



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: 2/28/18 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 562910

APPROVAL DATE: 5/2/18 SEC **PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 15324 Galaxy Drive

SUBDIVISION: Fairlane Farms LOT: 10 TAX ID: 04-600003

CONTRACTOR: South Carroll Backhoe EMAIL: sbackhoe@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: 5 APPLICATION RATE 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>173.75</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5 4.5'</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 2 Trenches @ 86.87 LF</u> $\frac{760}{0.8} \div 5 = 312.5$ $\frac{3 \cdot 2}{3 \cdot 1 + 6} = \frac{5}{10}$	

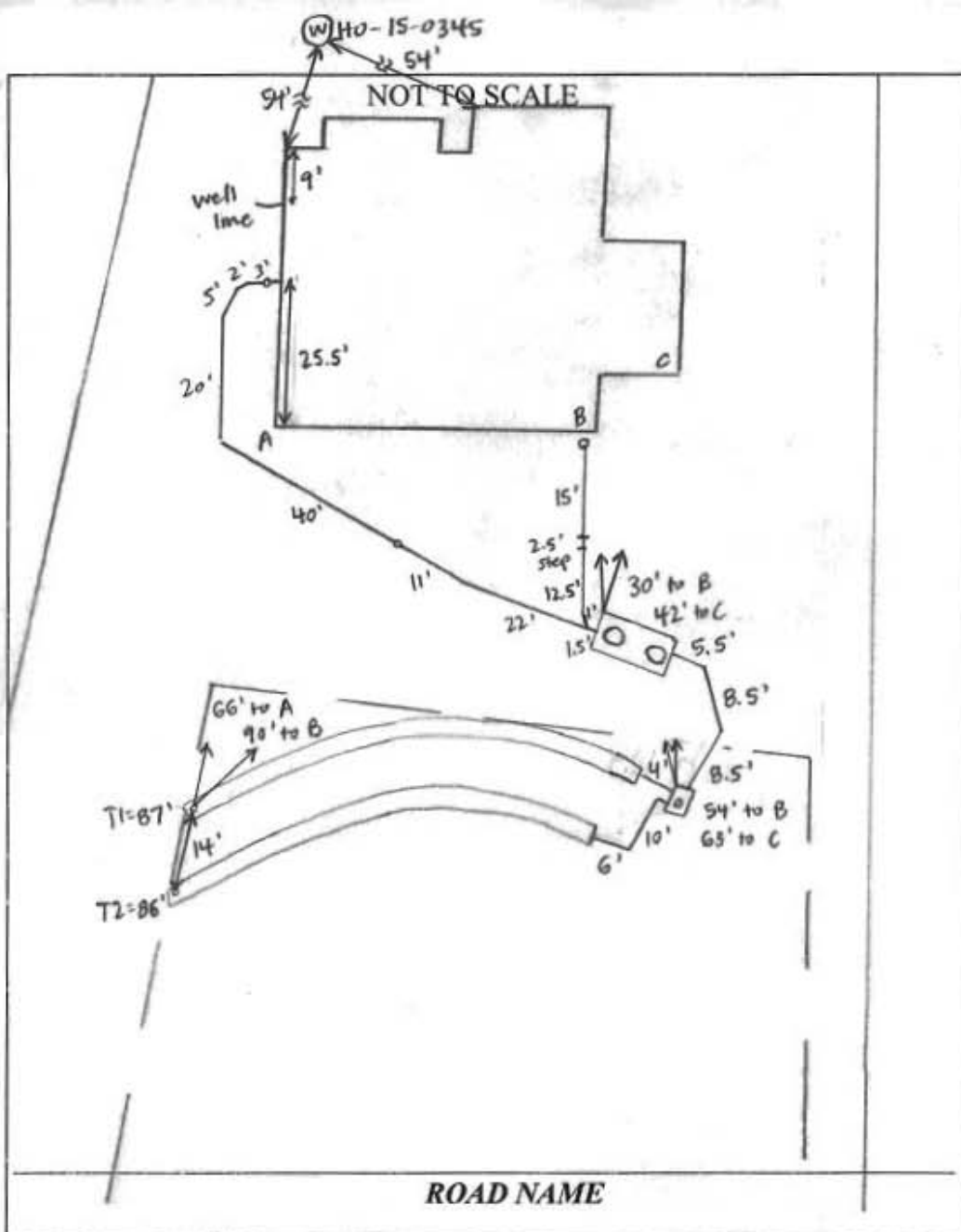
ISSUED BY: Hank Oswald ISSUE DATE: 2/28/18 EXPIRATION DATE: 2/28/19

- 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 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'	4'	7'
NUMBER OF TRENCHES		2
TOTAL LENGTH		173'
ABSORPTION AREA		519' + SIDEWALL
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	1-3'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	1-26-18

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:

3/5/18 Met S. Carroll on site for tank layout. SDA corner stakes present, house connection as shown on plan. OK to set tank at location shown on plan. (SC) 3/6/18 On site for layout of trenches. Shot contour + laid out 2-87' trenches. (SC)

INSTALLATION: 3/6/18 Tank set per location shown on plan. (SC) 3/8/18 T1 finished - left open at ends for inspection, S. Carroll adding stone to T2. 3' wide, 3.5' to stone, 7' bottom. (SC) 3/8/18 D-box set, connected to tank + trenches. Levelled speed levelers in D-box. (SC) 3/9/18 Pipe laid from house to tank. Need sewer house connections x 2. (SC) 3/19/18 Three of four drywells installed are < 25' to tank and/or SDA. Verify drywells are ≥ 25' from SDA + tank prior to septic permit approval. (SC) 4/19/18 House connections called in for inspections - covered, can't inspect. (SC) 5/1/18 Ran water into pipe off side of house to verify house connection. (SC) 5/2/18 Ran water to rear house connection, verified flow @ first clo. SDA modified on perc cert to remove corner closest to FINAL INSPECTOR Sarah Collins. DATE OF APPROVAL 5/2/18

drywells to meet 25' setback. Trenches installed per septic plan. (SC)

Oswald, Hank

From: Oswald, Hank
Sent: Wednesday, December 13, 2017 2:13 PM
To: Tony Fertitta
Subject: OSDS Plan_15324 Galaxy Drive_Comments
Attachments: OSDS_15324 Galaxy Drive_12.13.17.pdf

Hi Tony:

Attached, please find comments pertaining to the review of the OSDS plan for 15324 Galaxy Drive. Should you have any questions, please don't hesitate to ask.

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.

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: Sharhonda Fax: Phone: 410-313-2640
---	--

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

Re: Fairlane Farms, Lot 13	W.O.# 05106-3003
Date: Dec. 7, 2017	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 10, 15324 Galaxy Dr.

Provided here are 3 copies of a Septic Installation Site Plan for Lot 10, for your review. If approved as is, please leave 1 signed copy up front for us.

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.

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**

From: **Tony Fertitta**

CC:

Re: **Fairlane Farms, Lot 10**

W.O.# **05106-3003**

Date: **Dec. 14, 2017**

Pages: **0** Page(s) Including this cover

We are forwarding: Prints Copy of Letter Specifications Shop drawings Other
 Urgent For your use As requested For Review & Comment

Remarks:

Re: **Fairlane Farm, Lot 10, 15324 Galaxy Dr.**

I've made the revisions you requested. and provided here are 3 copies of a Septic Installation Site Plan for Lot 10, for your review/approval. Please leave 1 signed copy up front for us.

