



Howard County
Health Department

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: 6/20/14

ONSITE SEWAGE DISPOSAL SYSTEM

P 554516

INSTALLATION

APPROVAL DATE: 7/1/2014

**PERMIT
CONSTRUCTION**

A _____

PROPERTY ADDRESS: 8112 Holly Manor Way

SUBDIVISION: Holly House Meadows

LOT: 7

TAX ID: 05-452643

CONTRACTOR: T & R Plumbing

EMAIL: _____

CONTRACTOR ADDRESS: 8421 Foundry St

PHONE: 410-795-2947

PROPERTY OWNER: Cornerstone Homes

EMAIL: _____

OWNER ADDRESS: 9695 Norfolk Avenue, Laurel, MD 20707

PHONE: 410-799-0585

BAT UNIT MODEL: Norweco Low Profile Singlair TNT LP

BAT UNIT SIZE: 600GPD

PUMP CHAMBER CAPACITY (GALLONS): _____

PUMP SIZE: _____

NUMBER OF BEDROOMS: 4

HOUSE SQ. FT. 1909

APPLICATION RATE: _____

DISTRIBUTION SYSTEM: GRAVITY FED

LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 104'</u>	INLET DEPTH: <u>SEE BAT PLAN 4'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 3'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 6'</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: Robert Bricker

ISSUE DATE: 6/20/14

EXPIRATION DATE: 6/20/15

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 DOWNGRADE FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

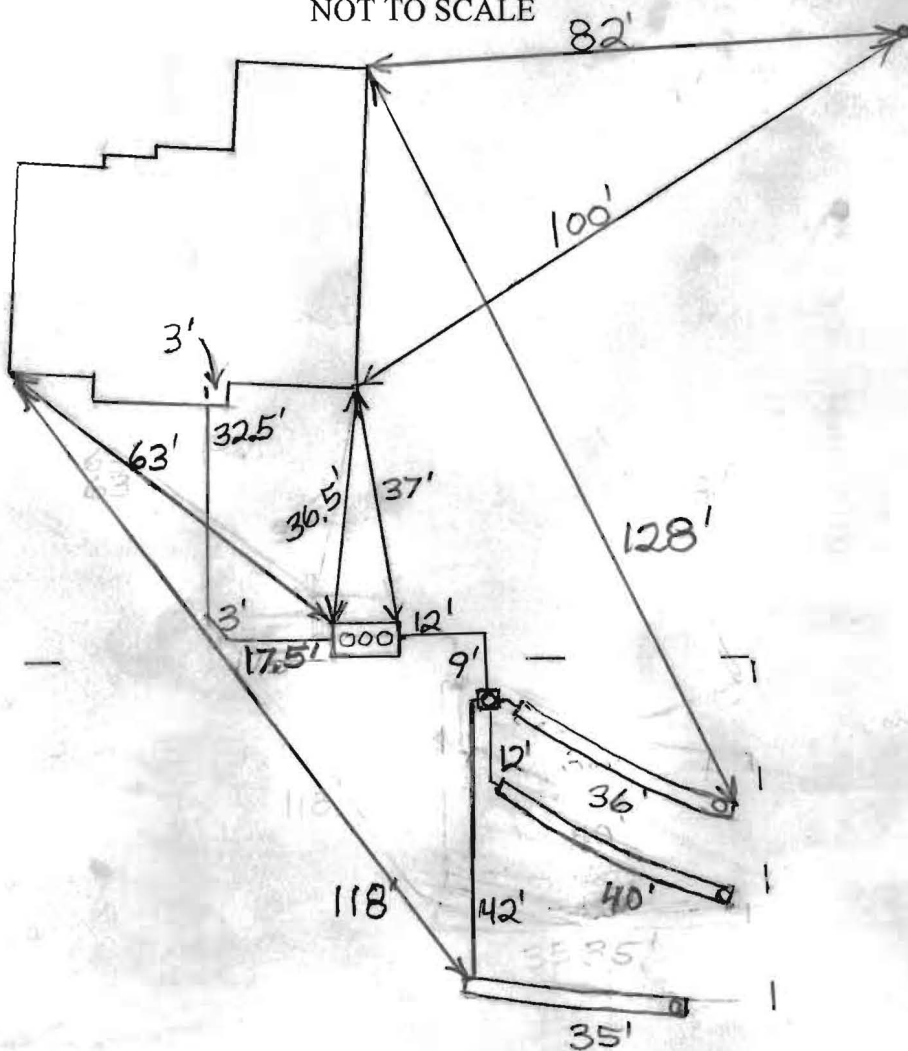
NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

