

**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](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 6-3-19 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 565512-B

APPROVAL DATE: 07/26/2019 **PERMIT: CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 15204 Torino Way

SUBDIVISION: Fairlane Farms

LOT: 30

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: 5

APPLICATION RATE 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>156.25</u>	INLET DEPTH: <u>1.5</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install 2 78.13' trenches	

ISSUED BY: Hank Oswald

ISSUE DATE: 6/3/19

EXPIRATION DATE: 6/3/20

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

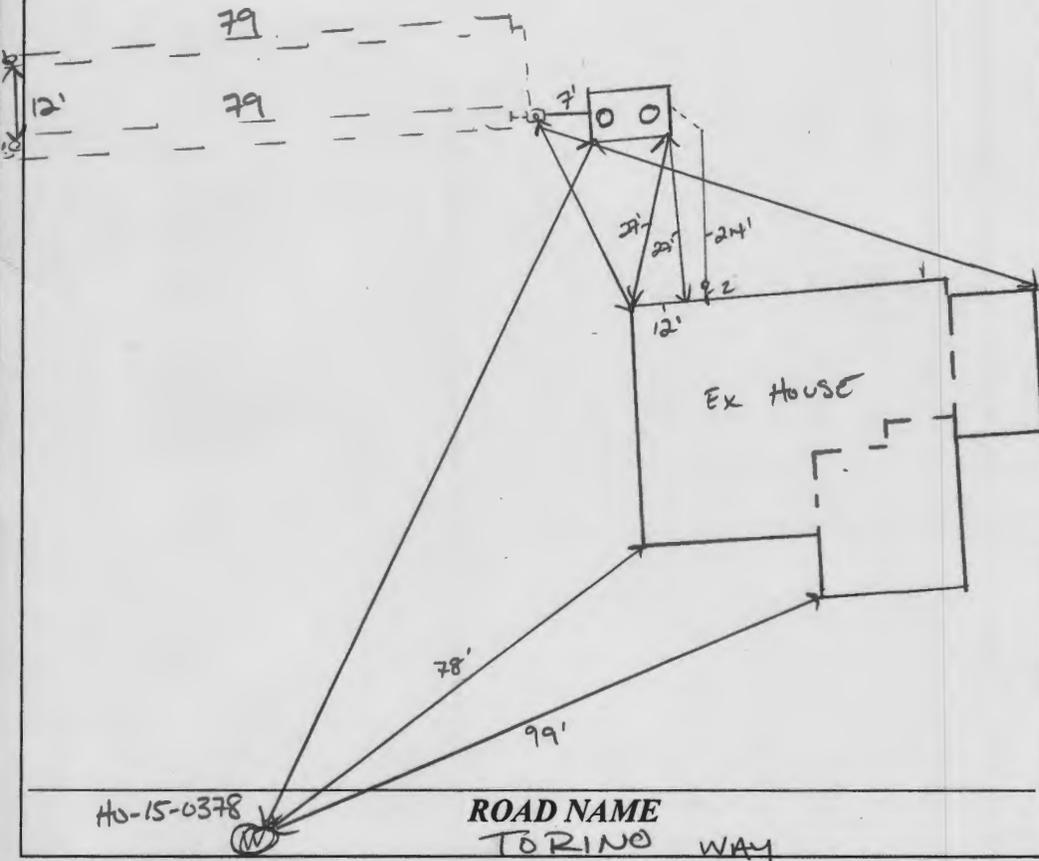
**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.**

**PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.**

**CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE

AS BUILT RECOVERED FROM  
IN FIELD MEASUREMENTS  
AUG 2019. (P)



**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
<u>3'</u>	<u>1.5'</u>	<u>6'</u>
NUMBER OF TRENCHES	<u>2</u>	
TOTAL LENGTH	<u>158 F</u>	
ABSORPTION AREA	<u>474 SF</u>	
DISTRIBUTION BOX LEVEL	<u>SPEED</u>	
DISTRIBUTION BOX BAFFLE	<u>YES</u>	
DISTRIBUTION BOX PORT	<u>YES</u>	

