

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: 6-4-14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 546386

INSTALLATION **PERMIT**
 APPROVAL DATE: 11/13/2014 **CONSTRUCTION** A _____

PROPERTY ADDRESS: 6226 Heather Glen Way

SUBDIVISION: Preserve at Clarksville LOT: P/A TAX ID: _____

CONTRACTOR: Hatfield's Equipment EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 20701 PHONE: 301-490-4289

PROPERTY OWNER: Compass Homes EMAIL: _____

OWNER ADDRESS: 6206 Heather Glen Way, Clarksville, MD 21029 PHONE: _____

BAT UNIT MODEL: Norweco TNTLP BAT UNIT SIZE: 600GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: 4 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.	

ISSUED BY: Jeff Williams ISSUE DATE: 6-4-14 EXPIRATION DATE: 6-4-15

- 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.**

NOT TO SCALE

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'-4.5'	7'
NUMBER OF TRENCHES <u>3</u>		
TOTAL LENGTH <u>195'</u>		
ABSORPTION AREA <u>585+Sidewall</u>		
DISTRIBUTION BOX LEVEL <u>Yes</u>		
DISTRIBUTION BOX BAFFLE <u>Yes</u>		
DISTRIBUTION BOX PORT <u>Yes</u>		

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	<u>Yes</u>
MANUFACTURER	<u>Norweco</u>
CAPACITY	<u>1300</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>2'-3.5'</u>
BAFFLES	<u>No</u>
BAFFLE FILTER	<u>No</u>
MANHOLE LOC	<u>Front, Middle +</u>
6" PORT LOC	<u>None</u> Rear
WATERTIGHT TEST	<u>No</u>
SLOTTED	<u>N/A</u>
DATE ON LID	<u>3/19/2014</u>
PUMP/SEPTIC TANK LEVEL	<u>Yes</u>
MANUFACTURER	<u>Maryland Concrete</u>
CAPACITY	<u>1500</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>1.5'-3'</u>
BAFFLES	<u>No</u>
BAFFLE FILTER	<u>No</u>
MANHOLE LOC	<u>Middle</u>
6" PORT LOC	<u>None</u>
WATERTIGHT TEST	<u>No</u>
SLOTTED	<u>No</u>
DATE ON LID	<u>2/14/2014</u>

See As-Built Drawing
On Separate Sheet

ROAD NAME

PRE-CONSTRUCTION:

5/20/2014 G.K. to set tank a little further from house than shown on plan. Tank will be too deep at location shown on plan. (BB) 6/17/2014 Trench locations marked. (BB)

INSTALLATION:

7/2/2014 Tanks set. House connection made. Pump line installed up to septic easement. (BB) 7/3/2014 (AM) Dist. box set. Bottom trench done. (BB) 7/3/2014 (PM) Trenches finished. Have certification from Norweco. Need pump and alarm test. (BB) 11/13/2014 Pump and alarm working correctly. (BB)

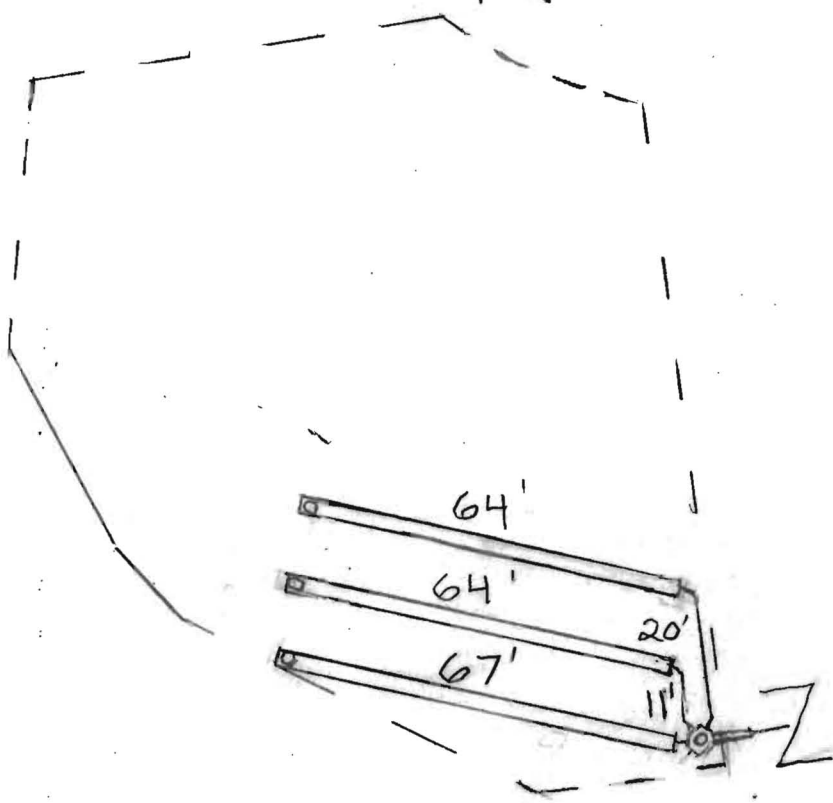
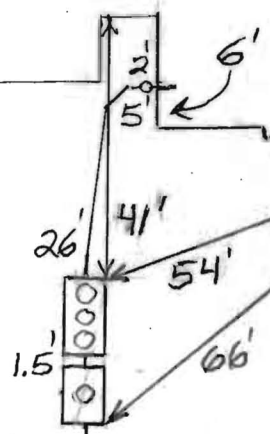
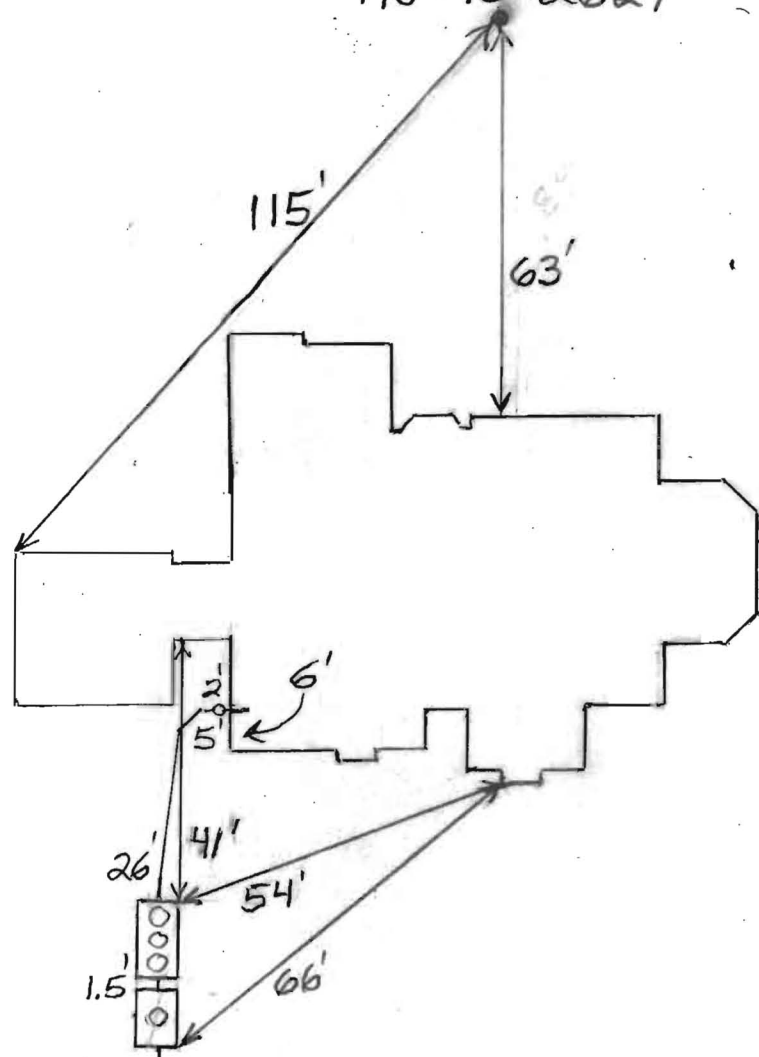
FINAL INSPECTOR