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



ROAD NAME

TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4-4.5'	6-6.5'
NUMBER OF TRENCHES		3
TOTAL LENGTH		111'
ABSORPTION AREA		333 Sidewall
DISTRIBUTION BOX LEVEL		Levelers
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

SEPTIC TANK DATA	
SEPTIC TANK I LEVEL	YES
MANUFACTURER	Norweco
CAPACITY	1300 GAL
SEAM LOC	Top
TANK LID DEPTH	
BAFFLES	None
BAFFLE FILTER	No
MANHOLE LOC	Front, Middle + Rear
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	6/19/2014
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	

Back River Precasts

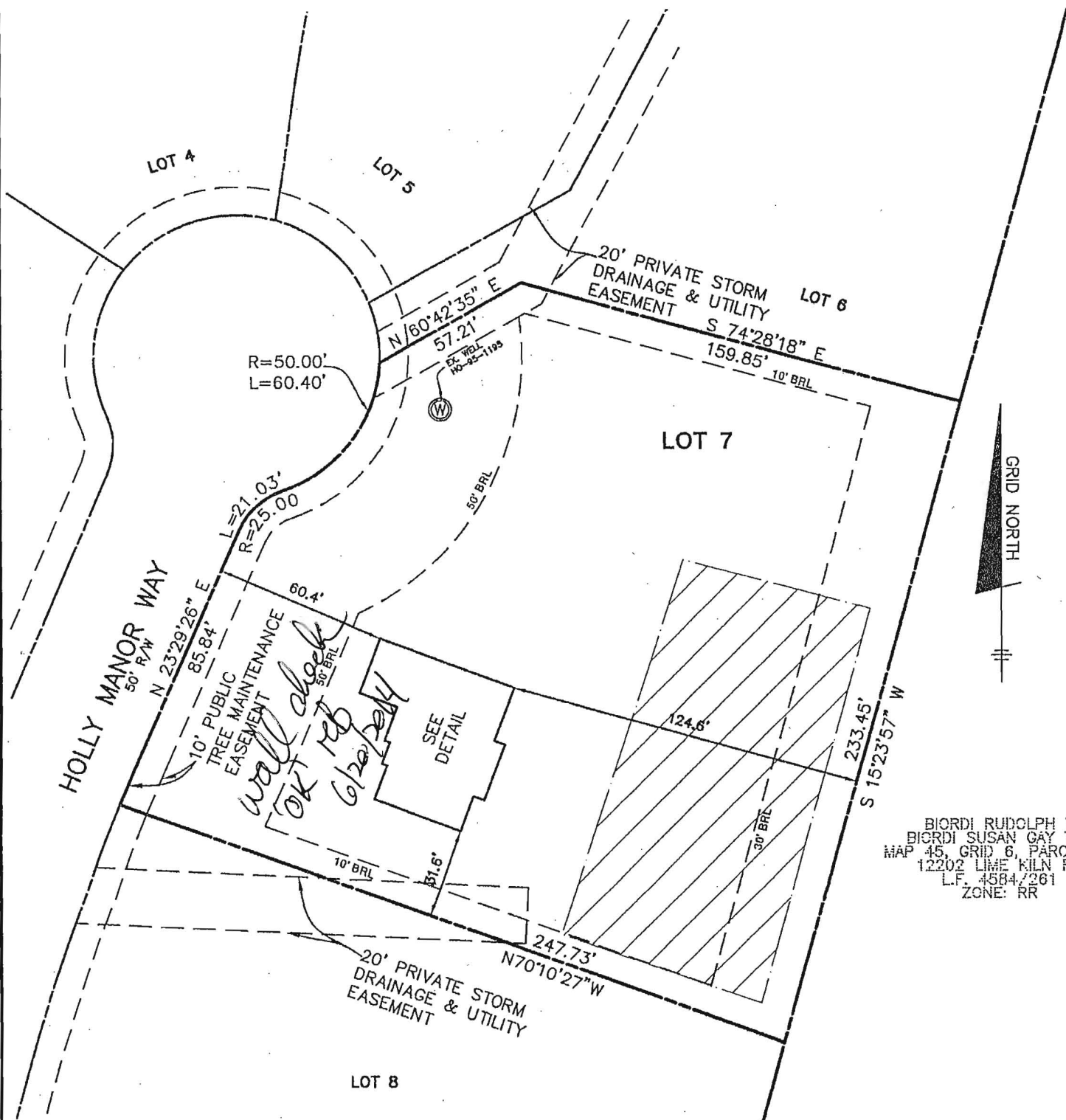
PRE-CONSTRUCTION:

