



Howard County Health Department

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

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

RECEIPT DATE: 6/15/20

ONSITE SEWAGE DISPOSAL SYSTEM

P 567877

APPROVAL DATE: 8/24/20 JD

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 1013 HIGH STEPPER TRAIL, SYKESVILLE, MD 21784

SUBDIVISION: WALKER MEADOWS

LOT: 3

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: janastas@nvrinc.com

OWNER ADDRESS: 9720 PATUXENT WOODS DRIVE, COLUMBIA, MD 21046

PHONE: (410)379-5956

WE 0.3

BAT UNIT MODEL: HOOT 600 BNR

PUMP SIZE: M

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>131</u>	INLET DEPTH: <u>2.0</u>
	TRENCH WIDTH: <u>3.0</u>	MAXIMUM BOTTOM DEPTH: <u>5.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.0</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, LPD, and 5' max bottom depth required due to downgrade well variance. See OSDS plan for LPD details	

ISSUED BY: J. Williams

ISSUE DATE: _____

EXPIRATION DATE: _____

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

20002772

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

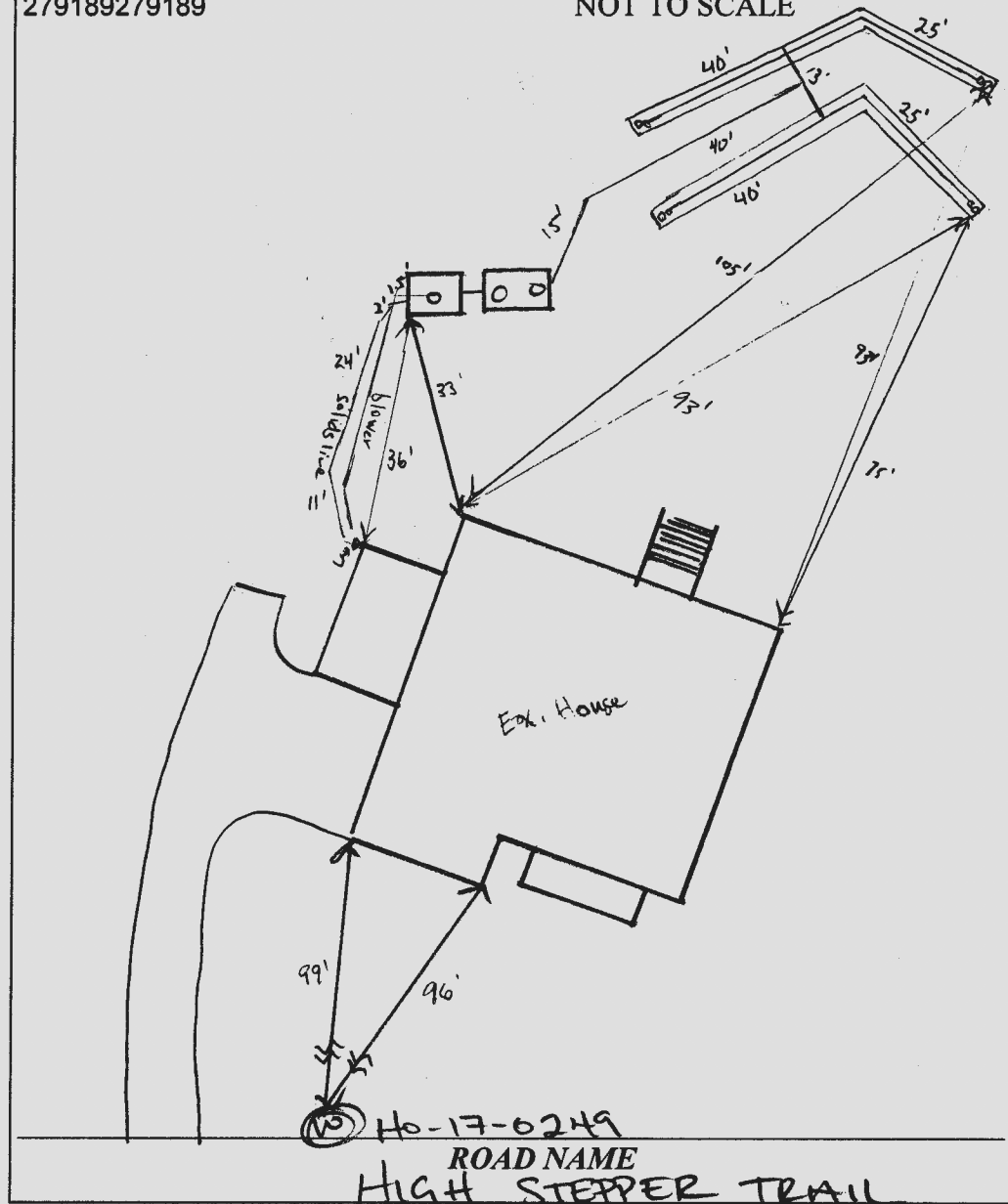
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

