



Howard County Health Department

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: 7/21/14

ONSITE SEWAGE DISPOSAL SYSTEM

P 554548

INSTALLATION APPROVAL DATE:

PERMIT CONSTRUCTION

A

PROPERTY ADDRESS: 13013 Highgrove Road

SUBDIVISION: Schooley Mill LOT: PPA TAX ID: 05595649

CONTRACTOR: South Carroll Backhoe EMAIL:

CONTRACTOR ADDRESS: PHONE:

PROPERTY OWNER: NVR EMAIL:

OWNER ADDRESS: 9720 Patuxent Woods PHONE:

BAT UNIT MODEL: Hoot BNR 600 \* H2O Tight test BAT UNIT SIZE: 600 gpd

PUMP CHAMBER CAPACITY (GALLONS): n/a Reg'd. PUMP SIZE:

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

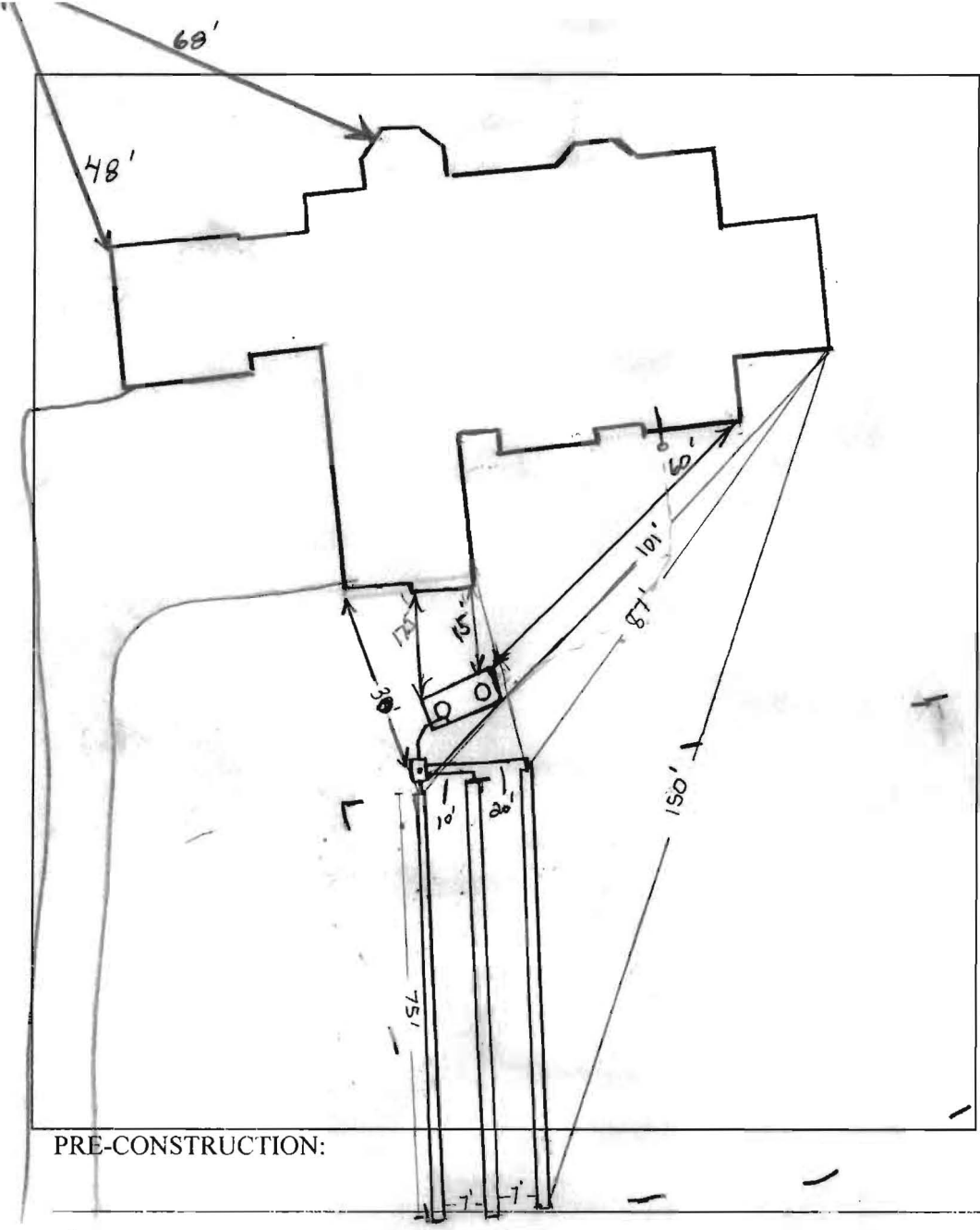
DISTRIBUTION SYSTEM: GRAVITY FED [X] LOW PRESSURE DOSED [ ]

