

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: 1/22/15

ONSITE SEWAGE DISPOSAL SYSTEM

P 555719

INSTALLATION
APPROVAL DATE: 5/13/15 *Kmw*

**PERMIT
CONSTRUCTION**

A _____

PROPERTY ADDRESS: 15229 Sweetbay Street

SUBDIVISION: Belle Haven Estates

LOT: 41 TAX ID: _____

CONTRACTOR: Ben Lew Plumbing

EMAIL: _____

CONTRACTOR ADDRESS: 23407 Frederick Road, Clarksburg, MD 20871

PHONE: (301) 428-3900

PROPERTY OWNER: K Hovnanian Homes

EMAIL: cwillet@khov.com

OWNER ADDRESS: 1802 Brightseat Road

PHONE: 301-683-6268

BAT UNIT MODEL: Hoot 600 BNR

PUMP SIZE: _____

PUMP TANK CAPACITY: 600GPD

DISTRIBUTION SYSTEM: GRAVITY ☒

LOW PRESSURE DOSED ☐

NUMBER OF BEDROOMS: 4

TRENCHES:	LINEAR FEET REQUIRED: 100' <u>76' 100'</u>	INLET DEPTH: <u>4' 3"</u>
	TRENCH WIDTH: <u>SEE BAT PLAN</u> <u>2' 2"</u>	MAXIMUM BOTTOM DEPTH: <u>8' 8"</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>12"</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5' 0"</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:	Install BAT system per plan. Install 11 2' x 50' trenches <u>2x50' Trenches (2' Wide)</u> <i>Kmw</i>	

ISSUED BY: Jeff Williams

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 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

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

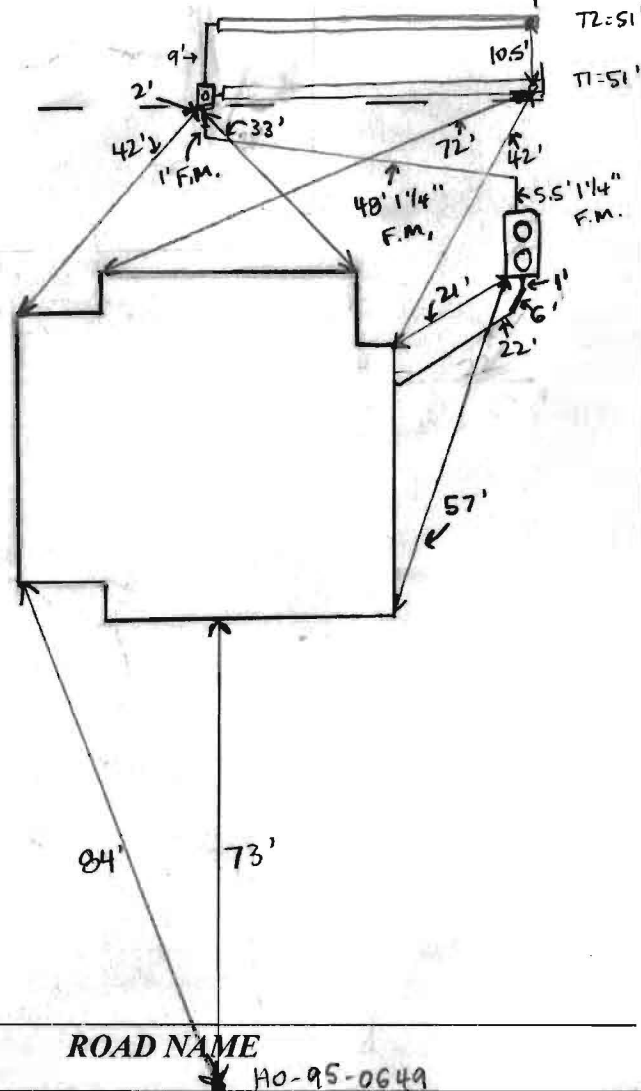
NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

**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
2'	3'	8'
NUMBER OF TRENCHES		2'
TOTAL LENGTH		102'
ABSORPTION AREA		204'
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		NO
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL YES

MANUFACTURER MAYER BROS.

CAPACITY 1500 GAL

SEAM LOC TOP

TANK LID DEPTH 2'

BAFFLES YES

BAFFLE FILTER NO

MANHOLE LOC FRONT + REAR

6" PORT LOC NONE

WATERTIGHT TEST NO

SLOTTED NO

DATE ON LID NONE

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:

2/27/2015 Changed trenches to 2' wide to increase absorption area and contractor wanted an inlet of 3'. I install two 50' trenches on contour across the top of the easement towards lot 40. Tank location staked. (CB)

INSTALLATION:

3/2/15 D-box installed and both trenches dug and left open. 2' of 4" PVC into D-box; 1 1/4" PVC will connect tank to 4" PVC to D-box. Trenches 2' wide, 2.5' to stone. (SC)

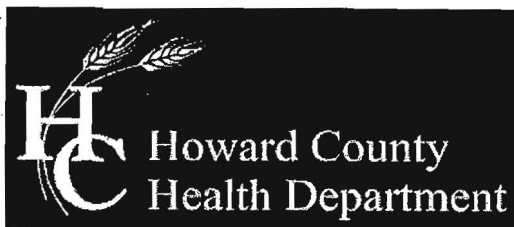
3/4/15 Tank installed, house connection made. 1 1/4" forced main from tank to D-box. Line bedded with stone from house to tank. Needs BAT startup certification. (SC)

FINAL INSPECTOR

H. Vail

DATE OF APPROVAL

5/13/15



Bureau of Environmental Health

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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 21ST day of JAN. 2015, among K. HENNANIAN
HOMES OF MARYLAND LLC, 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
15229 SWEETBY STREET WOODBINE, MD. 21797, in the 04 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 5908 Folio 60077. 04/374088

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. The pre-treatment device being installed is 600 GPD BNR SYSTEM / 750 GALLON
PUMP CHAMBER

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.

Howard County Health Department

x Steve Snyder 1/21/15
Owner #1 Signature Date
STEVE SNYDER, V.P. OPERATIONS,
KHOONASSIAN HOME OF MARYLAND LLC

Owner #1 Print Name

M.S. Bosley 9/24/14
Buyer #1 Signature Date

Matthew Bosley
Buyer #1 Print Name

Owner #2 Signature Date

Owner #2 Print Name

Megan L. Bosley 9/24/14
Buyer #2 Signature Date

Megan Bosley
Buyer #2 Print Name

1/22/15 15229 SWEETBY SHED

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: K Hovnanian
Reference/Control #: 130

LR - Agreement Surcharge

1x 40.00	40.00
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=====

SubTotal:	60.00
Total:	60.00

=====

REV-Cash	60.00
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01/22/2015 13:05 CC13-CH
#3764144 /495/109

Thank you for visiting us today~

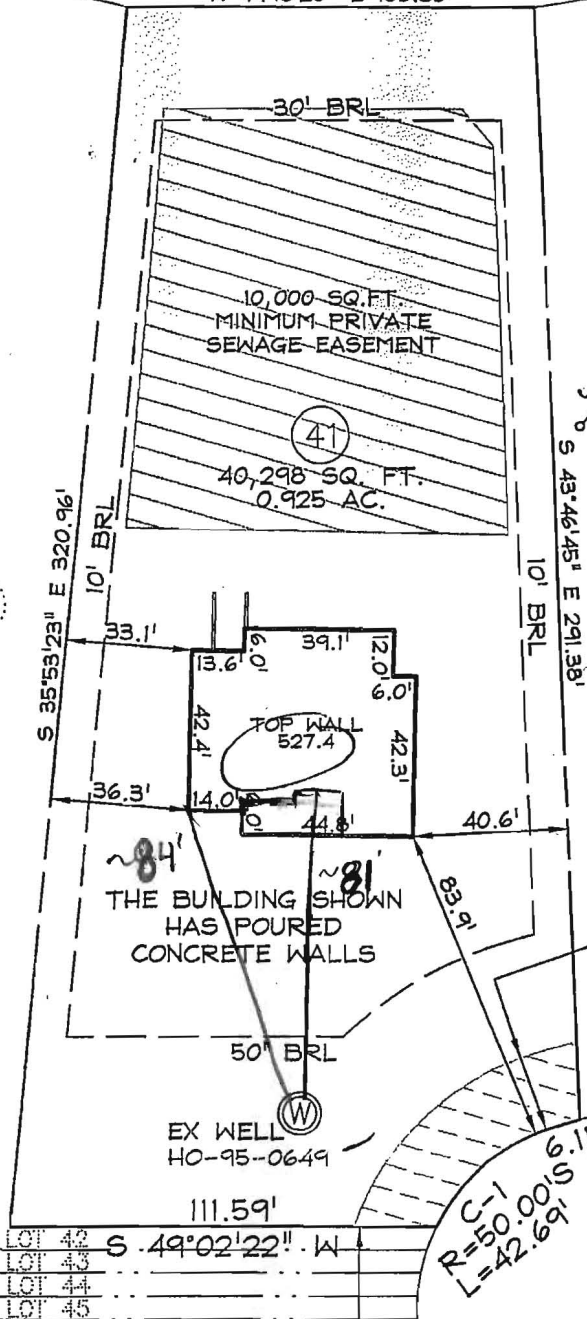
161 (41)



CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	TAN	CHD. BRG.	CHD. DIST.
C-1	50.00'	42.69'	48°55'09"	22.74'	S 08°38'27" W	41.41'

NON-BUILDABLE
PRESERVATION
PARCEL C
N 49°15'20" E 106.30'



MARYLAND COORDINATE
SYSTEM NAD 83 (1981)

1" ~ 50'

2/11/15
Walk Check
Approved
-Kmw

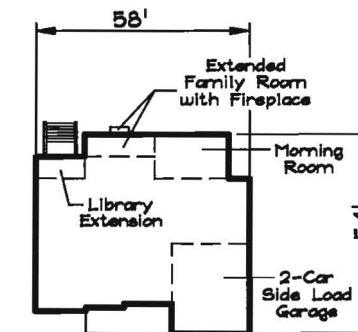
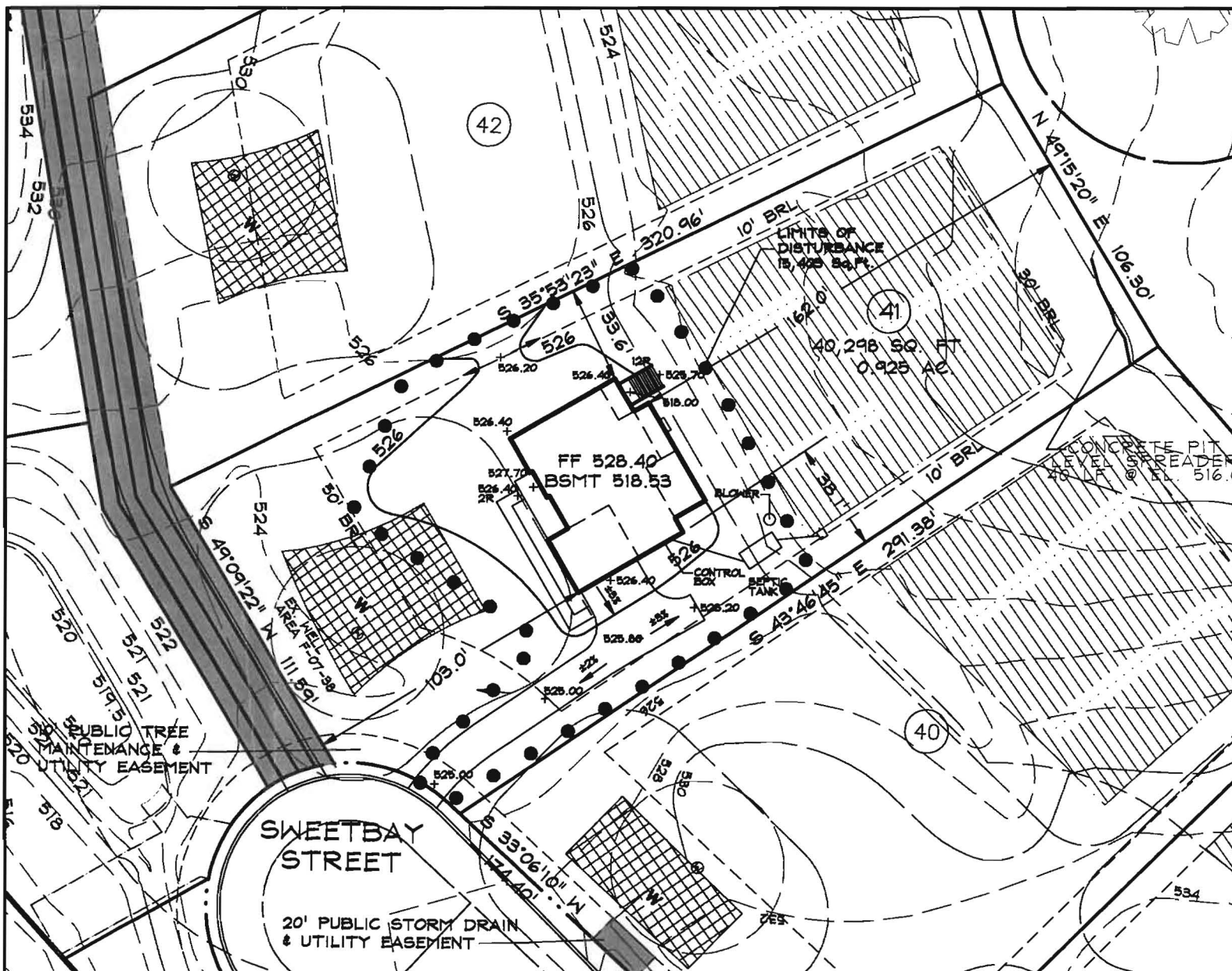
10' PUBLIC TREE
MAINTENANCE &
UTILITY EASEMENT

SWEETBAY STREET
(PUBLIC ACCESS PLACE)
(40' R/W)

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE.

I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND,



COLORADO
ELEVATION 'A'
BRICK/STONE FRONT

GENERAL NOTES

1. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-0649) HAS BEEN LOCATED BY DDC, PROFESSIONAL LAND SURVEYOR, AND IS ACCURATELY SHOWN.
2. BASE SQUARE FOOTAGE OF HOUSE: 3,562 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. A DRIVEWAY CULVERT IS NOT REQUIRED PER THE APPROVED ROAD DRAWINGS F-07-38.
5. EJECTOR PUMP REQUIRED TO SEWER BASEMENT.



Development Design Consultants

Planners
Surveyors
Engineers
Landscape Architects

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

DDC JOB#: 06116.5

DATE: 10/28/14

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 41
15229 SWEETBAY STREET
WOODBINE, MD 21797
PLOT PLAN
KHOV ELEVATION

OWNER/BUILDER: K.HOVNANIAN HOMES
1802 Brightseat Road
Landover, Maryland 20785
(301)683-6268

Letter of Satisfaction

Hoot System Installation

Address of Property: 15229 Sweetbay St.
Woodbine, MD 21797

Date of Final Inspection: 5/11/15

Installer: Ben Lewis Plumbing Inc.

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.

