



**Howard County
Health Department**

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: 4/5/18 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 562950

APPROVAL DATE: _____ **PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 15317 Galaxy Drive

SUBDIVISION: Fairlane Farms LOT: 5 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>156.25 (see notes)</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3 (see notes)</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	$937.5 \div 2 = 468.75 (.44) = 206 \Rightarrow$ specs for 2' wide trenches. (4 x 51') w/ D box in middle of SDA. verify contour in field first before using diff. specs.	

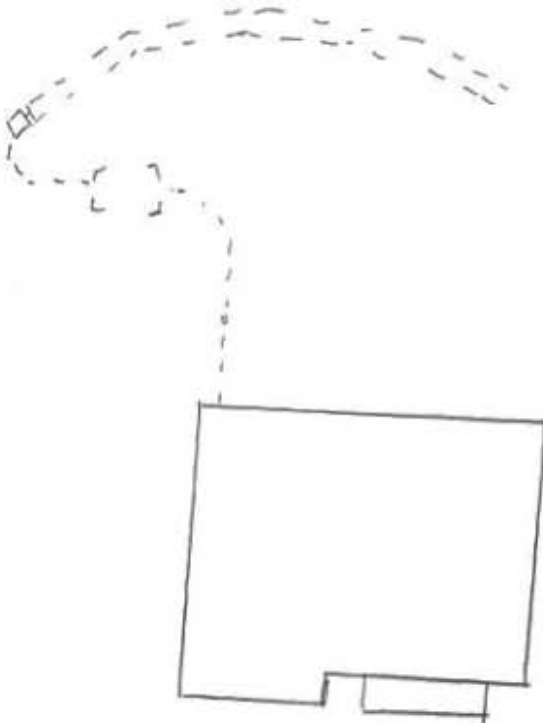
ISSUED BY: Hank Oswald ISSUE DATE: 4/5/18 EXPIRATION DATE: 4/5/19

- 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 [Signature]
- NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRE-TREATMENT 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



© H-15-0340

ROAD NAME _____

TRENCH/DRAINFIELD DATA

WIDTH _____ INLET _____ BOTTOM _____

NUMBER OF TRENCHES _____

TOTAL LENGTH _____

ABSORPTION AREA _____

DISTRIBUTION BOX LEVEL _____

DISTRIBUTION BOX BAFFLE _____

DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL _____

MANUFACTURER _____

CAPACITY _____ GAL

SEAM LOC _____

TANK LID DEPTH _____

BAFFLES _____

BAFFLE FILTER _____

MANHOLE LOC _____

6" PORT LOC _____

WATERTIGHT TEST _____

SLOTTED _____

DATE ON LID _____

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:

INSTALLATION:

FINAL INSPECTOR _____ DATE OF APPROVAL _____



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 Facebook: www.facebook.com/hocohealth

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

RECEIPT DATE: 4/5/18 **ONSITE SEWAGE DISPOSAL SYSTEM** P 562950
 APPROVAL DATE: 6/1/18 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 15317 Galaxy Drive
 SUBDIVISION: Fairlane Farms LOT: 5 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>156.25</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	<u>Install 3-52' trenches.</u>	

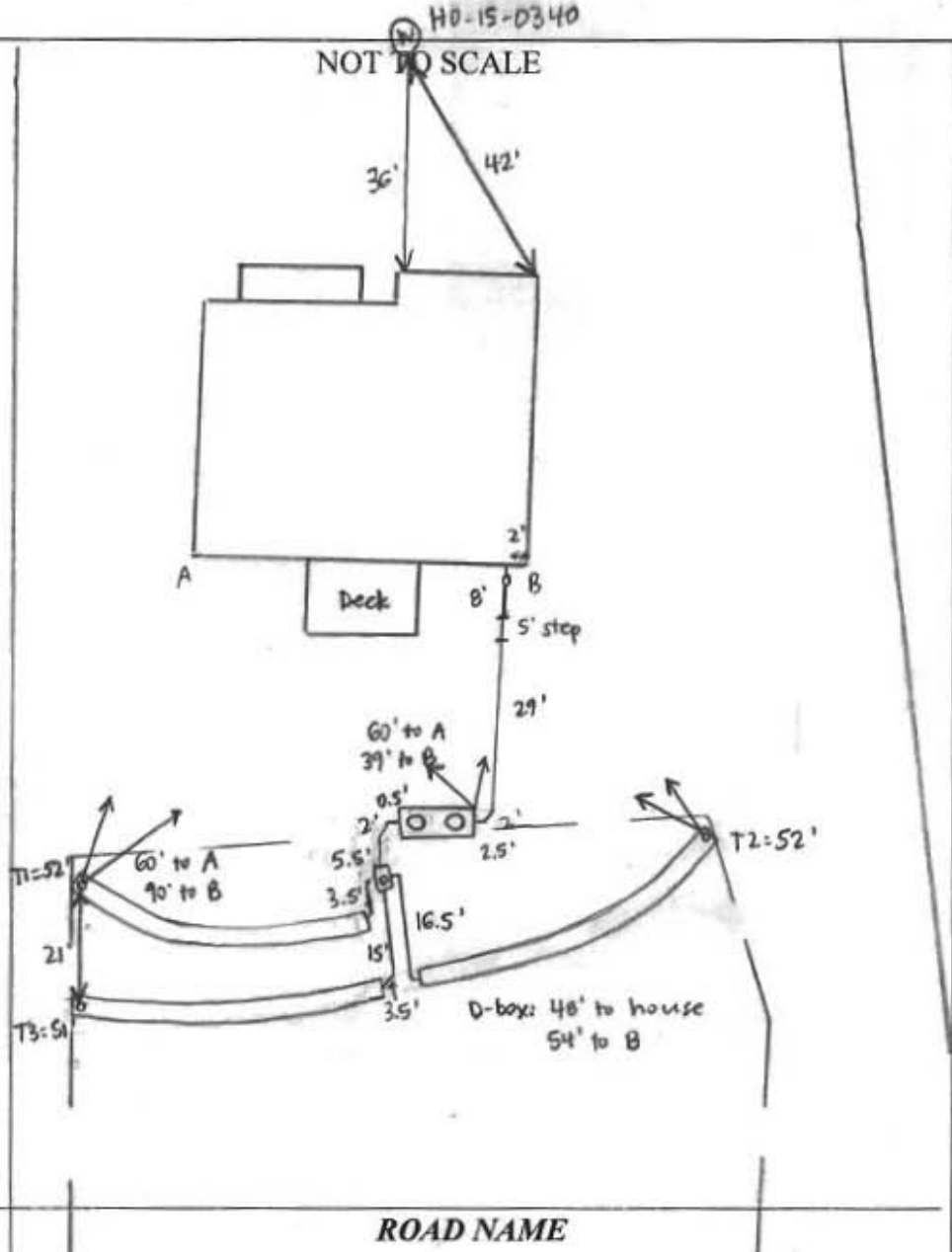
ISSUED BY: Hank Oswald ISSUE DATE: 4/5/18 EXPIRATION DATE: 4/5/19

- 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 _____
- 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

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 PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.
 CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

H0-15-0340

NOT TO SCALE



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES	3	
TOTAL LENGTH	155'	
ABSORPTION AREA	465' + SIDENALL	
DISTRIBUTION BOX LEVEL	YES	
DISTRIBUTION BOX BAFFLE	YES	
DISTRIBUTION BOX PORT	YES	

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	YES	
MANUFACTURER	BABYLON	
CAPACITY	2000	GAL
SEAM LOC	TOP	
TANK LID DEPTH	1-1.5'	
BAFFLES	YES	
BAFFLE FILTER	NO	
MANHOLE LOC	FRONT + REAR	
6" PORT LOC	NONE	
WATERTIGHT TEST	NO	
SLOTTED	YES	
DATE ON LID	4-2-18	

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:

5/1/18 Met S. Carroll on site for layout. SDA corner stakes + tank stake present. Shot contour, slightly different than shown on plan. Laid out 3 = 52' trenches with D-box in middle. Put tank in middle of upper SDA - confirm with builder that change is OK. A rooftop disconnect daylight is 9-10' from T3 end - may have to extend part T3. (SC)

INSTALLATION:

5/3/18 Tank set. S. Carroll digging T3, 3' wide + 8' depth. Using laser to check depth. (SC) 5/4/18 T1 complete + left open for inspection, 3' wide, 3.5-4' to stone. S. Carroll adding stone to T2, 3' wide, 8' bottom. Labeled speed levers in D-box. Need house connection. Poured water down rain leader + came out pipe in SDA. Pipe must be removed. (SC) 6/1/18 Verified site via survey water in house.

