

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: 6/24/14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 554519

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

CONSTRUCTION

PROPERTY ADDRESS: 2818 Bridal Wreath Court

SUBDIVISION: Belle Haven Estates LOT: 15 TAX ID: 04-373790

CONTRACTOR: Ben Lewis Plumbing EMAIL: _____

CONTRACTOR ADDRESS: 23407 Frederick Road, Clarksburg, MD 20871 PHONE: 301-674-3324

PROPERTY OWNER: K Hovnanian Homes EMAIL: _____

OWNER ADDRESS: 1802 Brightseat Road, Landover, MD 20785 PHONE: 301-683-6268

BAT UNIT MODEL: HOOT ABNR 600 BAT UNIT SIZE: 600 GPD

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

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. _____ APPLICATION RATE: 0.8

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 146'</u>	INLET DEPTH: <u>SEE BAT PLAN 4.5'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 2'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 6.5'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN 6'</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.
2x73' Trenches

ISSUED BY: Robert Bricker ISSUE DATE: 7/24/14 EXPIRATION DATE: 7/24/15

- 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 As-Built Drawing
On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2'	3.5'	6.5'
NUMBER OF TRENCHES		2
TOTAL LENGTH		140'
ABSORPTION AREA		280' + 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	1600 GNS GAL
SEAM LOC	TOP
TANK LID DEPTH	2'
BAFFLES	yes
BAFFLE FILTER	N/A
MANHOLE LOC	Front/rear
6" PORT LOC	N/A
WATERTIGHT TEST	N/A
SLOTTED	yes
DATE ON LID	N/A

PUMP/SEPTIC TANK LEVEL

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

PRE-CONSTRUCTION:

8/7/2014 Install two 73' trenches on contour across the top of the easement. Set the tank near where shown on the plan but make sure it is 20' from the house. (B)

INSTALLATION:

8/25/14 Contractor explained that no one certified has been on-site. Explained that a certified BAT installer must be present entire time of BAT install. Site will be shut down in one hour and present during install. (B) Septic measurements taken for As-built, trenches 2' wide, 6' ETS stone looks good. Also informed contractor to maintain no more than 2% fall on plumbing and 'step' pipe as needed. Contractor to replace new Dbox w/ one larger and more suitable for application. OK to cover gravel tank, plumbing and trenches. Need to re-insp Dbox. (B) 8/26/14 New Dbox installed connections made to BAT unit. Need start-up of system prior to

FINAL INSPECTOR

DATE OF APPROVAL

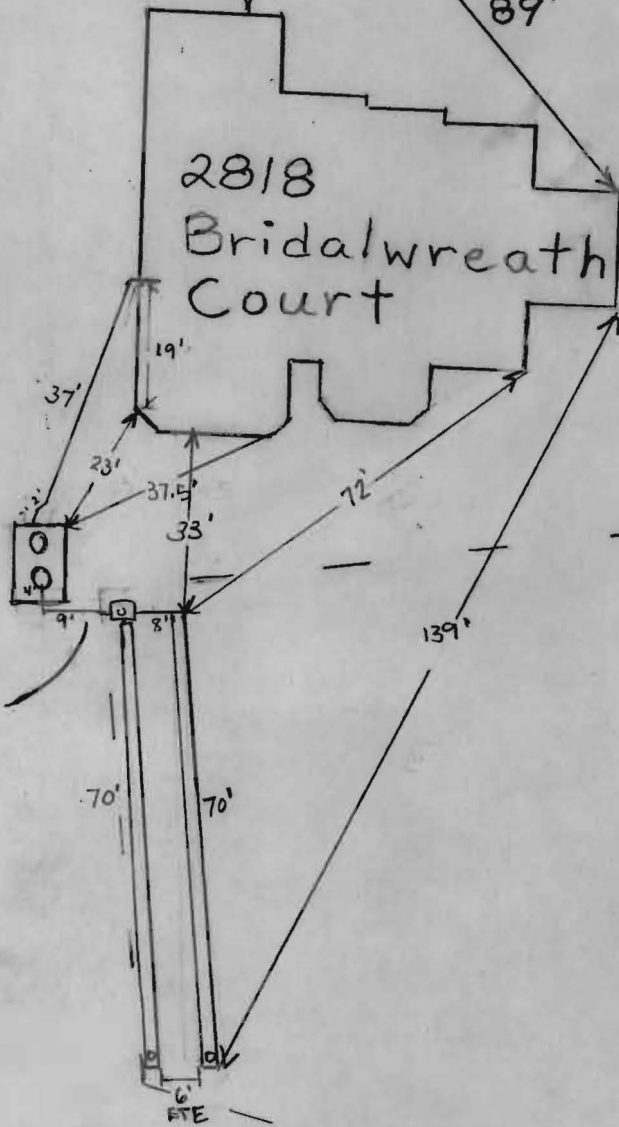
Final Approval (B)