B. Baker

DATE OF APPROVAL

11/13/2014

H0-95-2629




Back River Pre-Cast, LLC

PO BOX 329
Glyndon, MD 21071
Phone # 410-833-3394
Fax # 410-833-4116

Letter of Certification

This is to certify that the Norweco Singulair TNT 600 GPD Septic Tank installed at 6226 Heather Glen Way., Clarksville, MD 21029 July 2, 2014 was installed according to the manufacture's specifications.

Installer: Jeff Reiter



MATTHEW GECKLE

Vice-President

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Tuesday, October 14, 2014 3:30 PM
To: 'BobCorbett@williamsburgllc.com'
Subject: Preserve at Clarksville Parcel A

I had a chance to pull the file and talk with Bert. As suspected, the combined Radium levels being below 5 along with the long term alpha/beta being low allows the well to not need treatment installed and no deviation needed.

Looking in the file, I don't see the regular potability test for the well and I don't see that the septic got a pump and alarm test. Those are the last two items needed before we can issue an ICOP. Thanks

Jeff Williams
Program Supervisor, Well & Septic Program
Bureau of Environmental Health
Howard County Health Dept.
410-313-4261
jewilliams@howardcountymd.gov

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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: howard count
health dept
Reference/Control #: 73

LR - Agreement Surcharge
1x 40.00 40.00

=====
SubTotal: 60.00
Total: 60.00

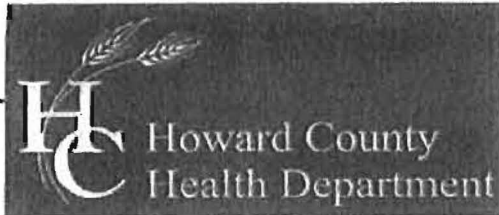
=====
REV-Check-BOA 60.00
Number : 239029

03/07/2014 12:55 CC13-NN

#2536116 /396/109

Thank you for visiting us today~

*SEPTIC AGREEMENT
PRESERVE PARCEL 'A'*



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

000073

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

THIS AGREEMENT is made this 6th day of March, 2014, among Al Kesh + Sharmila Patel, 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 6226 Heather Glen Way, 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 15 236 Folio 00071

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

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.