Thank You,

Tony

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







CONFIDENTIALITY NOTICE

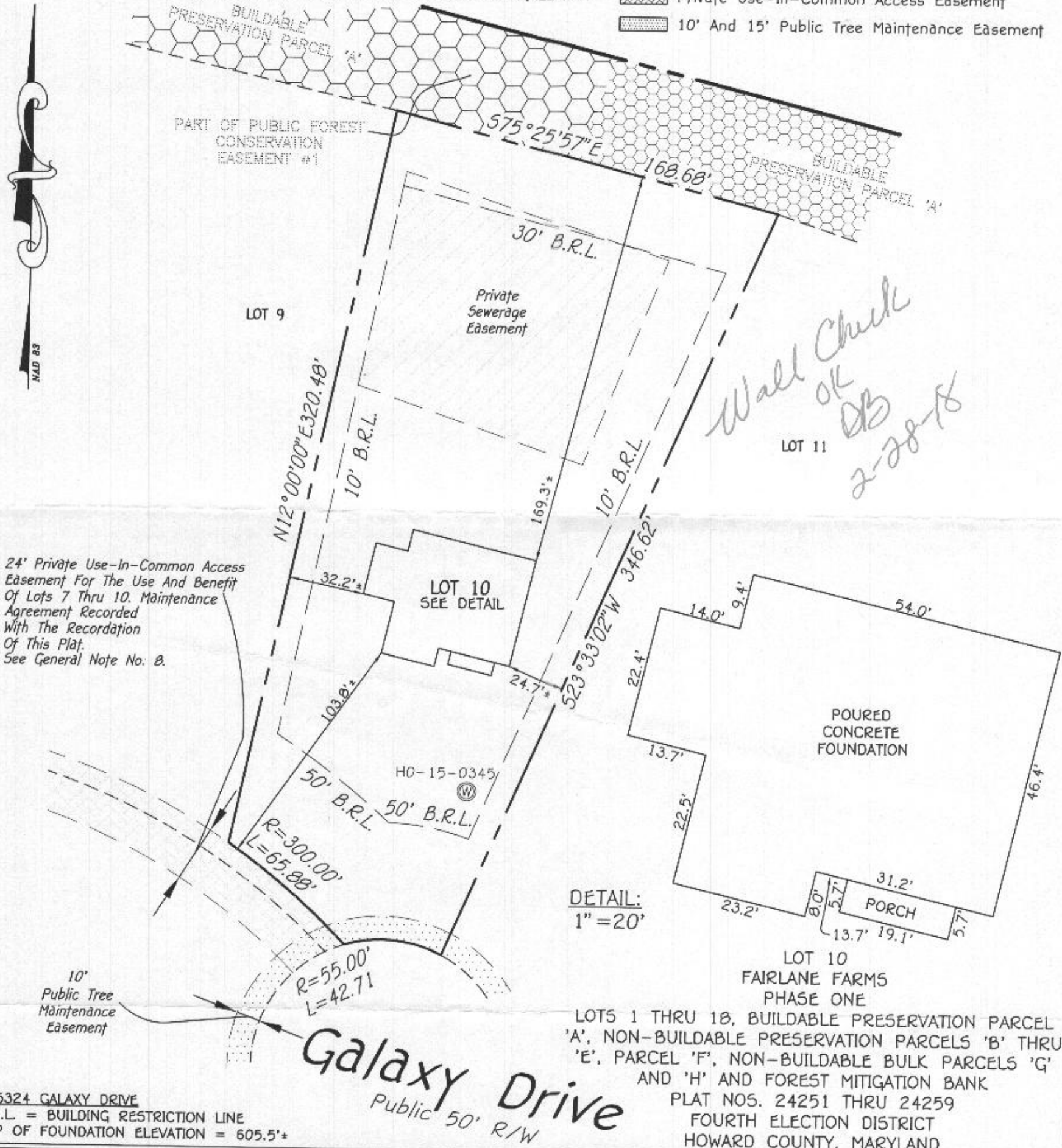
This transmission contains confidential information which may be legally privileged, and is intended only for the use of the individual named above. If you are not the intended recipient, you are hereby notified that any distribution (except to the intended recipient), copying, or disclosure of this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

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. 24027C00350 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-15-0345) 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-17004303
- 8) LOT 7 AND LOT 10 MAY BE PROVIDED DIRECT DRIVEWAY ACCESS TO THE PUBLIC ROAD AND MAY NOT UTILIZE THE PRIVATE SHARED DRIVEWAY EASEMENT FOR THE ACCESS AND MAY NOT PARTICIPATE IN THE DRIVEWAY MAINTENANCE AGREEMENT.

Legend

-  Public Forest Conservation Easement (Retention)
-  Public Forest Conservation Easement (Reforestation)
-  Private Use-In-Common Access Easement
-  10' And 15' Public Tree Maintenance Easement



#15324 GALAXY DRIVE
 B.R.L. = BUILDING RESTRICTION LINE
 TOP OF FOUNDATION ELEVATION = 605.5'+

DETAIL:
 1" = 20'

LOT 10
 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

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
 PROPERTY LINE SURVEYOR
 REG. #339
 2/02/18
 DATE