H0-95-0668

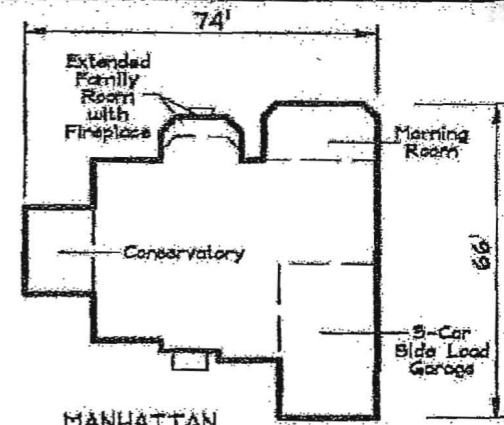
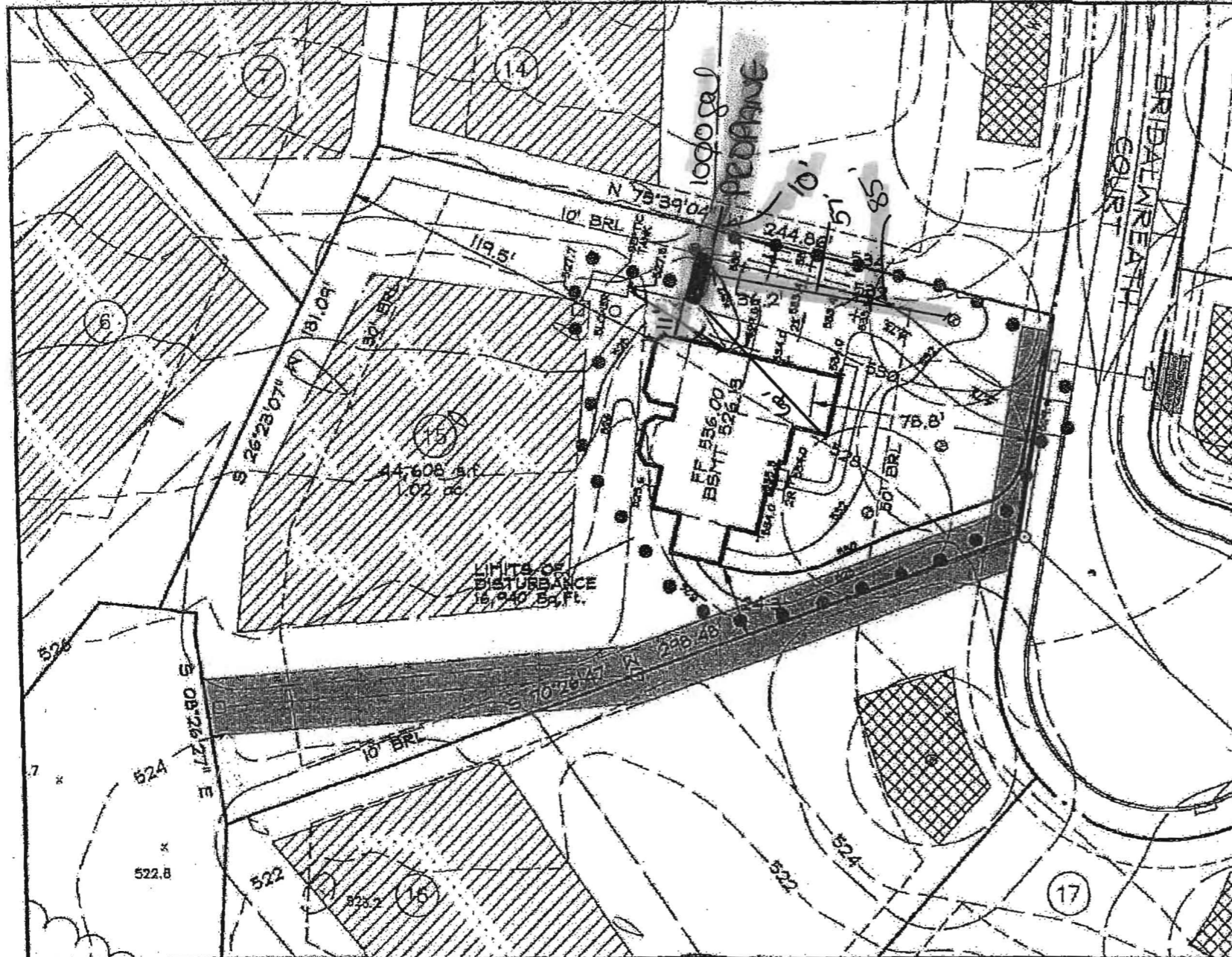
40'

89'

2818
Bridalwreath
Court



1 1/4"
F.M.