OK. JC

FINAL INSPECTOR J. Cabanay DATE OF APPROVAL 6/1/18

Oswald, Hank

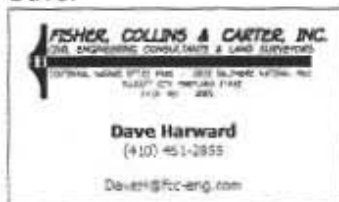
From: Dave Harward, III <DaveH@fcc-eng.com>
Sent: Monday, January 29, 2018 11:46 AM
To: Oswald, Hank; Tony Fertitta
Subject: RE: Fairlane Farm: Septic Specs_Lots 19-44

Thanks for taking care of those specs for us Hank.

By the way, we just submitted the OSDS for Lot 5 on Friday. We were just notified that the housetype is changing on Lot5, so you can discard those plans. I didn't want you to spend time reviewing a plan that's going to change. We'll get you new plans to review in the next day or so.

Thank You,

Dave.



From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Monday, January 29, 2018 11:40 AM
To: Tony Fertitta; Dave Harward, III
Subject: RE: Fairlane Farm: Septic Specs_Lots 19-44

Yes. I will work on them today.

From: Tony Fertitta [<mailto:tonyf@fcc-eng.com>]
Sent: Tuesday, January 23, 2018 7:46 AM
To: Dave Harward, III; Oswald, Hank
Subject: FW: Fairlane Farm: Septic Specs_Lots 19-44

Could we get lots 25 thru 44 please. Thanks

From: Dave Harward, III
Sent: Tuesday, January 23, 2018 7:42 AM
To: Tony Fertitta
Subject: FW: Fairlane Farm: Septic Specs_Lots 19-44

From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Thursday, December 14, 2017 10:35 AM
To: Dave Harward, III
Cc: Tony Fertitta
Subject: RE: Fairlane Farm: Septic Specs_Lots 19-44

Attached, please find septic specs for Fairlane Farm, Lots 19 - 24.

From: Dave Harward, III [mailto:DaveH@fcc-eng.com]
Sent: Wednesday, December 13, 2017 1:43 PM
To: Oswald, Hank
Cc: Tony Fertitta
Subject: RE: Fairlane Farm: Septic Specs_Lots 19-44

Great, Thanks Hank

From: Oswald, Hank [mailto:hoswald@howardcountymd.gov]
Sent: Wednesday, December 13, 2017 1:42 PM
To: Dave Harward, III
Subject: RE: Fairlane Farm: Septic Specs_Lots 19-44

Hi Dave – Got it.

You should have specs for 19 – 24 by tomorrow.

Thanks,

Hank

From: Dave Harward, III [mailto:DaveH@fcc-eng.com]
Sent: Wednesday, December 13, 2017 9:22 AM
To: Oswald, Hank
Subject: FW: Fairlane Farm: Septic Specs_Lots 19-44

Hank,

I know you're very busy. I want you to know, we really appreciate your efforts in providing great review and assistance.

I think this got forgotten...and so I'm sending you this again to see if you could squeeze in this 1st group of lots in phase 2 at Fairlane for the septic specs. Just Lots 19-24 is good for now.

As Always, Thanks Hank,

Dave.



From: Dave Harward, III
Sent: Tuesday, October 31, 2017 2:19 PM
To: 'Oswald, Hank'
Subject: Fairlane Farm: Septic Specs_Lots 19-44

Hank,

We are now in need of the septic design specs for Fairlane Farms, Phase 2, Lots 19-44.

The ones that we need most at this point in time are Lots 19-24, if you can do those first. The others can wait awhile, since I know you are busy too.

I appreciate your help Hank,

Dave.



From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Friday, March 31, 2017 11:07 AM
To: Dave Harward, III
Subject: Septic Specs_Lots 1 - 18

Hi Dave:

Attached, please find septic specs for Fairlane Farm, Lots 1 - 18.

Should you have any questions, please don't hesitate to ask.

Respectfully,

Hank
Hank Oswald, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
410.313.2648 (Fax)

Transmittal

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
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From: Tony Fertitta	CC:
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Re: Fairlane Farms, Lot 5	W.O.# 05106-3003
Date: Jan. 26, 2018	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 5, 15317 Galaxy Dr.

Provided here are 3 copies of a Septic Installation Site Plan for Lot 5, for your review/approval. Please leave 1 signed copy up front for us if approved as is.

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.

Oswald, Hank

From: Tony Fertitta <tonyf@fcc-eng.com>
Sent: Monday, January 29, 2018 11:18 AM
To: Oswald, Hank
Subject: Fairlane farm
Attachments: Tony Fertitta.vcf

Hold off on lot 5 septic plan install. Also do you have the data for the rest of the lots thanks



Right Click the Card to add me to your Contacts

**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 Tulte, 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, MD 21046-4544	Attn: Hank Fax: (410) 313-2648 Phone: (410) 313-2640
--	---

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

Re: Lot 5	W.O.# 05106
Date: January 30, 2018	Pages: 4 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 type="checkbox"/> For Review & Comment	

Remarks:

Hank:

Enclosed please find Two (2) prints of the drawing entitled " Septic Install Plan Lot 5 - Fairlane Farms " dated January 30, 2018.

If we may be of any further assistance, please do not hesitate to call.