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL	<u>YES</u>
MANUFACTURER	<u>BABYLON</u>
CAPACITY	<u>2000</u> GAL
SEAM LOC	<u>TOP</u>
TANK LID DEPTH	<u>&lt; 3'</u>
BAFFLES	<u>YES</u>
BAFFLE FILTER	<u>NO</u>
MANHOLE LOC	<u>FRONT/BACK</u>
6" PORT LOC	<u>-</u>
WATERTIGHT TEST	<u>-</u>
SLOTTED	<u>YES</u>
DATE ON LID	<u>OK. ORIGINAL NOTE LOST (P)</u>
PUMP/SEPTIC TANK LEVEL	<u>-</u>
MANUFACTURER	<u>-</u>
CAPACITY	<u>-</u> GAL
SEAM LOC	<u>-</u>
TANK LID DEPTH	<u>-</u>
BAFFLES	<u>-</u>
BAFFLE FILTER	<u>-</u>
MANHOLE LOC	<u>-</u>
6" PORT LOC	<u>-</u>
WATERTIGHT TEST	<u>-</u>
SLOTTED	<u>-</u>
DATE ON LID	<u>-</u>

**PRE-CONSTRUCTION:**

6/27/2019 TANK AND SDA STAKED. SEWER OUT OF HOUSE SHIFED TOWARDS WELL. FALL OK BACK TO TANK LOCATION 2x 79' TRENCHES ON CONTOUR. (P)

INSTALLATION: 07/2019 TRENCHES COMPLETED. TANK TO BE RELOCATED. MUST REVISE OSDS AND PERC CERT TO INSTALL TANK IN PROPOSED LOCATION WITHIN WELL BOX PER APPROVED PC (P) 7/16/2019 REVISED PC SIGNED. (P) 7/26/2019 TANK SET, SHC INSTALLED, D BOX LEVELED WITH SPEED LEVELS. OK TO BACKFILL (P)

FINAL INSPECTOR

DATE OF APPROVAL

07/26/2019

# Transmittal

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

To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Blvd.</b> <b>Columbia, Maryland 21046-4544</b>	Attn: <b>Hank</b> Fax: Phone: <b>410-313-2640</b>
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From: <b>Tony Fertitta</b>	CC:
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Re: <b>Fairlane Farms, Lot 30</b>	W.O.# <b>05106-3003</b>
Date: <b>July 5, 2019</b>	Pages: <b>0</b> <b>Page(s) Including this cover</b>

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 30, 15204 Torino Way.**

**Here are 3 copies of the revised septic install. plan for Lot 30 for your review/approval. This matches the revised perc. cert. plan we dropped on Wed. Please let me know if you have any questions.**

**Thank You,**

**Tony.**

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

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## **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

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**From:** Oswald, Hank  
**Sent:** Thursday, March 28, 2019 8:45 AM  
**To:** 'Tony Fertitta'  
**Cc:** Cagle, Clint (ccagle@nvrinc.com)  
**Subject:** OSDS/BP\_15204 Torino Way\_Lot30

Tony:

The OSDS Plan shows 3-65.1 foot trenches for 1<sup>st</sup> replacement system in layout but the calculation states 2-97.66 to be installed. Ok to redline calculation?

Floor plan shows unfinished basement with full bath with a potential for an additional bedroom upon finishing it. Health recommends sizing the septic system for 6 bedrooms.

BP#B19000730 has been approved by the Health Department.

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](mailto:hoswald@howardcountymd.gov)

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## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Friday, March 22, 2019 9:29 AM  
**To:** 'Tony Fertitta'  
**Subject:** OSDS Plan\_15204 Torino Way

Hi Tony:

The OSDS Plan for 15204 Torino Way is still showing a sidewall credit of 3 feet for the 2<sup>nd</sup> replacement system. It should be 2 feet. It's a difference of  $195.31 - 156.25 = 39.06$  feet

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](mailto:hoswald@howardcountymd.gov)

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**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**  
**15204 Torino Way**

**Date: March 15, 2019**

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The OSDS Plan has been reviewed with the following comments:

- 1.) Sidewall credit for 2<sup>nd</sup> replacement system should be 2 not 3 feet.
- 2.) Invert out of d-box conflicts with invert into initial trench.
- 3.) Septic tank is within well radius.