AD 3/6/14
Owner Date
Alkesh Dahyabhai Patel

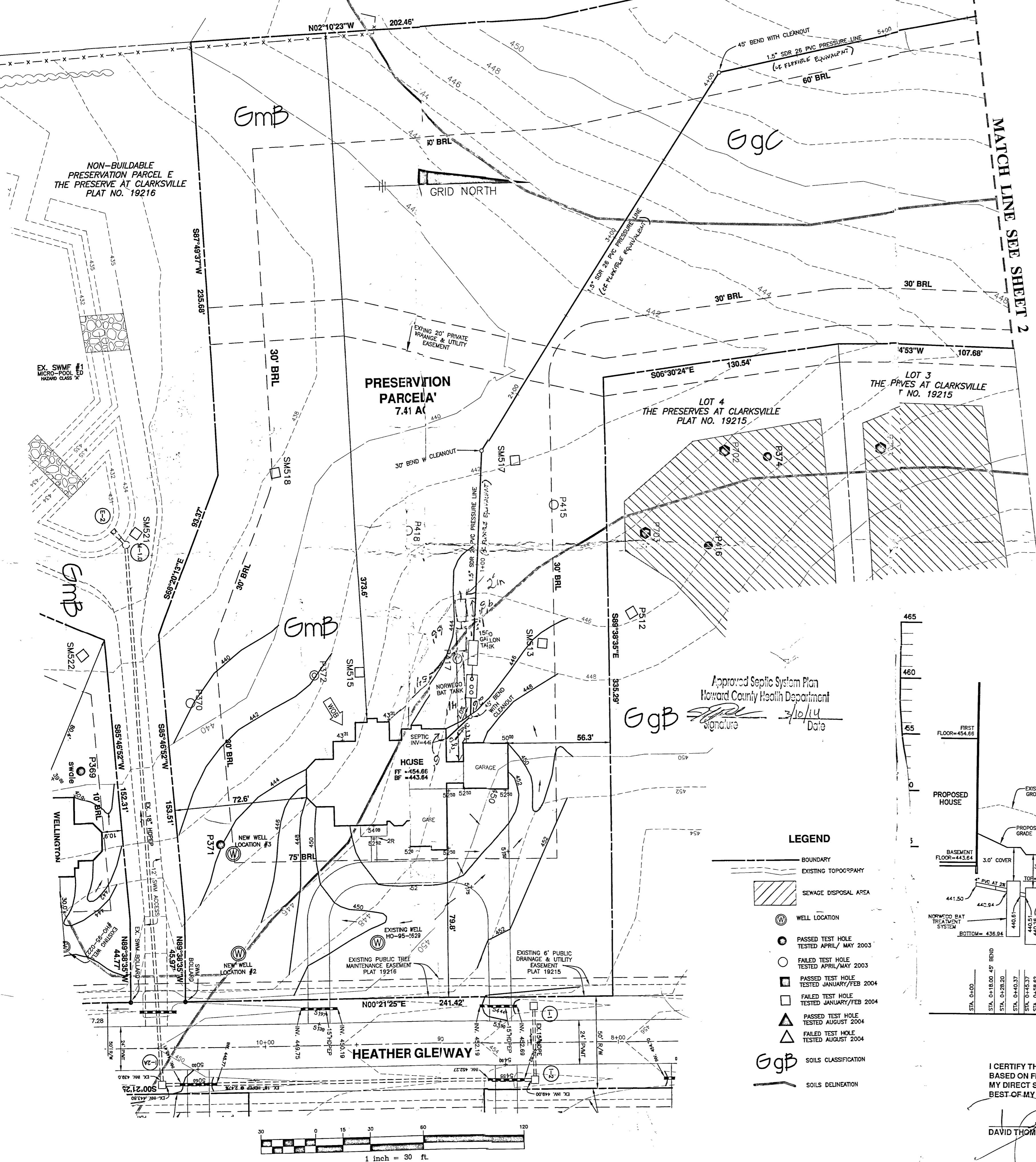
S. Patel 3/6/14
Owner Date
Sharmila A. Patel

Bert Nixon 3/6/14
Howard County Health Department
BERT NIXON

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
howard count health
dept
Reference/Control #:
73
LR - Agreement
Surcharge 40.00
=====
SubTotal: 60.00
=====
Total: 60.00
#2536116-1
03/07/2014 12:55
CC13-NN
#2536116 CC0503 -
Howard Co
Columbia/CC05.03.01 -
Register 01 396

NRCS SOILS CHART			
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP
GgB		I	
GgC		II	
GmB	YES	C	

PARCEL 43
N/F JEAN N. WARFIELD
2623 / 516
ZONED: RR-DEO
AGRICULTURAL EASEMENT
HO-91-04-E
N10°40'23"W 238.28'



NON-BUILDABLE PRESERVATION PARCEL E THE PRESERVE AT CLARKSVILLE PLAT NO. 19216

PRESERVATION PARCELA' 7.41 A'

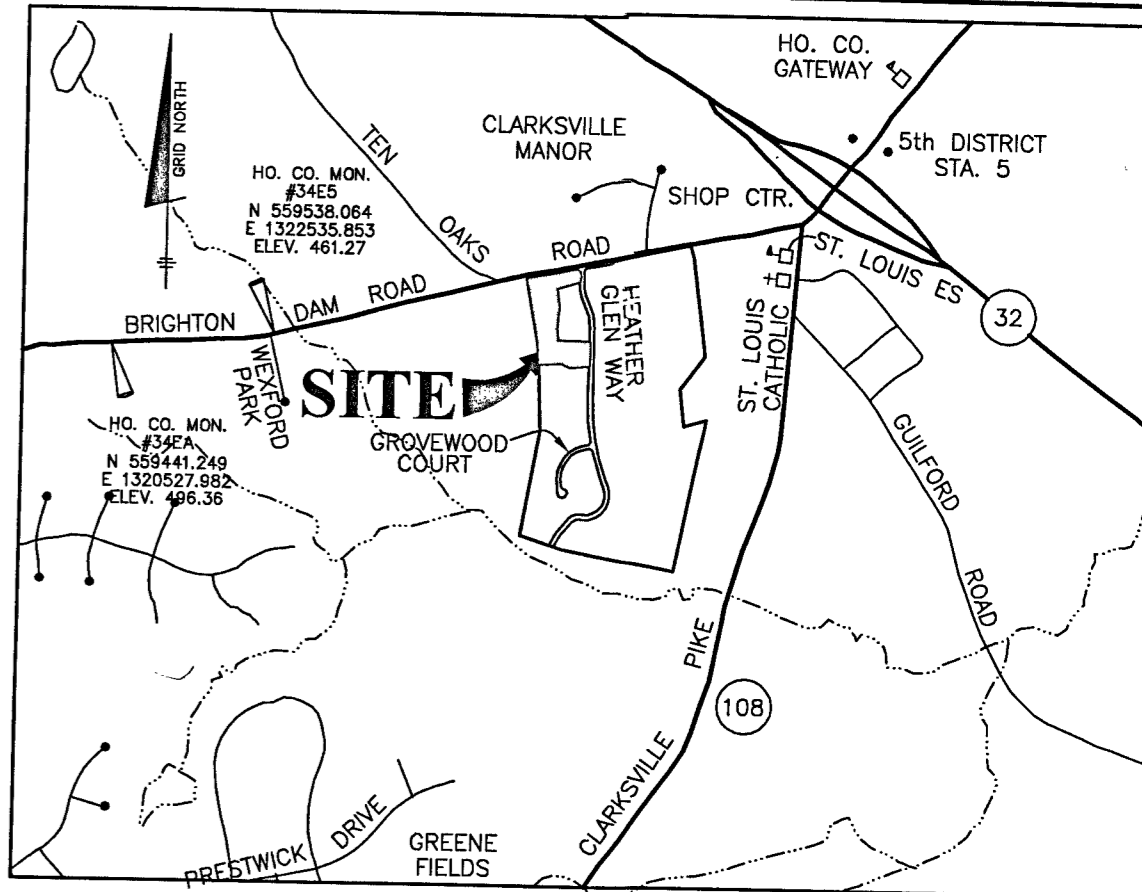
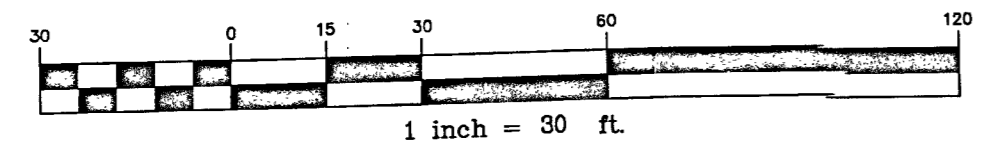
LOT 4 THE PRESERVES AT CLARKSVILLE PLAT NO. 19215