279189279189

NOT TO SCALE

**TRENCH/DRAINFIELD DATA**

WIDTH INLET BOTTOM

3 2 5

NUMBER OF TRENCHES 2

TOTAL LENGTH 131'

ABSORPTION AREA 373 sq ft + side area

DISTRIBUTION BOX LEVEL N/A

DISTRIBUTION BOX BAFFLE N/A

DISTRIBUTION BOX PORT N/A

PRE-CONSTRUCTION:**SEPTIC TANK DATA****SEPTIC TANK 1 LEVEL**

MANUFACTURER BACK RIVER

CAPACITY HOOT 600 GAL

SEAM LOC TOP

TANK LID DEPTH 13'

BAFFLES MID

BAFFLE FILTER YES

MANHOLE LOC HOOT

6" PORT LOC

WATERTIGHT TEST YES

SLOTTED HOOT

DATE ON LID 01/10/2020

PUMP/SEPTIC TANK LEVEL

MANUFACTURER BACK RIVER

CAPACITY HOOT 600 GAL / 450 ANR

SEAM LOC TOP

TANK LID DEPTH 13'

BAFFLES

BAFFLE FILTER

MANHOLE LOC MID

6" PORT LOC

WATERTIGHT TEST

SLOTTED

DATE ON LID 01/10/2020

6/25/20 - layout for tanks only, couldn't verify all of the trench & SDA stake, vegetation too overgrown. Elevation shot for tank & house to verify fall. (PR)

INSTALLATION: 06/26/2020 TANKS SET (to) 06/30/2020 Trenches, manifold and lateral constructed. Verified that each lateral has 18 holes, 43.2" apart. Re-inspect for STR and force main (ST) 7/2/20 - solids line completed, no SHC yet, conduit for blower installed also, force main complete ok to backfill. (PR) 7/8/20 SHC installed. Re-inspect for BAT and P+A (ST) 08/24/2020 Pump/Alarm works. PHP > 2'. (to)

