



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: 7/14/14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 554540

INSTALLATION APPROVAL DATE: \_\_\_\_\_ **PERMIT** A \_\_\_\_\_

**CONSTRUCTION**

PROPERTY ADDRESS: 13018 High Grove Road

SUBDIVISION: Schooley Mill Farm LOT: 8 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: 750 GPD

PUMP CHAMBER CAPACITY (GALLONS): \_\_\_\_\_ PUMP SIZE: \_\_\_\_\_

NUMBER OF BEDROOMS: 5 HOUSE SQ. FT. \_\_\_\_\_ APPLICATION RATE: 0.8

DISTRIBUTION SYSTEM: GRAVITY FED  LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 195'</u>	INLET DEPTH: <u>SEE BAT PLAN 3'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 2'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 7'</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. <u>3x65' OK for 2' wide w/ 4' of stone - KAW</u>	

ISSUED BY: Jeff Williams ISSUE DATE: \_\_\_\_\_ EXPIRATION DATE: 7/14/15

- 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.**

NOT TO SCALE

See separate sheet  
For As-Built

ROAD NAME

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
2'	3'	7'
NUMBER OF TRENCHES		3
TOTAL LENGTH		195'
ABSORPTION AREA		390'+SW
DISTRIBUTION BOX LEVEL		Yes
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

**SEPTIC TANK DATA**

SEPTIC TANK I LEVEL	Yes
MANUFACTURER	Mayer Bros.
CAPACITY	~2100 GAL
SEAM LOC	Top
TANK LID DEPTH	3.5'-5'
BAFFLES	Front
BAFFLE FILTER	No
MANHOLE LOC	Front+Rear
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	Dry

~~PUMP/SEPTIC TANK LEVEL N/A~~

MANUFACTURER	
CAPACITY	GAL
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

**PRE-CONSTRUCTION:**

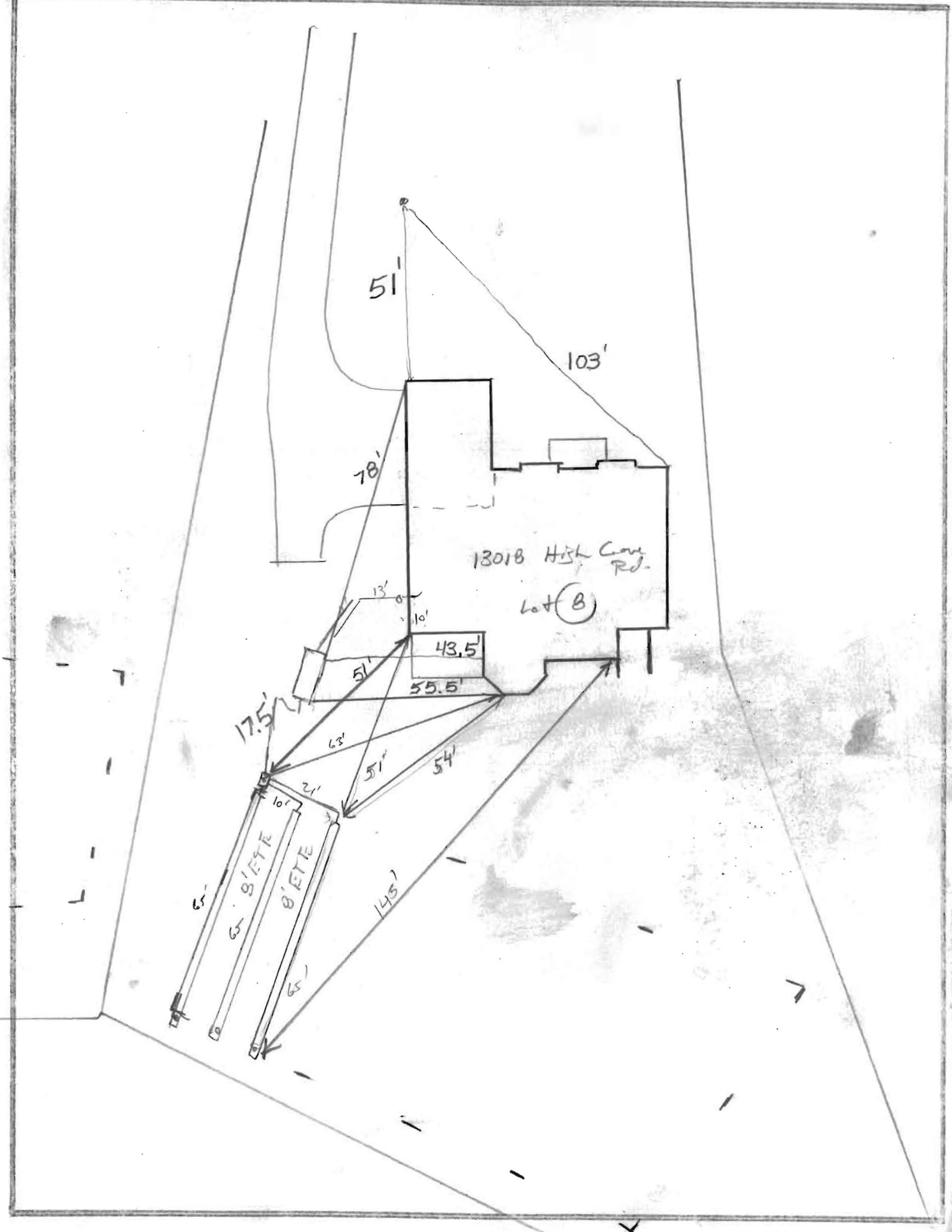
8/7/14. Gave verbal authorization over phone to set BAT unit. (KW)  
 8/14/14 Trench layout given. Install 3x6.5' trenches as pointed out in field. Tank may need to be moved. Plumber put 4" plumbing under sewer, will not make fall to tank. (KW)