LOT 3 THE PRESERVES AT CLARKSVILLE PLAT NO. 19215

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] Date: 7/10/14

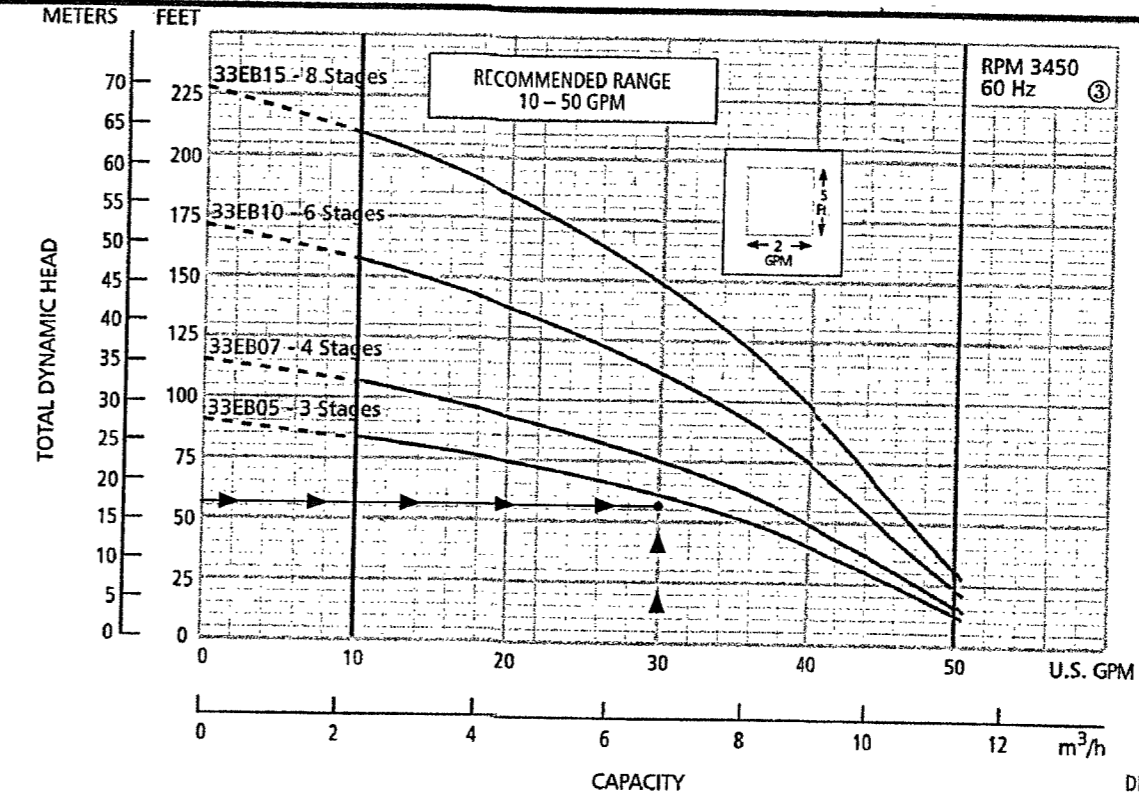
LEGEND

- BOUNDARY
- EXISTING TOPOGRAPHY
- SEWAGE DISPOSAL AREA
- WELL LOCATION
- PASSED TEST HOLE TESTED APRIL/MAY 2003
- FAILED TEST HOLE TESTED APRIL/MAY 2003
- PASSED TEST HOLE TESTED JANUARY/FEB 2004
- FAILED TEST HOLE TESTED JANUARY/FEB 2004
- PASSED TEST HOLE TESTED AUGUST 2004
- FAILED TEST HOLE TESTED AUGUST 2004
- SOILS CLASSIFICATION
- SOILS DELINEATION



34E3 - STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE
34E4 - STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE
VICINITY MAP
SCALE: 1" = 2000'

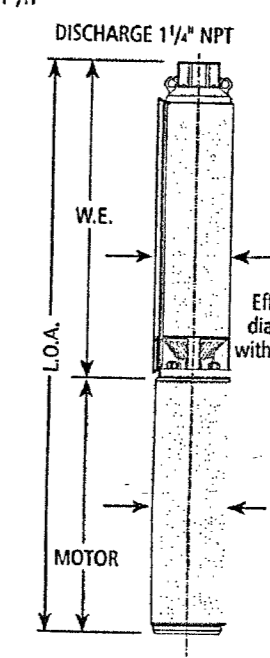
Model 33EB



DIMENSIONS AND WEIGHTS

Order Number	HP	Phase	Stages	Length (inches)		Weight (lbs.)			
				W.E.ⓐ	Motor	W.E.	Motor	Total	
20EB0522J, 20EB0521J	1/2	1	5	9.6	2.5	19.1	3	18	21
20EB0722J	1/2	1	6	11.3	10.7	22.0	4	20	24
20EB1022J	1	1	8	13.0	11.8	24.8	5	23	28
20EB1522J	1 1/2	1	11	15.5	15.1	30.6	6	31	37
33EB0522J, 33EB0521J	1/2	1	3	11.0	9.5	20.5	4	18	22
33EB0722J	1/2	1	4	12.2	10.7	22.9	5	20	25
33EB1022J	1	1	6	14.7	11.8	26.4	6	23	29
33EB1522J	1 1/2	1	8	17.1	15.1	32.2	7	31	38

ⓐ W.E. = water end of pump without motor.
ⓑ L.O.A. = length of assembly - complete pump - water end and motor.
Ⓒ Performance curves are based on running pumps without 1/2" discharge head weephole. Actual performance will be slightly lower unless weep hole is plugged.



