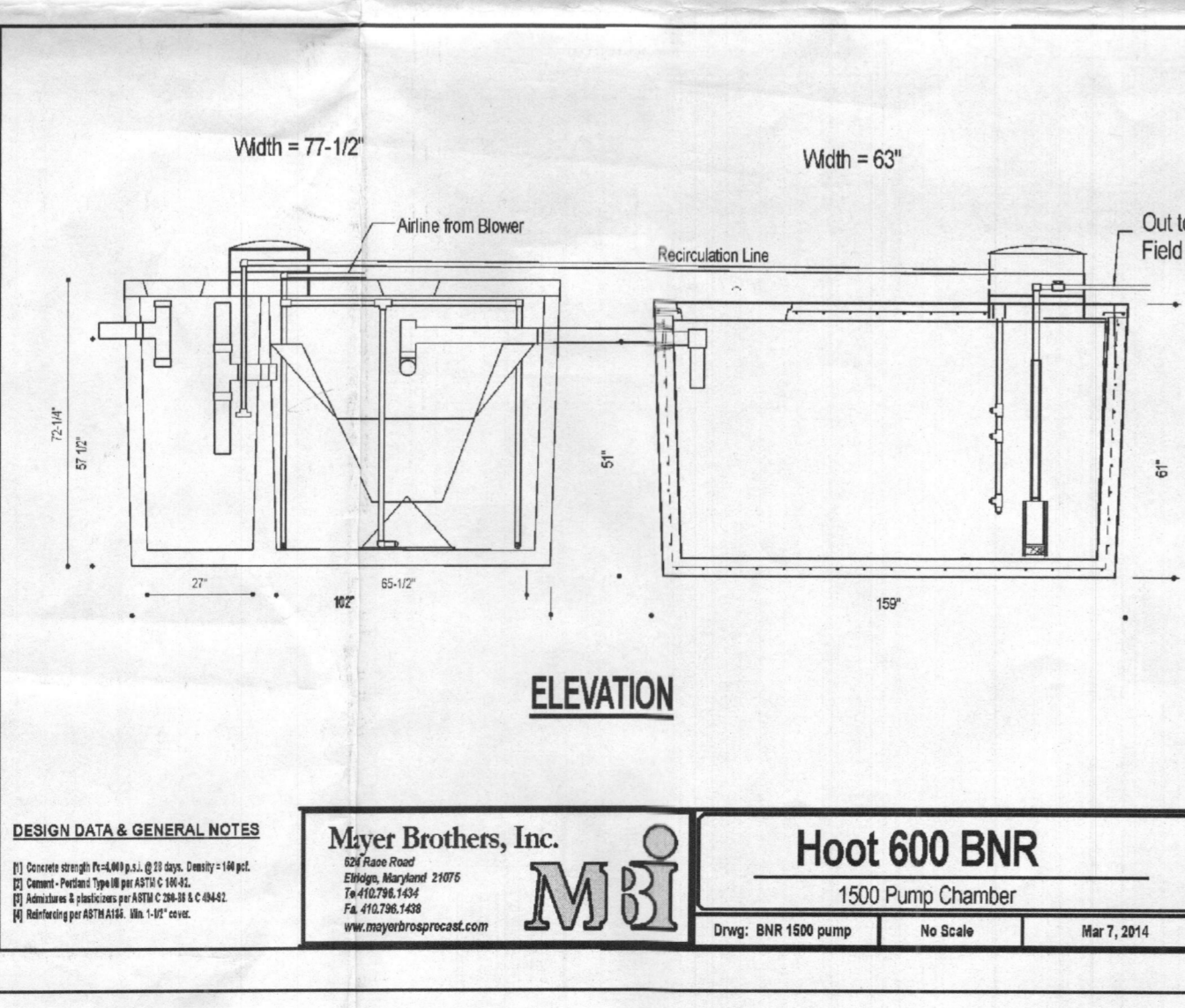
Pipe sizes and diameters

Laterals (select diameter from chart)	Pipe number (see chart)	Type of pipe	Nominal size in inches	Actual inside diameter in inches	Volume per 100 feet in gallons	Equal length in feet	Length of pipe which will flow back to pump chamber	Pipe volume in gallons (for laterals only)
Force main	1	Sch.40	3	3.068	38.2	45.8	0	0
Manifold	1	Sch.40	2	2.067	17.4	25.5	0	0