**INSTALLATION:**

8/15/14 Lower trench installed. Soil looks good consistent w/ pre data. OK to continue. (KW) 9/26/14 TR Hoop tank being dug. Tank delivery late. Total contractor (2pm) OK to backfill sides of tank. Need connection of Hoop tank install from to Abax and connection from house (KW) 9/29/2014

FINAL INSPECTOR

DATE OF APPROVAL



51'

103'

78'

13018 High Court Rd.

Lot (B)

13'

10'

43.5'

55.5'

51'

54'

17.5'

63'

51'

21'

10'

8' EYE

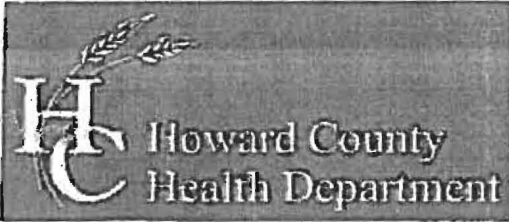
8' EYE

143'

65'

65'

65'



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7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
www.hchealth.org  
Facebook: www.facebook.com/hocohealth  
Twitter: HowardCoHealthDep

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

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

THIS AGREEMENT is made this 29<sup>th</sup> day of April 2014 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 13018 Highgrave 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

no  
receipt  
from land records

**RECEIVED**  
  
APR 29 2014  
  
HOWARD COUNTY HEALTH DEPT  
BUREAU OF ENVIRONMENTAL HEALTH



LOT 8



Bureau of Environmental Health  
 7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
 Main: 410-313-2640 | Fax: 410-313-2648  
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 Twitter: HowardCoHealthDep

000032

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

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WHEREAS, Owner is the owner or contract owner of a parcel of land located at 13018 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 00678.

20  
40  
74

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.

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- 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

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 Lot that the system shall require maintenance or other attention. Upon taking title to the Lot, 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 and sealed this agreement on the date indicated above.

Owner \_\_\_\_\_ Date \_\_\_\_\_

Beil Nufan 4/29/2014  
Howard County Health Department

[Signature] 4/29/14  
Owner Sharon McKeown  
Division Manager, NVR, INC.

LR - Agreement 20.00  
Recording Fee 20.00  
Grantor/Grantee Name:  
NVR  
Reference/Contract #: 37  
LR - Agreement 40.00  
Surcharge 40.00  
SubTotal: 60.00  
Total: 60.00  
#2737146-1 00.44  
05/01/2014 CC13-KC  
#2737146 CC0503 -  
Howard Co  
Columbia/CO05.03.04 -  
Register 04 496



**MAYER BROS., INC.**

*Precast Concrete Products*

6264 Race Rd. Elkridge, MD 21075

## Letter of Satisfaction Hoot System Installation

Address of Property: 13018 Highgrove Rd, Lot # 8  
Highland, MD, 20777

Date of Final Inspection: 10/18/14

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 Sample

Name of Inspector  
Mayer Bros., Inc.