MANHATTAN ELEVATION 'D' WALKOUT

GENERAL NOTES

1. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-0668) HAS BEEN LOCATED BY DDC, PROFESSIONAL LAND SURVEYOR, AND IS ACCURATELY SHOWN.
2. BASE SQUARE FOOTAGE OF HOUSE: 1,140 sq.ft.
NUMBER OF BEDROOMS: 4
3. INFORMATION SHOWN ON THIS PLAN BASED ON PLANS PREPARED BY DMW DATED 6/25/07. EXISTING TOPOGRAPHY BASED ON GRADING PLAN PREPARED BY DEMARIO DESIGN CONSULTANTS DATED 7/9/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN JAN. 2012
4. EJECTOR PUMP REQUIRED TO SEWER BASEMENT
4. PER THE APPROVED ROAD DRAWINGS, F-07-38, A DRIVEWAY CULVERT IS NOT REQUIRED.



Planned
Surveyor
Engineer
Landscape Architect

192 East Main Street
Westminster, MD 21156
410.316.0558
410.316.0544 (fax)
DDC@DDCinc.com
www.DDCinc.com

DDC JOB#:	06116.B
DATE:	04/01/13
SCALE:	1" = 50'
DES. BY:	BKC
DRN. BY:	BKC
CHK. BY:	BKC

BELLE HAVEN ESTATES
3rd ELECTION DISTRICT HOWARD COUNTY, MD
TAX MAP 14, PARCEL 66

LOT 15
2818 BRIDALWREATH COURT
WOODBINE, MD 21797
PLOT PLAN
KHOV ELEVATION

OWNER/BUILDER: K.HOVNANIAN HOMES
1802 Brightseat Road
Londover, Maryland 20785
(301)685-6268



