

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: 2/19/2013 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 544634

INSTALLATION APPROVAL DATE: 3/19/2013

**PERMIT
CONSTRUCTION**

A _____

PROPERTY ADDRESS: 12902 Lime Kiln Road
 SUBDIVISION: Lime Kiln Valley LOT: 31 TAX ID: 05-450802
 CONTRACTOR: Level Land Construction EMAIL: justin@levellandinc.com
 CONTRACTOR ADDRESS: P.O Box 100 Lisbon MD 21765 PHONE: 410-489-5206
 PROPERTY OWNER: Maple W LC EMAIL: _____
 OWNER ADDRESS: 6820 Elm Street Mclean VA 22101 PHONE: 703-287-0892

BAT UNIT MODEL: Hoot 600 BNR BAT UNIT SIZE: 600 GPD
 PUMP CHAMBER CAPACITY (GALLONS): 750 PUMP SIZE: Zoeller Model 293/4293
 NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. 4,430 APPLICATION RATE: 0.8
 DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>214 210'</u>	INLET DEPTH: <u>3 5'</u>
	TRENCH WIDTH: <u>2 3'</u>	MAXIMUM BOTTOM DEPTH: <u>1 7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10 9'</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</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:		

ISSUED BY: Robert Bricker 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

**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.**

See Seperate Sheet
For As-Built

TRENCH/DRAINFIELD DATA

(If Installed/Needed)

WIDTH 3' INLET 5' BOTTOM 7'
 NUMBER OF TRENCHES 3
 TOTAL LENGTH 210'
 ABSORPTION AREA 630+Sidewall
 DIST. BOX LEVEL Yes
 DIST. BOX BAFFLE Elbow
 DIST. BOX PORT Yes

HOOT 600 GPD BNR SYSTEM

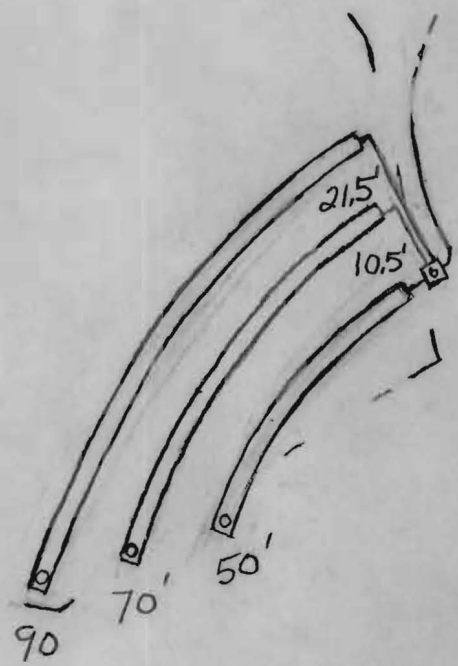
BAY RESTORATION FUND

MANUFACTURER Hoot-Mayer Bros
 CAPACITY 600 BNR
 SEAM LOCATION Top
 TANK LID DEPTH 1-1.5
 FRONT BAFFLES Yes
 MANHOLE LOC Front+Rear
 6" PORT LOC None
 WATERTIGHT TEST No
 AERATOR FUNCTIONING Mayer Bros.
 ALARM FUNCTIONING Mayer Bros.
 DATE ON LID Dry

2/28/13 Need to move tank location slightly towards house from approved location on bp plan. should be ok. Very large oak trees in the way. SRA staked. Area needs to be cleared. Contractor did not have laser on-site. To revisit layout @ later date. OK to set BAT. (KB)

3/4/2013 Trench layout done. (BB)
 3/5/2013 Trenches finished. No plumbing installed. (BB)
 3/13/2013 All plumbing installed. Need to finish setting up Hoot unit. (BB)
 3/14/2013 Pump getting water to dist. box. Need certification from Mayer Brothers that everything is working correctly.
 FINAL INSPECTOR B. Baker DATE OF APPROVAL 3/19/2013 (BB)
 3/19/2013 Received certification from Mayer Bros. (BB)

30



WALL CHECK: 12-03-2012
TOP OF WALL ELEV.= 443.7'

NOTES:

1. THIS PLAT IS A BENEFIT TO THE CONSUMER ONLY INsofar AS IT IS REQUIRED BY A LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH CONTEMPLATED TRANSFER, FINANCING OR REFINANCING PURPOSES. THIS PLAT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE STRUCTURES. THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR FOR SECURING FINANCING OR REFINANCING.
2. THE +/- SETBACK ACCURACY IS 1 FOOT.
3. THIS PLAN OR PLAT IS NOT INTENDED TO SHOW ALL MATTERS RELATED TO THE PROPERTY SHOWN HEREON.

75' CONFLICT TREE EASEMENT
POTOMAC ELECTRIC POWER COMPANY
L. 1971, F. 250

POTOMAC ELECTRIC POWER COMPANY
L. 1971, F. 250

S 55°03'11" W 321.73'

PRIVATE SEWAGE
EASEMENT

FOREST
CONSERVATION
EASEMENT 14

172' 35' SETBACK

W

30' B.R.L.

50'±

412.45'

92'±

N 34°59'16" W

L=42.05'

R=50.00'

47'±

35' SETBACK

75' B.R.L.

#12902

LOT 31

3.2120 AC.±

N 55°00'44" E

L=21.02'

R=25.00'

265.82'

10' PUBLIC TREE
MAINTENANCE EASEMENT

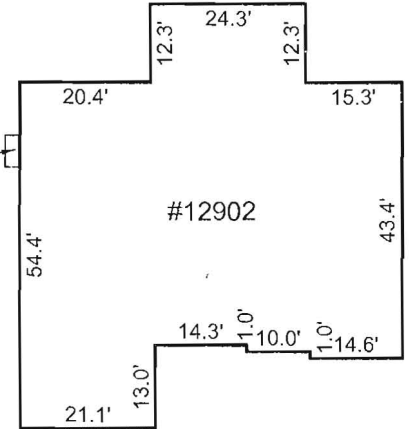
437.22'

S 34°59'16" E

LOT 32

DETAIL

SCALE: 1"=30'



wall check OK!
FB
4/19/13

LIME KILN ROAD

PUBLIC ACCESS STREET
50' R/W

LOCATION DRAWING
12902 LIME KILN ROAD
LOT 31

LIME KILN VALLEY

PHASE I & II
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

THIS LOT DOES NOT APPEAR TO LIE WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON THE F.E.M.A. FLOOD HAZARD MAP 240044-0037-B AS REVISED DECEMBER 4, 1986.

CERTIFICATION

I HEREBY CERTIFY THAT I WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS LOCATION DRAWING AND THE SURVEY WORK REFLECTED IN IT, IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN THE CODE OF MARYLAND TITLE 9, SUBTITLE 13, CHAPTER 20, REGULATION 2, AND THE POSITION OF EXISTING IMMOVABLE OBJECTS AS SHOWN HEREON, ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MICHAEL D. ADCOCK
PROFESSIONAL LAND SURVEYOR
NO. 21257, EXPIRATION DATE: 06-16-2013

Sill · Adcock & Associates · LLC

Engineers · Surveyors · Planners

3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: mike@saaland.com

REFERENCE:

PLAT NO. 19738

DATE:

DECEMBER 4, 2012

SCALE:

1"=100'

FILE NO.:

10-021



MAYER BROS., INC.

Precast Concrete Products

6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: 12902 Line Kiln Rd Highland, MD

Date of Final Inspection: 3-14-2013

Installer: Level Hand, Inc

Hoot Technician/Inspector: Ed McMullen

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,

Name of Inspector
Mayer Bros., Inc.

410-313-2648

Fax to: Brian Howle HI
Baker

CVI: 304-259-4759

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, Scapewal Window Wells, Custom Precast Products

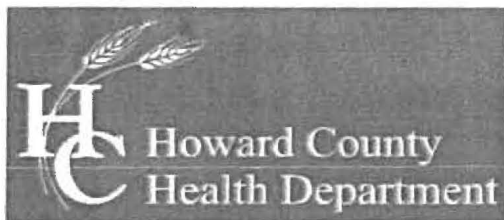
ATTN: Robert

12902 Lime Kiln Rd.

Between 4-4-20
410-313-0117
Circuit Court for
HOWARD COUNTY
Clerk of the Court,
WAYNE A ROBEY
8368 COURT AVENUE
ELLCOTT CITY, MD 21043-
(410) 313-2111
Cindy

Transaction Block:	857
Ref: 197	
MISC	AMOUNT
TMP FD SURE \$5	40.00
RECORDING FEE \$20.00	20.00
SUBTOTAL:	60.00
TOTAL CHARGES:	60.00
PAYMENTS	
CASH	60.00
TOTAL TENDERED:	60.00

Cashier: LHR Reg # CH06
Rcpt # 85263
Date: Feb 19, 2015 Time: 03:27 pm



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 19 day of February, among John Pavlik, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

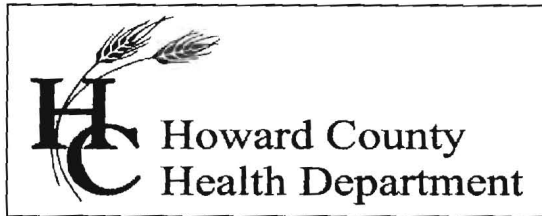
WHEREAS, Owner is the owner or contract owner of a parcel of land located at 12902 Line Kila Rd Highland n^o 2695, in the 05 Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber ~~13580~~ Folio 00016
13580

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

see back



Bureau of Environmental Health

7178 Columbia Gateway Drive, Columbia, MD 21046-2147

Main: 410-313-6300 | Fax: 410-313-6303

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: [HowardCoHealthDep](https://twitter.com/HowardCoHealthDep)

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

February 21, 2013

TO: Paul Sill, Sills Adcock & Assoc.
FROM: Robert Bricker
Environmental Health Specialist
RE: **12902 Lime Kiln Road, BAT Site Plan**

The following are deletions, additions, or corrections needed on the BAT Site Plan for the subject property.