Sincerely,

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

PH: 410-796-1434

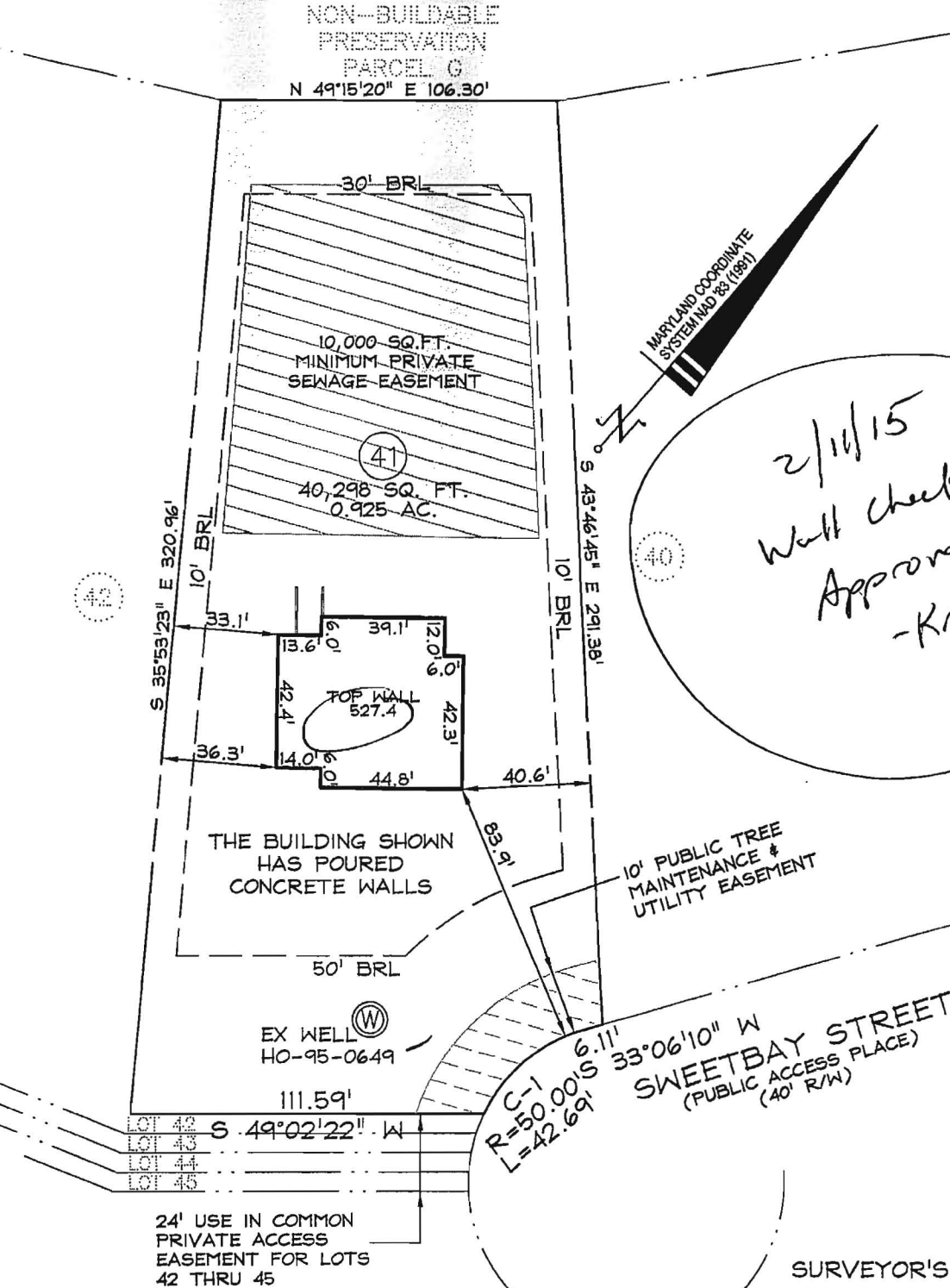
FX: 410-796-1438

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,
Scapewel Window Wells, Custom Precast Products

CURVE TABLE						
CURVE	RADIUS	LENGTH	DELTA	TAN	CHD. BRG.	CHD. DIST.
C-1	50.00'	42.69'	48°55'09"	22.74'	S 08°38'27" W	41.41'



SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE.

I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 239, EXPIRATION DATE 07/06/16.



Robert B. Southard 1-19-15

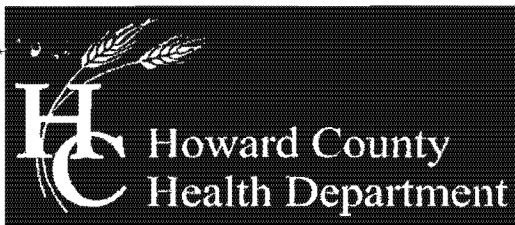
LOCATION DRAWING / WALL CHECK
#15229 SWEETBAY STREET
LOT 41
BELLE HAVEN ESTATES
PLAT No. 19953
ELECTION DIST. No. 4 HOWARD COUNTY, MD

DDC JOB#:	06116.5
DATE:	01-13-2015
SCALE:	1"=50'
DRN. BY:	RC
CHK. BY:	RBS



Planners
Surveyors
Engineers
Landscape Architects

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



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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 22ND day of JAN. 2015, among K. HUNNANIAN
HUNNANIAN MARYLAND LLC, 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
15229 SWEETBY STREET WASHINGTON, MD. 21792, in the 04 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 15903 Folio 60077. 04/27/098

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. The pre-treatment device being installed is 600 GPD BNR SYSTEM / 750 GALLON
PUMP CHAMBER

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.

Beit Nefen 1/22/2015
Howard County Health Department

x Steve Smyth 1/21/15
Owner #1 Signature Date
STEVE SMYTH V.P. OPERATIONS
KHOWNOTION HOME OF MARYLAND LLC

Owner #1 Print Name

M.S. Bosley 9/24/14
Buyer #1 Signature Date

Matthew Bosley
Buyer #1 Print Name

Owner#2 Signature Date

Owner #2 Print Name

Megan L Bosley 9/24/14
Buyer #2 Signature Date

Megan Bosley
Buyer #2 Print Name

1/22/15 15229 Sweet Bay Street

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: K Hovnanian
Reference/Control #: 130

LR - Agreement Surcharge

1x	40.00	40.00
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=====

SubTotal:	60.00
Total:	60.00

=====

REV-Cash	60.00
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=====

01/22/2015 13:05 CC13-CH
#3764144 /495/109
Thank you for visiting us today~

BQ

Barrick Dispatch 301-845-6343
Barrick Sale 301-845-6341

We are an Equal Opportunity Employer
S.W. Barrick & Sons
WOODSBORO, MARYLAND

Mailing Address:
P.O. Box 1504
Laurel, Maryland 20725

CUSTOMER'S COPY

BILLING INQUIRIES
1-800-762-2294

TICKET #01097307

STATION B

DATE 03/02/15 TIME 07:45:55

CUSTOMER LEWEN
BEN LEWIS INC.
23407 FREDERICK RD
CLARKSBURG, MD 20871

JOB BELHAV : BELL HAVEN
P.O. # 32105 PROJECT #:
70- R 975- R UNION CHAPEL RD-
L BRIDALWREATH CT. TO ADD "2803"

TRUCK 603A LICENSE
DRIVER: LEE EAVEY

3 AXLES

GROSS	SCALE A	68860 lb
TARE	IN (STORED)	24460 lb
NET		44400 lb
NET		22.20 t

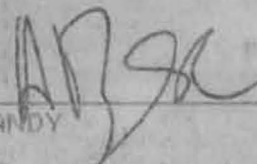
	Loads	Tons
DAILY	1	22.20
TOTAL	19	411.34
TIME IN 07:45:55		TIME OUT 07:45:55

MAT'L 22W : DBL WSHED MD#2 STONE
HAUL ZONE H09

WEIGHMASTER

Amanda Jacobs

RECEIVED BY
301-674-3324 ANDY
LOT 41



Have a Nice Day!

BQBarrick Dispatch
301-845-6343Barrick Sale
301-845-6341

We are an Equal Opportunity Employer
S.W. Barrick & Sons
WOODSBORO, MARYLAND

Mailing Address:
P.O. Box 1504
Laurel, Maryland 20725

INSPECTOR'S COPY

BILLING INQUIRIES
1-800-762-2294

TICKET #01097307**STATION B****DATE 03/02/15 TIME 07:45:55**

CUSTOMER LEW BEN
BEN LEWIS INC.
23407 FREDERICK RD
CLARKSBURG, MD 20871

JOB BELHAV : BELL HAVEN
P.O. # 32105 PROJECT #:
70- R 97S- R UNION CHAPEL RD-
L BRIDALWREATH CT. TO ADD "2803"

TRUCK 603A LICENSE
DRIVER: LEE EAVEY

3 AXLES

GROSS	SCALE A	68860 lb
TARE	IN (STORED)	24460 lb
NET		44400 lb
NET		22.20 t

	Loads	Tons
DAILY	1	22.20
TOTAL	19	411.34
TIME IN 07:45:55		TIME OUT 07:45:55

MAT'L 22W : DBL WSHED MD#2 STONE
HAUL ZONE H09

WEIGHMASTER

Amanda Jacobs

RECEIVED BY

301-674-3324 ANDY
LOT 41



Have a Nice Day!

BQ

We are an Equal Opportunity Employer

S.W. Barrick & Sons

WOODSBORO, MARYLAND

Mailing Address:
P.O. Box 1504
Laurel, Maryland 20725

CUSTOMER'S COPY

BILLING INQUIRIES
1-800-762-2294Barrick Dispatch Barrick Sale
301-845-6343 301-845-6341

TICKET #01097310

STATION B

DATE 03/02/15 TIME 07:49:31

CUSTOMER LEWEN

BEN LEWIS INC.
23407 FREDERICK RD
CLARKSBURG, MD 20871

JOB BELHAV : BELL HAVEN

P.O. # 32105 PROJECT #:
70- R 979- R UNION CHAPEL RD-
L BRIDALWREATH CT. TO ADD "2803"

TRUCK 726A LICENSE

3 AXLES

DRIVER: D.D. FREED TRK, LLD(6000)

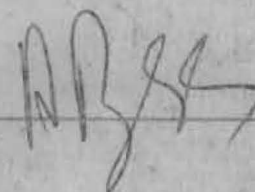
GROSS	SCALE A	68960 lb
TARE	IN (STORED)	28120 lb
NET		40840 lb
NET		20.42 t

	Loads	Tons
DAILY	2	42.62
TOTAL	20	431.76
TIME IN 07:49:31		TIME OUT 07:49:31

MAT'L 22W : DBL WSHED MD#2 STONE
HAUL ZONE H09

WEIGHMASTER

Amanda Jacobs

RECEIVED BY
301-674-3324
LOT 41

Have a Nice Day!