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Friday, March 15, 2019 9:31 AM  
**To:** 'Tony Fertitta'  
**Subject:** OSDS Plan Review\_15204 Torino Way\_Lot 30  
**Attachments:** OSDS Memo To FCC\_\_2019.pdf

Hi Tony:

Attached, please find memo with comments on the OSDS Plan for 15204 Torino Way.

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](mailto:hoswald@howardcountymd.gov)

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---	---

From: <b>Tony Fertitta</b>	CC:
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Re: <b>Fairlane Farms, Lot 30</b>	W.O.# <b>05106-3003</b>
Date: <b>March 7, 2019</b>	Pages: <b>0</b> 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 30, 15204 Torino Way.**

**Here are 3 copies of the OSDS for Lot 30 for your review/approval Please let me know if you have any questions.**

**Thank You,**

**Tony.**

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

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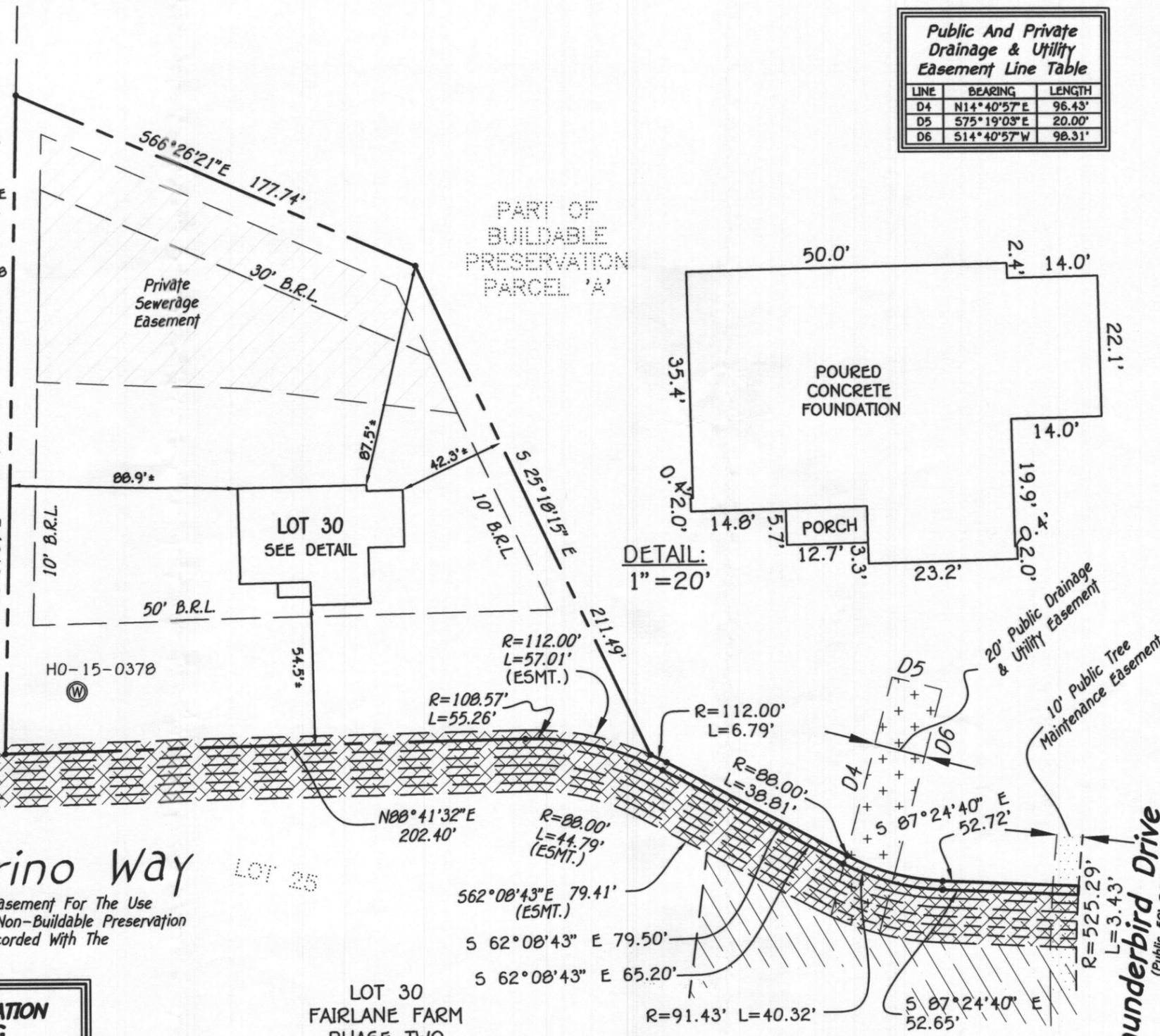
**GENERAL NOTES:**

