

Bureau of Environmental Health
 7178 Gateway Drive Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

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

RECEIPT DATE: 6-9-14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 546395

INSTALLATION APPROVAL DATE: _____ **PERMIT** A _____
CONSTRUCTION

PROPERTY ADDRESS: 13003 High Grove Road
 SUBDIVISION: Schooley Mill Farm LOT: 2 TAX ID: _____
 CONTRACTOR: _____ EMAIL: _____
 CONTRACTOR ADDRESS: _____ PHONE: _____
 PROPERTY OWNER: _____ EMAIL: _____
 OWNER ADDRESS: NVR Inc. PHONE: 410-379-5956
9720 Patuxent Woods Drive, Columbia, MD 21046

BAT UNIT MODEL: Hoot 600 BNR BAT UNIT SIZE: 600 GPD
 PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____
 NUMBER OF BEDROOMS: _____ HOUSE SQ. FT. _____ APPLICATION RATE: _____
 DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>See Bat Plan</u>	INLET DEPTH: <u>See Bat Plan</u>
	TRENCH WIDTH: <u>See Bat Plan</u>	MAXIMUM BOTTOM DEPTH: <u>See Bat Plan</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>See Bat Plan</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>See Bat Plan</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:	Set BAT unit per plan. Set distribution box per plan. Install trenches per plan.	

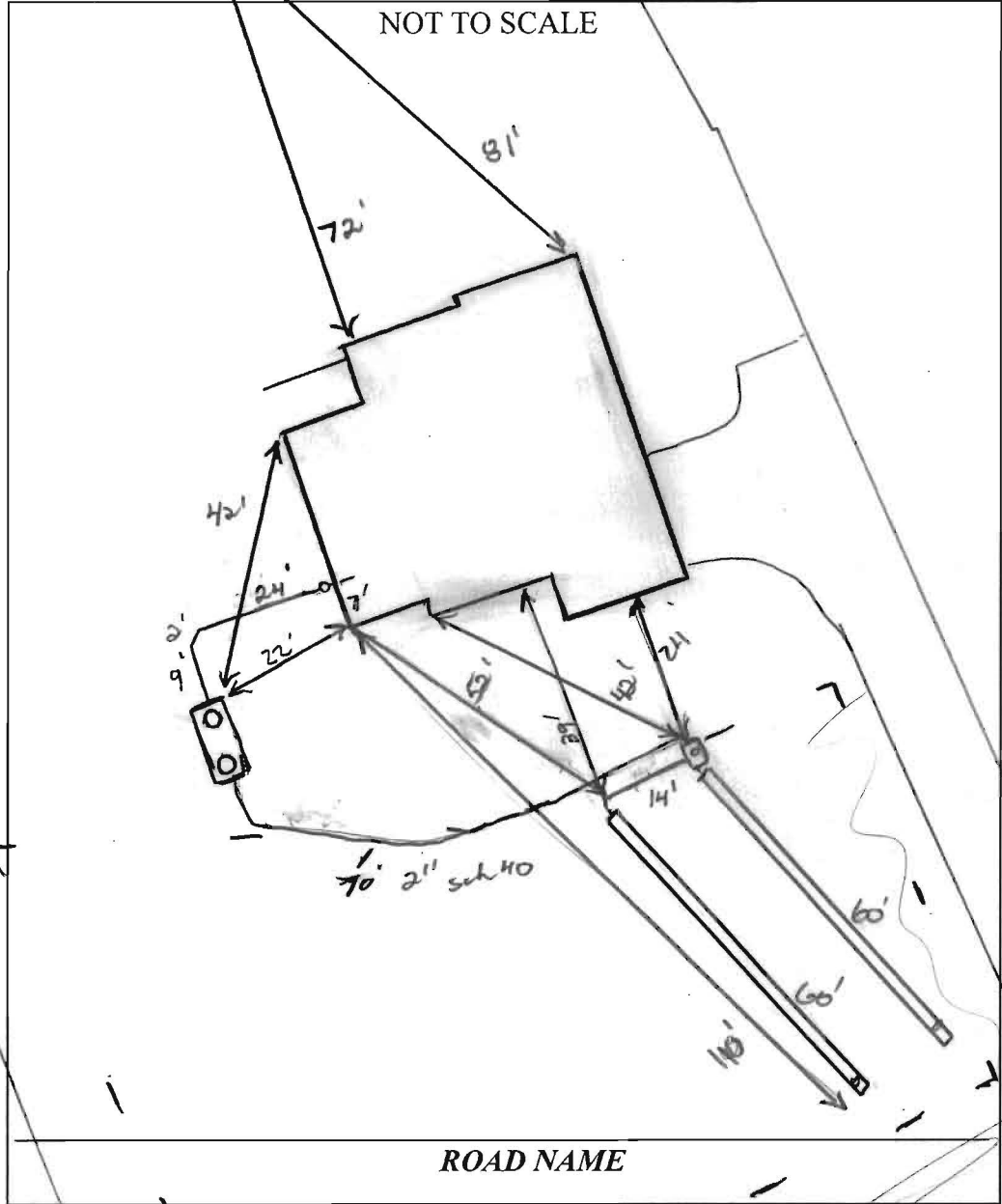
ISSUED BY: Jeff Williams ISSUE DATE: 6-9-14 EXPIRATION DATE: 6-9-15

