

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: 7/30/19 **ONSITE SEWAGE DISPOSAL SYSTEM** P 565577
 APPROVAL DATE: 10/2/19 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 1004 Thunderbird Drive
 SUBDIVISION: Fairlane Farms LOT: 44 TAX ID: _____
 CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.com
 CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618
 PROPERTY OWNER: NV Homes EMAIL: _____
 OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 410-379-5956
 SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Babylon Vault or equivalent
 PUMP MODEL: N/A PUMP SIZE N/A PUMP TANK CAPACITY: N/A

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>130</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

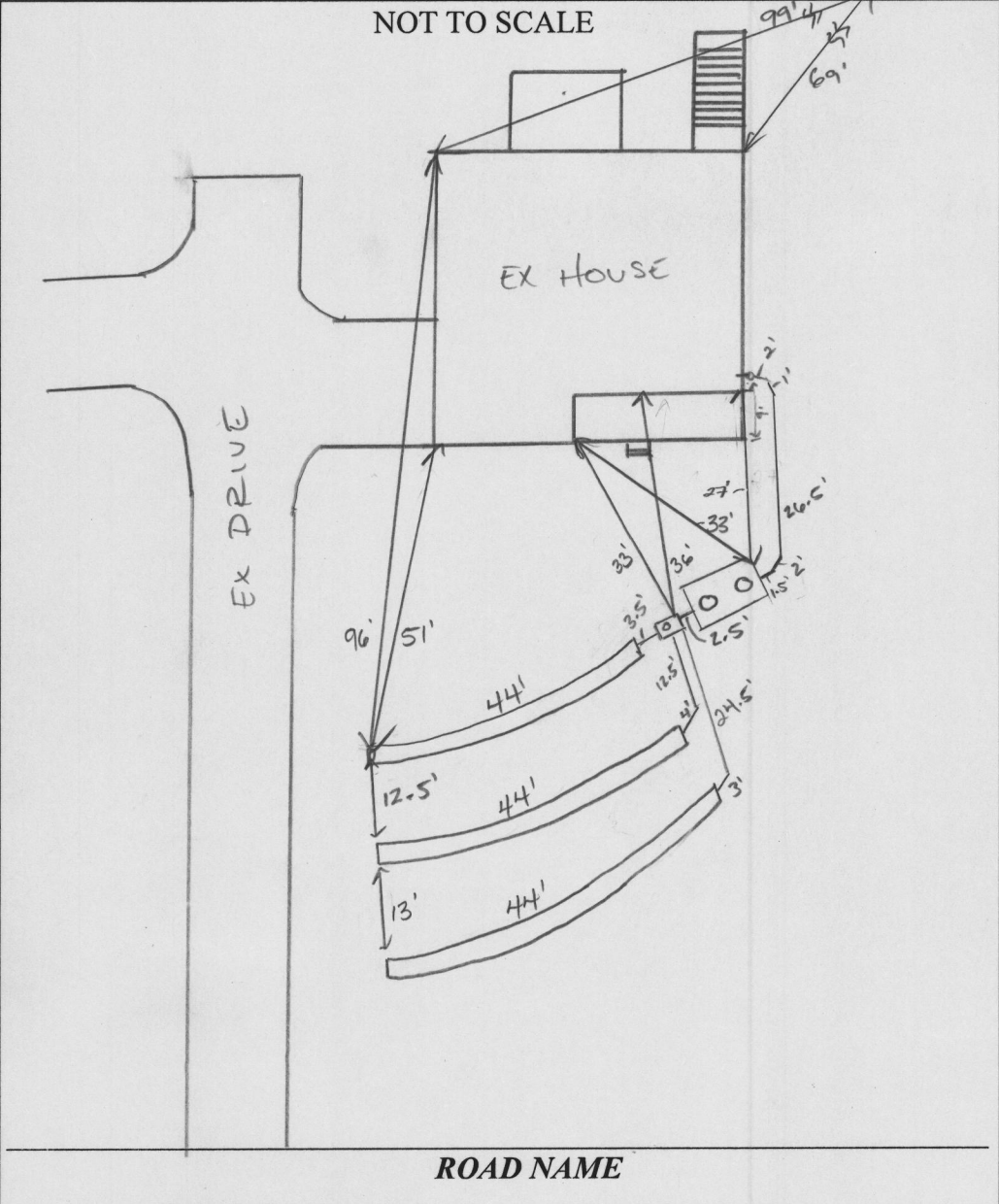
ISSUED BY: Hank Oswald ISSUE DATE: 7/30/19 EXPIRATION DATE: 7/30/20

- 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.