FINAL INSPECTOR

DATE OF APPROVAL

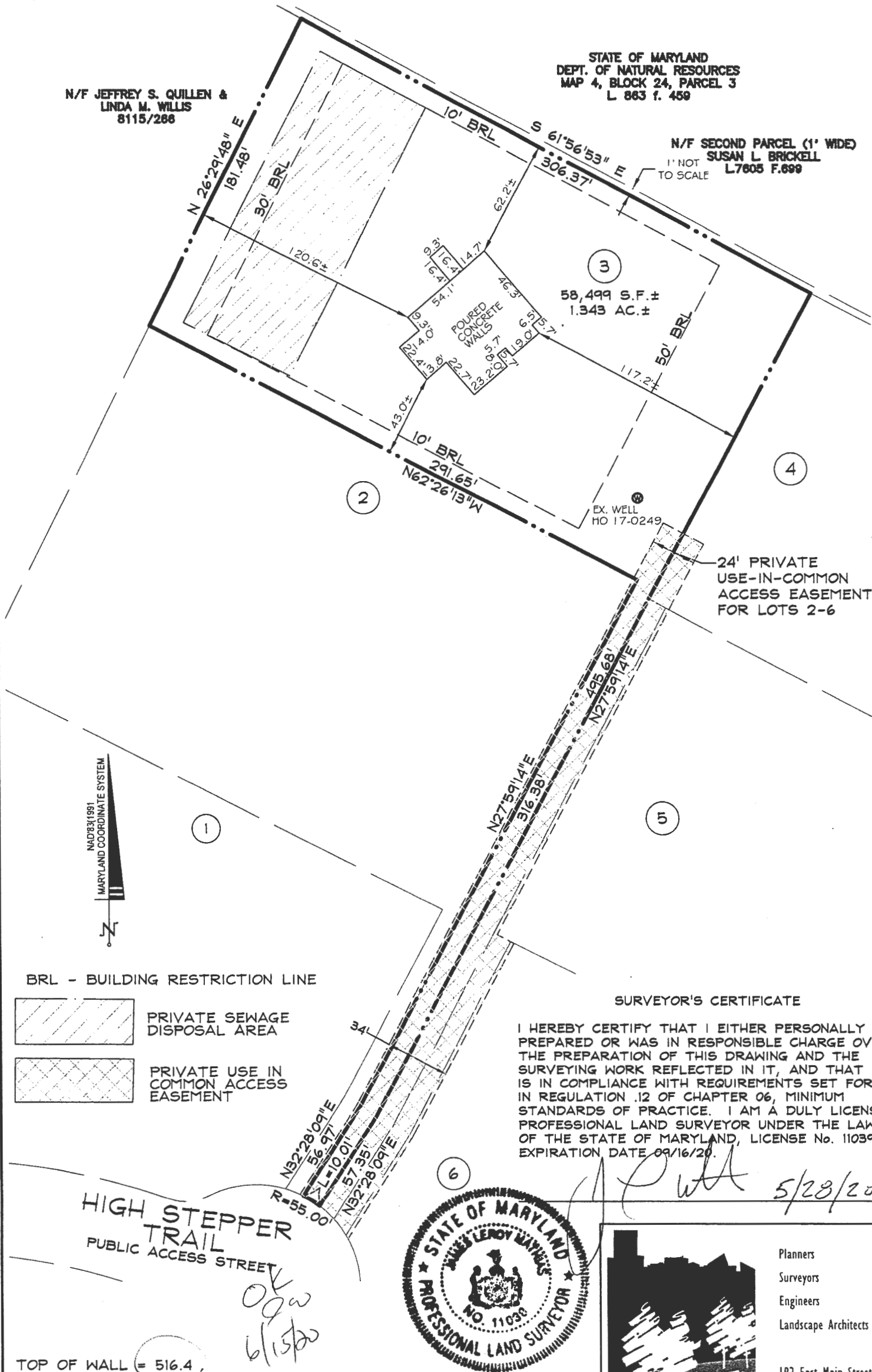
08/24/2020

N/F JEFFREY S. QUILLEN &
LINDA M. WILLIS
8115/288

STATE OF MARYLAND
DEPT. OF NATURAL RESOURCES
MAP 4, BLOCK 24, PARCEL 3
L 863 f. 459

N/F SECOND PARCEL (1' WIDE)
SUSAN L. BRICKELL
L7605 F.699

1" NOT
TO SCALE



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.



HIGH STEPPER
TRAIL
PUBLIC ACCESS STREET

TOP OF WALL = 516.4

WALL CHECK
1013 HIGH STEPPER TRAIL
LOT 3
WALKER MEADOWS
PLAT NO. 24976
3rd ELECTION DISTRICT HOWARD COUNTY, MD

DDC JOB#:	12064.3
DATE:	05/28/2020
SCALE:	1"=60'
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



MAYER BROS., INC.

Precast Concrete Products

6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: 1013 High Stepper Trail
Sykesville, MD. 21784

Date of Final Inspection: 8/21/20

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,

H. Michael Dayer

Name of Inspector
Mayer Bros., Inc.

PH: 410-796-1434

FX: 410-796-1438

WBE

NPCA Certified Plant

mayerbro@connext.net

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 Slabs, Curb Heads, Curb Bumpers, PermaEntry Basement Entries,
Scapewell Window Wells, Custom Precast Products



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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 10th day of August, among NV Homes
Evan Corey 3 Colleen Corey, 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
1013 High Stepper Trail, Sykesville MD, 21784, 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 # N/A, Parcel # 66, Deed
Reference # 24974-79 and Tax Account # 03-601561 ("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.

Michael J. Davis 8/10/20
Howard County Health Department

DocuSigned by:

8/10/2020

James Anastasia

Owner #1 Signature

Date

NIR INC. (NVHomes)

Owner #1 Print Name

Owner#2 Signature

Date

Owner #2 Print Name

DocuSigned by:

8/4/2020

Ryan Corey

Buyer #1 Signature

Date

Ryan Corey

Buyer #1 Print Name

DocuSigned by:

