

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: 9/10/19 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 566366

APPROVAL DATE: 9/27/2019 **PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 11580 Chapel Rise

SUBDIVISION: Chapel Rise LOT: 7 TAX ID: _____

CONTRACTOR: Hoffields Equipment EMAIL: hoffieldsequipments.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis, MD 21701 PHONE: 301-490-4289

PROPERTY OWNER: Yong Yun and Qing Li EMAIL: _____

OWNER ADDRESS: 10062 Carillion Drive, Ellicott City, MD 21042 PHONE: _____

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Babylon Vault

PUMP MODEL: _____ PUMP SIZE _____ PUMP TANK CAPACITY: _____

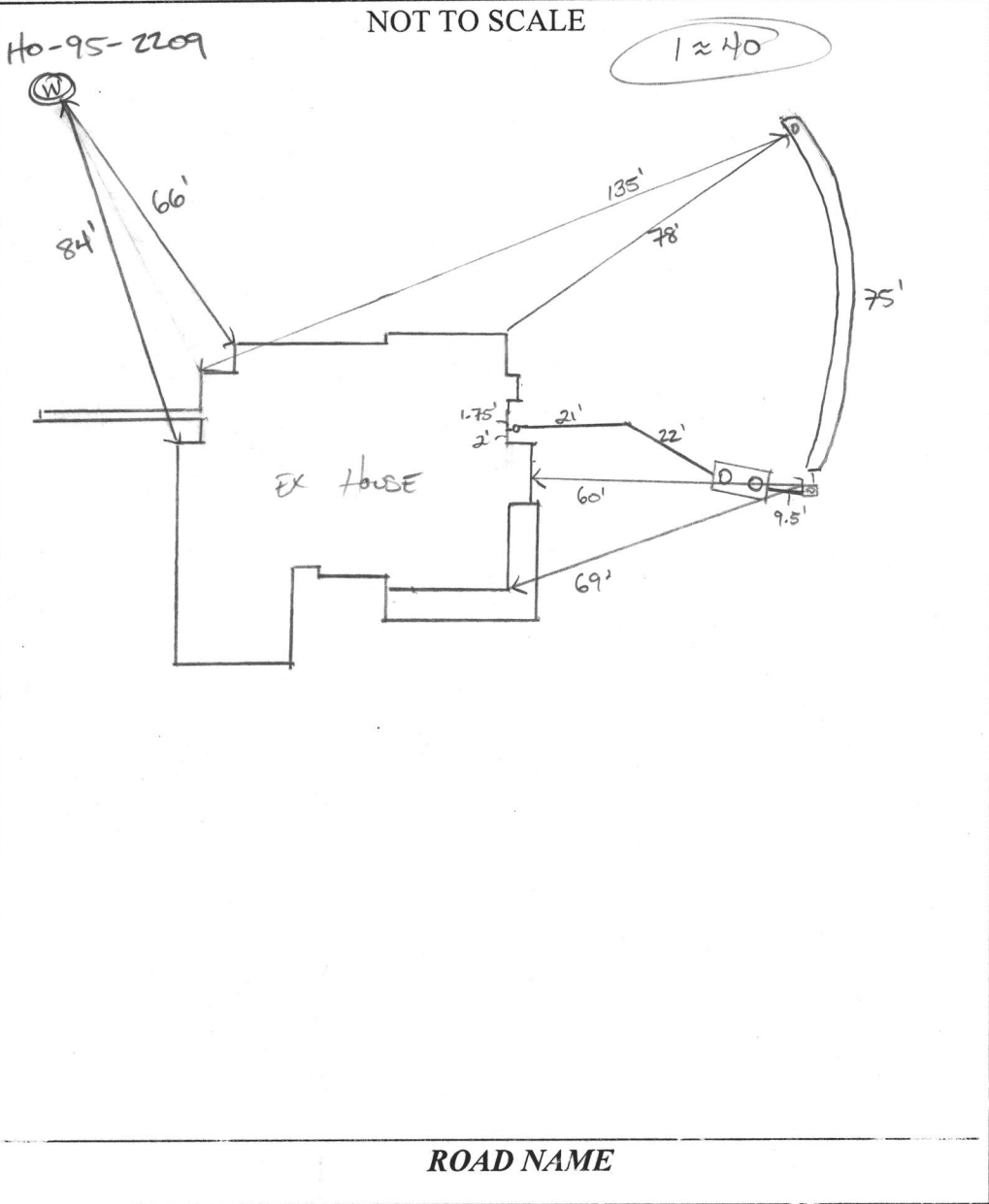
DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>75</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>2</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Robert Freemon ISSUE DATE: 9/10/19 EXPIRATION DATE: 9/10/20

- 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 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
- ELECTRICAL PERMIT ISSUED E N/A
- 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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	2'	7'
NUMBER OF TRENCHES		1
TOTAL LENGTH		75 F
ABSORPTION AREA		225 SF
DISTRIBUTION BOX LEVEL		N/A
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	3' - 11"
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	11/14/2019
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:
 12/13/2019 TANK, D BOX, SDA, AND TRENCH STAKED CONFIRMED
 CONTOUR. 1 X 75' TRENCH OK TO START. (fe)

INSTALLATION: 12/26/2019 WORK WAS DONE ON 12/24 - OFFICE WAS UNEXPECTEDLY
 GIVEN LEAVE FROM HOVA GOVERNOR ON 12/20. TANK, SHC, D BOX, AND
 TRENCH INSPECTED. OK TO COVER. (fe)

FINAL INSPECTOR [Signature] DATE OF APPROVAL 12/27/2019

John Carney

From: John Carney <jcarney@bei-civilengineering.com>
Sent: Monday, February 13, 2017 10:27 AM
To: 'Freemon, Robert'
Subject: RE: 11580 Chapel Rise

Robert, I will be dropping off the revised plan today. The following is a point-by-point response to your comments dated 12/27/16:

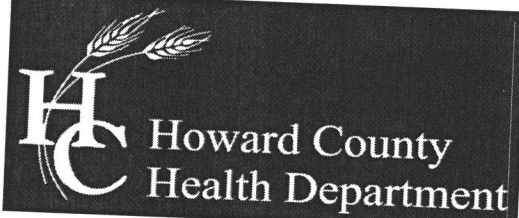
- 1.) Percolation test locations are shown with their elevations per the signed percolation certification plan.
- 2.) Note 9 has been removed.
- 3.) Note 12 has been updated.
- 4.) Note 10 has been added to specify the potential need for a heavy duty tank.
- 5.) Note 11 has been updated.

Thanks, John

From: Freemon, Robert [mailto:rfreemon@howardcountymd.gov]
Sent: Tuesday, December 27, 2016 11:35 AM
To: John Carney <jcarney@bei-civilengineering.com>
Subject: 11580 Chapel Rise

Hey John,
Here are my comments for Chapel Rise Lot 7. (see attachment).

Robert Freemon
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
Well and Septic Program
Bureau of Environmental Health
Phone: 410-313-6357
Email: rfreemon@howardcountymd.gov
<https://www.howardcountymd.gov/Departments/Health/Environmental-Health/Well-and-Septic>



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Facebook: www.facebook.com/hocohealth

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

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

MEMORANDUM

TO: John Carney
11580 Chapel Rise
Clarksville, MD 21029

FROM: Robert Freemon *RIF*
Well & Septic Program

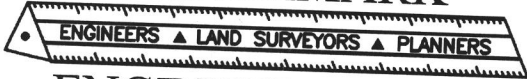
RE: 11580 Chapel Rise
Clarksville, MD 21029
"OSDS Plan"

DATE: 12/27/16

I have reviewed the OSDS Plan for 11580 Chapel Rise and here are my comments.

- Perc holes with their corresponding test numbers must be added to the plan.
- Note 9 needs to be removed.
- Note 12 needs to be changed to: "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."
- Add the note: "The maximum earth cover over the tank is 3 feet. Greater earth cover will require a heavy load bearing tank."
- Note 11 needs to be changed to: "All wells and septic systems located within 100' of the property boundaries and 200' down gradient of any wells and/or septic systems have been shown."

BENCHMARK



ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043
410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

TO: Health

DATE	<u>2/13/17</u>	PROJECT No.	<u>2733</u>
ATTENTION	<u>Robert Franon</u>		
RE:	<u>Chapel Rise Lot 7</u>		
	<u>11580 Chapel Rise</u>		

WE ARE SENDING YOU Attached Under separate cover via _____ the following items

Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

COPIES of	No. of SHEETS	DESCRIPTION
<u>3</u>	<u>2</u>	<u>Revised Plan for Septic Permit</u>
<u>1</u>	<u>1</u>	<u>Response email</u>

THESE ARE TRANSMITTED as checked below

For Comment For your use For Approval
 For Review As requested Other _____

REMARKS: _____

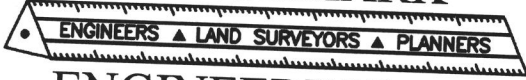
COPY TO: _____

RECEIVED BY: _____

SIGNED: John Carney

If enclosures are not as noted, kindly notify us at once.

BENCHMARK



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410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

DATE	12/12/16	PROJECT No.	2733
ATTENTION			
RE:	Chapel Rise		
	Lot 7		
	11580 Chapel Rise		

TO: Health

- WE ARE SENDING YOU Attached Under separate cover via _____ the following items
- Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

COPIES of	No. of SHEETS	DESCRIPTION
3	2	Septic Site Plan

THESE ARE TRANSMITTED as checked below

- For Comment For your use For Approval
 For Review As requested Other _____

REMARKS: Remove BAT Tank &
show standard septic tank

COPY TO: _____

RECEIVED BY: [Signature]

If enclosures are not as noted, kindly notify us at once.