HO-15-0392

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	2	8
NUMBER OF TRENCHES		3
TOTAL LENGTH		132 F
ABSORPTION AREA		396 SF
DISTRIBUTION BOX LEVEL		SPEED
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	~1'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	05/20/2019
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:

7/31/2019 TANK LOCATION AND SDA STAKED. THREE TRENCHES LAID OUT ON CONTOUR, OK TO START. (S)

INSTALLATION: 08/01/2019 TANK SET. D BOX INSTALLED. LOWER AND MID TRENCH CONSTRUCTED AND TIED INTO D BOX (P) 08/02/2019 UPPER TRENCH COMPLETE. D BOX LEVELLED WITH SPEED LEVELS. IT HAS OUTLET BAFFLE. REINSP SHC, TANK INLET BAFFLE. (P) 08/13/2019 BAFFLES AND SEWER LINE INSTALLED AND BEDDED IN STONE. REINSP SHC. (P) Confirmed via builder on phone (S)

FINAL INSPECTOR [Signature] DATE OF APPROVAL 10/7/19

**FISHER, COLLINS
& CARTER, INC.**

**CIVIL ENGINEERING CONSULTANTS
and LAND SURVEYORS**

Transmittal

Terrell A. Fisher, P.E., L.S.
Earl D. Collins, P.E.
Charles J. Crovo, Sr., P.E., L.S.

Paul W. Kriebel, P.E.
Mark L. Robel, P.L.S.
Aldo M. Vitucci, P.E.
Frank Manalansan II, L.S.
Stephanie Tuite, RLA, P.E., LEED AP BD&C

Via: Fax Mail Messenger E-Mail To Be Picked Up
 Fax (original to follow via U.S. Mail)

To: Bureau of Environmental Health 8930 Stanford Blvd. Columbia, Maryland 21046-4544	Attn: Hank Fax: Phone: 410-313-2640
---	---

From: Tony Fertitta	CC:
----------------------------	-----

Re: Fairlane Farms, Lot 44	W.O.# 05106-3003
Date: March 29, 2019	Pages: 0 Page(s) Including this cover

We are forwarding: <input checked="" type="checkbox"/> Prints <input type="checkbox"/> Copy of Letter <input type="checkbox"/> Specifications <input type="checkbox"/> Shop drawings <input type="checkbox"/> Other <input type="checkbox"/> Urgent <input type="checkbox"/> For your use <input type="checkbox"/> As requested <input checked="" type="checkbox"/> For Review & Comment

Remarks:

Re: Fairlane Farm, Lot 44, 1004 Thunderbird Drive.

Here are 3 copies of the OSDS for Lot 44 for your review. Please let me know if you have any questions.

Thank You,

Tony.

Fisher, Collins, & Carter, Inc. Ph. 410-461-2855

CONFIDENTIALITY NOTICE

This transmission contains confidential information which may be legally privileged, and is intended only for the use of the individual named above. If you are not the intended recipient, you are hereby notified that any distribution (except to the intended recipient), copying, or disclosure of this transmission is strictly prohibited.

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

MEMORANDUM

TO: Fisher, Collins & Carter, Inc.
10272 Baltimore National Pike
Ellicott City, MD 21042

FROM: Hank Oswald, L.E.H.S.
Well & Septic Program

RE: OSDS Plan
1004 Thunderbird Drive
Fairlane Farms Lot 44

Date: January 24, 2019

The OSDS Plan for has been reviewed with the following comments:

- 1.) Septic Profile shows conflicting inverts out of the house. The elevation appears to be 612.52 (not 592.05).
- 2.) First trench data shows invert elevation at 611 but the invert out of the d-box is 610.9.
- 3.) Trench detail shows conflicting invert depths (1.5 or 2 feet)

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, March 07, 2019 9:53 AM
To: 'Tony Fertitta'
Cc: Williams, Jeffrey
Subject: OSDS Plan Review_1004 Thundebird Drive Fairlane Farms_Lot 44
Attachments: OSDS Memo To FCC_2019.pdf

Hi Tony:

Please see attached memo for comments pertaining to the OSDS Plan for Fairlane Farms, Lot 44. I can redline the plan with the changes. Please let me know.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.