Waste Water Flows

dwellings = 1
bedrooms = 5
Total flow = 750 GPD

gal/day/bedroom = 150

Tank Sizing

COMAR septic tank sizing = 2,000 gallons
Design septic tank size = 1,500 gallons
BAT Tank size = 1,300 gallons
Pump Tank = 1,500 gallons

Tank Design and Flow Rates

Tank Size: x = 12.58 ft, y = 5.58 ft, z = 3.67 ft, Width (bottom) = 0.33 ft, Width (top) = 0.42 ft

Pump Model = 55EB05
H(wet) = 11 inches
Note: 1.5" added to pump inlet (to inlet elevation)

Controls

Bottom Elevation = 430.84
Off Elevation = 437.86
On Elevation = 437.97
Alarm Elevation = 438.47

Storage above alarm = 1123 Gallons
Required depth = 2.14 ft
Desired runtime = 2 minutes
Pump design volume = 8.02 GPM
Flow rate = 30 GPM

Is storage above alarm sufficient YES

Friction Head

Force Main Size = 1.5 inches
Invert @ pump = 437.73
Invert @ high pt. = 458.25
Static Head = 20.52 ft

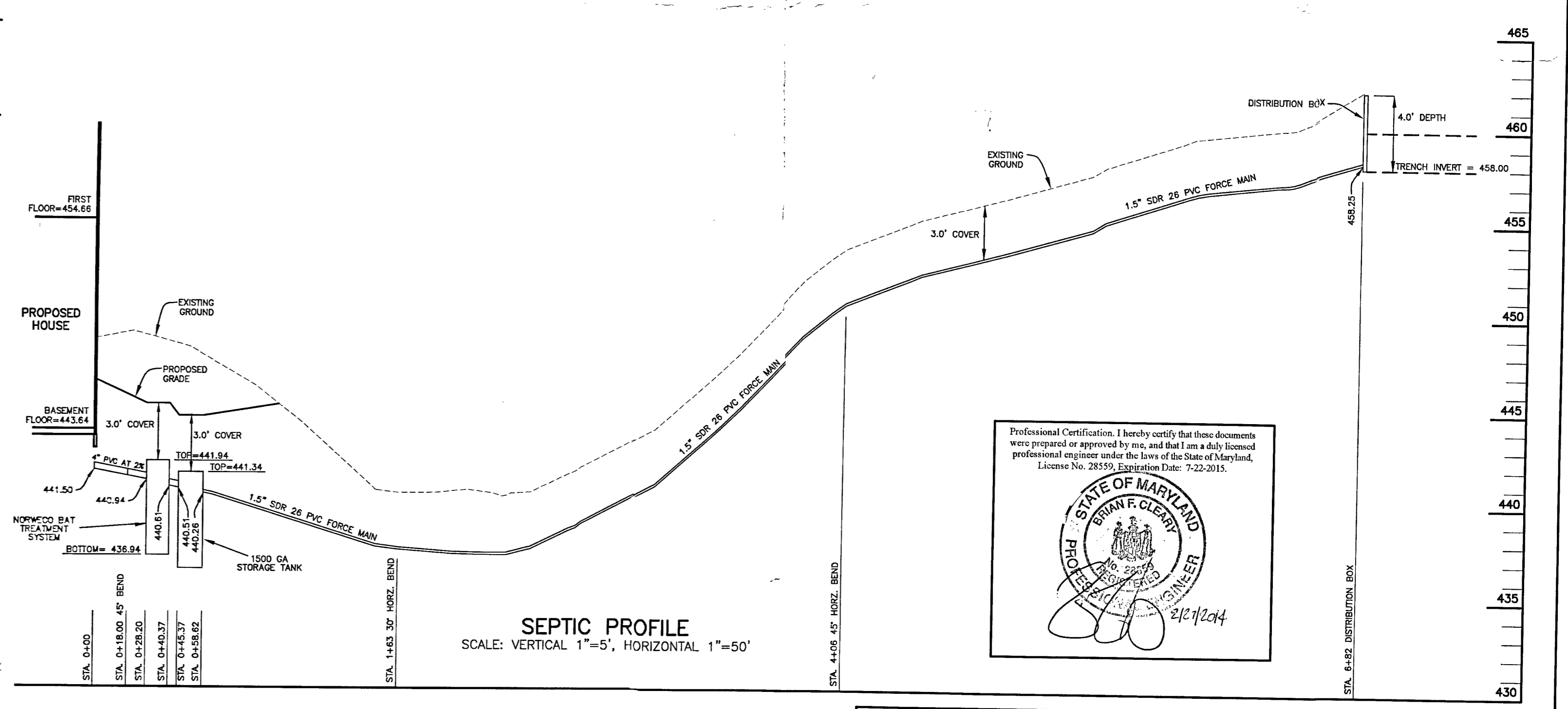
Force Main Length = 652 ft

Quantity: 3 fittings - Table 4.3 (9 ft), 1 fitting - Table 4.3 (5 ft), 1 fitting - Table 4.3 (0 ft)

45° Bend Loss = 3 ft, 90° Bend Loss = 5 ft, Gate Valve = 1 ft, Total Friction Head Equivalent = 696 ft

Pipe Loss = 5.22 ft/100ft - Table 4.4
Friction Head = 36.33 ft

Total Dynamic Head = 56.85 For pump design



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. 28559, Expiration Date: 7-22-2015.