SIGNED: John Carney

Freemon, Robert

From: Freemon, Robert
Sent: Monday, November 28, 2016 2:19 PM
To: 'John Carney'
Subject: 11580 Chapel Rise

Hey John,

Just wanted to let you know I have not signed off on the BAT Plan for Chapel Rise yet. Let me know if the owner wants to continue with the BAT Plan or would like to change it to a regular septic tank. Thanks.

Robert Freemon

Howard County Health Department

8930 Stanford Blvd. Columbia, MD 21045

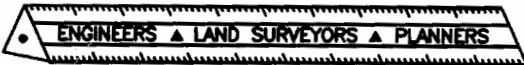
Well and Septic Program

Phone: 410-313-6357

Email: rfreemon@howardcountymd.gov

<https://www.howardcountymd.gov/Departments/Health/Environmental-Health/Well-and-Septic>

BENCHMARK



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 410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

TO: Health

DATE <u>10/2/16</u>	PROJECT No. <u>2733</u>
ATTENTION <u>Robert Freeman</u>	
RE: <u>11530 Chapel Rise</u>	
<u>Revised BAT Plan</u>	

WE ARE SENDING YOU Attached Under separate cover via _____ the following items

Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

COPIES of	No. of SHEETS	DESCRIPTION
<u>3</u>	<u>2</u>	<u>BAT Plan</u>

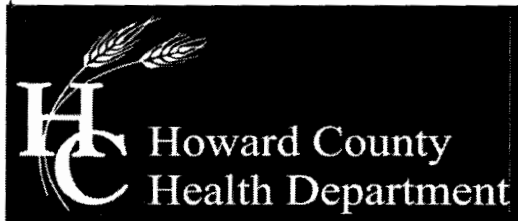
THESE ARE TRANSMITTED as checked below

For Comment For your use For Approval
 For Review As requested Other _____

REMARKS: ① MBR is to be lined. GH and legend updated. Label is updated too.
② Note 14 has been revised.
③ Trench detail has been corrected to 4' depth.
④ No blower on this BAT. BAT site Plan Notes have been revised. ⑤ BAT specified as TNTLP-750GPD

COPY TO: _____
 RECEIVED BY: [Signature]
 If enclosures are not as noted, kindly notify us at once.

SIGNED: [Signature]



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Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

MEMORANDUM

TO: John Carney
11580 Chapel Rise
Clarksville, MD 21029

FROM: Robert Freemon *RF*
Well & Septic Program

RE: 11580 Chapel Rise
Clarksville, MD 21029
"BAT Plan Comments"

DATE: 11/2/16

I have reviewed the BAT Plan for 11580 Chapel Rise and here are my comments.

- ✓• The MBR must be labeled in the legend. If it is a lined MBR it must be included in the label. If the MBR is not lined it must be 100' from the well box.
- ✓• Note 14 on the front page needs to be corrected. The application rate is a 1.2 gpd/sqft and sidewall credit is 12".
- ✓• On the Typical Trench Detail profile it needs to show 4' as the total system depth. The total system depth is labeled as 8' which is incorrect.
- ✓• The blower location needs to be shown on the site plan diagram.
- ✓• The Bat Unit Model 960LP-750GPD is not recognized as an approved unit. BAT units approved by MDE include the Singulair TNT750 & the Sigulair TNT1000.

Switching to Regular Septic Tank



CHAPEL ESTATES DR.

MATCHLINE THIS SHEET

MATCHLINE THIS SHEET

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND - PAGE 17					K-VALUE
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	
GbB		B		GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.20
GbC		B		GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.20
MaD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES	0.24

- NOTES:**
1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 2. 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 SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
 3. THE SEDIMENT AND EROSION CONTROLS, APPROVED BY HOWARD SOIL CONSERVATION DISTRICT BY GRADING PLAN: GP-17-032, SHALL BE USED FOR THE BUILDING PERMIT PLAN.
 4. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS AND HAS BEEN FIELD RUN BY BENCHMARK ENGINEERING, INC., ON OR ABOUT AUGUST, 2016.
 5. EXACT LENGTH OF SEPTIC TRENCHES ARE TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
 6. SPOIL FROM THE TRENCHING OF THE SEPTIC AREA IS TO BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION FOR EACH INDIVIDUAL LOT.
 7. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 8. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS OR ENVIRONMENTAL CONCEPT PLAN OR THIS PLAN.
 9. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
 10. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 11. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
 12. 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.
 13. THE DESIGN OF THIS SEPTIC AREA REQUIRES THE USE OF A DEEP TRENCH SYSTEM. CALCULATIONS ARE BASED ON 6 BEDROOMS, 1.2 GPD/SF APPLICATION RATE AND 12" EFFECTIVE DEPTH. THE SEPTIC DISPOSAL SYSTEM FOR THIS LOT REQUIRES A SEPTIC TANK IN ACCORDANCE WITH COMAR REGULATIONS. TANK IS TO BE 2000 GALLON TWO COMPARTMENT TANK.

Approved Septic System Plan
 Howard County Health Department
Robert Appert 4/13/17
 Signature Date

THIS PLAN IS FOR SEPTIC DESIGN ONLY

LEGEND

- PROPOSED STRUCTURE
- EXISTING CONTOURS
- EXISTING WELL
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- EXISTING TREELINE
- SOILS DELINEATION
- LIMIT OF DISTURBANCE
- SEPTIC RESERVE AREA
- FOREST CONSERVATION EASEMENT
- NON ROOFTOP DISCONNECT CONTRIBUTING AREA
- NON ROOFTOP DISCONNECT FILTER STRIP
- MICRO-BIORETENTION FACILITY (LINED)
- PASSING PERCOLATION TEST LOCATION JULY, 2010
- FAILED PERCOLATION TEST LOCATION JULY, 2010

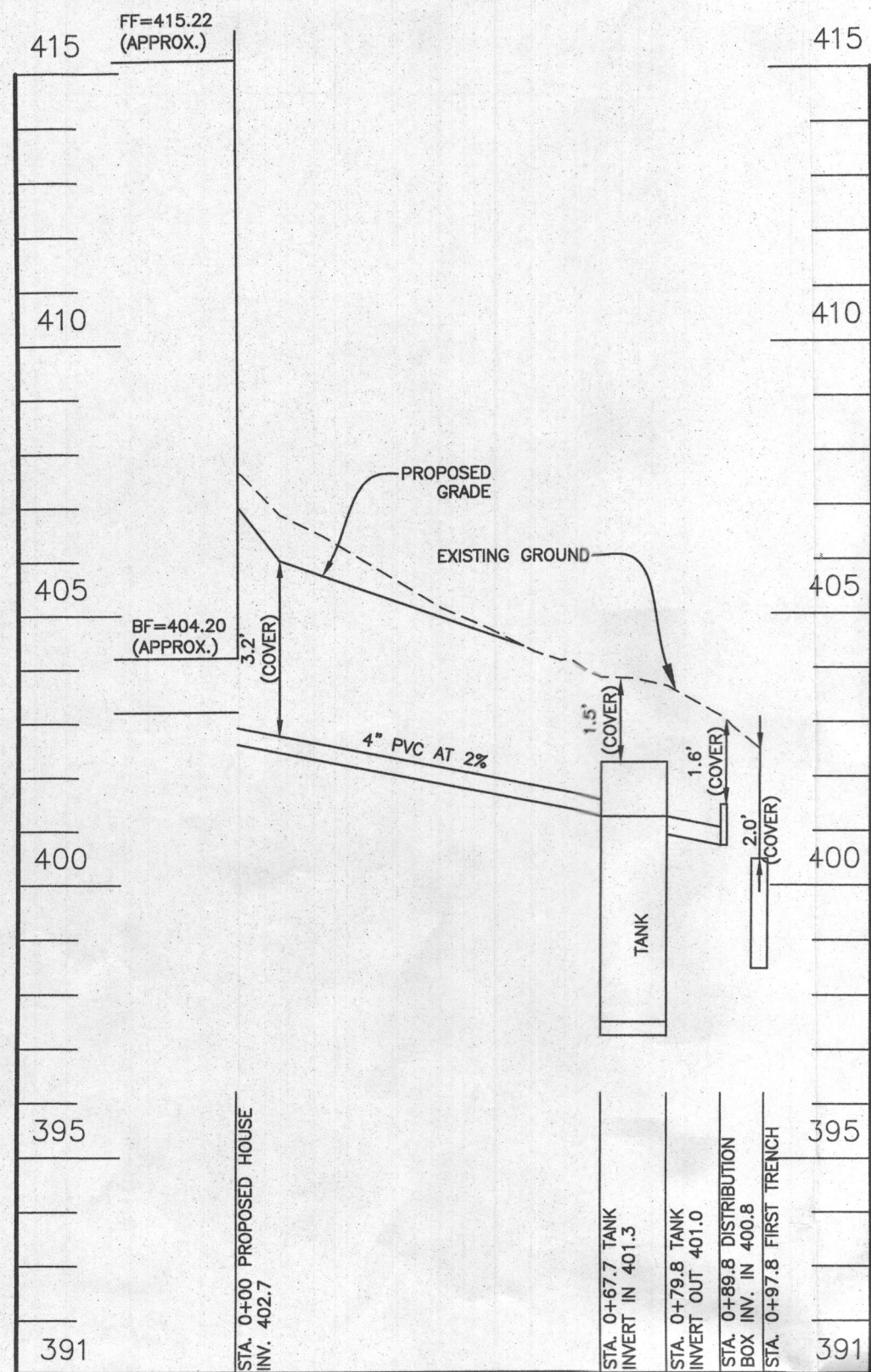
BENCHMARK ENGINEERING, INC.
 ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 ▲ FAX: 410-465-6644
 BEI@BEI-CIVILENGINEERING.COM

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. 45577, Expiration Date: 06-08-2018.