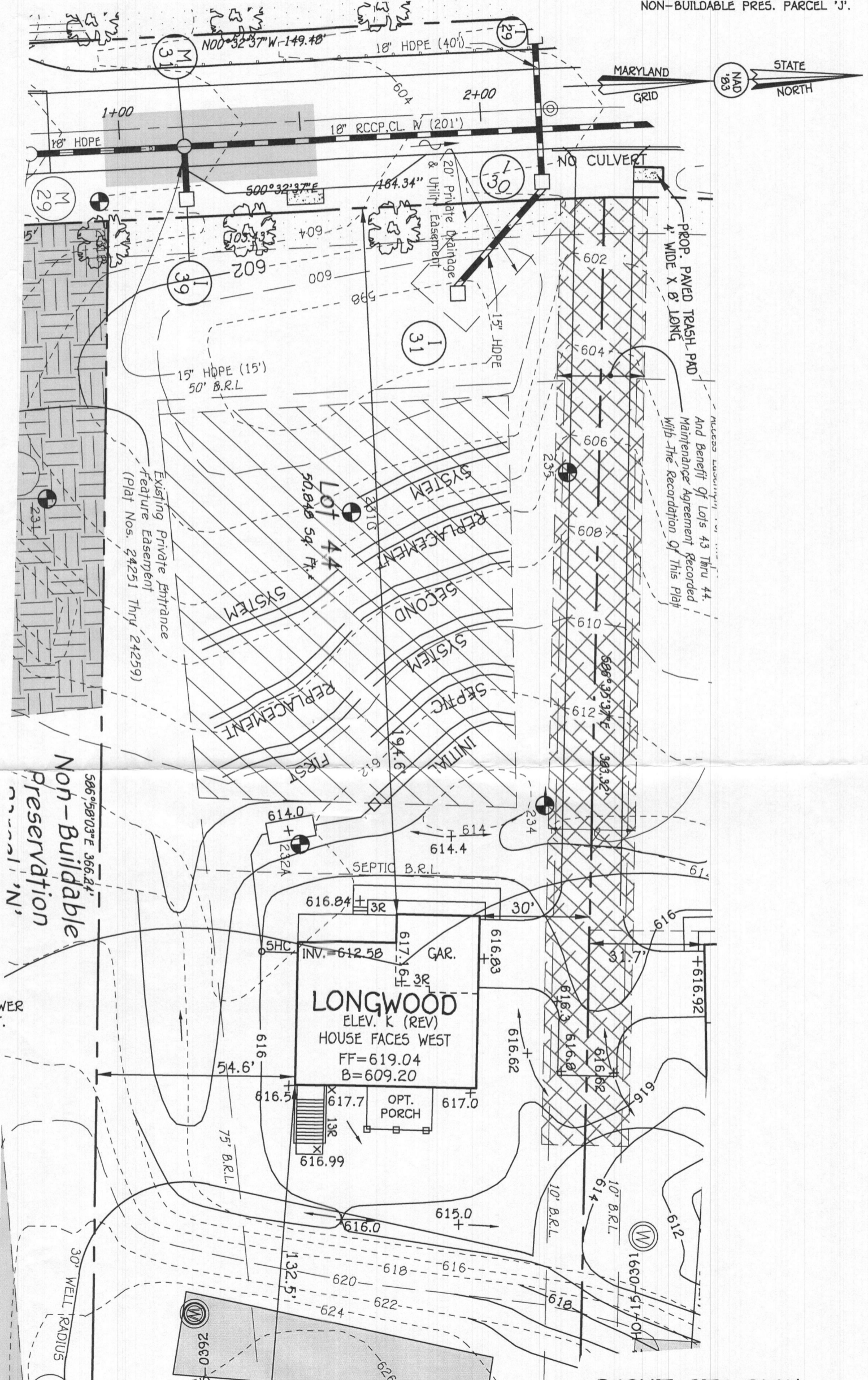
OWNER/DEVELOPER

NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-5956

NOTE: THE EXISTING WELL SHOWN ON THIS PLAN, HO-15-0392, HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

STORMWATER MANAGEMENT NOTES:

STORMWATER MANAGEMENT FOR LOT 44 IS BEING PROVIDED BY BMP NO. 6, BIORETENTION FACILITY (F-6), LOCATED ON NON-BUILDABLE PRES. PARCEL 'J'.



Non-Buildable
Preservation
Parcel 'N'

NOTE: NO GRAVITY SEWER SERVICE FOR BASEMENT.