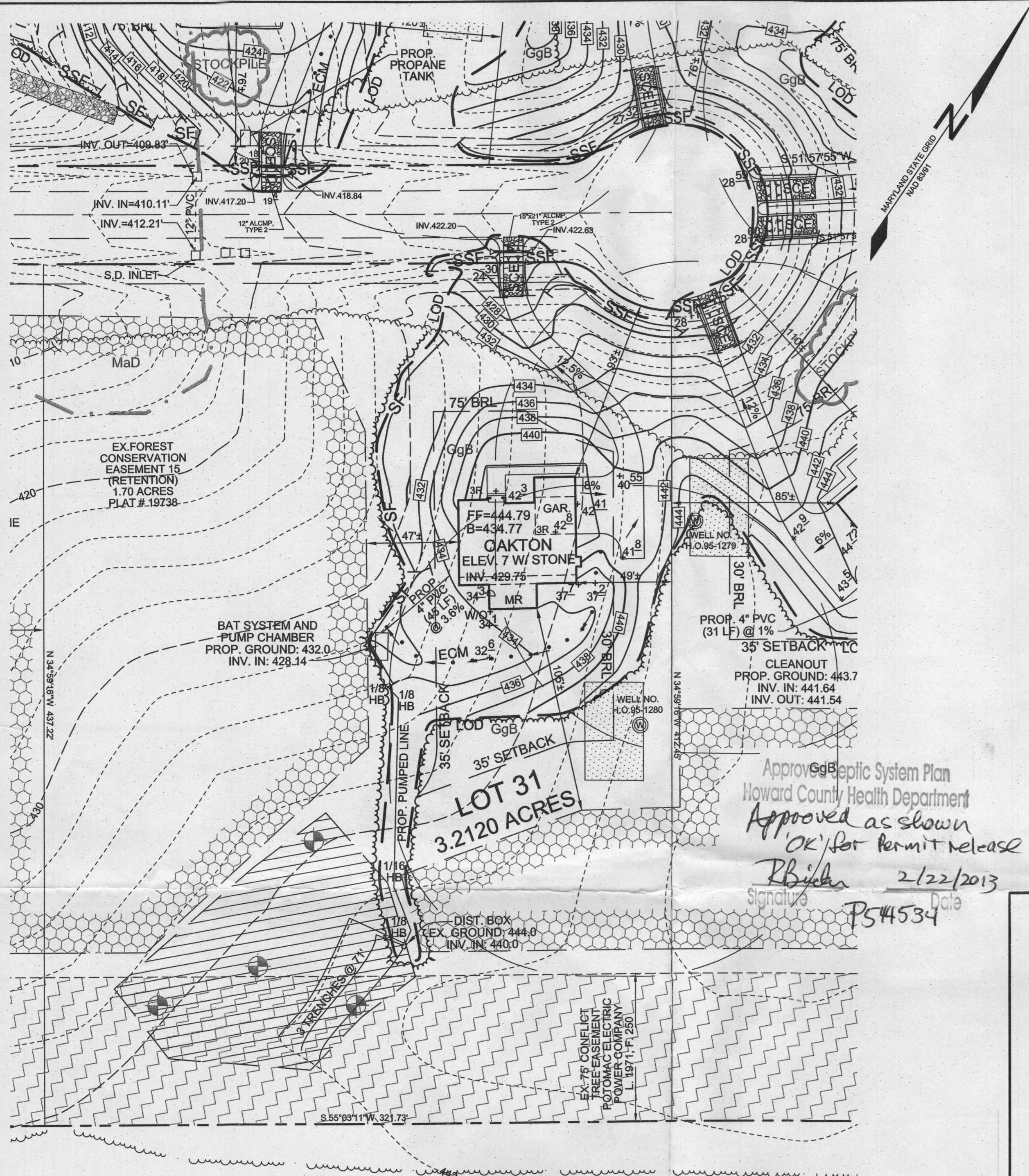
- Use the Site Plan without the (additional) pump chamber.
- Label the bearing and distance of the southeast lot boundary.
- Give a North arrow for the site plan,(if it can be done easily)

As storage space above the Inlet Invert in the BNR-600 unit is being calculated, the highest elevation of the tank chamber must be below the Sewer Out Invert at the residence. Therefore,

- Give a 'Top of Tank' elevation of '430.00' or less.
- Add this Note:
THE MINIMUM EMERGENCY CAPACITY EQUAL TO, OR GREATER THAN, DESIGN FLOW [RE: 600 GALLONS PER DAY] IS CALCULATED TO INCLUDE THE ENTIRE VOLUME OF THE BAT UNIT ABOVE THE ELEVATION OF THE HIGH WATER ALARM. THEREFORE, THE BAT UNIT IS LOCATED SO THAT THE ELEVATION OF THE BOTTOM OF THE LID IS LOWER THAN THE ELEVATION OF THE SEWER OUT INVERT AT THE RESIDENCE.

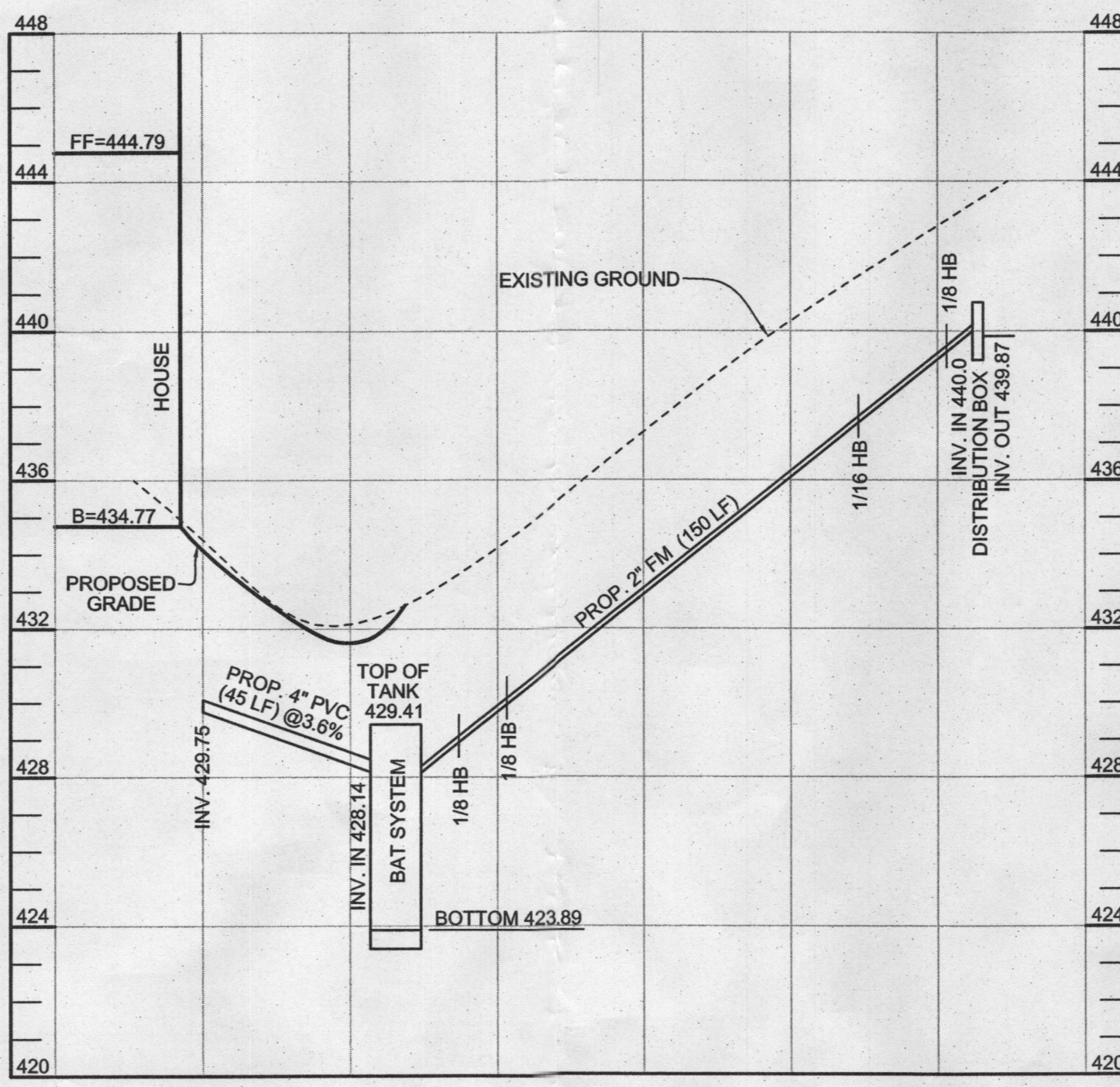
In the Notes section for the pump calculations:

- The Static Head appears to be '14.86',
- There are only 4 couplings required (in straight runs),
- Re-calculate Dynamic Head
- Under Pump Float Elevations, the 'ON' and 'OFF' elevations are reversed.