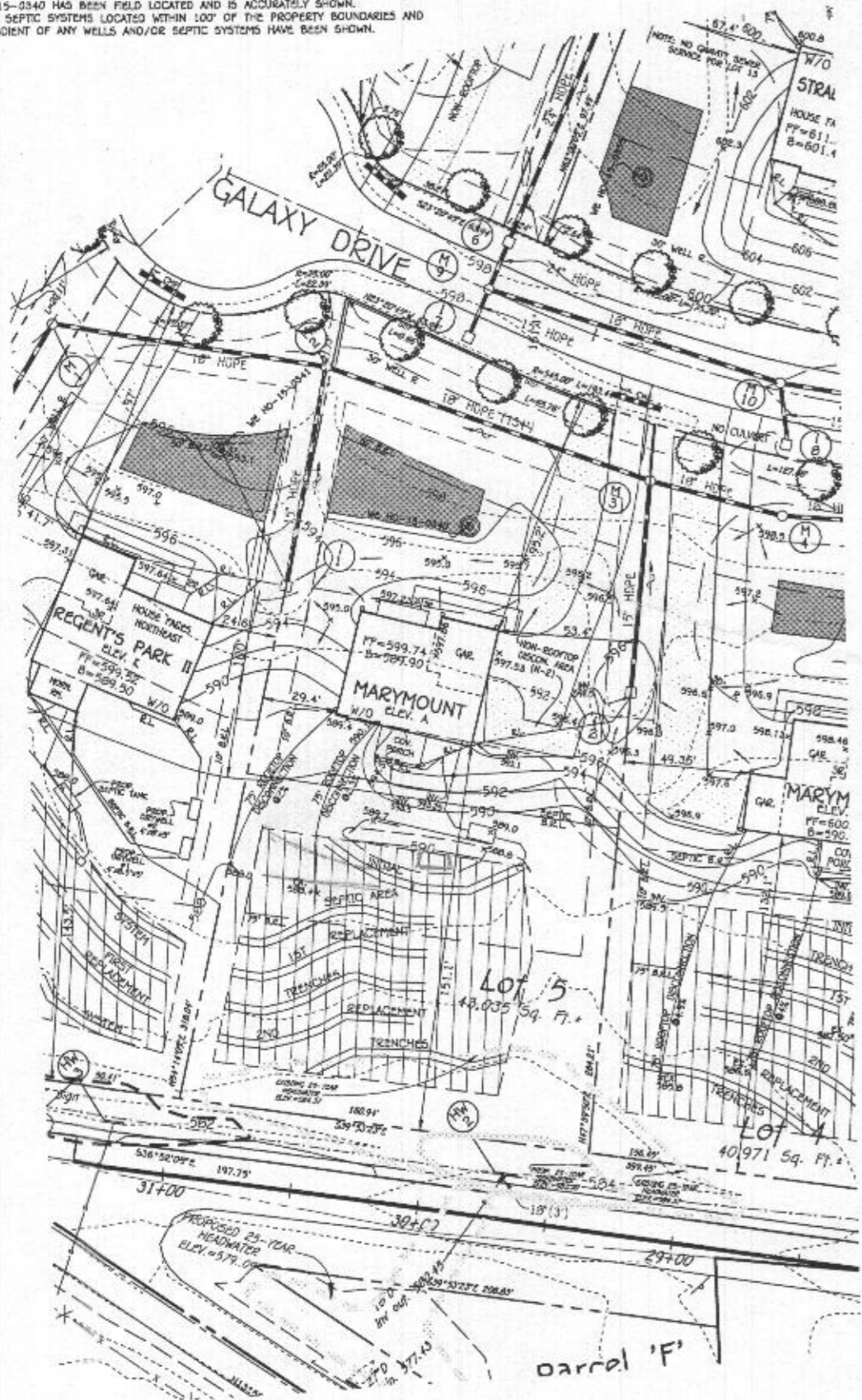
Very truly yours,



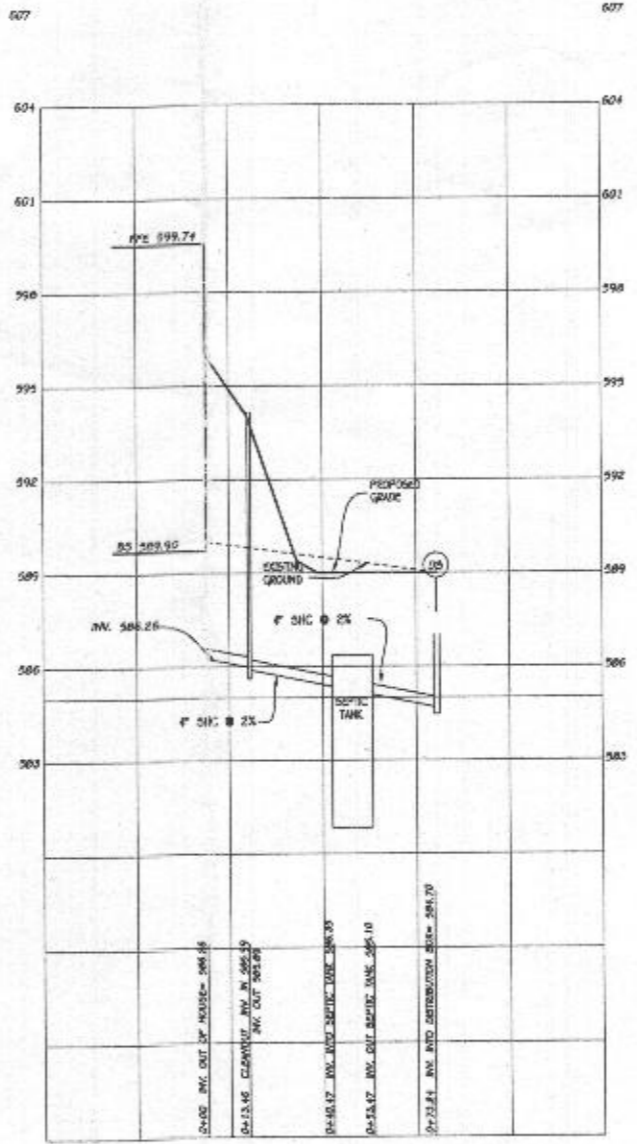
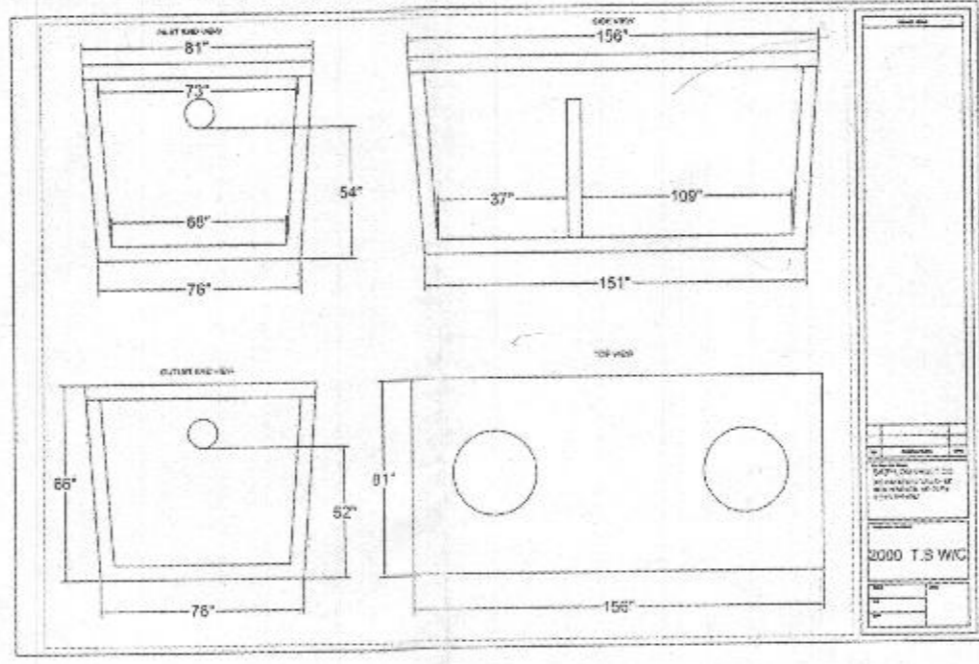
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ANGLE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE SR AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A SITE PLAN MAY BE REQUIRED.
 MINIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A LOAD BEARING TANK.
 ALL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN. LL 10-15-0340 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
 LL3 AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND TWIN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.



PLAN
SCALE: 1" = 30'



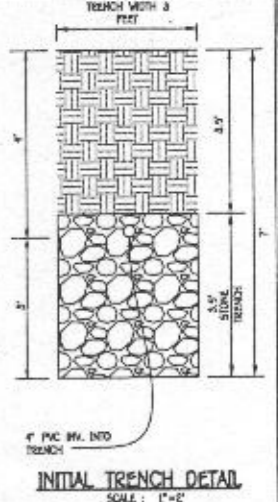
SEPTIC PROFILE
SCALE: 1" = 30'



VICINITY MAP
SCALE: 1" = 1200'

FFE 599.74
 BSE 589.90
 INV. OUT OF HOUSE = 586.26
 PROP. GROUND AT CLEANOUT #1 = 594.0
 INV. INTO CLEANOUT = 585.99
 INV. OUT OF CLEANOUT = 585.89
 EX. GROUND AT SEPTIC TANK = 589.00
 PROP. GRADE ABOVE SEPTIC TANK = 589.0
 TOP OF SEPTIC TANK = 586.35
 INV. INTO SEPTIC TANK = 585.35
 INV. OUT OF SEPTIC TANK = 585.10
 EX. GROUND AT DISTRIBUTION BOX = 586.6
 INV. INTO DISTRIBUTION BOX = 584.7
 INV. OUT OF DISTRIBUTION BOX = 584.6

TRENCH DATA:
TRENCH 1:
 EX. GROUND ABOVE = 589.0
 INV. IN = 585.0
 BOTTOM TRENCH = 581.0
TRENCH 2:
 EX. GROUND ABOVE = 588.0
 INV. IN = 584.0
 BOTTOM TRENCH = 580.0



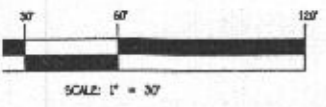
INITIAL TRENCH DETAIL
SCALE: 1" = 2'

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 5 FEET
 TRENCH DEPTH = 8 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)) = 0.5
 TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET
 (USE 2 TRENCHES AT 78.13 LF.)
 TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

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 5 FEET
 TRENCH DEPTH = 8 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)) = 0.5
 TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET
 (USE 2 TRENCHES AT 78.13 LF.)
 TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

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 5 FEET
 TRENCH DEPTH = 8 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)) = 0.5
 TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET
 (USE 2 TRENCHES AT 78.13 LF.)
 TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

**SEPTIC SYSTEM
 INSTALLATION SITE PLAN
 LOT 5
 15317 GALAXY DRIVE
 FAIRLANE FARMS
 PHASE ONE**




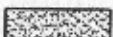
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 82718, EXPIRATION DATE: 02/22/2014.