DEMIT SITE PLAN

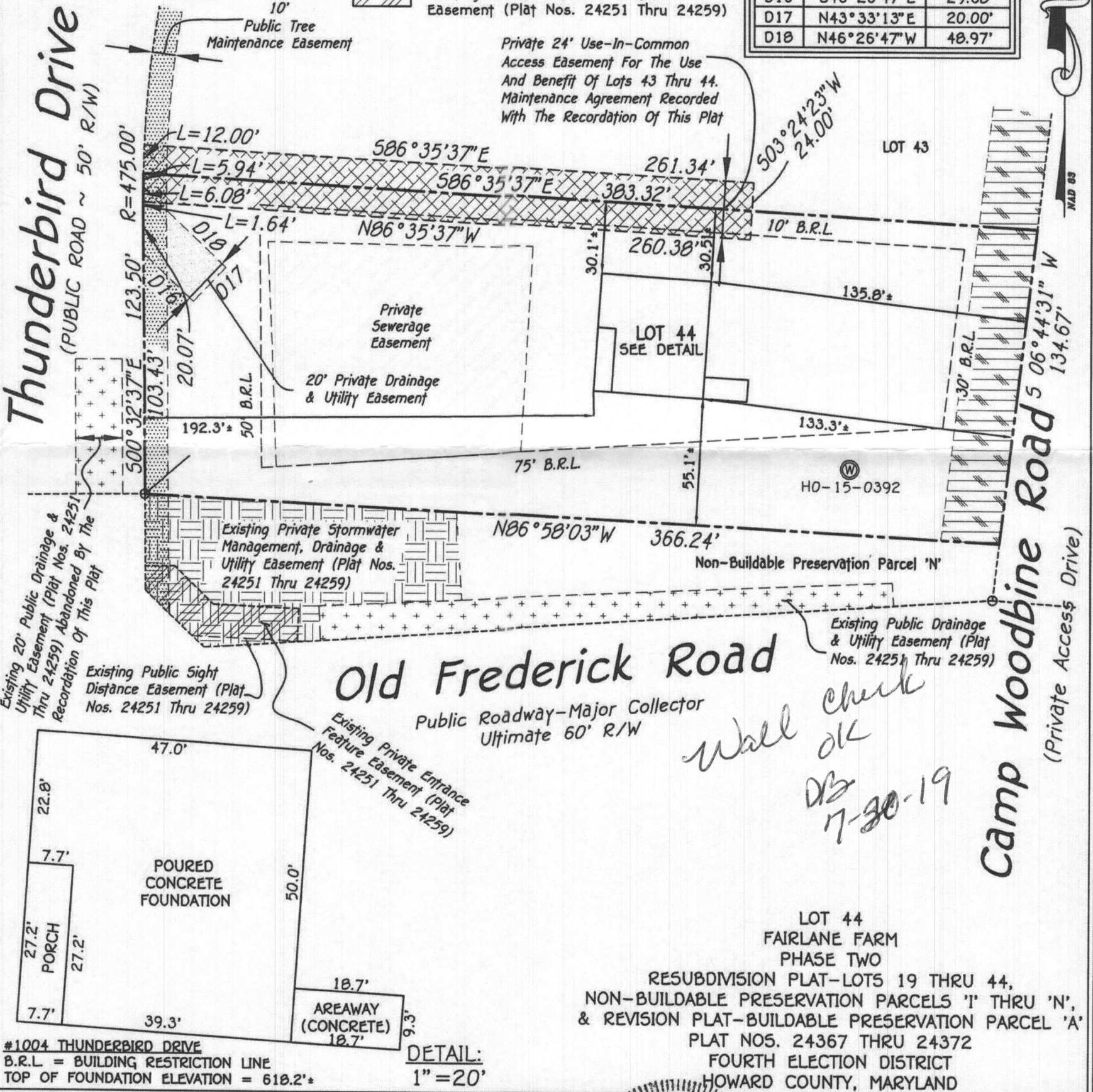
GENERAL NOTES:

- 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. 24027C0035D EFFECTIVE 11-06-2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
- 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-15-0392 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 10/04/2018.
- 7) BUILDING PERMIT #B-19001543

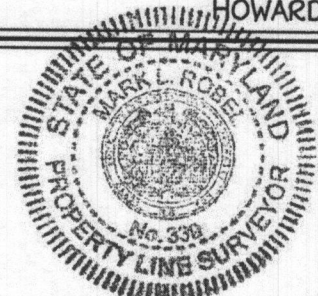
Legend

- Existing Private Stormwater Management, Access, Drainage & Utility Easement
- Existing Public Drainage & Utility Easement
- 10' Public Tree Maintenance Easement
- Existing 25' Private Easement For Ingress And Egress To Old Frederick Road For Tax Map B, Parcel B3
- Use-In-Common Access Easement For The Use And Benefit Of Lots 43 Thru 44.
- Private Drainage & Utility Easement
- Existing Private Entrance Feature Easement (Plat Nos. 24251 Thru 24259)

LINE	BEARING	LENGTH
D16	S46°26'47"E	29.68'
D17	N43°33'13"E	20.00'
D18	N46°26'47"W	48.97'



#1004 THUNDERBIRD DRIVE
 B.R.L. = BUILDING RESTRICTION LINE
 TOP OF FOUNDATION ELEVATION = 618.2'
 DETAIL: 1"=20'