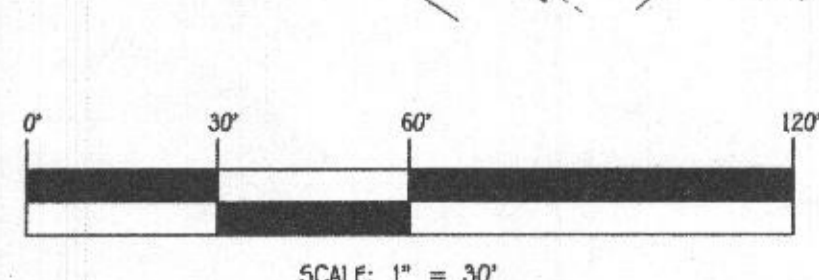
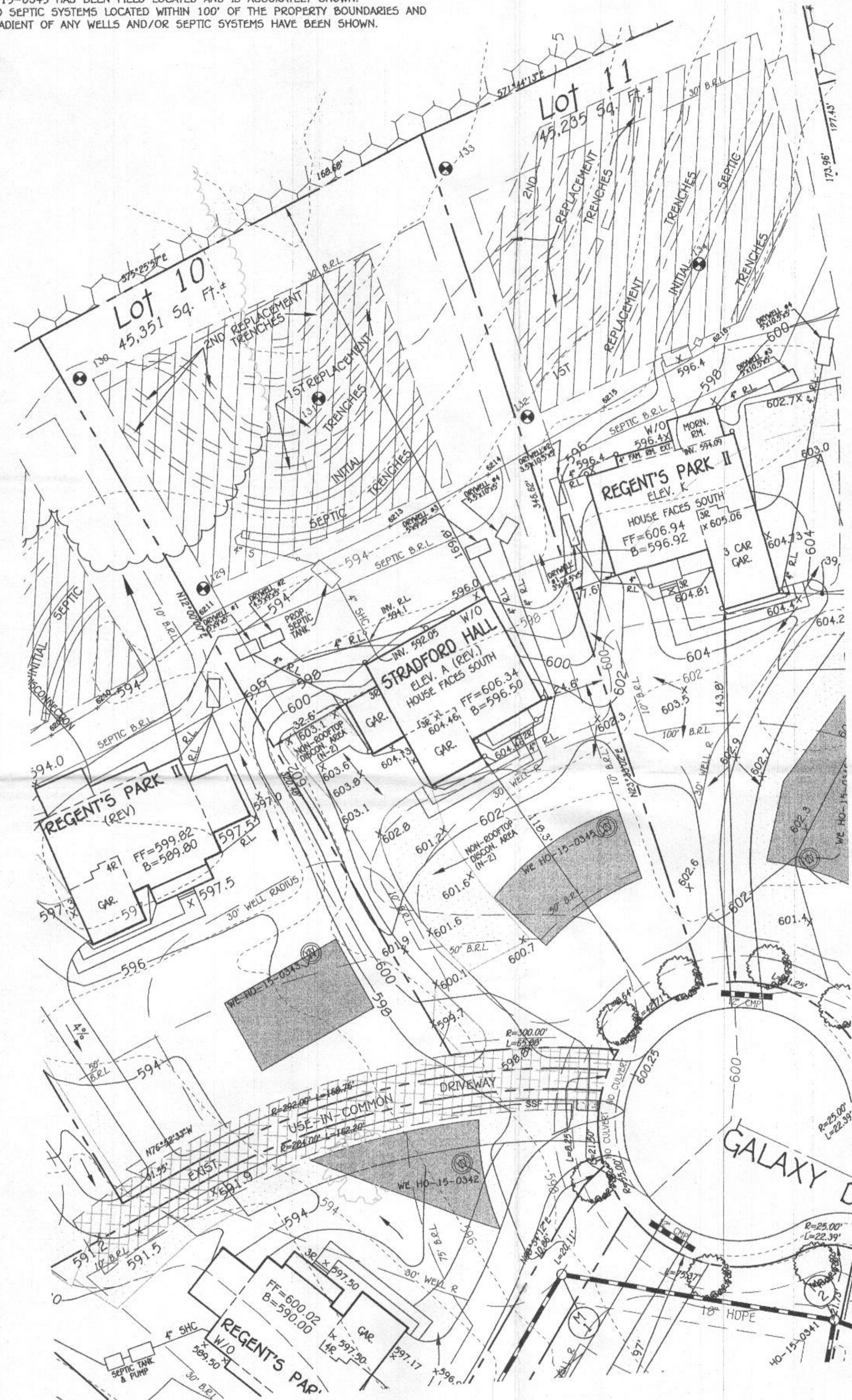
HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 2/1/18
 FINAL LOCATION: _____
 BOUNDARY SURVEY: _____

SCALE: 1" = 50'
 DATE: 2/2/18
 DRAWN BY: MSD
 CHECKED BY: MLR
 PROJECT No.: 05106-3003

Drawing Name:

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-15-0345 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.



PLAN
SCALE: 1" = 30'

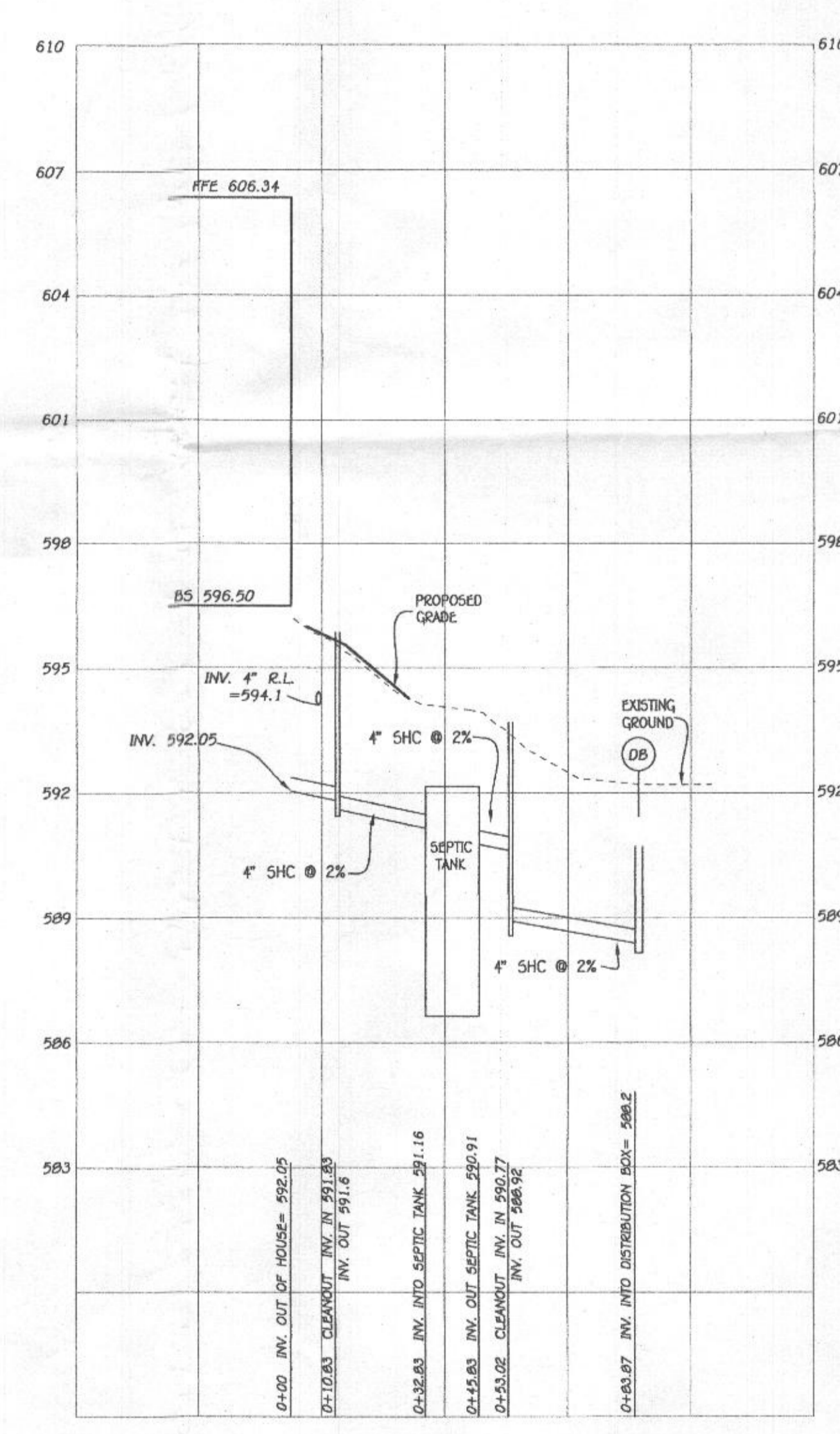
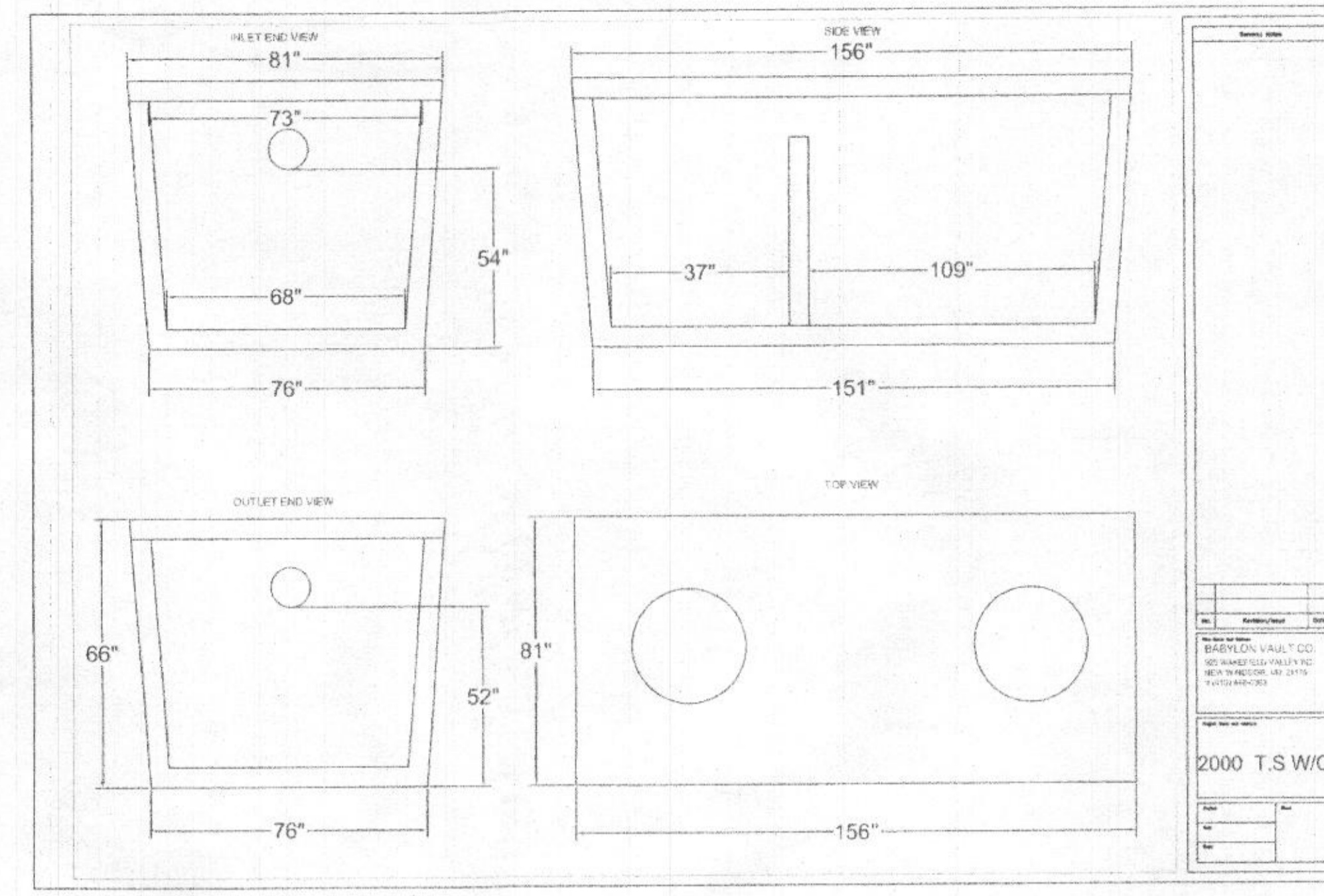
OWNER/DEVELOPER
NV HOMES
1972 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-5956