8/7/2020

Colleen Corey

Buyer #2 Signature

Date

Colleen Corey

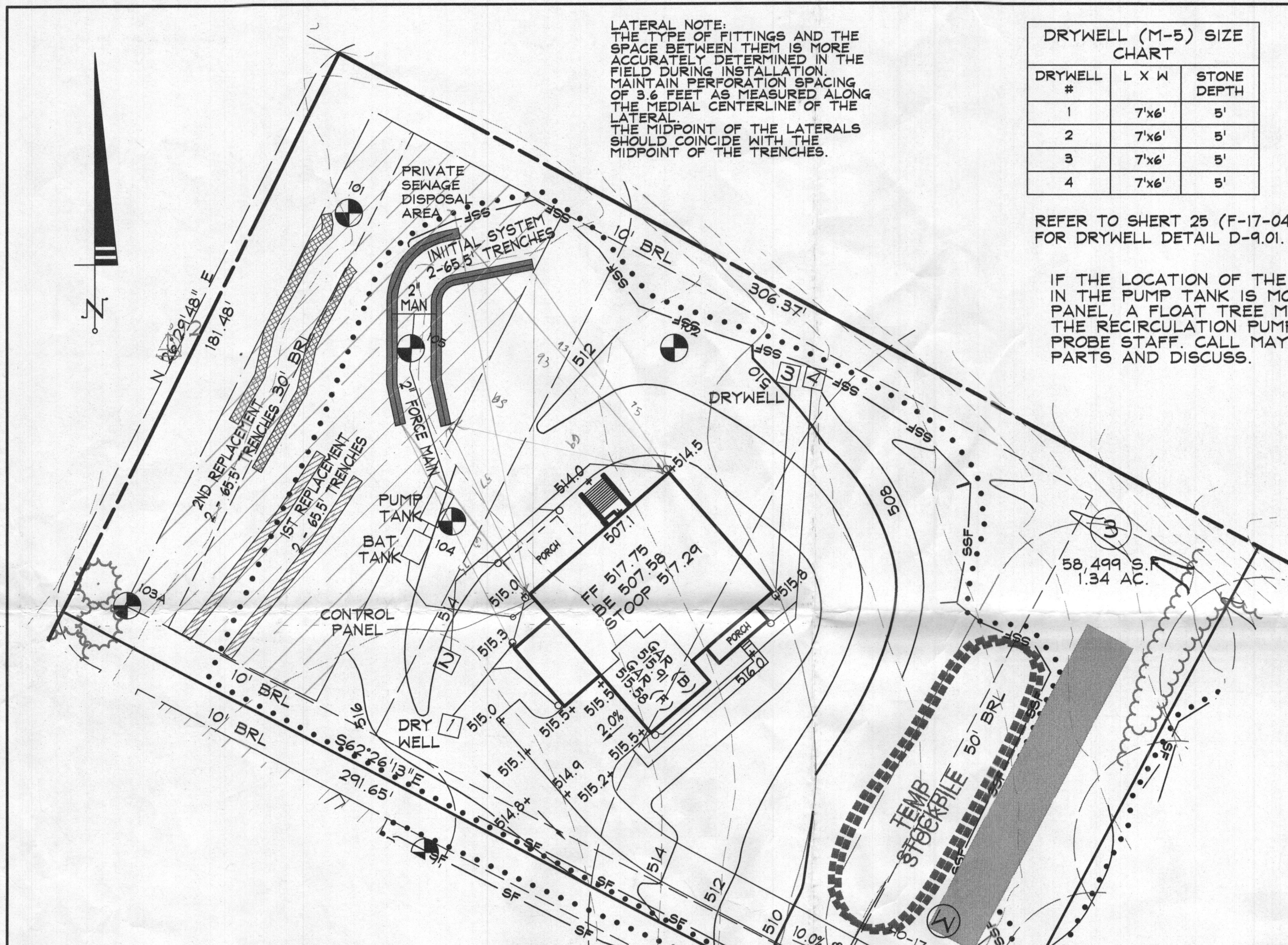
Buyer #2 Print Name

FILE INQUIRY NOTES

Diehl Property Lot 2

Proposed Lot 3

DATE	RESULTS OF REVIEW FOR FILE
6/5/15	Any drain field installed within the area of this lot must be designed for low pressure distribution (LPD) or an approved alternative design. R. Becker
9/28/15	Septic system must include a BAT unit. Trench bottoms are limited to 5-foot depth. R. Becker



HEAD CALCULATIONS

Relative elevation of manifold = 512.1 feet
 Relative elevation of pump-off float = 509.23 feet
 Hs - Static head = relative elevation of manifold - relative elevation of pump-off float = 2.9 feet
 Hf - Friction head = due to friction in the pipe between the pump chamber and the laterals = 5.2 feet
 **Friction head is calculated below:
 Hd - Head required at distal end of laterals = 3.0 feet
 Hd - Total dynamic head = Hs + Hf + Hd + lateral friction + operating head = 12.6 feet