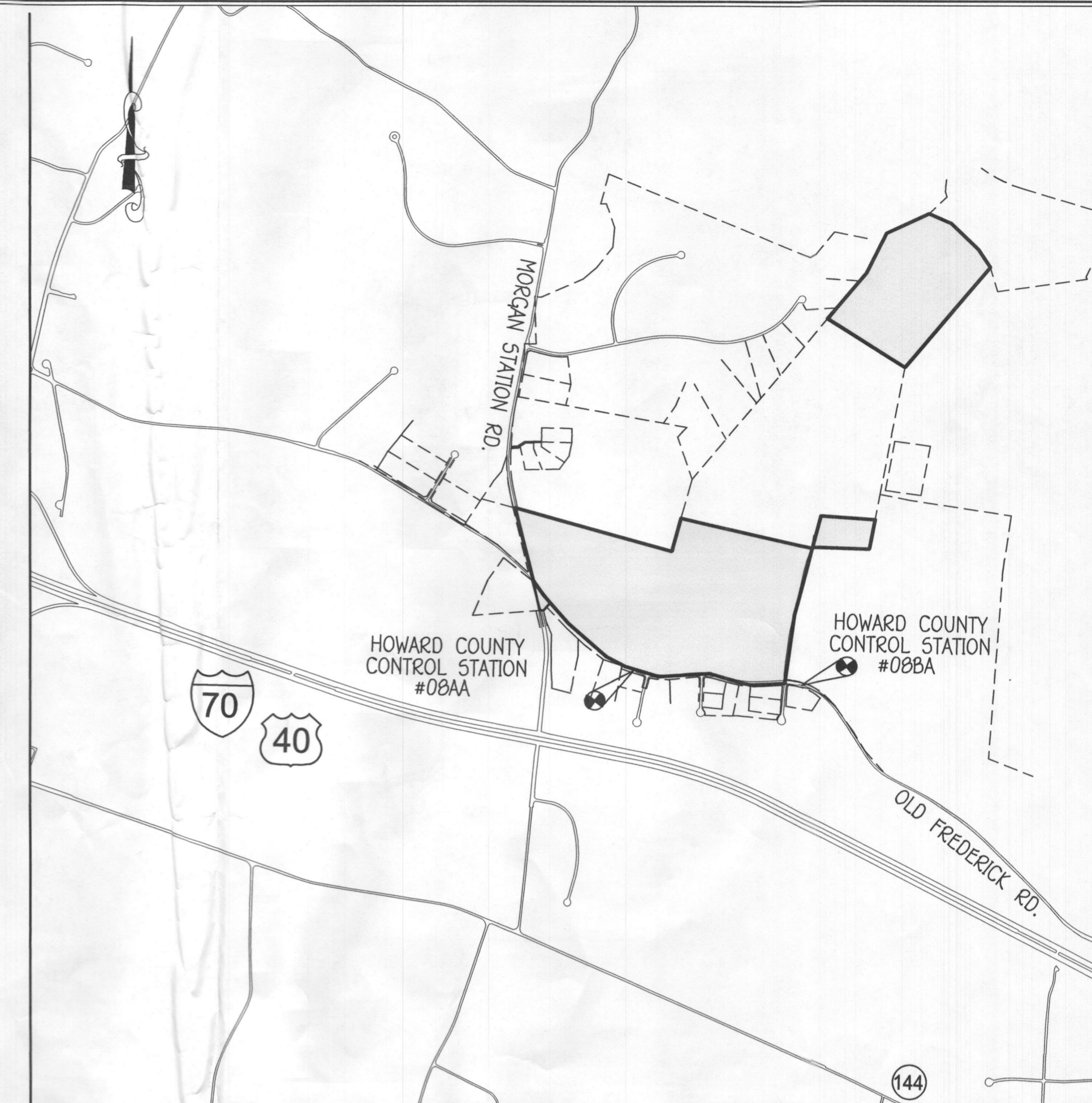
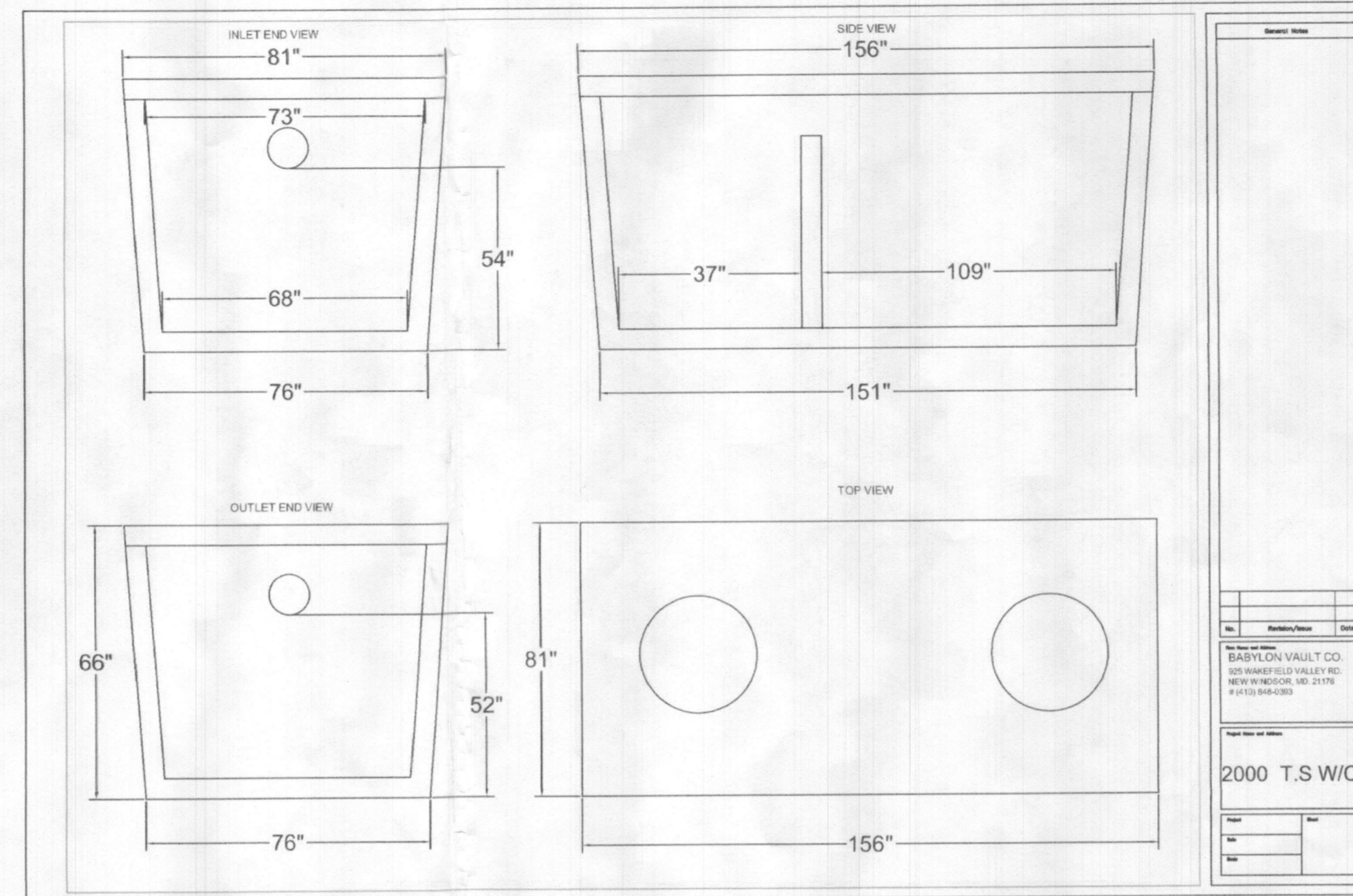
HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 7/10/19
 FINAL LOCATION: _____
 BOUNDARY SURVEY: _____
 SCALE: 1"=50'
 DATE: 7/12/18
 DRAWN BY: MD
 CHECKED BY: MLR
 PROJECT No.: 05106-3003