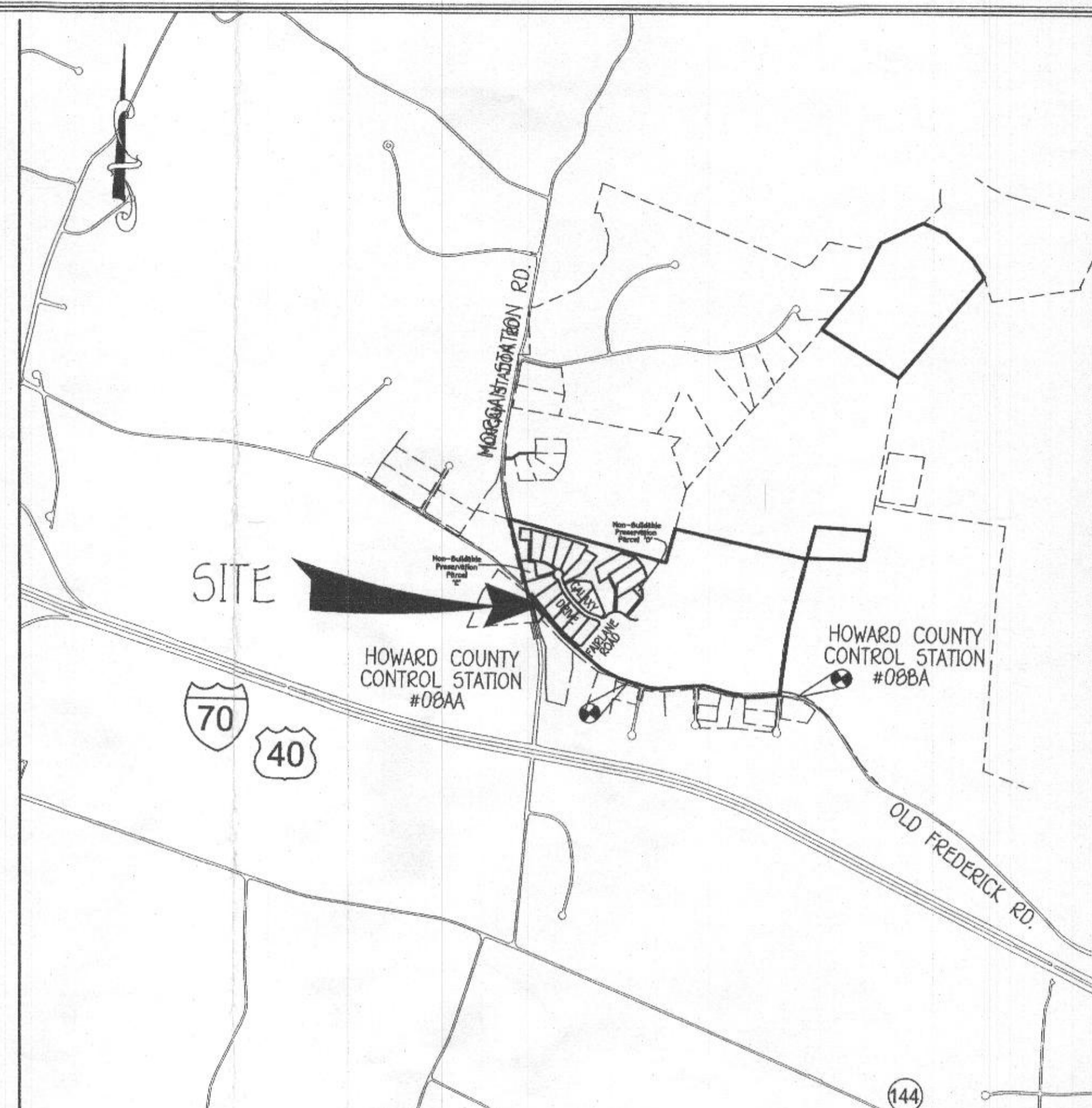
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2019.