SEPTIC PROFILE
SCALE: 1" = 30'

GENERAL NOTES:

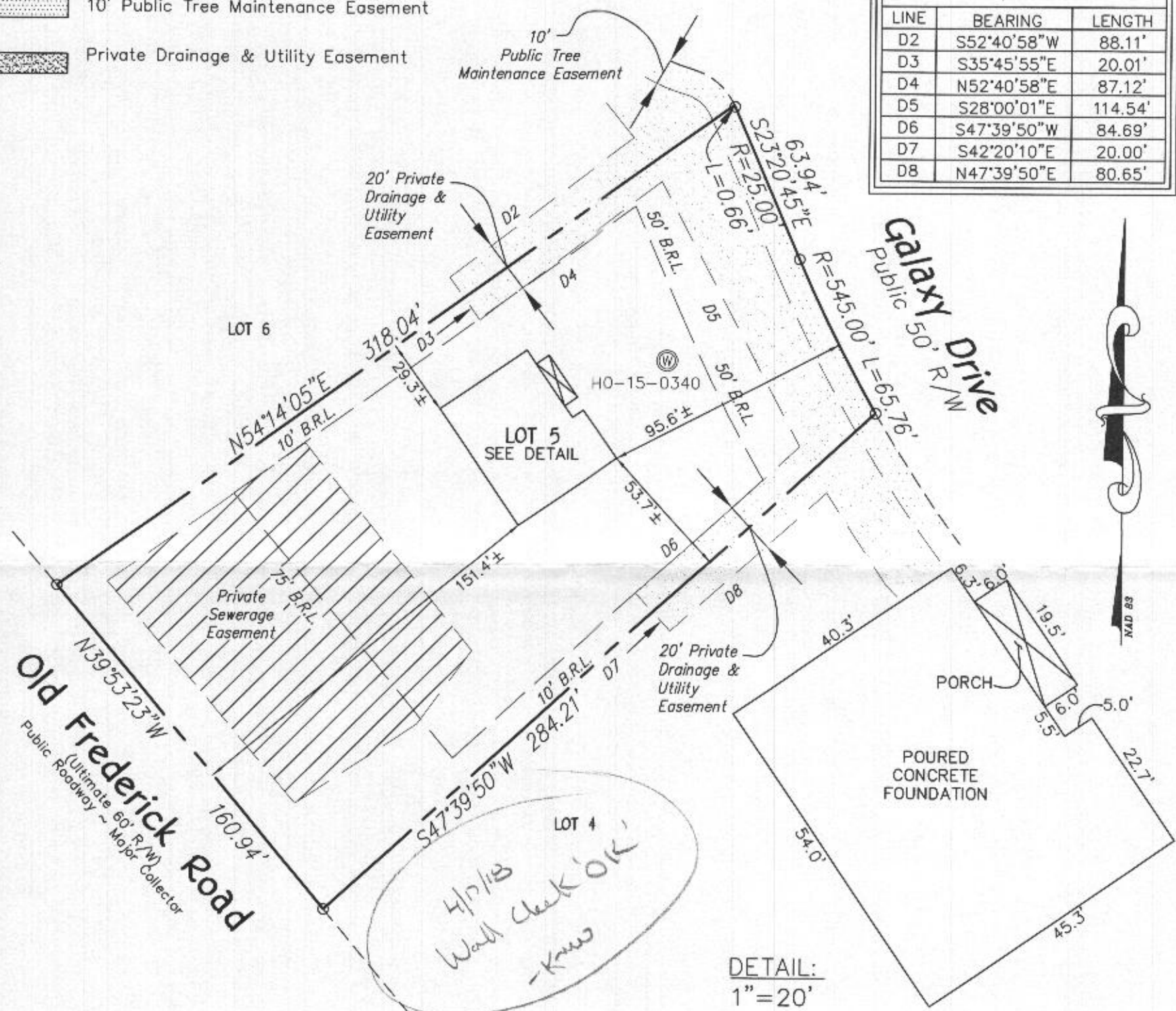
- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS 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. 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-15-0340) 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 PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21351, EXPIRATION DATE 7/15/2019.
- 7) BUILDING PERMIT #B-18000056

Legend

-  10' Public Tree Maintenance Easement
-  Private Drainage & Utility Easement

Public And Private Drainage & Utility Easement Line Table

LINE	BEARING	LENGTH
D2	S52°40'58"W	88.11'
D3	S35°45'55"E	20.01'
D4	N52°40'58"E	87.12'
D5	S28°00'01"E	114.54'
D6	S47°39'50"W	84.69'
D7	S42°20'10"E	20.00'
D8	N47°39'50"E	80.65'




DETAIL:
1"=20'

LOT 5
FAIRLANE FARMS
PHASE ONE
LOTS 1 THRU 18, BUILDABLE PRESERVATION
PARCEL 'A', NON-BUILDABLE PRESERVATION
PARCELS 'B' THRU 'E', PARCEL 'F',
NON-BUILDABLE BULK PARCELS 'G' AND 'H'
AND FOREST MITIGATION BANK
PLAT NOS. 24251 THRU 24259
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

#15317 GALAXY DRIVE
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 598.8'±

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

Drawing Name:



Todd M. Hill
PROFESSIONAL LAND SURVEYOR DATE 4/9/18
REG. #21351

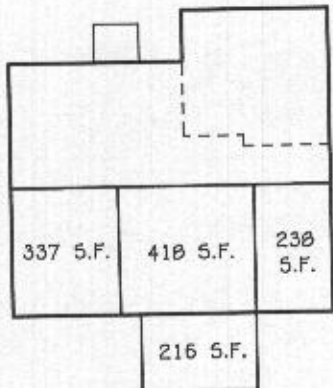
HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 3/29/18
FINAL LOCATION:
BOUNDARY SURVEY:

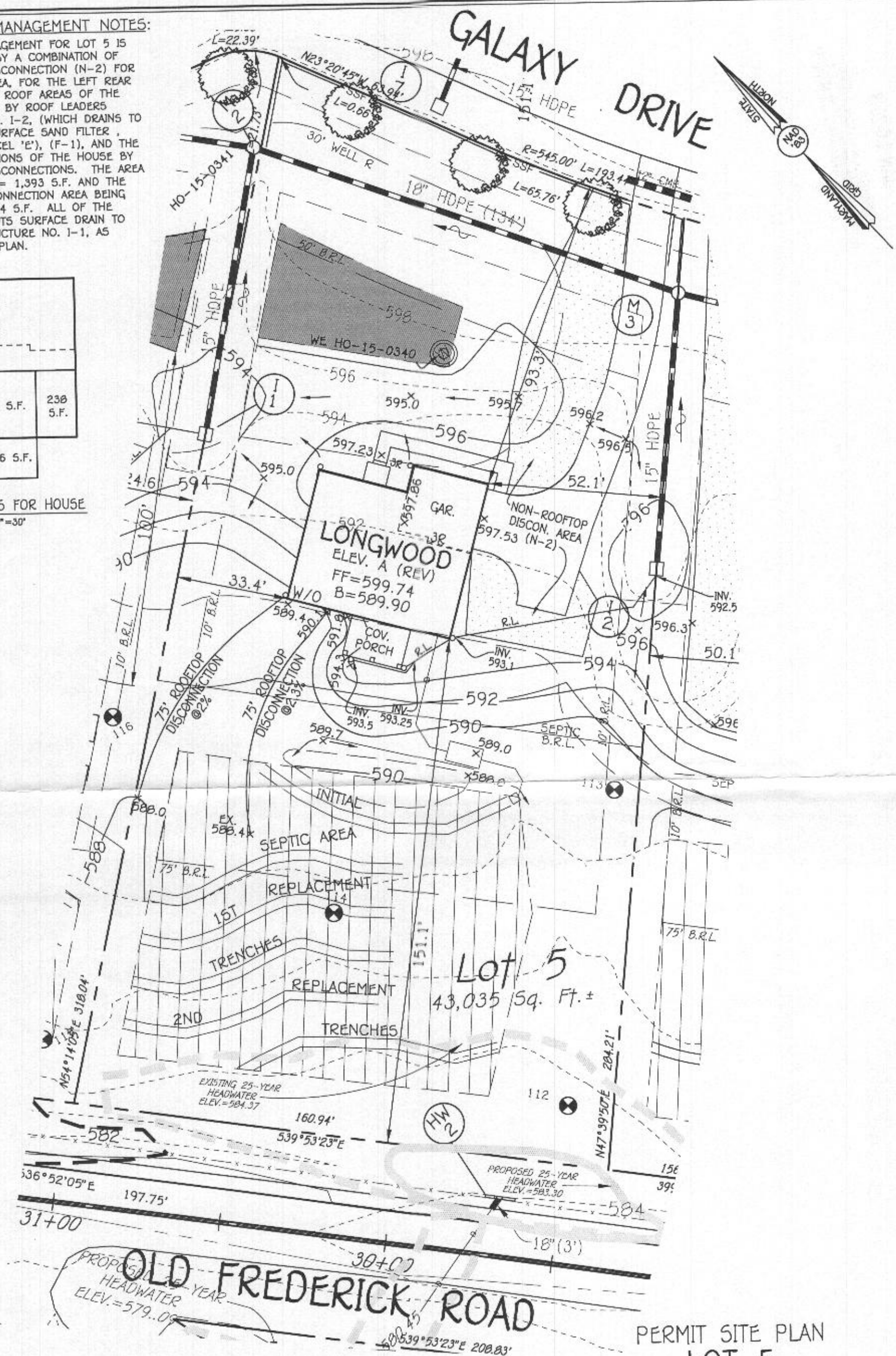
SCALE: 1"=50'
DATE: 4/9/18
DRAWN BY: MD
CHECKED BY: MLR
PROJECT No.: 05106-3003