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

Mark L. Robel 7/12/19
 PROPERTY LINE SURVEYOR DATE
 REG. #339

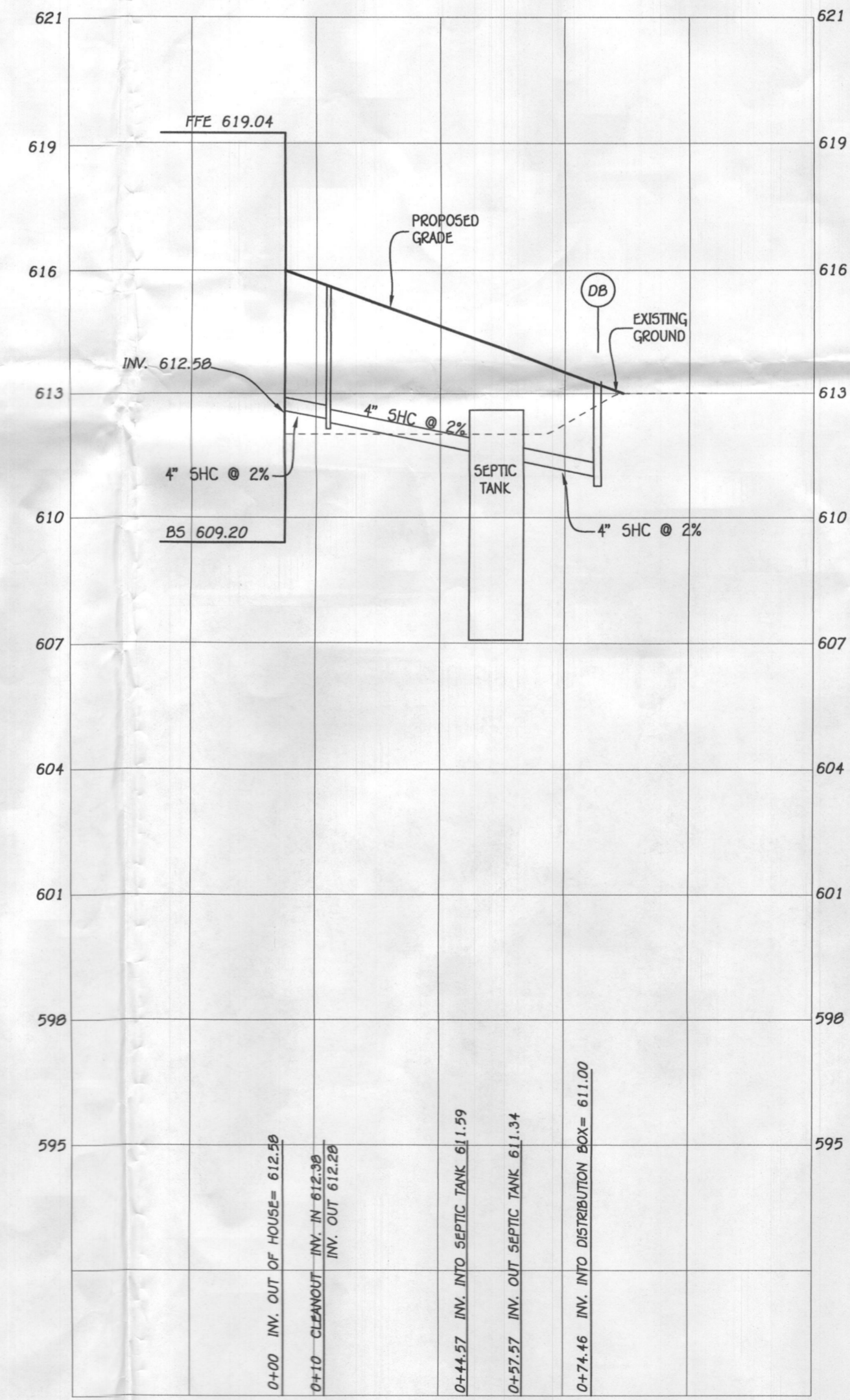
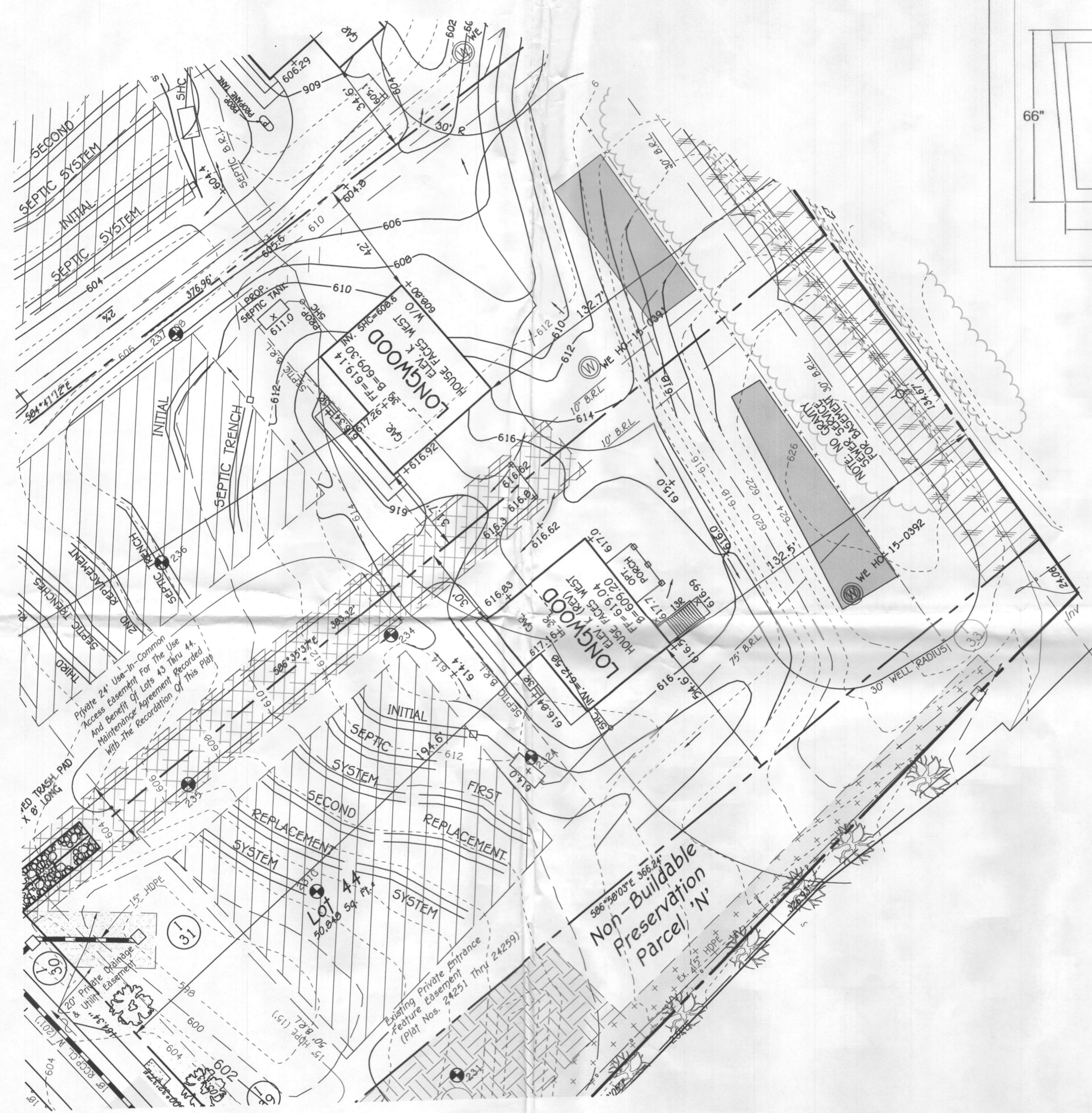