Michael J. V. [unclear]
Signature of Professional Engineer

12/27/17
DATE



SEPTIC PROFILE
SCALE: 1" = 30'



VICINITY MAP
SCALE: 1" = 1200'

FFE 606.34
BSE 596.50
INV. OUT OF HOUSE = 592.05
PROP. GROUND AT CLEANOUT #1 = 596.10
INV. INTO CLEANOUT = 591.83
INV. OUT OF CLEANOUT = 591.6
EX. GROUND AT SEPTIC TANK = 594.00
PROP. GRADE ABOVE SEPTIC TANK = 594.00
TOP OF SEPTIC TANK = 592.16
INV. INTO SEPTIC TANK = 591.16
INV. OUT OF SEPTIC TANK = 590.91
PROP. GROUND AT CLEANOUT #2 = 593.6
PROP. INTO CLEANOUT = 590.77
INV. OUT OF CLEANOUT = 590.92
EX. GROUND AT DISTRIBUTION BOX = 592.3
INV. INTO DISTRIBUTION BOX = 588.4
INV. OUT OF DISTRIBUTION BOX = 588.3

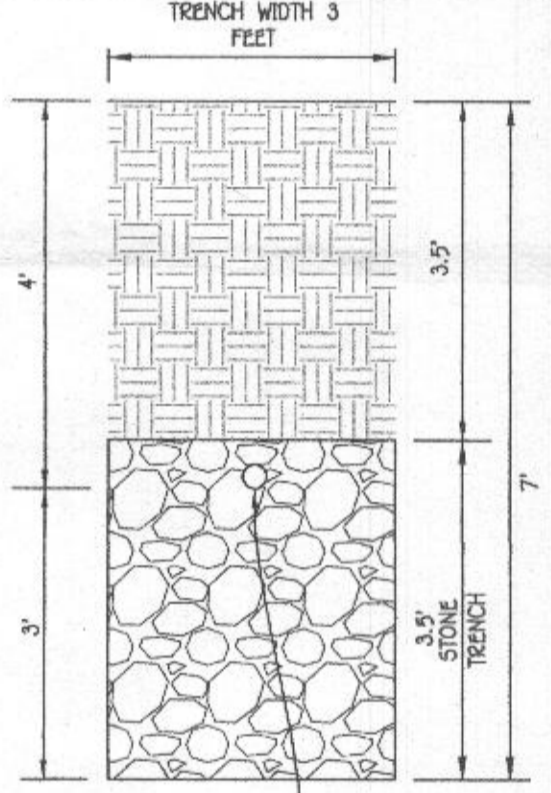
TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 592.3
INV. IN = 587.9
BOTTOM TRENCH = 585.3
TRENCH 2:
EX. GROUND ABOVE = 591.8
INV. IN = 587.3
BOTTOM TRENCH = 584.8

Approved Septic System Plan
Howard County Health Department
Mark Oswald 12/27/17
Signature Date

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 4.5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 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+(2x2.5)) = 0.556
TRENCH LENGTH = 312.5 SF x 0.556 = 173.75 FEET
(USE 2 TRENCHES AT 86.87 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 = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 416.67 SF x 0.50 = 208.33 FEET
(USE 3 TRENCHES AT 69.44 LF.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' 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 = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 416.67 SF x 0.50 = 208.33 FEET
(USE 4 TRENCHES AT 52.08 LF.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