- 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

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.

HO-95-2487

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	4	8
NUMBER OF TRENCHES	2	
TOTAL LENGTH	120	
ABSORPTION AREA	360'±SW	
DISTRIBUTION BOX LEVEL	Yes	
DISTRIBUTION BOX BAFFLE	90° bend	
DISTRIBUTION BOX PORT	Yes	

SEPTIC TANK DATA	
SEPTIC TANK I LEVEL	Yes
MANUFACTURER	Mayer Boels
CAPACITY	14600 BNB GAL
SEAM LOC	Top
TANK LID DEPTH	2.5'
BAFFLES	Yes
BAFFLE FILTER	-
MANHOLE LOC	Front/center
6" PORT LOC	none
WATERTIGHT TEST	-
SLOTTED	Yes
DATE ON LID	N/A
PUMP/SEPTIC TANK LEVEL	
MANUFACTURER	
CAPACITY	
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

PRE-CONSTRUCTION:

6/13/14 Septic was not staked. OK to set BAT approx 23' off of left front corner of house. Can not set BAT per site plan, too much fill. Call when SRA is staked to lay out trenches (RW)

INSTALLATION:

6/16/14 Septic Tank being set. SRA not staked. (RW)
 6/20/14 Working on internal components of BAT. Rummy SRA. Need connection @ house. SRA stakes knocked over. Summer to restake (RW)
 6/24/2014 Trench layout done. (BB)
 6/26/14 Lower trench complete. OK to continue 6/27/14
 Trenches complete. Dbox set. Force main installed. OK to cover all work. Need startup of BAT + pump test. (RW)

FINAL INSPECTOR

DATE OF APPROVAL

HIGH GROWER

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

Grantor/Grantee Name: NVR
Reference/Control #: 90

=====
LR - Agreement Surcharge
1x 40.00 40.00

=====
SubTotal: 60.00
Total: 60.00

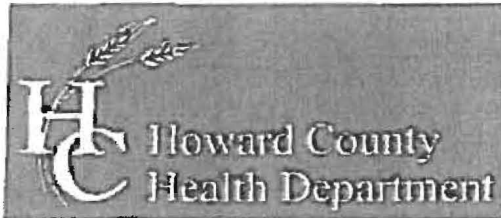
=====
REV-Check-BOA 60.00
Number : 3187

12/17/2013 10:38 CC13-NN

#2302266 /494/109
***** DUPLICATE #001 *****

12/17/2013 10:38 CC13-NN

~ Thank you for visiting us today ~



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Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