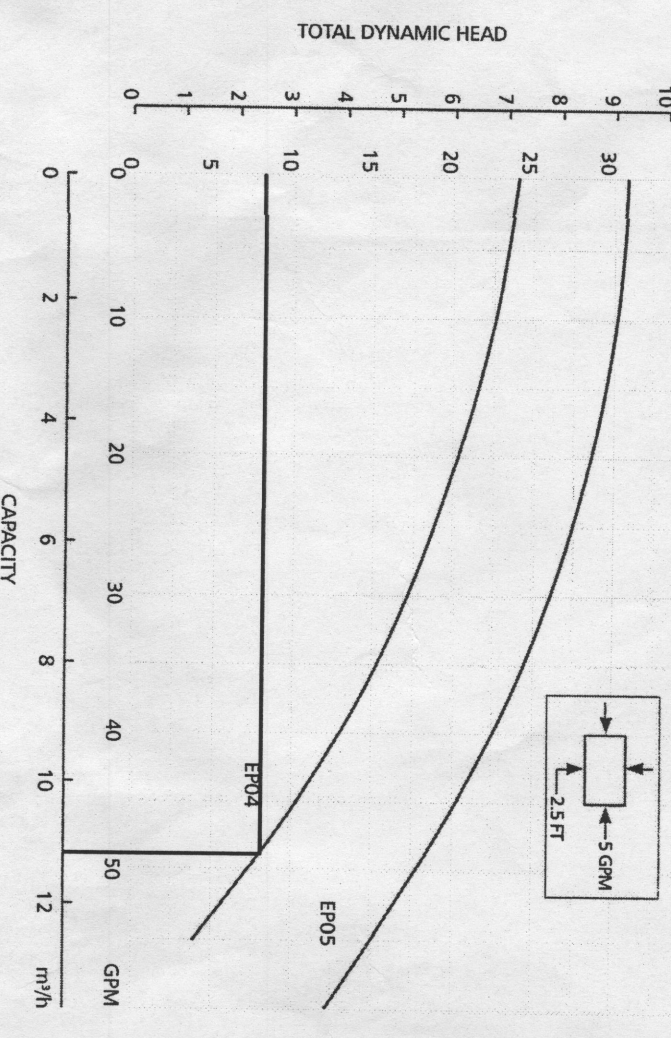
GOULDS PUMPS
Wastewater

PERFORMANCE RATINGS

Total Head (ft. or Meter)	Gallons Per Minute
5	57
10	46
15	36
20	21
25	0
30	0

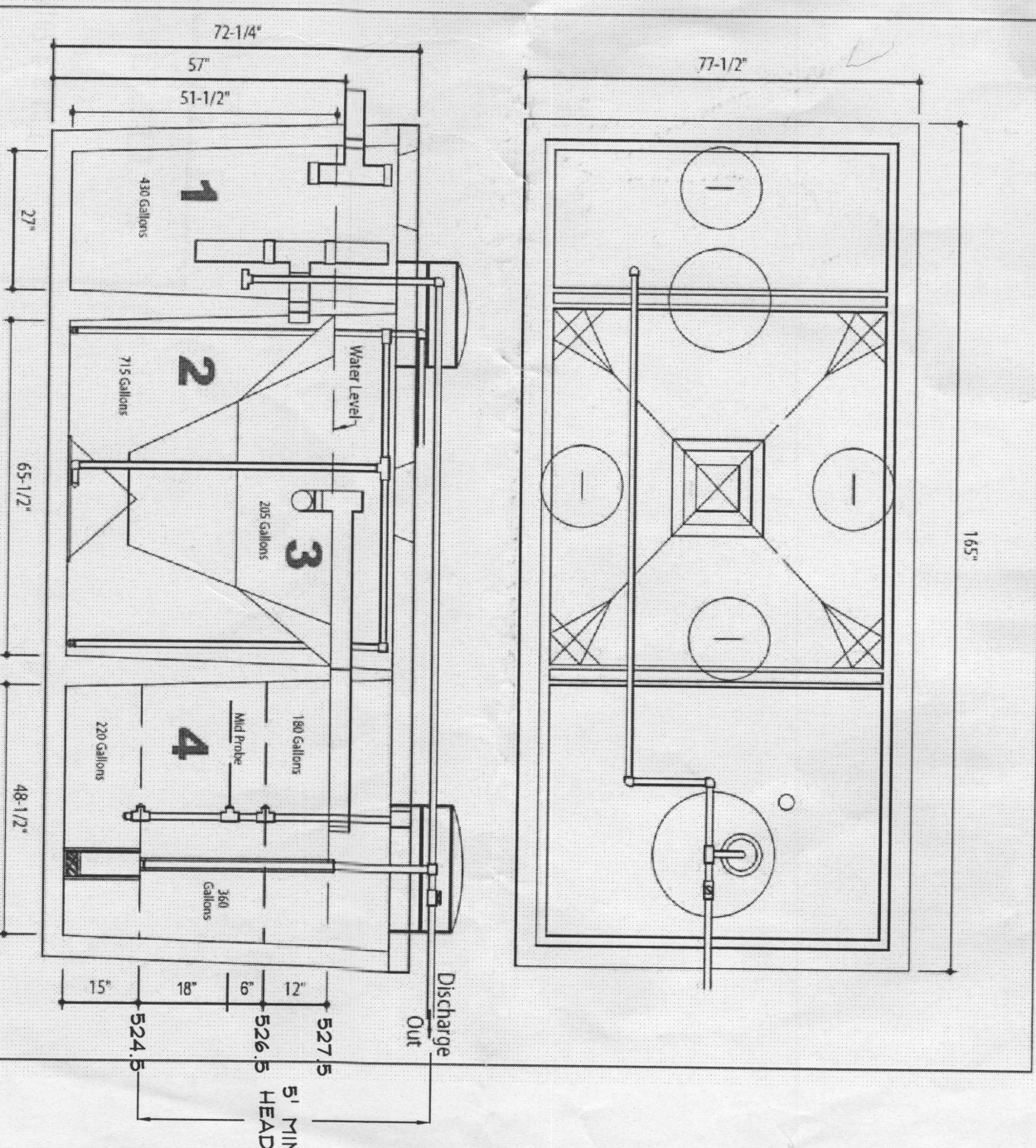
TOTAL DYNAMIC HEAD CALCULATIONS

STATIC HEAD	5.0' (1.5m)
FRICITION HEAD	3.2'
DISTAL END HEAD	0'
TOTAL DYNAMIC HEAD	8.2'
GALLONS PER MINUTE	48 GPM
DOSE	106
PUMP RUN TIME	2.2 MIN



- DRIVEWAY CULVERT NOT REQUIRED PER THE APPROVED ROAD DRAINAGE F-07-98.
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/3/04 DATED 7/28/06.
- PLAT REFERENCE: #19946
- BASE INFORMATION SHOWN ON THIS PLAN IS BASED ON PLANS PREPARED BY DVM, AND DATED 06/29/07. EXISTING TOPOGRAPHY DATED 07/09/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS PRIOR TO STAKEOUT FOR CONSTRUCTION.
- OWNER/BUILDERS RESPONSIBILITY TO PROVIDE DDC, INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
- THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DESIGN AT (410)318-8881 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-287-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TOTAL LIMIT OF DISTURBANCE: 16,946 SQ. FT. / 0.39 AC.
- STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED PER THE PREVIOUSLY APPROVED FINAL PLAN (F-07-98).
- ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS SPECIFICATIONS.
- DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (DDC, INC.) MAY CAUSE THE DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
- DISAGREEMENT HEREON COMPLY WITH THE MINIMUM LOT AREA AND DIMENSIONS AS REQUIRED BY THE HARTLAND DEPARTMENT OF THE ENVIRONMENT.
- THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE HARTLAND 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 HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRESENT PLAN. RECONSTRUCTION OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- PROPOSALS FOR A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERMITS AND PLANS FOR THE SEPTIC SYSTEMS OF ALL PROPOSED STRUCTURES AND OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
- THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-07-98.

- SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (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 MANUFACTURERS SPECIFICATION IS 3 FEET.
 - THE BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURERS SPECIFICATIONS AND OPERATED FOR THE LIFE OF THE SYSTEM.
 - THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
 - PROVIDER MONTHLY OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE HEALTH DEPARTMENT OF THE ENVIRONMENT (VIDEO) IN A MANNER ACCEPTABLE TO THE DEPARTMENT 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. CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

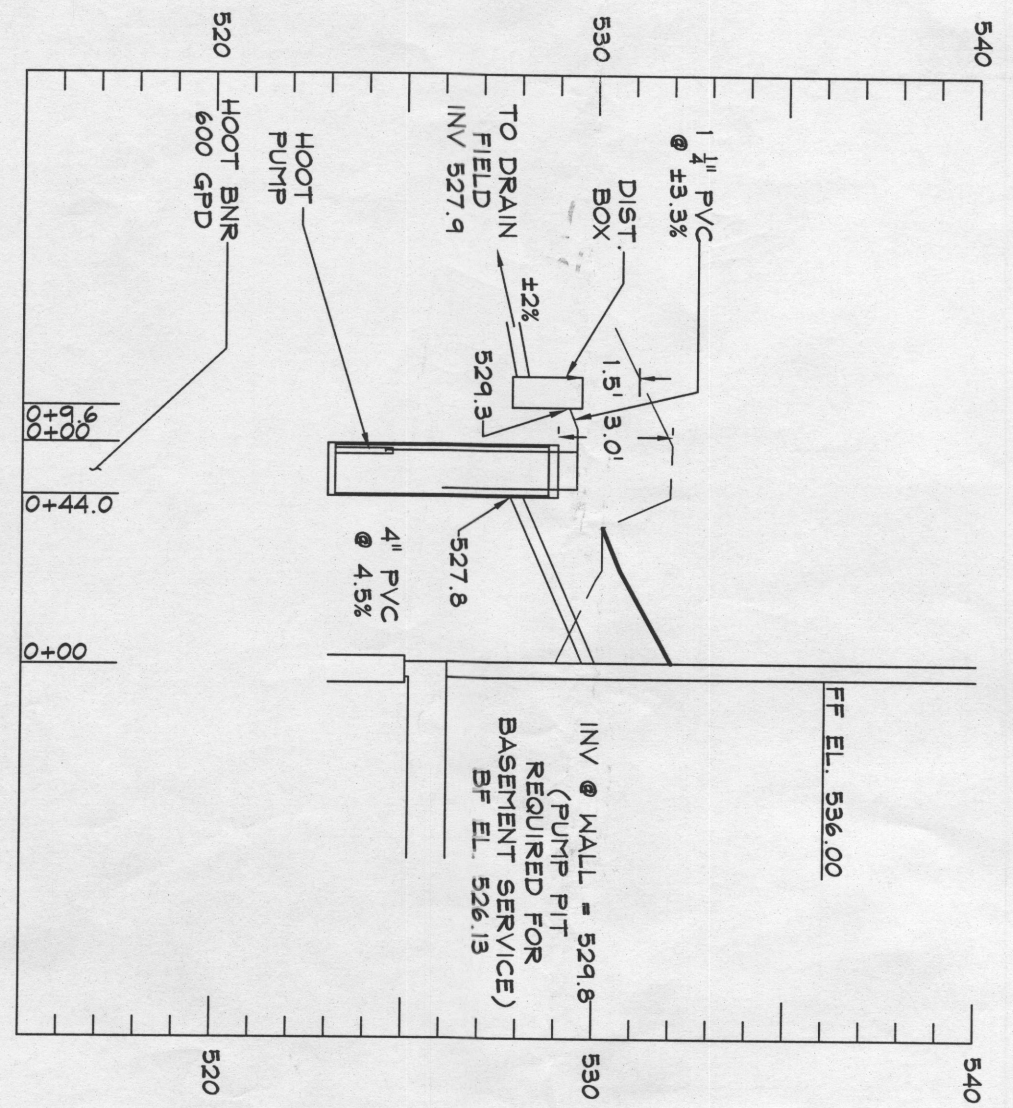


DESIGN DATA & GENERAL NOTES

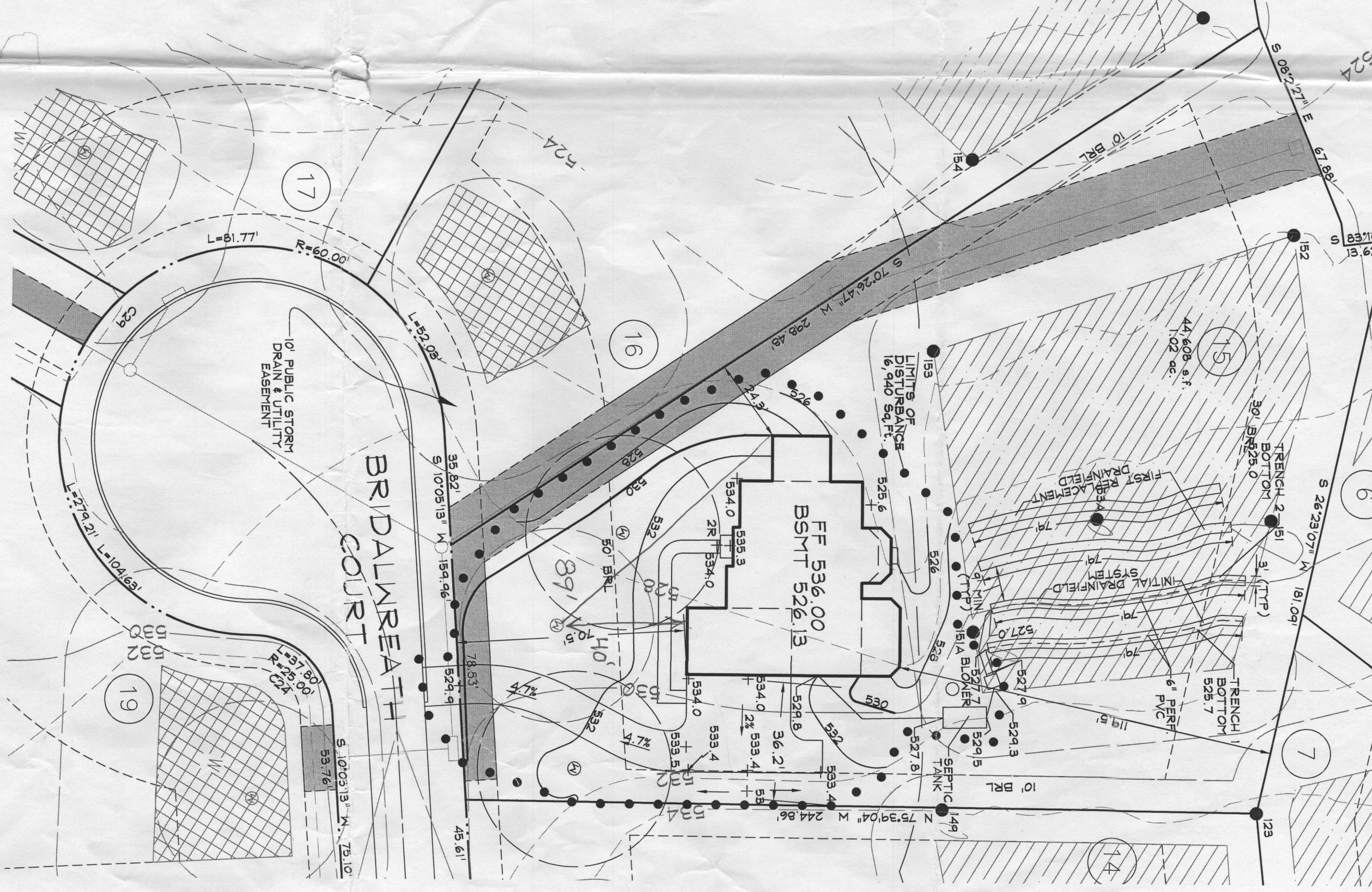
- 600 GPD BNR SYSTEM
- 750 GALLON PUMP CHAMBER
- LOT 15 PUMP ELEVATIONS

OFF	ON	ALARM
524.5	526.5	527.5

Mayer Brothers, Inc.
600 GPD BNR SYSTEM
H-600 ABNR
with 750 GALLON PUMP CHAMBER
March 19, 2009