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

**WBE**  
**NPCA Certified Plant**

mayerbro@connext.net  
www.mayerbrosprecast.com

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Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors,  
Beach Barrier, Water Meter Vaults, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bumpers, PermEntry Basement Entries,  
Scapewell Window Wells, Custom Precast Products

**Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046  
410-313-1771**

**INSPECTION NOTICE**

**Remarks** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

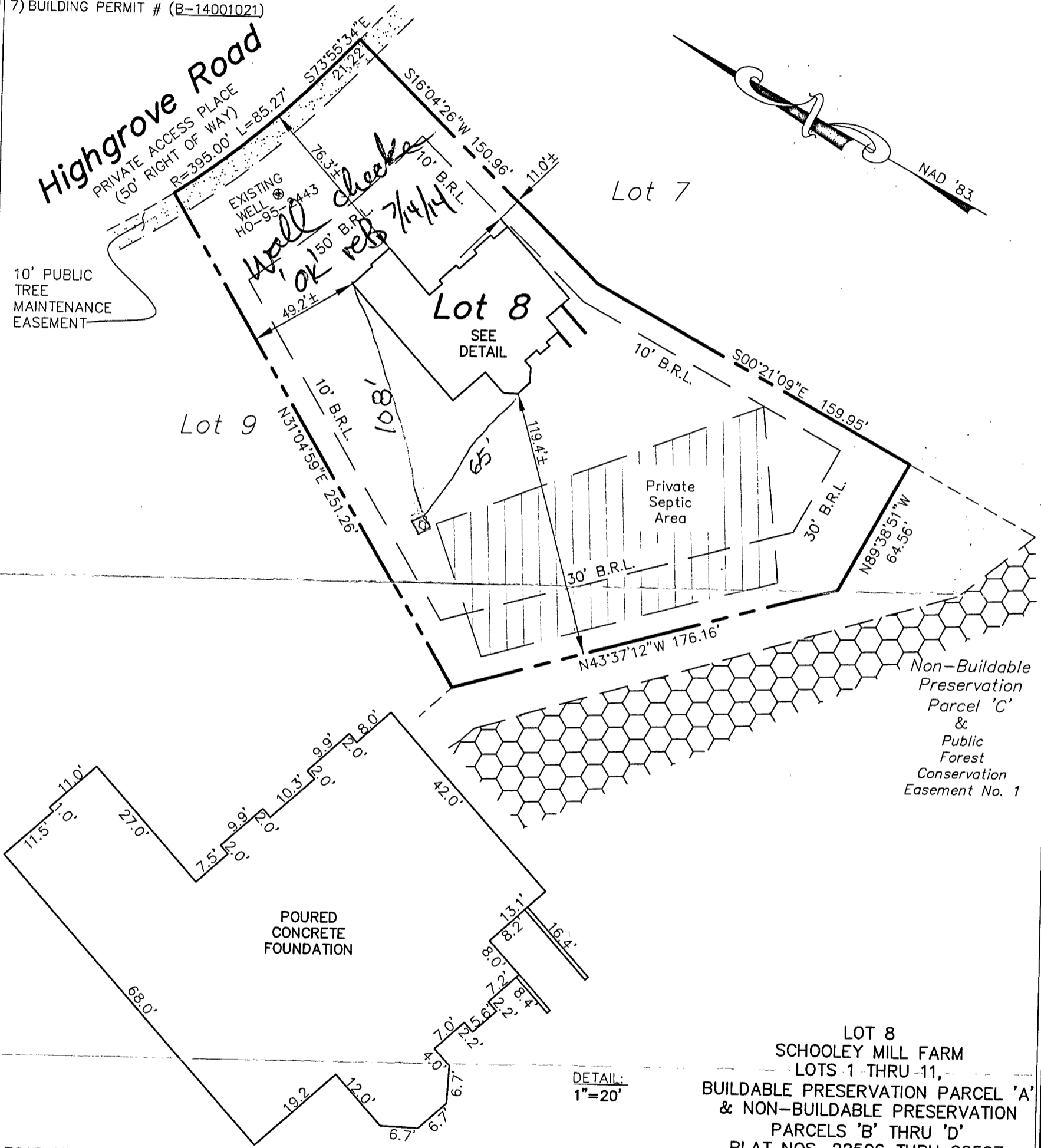
**Approved**

**Disapproved**

**Inspected by** \_\_\_\_\_ **Date** \_\_\_\_\_

**GENERAL NOTES:**

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0140D EFFECTIVE NOV. 6, 2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-2443 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2014.
- 7) BUILDING PERMIT # (B-14001021)



LOT 8  
SCHOOLEY MILL FARM  
LOTS 1 THRU 11,  
BUILDABLE PRESERVATION PARCEL 'A'  
& NON-BUILDABLE PRESERVATION  
PARCELS 'B' THRU 'D'  
PLAT NOS. 22506 THRU 22507  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