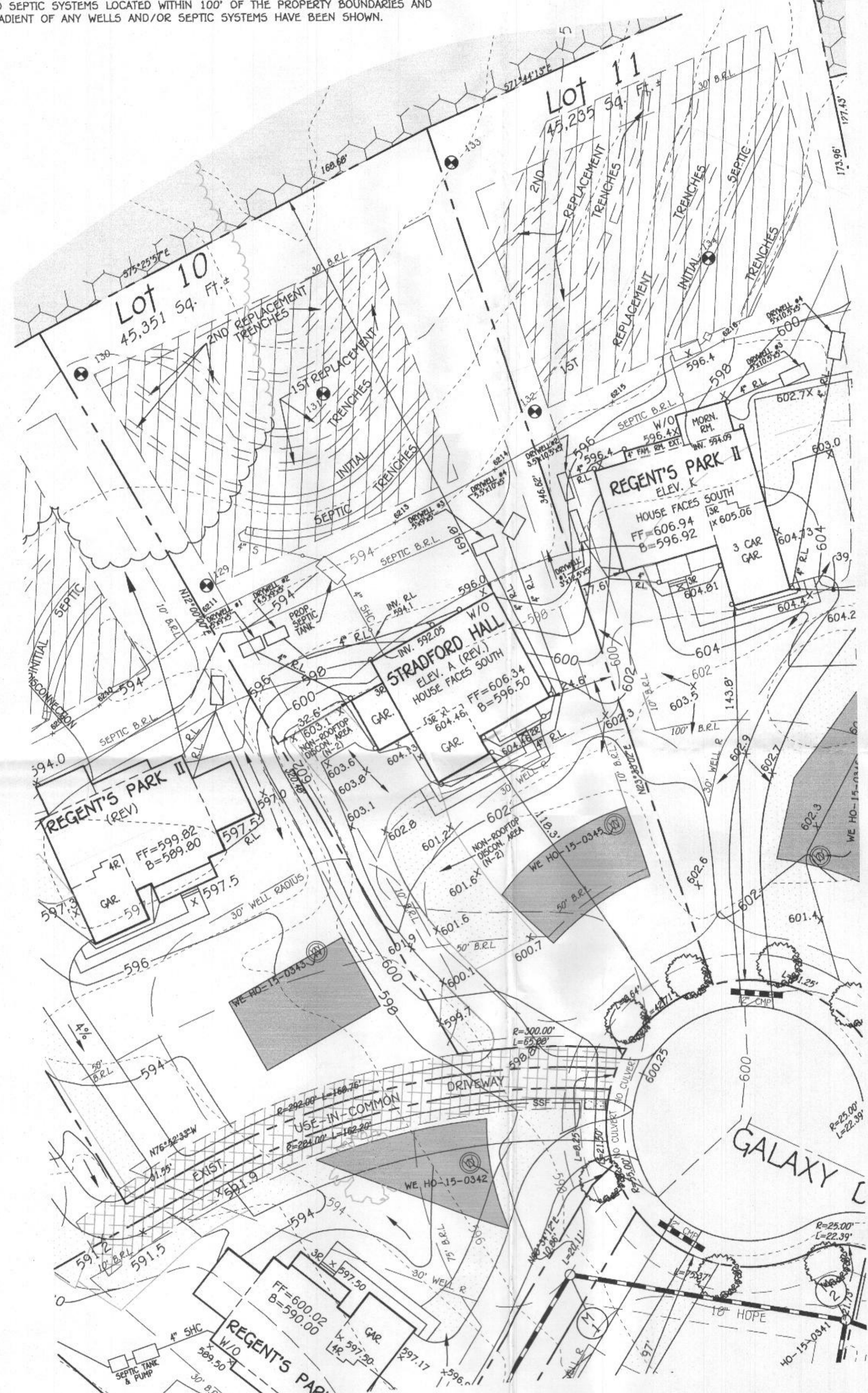


ADDRESS CHART

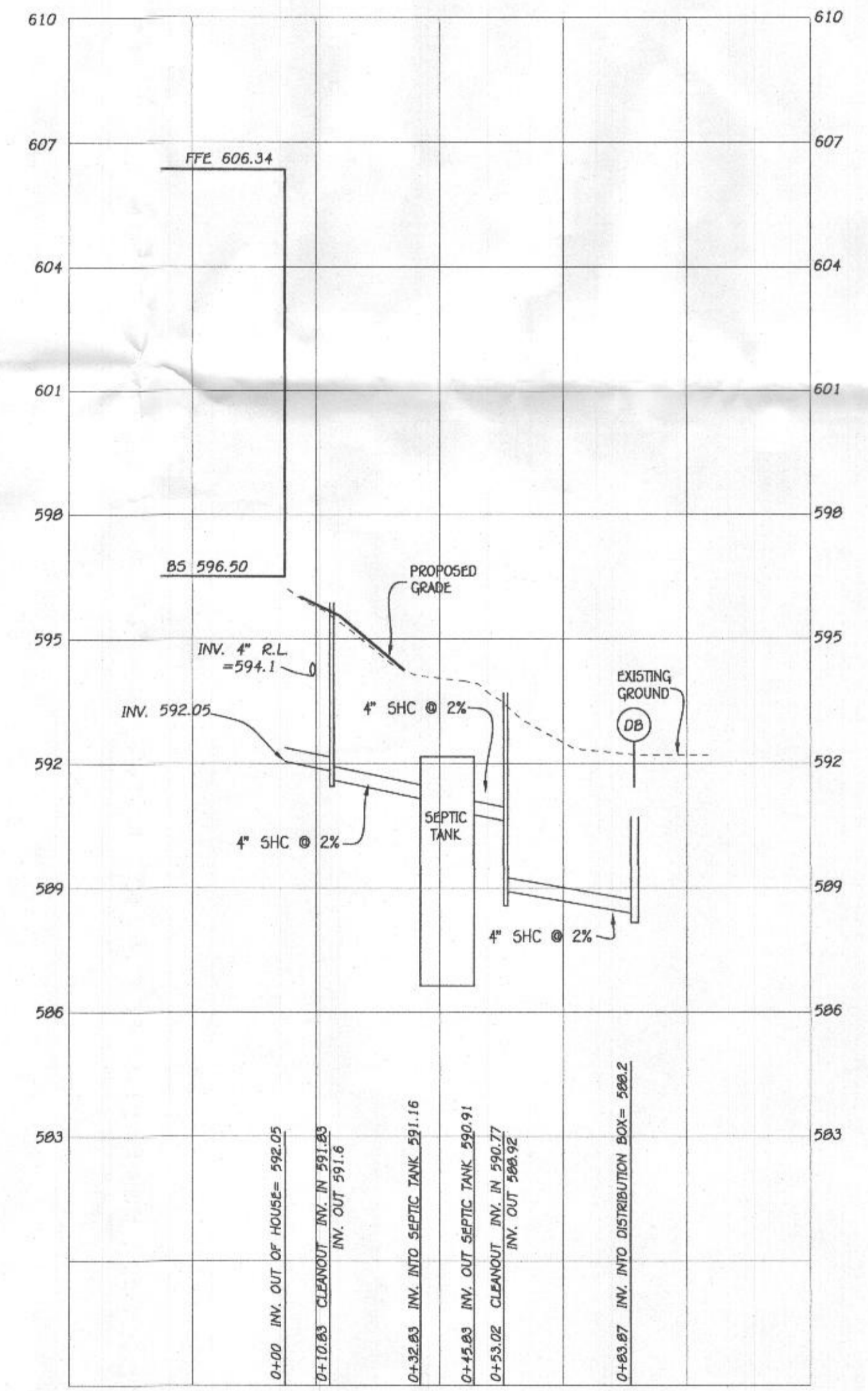
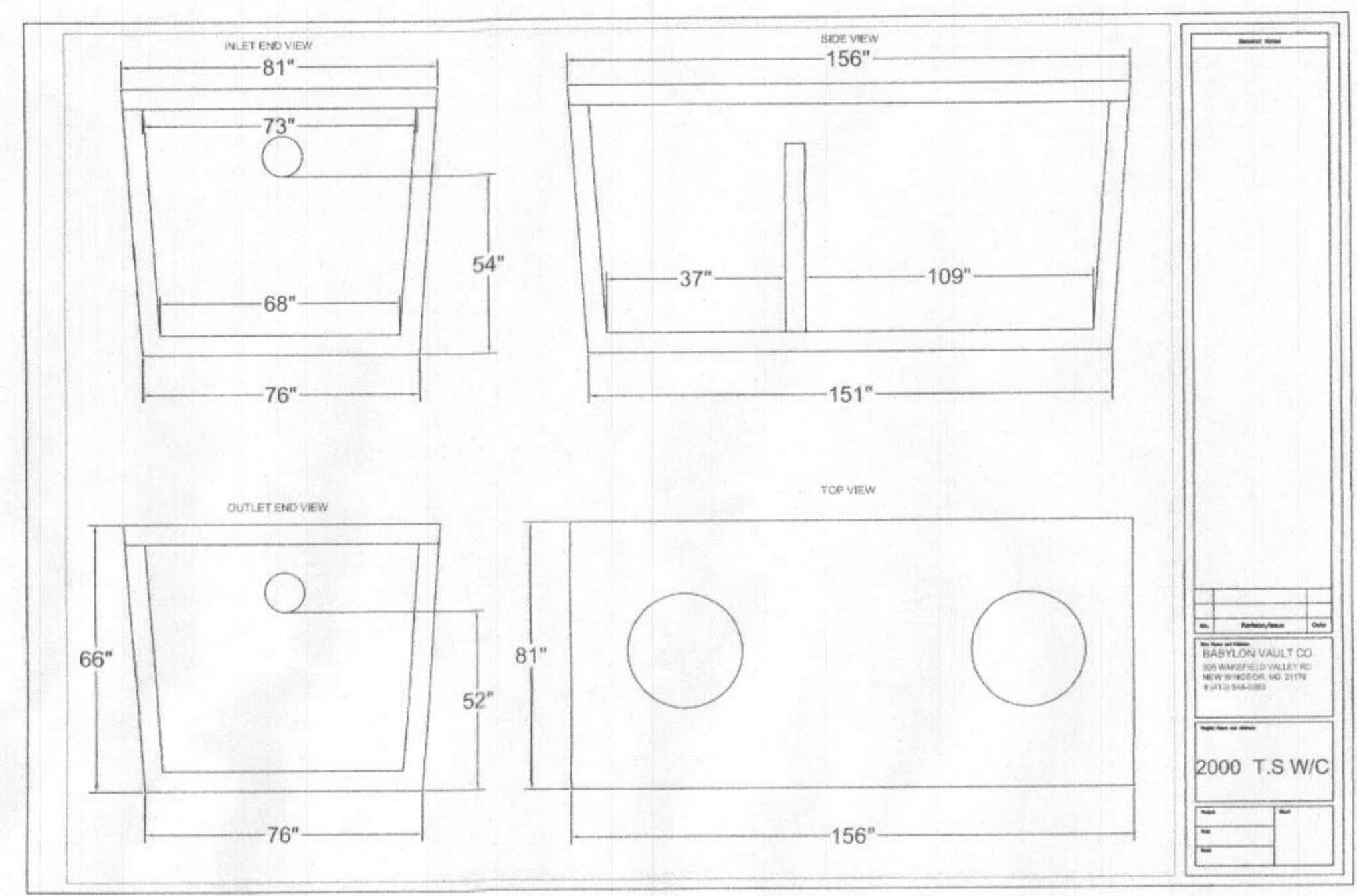
LOT NUMBER	STREET ADDRESS
10	15324 GALAXY DRIVE