BQBarrick Dispatch
301-845-6343Barrick Sale
301-845-6341

We are an Equal Opportunity Employer
S.W. Barrick & Sons
WOODSBORO, MARYLAND

Mailing Address:
P.O. Box 1504
Laurel, Maryland 20725

INSPECTOR'S COPY

BILLING INQUIRIES
1-800-762-2294

TICKET #01097310**STATION B****DATE 03/02/15 TIME 07:49:31**

CUSTOMER LEW BEN
BEN LEWIS INC.
23407 FREDERICK RD
CLARKSBURG, MD 20871

JOB BELHAV : BELL HAVEN
P.O. # 32105 PROJECT #:
70- R 979- R UNION CHAPEL RD-
L BRIDALWREATH CT. TO ADD "2803"

TRUCK 726A LICENSE **3 AXLES**
DRIVER: D. D. FREED TRK, LLC (6000)

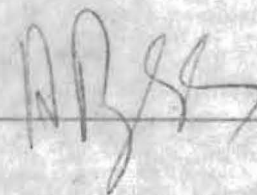
GROSS	SCALE A	68960 lb
TARE	IN (STORED)	28120 lb
NET		40840 lb
NET		20.42 t

	Loads	Tons
DAILY	2	42.62
TOTAL	20	431.76
TIME IN 07:49:31		TIME OUT 07:49:31

MAT'L 22W : DBL WSHED MD#2 STONE
HAUL ZONE H09

WEIGHMASTERAmanda Jacobs

RECEIVED BY
301-674-3324
LOT 41

**Have a Nice Day!**

BQ

Barrick Dispatch 301-845-6343
Barrick Sale 301-845-6341

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S.W. Barrick & Sons
WOODSBORO, MARYLAND

Mailing Address:
P.O. Box 1504
Laurel, Maryland 20725

CUSTOMER'S COPY

BILLING INQUIRIES
1-800-762-2294

TICKET #01097311

STATION B

DATE 03/02/15 TIME 07:49:57

CUSTOMER LEWBEN
BEN LEWIS INC.
23407 FREDERICK RD
CLARKSBURG, MD 20871

JOB BELHAV : BELL HAVEN
P.O. # 32105 PROJECT #:
70- R 979- R UNION CHAPEL RD-
L BRIDALWREATH CT. TO ADD "2803"

TRUCK 6720 LICENSE E37844D 3 AXLES
DRIVER: BLOOM TRUCKING

	SCALE B	
GROSS	68860 lb	
TARE IN (STORED)	22800 lb	
NET	46060 lb	
NET	23.03 t	

	Loads	Tons
DAILY	3	65.65
TOTAL	21	454.79
TIME IN 07:49:57		TIME OUT 07:49:57

MAT'L 22W : DBL WSHED MD#2 STONE
HAUL ZONE H09

WEIGHMASTER
Amanda Jacobs

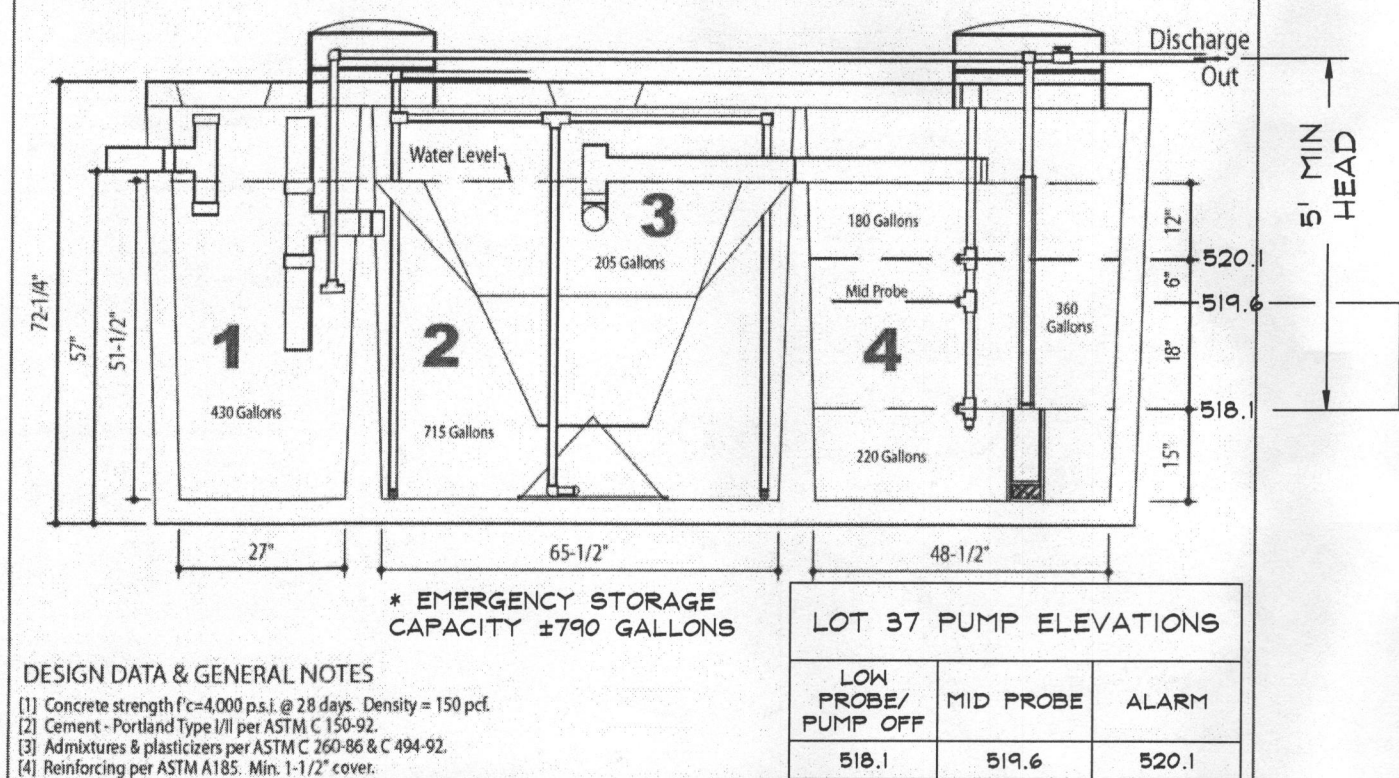
RECEIVED BY
301-674-3324
LOT 41

ABJS

Have a Nice Day!

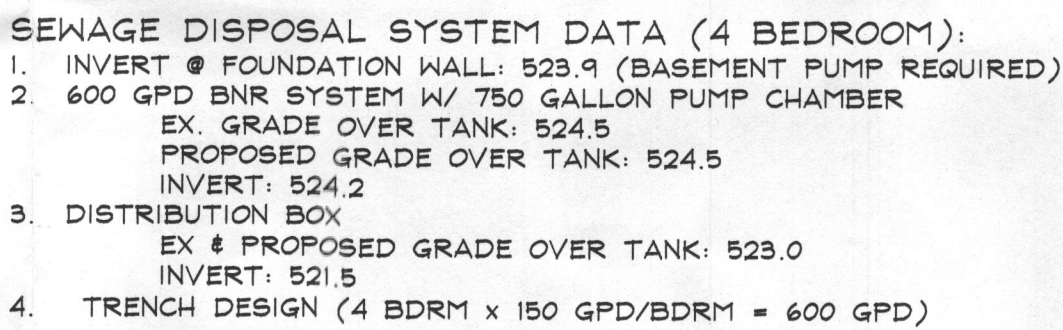
1. BASE SQUARE FOOTAGE OF HOUSE: 3,562 SQ.FT.
2. NUMBER OF BEDROOMS: 4
3. EJECTOR PUMP REQUIRED TO SEWER BASEMENT
4. A DRIVEWAY CULVERT IS NOT REQUIRED PER THE APPROVED ROAD DRAWINGS (F-7-38)
5. THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 10/6/13 COMPREHENSIVE ZONING PLAN.
6. PLAT REFERENCE: #19948
7. BASE INFORMATION SHOWN ON THIS PLAN IS BASED ON PLANS PREPARED BY DPM, AND DATED 06/25/07, EXISTING TOPOGRAPHY AND A GRADING PLAN PREPARED BY DENARO DESIGN CONSULTANTS, DATED 07/09/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN JAN. 2012.
8. SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE DDC, INC. WITH THE MOST RECENT FLOOR PLAN FOR USE IN THE FIELD.
9. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410)313-1881 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
11. TOTAL LIMIT OF DISTURBANCE: 15,403 SQ. FT. / 0.35 AC.
12. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED PER THE PREVIOUSLY APPROVED FINAL PLAN (F-07-38).
13. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
14. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (DDC, INC.) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
15. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
16. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
17. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ.FT. 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 SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO MAKE ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
18. 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.
19. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
20. UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS OF ALL PROPOSED STRUCTURES AND OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
21. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONSTRUCTION PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-07-38.
22. THE EXISTING WELL SHOWN (HO-095-0649) HAS BEEN FIELD LOCATED AND IS SHOWN ACCURATELY.