STATE OF MARYLAND
BRIAN P. GLENN
Professional Engineer
2/27/2014

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DAVID THOMPSON

BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & FLECKOTT CITY, MARYLAND 21043
(P) 410-461-6100 (F) 410-461-6644
WWW.BM-ENR.COM

THE PRESERVE AT CLARKSVILLE
PARCEL 'A'
6226 HEATHER GLEN WAY

TAX MAP: 34 GRID: 11 PARCEL: 77
ZONED: RR-DEO
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SITE PLAN FOR BAT INSTALLATION

DATE: FEBRUARY 27, 2014 BEI PROJECT NO: 1407-W
SCALE: AS SHOWN SHEET 1 OF 2

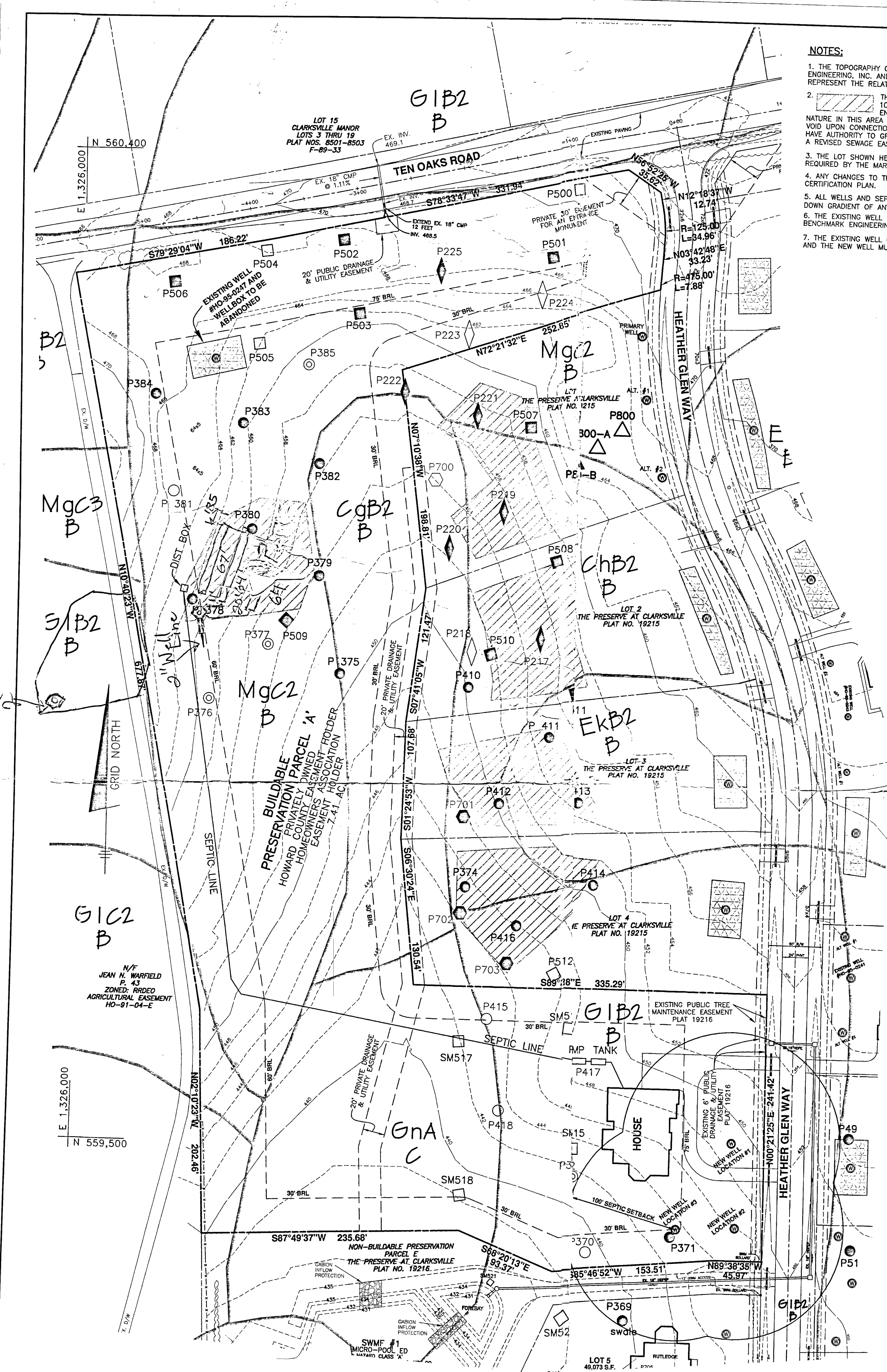
DESIGN: DBT DRAWN: DBT

NOTES:

1. THE TOPOGRAPHY OF THIS PLAN IS TAKEN FROM FIELD SURVEY BY BENCHMARK ENGINEERING, INC. AND SIGNED F-06-072 PLANS AND IS VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY.
2. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
3. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
4. ANY CHANGES TO THE PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE LOT BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
6. THE EXISTING WELL ON THIS LOT (TAG NO. HO-95-0247) HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC. AND IS ACCURATELY SHOWN.
7. THE EXISTING WELL ON THIS LOT (TAG NO. HO-95-0247) MUST BE PROPERLY ABANDONED AND THE NEW WELL MUST BE DRILLED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

LEGEND

- PASSED TEST HOLE TESTED NOV-DEC 2001
- FAILED TEST HOLE TESTED NOV-DEC 2001
- PASSED TEST HOLE TESTED APRIL/MAY 2003
- FAILED TEST HOLE TESTED APRIL/MAY 2003
- MARGINAL TEST HOLE TESTED APRIL/MAY 2003
- PASSED TEST HOLE TESTED JANUARY/FEB 2004
- FAILED TEST HOLE TESTED JANUARY/FEB 2004
- PASSED TEST HOLE TESTED JUNE 2004
- FAILED TEST HOLE TESTED JUNE 2004
- PASSED TEST HOLE TESTED AUGUST 2004
- FAILED TEST HOLE TESTED AUGUST 2004
- WELL LOCATION
- 1,500 SF WELL BOX
- SEPTIC AREA SEE NOTE #2 ABOVE



APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DAVID THOMPSON
PLAN PREPARER

Signature for Maria Roszman 11/5/2013
HEALTH OFFICER, HO. CO. HEALTH DEPT. DATE: 10/23/2013

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE SUITE 315 • ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644