SEPTIC SYSTEM INSTALLATION SITE PLAN
LOT 10
15324 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: DEC. 27, 2017
SHEET 1 OF 1

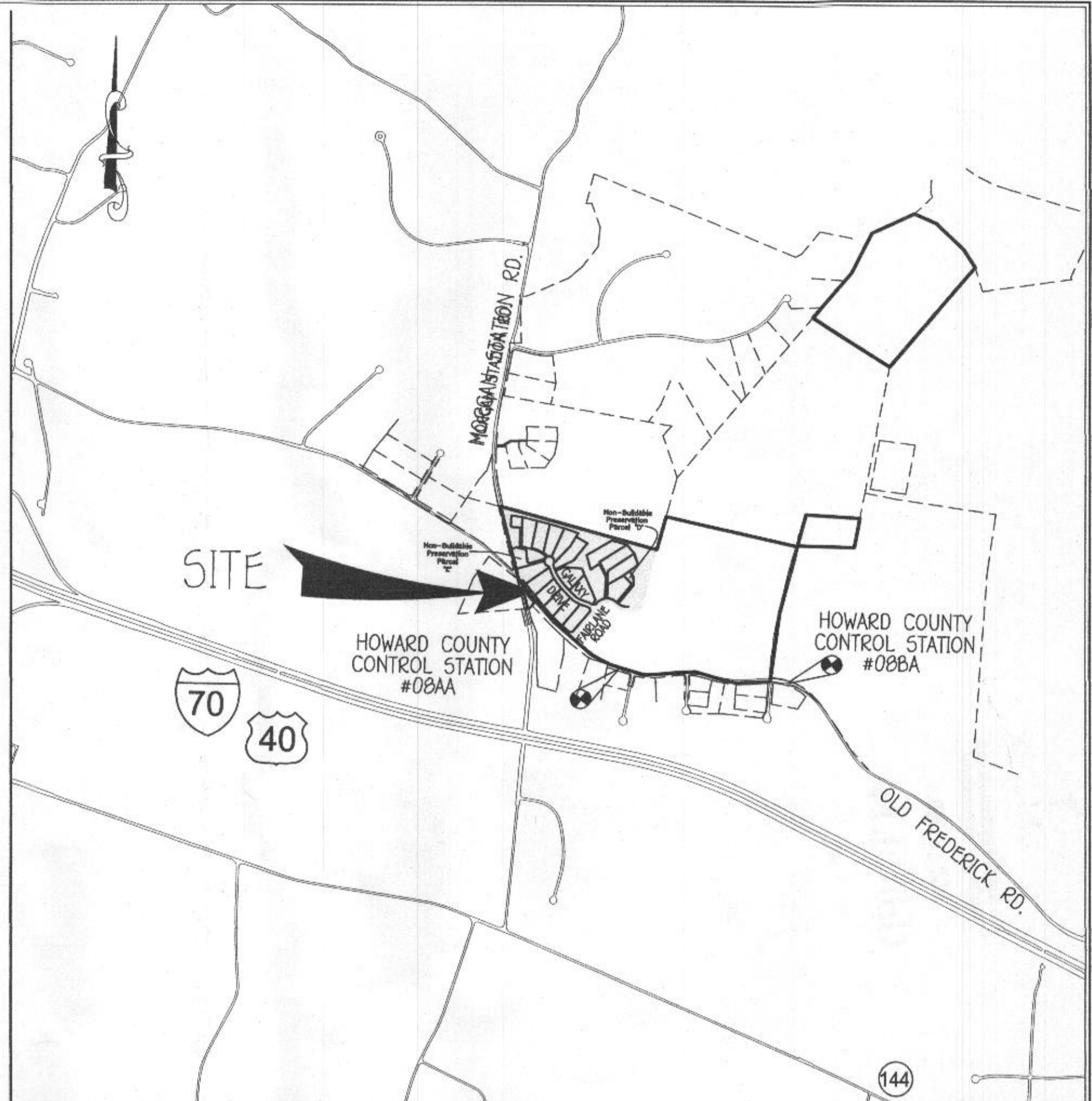
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0345 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.



PLAN
SCALE: 1" = 30'



SEPTIC PROFILE
SCALE: 1" = 30'

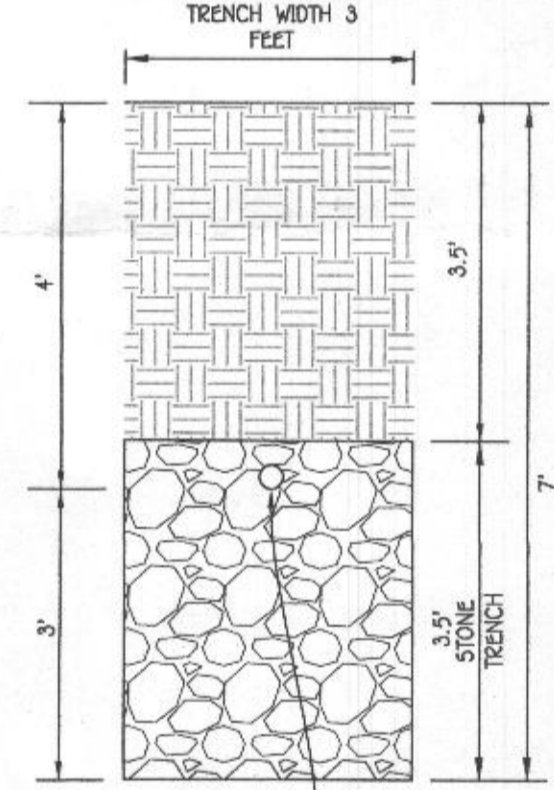


VICINITY MAP
SCALE: 1" = 1200'