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 BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.



6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbrosprecast.com

600 GPD BNR SYSTEM H-600 ABNR		
with 750 GALLON PUMP CHAMBER		
Form #1	No Scale	March 19, 2009



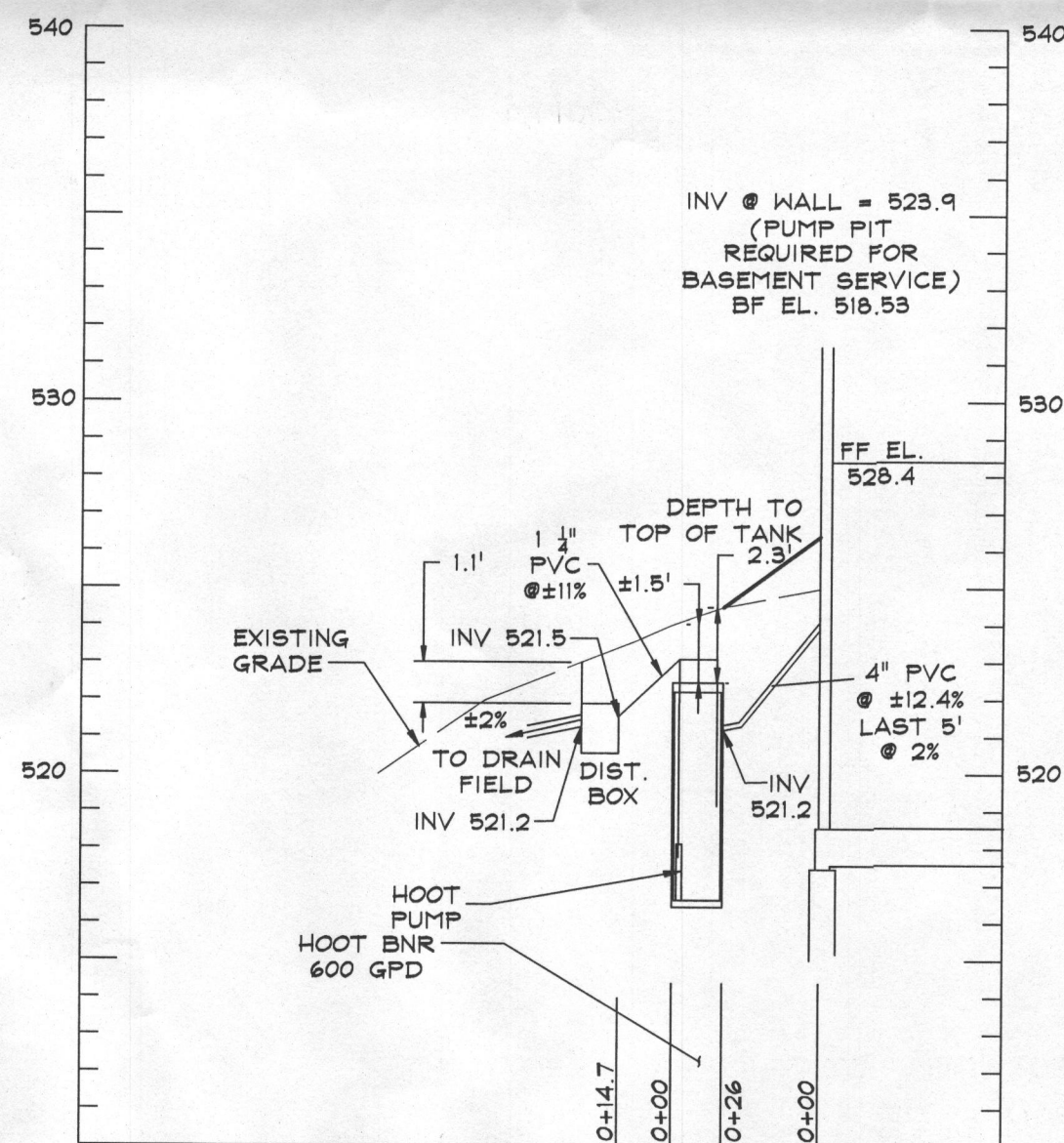
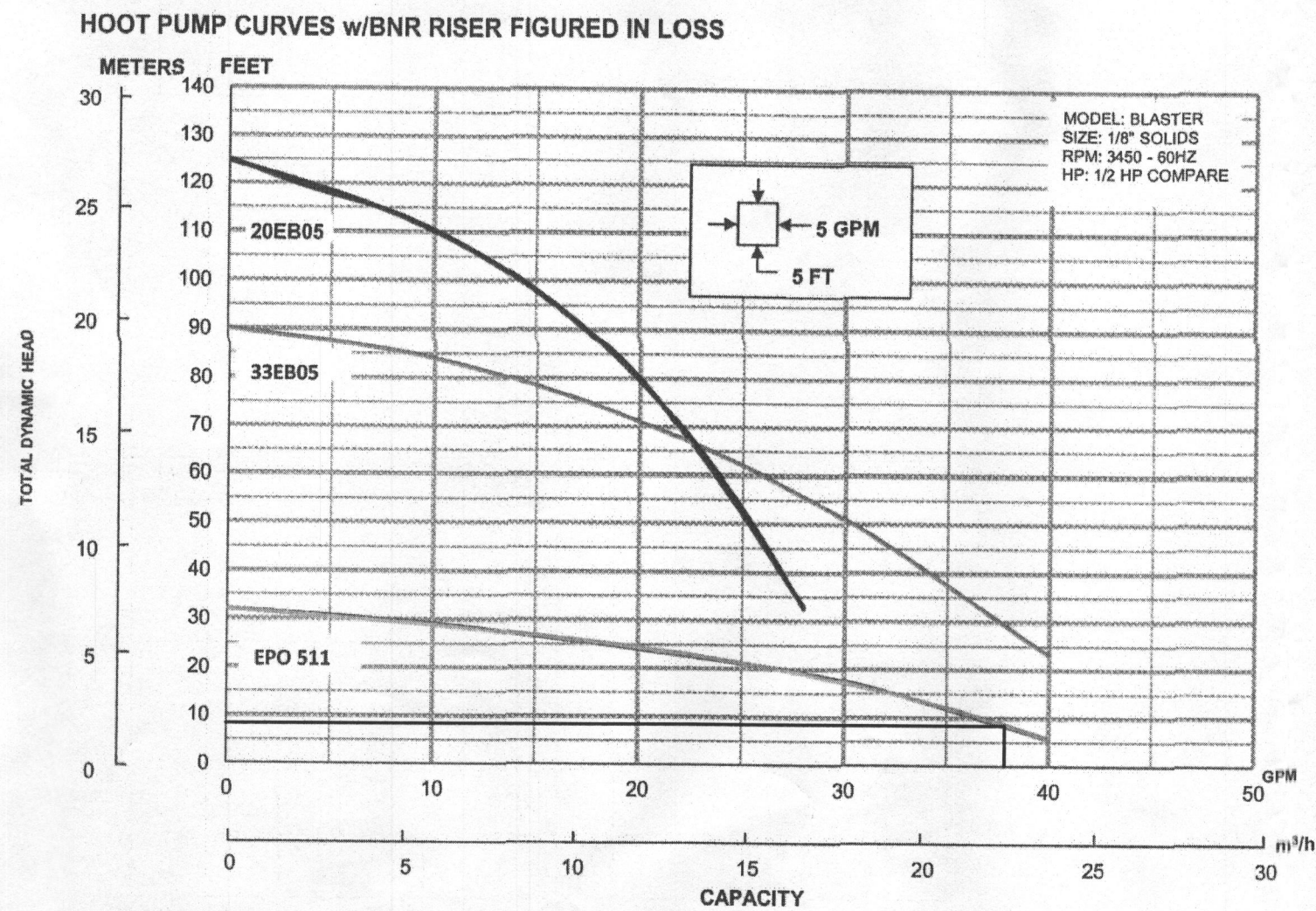
STATIC HEAD	5.0'
FRICTION HEAD	3.9'
DISTAL END HEAD	0'
TOTAL DYNAMIC HEAD	8.9'
GALLONS PER MINUTE	37.0 GPM
DOSE	74.0 GAL
PUMP RUN TIME	2.0 MIN

<u>STATIC HEAD</u>	
OFF FLOAT ELEVATION:	518.1'
HIGH POINT OF THE SYSTEM:	+ 523.1'
VERTICAL ELEVATION CHANGE:	5.0'

<u>FRICTION HEAD</u>	
FITTINGS:	13.8'
LENGTH OF PVC PIPE:	+ 14.7'
TOTAL LENGTH :	28.5'

$$28.5' / 100 \times 13.62 = 3.9' \text{ TOTAL FRICTION LOSS}$$

USE 1 - 76' LONG TRENCH FOR INITIAL SYSTEM
USE 1 - 60' LONG TRENCH FOR FIRST REPLACEMENT SYSTEM
USE 1 - 60' LONG TRENCH FOR SECOND REPLACEMENT SYSTEM