Friction loss

Force main	Normal size in inches	Actual inside diameter in inches	Type of pipe	Length in feet (actual or equivalent)	Velocity of flow in feet per second	Friction loss per 100 ft	Friction loss in feet
Force main	2	2.007	Sch 40	64	4.4		
Force main fittings	N/A	N/A	Sch 40	64			
Combined length				128		3.5	4.8
Manifold	2	2.007	Sch 40	13	4.4	3.8	0.8

Friction loss/100 feet = 0.002382 X 100 X (100/Hazen-Williams factor)^{1.852} X ((Qp^{1.852})/D^{4.8655})

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

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) = 25 inches
 Vt - Actual (usable) tank volume = A X H / 231 cubic inches per gallon = 2092.9 gallons
 pr - Pump riser height = 6 inches

DOSE INFORMATION/VOLUME CALCULATIONS

Vt - Volume in laterals X 5 = 65 gallons
 Vt - Force main and manifold flow back volume = 0.00 gallons
 Vc - Volume of Force Main+ Manifold + six laterals = 65.00 gallons
 Elevation of inside bottom (floor) of pump chamber = 507.4 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 509.23 feet
 Distance req'd. b/n on and off floats = (Vc X 231 cubic inches per gallon) / A = 3 inches
 Pump on float setting = off float setting + distance b/n on and off floats = 25 inches
 Hs - High water alarm setting = pump on float setting + 6 inches = 31 inches

STORAGE/PUMP REQUIREMENTS

Height of storage remaining above high water alarm = H - Ha = 17 inches
 which equates to 709.4 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

[X] CENTER MANIFOLD SPECIFICATIONS

Pipe Diameter = 2 inches
 Distance between manifold and 1st perforation (1/2 perforation spacing) = 25.2 inches
 Number of lateral pairs = 2 rows of laterals
 Distance between laterals = 13 feet

Pipe sizes and diameters

Laterals (select diameters from chart)	Pipe number (see chart below)	Type of pipe	Normal size in inches	Actual inside diameter in inches	Volume per 100 feet in gallons	Total length in feet	Volume in gallons	Length of pipe which will flow back to pump chamber	Pipe volume in gallons (for use in calculations) and manifold, unless flow back volume only
Force main	1	Sch. 40	2	2.007	17.4	64	0	0	0
Manifold	1	Sch. 40	2	2.007	17.4	13	0	0	0

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

Volume to be pumped per pump cycle based on pipe volume

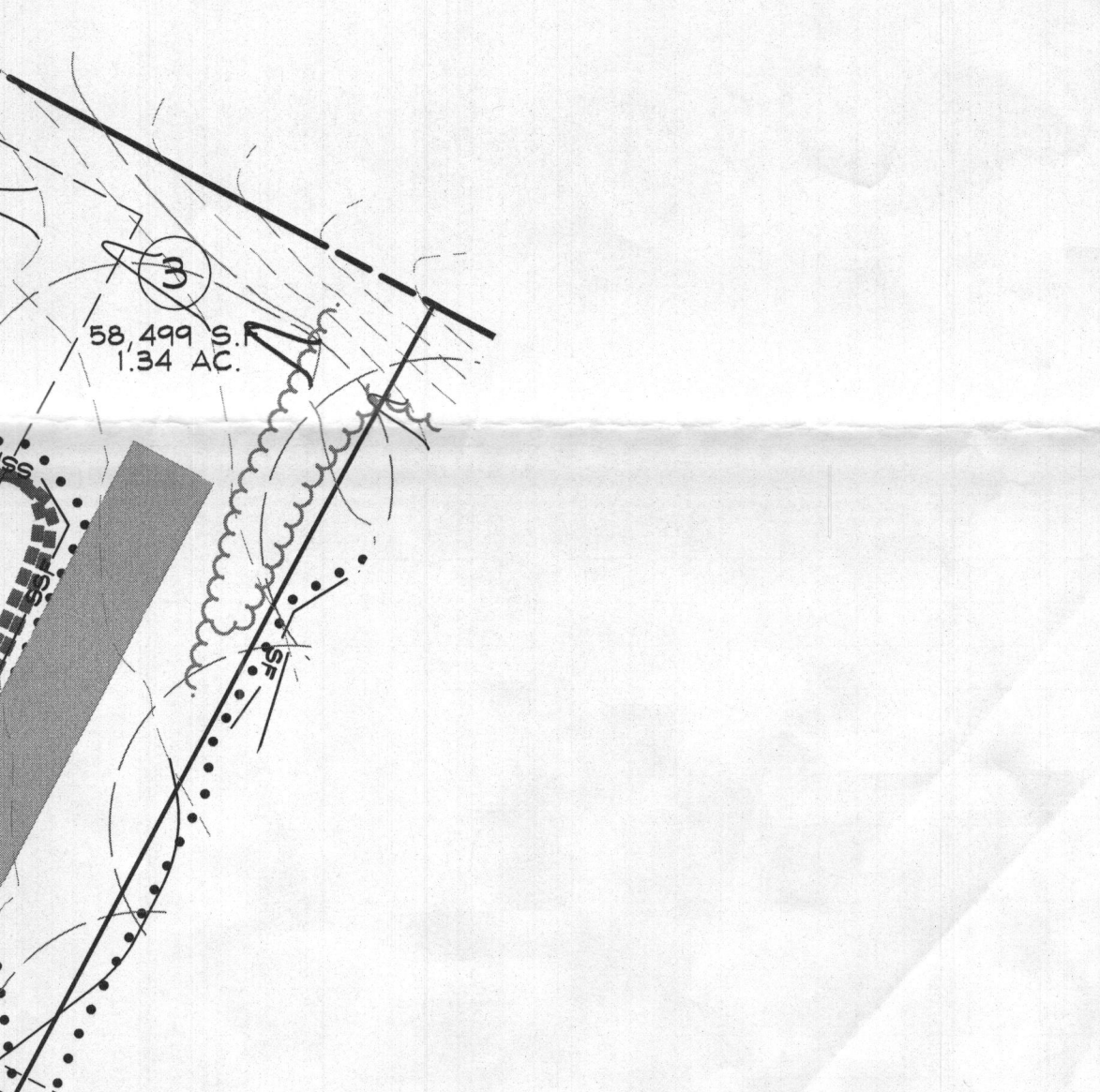
Volume of laterals multiplied by 5 = 65 gallons
 Volume of force main(s) plus manifold which will flow back between pump cycles = 0 gallons
 Volume of laterals multiplied by 5 plus flow back = 65 gallons
 Minimum Dose (at least 1/6 of design flow)