John M. Carline
 PROFESSIONAL ENGINEER
 No. 45577

3/27/17

OWNER:	YUN YONG LI QING 10062 CARILLON DRIVE ELLICOTT, MD 21042	
PROJECT:	CHAPEL RISE LOT 7 11580 CHAPEL RISE CLARKSVILLE, MD 21029	
LOCATION:	TAX MAP: 29, GRID: 08 PARCEL: 26, DISTRICT: 05 HOWARD COUNTY, MARYLAND	
TITLE:	SEPTIC SITE PLAN	
HOUSE TYPE:	YUN RESIDENCE	
DATE:	MARCH, 2017	PROJECT NO. 2733
DESIGN:	JMC	DRAFT: JMC
SCALE:	1" = 50'	DRAWING 1 OF 2

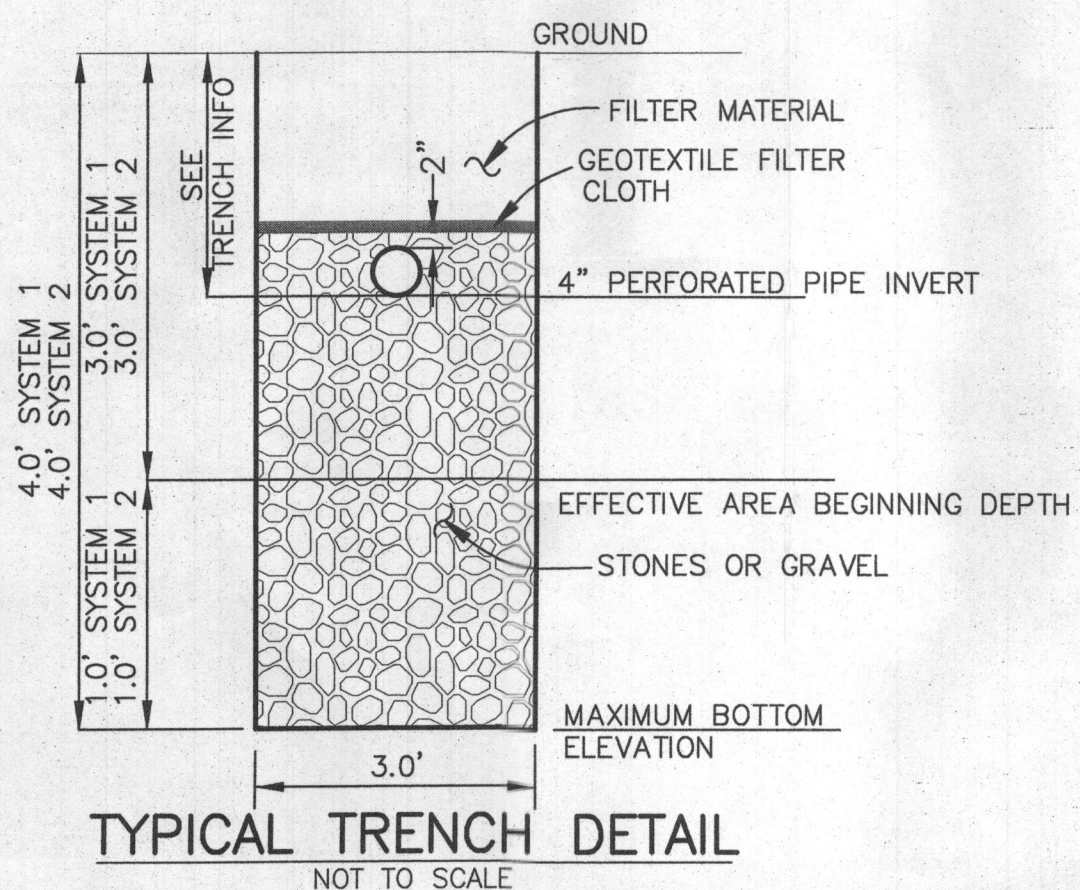


SEWER PROFILE

SCALE: VERTICAL 1"=3', HORIZONTAL 1"=30'

TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	52.0 LF	402.5	400.5	398.5
TRENCH 1-2	52.0 LF	400.8	398.8	396.8
TRENCH 1-3	52.0 LF	398.6	396.6	394.6
TRENCH 1-4	52.0 LF	396.8	394.8	392.8
TRENCH 2-1	42.0 LF	399.8	397.8	395.8
TRENCH 2-2	42.0 LF	397.3	395.3	393.3
TRENCH 2-3	42.0 LF	394.3	392.3	390.3
TRENCH 2-4	42.0 LF	391.4	389.4	387.4
TRENCH 2-5	42.0 LF	388.3	386.3	384.3



TYPICAL TRENCH DETAIL
NOT TO SCALE

INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	208	lf

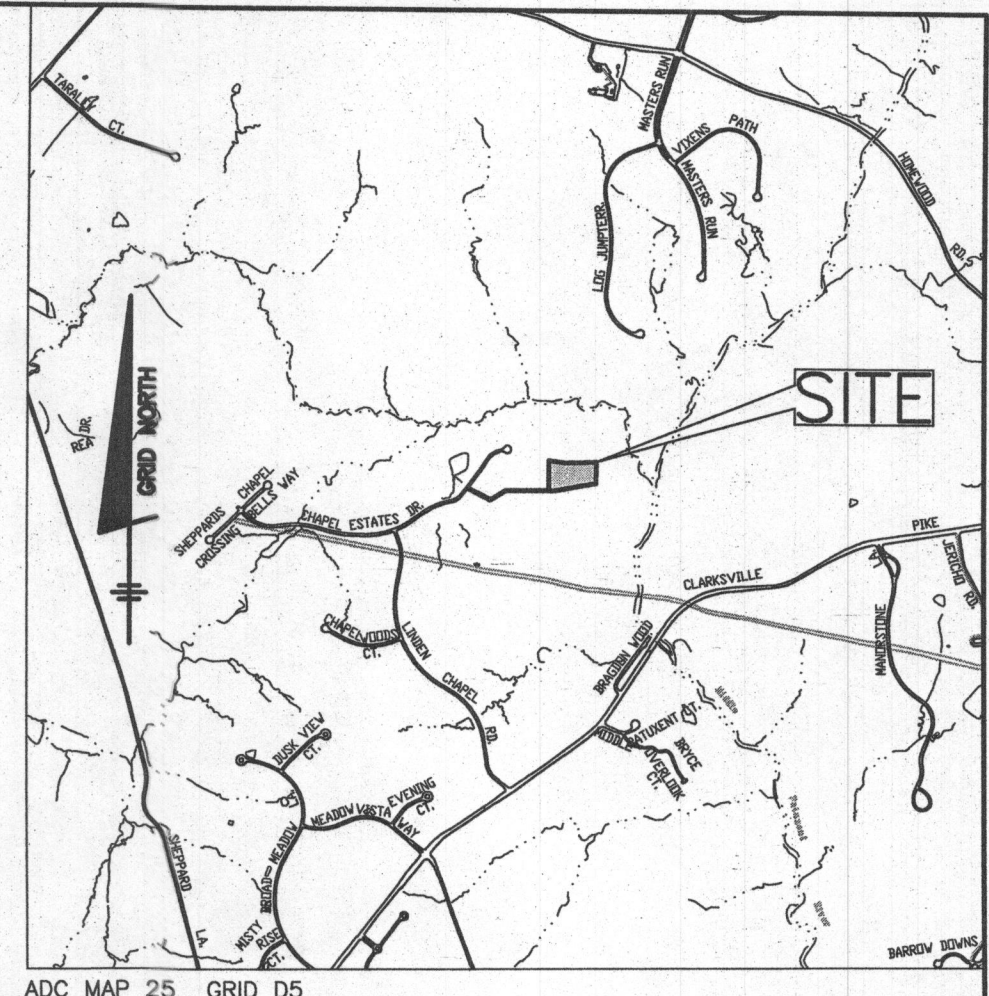
1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	208	lf

DESIGN DATA & GENERAL NOTES

- Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 160 pcf.
- Cement - Portland Type III per ASTM C 150-92.
- Admixtures & plasticizers per ASTM C 200-96 & C 494-92.
- Reinforcing per ASTM A 195. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastik.
- 4" wall, 4" base, & 6" top thickness.
- Max 3" of cover.
- Depending on use of tank, Inlet & Outlet baffle may be required by code.

**2,000 GALLON SEPTIC TANK
2-Compartment**
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C No Scale Aug 11, 2008



VICINITY MAP
SCALE: 1" = 2000'

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

Approved Septic System Plan
Howard County Health Department
Signature: *[Signature]* Date: 4/13/17

THIS PLAN IS FOR SEPTIC DESIGN ONLY

SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

BENCHMARK ENGINEERING, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
BEI@BEI-CIVILENGINEERING.COM

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. 45577, Expiration Date: 06-08-2018.