6/24/2014 Installer is moving tank location closer to house. Tank will be too shallow at location shown on plan. Installer has to cut down weeds in order to do trench layout. Contour will be difficult to work with. (BB) 6/26/2014 Trenches laid out. (BB)

INSTALLATION:

6/26/2014 Tank set and house connection made. (BB)
 6/27/2014 Trenches installed. System completed, except for house connection. (BB)
 7/1/2014 House connection made. (BB)

FINAL INSPECTOR B. Baker DATE OF APPROVAL 7/1/2014



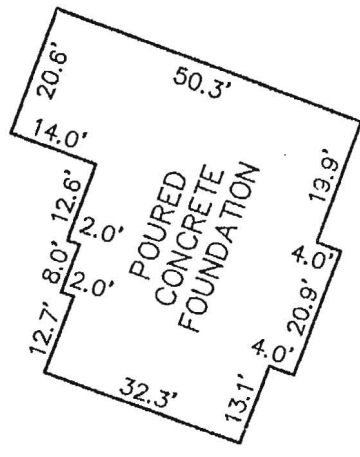
BIORDI RUDOLPH V
 BIORDI SUSAN GAY I/E
 MAP 45, GRID 6, PARCEL 23
 12202 LIME KILN RD
 L.F. 4584/261
 ZONE: RR

TOP OF FOUNDATION WALL ELEVATION = 438.8'
 OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2015 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 03/14/14

Donald A. Mason
 DONALD A. MASON
 PROFESSIONAL LAND SURVEYOR
 MD REG. No. 21320
 FOR BENCHMARK ENGINEERING, INC.
 MD REG. No. 351
 FEMA FIRM No. 24027C0140D
 ZONE: X
 DATED: 11/06/2013



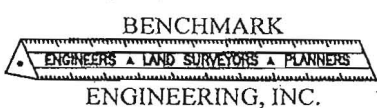
FOUNDATION DETAIL
 SCALE: 1" = 30'

WALL CHECK
 HOLLY HOUSE MEADOWS
 PHASE TWO
 PLAT No. 20378
 LOT No. 7

8112 HOLLY MANOR WAY

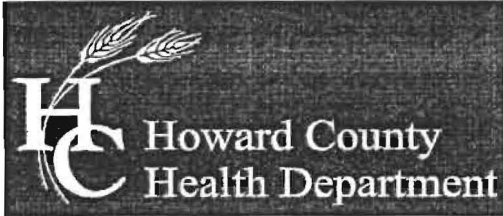
5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 03/14/2014



8480 BALTIMORE NATIONAL PIKE • SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 phone: 410-465-6105 • fax: 410-465-6644
 www.bei-civilengineering.com

FIELD OBS. BY DH&AIS
 COMP. BY EWF
 DRAWN BY EWF



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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 19th day of June, 2014 among Cornerstone Homes, 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 8118 Holly Manor Way, Fulton, MD, 20759, 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 _____ Folio _____.

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

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 County
Reference/Control #: 83

LR - Agreement Surcharge
1x 40.00 40.00

=====
SubTotal: 60.00
Total: 60.00
=====

REV-Check-BDA 60.00
Number : 1070

06/20/2014 10:37 CC13-NN
#2943629 /494/109

Thank you for visiting us today~

LEGEND

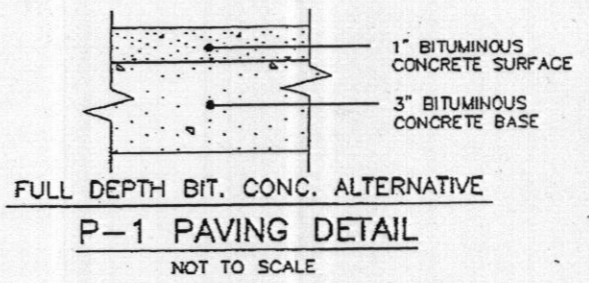
- EXISTING CONTOURS
- FIELD LOCATED WELL
- PRIVATE SEWAGE DISPOSAL AREA
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- STABILIZED CONSTRUCTION ENTRANCE

SEPTIC INFORMATION

INVERT AT HOUSE	428.5*
GROUND AT INV. AT HOUSE	434.0
INVERT IN TANK	428.1
INVERT OUT TANK	427.8
TOP OF TANK	429.3
GROUND OVER TANK	431.0
INVERT IN DIST. BOX	427.4
INVERT OUT DIST. BOX	427.2
GROUND AT BOX	431.0