Table with 2 columns: Field Name, Value. Fields include TRENCHES (Linear Feet Required: 195 220, Trench Width: 3' 2", Minimum Space Between Trenches: 9', Inlet Depth: 3', Maximum Bottom Depth: 6' 7', Effective Area Beginning Depth: 4'), LOCATION (Per approved site plan...), NOTES.

ISSUED BY: Jeff Williams ISSUE DATE: 7/21/14 EXPIRATION DATE: 7/21/15

- 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 DOWNGRAIENT 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.



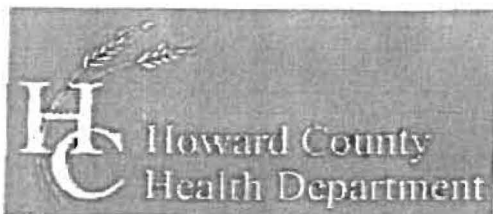
TRENCH/DRAINFIELD DATA		
(If Installed/Needed)		
WIDTH	INLET	BOTTOM
2'	3'	7'
NUMBER OF TRENCHES		3
TOTAL LENGTH		_____
ABSORPTION AREA		_____
DIST. BOX LEVEL		_____
DIST. BOX BAFFLE		_____
DIST. BOX PORT		_____

HOOT 600 GPD BNR SYSTEM	
BAY RESTORATION FUND	
MANUFACTURER	Mayer Bros.
CAPACITY	~2,100 GAL
SEAM LOCATION	Top
TANK LID DEPTH	0.5'-1.5'
FRONT BAFFLE	_____
MANHOLE LOC	Front + Rear
6" PORT LOC	None
WATERTIGHT TEST	_____
AERATOR FUNCTIONING	_____
ALARM FUNCTIONING	_____
DATE ON LID	_____
PUMP MODEL	_____

PRE-CONSTRUCTION:

8/15/14 Install trench per BAT site plan. Adjusted some in field to make contour. Trench spec's adjusted as is. BAT location not staked. (Kaw) 8/19/14 Lower trench dug per bat site. Looks good. OK to continue (Kaw) 8/20/14 - All 3 trenches have been installed, 2 trenches left open at either end and 1 left completely open for inspection. Three trenches @ 75' each x 2' wide x 7' ETE. Soil observed onsite consistent w/ perc data, tank location staked and painted but not onsite yet, stone (2") used in trenches observed to be of marginal quality (not washed) (Kaw) 9/26/14 Correspondence w/ BAT unit must be H2O tight tested!! (Kaw) 9/29/2014 Tank set, (Kaw) 9/30/14 Dbox set, w/ plumbing. 2 HC needed. H2O tight test needed! Told contractor OK to as-built the form house to tank. Contractor had pipe laid in trench but not solvent welded. OK to cover when finished. (Kaw)

FINAL INSPECTOR \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_



**Bureau of Environmental Health**

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 10<sup>th</sup> day of February, 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 13013 Highgrove Road, Highland, Maryland 20777, in the 5<sup>th</sup> 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.

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

*Buildable Preservation Parcel 1/4*

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.


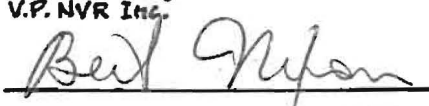
G. This agreement may be voided at any time at the discretion of the County.

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.