STORMWATER MANAGEMENT NOTES:

STORMWATER MANAGEMENT FOR LOT 5 IS BEING PROVIDED BY A COMBINATION OF NON-ROOFTOP DISCONNECTION (N-2) FOR THE DRIVEWAY AREA, FOR THE LEFT REAR PORTIONS OF THE ROOF AREAS OF THE PROPOSED HOUSE BY ROOF LEADERS CONVEYED TO STR. 1-2, (WHICH DRAINS TO BMP NO. 1 (A SURFACE SAND FILTER, LOCATED ON PARCEL 'E'), (F-1), AND THE RIGHT REAR PORTIONS OF THE HOUSE BY TWO ROOFTOP DISCONNECTIONS. THE AREA OF THE DRIVEWAY= 1,393 S.F. AND THE AMOUNT OF DISCONNECTION AREA BEING PROVIDED IS 2,624 S.F. ALL OF THE FRONT DOWNSPOUTS SURFACE DRAIN TO STORMDRAIN STRUCTURE NO. 1-1, AS SHOWN ON THIS PLAN.



DRAINAGE AREAS FOR HOUSE
SCALE: 1"=30'



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

NOTE: THE EXISTING WELL SHOWN ON THIS PLAN, HO-15-0340, HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

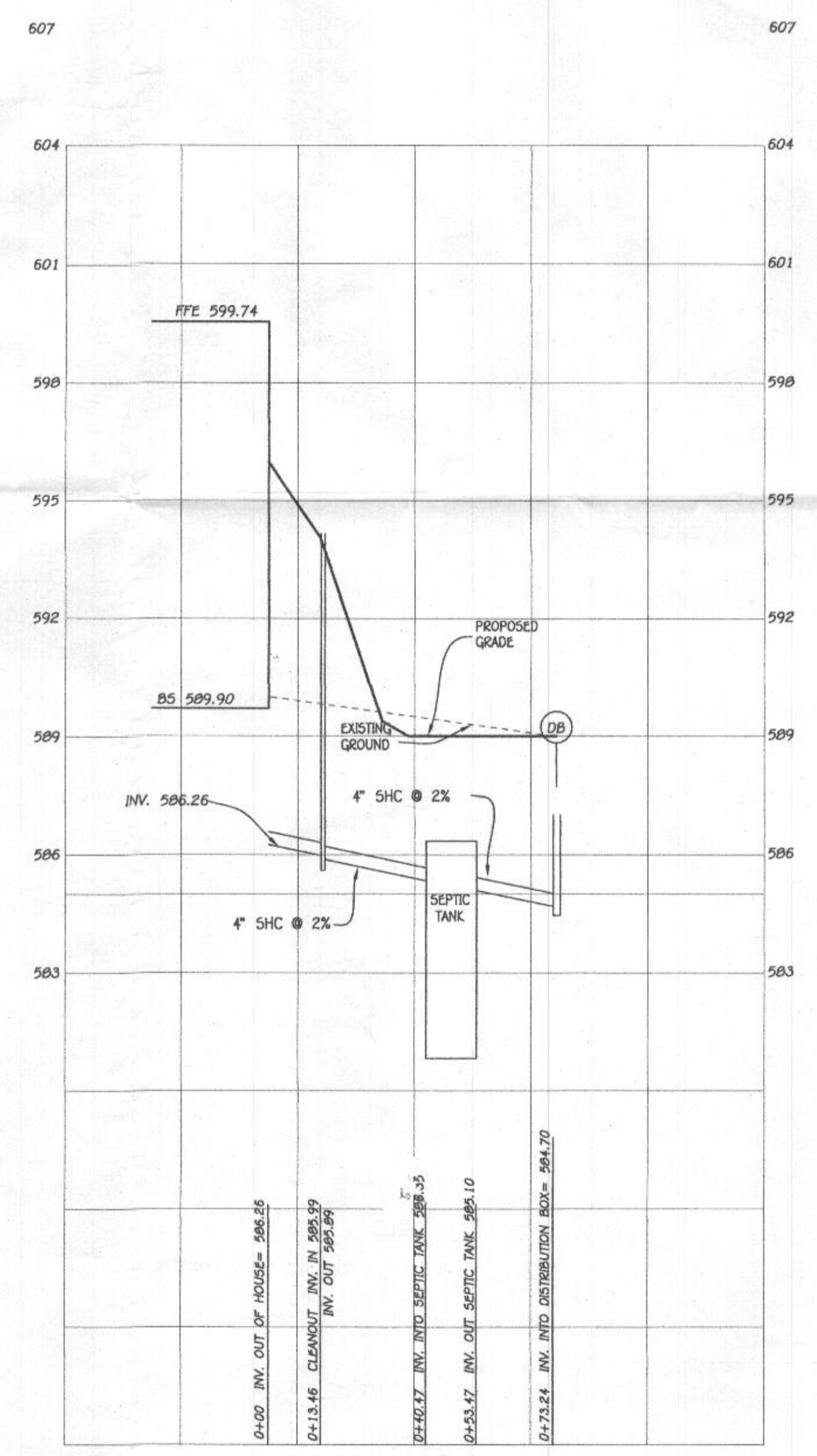
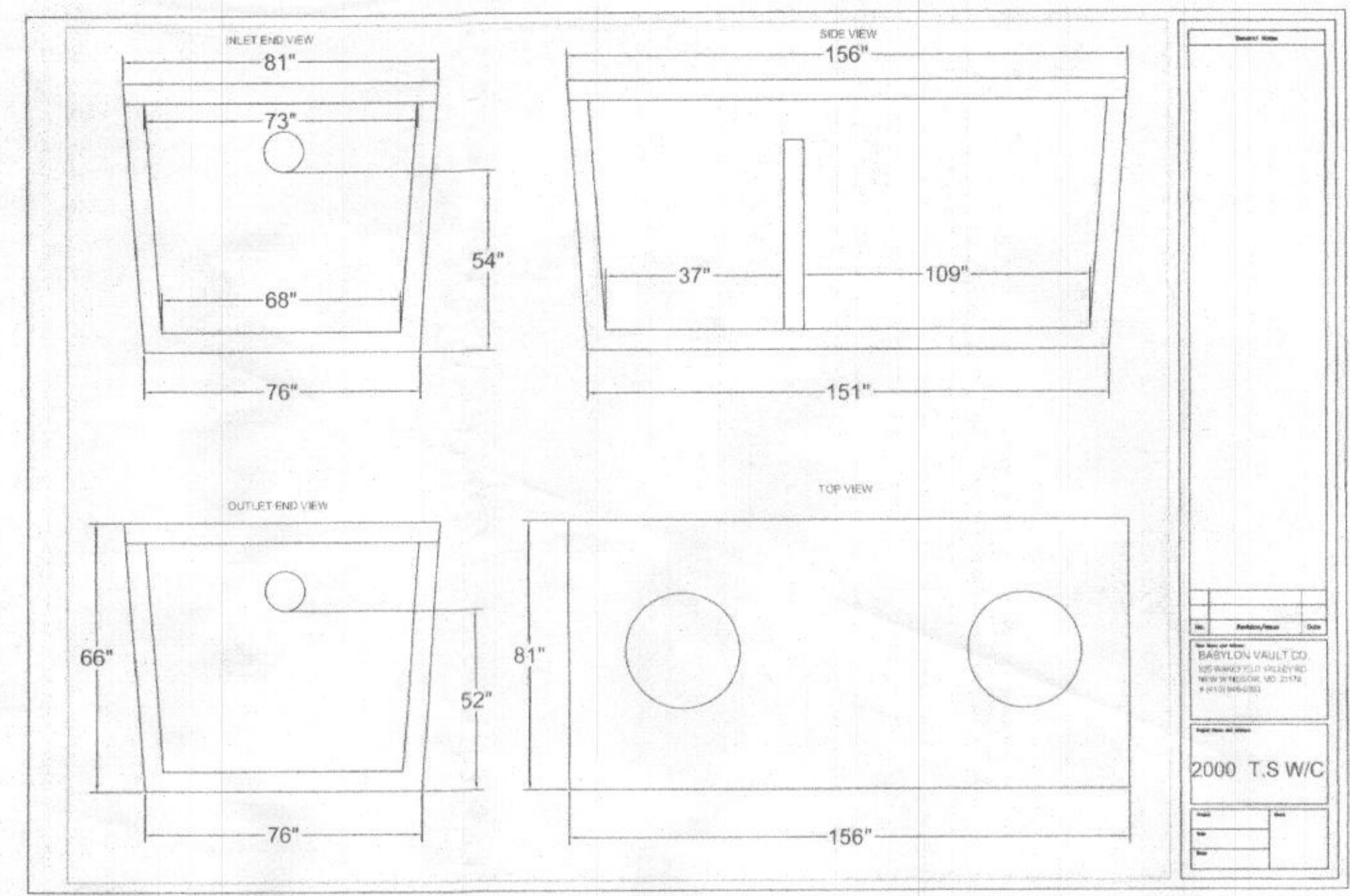
**PERMIT SITE PLAN
LOT 5
15317 GALAXY DRIVE
FAIRLANE FARMS**