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

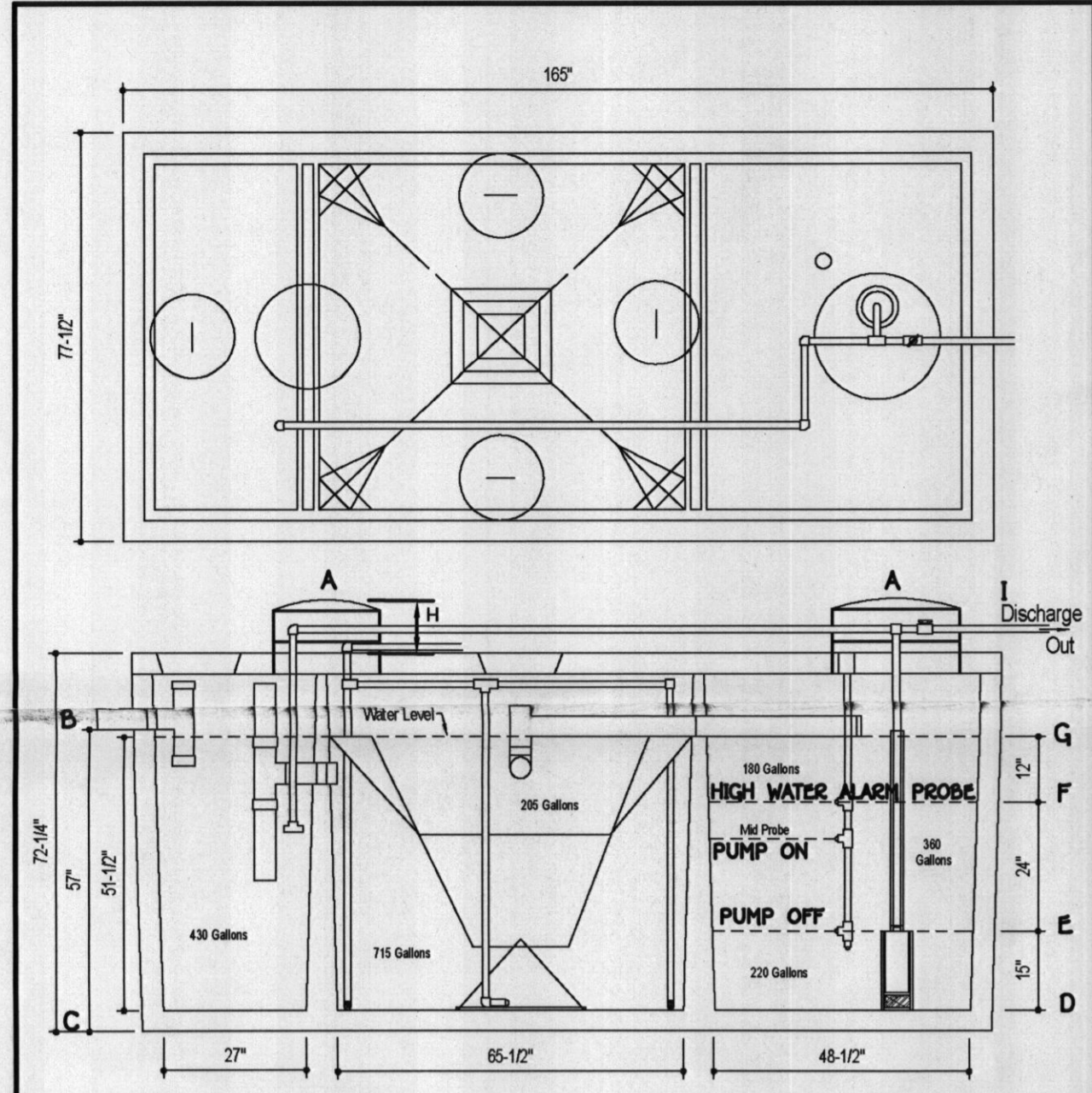
THIS AGREEMENT is made this 16th day of December, among NVR, Inc., hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 13003 Highgrove Road, Highland, Maryland 20777, in the 5th Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 10230 Folio 0067B.