Check valve to be installed downstream from disconnected (Y or N) - generally not advised: N

Volume to be pumped per pump cycle based on pipe volume

Volume of laterals multiplied by 5 =	79 gallons
Volume of force main(s) plus manifold which will flow back between pump cycles =	0 gallons
Volume of laterals multiplied by 5 plus flow back =	79 gallons
Minimum Dose (at least 1/6 of design flow)	125 gallons



Goolds Water Technology

Wastewater

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

SPECIFICATIONS
Pump
• Solids handling capabilities: 1/2" maximum.
• Discharge size: 2" NPT.
• Capacity up to 140 GPM.
• Total heads: up to 128 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 1/2" 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.

AGENCY LISTINGS
Listed in UL 774 and CSA 22.2 118 Standards by Canadian Standards Association (CSA) and UL.

Three phase (60 Hz):
• Class 10 overload protection must be provided in separately enclosed motor units.
• 1/2" HP models have NEMA three phase grounding plugs.
• 1 1/2" HP and larger units have bare lead cord ends.

Power Cable: Severe duty rated, oil and water resistant. Epoxy seal on motor and provides secondary moisture barrier in case of outer jacket damage and to prevent oil leaking. Standard cord is 20'. Optional lengths are available.

Agency Listings:
• O-ring/Assure (positive sealing against contaminants and oil leakage).

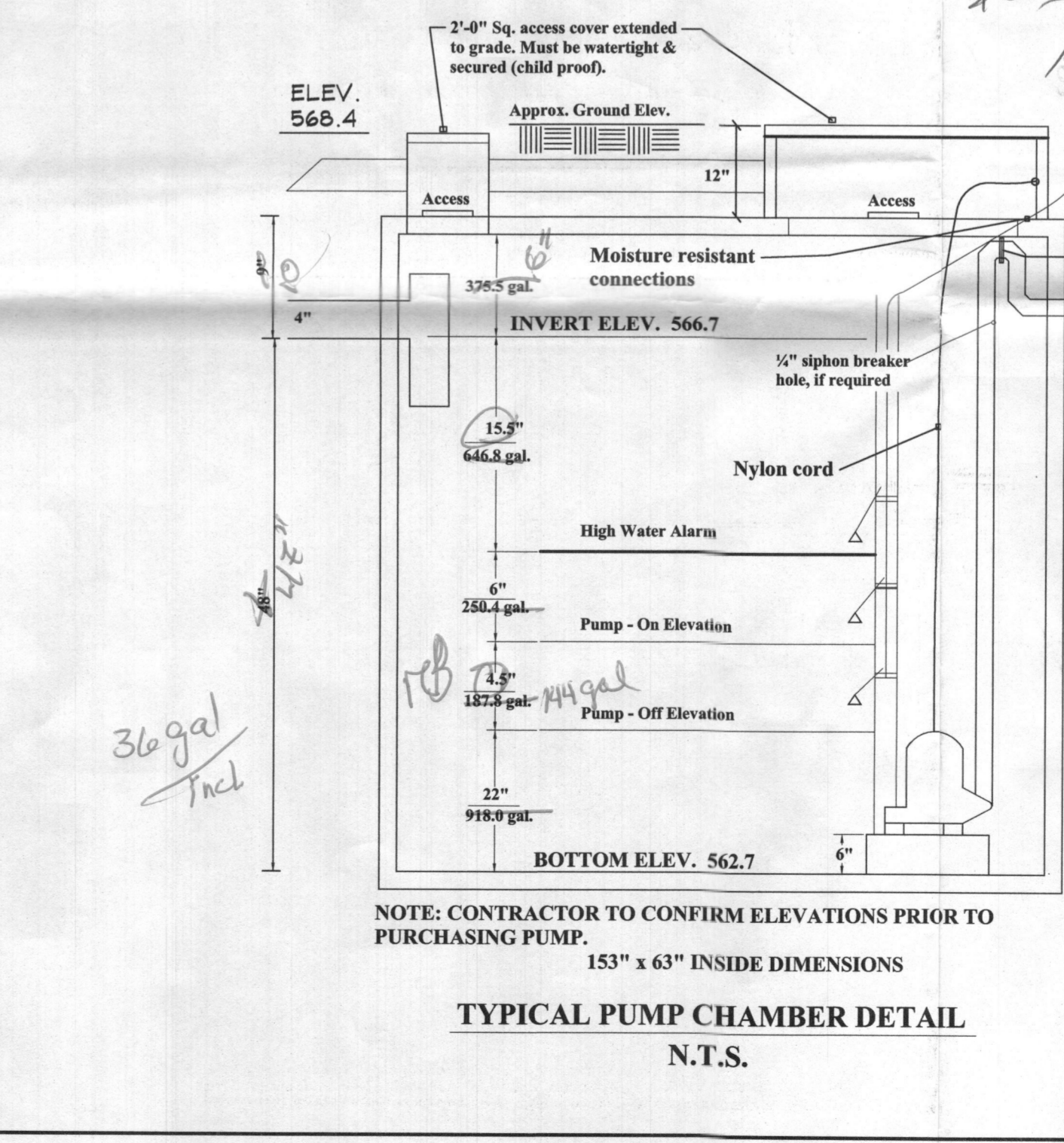
AGENCY LISTINGS
Listed in UL 774 and CSA 22.2 118 Standards by Canadian Standards Association (CSA) and UL.