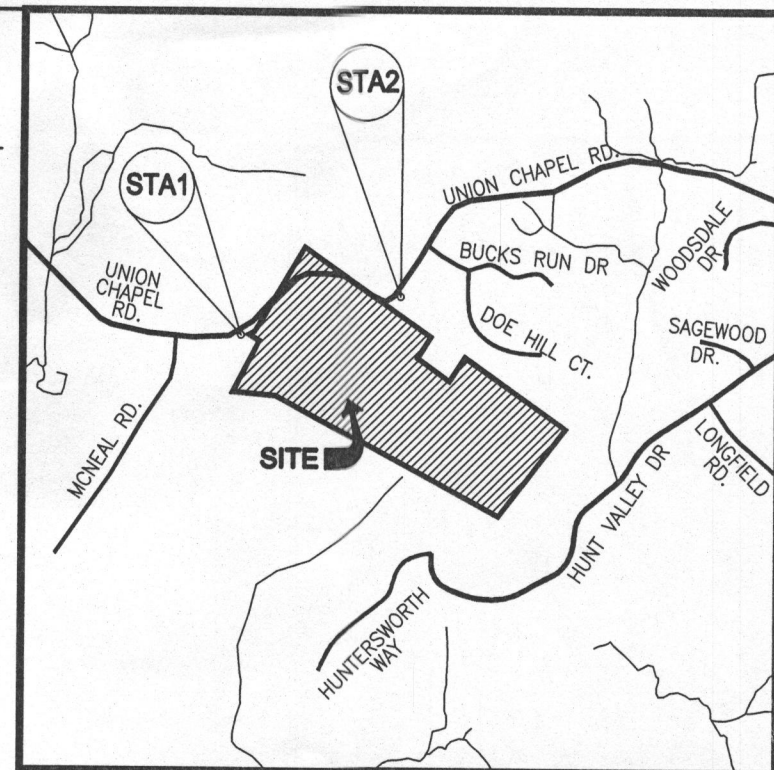
SCALE: HORIZ. 1"=50'

LOT 35 SYSTEM TRENCH SPECIFICATIONS			
	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM TRENCH (76')	529.6	519.6	515.6
FIRST REPLACEMENT TRENCH (69')	529.0	519.0	515.0
SECOND REPLACEMENT TRENCH (69')	522.0	518.0	514.0

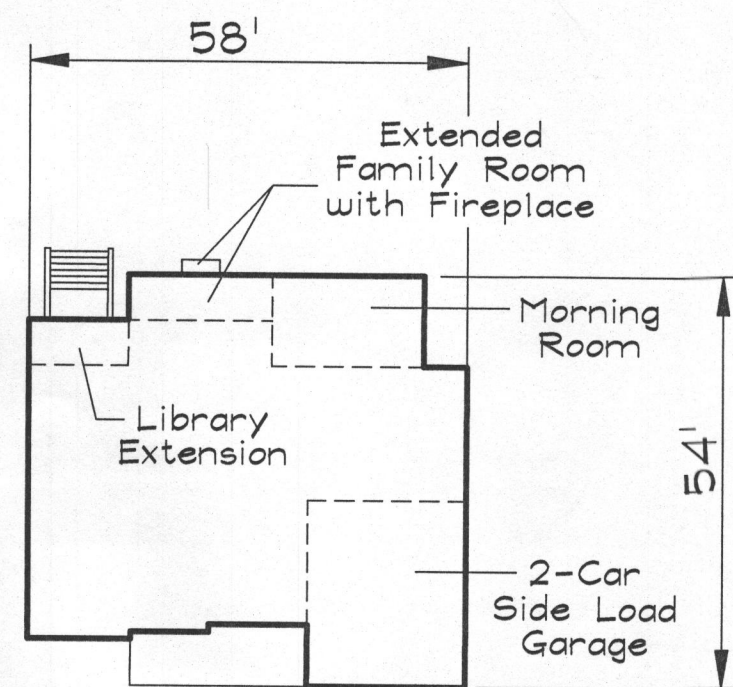
GEODETTIC SURVEY CONTROL #1
N. 581450.42
E. 1297571.25
A.A. 14GA
ELEV. 535.43

GEODETTIC SURVEY CONTROL #2
N. 581693.88
E. 1298121.60
B.M. 14GB
ELEV. 542.23

ADC MAP COORDINATES
4812/C4



SCALE: 1" = 2000'



COLORADO
ELEVATION 'A'
BRICK/STONE FRONT

DATA SOURCES:

500
502

PROPOSED GRADE

PROPOSED LIMIT OF DISTURBANCE

← + 665.5 PROP. SPOT ELEV./FLOW ARROW

PROPOSED 20' SEPTIC RESERVE BUFFER

EXISTING 30' WELL BUFFER

EXISTING 100' WELL BUFFER


BUILDING RESTRICTION LINE

SEPTIC RESERVE AREA

WELL AREA

174 PASSED PERCOLATION TEST

127 FAILED PERCOLATION TEST



Planners
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Engineers
Landscape Architects

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

OWNER:
K. HOVNANIAN HOMES
1802 Brightseat Road
Landover, Maryland 20785
(301) 683-6268

DEVELOPER:

SITE ADDRESS:
LOT 41
15229 Sweetbay Street
Woodbine, Maryland 21795

BELLE HAVEN ESTATES
LOT 41

SITE PLAN FOR BAT INSTALLATION

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. 27020 EXPIRATION DATE: JANUARY 25, 2016

10/28/2014
DATE

A circular professional engineer seal for the State of Maryland. The outer ring contains the text "STATE OF MARYLAND" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring is a smaller circle with the text "PAUL GERARD CAVALIERI" at the top and "No. 21620" at the bottom. In the center of the seal is the coat of arms of the State of Maryland. A signature, "Paul Gerard Cavalieri", is written across the seal in cursive script.

PAUL G. CAVANAUGH

3rd ELECTION DISTRICT

HOWARD COUNTY

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
-----	------------------------	------	------	------