	<u>2/10/14</u>	_____	_____
Owner	Date	Owner	Date
Timothy Naughten			
V.P. NVR Inc.			
	<u>2/18/14</u>		
Howard County Health Department			



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

## Letter of Satisfaction Hoot System Installation

Address of Property: 13013 Highgrove Rd. Lot 12  
Highland, MD 20777

Date of Final Inspection: 1/3/14

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.

\*Note: The Hoot System is Operational, But Exceeds  
The Manufacturers Maximum Burial Depth

Sincerely,

H. Michael Sample  
Name of Inspector  
Mayer Bros., Inc.

PH: 410-796-1434

FX: 410-796-1438

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

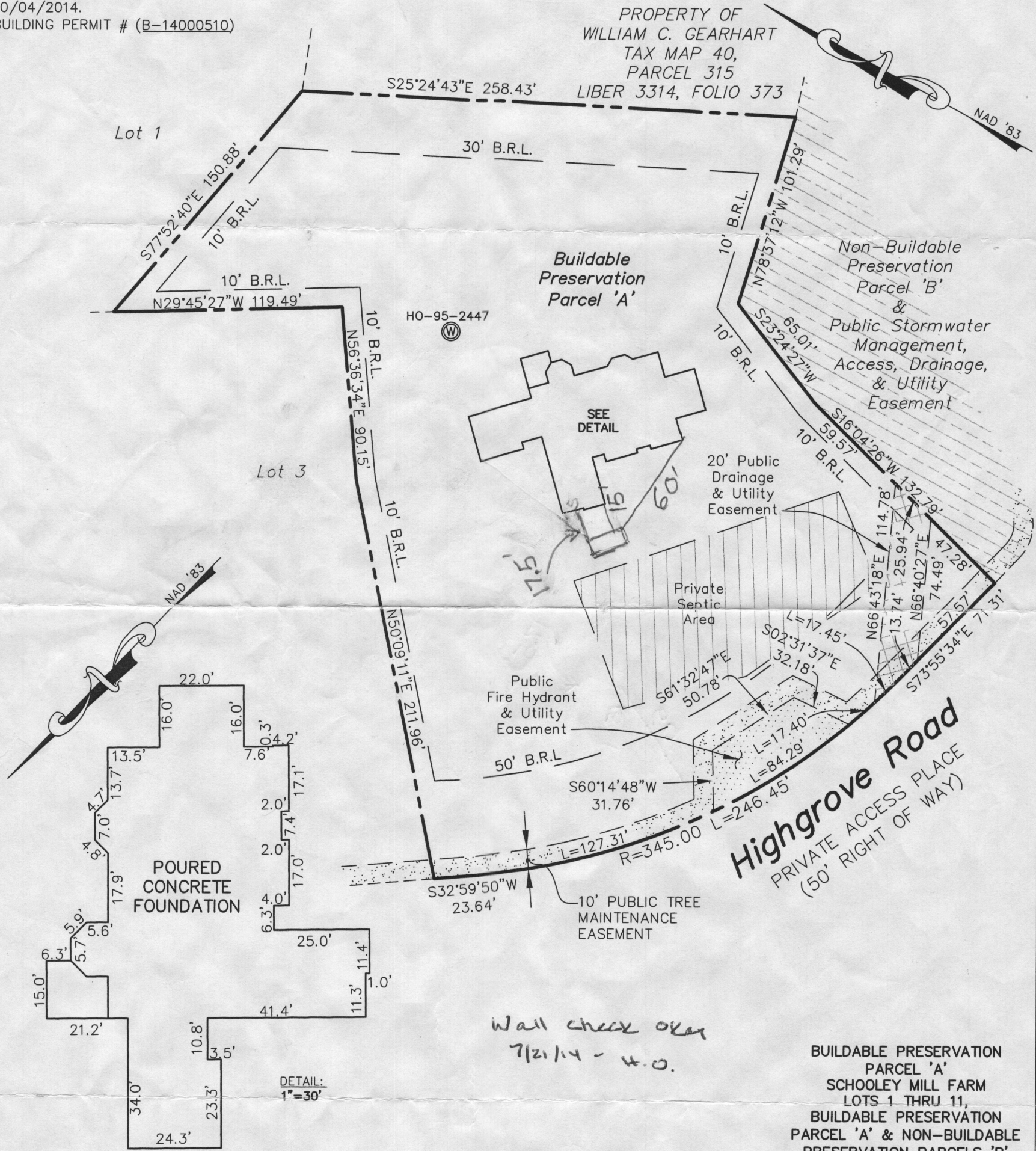
mayerbro@connext.net

www.mayerbrosprecast.com

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, PermEntry Basement Entries,  
Scapewell Window Walls, Custom Precast Products