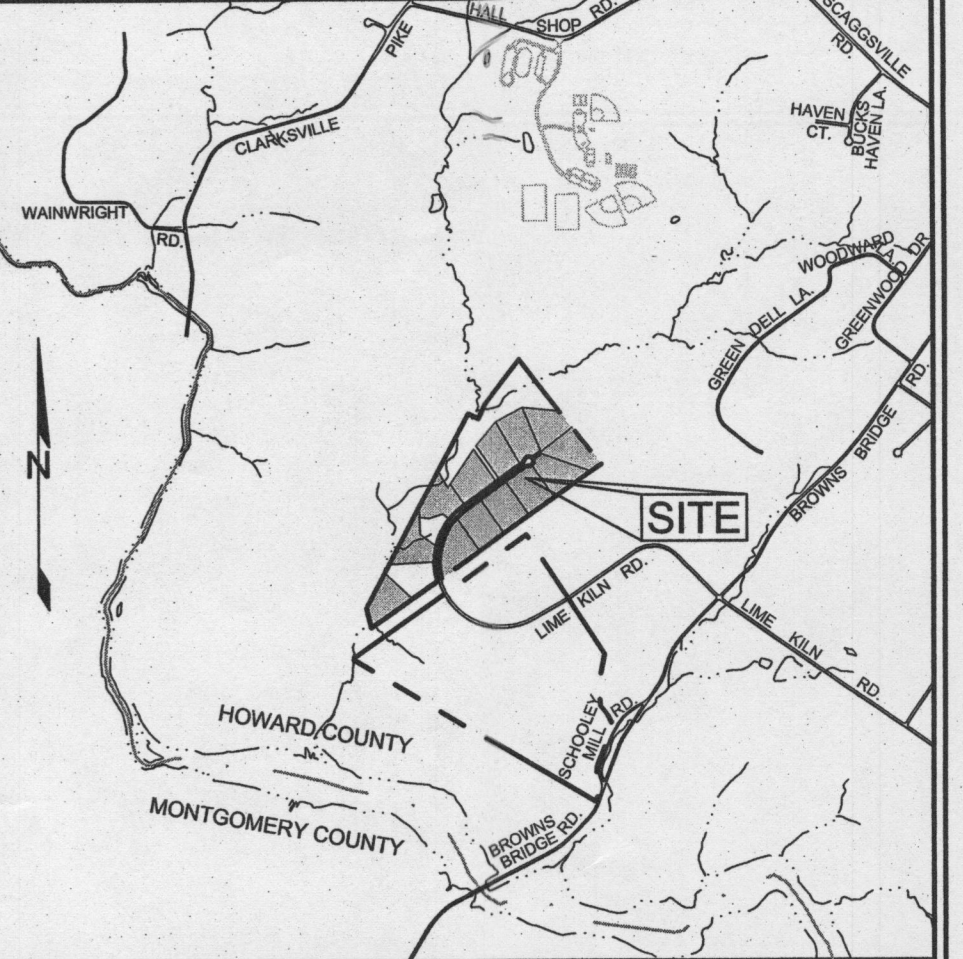
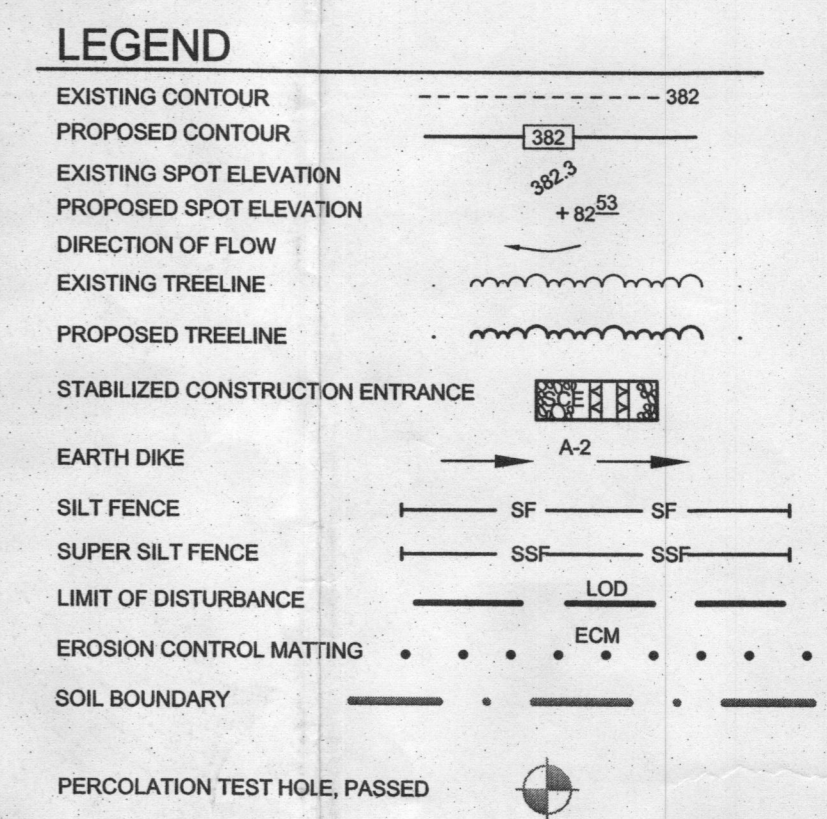


PLAN VIEW
SCALE: 1"=40'

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
GhB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B



PROFILE
SCALE: HORIZ: 1"=40'
VERT: 1"=4'

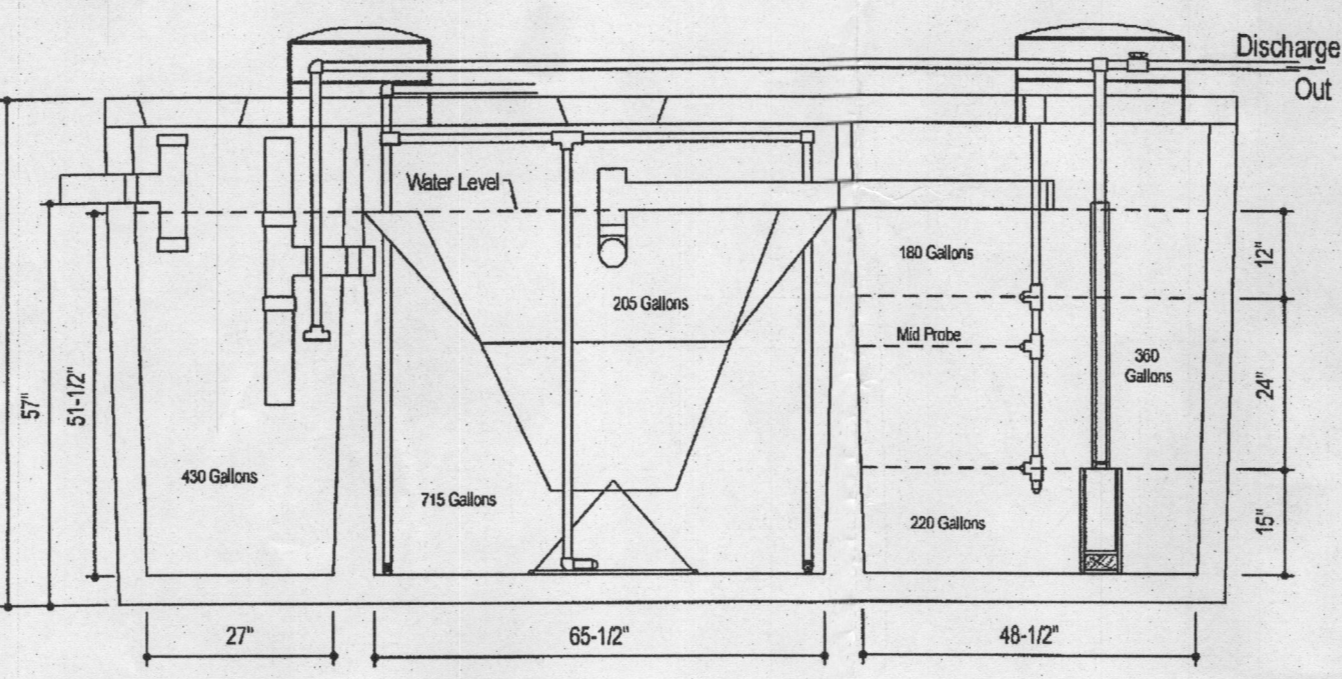
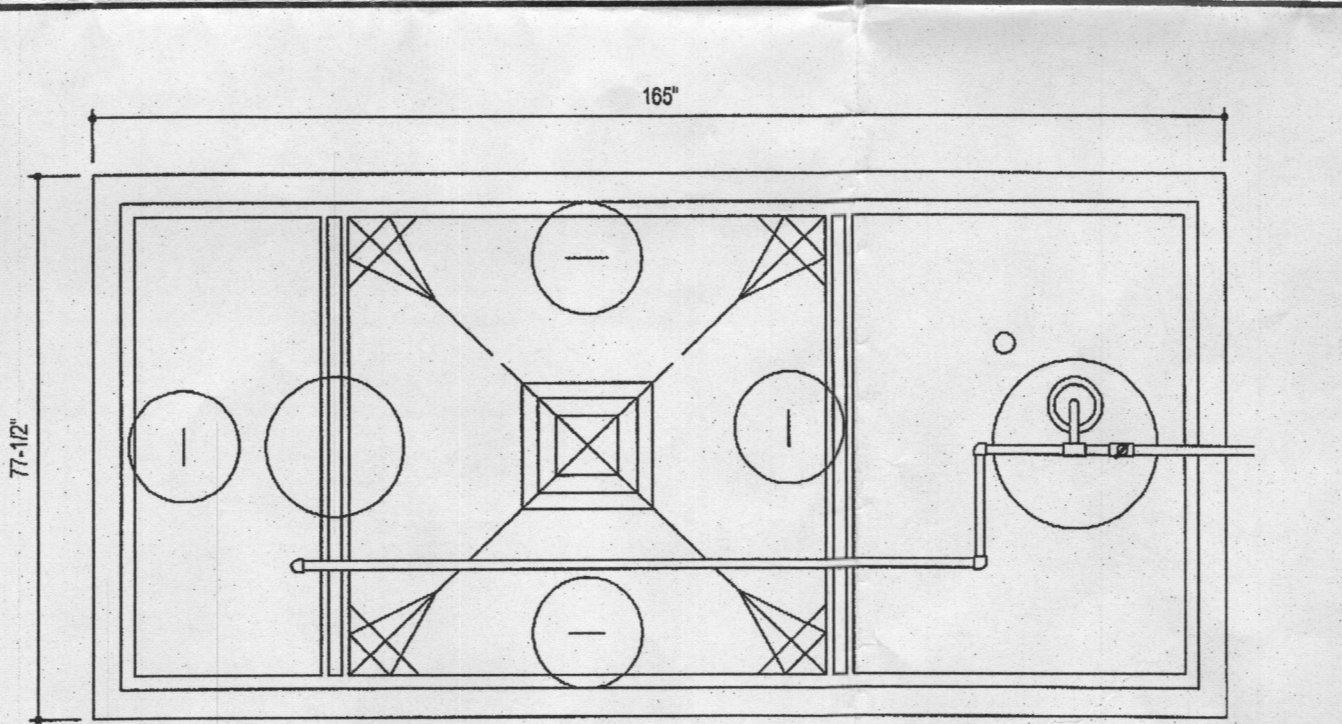


VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

- THIS PROPERTY IS ZONED RR-DEO PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND THE "COMP-LITE" ZONING AMENDMENTS EFFECTIVE 07/28/06.
- BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT VOGEL ENGINEERING, INC., DATED AUGUST 2005.
- TOPOGRAPHY IS BASED ON FIELD RUN SURVEY CONDUCTED BY SILL, ADCOCK & ASSOCIATES, LLC DATED SEPTEMBER 2010 AND SUPPLEMENTED BY AN AERIAL TOPOGRAPHICAL SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED OCTOBER 2004 AND ROAD GRADING PROPOSED UNDER F-06-107.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
 - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
 - GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (HS-LOADING);
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- SEWER HOUSE CONNECTION (SHC) TO BE AT 2.0% UNLESS OTHERWISE NOTED. CLEANOUTS ARE TO BE PROVIDED AT ALL BENDS.
- NO GRADING, REMOVAL OF VEGETATION COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED FOREST CONSERVATION EASEMENT AREAS.
- FOREST CONSERVATION HAS BEEN PROVIDED FOR THIS LOT UNDER F-06-107.
- STORMWATER MANAGEMENT FOR THIS LOT HAS BEEN PROVIDED BY A MICRO-POOL FACILITY LOCATED ON OPEN SPACE LOT 22.
- ███ DENOTES PUBLIC FOREST CONSERVATION EASEMENT. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENTS ARE ALLOWED.
- ███ THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

Approved Septic System Plan
Howard County Health Department
Approved as shown
'OK' for permit release
R. Bisher
Signalys
2/22/2013
Date
PS4534



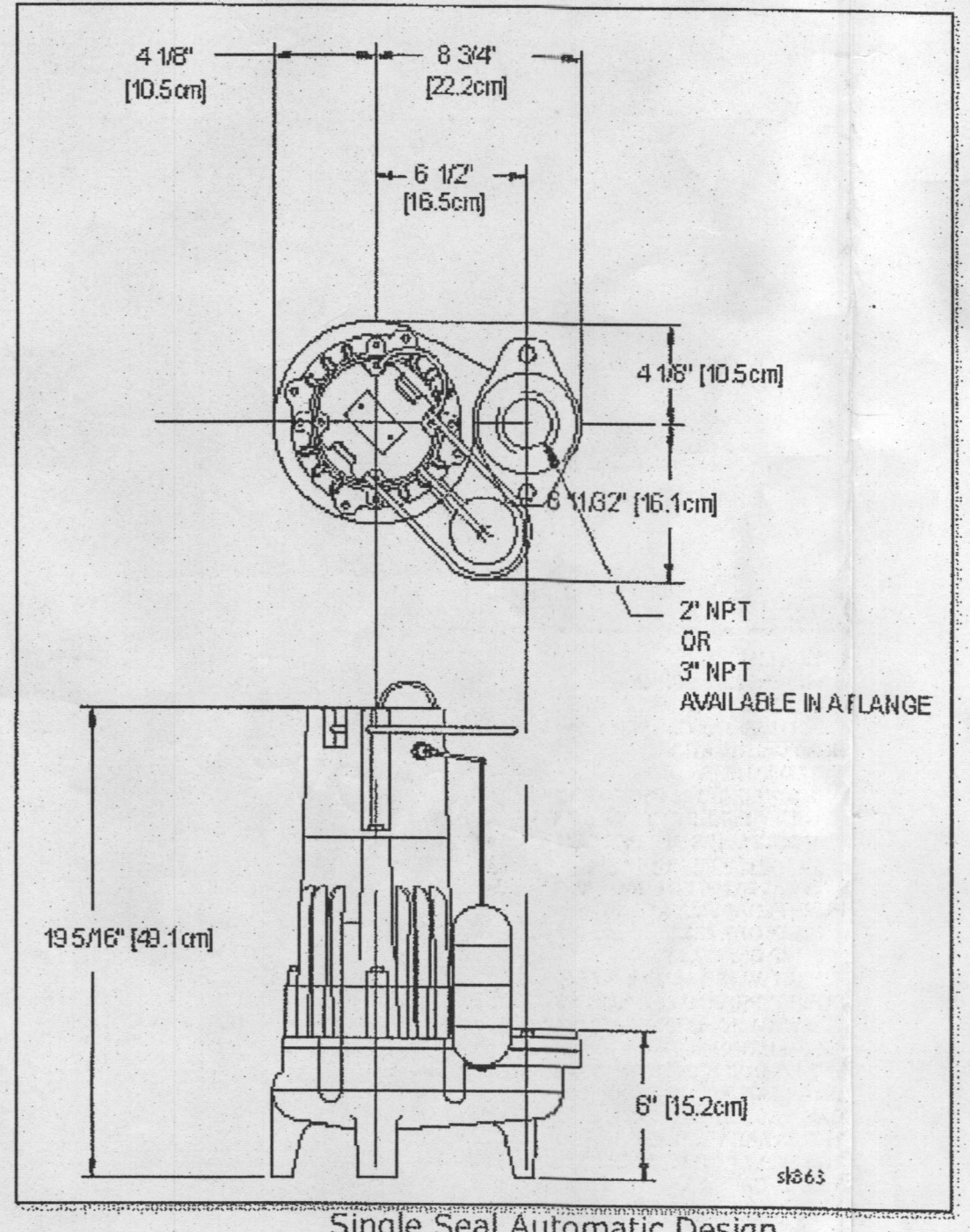
DESIGN DATA & GENERAL NOTES
 [1] Concrete strength Fom 4000 p.s.i. @ 28 days, Density = 150 pcf.
 [2] Cement - Portland Type III per ASTM C 150-82.
 [3] Admixtures & plasticizers per ASTM C 260-88 & C 494-82.
 [4] Reinforcing per ASTM A185. Min. 1-1/2" cover.