BUILDER:
WILLIAMSBURG HOMES, INC
5485 HARPERS FARM ROAD
SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800

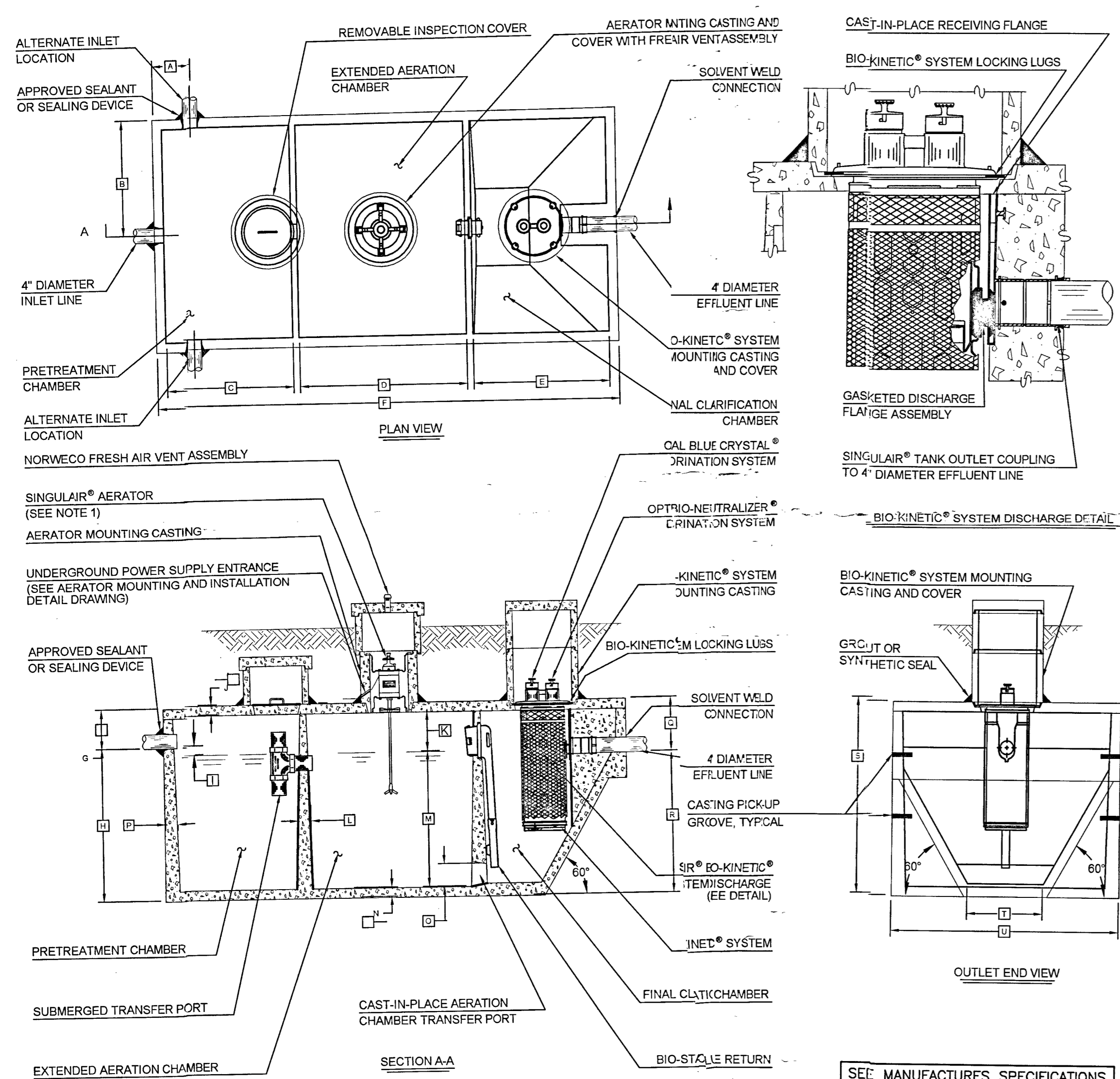
THE PRESERVE AT CLARKSVILLE PARCEL 'A'	
HEATHER GLEN WAY TAX MAP: 34 GRID: PARCEL 77 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
REVISED PERCOLATION CERTIFICATION PLAN	
DATE: OCTOBER 23, 2013	BEI PROJECT NO. 1407-W
SCALE: 1" = 60'	DRAWING 1 OF 1

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 BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
4. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
5. WITHIN ONE (1) 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.
6. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
7. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
8. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