*NO BASEMENT GRAVITY SEWER SERVICE

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

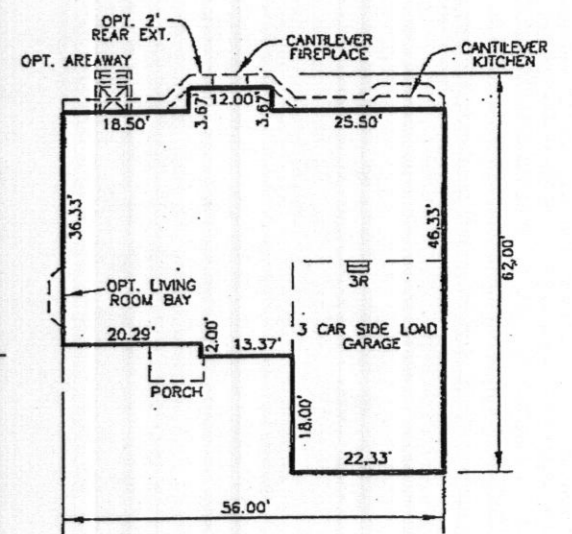
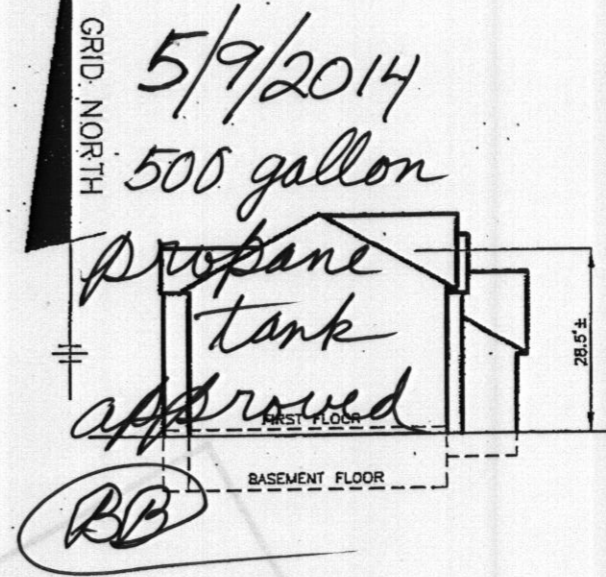


NOTES:

1. THE LOT SHOWN HEREON WAS RECORDED ON 12-04-2008 AS PLAT NUMBER 20378. REFER TO THIS PLAT FOR LOT DIMENSIONS, LOT AREAS, ALL EASEMENTS AND BUILDING RESTRICTIONS.
2. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT 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 SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
3. EXACT LENGTH OF SEPTIC TRENCHES ARE TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF PRECONSTRUCTION INSPECTION.
4. SPOIL FROM THE TRENCHING OF THE SEPTIC AREA IS TO BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION FOR EACH INDIVIDUAL LOT.
5. SEDIMENT AND EROSION CONTROLS WERE APPROVED BY HOWARD SOIL CONSERVATION DISTRICT UNDER F-08-090 AND SHALL COMPLY WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
6. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED IN THE P-1 MICROPOOL EXTENDED DETENTION POND CONSTRUCTED UNDER F-08-090.
7. THE EXISTING WELL (TAG NO. HO-95-1195) SHOWN ON THIS PLAN WAS FIELD LOCATED BY BENCHMARK ENGINEERING, INC. IN NOVEMBER, 2010 AND IS ACCURATELY SHOWN.
8. DRIVEWAY CULVERT COMPUTATIONS WERE PROVIDED AND APPROVED UNDER F-08-090.



PLAN VIEW
SCALE: 1" = 40'



DIORDI RUDOLPH V
DIORDI SUSAN GAY L/E
MAP 45, GRID 6, PARCEL 23
12202 LIME KILN RD
LF. 4584/201
ZONE: RR

TUSCANY FOOTPRINT
SCALE: 1" = 30'