Mayer Brothers, Inc.
 6504 Racco Road
 Ellicott City, Maryland 21075
 Tel. 410.738.6434
 Fax. 410.738.6438
 www.mayerbrothers.com

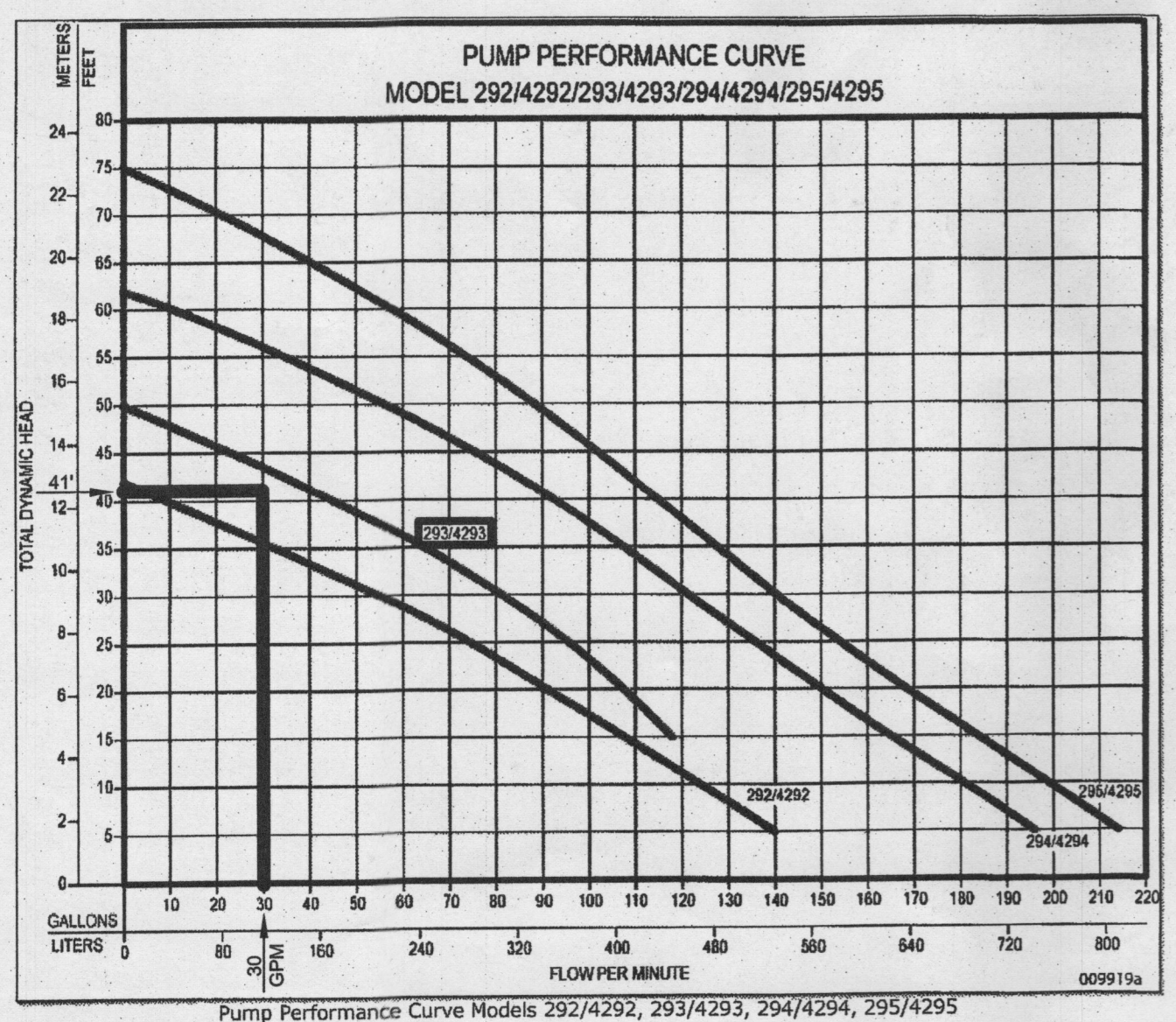
MBI

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

Dwg. No. Hoot Form #1 No Scale March 19, 2006



Single Seal Automatic Design
 ZOELLER PUMP, MODEL 293/4293



NOTES

- FORCE MAIN MATERIAL: 2" SCH 40 LENGTH: 150 LF VOLUME: 17.4 GAL PER 100' = 26.1 GAL
- HEAD CALCULATIONS:
 STATIC HEAD= 14.86'
 3-1/2" BENDS @ 4' PER BEND= 12'
 1-1/2" BENDS @ 2' PER BEND= 2'
 4- COUPLINGS @ 2' PER COUPLING = 8'
 150'-2" Ø PIPE @ 2.92' PER 100' = 3.92'
 TOTAL DYNAMIC HEAD= 40.79' (USE 41')
- PUMP FLOAT ELEVATIONS
 PUMP OFF: 425.14
 PUMP ON: 427.14
 HIGH WATER ALARM: 427.64
- PUMP TYPE: ZOELLER 293/4293 OR EQUIVALENT, SEE WWW.ZOELLERPUMPS.COM FOR MORE INFORMATION
- THE MINIMUM EMERGENCY CAPACITY EQUAL TO, OR GREATER THAN, DESIGN FLOW (RE: 600 GALLONS PER DAY) IS CALCULATED TO INCLUDE THE ENTIRE VOLUME OF THE BAT UNIT ABOVE THE ELEVATION OF THE HIGH WATER ALARM. THEREFORE, THE BAT UNIT IS LOCATED SO THAT THE ELEVATION OF THE BOTTOM OF THE LID IS LOWER THAN THE ELEVATION OF THE SEWER OUT INVERT AT THE RESIDENCE.

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 DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 5 FEET.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 50 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 MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

Approved 2/22/2013
 OWNER: MAPLE W, LLC
 5074 DORSEY HALL DR STE 205
 ELLICOTT CITY MD 21042-7793
 (410) 720-3021

DEVELOPER: CRAFTMARK HOMES
 8820 ELM STREET, SUITE 102
 MCLEAN, VIRGINIA 22101
 (703) 930-0814

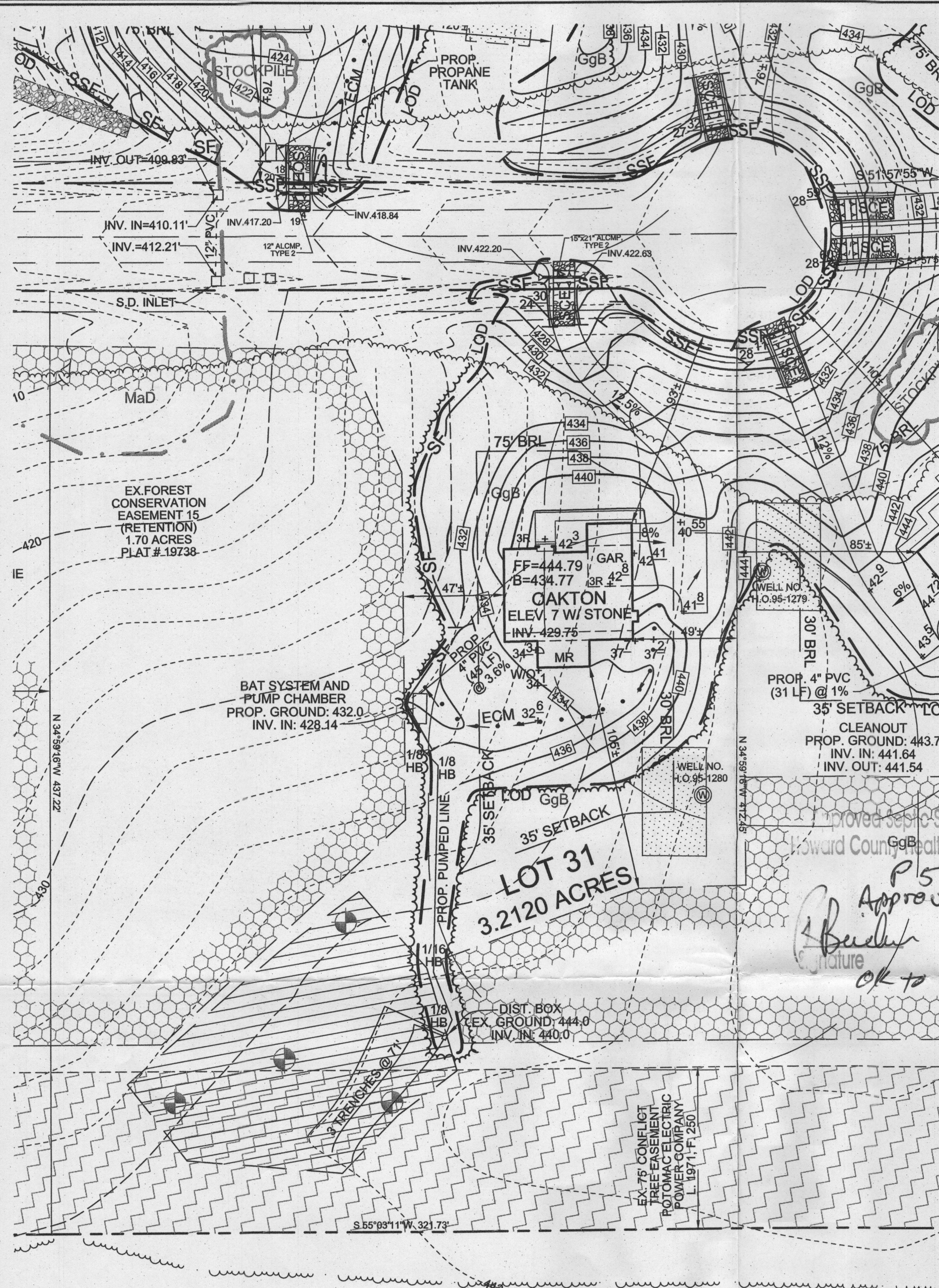
SITE PLAN FOR BAT INSTALLATION
 12902 LIME KILN RD
 LOT 31
 LIME KILN VALLEY II
 (MAPLE WOODS)

TAX MAPS 40 & 45 GRIDS 21 & 4 PARCELS 114 & 12
 5TH ELECTION DISTRICT TAX ID # 450802 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@saaland.com