#13018 HIGHGROVE ROAD  
TOP OF FOUNDATION ELEVATION = 507.2'±

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(410) 461 - 2855

STATE OF MARYLAND  
MARK L. ROBEL  
PROPERTY LINE SURVEYOR  
REG. #339

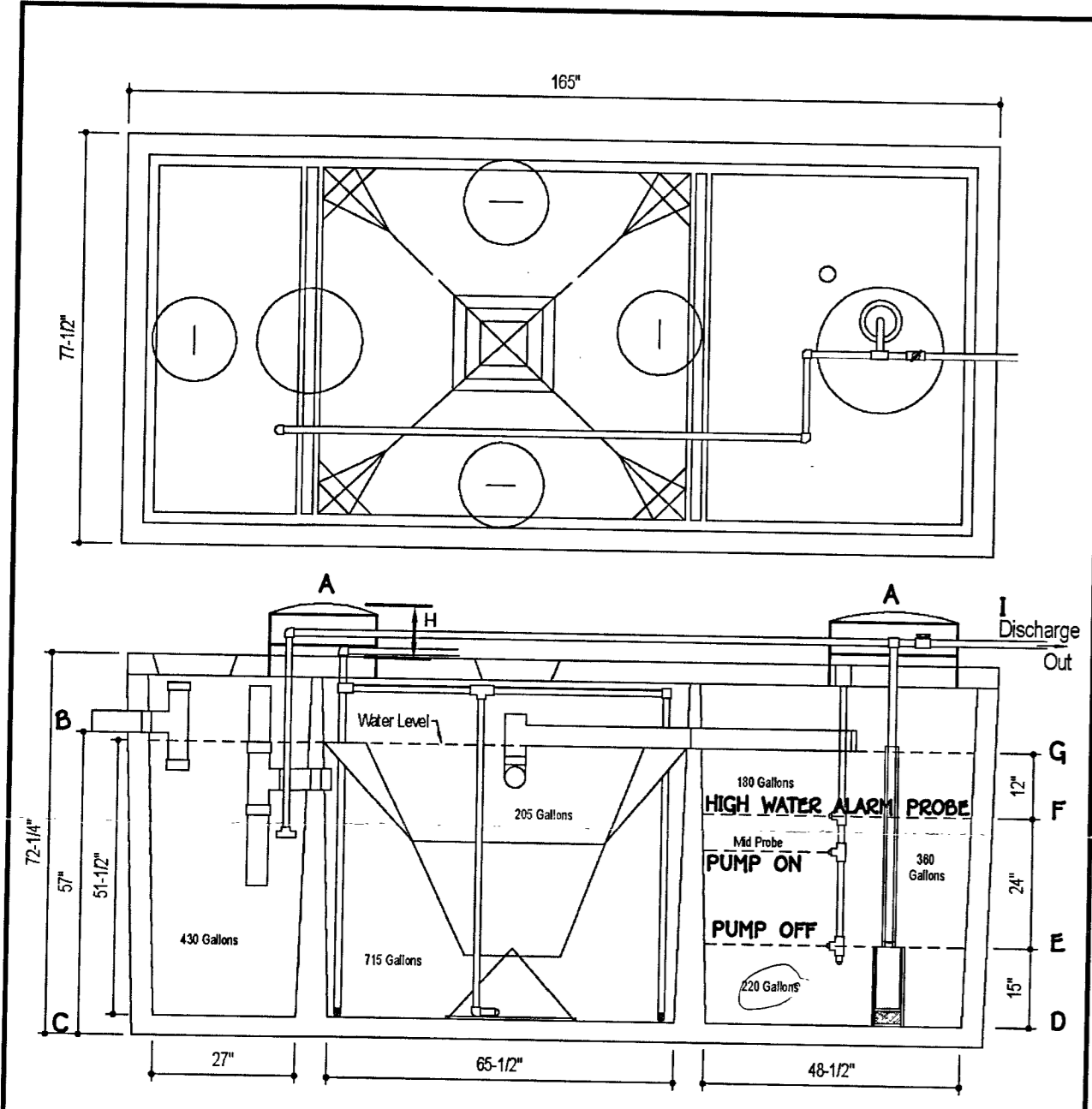
*Mark L. Robel*  
PROPERTY LINE SURVEYOR  
REG. #339