[Signature]
Professional Engineer

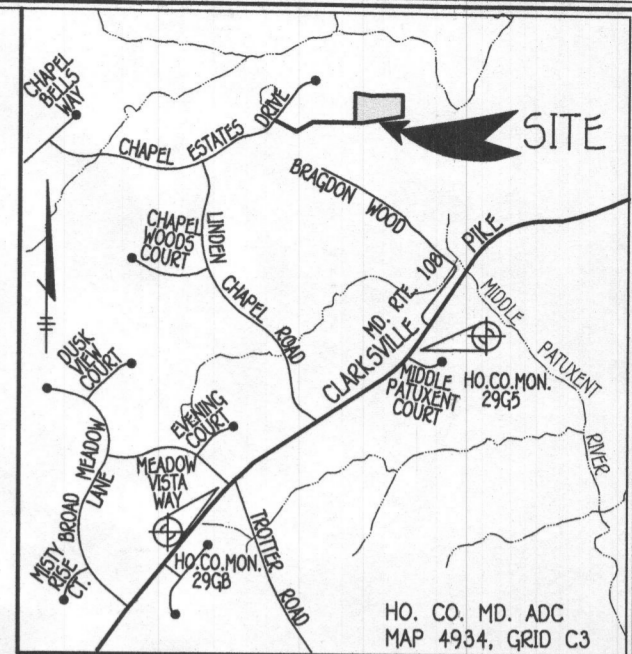
OWNER: YONG YUN AND QING LI 10062 CARILLON DRIVE ELLICOTT CITY, MD 21042	PROJECT: CHAPEL RISE LOT 7
LOCATION: 11580 CHAPEL RISE CLARKSVILLE, MD 21029 TAX MAP No. 29 - BLOCK No. 8 - PARCEL No. 26 5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND TAX ID NUMBER 05-594206	TITLE: SEPTIC SITE PLAN
HOUSE TYPE: YUN RESIDENCE	DATE: MARCH, 2017
DESIGN: JMC	DRAFT: CBD
PROJECT NO. 2733	DRAWING 2 OF 2
SCALE: 1" = 30'	

GENERAL NOTES:

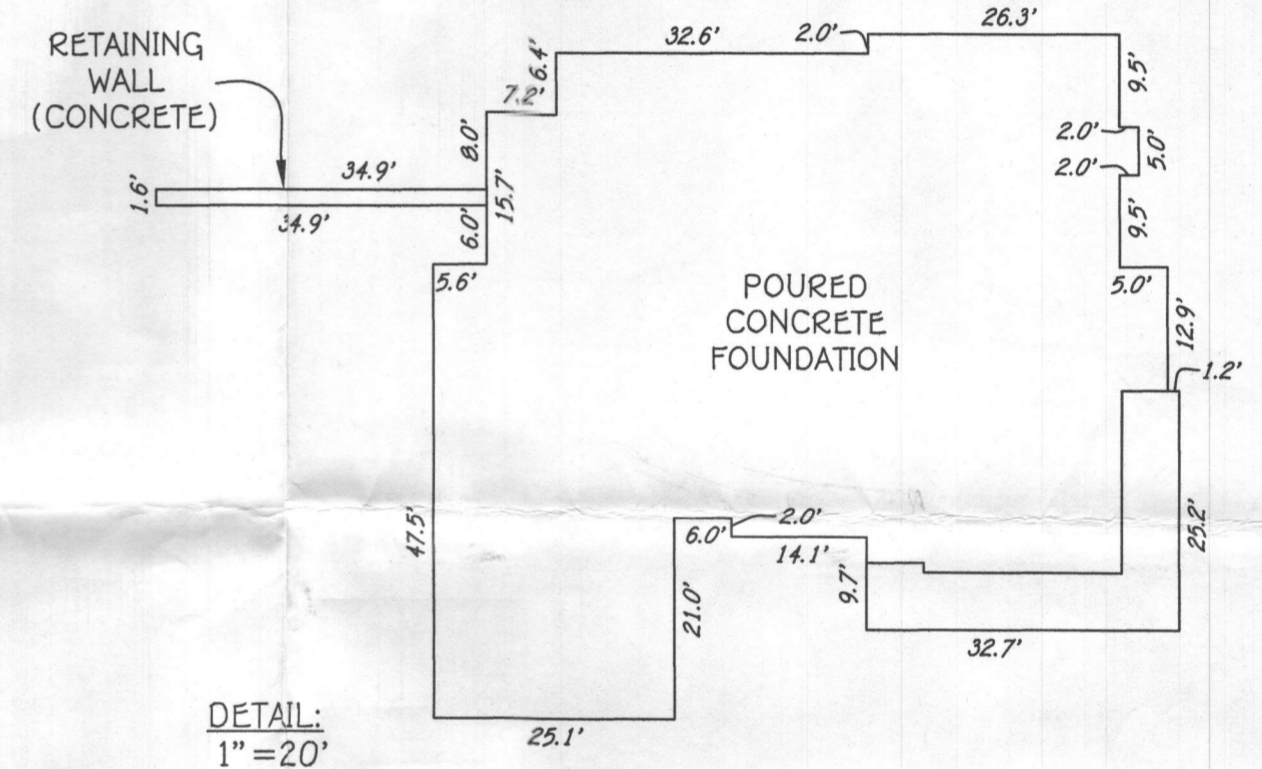
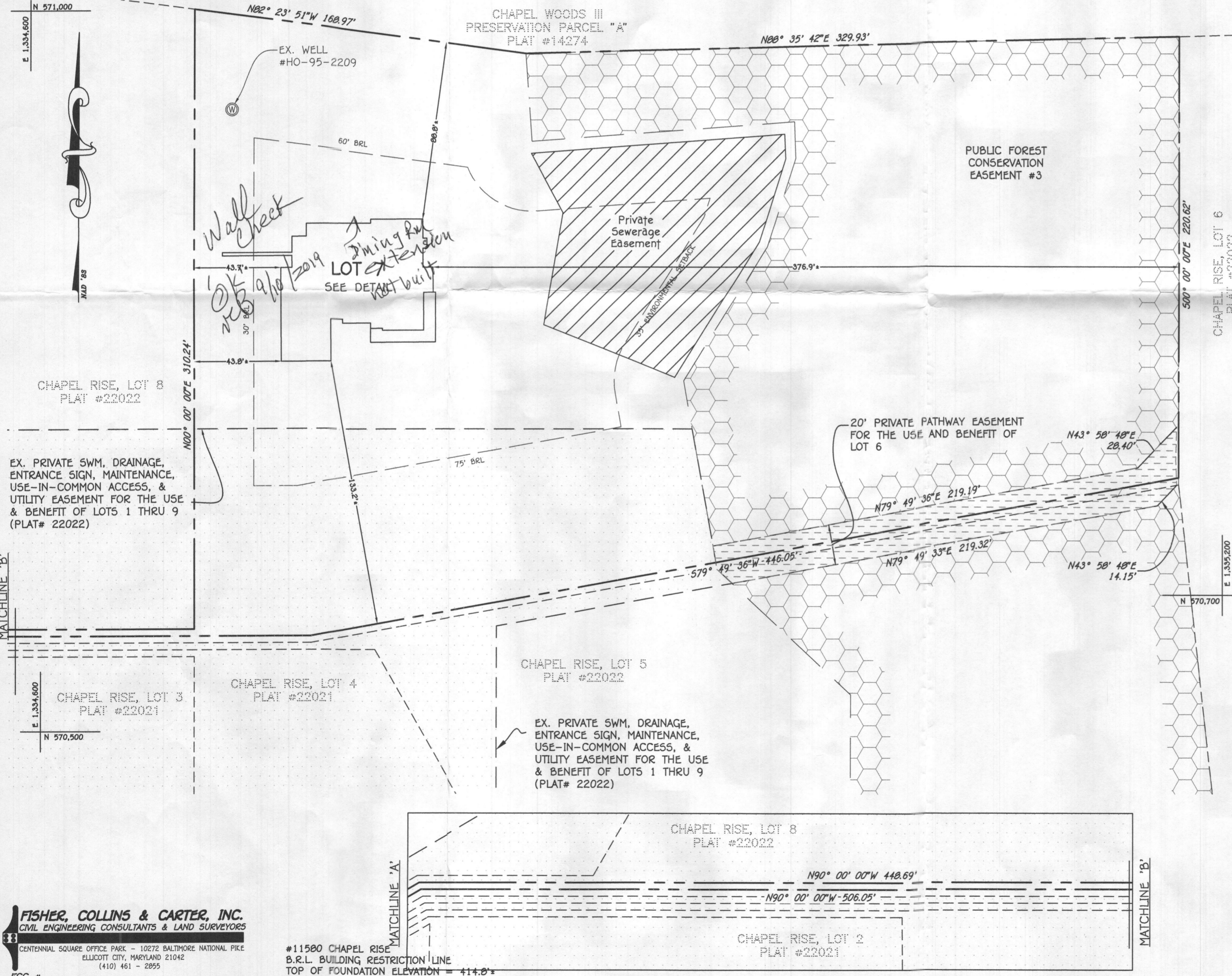
- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INsofar AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0130D EFFECTIVE 11/6/2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 0.4' (±)
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-2209 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2020.
- 7) BUILDING PERMIT #B-18002002

Legend

- Public Forest Conservation Easement
- Private SWM, Drainage, Entrance Sign, Maintenance, Use-In-Common Access, & Utility Easement For The Use & Benefit Of Lots 1 Thru 9 (Plat# 22022)
- 20' Private Pathway Easement For The Use And Benefit Of Lot 6



VICINITY MAP
SCALE: 1" = 2000'



LOT 7
CHAPEL RISE
LOTS 1 THRU 9
A SUBDIVISION OF PARCEL 282 & 353
AND A RESUBDIVISION OF LOT 6, CAPEL WOODS II
PLAT NOS. 22020 THRU 22023
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

Mark L. Rosel
PROPERTY LINE SURVEYOR
REQ. #339

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 4/26/19
FINAL LOCATION:
BOUNDARY SURVEY:

SCALE: 1" = 40'
DATE: 5/1/19
DRAWN BY: MD
CHECKED BY: MLR
PROJECT No.: 12060-6009



MATCHLINE THIS SHEET

MATCHLINE THIS SHEET

SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	K-VALUE
GbB		B		GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.20
GbC		B		GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.20
MaD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES	0.24

- NOTES:**
1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 2. 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 SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAN SHALL NOT BE NECESSARY.
 3. THE SEDIMENT AND EROSION CONTROLS, APPROVED BY HOWARD SOIL CONSERVATION DISTRICT BY GRADING PLAN: GP-17-032, SHALL BE USED FOR THE BUILDING PERMIT PLAN.
 4. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS AND HAS BEEN FIELD RUN BY BENCHMARK ENGINEERING, INC., ON OR ABOUT AUGUST, 2016.
 5. EXACT LENGTH OF SEPTIC TRENCHES ARE BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
 6. SPOIL FROM THE TRENCHING OF THE SEPTIC AREA IS TO BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION FOR EACH INDIVIDUAL LOT.
 7. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 8. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS OR ENVIRONMENTAL CONCEPT PLAN OR THIS PLAN.
 9. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
 10. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 11. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
 12. 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.
 13. THE DESIGN OF THIS SEPTIC AREA REQUIRES THE USE OF A DEEP TRENCH SYSTEM. CALCULATIONS ARE BASED ON 6 BEDROOMS, 1.2 GPD/SF APPLICATION RATE AND 12" EFFECTIVE DEPTH. THE SEPTIC DISPOSAL SYSTEM FOR THIS LOT REQUIRES A SEPTIC TANK IN ACCORDANCE WITH COMAR REGULATIONS. TANK IS TO BE 2000 GALLON TWO COMPARTMENT TANK.