METERS FEET

DESIGN DATA & GENERAL NOTES

1. Over strength 1/2" NPT x 1/2" dia. Sump Valve
2. Over strength 1/2" NPT x 1/2" dia. Sump Valve
3. Over strength 1/2" NPT x 1/2" dia. Sump Valve
4. Over strength 1/2" NPT x 1/2" dia. Sump Valve

Mayer Brothers, Inc.
Hoot 600 BNR
1500 Pump Chamber
Drawn: BNR 1500 Pump No Scale Mar 7, 2014



Walker Meadows
A RESUBDIVISION OF LOT 2 OF THE
DIEHL PROPERTY (PLAT #6497)
LOTS 1-34 & BUILDABLE PRESERVATION PARCEL A & NON-BUILDABLE
PRESERVATION PARCEL B-K, NON-BUILDABLE BULK PARCELS L-M
12245 MAYAPPLE TRAIL
**LOT 33 SITE PLAN FOR
BAT INSTALLATION**

5TH COUNCIL DISTRICT HOWARD COUNTY, MD
3RD ELECTION DISTRICT

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #:	F-17-045	DES. BY:	LJC	
TAX ACC. #:	03-601577	DRN. BY:	LJC	
TAX MAP:	9	CHK. BY:	WRD	
BLOCK / GRID:	6	DATE:	7/20/20	
PARCEL #:	66	DDC JOB#:	12064.3	
ZONE / USE:	RR-DEO	SHEET NUMBER:		
DWG. SCALE:	1" = 30'			

7/20/20
DATE

PROFESSIONAL ENGINEER NO. 21998
WILLIAM R. DEMARIO

STATE OF MARYLAND
PROFESSIONAL ENGINEER

OWNER: ESC WALKER MEADOWS, L.C. 9720 PATUXENT WOODS DRIVE COLUMBIA, MD 21042 410-379-3391
DEVELOPER: NV HOMES 9720 PATUXENT WOODS DRIVE COLUMBIA, MD 21042 410-379-3391

SITE ADDRESS: SIEVER ROAD SYKESVILLE, MD 21784

UNAUTHORIZED GRADING IN SDA WB

400T 600 BNR w/ 1500 gal Pump & GOOLDS WASTE PUMPOR EQUIV

7/31/2020

Prop 5-Bedroom SF