6/20/14  
DATE

**HOUSE LOCATION  
DRAWING**

FOUNDATION LOCATION: 6/19/14  
FINAL LOCATION: \_\_\_\_\_  
BOUNDARY SURVEY: \_\_\_\_\_

SCALE: 1"=50'  
DATE: 6/20/14  
DRAWN BY: GAD  
CHECKED BY: MLR  
PROJECT No.: 05037-6001



**SEPTIC SYSTEM ELEVATIONS**  
 A= 503.80  
 B= 501.73 (INV. INTO TANK)  
 C= 496.73  
 D= 497.04  
 E= 498.29  
 F= 500.29  
 G= 501.29  
 H= 1.07' (7" MIN.)  
 I= 503.00 (INV. OUT OF TANK)

FFE = 508.55  
 BSE = 498.71  
 INV. OUT OF HOUSE = 502.60  
 INV. INTO DISTRIBUTION BOX = 500.30  
 TOP OF TANK = 502.73  
 DOSE VOLUME = 50 GAL.  
 TIME PER DOSE = 1 MIN.

**NOTE:**  
 THE PROPOSED HOUSE IS TO HAVE 4 BEDROOMS, AS SUBMITTED BY BUILDING PERMIT. TRENCH DESIGN IS FOR 5 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 PER 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: 14790, FOLIO 067.
- THE HEALTH DEPARTMENT REQUIRES 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 BEHIND PROBE.
- IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
- ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.

**SEWAGE DISPOSAL SYSTEM DATA: PERMIT 4 BEDRMS. (DESIGN: 5 BEDROOMS)**

- PROP. INVERT AT FOUNDATION WALL: 502.90  
 1. HOOT 500 BNR (MAX. NO. BEDRMS.=5)  
 EX. GRADE OVER TANK: 503.70  
 PROP. GRADE OVER TANK: 503.90  
 INVERT INTO TANK: 501.83 INVERT (DISCHARGE ELEV.) OUT TANK: 503.10
2. DISTRIBUTION BOX:  
 EX. GRADE: 503.50  
 PROP. GRADE: 503.50  
 INVERT IN: 499.50
3. TRENCH DESIGN:  
 (5 BDRM X 150 GPD/BDRM = 750 GPD)  
 750 / 2.22" APP. RATE = 325" SF 4" 57.5"  
 USE 3" WIDE TRENCH AND 9" MIN. SPACING BETWEEN TRENCH EDGES.  
 737.5625 SF / 3" WIDTH = 208.33 L.F. X 0.83" = 172.9 L.F. MIN. TRENCH  
 USE 3- 50' LONG TRENCHES = 174 L.F. X 0.83" = 143.75

**TRENCH DATA:**

- TRENCH 1:  
 EX. GROUND ABOVE = 503.30  
 INV. IN = 500.30  
 BOTTOM TRENCH = 498.30
- TRENCH 2:  
 EX. GROUND ABOVE = 503.00  
 INV. IN = 500.00  
 BOTTOM TRENCH = 496.00

**DESIGN DATA & GENERAL NOTES**

- Concrete strength F<sub>cm</sub> 4000 p.s.i. @ 28 days. Density = 150 p.c.f.
- Concrete - Portland Type III per ASTM C 1519-02.
- Reinforcing steel per ASTM A 618, Min. 50% cover.
- Reinforcing per ASTM A 618, Min. 1/2" cover.

**Mayer Brothers, Inc.**  
 6264 Rees Road  
 Ellicott City, Maryland 21075  
 Tel. 410.796.5434  
 Fax. 410.796.4268  
 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



**APPLICATIONS**  
 Specifically designed for the following uses:  
 • Effluent systems  
 • Homes  
 • Farms  
 • Heavy duty pump  
 • 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.
- BEUNA-V 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.

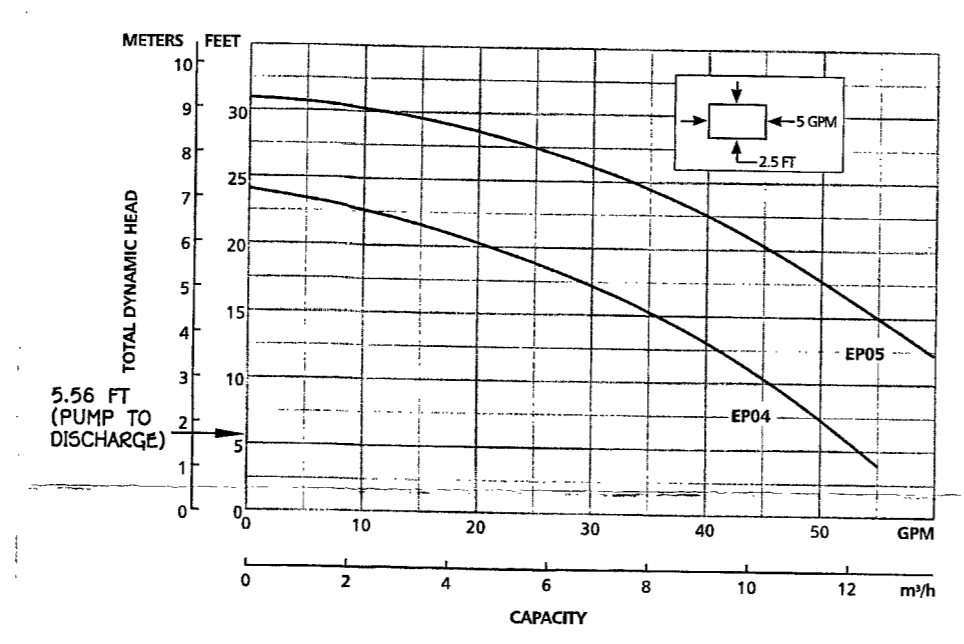
Available for automatic and manual operation. Automatic models include Mechanical Float Switch assembled and preset at the factory.