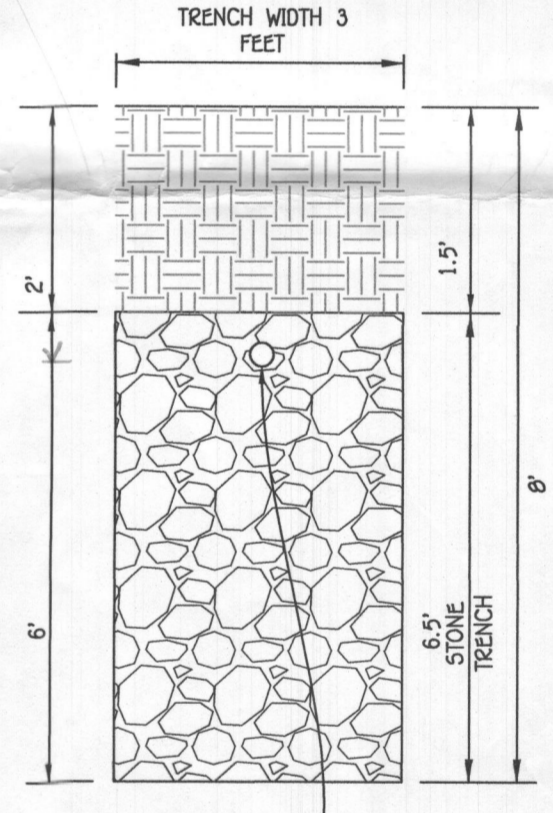
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0392 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. 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.