SEPTIC SYSTEM PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



LOT 15 INITIAL SYSTEM TRENCH SPECIFICATIONS

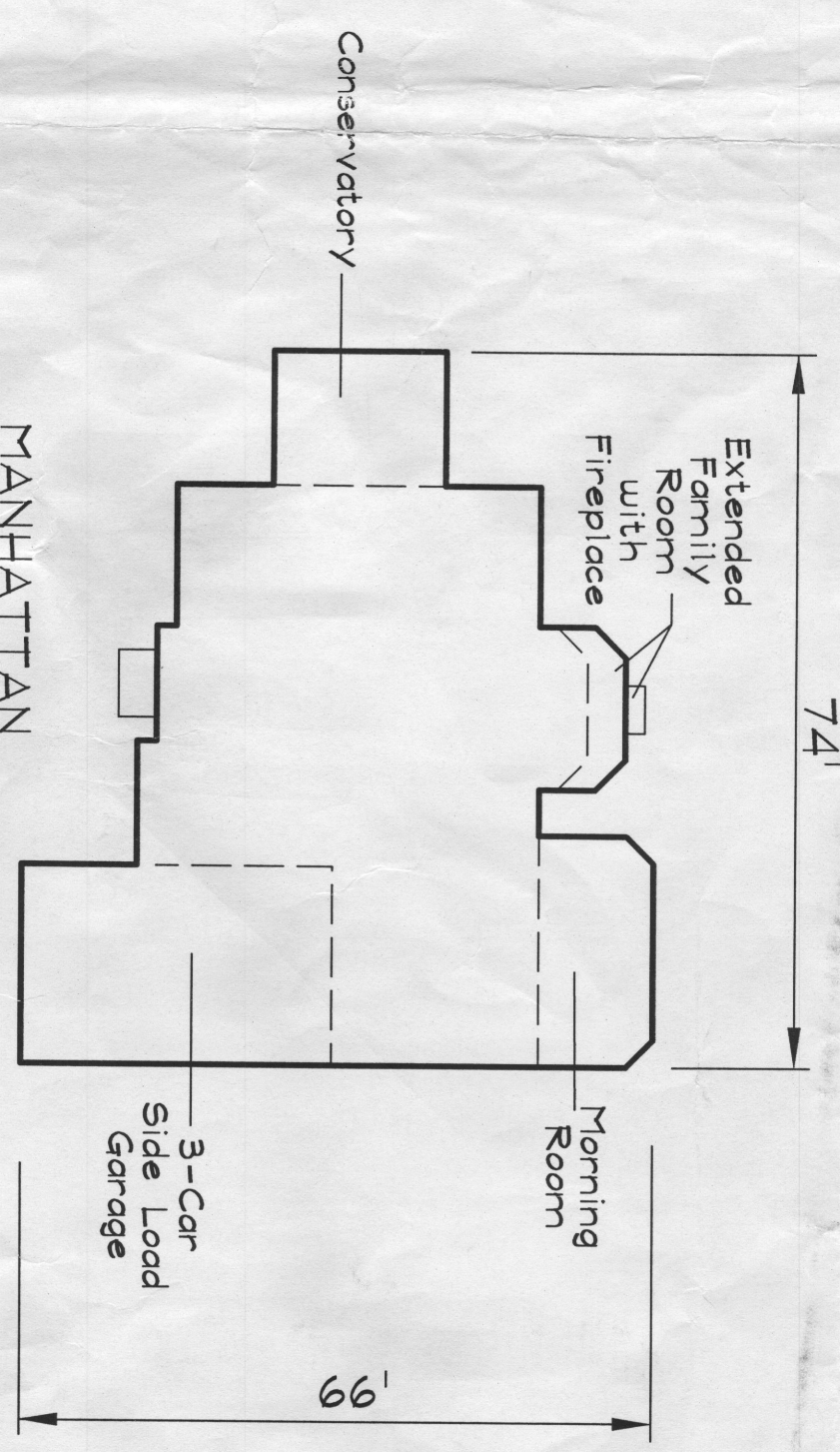
TRENCH	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
TRENCH 1 (74')	530.7	527.7	524.7
TRENCH 2 (74')	530	527	523.5

- SEWAGE DISPOSAL SYSTEM DATA (6 BEDROOM):**
- INVERT @ FOUNDATION WALL: 529.8 (BASEMENT PUMP REQUIRED)
 - 600 GPD BNR SYSTEM W/ 750 GALLON PUMP CHAMBER EX. GRADE OVER TANK: 532.0
 - DISTRIBUTION BOX INVERT: 527.8
 - TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD) 900 GPD / 1.2 GPD/SF (APP. RATE) = 750 SF USE 3\"/>