WHEREAS, The Lot 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 January 1, 2013.

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time 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 to develop accurate and thorough test results.
- 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 Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as



SEPTIC SYSTEM ELEVATIONS
 A= 496.20
 B= 493.93 (INV. INTO TANK)
 C= 400.91
 D= 409.24
 E= 490.49
 F= 492.49
 G= 493.49
 H= 1.27' (7" MIN.)
 I= 495.20 (INV. OUT OF TANK)

FFE = 501.27
 BSE = 491.43
 INV. OUT OF HOUSE = 494.49
 INV. INTO DISTRIBUTION BOX = 493.00
 TOP OF TANK ELEV. = 494.93

NOTE:
 THE PROPOSED HOUSE IS TO HAVE 4 BEDROOMS.

- 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 COVER OVER THE BAT PIER THE MANUFACTURER'S SPECIFICATION IS 3 FEET. IF COVER EXCEEDS 3 FEET, THEN A TRAFFIC BEARING TANK IS REQUIRED.
 - THE BLOWER MAY NOT BE LOCATED MORE THAN 100 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 HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 14780, FOLIO 067.
 - THE HEALTH DEPARTMENT REQUIRED DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
 - SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.
 - AT HIGH WATER ALARM PROBE, PUMP WILL HAVE CONTINUOUS OPERATION UNTIL LEVEL GOES BENEATH PROBE.
 - IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER'S SPECS FOR ADDITIONAL INFORMATION.
 - ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.

DESIGN DATA & GENERAL NOTES

- Concrete strength Fc=4,000 p.s.i. @ 28 days. Density=150 pcf.
- Concrete: Portland Type II per ASTM C 1506.
- Admixtures & plasticizers per ASTM C 260-86 & C 484-82.
- Reinforcing per ASTM A618, Min. 1-42 cover.

Mayer Brothers, Inc.
 6504 Race Road
 Elbridge, Maryland 21037
 Tel: 410.796.1434
 Fax: 410.796.1439
 www.mayerbrothers.com

600 GPD BNR SYSTEM
H-600 BNR
 with 750 GALLON PUMP CHAMBER

Dwg. No. Hoot Form #1 No Scale March 18, 2009

ITT **GOULDS PUMPS** Wastewater

APPLICATIONS
 Specifically designed for the following uses:
 • Effluent systems
 • Homes
 • Farms
 • Heavy duty sump
 • Water transfer
 • Dewatering

SPECIFICATIONS
 • Solids handling capability: 3/4" maximum.
 • Capacities: up to 60 GPM.
 • Total heads: up to 31 feet.
 • Discharge size: 1 1/2" NPT.
 • Mechanical seal: carbon-rotary/ceramic-stationary, Buna-N elastomers.
 • Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
 • Fasteners: 300 series stainless steel.
 • Capable of running dry without damage to components.

Motor:
 • EP04 Single phase: 0.4 HP, 115 or 230 V, 60 Hz, 1550 RPM, built in overload with automatic reset.
 • EP05 Single phase: 0.5 HP, 115 V or 230V, 60 Hz, 1550 RPM, built in overload with automatic reset.
 • Power cord: 10 foot standard length, 16/3 SJTW with three prong grounding plug. Optional 20 foot length, 16/3 SJTW with three prong grounding plug (standard on EP05).
 • Fully submerged in high grade turbine oil for lubrication and efficient heat transfer.