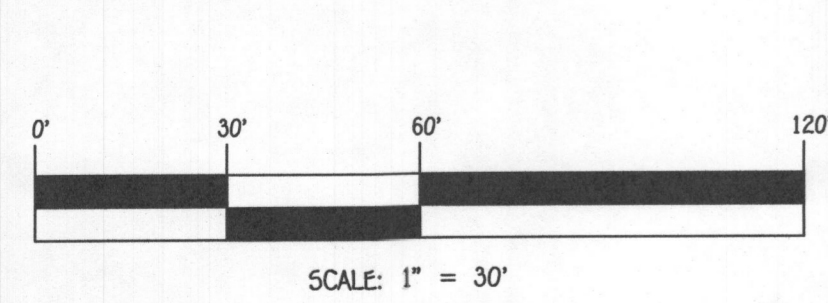
FFE 619.04
 BSE 609.20
 INV. OUT OF HOUSE = 612.52
 PROP. GRADE ABOVE SEPTIC TANK = 614.0
 TOP OF SEPTIC TANK = 612.59
 INV. INTO SEPTIC TANK = 611.59
 EX. GROUND AT SEPTIC TANK = 612.0
 INV. INTO CLEANOUT #1 = 616.00
 INV. INTO CLEANOUT = 612.32
 INV. OUT OF CLEANOUT = 612.22
 EX. GROUND AT DISTRIBUTION BOX = 613.0
 INV. INTO DISTRIBUTION BOX = 611.0
 INV. OUT OF DISTRIBUTION BOX = 610.9

VICINITY MAP
 SCALE: 1" = 1200'

TRENCH DATA:
 TRENCH 1:
 EX. GROUND ABOVE = 613.0
 INV. IN = 610.9
 BOTTOM TRENCH = 605.0
 TRENCH 2:
 EX. GROUND ABOVE = 611.9
 INV. IN = 609.9
 BOTTOM TRENCH = 603.9
 TRENCH 3:
 EX. GROUND ABOVE = 609.9
 INV. IN = 607.9
 BOTTOM TRENCH = 601.9



SEPTIC PROFILE
 SCALE: 1" = 30'



PLAN
 SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21046
 (410) 461-2225

OWNER/DEVELOPER
 NV HOMES
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MD 21046
 410-379-9956



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. 20748, EXPIRATION DATE: 02/22/2019.
 Signature: *Michael J. Vitale*
 DATE: 3/29/19

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 4 FEET
 TRENCH DEPTH = 6 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.416
 TRENCH LENGTH = 312.5 SF x 0.416 = 130.00 FEET
 (USE 3 TRENCHES AT 43.33 L.F.)
 TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 3 FEET
 TRENCH DEPTH = 7 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x4)) = 0.416
 TRENCH LENGTH = 312.5 SF x 0.416 = 130.00 FEET
 (USE 3 TRENCHES AT 43.33 L.F.)
 TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 3 FEET
 TRENCH DEPTH = 7 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x4)) = 0.416
 TRENCH LENGTH = 312.5 SF x 0.416 = 130.00 FEET
 (USE 3 TRENCHES AT 43.33 L.F.)
 TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

SEPTIC SYSTEM INSTALLATION SITE PLAN

LOT 44
 1004 THUNDERBIRD DRIVE
FAIRLANE FARMS
 PHASE TWO
 ZONED: RC-DEO

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
44	100 THUNDERBIRD DRIVE

TAX MAP NO.: 0 GRID NO.: 2 PARCEL NO.: 0
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: MARCH 28, 2019
 SHEET 1 OF 1