CO. FILE #	DES. BY: BKC
------------	--------------

TAX AGG #:	DDN BY BKS
------------	------------

TAX AGG. #:	DRN. BY: BRC

TAX MAP: 14	CHK. BY: PGC
-------------	--------------

BLOCK / GRID:	DATE: 10/28/14
---------------	----------------

PARCEL #: 08	DDC JOB#: 08116.5
--------------	-------------------

PARCEL # 00	DEED CD# 00110.3
EAST LINE TO BE	QUITY ADJUDIC

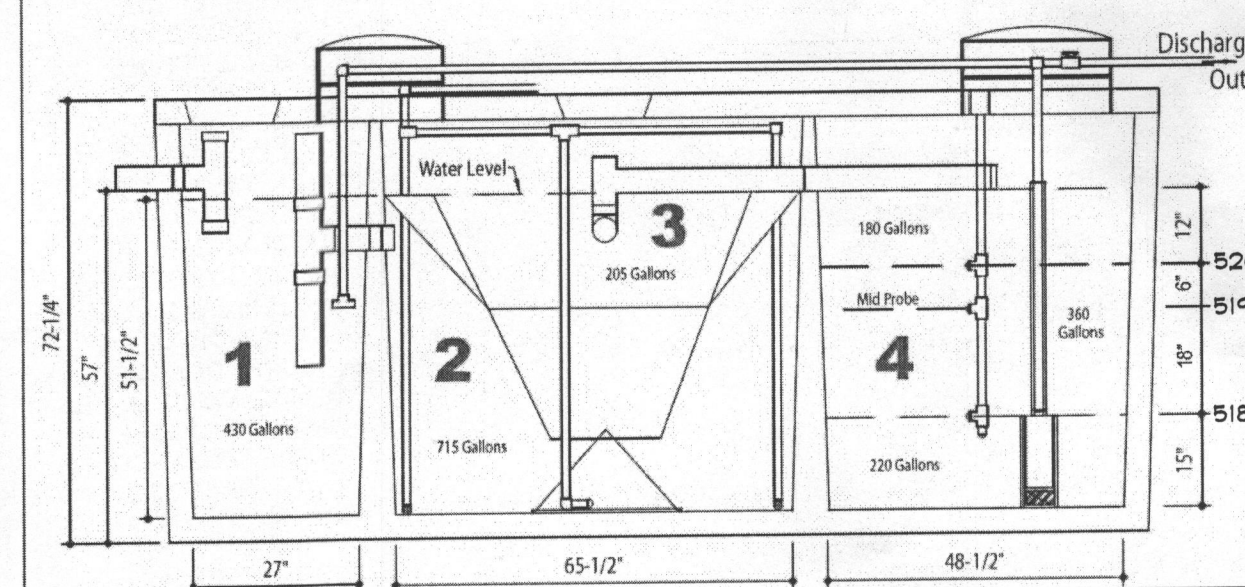
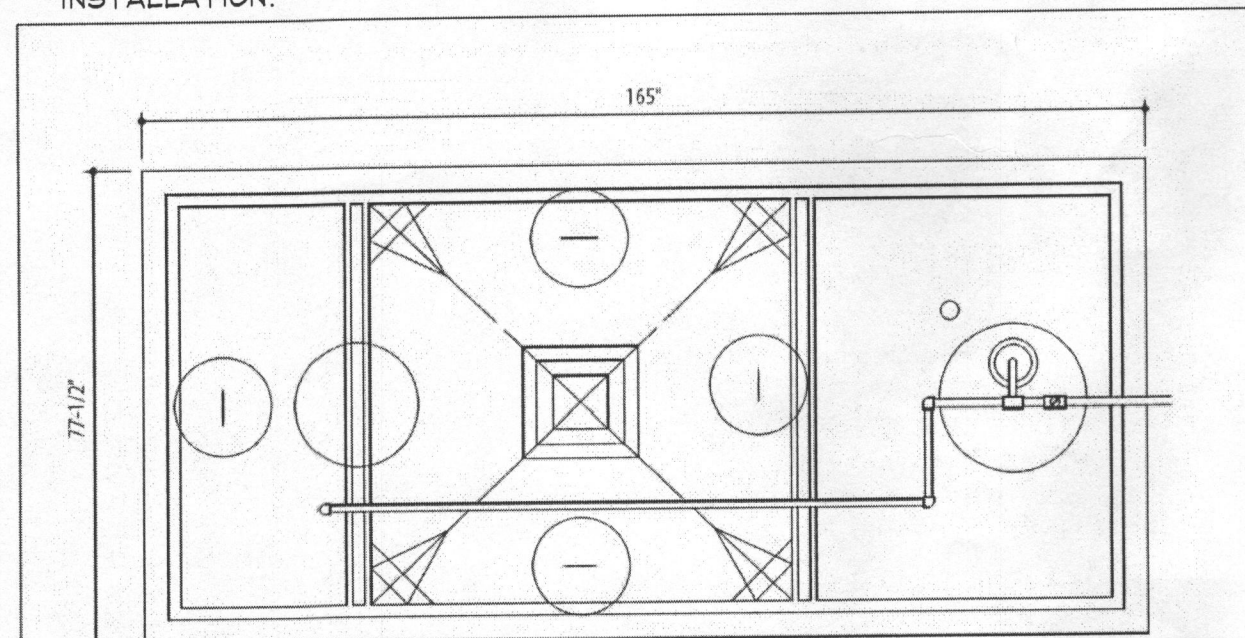
1 of 1

GENERAL NOTES

1. BASE SQUARE FOOTAGE OF HOUSE: 3,562 SQ.FT.
2. NUMBER OF BEDROOMS: 4
3. EJECTOR PUMP REQUIRED TO SEWER BASEMENT
4. A DRIVEWAY CULVERT IS NOT REQUIRED PER THE APPROVED ROAD DRAWINGS, F-07-38.
5. THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 10/6/13 COMPREHENSIVE ZONING PLAN.
6. PLAT REFERENCE: B19948
7. BASE INFORMATION SHOWN ON THIS PLAN IS BASED ON PLANS PREPARED BY DMN, AND DATED 06/25/07. EXISTING TOPOGRAPHY BASED ON GRADING PLAN PREPARED BY DEMARIO DESIGN CONSULTANTS DATED 07/09/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN JAN. 2012.
8. SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE DDC, INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
9. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410)313-1861 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
11. TOTAL LIMIT OF DISTURBANCE: 15,403 SQ. FT. / 0.35 AC.
12. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED PER THE PREVIOUSLY APPROVED FINAL PLAN (F-07-38).
13. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
14. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (DDC, INC.) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
15. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
16. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
17. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ.FT. 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.
18. 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.
19. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
20. UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS OF ALL PROPOSED STRUCTURES AND OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
21. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-07-38.
22. THE EXISTING WELL SHOWN (HO-095-0649) HAS BEEN FIELD LOCATED AND IS SHOWN ACCURATELY.

SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) 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 BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURE'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.



DESIGN DATA & GENERAL NOTES

- 1) Concrete strength f'c=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- 2) Cement: Portland Type III per ASTM C 150-92.
- 3) Admixtures & plasticizers per ASTM C 260-96 & C 494-92.
- 4) Reinforcing per ASTM A185. Min. 1-1/2" cover.

Mayer Brothers, Inc.
6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax 410.796.1438
www.mayerbroscoprecast.com

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

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

SEWAGE DISPOSAL SYSTEM DATA (4 BEDROOM):

1. INVERT @ FOUNDATION WALL: 523.9 (BASEMENT PUMP REQUIRED)
2. 600 GPD BNR SYSTEM W/ 750 GALLON PUMP CHAMBER
EX. GRADE OVER TANK: 524.5
PROPOSED GRADE OVER TANK: 524.5
INVERT: 524.2
3. DISTRIBUTION BOX
EX. GRADE OVER TANK: 523.0
INVERT: 521.5
4. TRENCH DESIGN (4 BDRM x 150 GPD/BDRM = 600 GPD)

INITIAL SYSTEM
600 GPD / 1.2 GPD/SF (APP. RATE) = 500 SF
USE 3' WIDE TRENCH W/ 48" OF GRAVEL BELOW PIPE
500 SF / 3' WIDTH = 167 LF x 0.45 = 76 LF MIN. TRENCH

1ST/2ND REPLACEMENT SYSTEM
600 GPD / 1.2 GPD/SF (APP. RATE) = 500 SF
USE 3' WIDE TRENCH W/ 48" OF GRAVEL BELOW PIPE
500 SF / 3' WIDTH = 167 LF x 0.41 = 69 LF MIN. TRENCH

11" MIN SPACING BETWEEN TRENCH EDGES

USE 1 - 76' LONG TRENCH FOR INITIAL SYSTEM
USE 1 - 69' LONG TRENCH FOR FIRST REPLACEMENT SYSTEM
USE 1 - 69' LONG TRENCH FOR SECOND REPLACEMENT SYSTEM

STATIC HEAD	5.0'
FRICTION HEAD	3.9'
DISTAL END HEAD	0'
TOTAL DYNAMIC HEAD	8.9'
GALLONS PER MINUTE	37.0 GPM
DOSE	74.0 GAL
PUMP RUN TIME	2.0 MIN