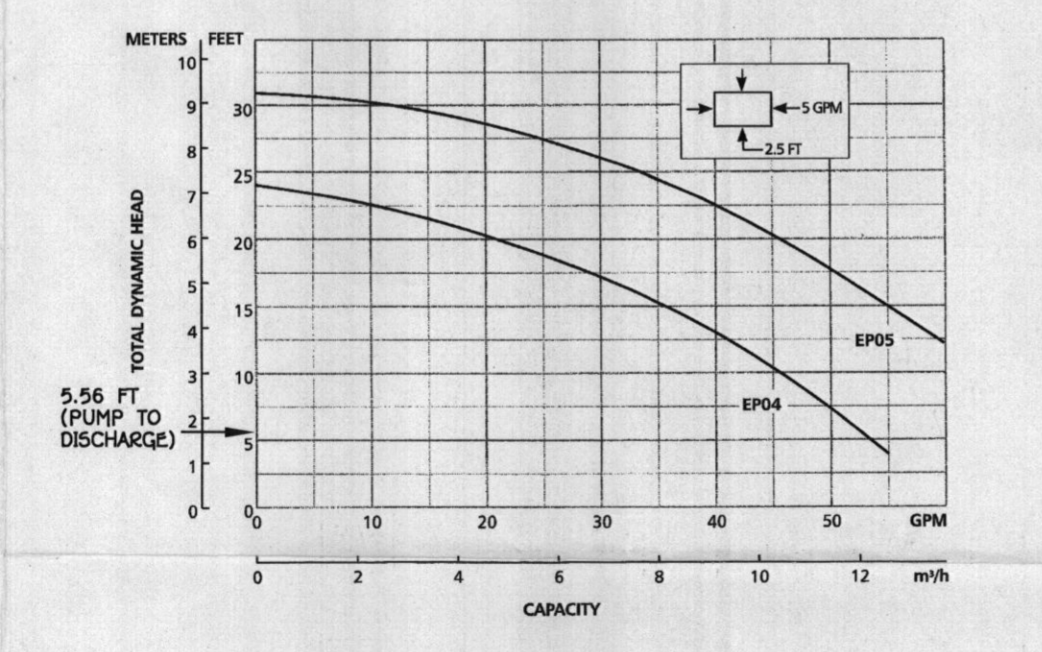
Available for automatic and manual operation.
 Automatic models include Mechanical Float Switch assembled and preset at the factory.

PERFORMANCE RATINGS

Total Head (ft. of water)	Gallons Per Minute
5	53
10	46
15	36
20	21
25	0
30	-

COMPONENTS

Item No.	Description
1	Impeller
2	Base
3	Pump Casting
4	Mechanical Seal
5	Ball Bearings
6	O-Rings
7	Power Cord
8	Oil Filled Motor
9	Motor Housing
10	Stator Assembly
11	Motor Cover