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

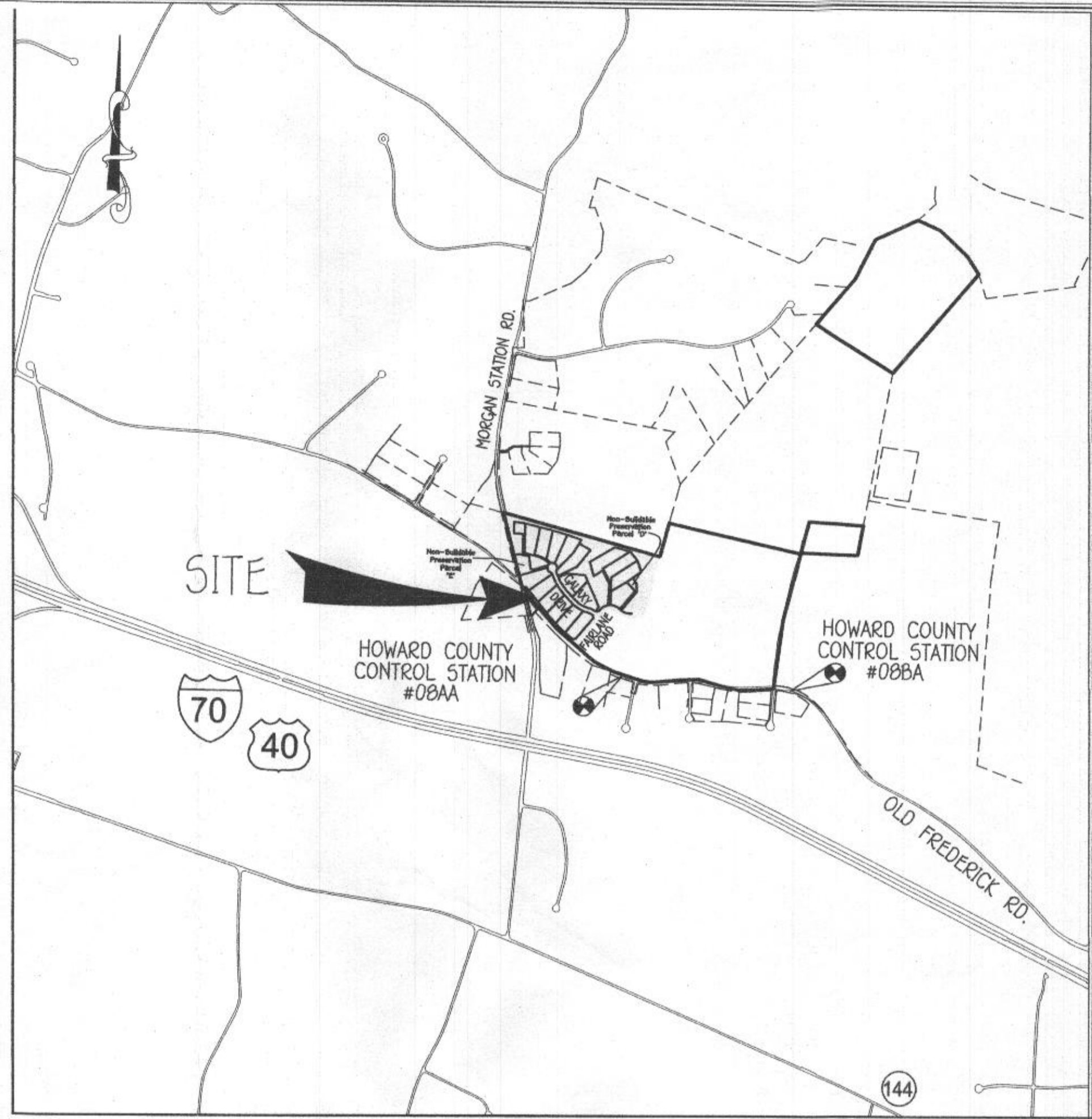
PLAN
SCALE: 1" = 30'

PHASE ONE
ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=30'
DATE: JAN. 4, 2017
SHEET 1 OF 1

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-15-0340 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.



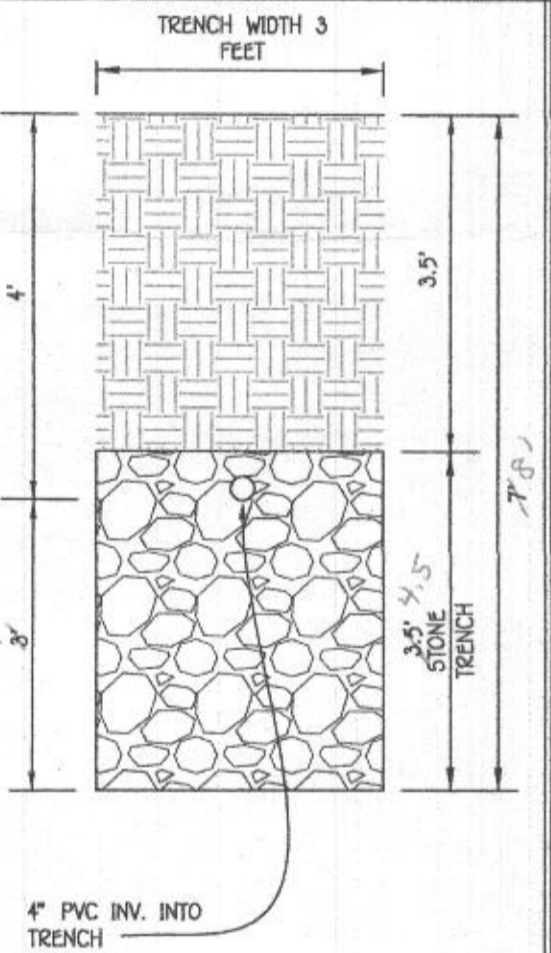
SEPTIC PROFILE
SCALE: 1" = 30'



VICINITY MAP
SCALE: 1" = 1200'

FFE 599.74
BSE 589.90
INV. OUT OF HOUSE = 586.26
PROP. GROUND AT CLEANOUT #1 = 594.0
INV. INTO CLEANOUT = 585.99
INV. OUT OF CLEANOUT = 585.09
EX. GROUND AT SEPTIC TANK = 589.00
PROP. GRADE ABOVE SEPTIC TANK = 589.0
TOP OF SEPTIC TANK = 586.35
INV. INTO SEPTIC TANK = 585.35
INV. OUT OF SEPTIC TANK = 585.10
EX. GROUND AT DISTRIBUTION BOX = 586.6
INV. INTO DISTRIBUTION BOX = 584.7
INV. OUT OF DISTRIBUTION BOX = 584.6

TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 589.0
INV. IN = 585.0
BOTTOM TRENCH = 581.0
TRENCH 2:
EX. GROUND ABOVE = 588.0
INV. IN = 584.0
BOTTOM TRENCH = 580.0



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

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 5 FEET
TRENCH DEPTH = 0 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)) = 0.5
TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET
(USE 2 TRENCHES AT 78.13 L.F.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

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TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

2ND REPLACEMENT SYSTEM

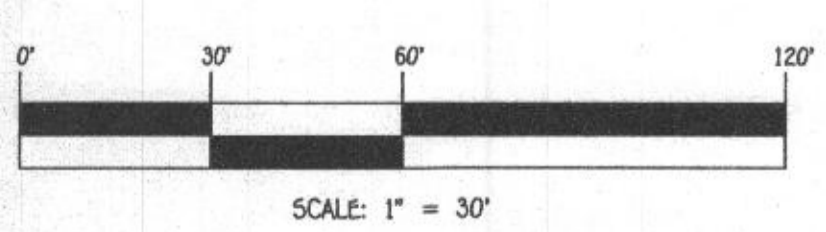
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(USE 2 TRENCHES AT 78.13 L.F.)
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**SEPTIC SYSTEM
INSTALLATION SITE PLAN**