**PERFORMANCE RATINGS**

Total Head (ft. of water)	Gallons Per Minute	EP04	EP05
5	52		
10	46	62	
15	36	55	
20	27	46	
25	17	33	
30	8	11	

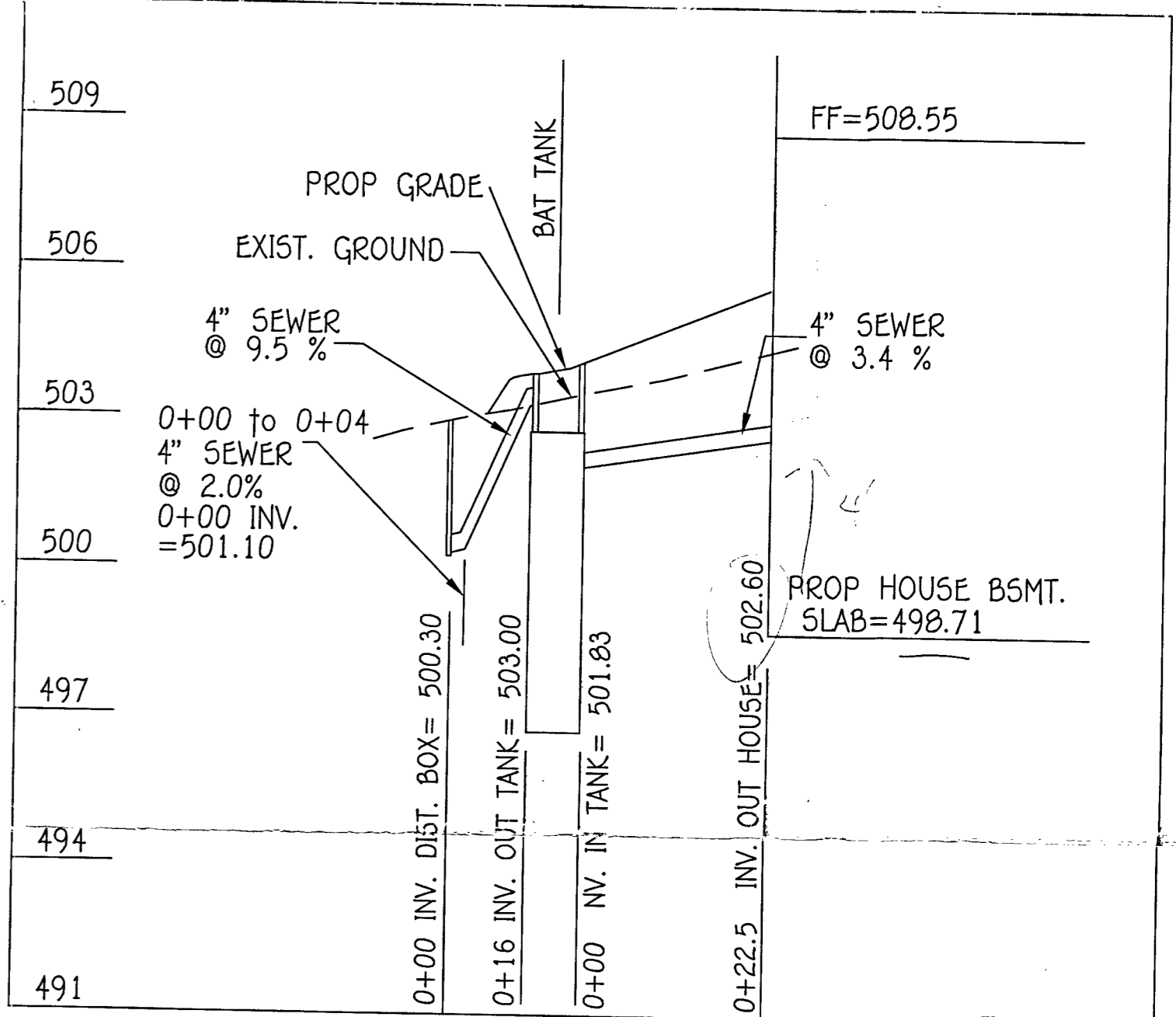
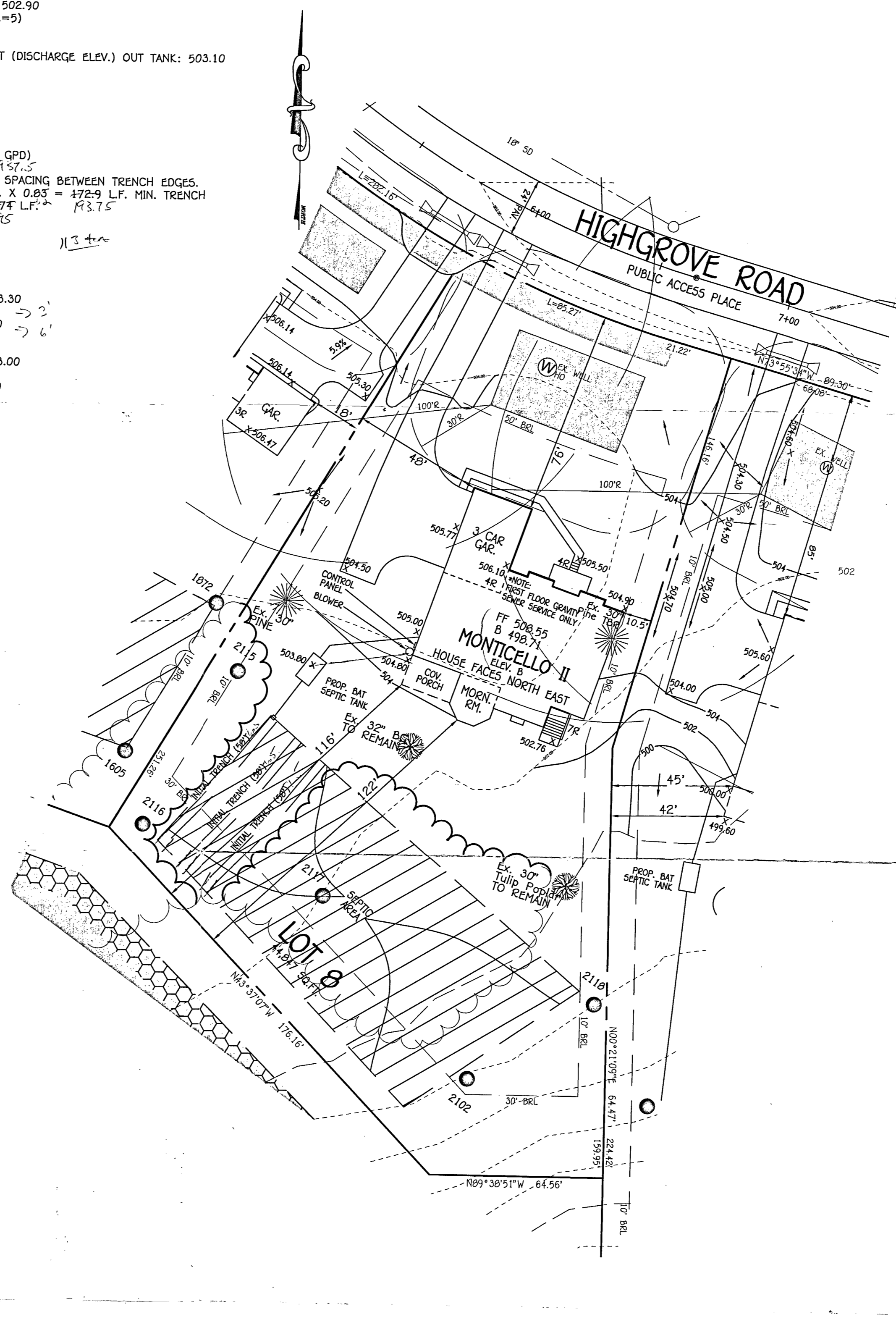
**COMPONENTS**