Approved Septic System Plan
Howard County Health Department

Signature Date 4/13/17

THIS PLAN IS FOR
SEPTIC DESIGN ONLY

LEGEND

- PROPOSED STRUCTURE
- EXISTING CONTOURS
- EXISTING WELL
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- EXISTING TREE LINE
- SOILS DELINEATION
- LIMIT OF DISTURBANCE
- SEPTIC RESERVE AREA
- FOREST CONSERVATION EASEMENT
- NON ROOFTOP DISCONNECT CONTRIBUTING AREA
- NON ROOFTOP DISCONNECT FILTER STRIP
- MICRO-BIORETENTION FACILITY (LINED)
- PASSING PERCOLATION TEST LOCATION JULY,2010
- FAILED PERCOLATION TEST LOCATION JULY,2010

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

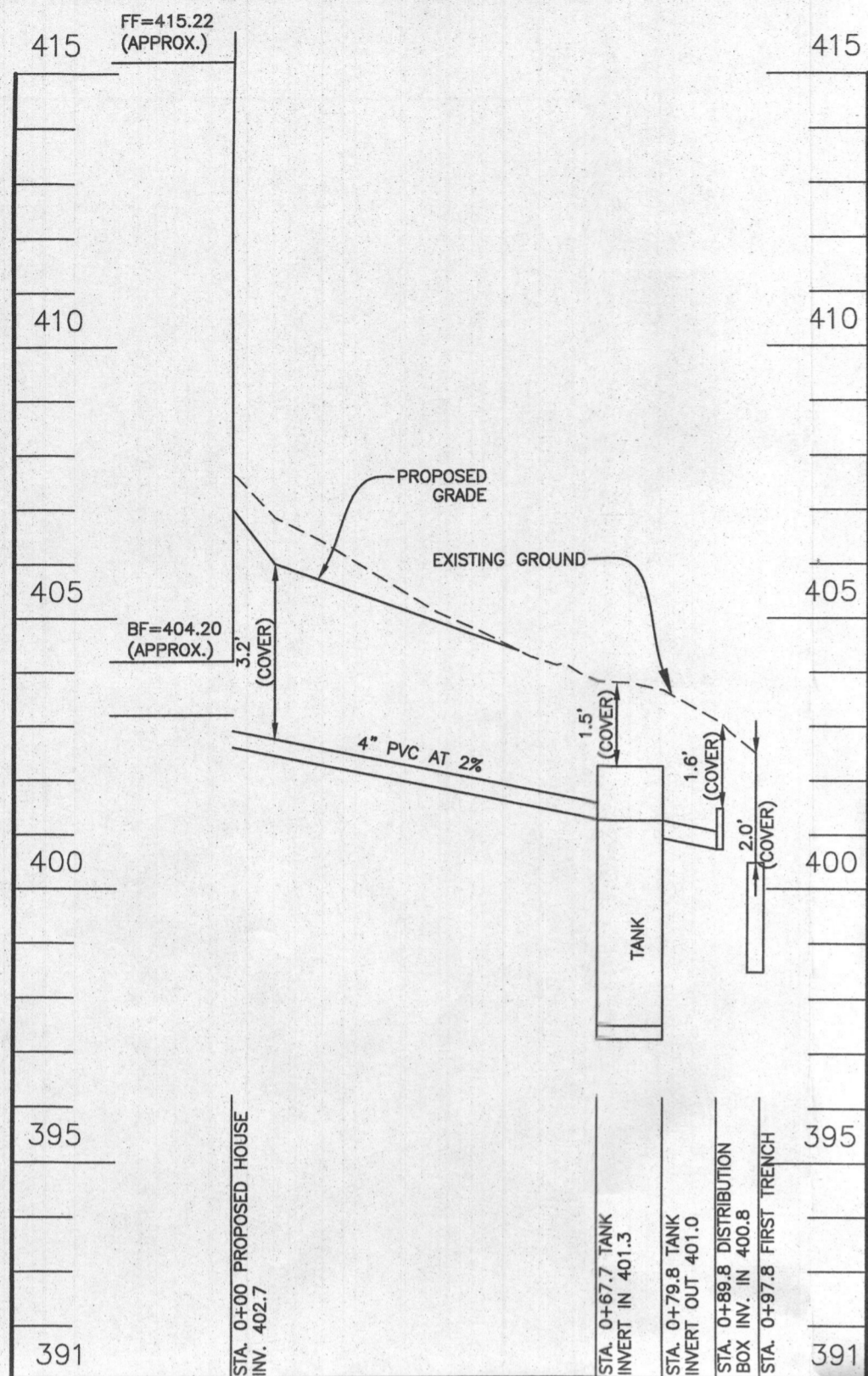
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
BEI@BEI-CIVILENGINEERING.COM

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. 45577, Expiration Date: 06-08-2018.

3/27/17

OWNER: YUN YONG LI QING 10062 CARILLON DRIVE ELLICOTT, MD 21042	PROJECT: CHAPEL RISE LOT 7 11580 CHAPEL RISE CLARKSVILLE, MD 21029 LOCATION: TAX MAP: 29, GRID: 08 PARCEL: 26, DISTRICT: 05 HOWARD COUNTY, MARYLAND TITLE: SEPTIC SITE PLAN HOUSE TYPE: YUN RESIDENCE DATE: MARCH, 2017 PROJECT NO. 2733 DESIGN: JMC DRAFT: JMC SCALE: 1" = 50' DRAWING 1 OF 2
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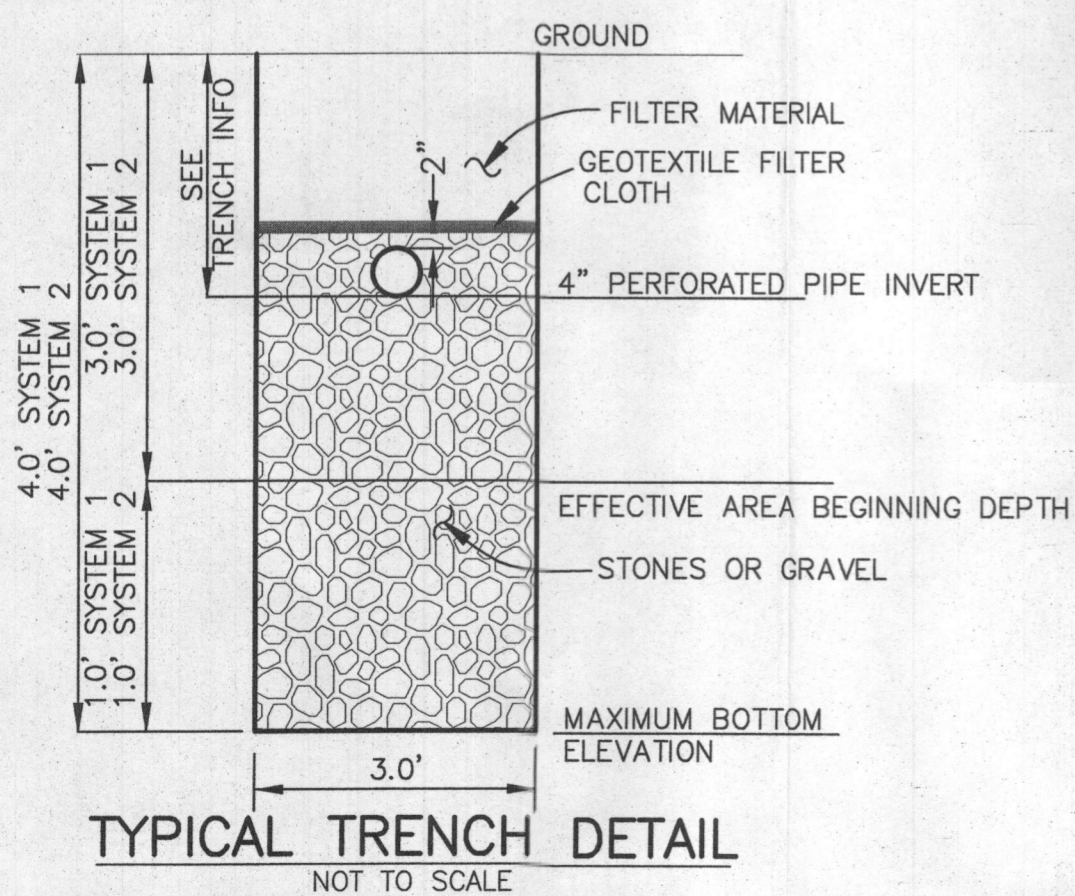


SEWER PROFILE

SCALE: VERTICAL 1"=3', HORIZONTAL 1"=30'