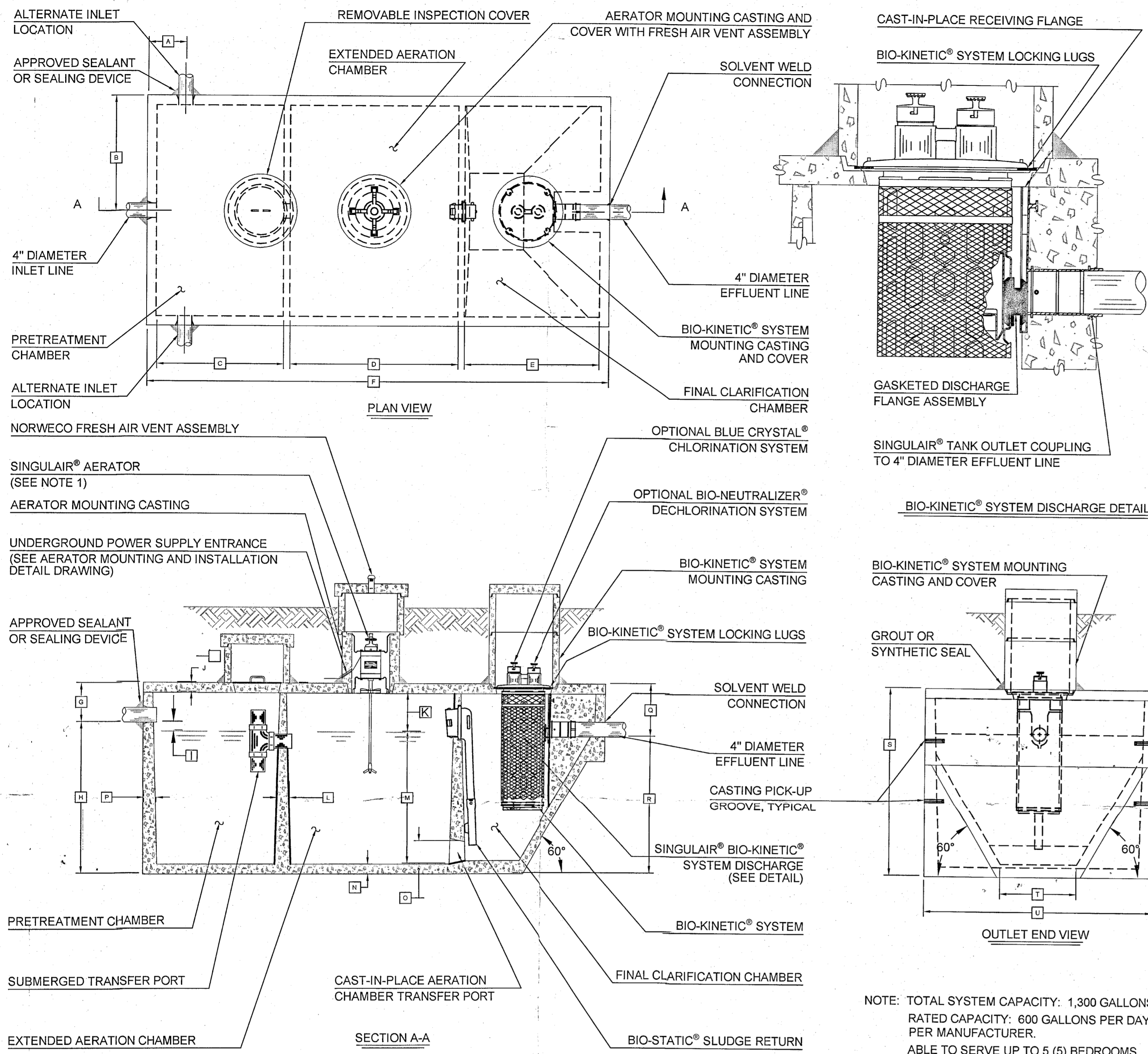
HOLLY HOUSE MEADOWS
LOT 7
8112 HOLLY MANOR WAY

TAX MAP: 45 GRID: 6 PARCEL: 24
ZONED: RR-DEO
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

TUSCANY MODEL

DATE: NOVEMBER 2013 BEI PROJECT NO. 2372

OWNER/BUILDER:
CORNERSTONE HOMES INC.



- Required BAT Site Plan 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 shall be per the manufacturer's specification.
 - The blower may not be located further from the tank than 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.

- GENERAL NOTES:**
- SINGULAIR® AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
 - FALL THROUGH SINGULAIR® PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
 - ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC® SYSTEM MOUNTING CASTING TO GRADE.
 - TANK REINFORCED PER ACI STD. 318-05.
 - REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
 - CONTACT THE LOCAL, LICENSED SINGULAIR® DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