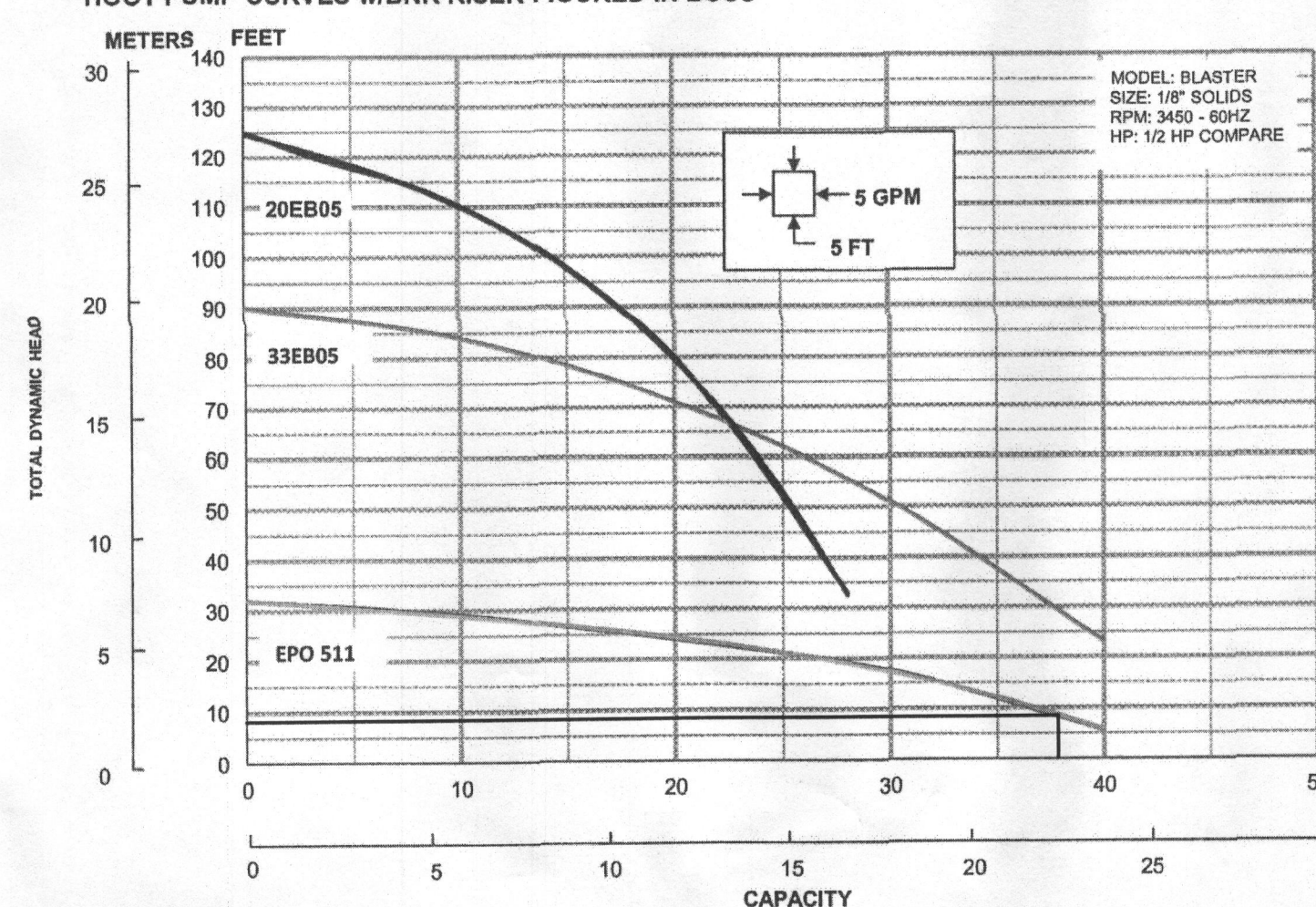
TOTAL DYNAMIC HEAD CALCULATIONS

STATIC HEAD
OFF FLOAT ELEVATION: 518.1'
HIGH POINT OF THE SYSTEM: + 523.1'
VERTICAL ELEVATION CHANGE: 5.0'

FRICTION HEAD
FITTINGS: 13.8'
LENGTH OF PVC PIPE: + 14.7'
TOTAL LENGTH: 28.5'
28.5'/100 x 13.62 = 3.9' TOTAL FRICTION LOSS

TOTAL HEAD
VERTICAL ELEVATION CHANGE 5.0'
TOTAL FRICTION LOSS 3.9'
SYSTEM PRESSURE REQUIREMENTS + 0.0'
TOTAL DYNAMIC HEAD 8.9'

HOOT PUMP CURVES w/BNR RISER FIGURED IN LOSS



SEPTIC SYSTEM PROFILE

LOT 41
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

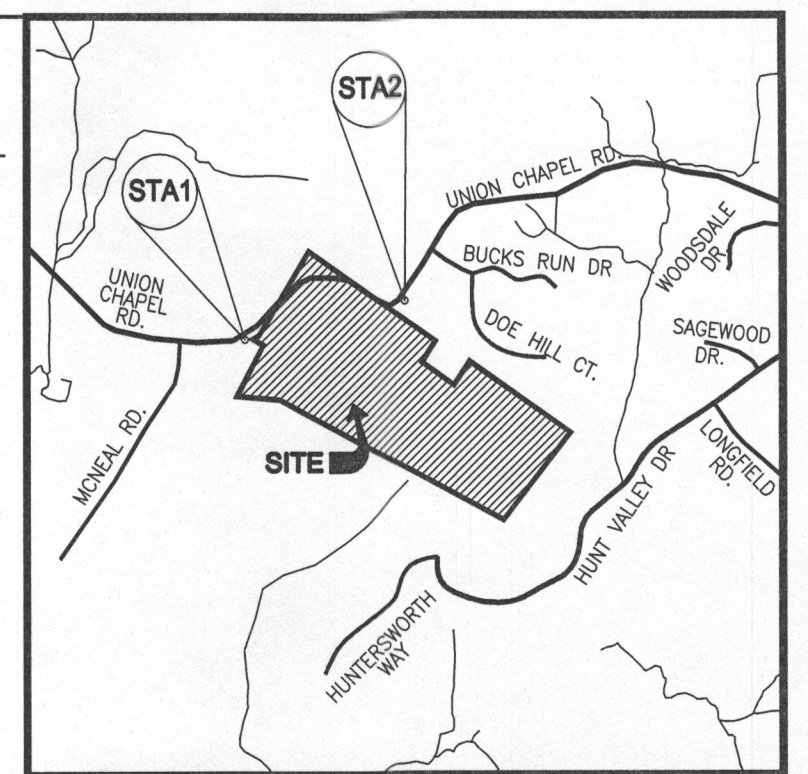
LOT 35 SYSTEM TRENCH SPECIFICATIONS			
	GROUND ELEVATION	INVERT ELEVATION	BOTTOM ELEVATION
INITIAL SYSTEM TRENCH (76')	523.6	519.6	515.6
FIRST REPLACEMENT TRENCH (69')	523.0	519.0	515.0
SECOND REPLACEMENT TRENCH (69')	522.0	518.0	514.0

BENCHMARK

GEODETIC SURVEY CONTROL #1
N. 691450.42
E. 1207671.25
A.M. 146A
ELEV. 636.43

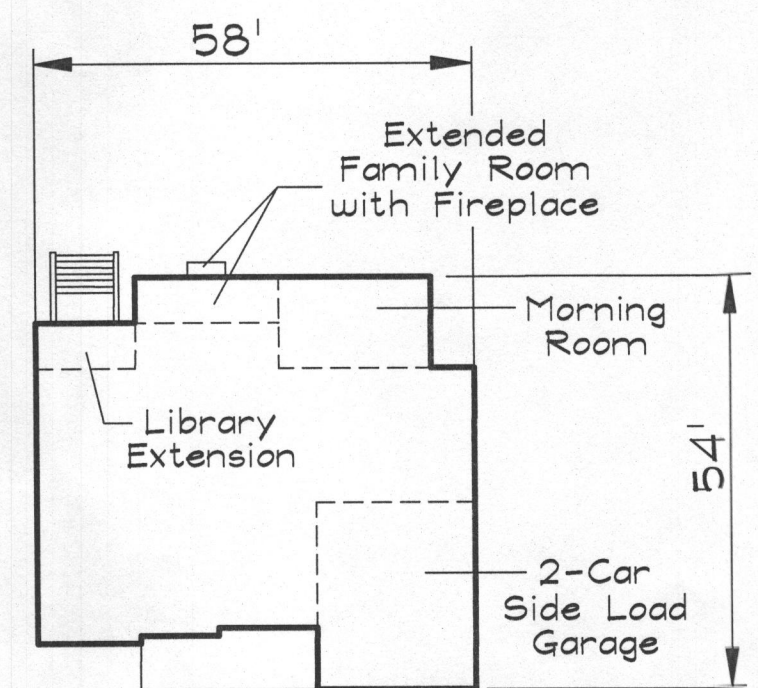
GEODETIC SURVEY CONTROL #2
N. 691083.88
E. 1209121.00
B.M. 146B
ELEV. 542.23

ADC MAP COORDINATES
4812/C4



VICINITY MAP

SCALE: 1" = 200'



COLORADO ELEVATION 'A' BRICK/STONE FRONT

DATA SOURCES:

DRAWING LEGEND

- 500 PROPOSED GRADE
- 502 PROPOSED LIMIT OF DISTURBANCE
- + 665.5 PROP. SPOT ELEV./FLOW ARROW
- PROPOSED 20' SEPTIC RESERVE BUFFER
- EXISTING 30' WELL BUFFER
- EXISTING 100' WELL BUFFER
- BUILDING RESTRICTION LINE
- SEPTIC RESERVE AREA
- WELL AREA
- 174 PASSED PERCOLATION TEST
- 127 FAILED PERCOLATION TEST

DDC inc.
Development Design Consultants

OWNERS:
K. HOVANNIAN HOMES
1802 Brightest Road
Landover, Maryland 20785
(301) 683-0288

DEVELOPER:

SITE ADDRESS:
LOT 41
15229 Sweetbay Street
Woodbine, Maryland 21797

Planners
Surveyors
Engineers
Landscape Architects

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

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. 27020 EXPIRATION DATE: JANUARY 26, 2018

10/28/2014
DATE

PAUL G. CAVANAUGH

BELLE HAVEN ESTATES LOT 41			
SITE PLAN FOR BAT INSTALLATION			
3rd ELECTION DISTRICT		HOWARD COUNTY	
REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE
CO. FILE #:	DES. BY: BKC		
TAX ACC. #:	DRN. BY: BKC		
TAX MAP: 14	CHK. BY: PGC		
BLOCK / GRID:	DATE: 10/28/14		
PARCEL #: 66	DDC JOB#: 08116.5		
ZONE / USE: RC-DEO	SHEET NUMBER:		
DWG. SCALE: 1"=30'	1 of 1		