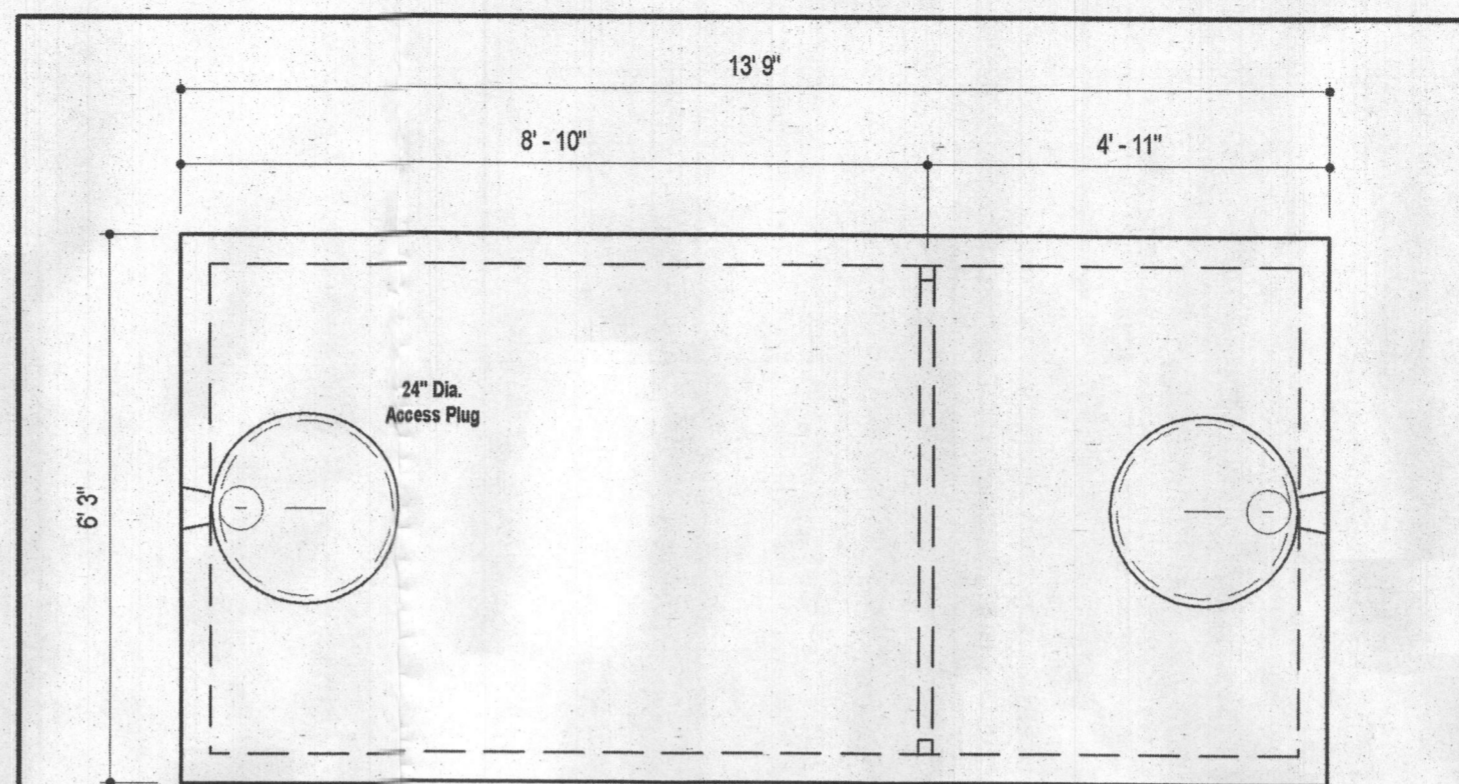
TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	52.0 LF	402.5	400.5	398.5
TRENCH 1-2	52.0 LF	400.8	398.8	396.8
TRENCH 1-3	52.0 LF	398.6	396.6	394.6
TRENCH 1-4	52.0 LF	396.8	394.8	392.8
TRENCH 2-1	42.0 LF	399.8	397.8	395.8
TRENCH 2-2	42.0 LF	397.3	395.3	393.3
TRENCH 2-3	42.0 LF	394.3	392.3	390.3
TRENCH 2-4	42.0 LF	391.4	389.4	387.4
TRENCH 2-5	42.0 LF	388.3	386.3	384.3

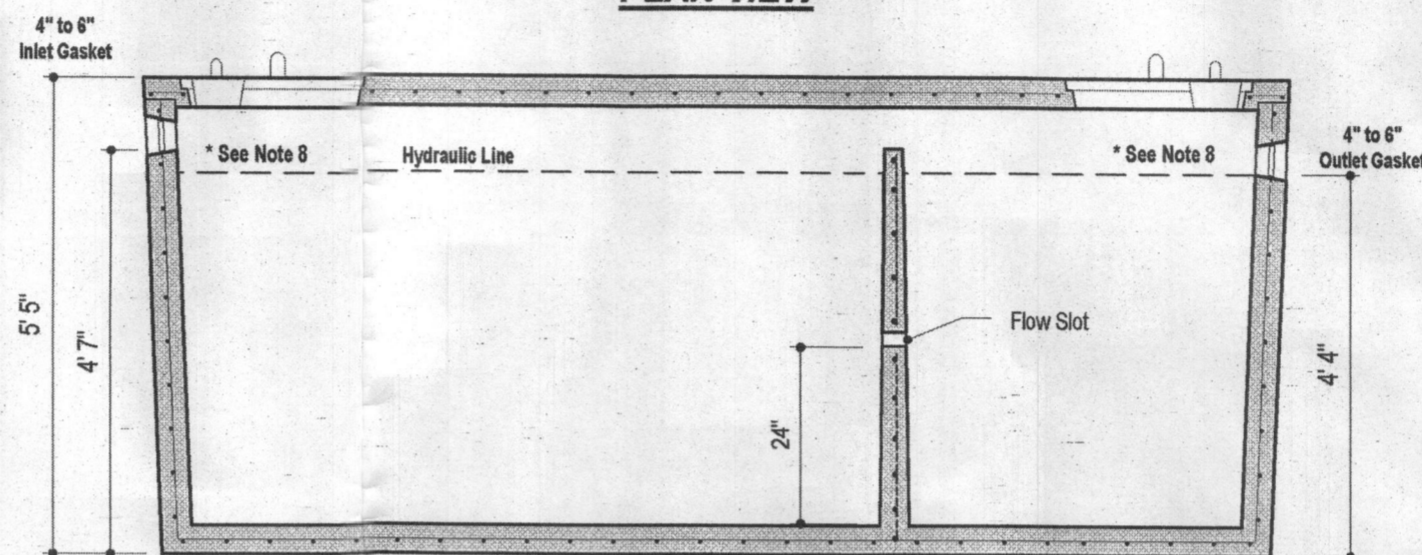


INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	208	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	208	lf



PLAN VIEW



SECTION A-A

DESIGN DATA & GENERAL NOTES

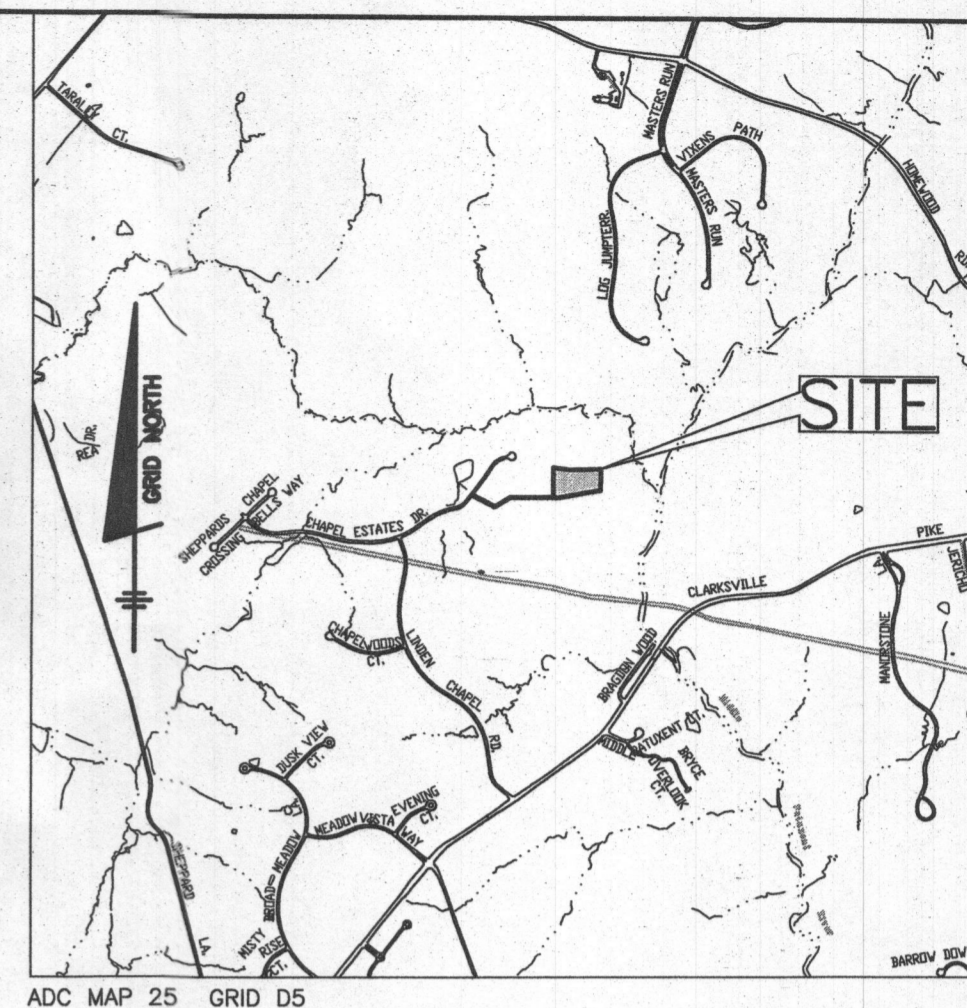
- [1] Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 160 pcf.
- [2] Cement - Portland Type III per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 200-99 & C 454-92.
- [4] Reinforcing per ASTM A165. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 5" top thickness.
- [7] Max 3" of cover
- [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.

MB
Mayer Bros., Inc.
6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbrosprecast.com

**2,000 GALLON SEPTIC TANK
2-Compartment**
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C No Scale Aug 11, 2008

THIS PLAN IS FOR
SEPTIC DESIGN ONLY



VICINITY MAP
SCALE: 1" = 2000'

SEE MANUFACTURERS
SPECIFICATIONS FOR
DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER
MANUFACTURERS CAN BE
SUBSTITUTED.