LOT 5
15317 GALAXY DRIVE
FAIRLANE FARMS
PHASE ONE
ZONED: RC-DEO

TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JANUARY 30, 2018
SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
5	15317 GALAXY DRIVE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SOURCE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELECTON CITY, MARYLAND 21042
(410) 481-2895

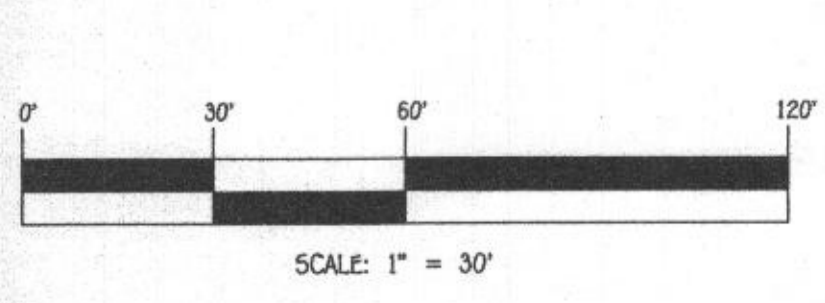
OWNER/DEVELOPER
NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-375-5956



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. 20740, EXPIRATION DATE: 02/22/2019.
Aldo M. Vitore
Signature of Professional Engineer 1/30/18 DATE

C:\0005\05106.dwg\Permit Plans\05106 Septic Plan Lot 5.dwg, Sheet (1), 1/30/2018 10:56:08 AM, 1:1

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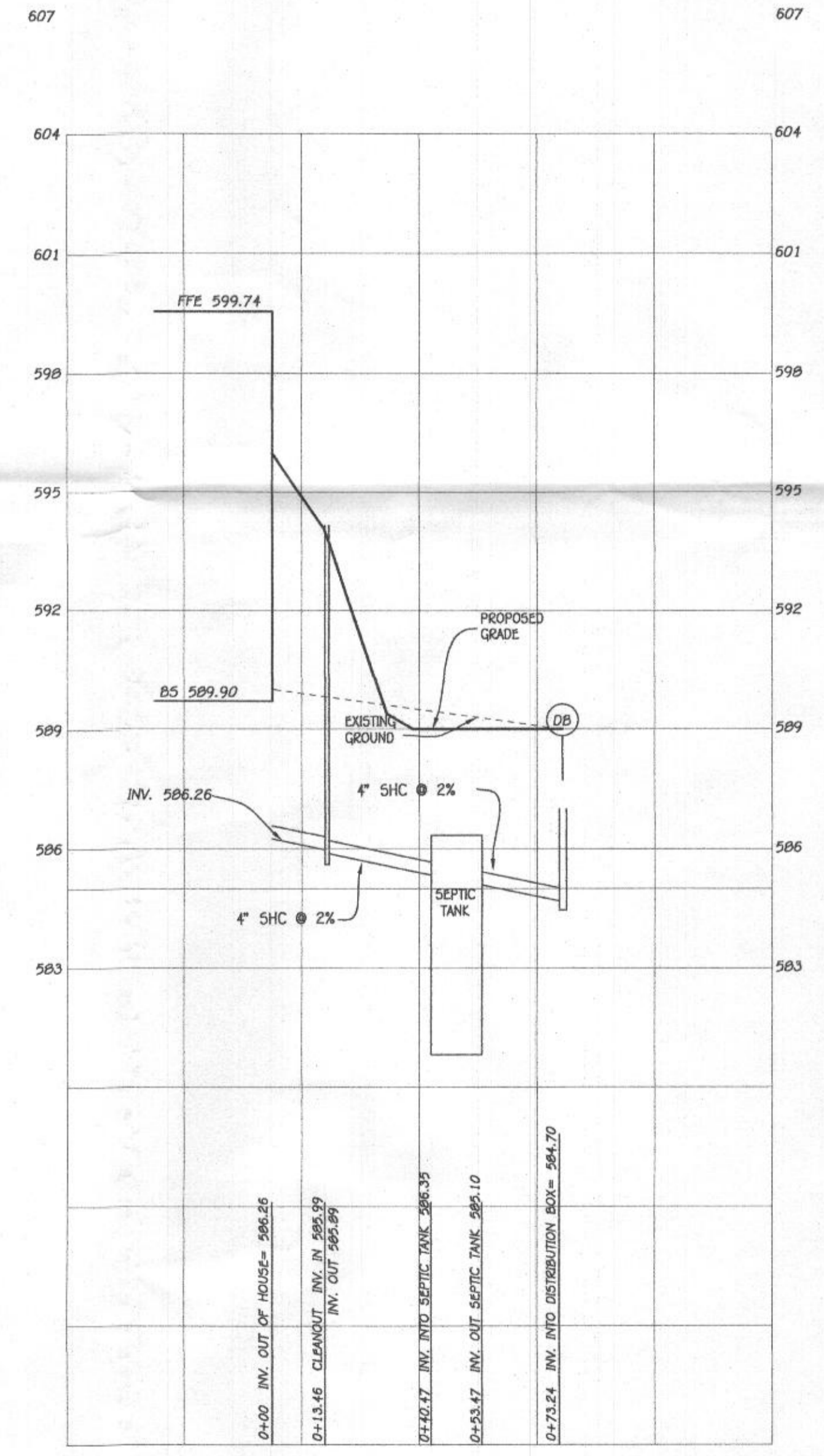
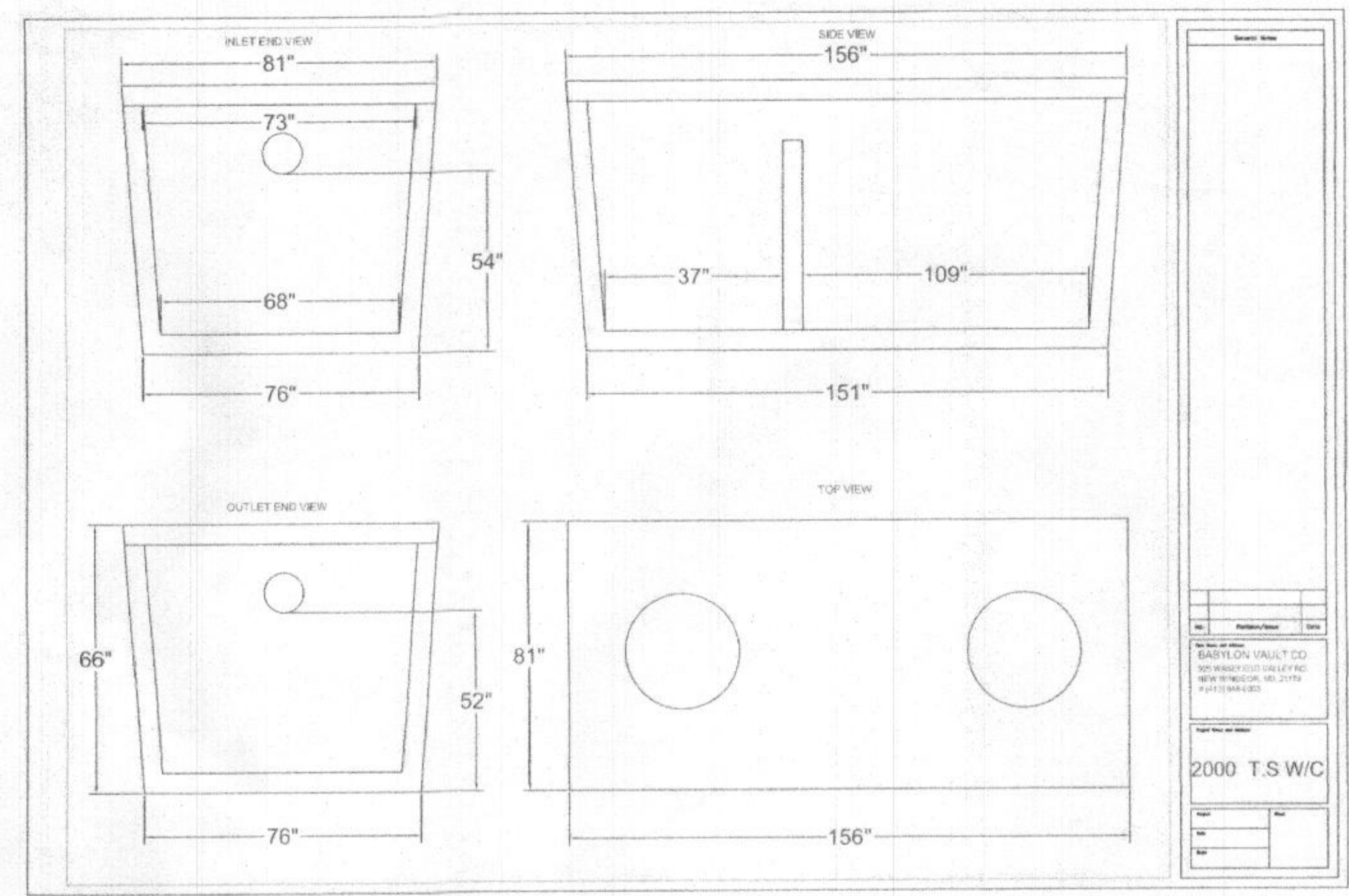
OWNER/DEVELOPER
 NV HOMES
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MD 21046
 410-379-9956