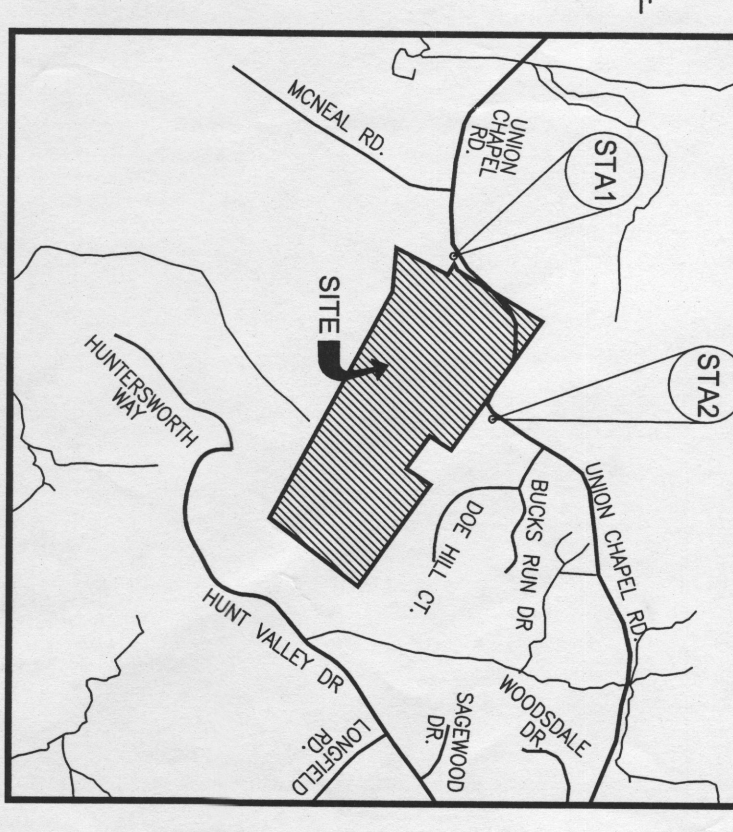
DRAWING LEGEND

- 500 PROPOSED GRADE
- 502 PROPOSED LIMIT OF DISTURBANCE
- 503 665.5 PROP. SPOT ELEV./FLOW ARROW
- 504 EXISTING 30' WELL BUFFER
- 505 EXISTING 100' WELL BUFFER
- 506 ALTERNATE WELL LOCATION
- 507 BUILDING RESTRICTION LINE
- 508 SEPTIC RESERVE AREA
- 509 PASSED PERCOLATION TEST
- 510 FAILED PERCOLATION TEST
- 511
- 512

MANHATTAN ELEVATION 'D' WALKOUT



VICINITY MAP
SCALE: 1" = 200'



APPROVED SEPTIC SYSTEM PLAN
Howard County Health Department
HOT 600 GPD BNR (H-600 ABNR)
Signature: *Paul G. Cavanaugh*
Per: *S. M. D. (4/24/09)*

PROFESSIONAL CERTIFICATION
I, the undersigned, a duly licensed Professional Engineer under the laws of the State of Maryland, certify that I am the author of the above design and that I am a duly licensed Professional Engineer under the laws of the State of Maryland.
LICENSE NO. 21020 EXPIRATION DATE: JANUARY 23, 2018
DATE: 06/23/2014

NO.	DESCRIPTION OF CHANGES	DES. BY:	CHK. BY:	DATE
1		DHN	REV.	
2		DHN	REV.	

BELLE HAVEN ESTATES
LOT 15
SITE PLAN FOR BAT INSTALLATION

DEVELOPER:
K. HOVANIAN HOMES
2818 Bridleweath Court
Woodbine, Maryland 21797
410.386.0560
410.386.0564 (fax)
DDC@DDCinc.us
www.DDCinc.us

PLANNERS:
192 East Main Street
Westminster, MD 21157
410.386.0560
410.386.0564 (fax)
DDC@DDCinc.us
www.DDCinc.us

LANDSCAPE ARCHITECTS:
192 East Main Street
Westminster, MD 21157
410.386.0560
410.386.0564 (fax)
DDC@DDCinc.us
www.DDCinc.us

MANHATTAN ELEVATION 'D' WALKOUT
99

DATA SOURCES:
Extended Family Room with Fireplace
Morning Room
3-Car Side Load Garage

CONSERVATORY

BENCHMARK
GEODETRIC SURVEY CONTROL #1
E. ELEV. 1297.71 25
A.A. ELEV. 1163.4
GEODETRIC SURVEY CONTROL #2
E. ELEV. 1287.11 60
B.M. ELEV. 942.3
ADJ. LAMP COORDINATES
4918.934

PAUL G. CAVANAUGH, P.E.
Professional Engineer
License No. 21020
Expiration Date: January 23, 2018

DATE: 06/23/2014