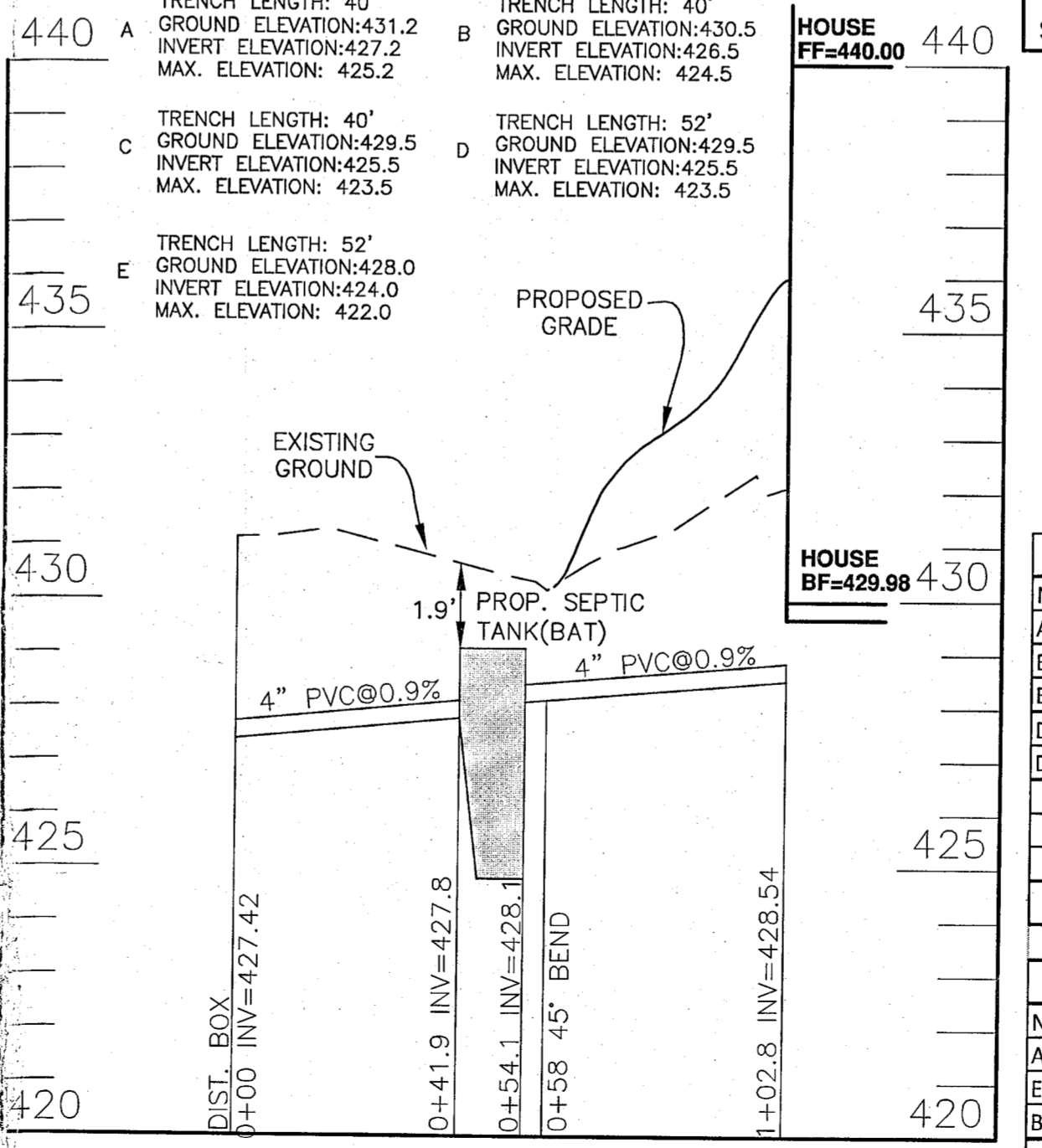
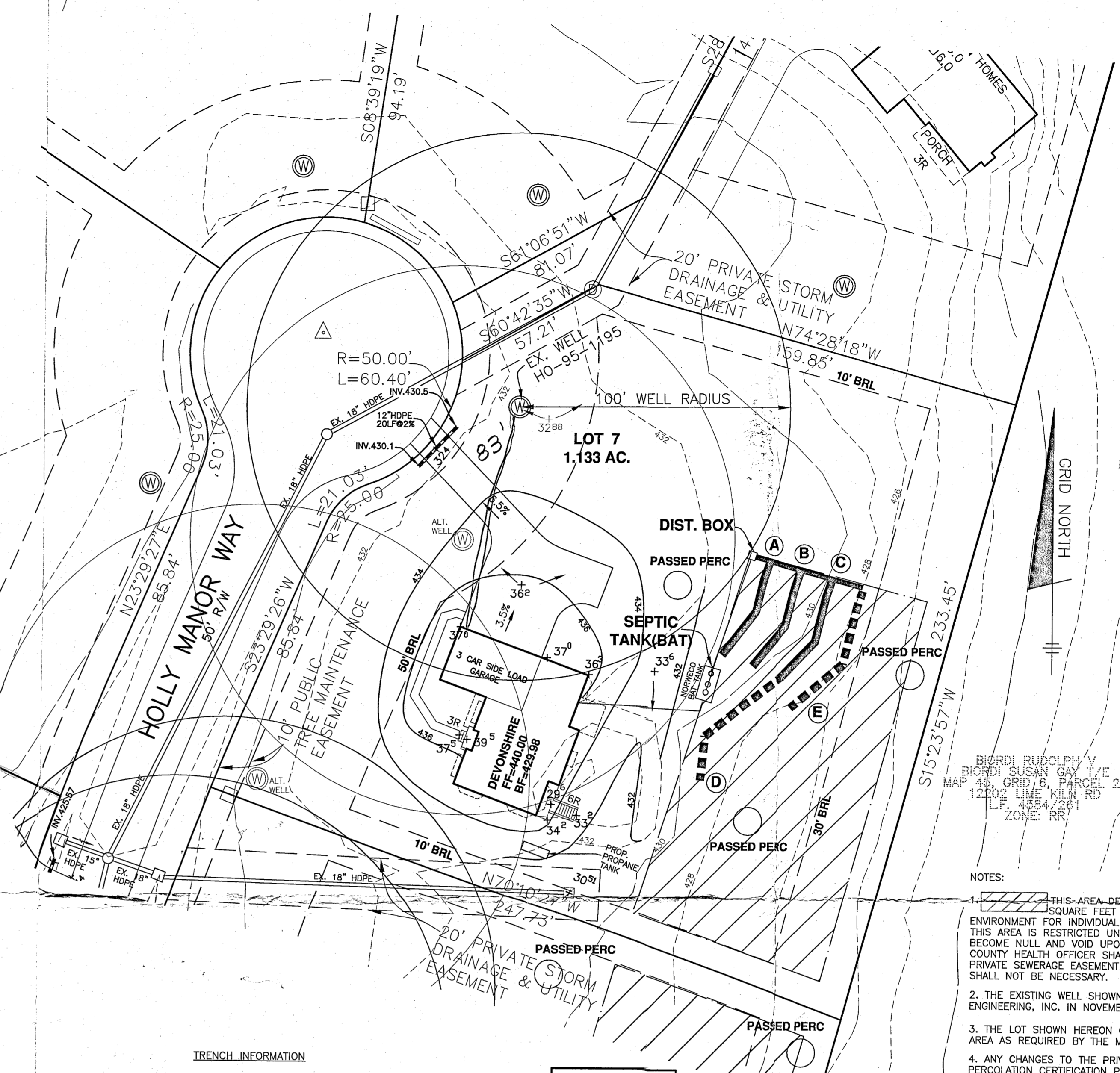
SEE MANUFACTURER'S SPECIFICATIONS FOR DETAILS. WWW.NORWECO.COM