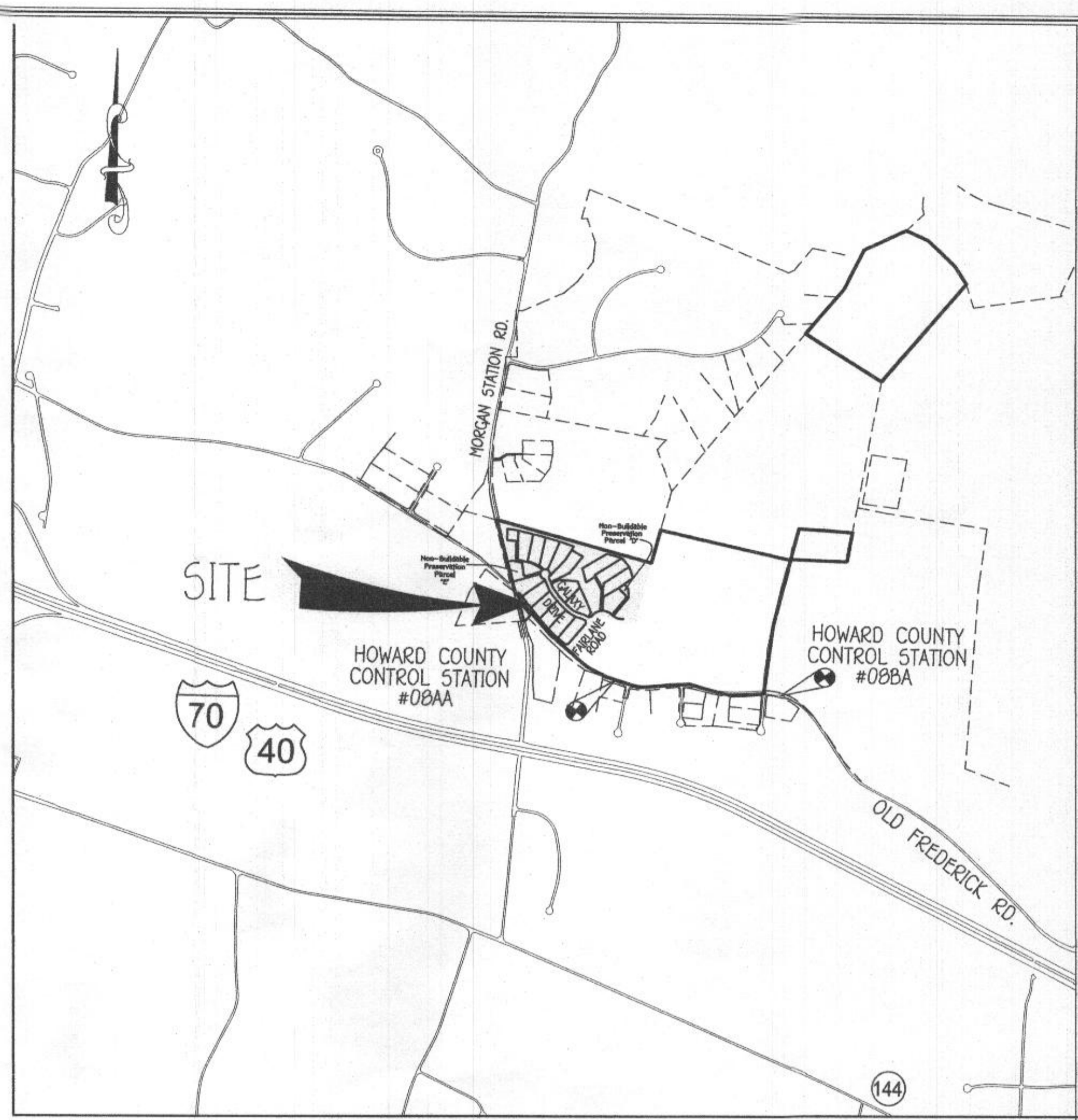
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20740, EXPIRATION DATE: 02/22/2019.

Michael J. Vitale
 Signature of Professional Engineer

1/30/19
 DATE



SEPTIC PROFILE
 SCALE: 1" = 30"



VICINITY MAP
 SCALE: 1" = 1200'

FFE 599.74
 BSE 589.90
 INV. OUT OF HOUSE = 586.26
 PROP. GROUND AT CLEANOUT #1 = 594.0
 INV. INTO CLEANOUT = 585.99
 INV. OUT OF CLEANOUT = 585.09
 EX. GROUND AT SEPTIC TANK = 589.00
 PROP. GRADE ABOVE SEPTIC TANK = 589.0
 INV. INTO SEPTIC TANK = 585.35
 INV. OUT OF SEPTIC TANK = 585.10
 EX. GROUND AT DISTRIBUTION BOX = 588.6
 INV. INTO DISTRIBUTION BOX = 584.7
 INV. OUT OF DISTRIBUTION BOX = 584.6

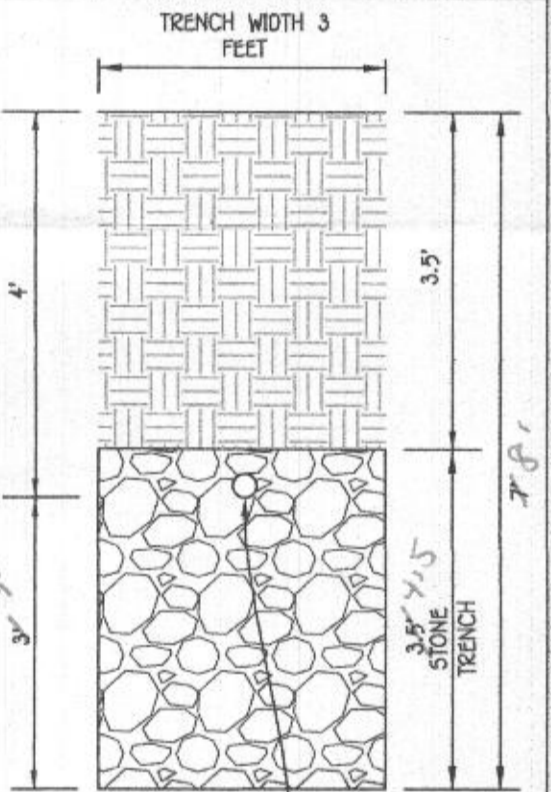
TRENCH DATA:
 TRENCH 1:
 EX. GROUND ABOVE = 589.0
 INV. IN = 585.0
 BOTTOM TRENCH = 583.0
 TRENCH 2:
 EX. GROUND ABOVE = 588.0
 INV. IN = 584.0
 BOTTOM TRENCH = 580.0

Approved Septic System Plan
 Howard County Health Department
 Hank Counts 2/2/19
 Signature Date

INITIAL SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
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 APPLICATION RATE = 0.8
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 APPLICATION RATE = 0.8
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INITIAL TRENCH DETAIL
 SCALE: 1" = 2'

SEPTIC SYSTEM INSTALLATION SITE PLAN
LOT 5
 15317 GALAXY DRIVE
FAIRLANE FARMS
 PHASE ONE
 ZONED: RC-DEO
 TAX MAP NO.: 0 GRID NO.: 2 PARCEL NO.: 0
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JANUARY 30, 2018
 SHEET 1 OF 1

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
5	15317 GALAXY DRIVE

1:2005051096.dwg/Permit Plans/05106-Septic Plan Lot 5.dwg, Sheet (1), 1/30/2018 10:56:08 AM, L1