- 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 1.0'.
- 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-15-0378) HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND 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-19000730

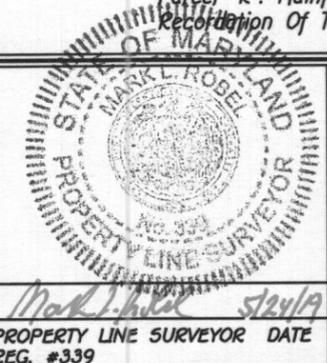
**Legend**

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

Public And Private Drainage & Utility Easement Line Table		
LINE	BEARING	LENGTH
D4	N14°40'57"E	96.43'
D5	S75°19'03"E	20.00'
D6	S14°40'57"W	98.31'



#15204 TORINO WAY  
 B.R.L. = BUILDING RESTRICTION LINE  
 TOP OF FOUNDATION ELEVATION = 602.2'



**HOUSE LOCATION DRAWING**

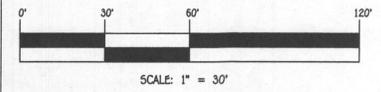
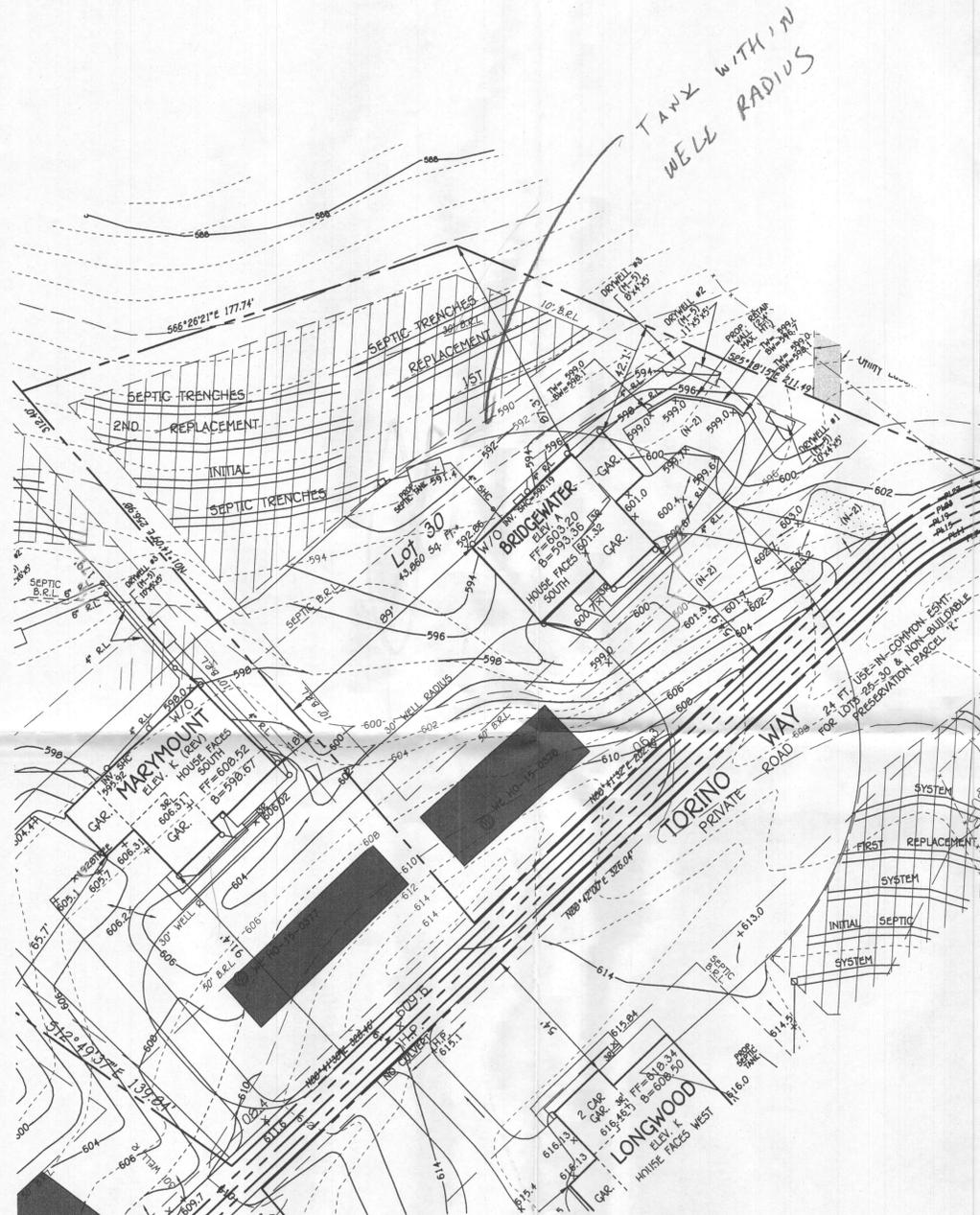
FOUNDATION LOCATION: 5/23/19  
 FINAL LOCATION: \_\_\_\_\_  
 BOUNDARY SURVEY: \_\_\_\_\_