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	

U.S. AND FOREIGN PATENTS PENDING	norweco	3-26-07	BDS
MMVII	LOW-PROFILE SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TNLTP-600-GPD	10-16-06	JMM
			NTS
			PC-5-7091

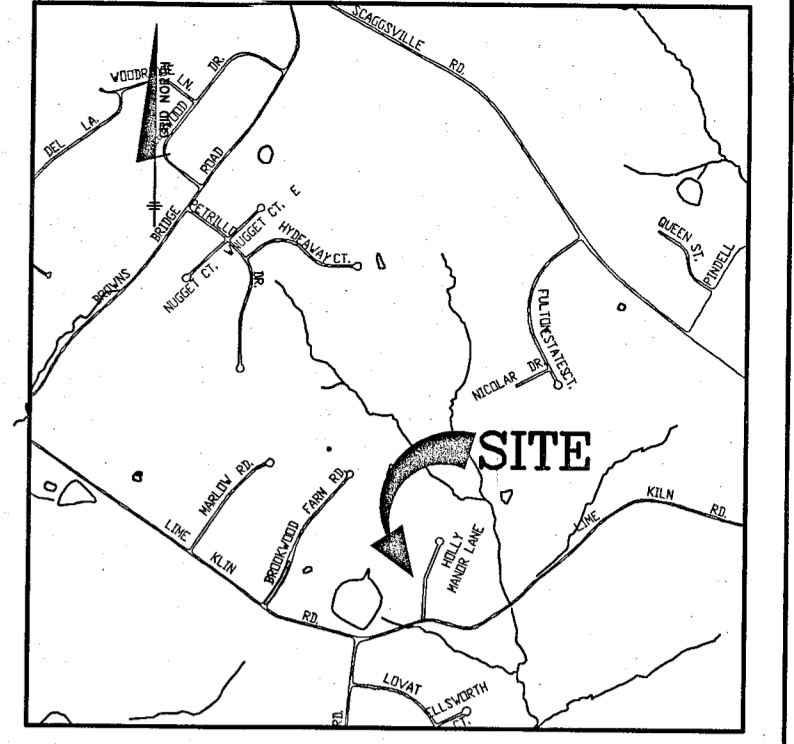
I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