DRYWELL (M-5) SIZE CHART

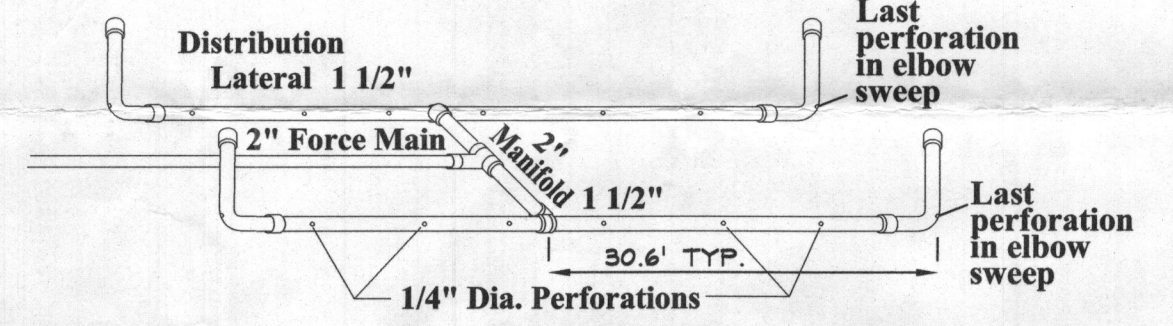
DRYWELL #	L X W	STONE DEPTH
1	7'x6'	5'
2	7'x6'	5'
3	7'x6'	5'
4	7'x6'	5'

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.



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 TURF BOX WHICH IS SUPPORTED BY BRICKS RESTING ON GRAVEL.



LOT 3 - 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	512.1	3.0	1.28	18	1/4	23.04	43.20'	61.20	65.5	1.80'	1.80'
B	511.8	3.3	1.34	18	1/4	24.12	43.20'	61.20	65.5	1.80'	1.80'

LOT 3 - RELATIVE DEPTHS

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

LOT 3 - APPROXIMATE ELEVATIONS

	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM (A)	514.1	512.1	509.1
INITIAL SYSTEM (B)	513.8	511.8	508.8
1ST REPLACEMENT (A)	515.0	513.0	510.0
1ST REPLACEMENT (B)	514.5	512.5	509.5
2ND REPLACEMENT (A)	514.2	512.2	509.2
2ND REPLACEMENT (B)	513.6	511.6	508.6

SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):