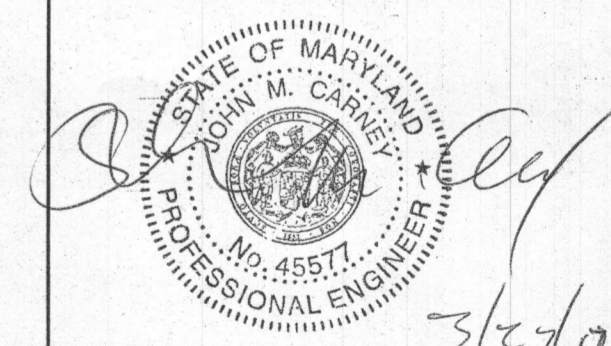
Approved Septic System Plan
Howard County Health Department
Paul J. [Signature]
Signature 4/13/17
Date

SIGNATURE AND SEAL ARE FOR SEPTIC
PROFILE AND CALCULATIONS ONLY. TANK AND
DETAILS WERE NOT DESIGNED OR REVIEWED
BY THE ENGINEER.

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. 45577, Expiration Date: 06-08-2018.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.

6480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
BEI@BEI-CIVLENGINEERING.COM



OWNER:
YONG YUN AND
QING LI
10062 CARILLON DRIVE
ELLCOTT CITY, MD 21042

PROJECT:
**CHAPEL RISE
LOT 7**

LOCATION:
11580 CHAPEL RISE
CLARKSVILLE, MD 21029
TAX MAP No. 29 - BLOCK No. 8 - PARCEL No. 26
5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX ID NUMBER 05-594206

TITLE:
SEPTIC SITE PLAN

HOUSE TYPE: YUN RESIDENCE

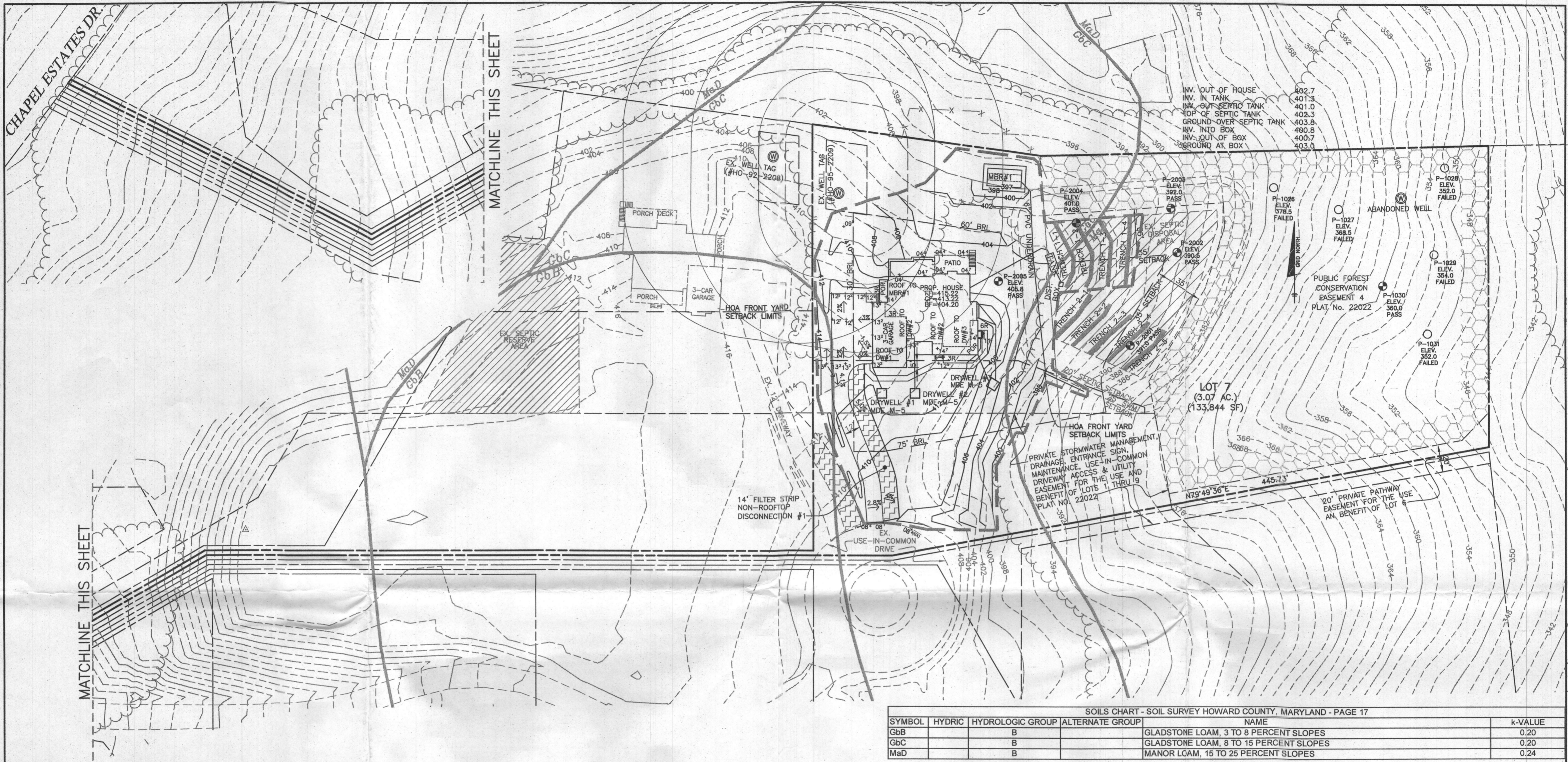
DATE: MARCH, 2017

DESIGN: JMC DRAFT: CBD

PROJECT NO. 2733

SCALE: 1" = 30'

DRAWING 2 OF 2



INV. OUT OF HOUSE	402.7
INV. IN TANK	401.3
INV. OUT SEPTIC TANK	401.0
TOP OF SEPTIC TANK	402.3
GROUND OVER SEPTIC TANK	403.8
INV. INTO BOX	400.7
INV. OUT OF BOX	403.0
GROUND AT BOX	403.0

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND - PAGE 17					
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	k-VALUE
GbB		B		GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.20
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- NOTES:**
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Approved Septic System Plan
 Howard County Health Department
Paul Spence 4/13/17
 Signature Date

THIS PLAN IS FOR SEPTIC DESIGN ONLY

LEGEND

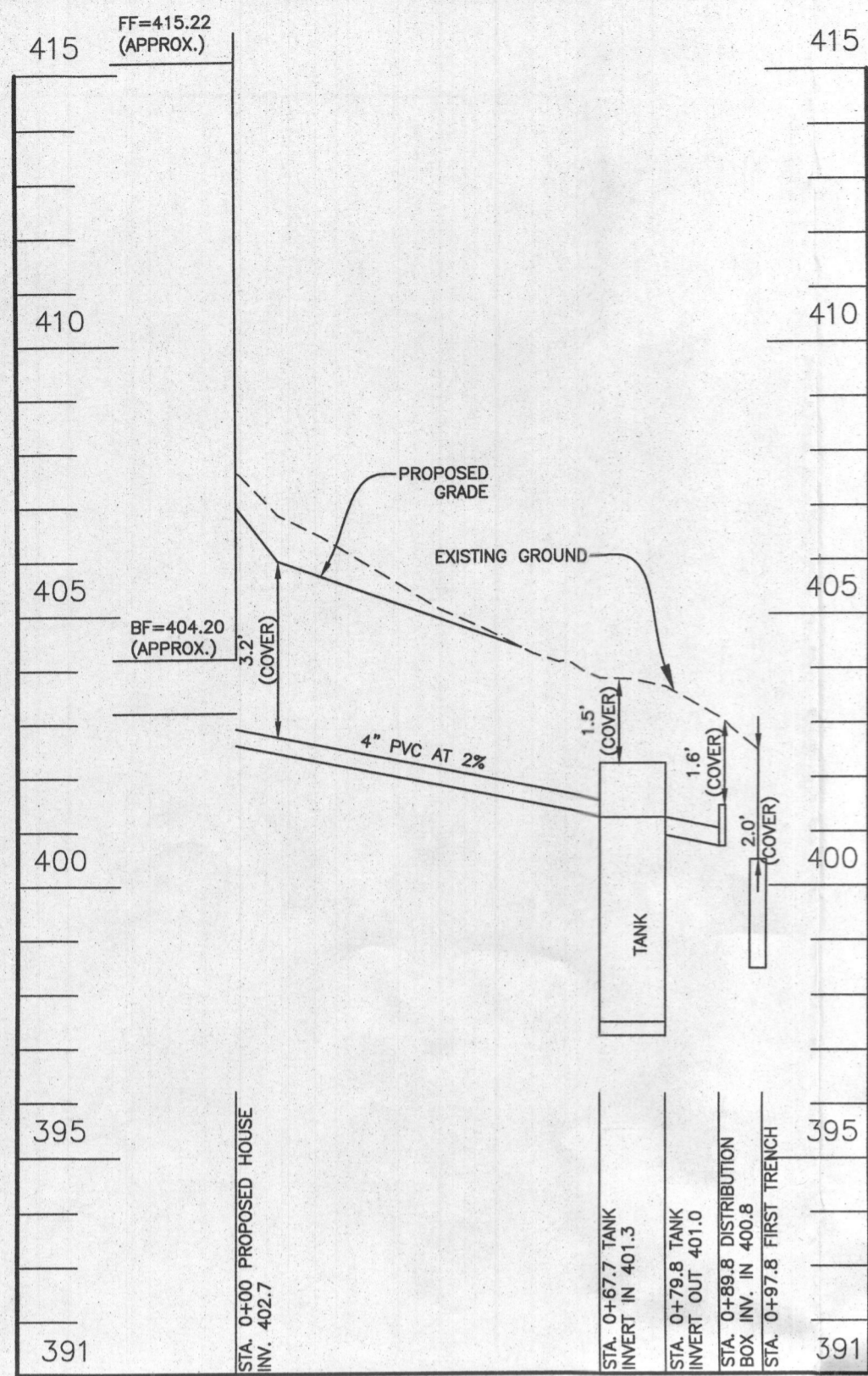
- PROPOSED STRUCTURE
- EXISTING CONTOURS
- EXISTING WELL
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SUPER SILT FENCE
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- MICRO-BIORETENTION FACILITY (LINED)
- PASSING PERCOLATION TEST LOCATION JULY, 2010
- FAILED PERCOLATION TEST LOCATION JULY, 2010

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. 45577, Expiration Date: 06-08-2018.