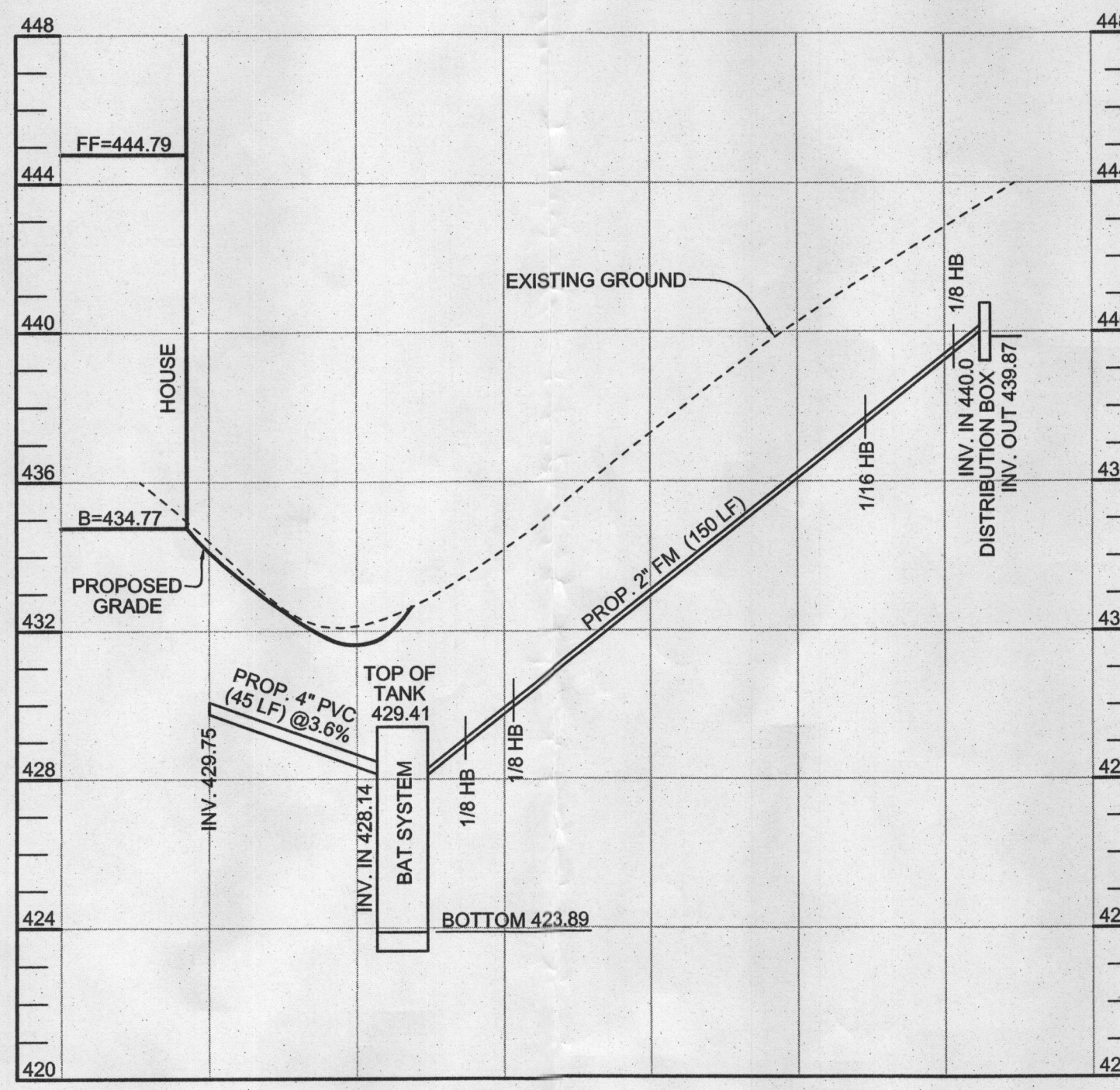
DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: FEBRUARY 22, 2013
 PROJECT #: 10-021
 SHEET #: 1 of 1

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. 33025, EXPIRATION DATE: JUNE 20, 2013

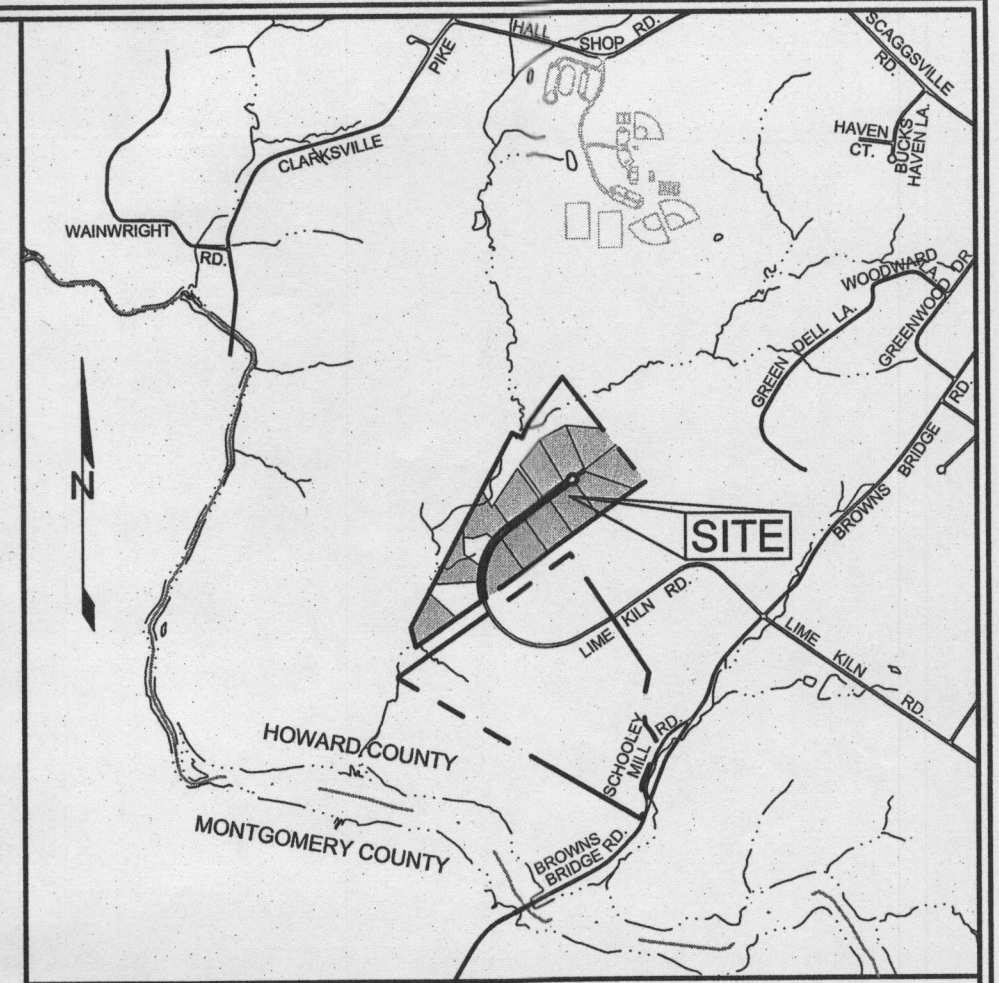
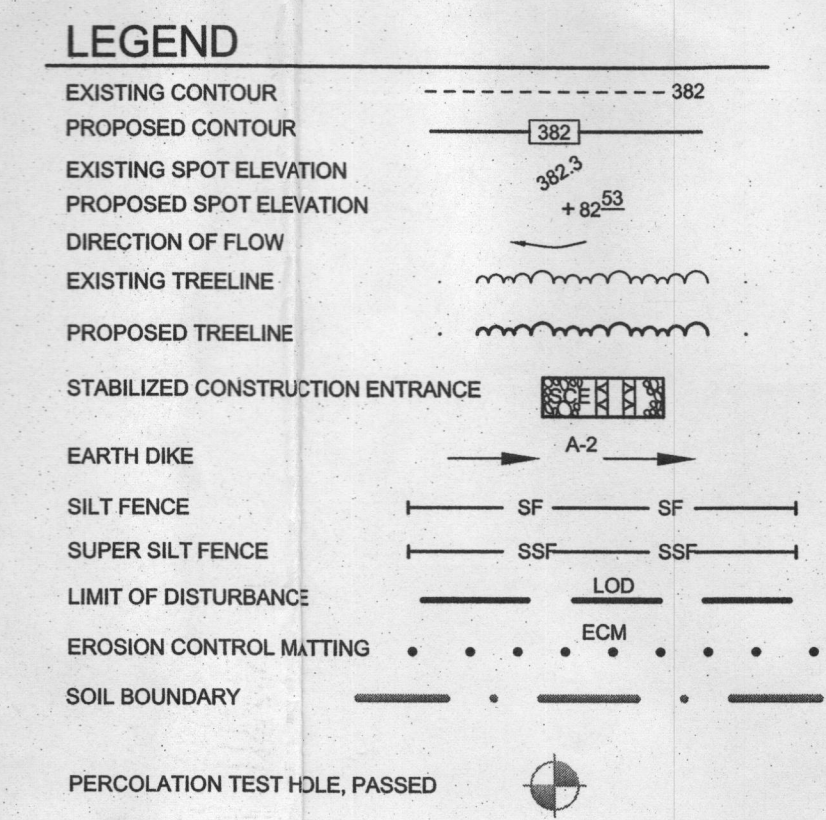