**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-95-2447 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-14000510)



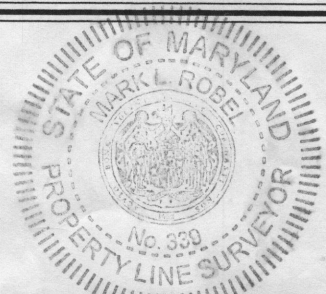
Wall check okay  
7/21/14 - H.O.

BUILDABLE PRESERVATION  
PARCEL 'A'  
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

#13013 HIGHGROVE ROAD  
TOP OF FOUNDATION ELEVATION = 510.9±

**Lot 12 - Parcel A**

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

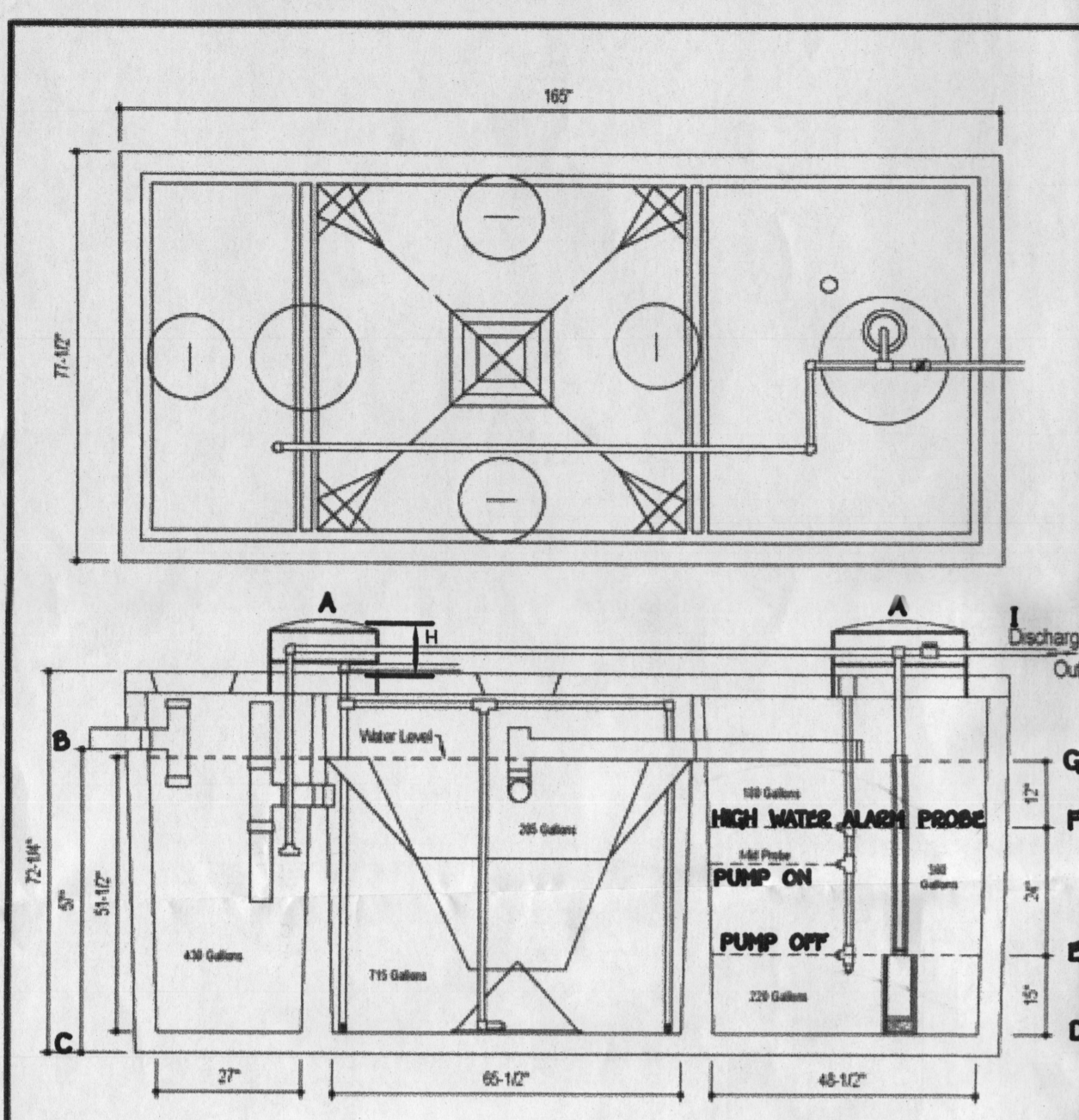


Mark L. Robel  
PROPERTY LINE SURVEYOR  
REG. #339  
7/03/14  
DATE

**HOUSE LOCATION  
DRAWING**

FOUNDATION LOCATION: 7/2/14  
FINAL LOCATION: \_\_\_\_\_  
BOUNDARY SURVEY: \_\_\_\_\_

SCALE: 1"=60'  
DATE: 7/3/14  
DRAWN BY: GAD  
CHECKED BY: MLR  
PROJECT No.: 05037-6001



- 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 RECESSED 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 THEM, 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 FACSIMILE HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 14780, FOLIO 087.
  - 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 BENEATH PROBE.
  - IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER SPEC FOR ADDITIONAL INFORMATION.
  - ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.