SCALE: 1"=50'  
 DATE: 5/24/19  
 DRAWN BY: MD  
 CHECKED BY: MLR  
 PROJECT No. 05106-3003

LOT 30  
 FAIRLANE FARM  
 PHASE TWO  
 RESUBDIVISION PLAT-LOTS 19 THRU 44,  
 NON-BUILDABLE PRESERVATION PARCELS 'I' THRU 'N',  
 & REVISION PLAT-BUILDABLE PRESERVATION PARCEL 'A'  
 PLAT NOS. 24367 THRU 24372  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

Public Stormwater Management, Access, Drainage & Utility Easement (Publicly Owned And Jointly Maintained)  
 6/3/19 - wall check okay.  
 - H.O.

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. THE WELL HO-15-0378 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10776 BALTIMORE NATIONAL PIKE  
 CLAYTON CITY, MARYLAND 21042  
 (410) 461-2995

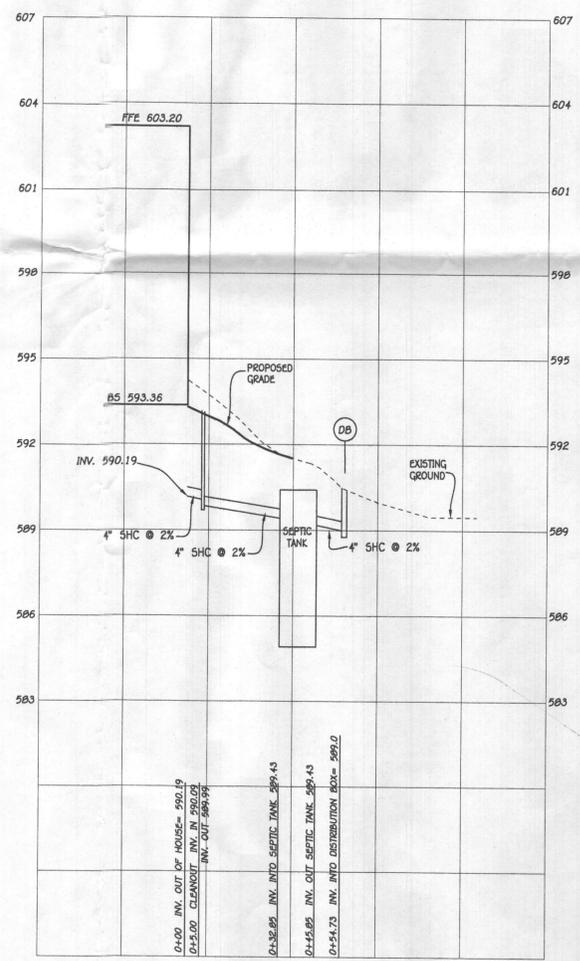
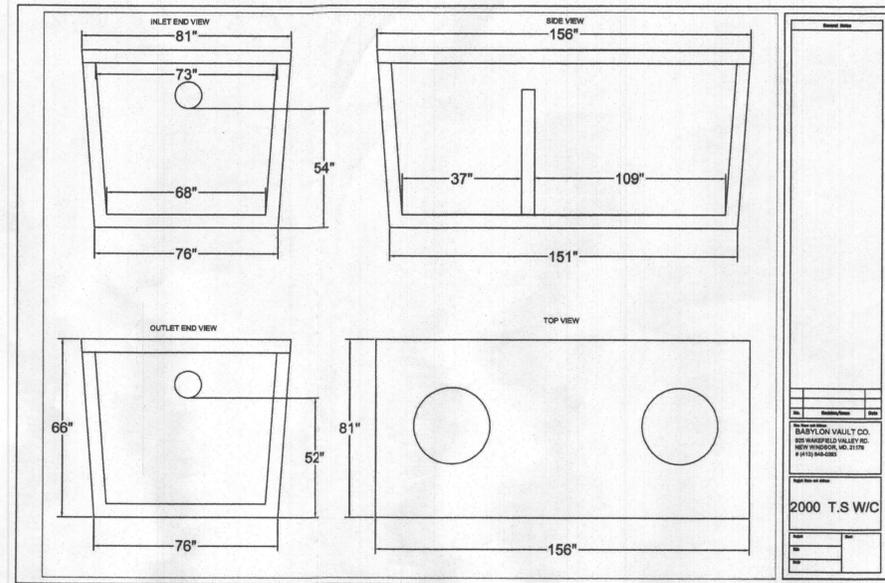
**OWNER/DEVELOPER**  
 NV HOMES  
 9720 PATURANT WOODS DRIVE  
 COLUMBIA, MD 21046  
 410-379-9956



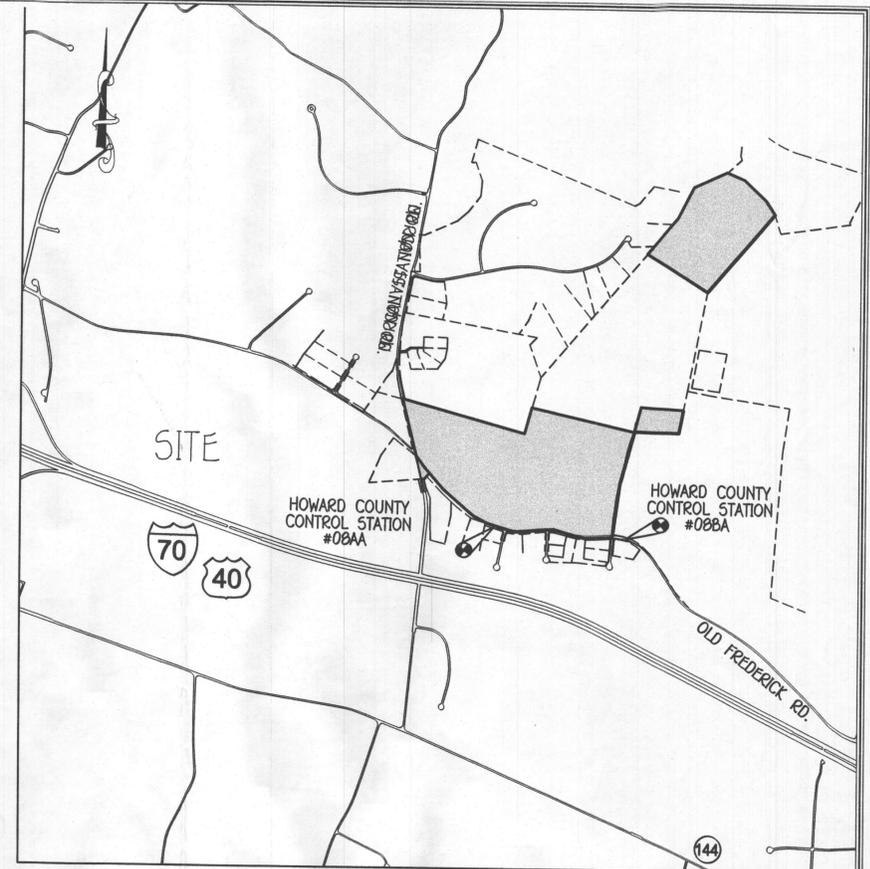
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2024.