PLAN VIEW
SCALE: 1"=40'

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
MhC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B



PROFILE
SCALE: HORIZ: 1"=40'
VERT: 1"=4'

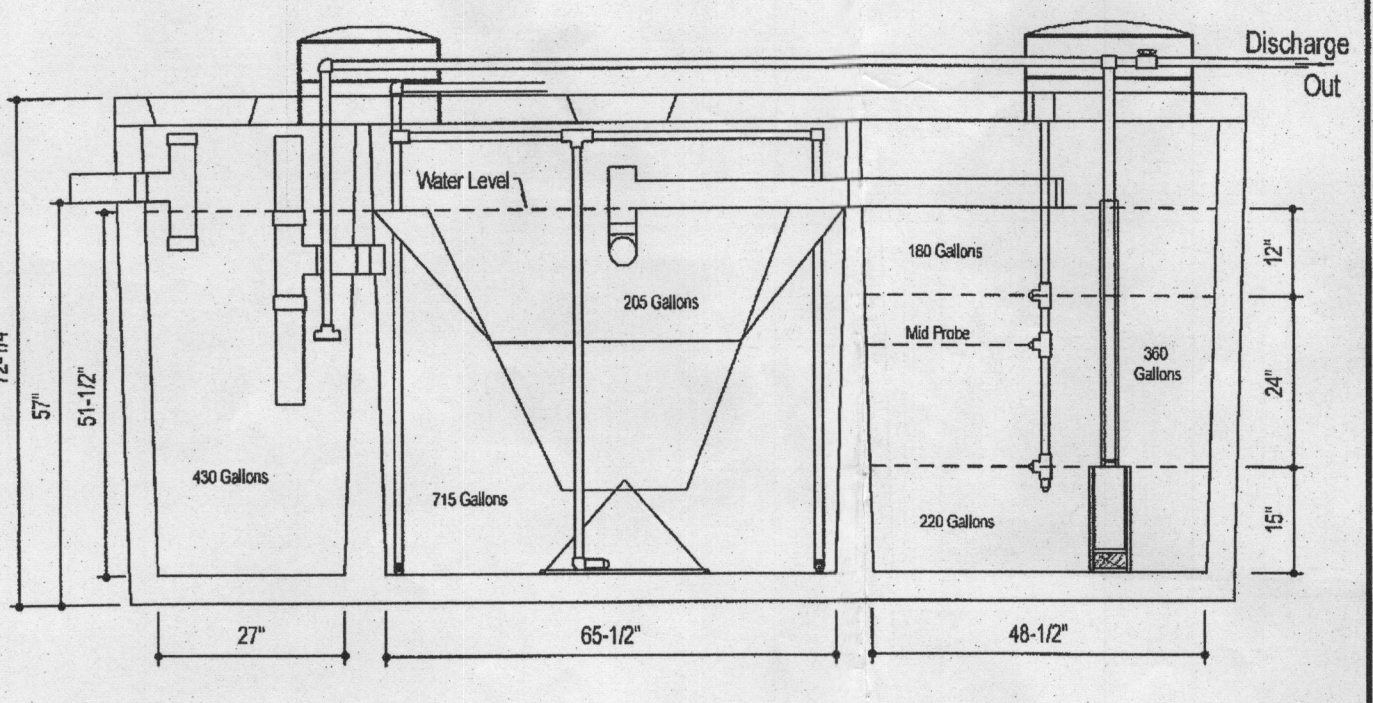
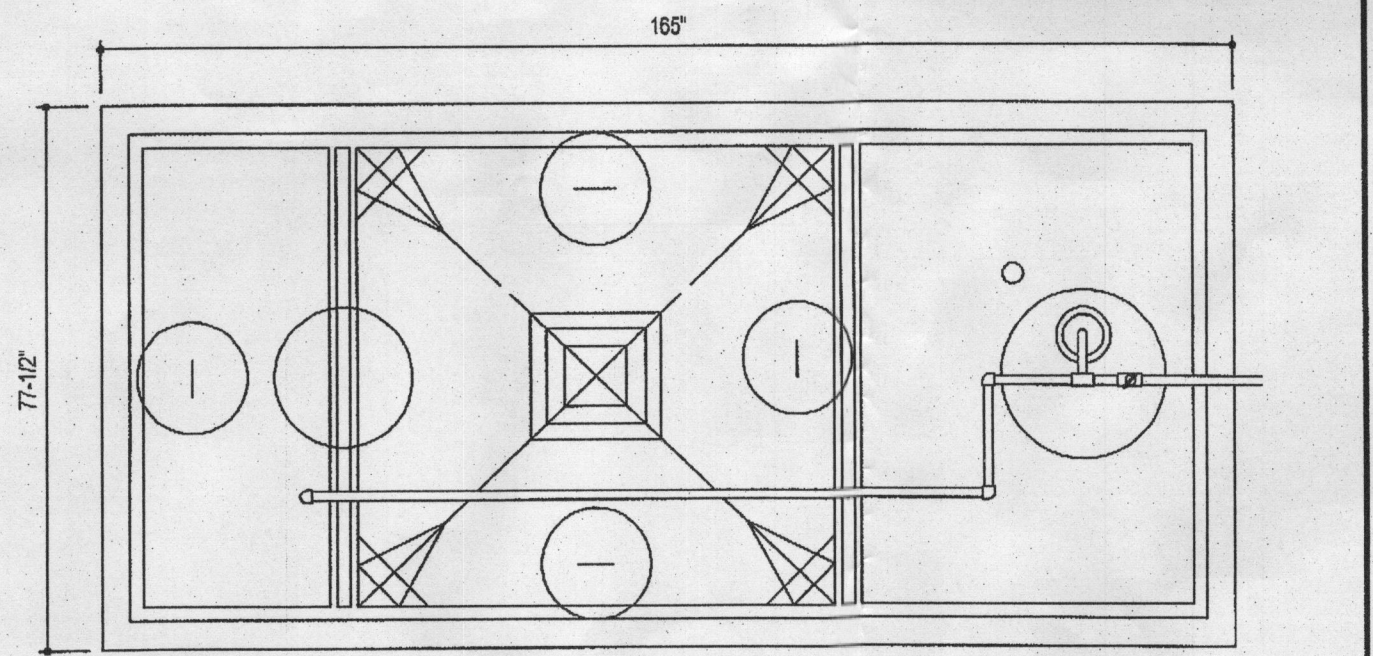


VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

- THIS PROPERTY IS ZONED RR-DEO PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND THE "COMP-LITE" ZONING AMENDMENTS EFFECTIVE 07/28/06.
- BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT VOGEL ENGINEERING, INC., DATED AUGUST 2006.
- TOPOGRAPHY IS BASED ON FIELD RUN SURVEY CONDUCTED BY SILL, ADCOCK & ASSOCIATES, LLC DATED SEPTEMBER 2010 AND SUPPLEMENTED BY AN AERIAL TOPOGRAPHICAL SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED OCTOBER 2004 AND ROAD GRADING PROPOSED UNDER F-06-107.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
 - WIDTH - 12 FEET (18 FEET SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
 - GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (HS-20 LOADING);
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
- DRIVEWAY ENTRANCE TO BE PER HOWARD COUNTY STANDARD DETAIL R-6.06.
- SEWER HOUSE CONNECTION (SHC) TO BE AT 2.0% UNLESS OTHERWISE NOTED. CLEANOUTS ARE TO BE PROVIDED AT ALL BENDS.
- NO GRADING, REMOVAL OF VEGETATION COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED FOREST CONSERVATION EASEMENT AREAS.
- FOREST CONSERVATION HAS BEEN PROVIDED FOR THIS LOT UNDER F-06-107.
- STORMWATER MANAGEMENT FOR THIS LOT HAS BEEN PROVIDED BY A MICRO-POOL FACILITY LOCATED ON OPEN SPACE LOT 22.
- ███ DENOTES PUBLIC FOREST CONSERVATION EASEMENT. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENTS ARE ALLOWED.
- ██████ THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.09). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