BENCHMARK ENGINEERS, LAND SURVEYORS, PLANNERS
ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644
 BEI@BEI-CVLENGINEERING.COM

Professional Engineer Seal: JOHN M. CANNON, No. 45577, PROFESSIONAL ENGINEER

OWNER:	YUN YONG LI QING 10062 CARILLON DRIVE ELLICOTT, MD 21042	PROJECT:	CHAPEL RISE LOT 7 11580 CHAPEL RISE CLARKSVILLE, MD 21029
LOCATION:	TAX MAP: 29, GRID: 08 PARCEL: 26, DISTRICT: 05 HOWARD COUNTY, MARYLAND	TITLE:	SEPTIC SITE PLAN
HOUSE TYPE:	YUN RESIDENCE	DATE:	MARCH, 2017
DESIGN:	JMC	DRAFT:	JMC
SCALE:	1" = 50'	PROJECT NO.	2733
		DRAWING	1 OF 2

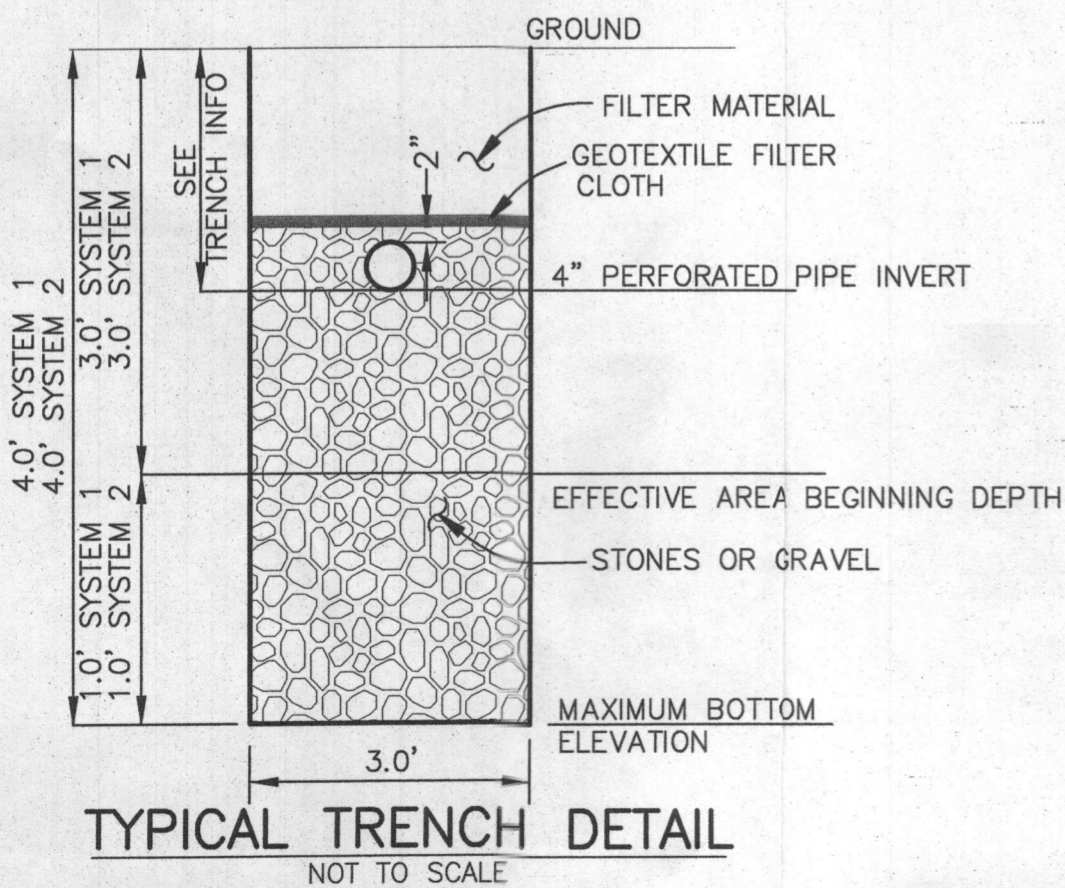


SEWER PROFILE

SCALE: VERTICAL 1"=3', HORIZONTAL 1"=30'

TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
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TRENCH 2-4	42.0 LF	391.4	389.4	387.4
TRENCH 2-5	42.0 LF	388.3	386.3	384.3



INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
Trench width	3	
Effective Area Depth	1	
Linear Length of trench Required	208	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	4	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.83	
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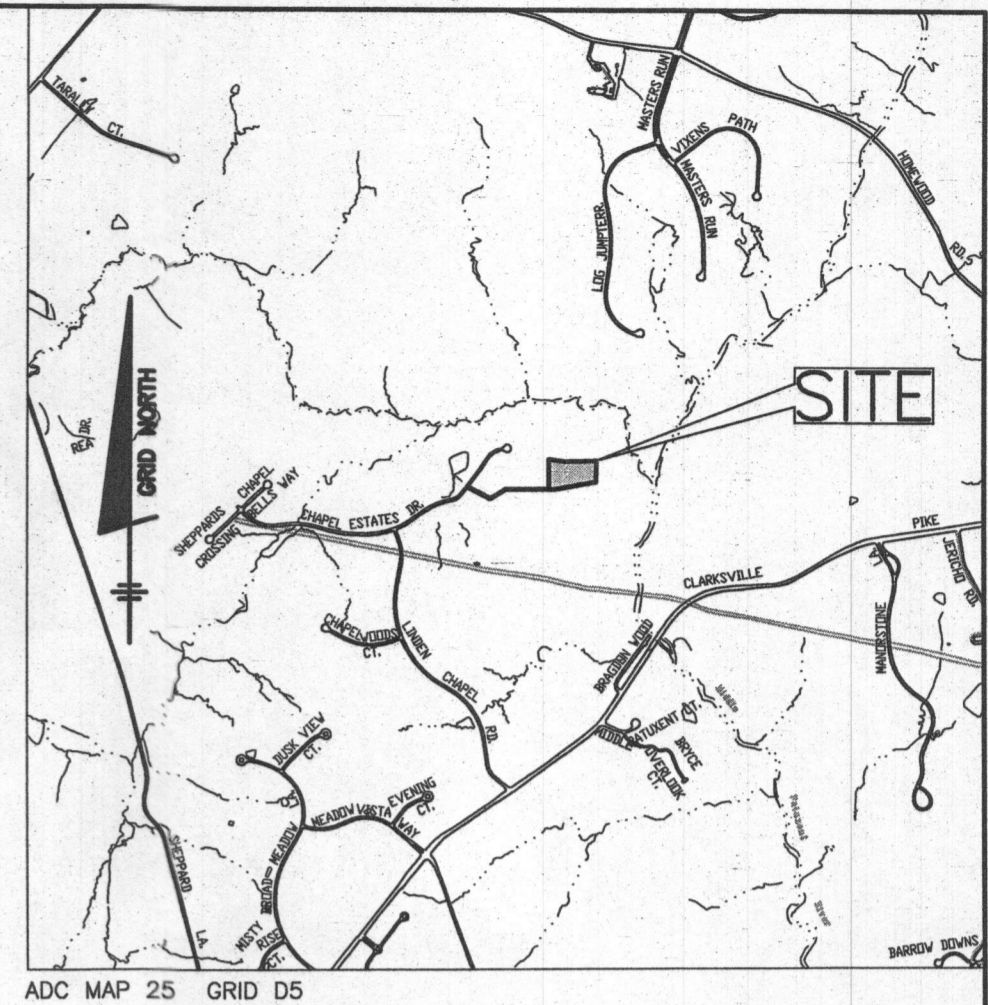
DESIGN DATA & GENERAL NOTES

- Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 160 pcf.
- Cement - Portland Type III per ASTM C 150-92.
- Reinforcing per ASTM A185. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, 4" base, & 6" top thickness.
- Max 3" of cover.
- Depending on use of tank, Inlet & Outlet baffle may be required by code.

Mayer Bros., Inc.
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2,000 GALLON SEPTIC TANK 2-Compartment
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C No Scale Aug 11, 2008



VICINITY MAP
SCALE: 1" = 2000'

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] Date: 4/13/17

THIS PLAN IS FOR SEPTIC DESIGN ONLY

SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

BENCHMARK ENGINEERS, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
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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. 45577, Expiration Date: 06-08-2018.

Professional Engineer Seal: JOHN M. CARRIEY, No. 45577, PROFESSIONAL ENGINEER, 3/27/17

OWNER: YONG YUN AND QING LI
10062 CARILLON DRIVE
ELLCOTT CITY, MD 21042

PROJECT: CHAPEL RISE LOT 7

LOCATION: 11580 CHAPEL RISE, CLARKSVILLE, MD 21029
TAX MAP No. 29 - BLOCK No. 8 - PARCEL No. 26
5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX ID NUMBER 05-594206

TITLE: SEPTIC SITE PLAN

HOUSE TYPE: YUN RESIDENCE

DATE: MARCH, 2017 PROJECT NO. 2733

DESIGN: JMC DRAFT: CBD SCALE: 1" = 30' DRAWING 2 OF 2