MODEL INFORMATION

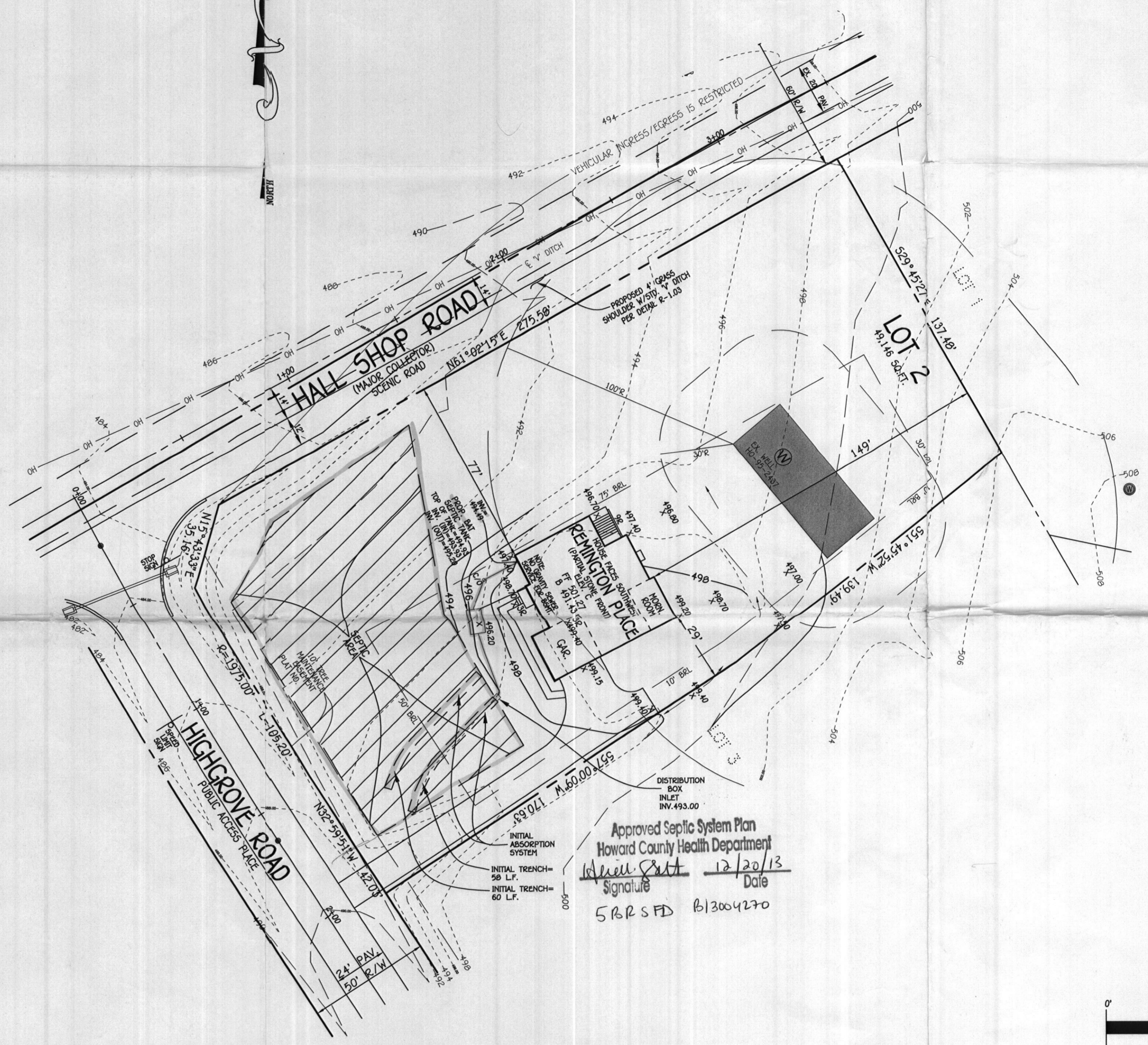
Order No.	HP	Volts	Amperage	Minimum Circuit Breaker	Phase	Float Switch Style	Cord Length	Discharge Connection	Minimum On Level	Minimum Off Level	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight (lbs.)
EP0411						Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411A						Piggyback / Wide-Angle	10'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0411F	1/4	115	12	20		Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0411AC	1/4	115	13	20		Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		21 / 9.5
EP0412						Plug / No Switch	10'	1 1/2"	Manual	Manual	15"	3/4"	20 / 9.1
EP0412F						Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20 / 9.1
EP0511F						Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10
EP0511AC	1/2	115	13	20		Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		23 / 10.4
EP0512F						Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22 / 10