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



**MODEL INFORMATION**

Order No.	HP	Volts	Amperage	Phase	Float Switch Style	Cord Length	Discharge Connection	Minimum On Level	Minimum Off Level	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight
EP0411		115	12	20	Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20/9.1
EP0411A		115	12	20	Piggyback / Wide-Angle	10'	1 1/2"	Manual	Manual	15"		21/9.5
EP0411F		115	12	20	Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20/9.1
EP0411AC		115	12	20	Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		21/9.5
EP0412		230	6	10	Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20/9.1
EP0412F		230	6	10	Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20/9.1
EP0511F		115	13	20	Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22/10
EP0511AC		115	13	20	Piggyback / Wide-Angle	20'	1 1/2"	Manual	Manual	15"		23/10.4
EP0512F		230	6.5	10	Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22/10



**SEPTIC SYSTEM PROFILE**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 3'

Approved Septic System Plan  
 Howard County Health Department  
 Signature: [Signature] Date: 5/14/14

**SCHOOLEY MILL FARM**  
 SITE PLAN FOR BAT INSTALLATION FOR LOT 8  
 13018 HIGHGROVE ROAD  
 Zoned: RR-DEO  
 Tax Map No. 40; Grid No. 10 & 11; Parcel No. 115 & 149  
 Fifth Election District - Howard County, Maryland  
 Date: May, 2014 Scale: As Shown

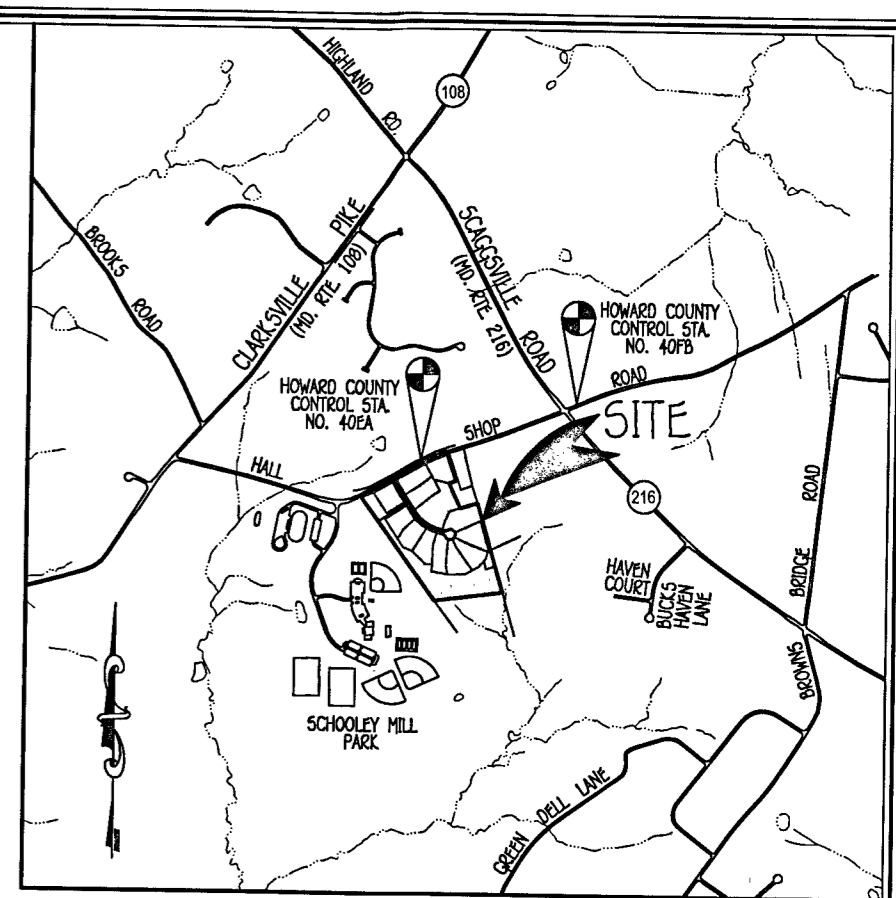
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 12222 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2895

**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. 20748, EXPIRATION DATE: 2/22/15.  
 Signature: [Signature] Date: 5/14/14  
 ALDO N. VITUCCI



**WELL CERTIFICATION:**  
 THE EXISTING WELL, TAG NO. HO-95-2444, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

**BUILDER/DEVELOPER**  
 NV HOMES  
 9720 Patuxent Woods  
 COLUMBIA, MARYLAND 21046  
 410-379-9956



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

**BENCH MARKS**  
 T.P. 40EA  
 N. 547,911.391  
 E. 1,324,510.091  
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & ENTRANCE TO SCHOOLEY MILL PARK  
 T.P. 40FB  
 N. 546,470.366  
 E. 1,326,000.805  
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & SCAGVILLE ROAD