- INVERT @ FOUNDATION WALL: 512.6 (BASEMENT PUMP REQUIRED)
- HOOT 600 BNR SYSTEM W/ 1,500 GALLON PUMP CHAMBER EX. GRADE OVER BAT TANK: 515.0 PROP. GRADE OVER BAT TANK: 514.0 INVERT: 511.7
- PUMP TANK EX. GRADE OVER PUMP TANK: 514.3 PROP. GRADE OVER PUMP TANK: 514.0 INVERT: 512.1
- TRENCH DESIGN (5 BDRM X 150 GPD/BDRM = 750 GPD) INITIAL SYSTEM, 1ST & 2ND REPLACEMENT SYSTEMS 750 GPD / 1/2 GPD/SF (APP. RATE) = 625 SF USE 3' WIDE TRENCH W/ 24" OF EFFECTIVE AREA DEPTH 625 SF / 3' WIDTH = 208 LF X 0.63 = 131 LF MIN. TRENCH 10' MIN SPACING BETWEEN TRENCH EDGES
- USE 2 - 65.5' LONG TRENCHES FOR INITIAL SYSTEM
- USE 2 - 65.5' LONG TRENCHES FOR FIRST REPLACEMENT SYSTEM
- USE 2 - 65.5' LONG TRENCHES FOR SECOND REPLACEMENT SYSTEM

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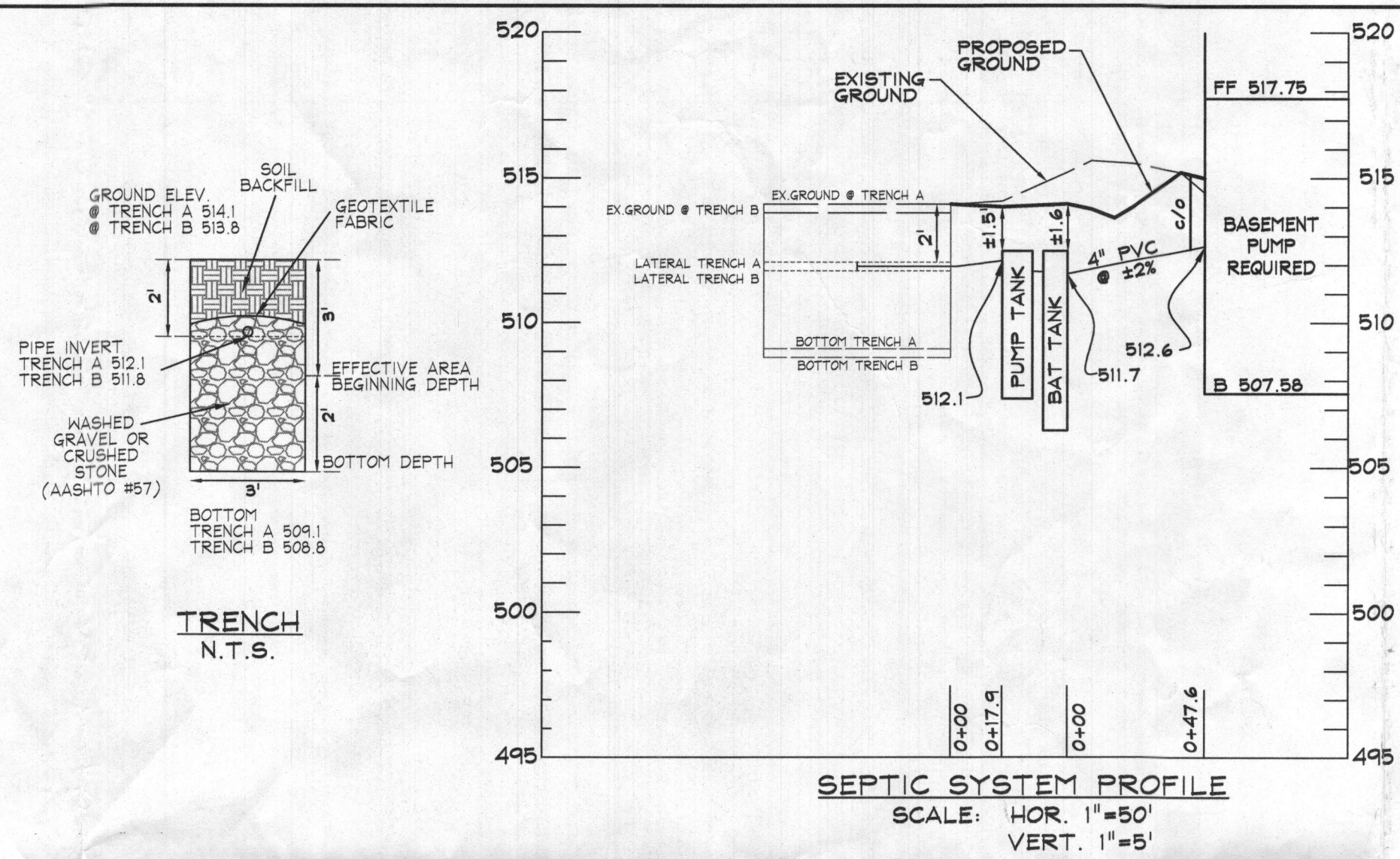
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SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):