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2995

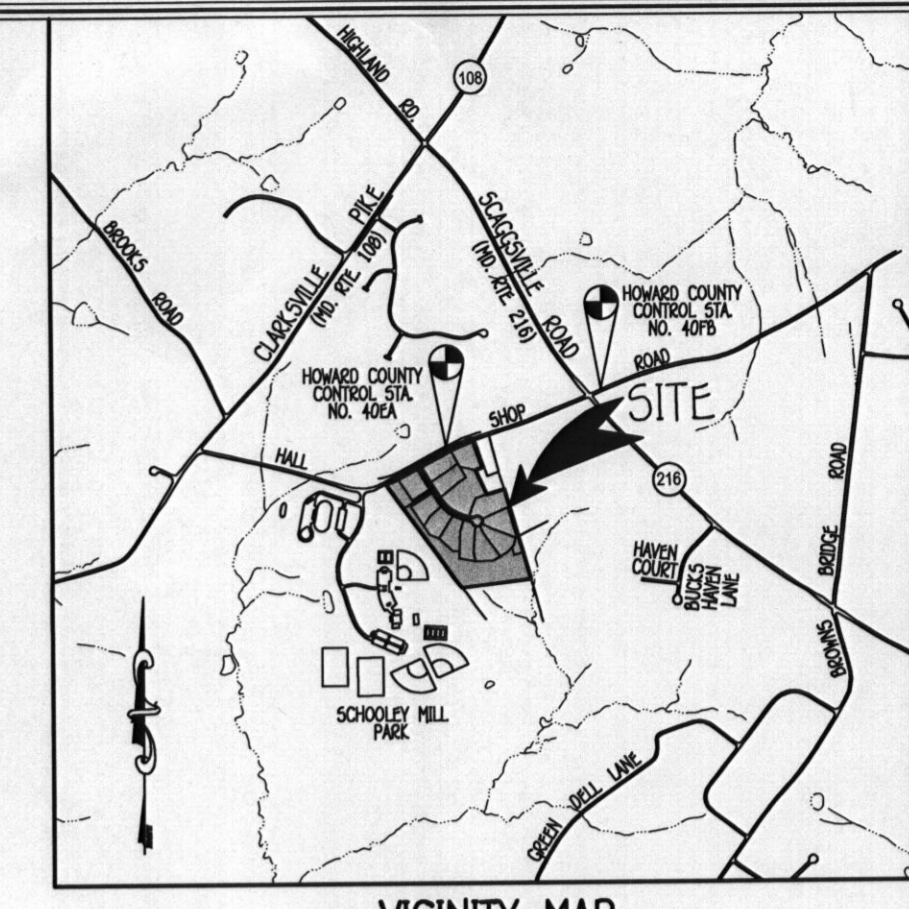
PROFESSIONAL CERTIFICATION

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. 9753, EXPIRATION DATE: 2/28/14.

Carl D. Collins
 CARL D. COLLINS
 DATE: 12-16-13



PLAN
 SCALE: 1" = 30'

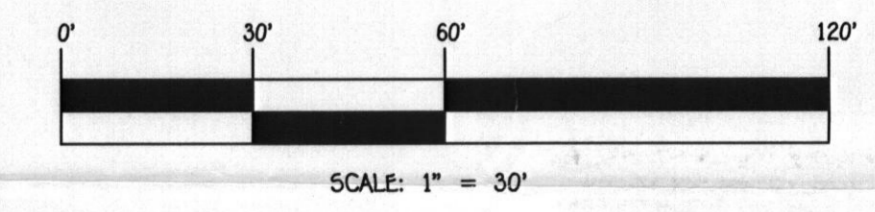


VICINITY MAP
 SCALE: 1" = 2000'
 HO. CO. ADC MAP NO. 5051
 GRIDS G-3 & G-4 & H-3 & H-4

BENCH MARKS

T.P. 406A
 N. 547,911.991
 E. 1,324,510.091
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & ENTRANCE TO SCHOOLEY MILL PARK

T.P. 407B
 N. 548,470.386
 E. 1,326,000.805
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & SCAQSVILLE ROAD



BUILDER/DEVELOPER
 NV HOMES
 9720 Patuxent Woods
 COLUMBIA, MARYLAND 21046
 410-379-5956

SCHOOLEY MILL FARM
 SITE PLAN FOR BAT INSTALLATION FOR LOT 2
 13003 HIGHGROVE ROAD
 Zoned: RR-DEO
 Tax Map No. 40; Grid No. 10 & 11; Parcel No. 115 & 149
 Fifth Election District - Howard County, Maryland
 Date: December, 2013 Scale: As Shown