LEGEND

- BOUNDARY
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- SEWAGE DISPOSAL AREA
- WELL LOCATION
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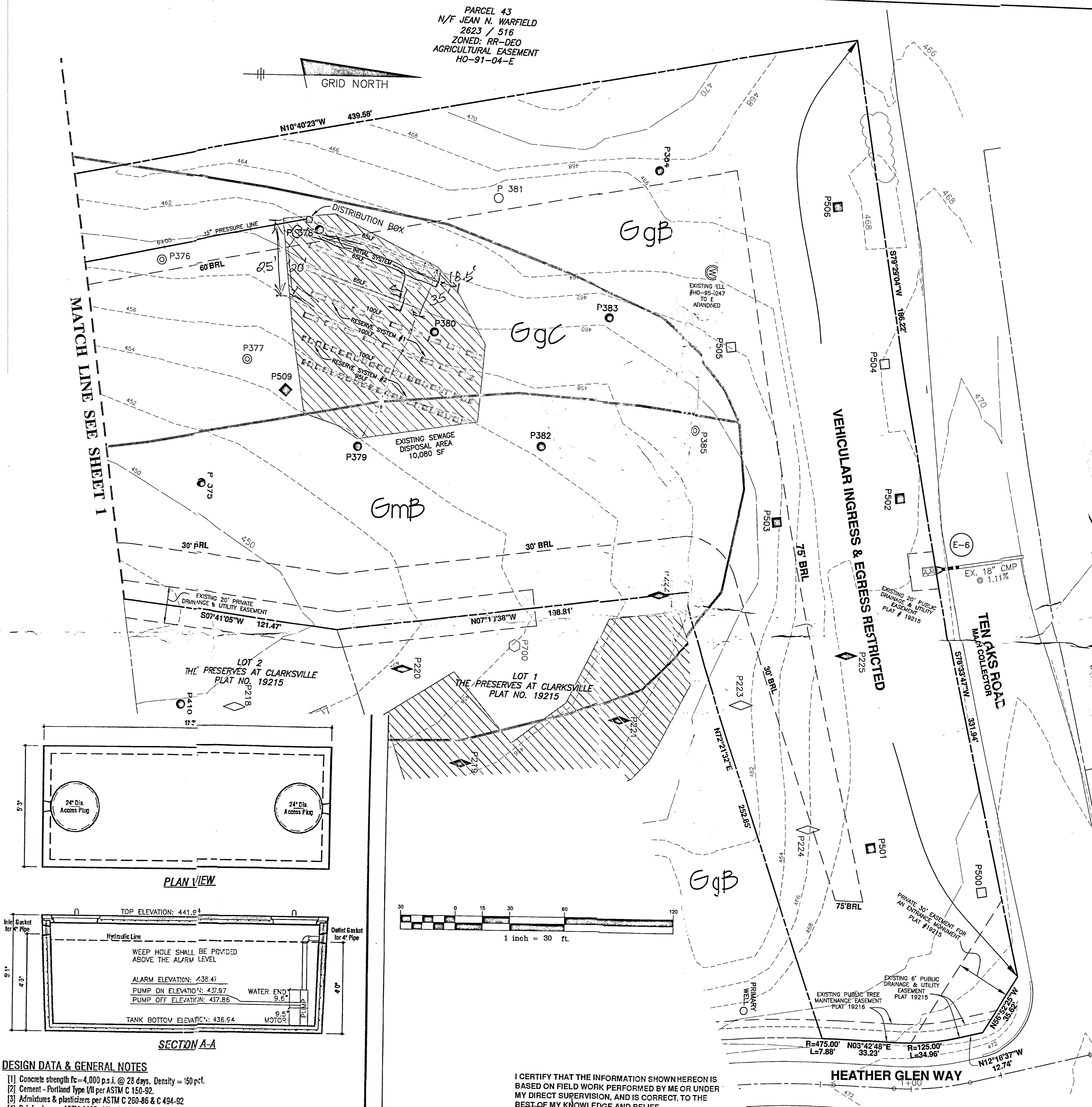


SEE MANUFACTURER SPECIFICATIONS FOR DETAILS. WWW.NORWECO.COM

GENERAL NOTES:

1. SINGULAR® AERATOR, AS SHOWN ACCEPTED BY INSPECTOR MINUTES ON 1/29/05 C
2. FALL THROUGH SINGULAR® FROM INLET INVERT OUTERT IS FOUR INCHES. IN TWELVE INCHES BWT
3. ON DEEPER INSTALLATIONS RISERS MUST BE USED TO AERATOR MOUNTINGCAST BIO-KINETIC® SYS MOUNT CASTING TO GRAC
4. TANK REINFORCE ACI 8-05
5. REMOVABLE COVER RIEGH IN EXCESS OF SEV-FIVS EACH TO PREVENTHAUT ACCESS.
6. CONTACT THE LICENSED SINGULAR® DISTOR FI ELECTRICAL REQMENTS

CRITICAL DIMENSIONS			
A	1'-0"	N	0'-3"
B	3'-0"	O	0'-6"
C	3'-4"	P	0'-3"
D	4'-5"	Q	1'-4"
E	3'-7"	R	3'-8"
F	12'-2"	S	5'-0"
G	1'-0"	T	2'-0"
H	4'-0"	U	6'-0"
I	0'-3"	V	
J	0'-3"	W	
K	1'-0"	X	
L	0'-2"	Y	
M	3'-6"	Z	



DESIGN DATA & GENERAL NOTES

- (1) Concrete strength $f_c = 4,000$ p.s.i. @ 28 days. Density = 150 pcf.
- (2) Cement - Portland Type VII per ASTM C 150-92.
- (3) Admixtures & plasticizers per ASTM C 260-86 & C 494-92.
- (4) Reinforcing per ASTM A185. Min. 1-1/2" cover.
- (5) Top slab sealed with butyl rope mastic.
- (6) 4" wall, base, & top thickness.

SECTION A-A

TOP ELEVATION: 441.64

WEEP HOLE SHALL BE PROVIDED ABOVE THE ALARM LEVEL

ALARM ELEVATION: 438.47

PUMP ON ELEVATION: 437.97

PUMP OFF ELEVATION: 437.86

TANK BOTTOM ELEVATION: 436.64

WATER END: 9.6'

MOTOR: 9.5'

MBI Mayer Bros., Inc.

6264 Race Road
Elkridge, Maryland 21075
Tel: 410.796.1434
Fax: 410.796.1438

1,500 GALLON SEPTIC/PUMP TANK
1-Compartment
NON-TRAFFIC MAX 3" IL OF COVER

Dwg. No.: 150C-10 No Scale Jan 1, 2000

BAT TECHNOLOGY SHALL BE IN COMPLIANCE WITH THE CURRENT LIST APPROVED BY MDE ON THE FOLLOWING
WEB SITE: http://www.mde.state.md.us/programs/Water/Bioaerators/Fund/OnsiteDisposalSystems/Pages/water/cbwrf/cdsd/brf_bot_process.aspx

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DAVID THOMPSON

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE A SUITE 315 A ELICOTT CITY, MARYLAND 21043
(P) 410-485-6103 (F) 410-485-6844
WWW.BEL-CIVILENGINEERING.COM

THE PRESERVE AT CLARKSVILLE
PARCEL 'A'
6226 HEATHER GLEN WAY

BUILDER: WILLIAMSBURG HOMES, INC. 5485 HARPERS FARM ROAD SUITE 200 COLUMBIA, MARYLAND 21044 410-997-8800

TAX MAP: 34 GRID: 11 PARCEL: 77
ZONED: RR-DEO
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SITE PLAN FOR BAT INSTALLATION

DATE: FEBRUARY 27, 2014 BEI PROJECT NO: 144
SCALE: AS SHOWN SHEET 2 OF 2