FFE 606.34
BSE 596.50
INV. OUT OF HOUSE = 592.05
PROP. GROUND AT CLEANOUT #1 = 596.10
INV. INTO CLEANOUT = 591.83
INV. OUT OF CLEANOUT = 591.6
EX. GROUND AT SEPTIC TANK = 594.00
PROP. GRADE ABOVE SEPTIC TANK = 594.00
TOP OF SEPTIC TANK = 592.16
INV. INTO SEPTIC TANK = 591.16
INV. OUT OF SEPTIC TANK = 590.91
PROP. GROUND AT CLEANOUT #2 = 593.6
PROP. INTO CLEANOUT = 590.77
INV. OUT OF CLEANOUT = 588.92
EX. GROUND AT DISTRIBUTION BOX = 592.3
INV. INTO DISTRIBUTION BOX = 588.4
INV. OUT OF DISTRIBUTION BOX = 588.3

TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 592.3
INV. IN = 587.8
BOTTOM TRENCH = 585.3
TRENCH 2:
EX. GROUND ABOVE = 591.8
INV. IN = 587.3
BOTTOM TRENCH = 584.8

Approved Septic System Plan
Howard County Health Department
Mark Oswald 12/29/17
Signature Date



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 4.5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 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+(2x2.5)) = 0.556
TRENCH LENGTH = 312.5 SF X 0.556 = 173.75 FEET
(USE 2 TRENCHES AT 86.87 L.F.)
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 = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 416.67 SF X 0.50 = 208.33 FEET
(USE 3 TRENCHES AT 69.44 L.F.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' 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 = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 416.67 SF X 0.50 = 208.33 FEET
(USE 4 TRENCHES AT 52.08 L.F.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

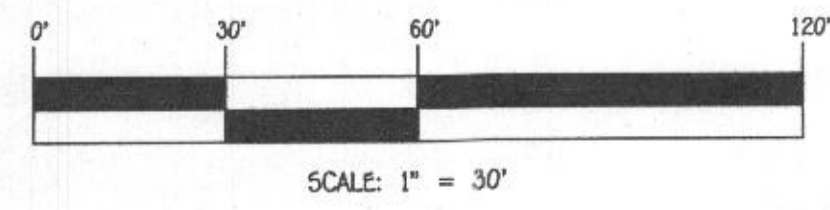
**SEPTIC SYSTEM
INSTALLATION SITE PLAN**

LOT 10
15324 GALAXY DRIVE
FAIRLANE FARMS

PHASE ONE
ZONED: RC-DEO
TAX MAP NO.: B GRID NO.: 2 PARCEL NO.: B
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: DEC. 27, 2017
SHEET 1 OF 1

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
10	15324 GALAXY DRIVE



FISHER, COLLINS & CARTER, INC.
CIVIL, ENGINEERING, CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2295

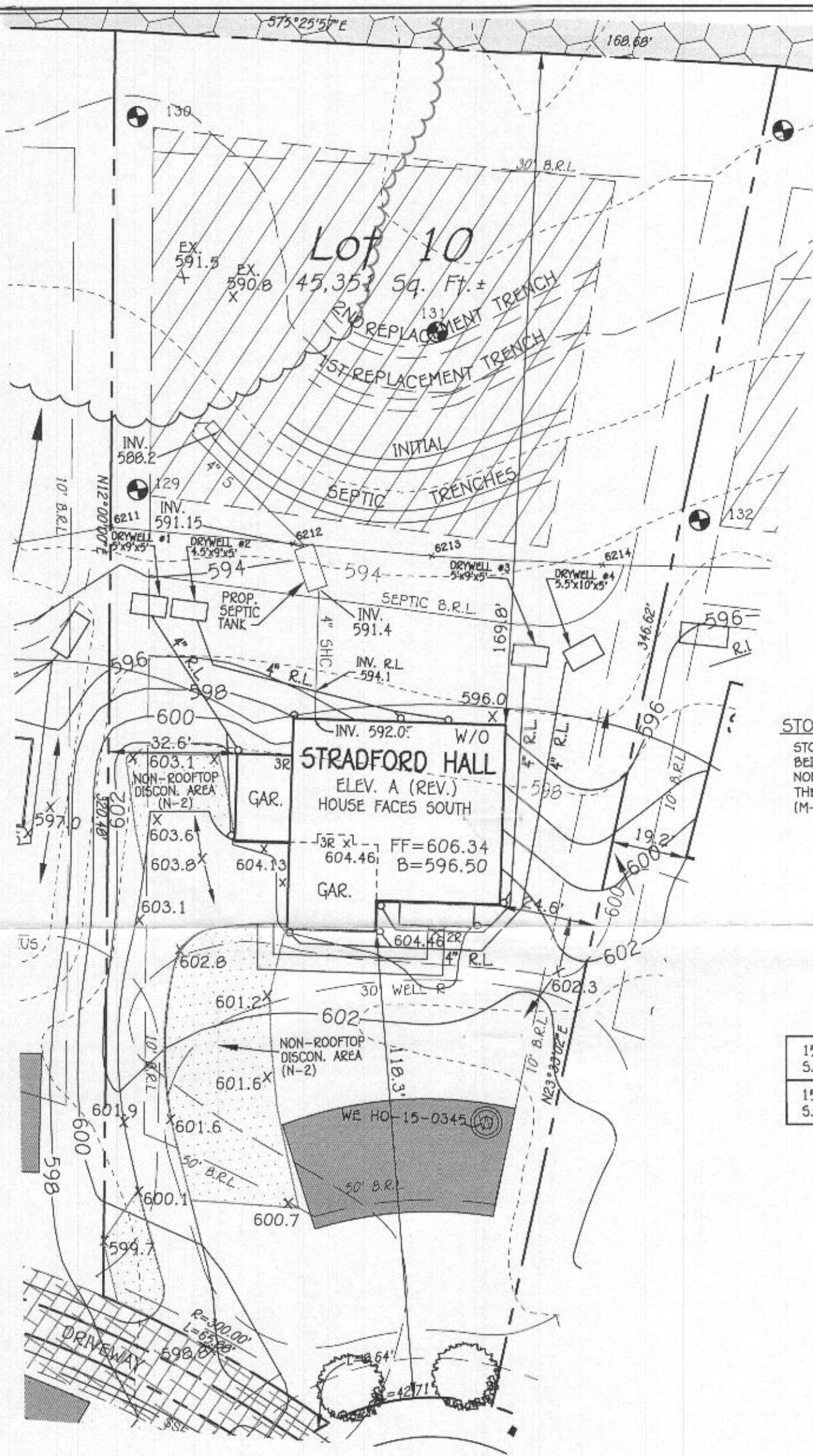
OWNER/DEVELOPER
INV HOMES
9720 PATRIOT WOODS DRIVE
COLUMBIA, MD 21046
410-379-9956



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 of Professional Engineer: *Michael J. Fisher*
DATE: 12/27/17



STORMWATER MANAGEMENT NOTE:
 STORMWATER MANAGEMENT FOR LOT 10 IS BEING PROVIDED BY A COMBINATION OF NON-ROOFTOP DISCONNECTION (N-2) FOR THE DRIVEWAY AREA AND 4 DRYWELLS (M-5) FOR PROPOSED HOUSE ROOFTOP.

156 S.F.	495 S.F.	673 S.F.
156 S.F.		750 S.F.
	730 S.F.	107 S.F.

GALAXY DRIVE
PLAN
 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-15-0345, HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

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

PERMIT SITE PLAN
LOT 10
 15324 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: DEC. 5, 2017
 SHEET 1 OF 1