Approved as shown
2/22/2013
OK to release permit



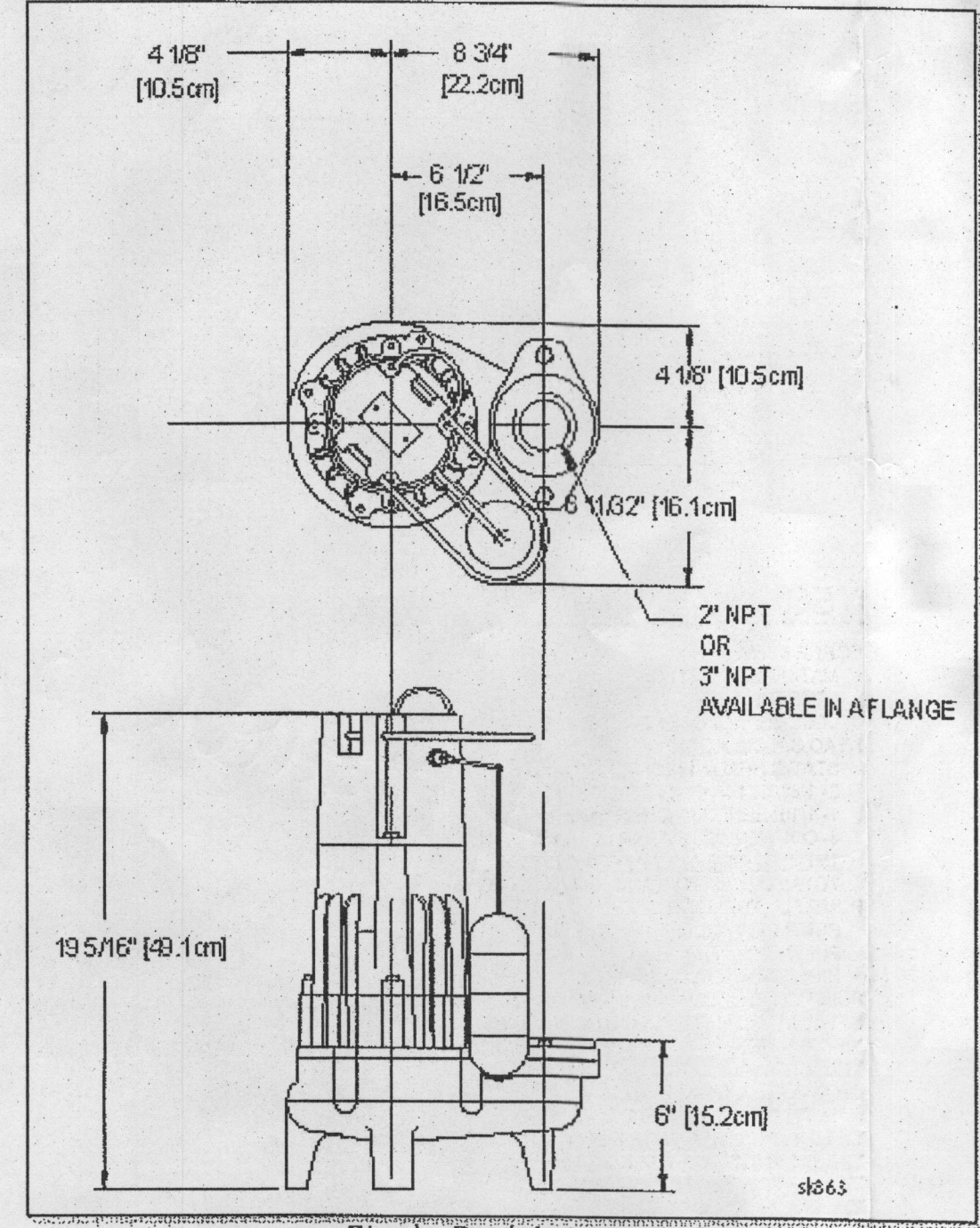
DESIGN DATA & GENERAL NOTES

- Cable strength Fm=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- Cement - Portland Type III per ASTM C 150-92.
- Admixtures & plasticizers per ASTM C 260-98 & C 484-92.
- Reinforcing per ASTM A193, Min. 1-1/2" cover.

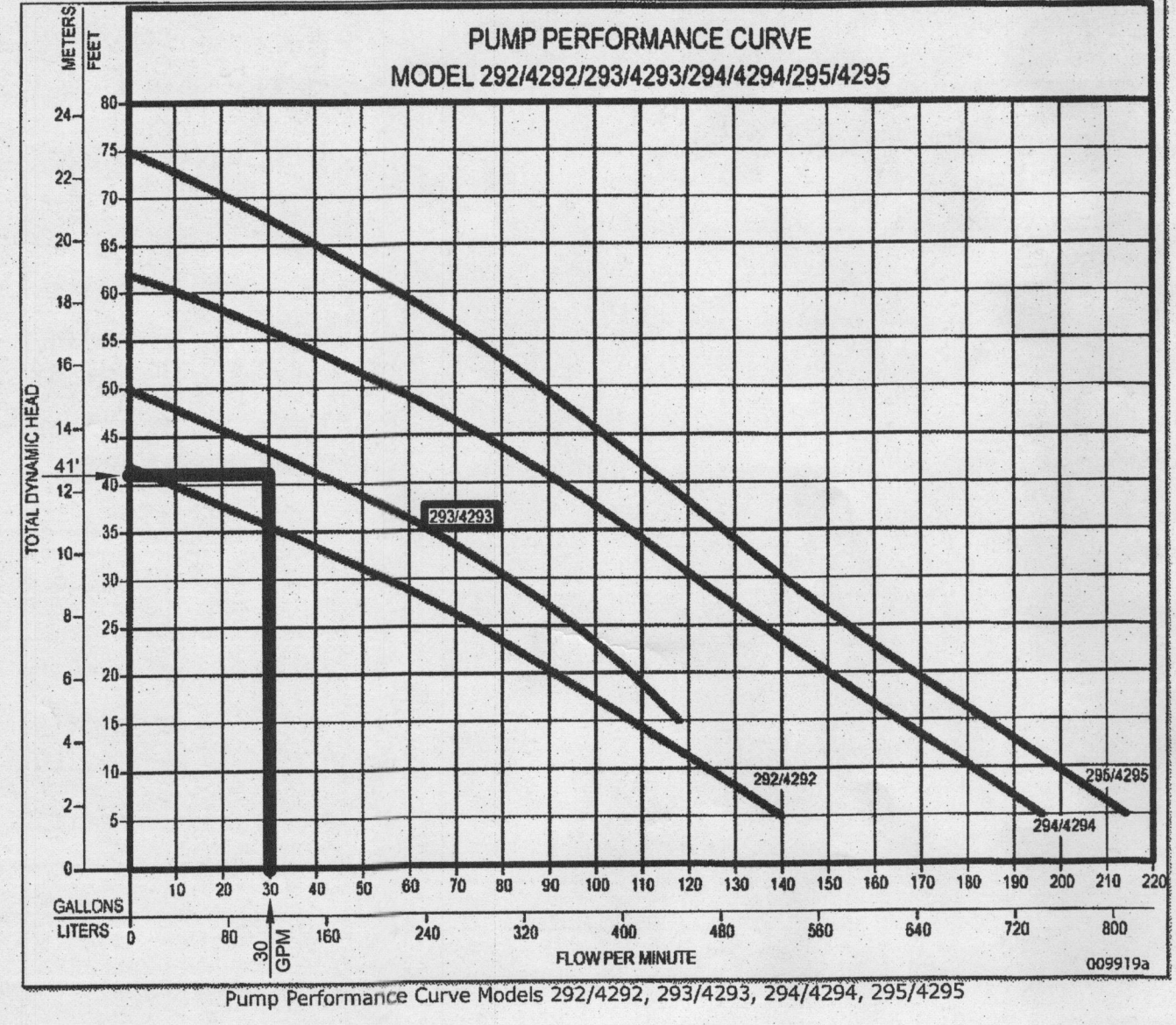
Mayer Brothers, Inc.
4300 River Road
Elkridge, Maryland 21075
Tel. 410.798.1494
Fax. 410.798.1438
www.mayerbrothers.com

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

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



Single Seal Automatic Design
ZOELLER PUMP, MODEL 293/4293



NOTES

- FORCE MAIN MATERIAL: 2" SCH 40 LENGTH: 150 LF VOLUME: 17.4 GAL PER 100' = 26.1 GAL
- HEAD CALCULATIONS: STATIC HEAD= 14.86' 3- 180° BENDS @ 4' PER BEND= 12' 1- 1/16" BENDS @ 2' PER BEND= 2' 4- COUPLINGS @ 2' PER COUPLING = 8' 150' 2" Ø PIPE @ 2.62' PER 100' = 3.92' TOTAL DYNAMIC HEAD= 40.79' (USE 41')
- PUMP FLOAT ELEVATIONS PUMP OFF: 425.14 PUMP ON: 427.14 HIGH WATER ALARM: 427.64
- PUMP TYPE: ZOELLER 293/4293 OR EQUIVALENT, SEE WWW.ZOELLERPUMPS.COM FOR MORE INFORMATION
- THE MINIMUM EMERGENCY CAPACITY EQUAL TO, OR GREATER THAN, DESIGN FLOW (RE: 600 GALLONS PER DAY) IS CALCULATED TO INCLUDE THE ENTIRE VOLUME OF THE BAT UNIT ABOVE THE ELEVATION OF THE HIGH WATER ALARM. THEREFORE, THE BAT UNIT IS LOCATED SO THAT THE ELEVATION OF THE BOTTOM OF THE LID IS LOWER THAN THE ELEVATION OF THE SEWER OUT INVERT AT THE RESIDENCE.

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 DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 6 FEET.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 50 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 SEWER 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 MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

Approved 2/22/2013
reB

OWNER
MAPLE, LC
5074 DORSEY HALL DR STE 205
ELLCOTT CITY MD 21042-7793
(410) 720-3021

DEVELOPER
CRAFTMARK HOMES
6820 ELM STREET, SUITE 102
MCLEAN, VIRGINIA 22101
(703) 930-0814

SITE PLAN FOR BAT INSTALLATION
12902 LIME KILN RD
LOT 31
LIME KILN VALLEY II
(MAPLE WOODS)

TAX MAPS 40 & 45 GRIDS 21 & 4 5TH ELECTION DISTRICT TAX ID # 450802 PARCELS 114 & 12 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: PS
DRAWN BY: BK
CHECKED BY: PS
SCALE: AS SHOWN
DATE: FEBRUARY 22, 2013
PROJECT #: 10-021
SHEET #: 1 of 1

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. 32025, EXPIRATION DATE: JUNE 20, 2013