J. Chris Ogle
J. CHRIS OGLE



INITIAL SYSTEM		
Number of Bedrooms	4	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	4	ft
Bottom Max Depth	6	ft
Design Flow	600	gpd
Drainage Field square footage	500	sf
Sidewall reduction credit	0.625	
Trench width	3	ft
Effective Area Depth	2	ft
Linear Length of trench Required	104	lf

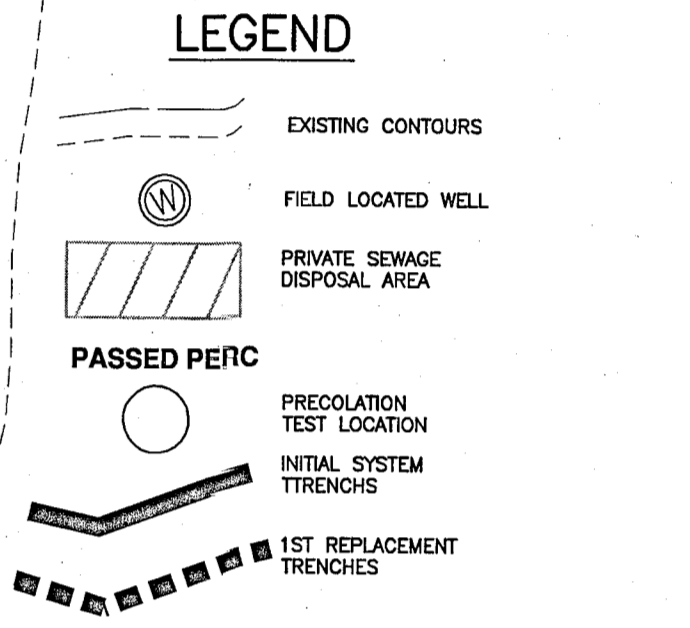
1st REPAIR SYSTEM		
Number of Bedrooms	4	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	4	ft
Bottom Max Depth	6	ft
Design Flow	600	gpd
Drainage Field square footage	500	sf
Sidewall reduction credit	0.625	
Trench width	3	ft
Effective Area Depth	2	ft
Linear Length of trench Required	104	lf



BENCHMARKS NAD'83 HORIZONTAL

HO. CO. #14FA
STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE.
N 595829.811' E 1310622.17'
ELEVATION: 560.295'

HO. CO. #14CA
STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE
N 597624.973' E 1311015.48'
ELEVATION: 560.299'



- NOTES:**
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
 - THE EXISTING WELL SHOWN ON THIS PLAN HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC. IN NOVEMBER, 2010 AND IS ACCURATELY SHOWN.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
 - ANY CHANGES TO THE PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY'S BOUNDARIES EXCEPT THAT WHICH IS SHOWN.
 - EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
 - TOPOGRAPHY SHOWN ON THE LOTS IS PER FIELD R/W TOPOGRAPHY BY BENCHMARK ENGINEERING, INC., IN NOVEMBER, 2010 AND PER F-08-090.
 - ANY CHANGE TO THE LOCATION 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 SPECIFICATIONS IS AS SHOWN.
 - THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
 - THE BAT SHALL BE OPERATED 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 THE COMPLETION OF THE BAT INSTALLATION AND 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 THE 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.

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE & SUITE 315-4 ELLICOTT CITY, MARYLAND 21043
(771) 410-4650 FAX (771) 410-4650-6644
WWW.BEI-CIVILENGINEERING.COM

Approved Septic System Plan
Howard County Health Department

Signature 6/11/14 Date

HOLLY HOUSE MEADOWS, PHASE 2
LOT 7
8112 HOLLY MANOR WAY

TAX MAP: 45 ZONED: GR-6 PARCEL: 24
ELECTION DISTRICT NO. 4
HOWARD COUNTY, MARYLAND

SITE PLAN FOR BAT INSTALLATION

OWNER/BUILDER:
CORNERSTONE HOMES INC.
9695 NORFOLK AVENUE
LAUREL, MD 20723

DATE: JUNE 2014 BEI PROJECT NO. 2372
SCALE: AS SHOWN SHEET 1 OF 1