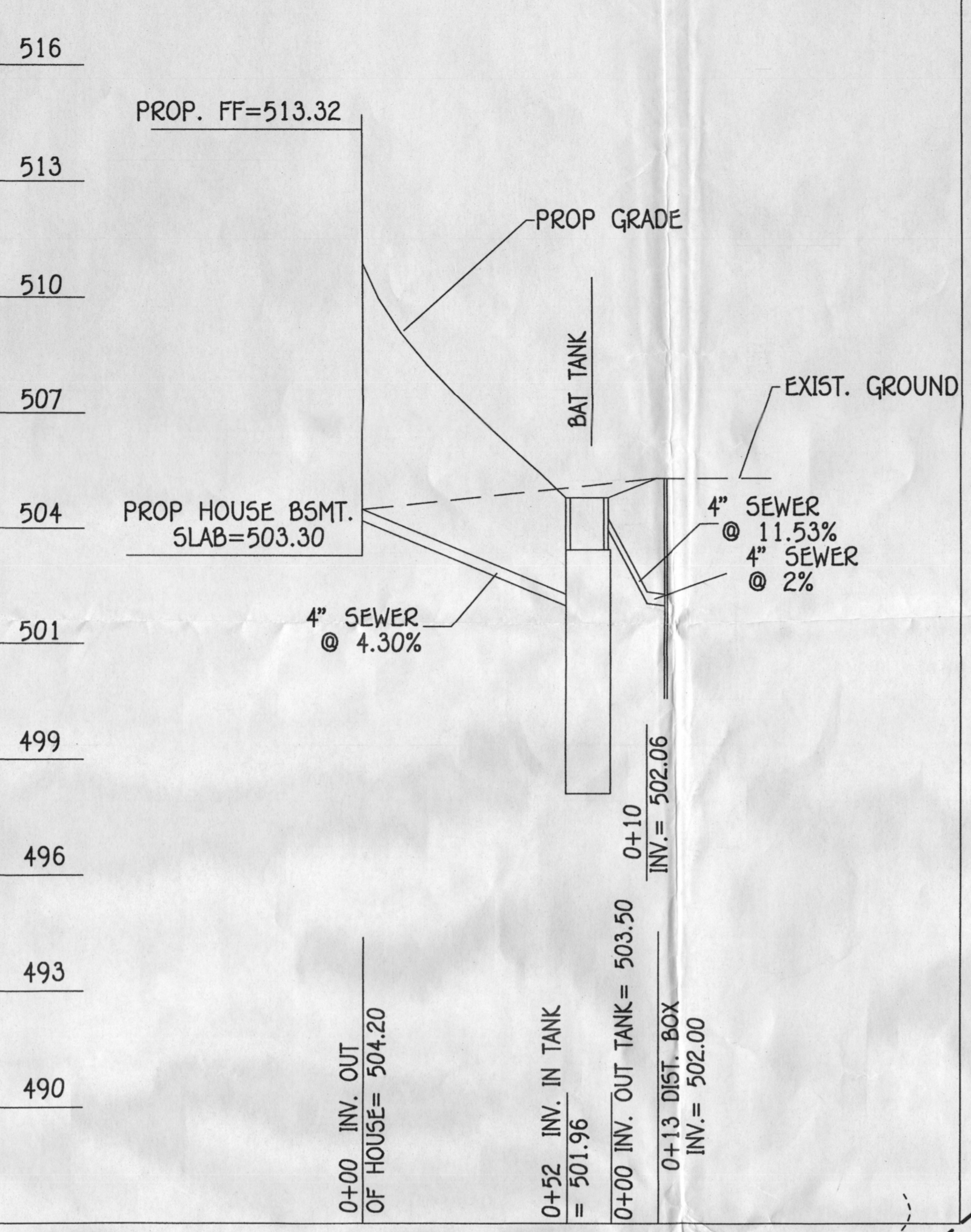
**DESIGN DATA & GENERAL NOTES**

- Concrete strength F<sub>cr</sub> 4,000 p.s.i. @ 28 days. Density = 150 p.c.f.
- Concrete - Portland Type III per ASTM C 150-02.
- Reinforcing steel per ASTM A 618, Grade 60.
- Reinforcing per ASTM A 618, Min. 1/4" cover.

**Mayer Brothers, Inc.**  
 6200 Rock Road  
 Elkridge, Maryland 21039  
 Tel. 410.765.1434  
 Fax 410.765.1489  
 www.mayerbrothers.com

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

Dep. No. Hoot Form #1 No Scale March 19, 2009



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

- TRENCH DATA:**
- TRENCH 1:  
 EX. GROUND ABOVE = 505.00  
 INV. IN = 502.00  
 BOTTOM TRENCH = 499.00
- TRENCH 2:  
 EX. GROUND ABOVE = 505.00  
 INV. IN = 501.60  
 BOTTOM TRENCH = 498.60
- TRENCH 3:  
 EX. GROUND ABOVE = 505.00  
 INV. IN = 501.30  