- INVERT @ FOUNDATION WALL: 512.6 (BASEMENT PUMP REQUIRED)
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- PUMP TANK EX. GRADE OVER PUMP TANK: 514.3 PROP. GRADE OVER PUMP TANK: 514.0 INVERT: 512.1
- TRENCH DESIGN (5 BDRM X 150 GPD/BDRM = 750 GPD) INITIAL SYSTEM, 1ST & 2ND REPLACEMENT SYSTEMS 750 GPD / 1/2 GPD/SF (APP. RATE) = 625 SF USE 3' WIDE TRENCH W/ 24" OF EFFECTIVE AREA DEPTH 625 SF / 3' WIDTH = 208 LF X 0.63 = 131 LF MIN. TRENCH 10' MIN SPACING BETWEEN TRENCH EDGES
- USE 2 - 65.5' LONG TRENCHES FOR INITIAL SYSTEM
- USE 2 - 65.5' LONG TRENCHES FOR FIRST REPLACEMENT SYSTEM
- USE 2 - 65.5' LONG TRENCHES FOR SECOND REPLACEMENT SYSTEM

LOT 3 - 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	512.1	3.0	1.28	18	1/4	23.04	43.20'	61.20	65.5	1.80'	1.80'
B	511.8	3.3	1.34	18	1/4	24.12	43.20'	61.20	65.5	1.80'	1.80'

LOT 3 - RELATIVE DEPTHS

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

LOT 3 - APPROXIMATE ELEVATIONS

	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM (A)	514.1	512.1	509.1
INITIAL SYSTEM (B)	513.8	511.8	508.8
1ST REPLACEMENT (A)	515.0	513.0	510.0
1ST REPLACEMENT (B)	514.5	512.5	509.5
2ND REPLACEMENT (A)	514.2	512.2	509.2
2ND REPLACEMENT (B)	513.6	511.6	508.6

SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):

- INVERT @ FOUNDATION WALL: 512.6 (BASEMENT PUMP REQUIRED)
- HOOT 600 BNR SYSTEM W/ 1,500 GALLON PUMP CHAMBER EX. GRADE OVER BAT TANK: 515.0 PROP. GRADE OVER BAT TANK: 514.0 INVERT: 511.7
- PUMP TANK EX. GRADE OVER PUMP TANK: 514.3 PROP. GRADE OVER PUMP TANK: 514.0 INVERT: 512.1
- TRENCH DESIGN (5 BDRM X 150 GPD/BDRM = 750 GPD) INITIAL SYSTEM, 1ST & 2ND REPLACEMENT SYSTEMS 750 GPD / 1/2 GPD/SF (APP. RATE) = 625 SF USE 3' WIDE TRENCH W/ 24" OF EFFECTIVE AREA DEPTH 625 SF / 3' WIDTH = 208 LF X 0.63 = 131 LF MIN. TRENCH 10' MIN SPACING BETWEEN TRENCH EDGES
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1ST REPLACEMENT (B)	2'	3'	5'
2ND REPLACEMENT (A)	2'	3'	5'
2ND REPLACEMENT (B)	2'	3'	5'

LOT 3 - APPROXIMATE ELEVATIONS

	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM (A)	514.1	512.1	509.1
INITIAL SYSTEM (B)	513.8	511.8	508.8
1ST REPLACEMENT (A)	515.0	513.0	510.0
1ST REPLACEMENT (B)	514.5	512.5	509.5
2ND REPLACEMENT (A)	514.2	512.2	509.2
2ND REPLACEMENT (B)	513.6	511.6	508.6

SEWAGE DISPOSAL SYSTEM DATA (5 BEDROOM):

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BENCHMARK

BENCHMARK 09CA
 N. 609029.546
 E. 1325501.308
 B.M. 09CA - CONC MON
 ELEV. N. 549.030

BENCHMARK 10AA
 N. 609165.341
 E. 1331668.810
 B.M. 10AA - CONC MON
 ELEV. 563.089

ADC MAP COORDINATES
 MAP 5 GRID ER
 N 34°20'00",