 BOTTOM TRENCH = 498.30

**ITT GOULDS PUMPS Wastewater**

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

**SPECIFICATIONS**  
 • Solid handling capability: 1" maximum.  
 • Capacity: up to 60 GPM.  
 • Total head: up to 31 feet.  
 • Discharge size: 1 1/2" NPT.  
 • Mechanical seal: carbon, energy-efficient, stationary, 316SS-40 construction.  
 • Temperature: 180°F (80°C) continuous, 140°F (60°C) intermittent.  
 • Features: 300 series stainless steel.  
 • Capable of running dry without damage to components.

**PERFORMANCE RATINGS**

Total Head (ft. of water)	Gallons Per Minute (GPM)
10	58
15	38
20	28
25	18
30	11

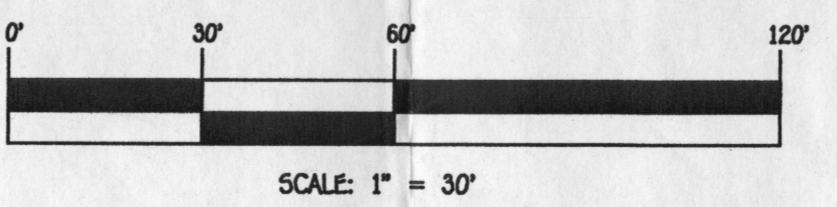
**COMPONENTS**

Item No.	Description
1	Motor
2	Impeller
3	Pump Casing
4	Mechanical Seal
5	Ball Bearings
6	1/2" Shaft
7	Pump Cowl
8	Oil Filled Motor
9	Motor Assembly
10	Motor Cover

**TECHNICAL INFORMATION**

Model No.	HP	Volts	Phase	Flow Switch	Flow Switch Type	Flow Switch Location	Flow Switch Size	Flow Switch Material	Flow Switch Pressure	Flow Switch Temp.	Flow Switch Voltage	Flow Switch Current
EP001A	1/2	115	1	Yes	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001B	1/2	115	1	No	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001C	1/2	115	1	Yes	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001D	1/2	115	1	No	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001E	1/2	115	1	Yes	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001F	1/2	115	1	No	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001G	1/2	115	1	Yes	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A
EP001H	1/2	115	1	No	Pressure	Top of Tank	1/2"	Stainless Steel	10"	100°F	120V	1.5A

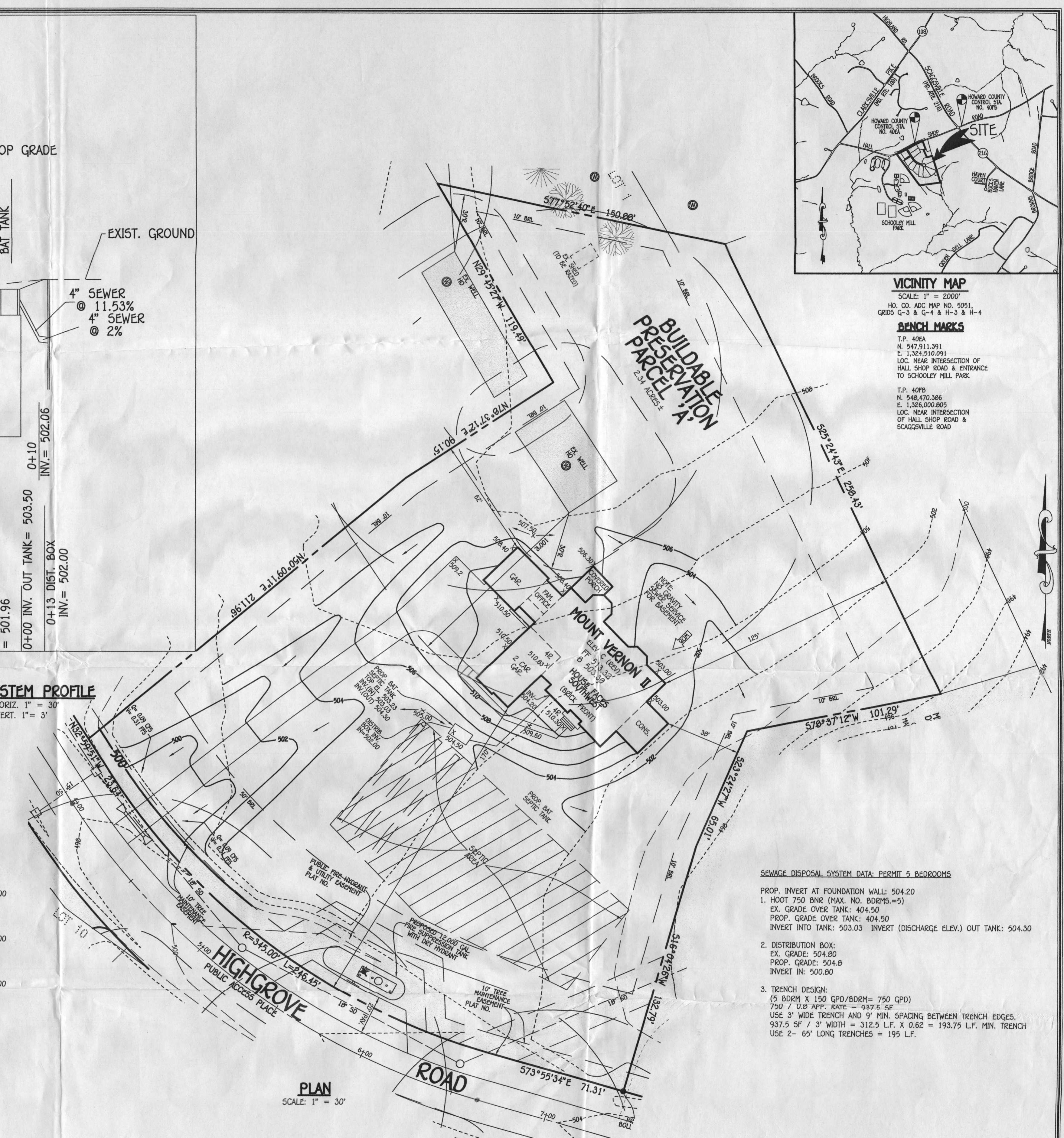
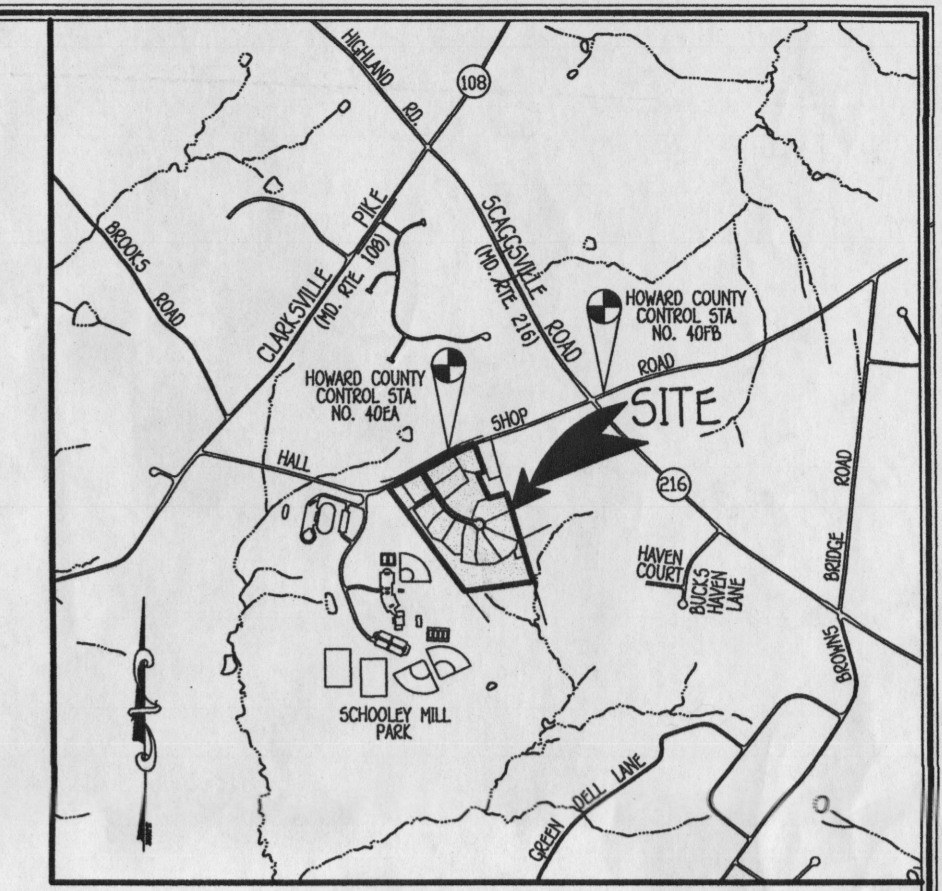
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20748, EXPIRATION DATE: 2/22/15.  
 ALDO M. VITUCCI  
 DATE: 5/14/14



**WELL CERTIFICATION:**  
 THE EXISTING WELL, TAG NO. HO-95-2440, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

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

**SCHOOLEY MILL FARM**  
 SITE PLAN FOR BAT INSTALLATION FOR PRESERVATION PARCEL 'A'  
 13013 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



I:\2005\05037\dwg\Site Development, Sediment & Erosion Control Plans\05037-3001 Bat Plan Pres Per Advg, Layout1, 5/12/2014 10:42:58 AM, 1:1