*Michael J. Vitelles*  
 Signature of Professional Engineer

3/7/19  
 DATE



**SEPTIC PROFILE**  
 SCALE: 1" = 30'

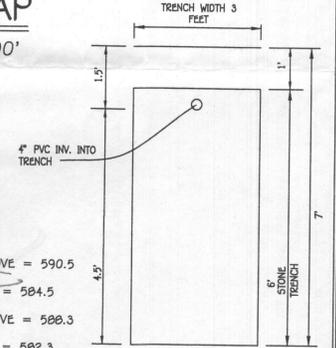


**VICINITY MAP**  
 SCALE: 1" = 1200'

FFE 603.20  
 BSE 593.36  
 INV. OUT OF HOUSE = 590.19  
 PROP. GROUND AT CLEANOUT #1 = 593.0  
 INV. INTO CLEANOUT = 590.09  
 INV. OUT OF CLEANOUT = 599.99  
 EX. GROUND AT SEPTIC TANK = 591.4  
 PROP. GRADE ABOVE SEPTIC TANK = 591.4  
 TOP OF SEPTIC TANK = 590.43  
 INV. INTO SEPTIC TANK = 599.43  
 INV. OUT OF SEPTIC TANK = 599.18  
 EX. GROUND AT DISTRIBUTION BOX = 590.5  
 INV. INTO DISTRIBUTION BOX = 590.0  
 INV. OUT OF DISTRIBUTION BOX = 588.92

**TRENCH DATA:**

TRENCH 1:  
 EX. GROUND ABOVE = 590.5  
 INV. IN = 589.0  
 BOTTOM TRENCH = 584.5  
 TRENCH 2:  
 EX. GROUND ABOVE = 588.3  
 INV. IN = 586.8  
 BOTTOM TRENCH = 582.3



**INITIAL TRENCH DETAIL**  
 SCALE: 1" = 2"

**INITIAL SYSTEM**

**SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 2 BEDROOMS**  
 APPLICATION RATE = 0.8  
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
 EFFECTIVE SIDEWALL BEGINS AT 3 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+(2\*3)) = 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 = ((2\*3) + 3) = 9' USE 10'

**1ST REPLACEMENT SYSTEM**

**SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)**  
 APPLICATION RATE = 0.8  
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
 EFFECTIVE SIDEWALL BEGINS AT 3 FEET  
 TRENCH DEPTH = 7 FEET  
 TRENCH WIDTH (W) = 3 FEET  
 EFFECTIVE DEPTH (D) = 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+(2\*5)) = 0.625  
 TRENCH LENGTH = 312.5 SF x 0.625 = 195.31 FEET  
 (USE 2 TRENCHES AT 97.66 L.F.)  
 TRENCH SPACING = 2D+W = ((2\*5) + 3) = 7' USE 10'

**2ND REPLACEMENT SYSTEM**

**SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)**  
 APPLICATION RATE = 0.8  
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
 EFFECTIVE SIDEWALL BEGINS AT 5 FEET  
 TRENCH DEPTH = 7 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+(2\*3)) = 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 = ((2\*2) + 3) = 7' USE 10'

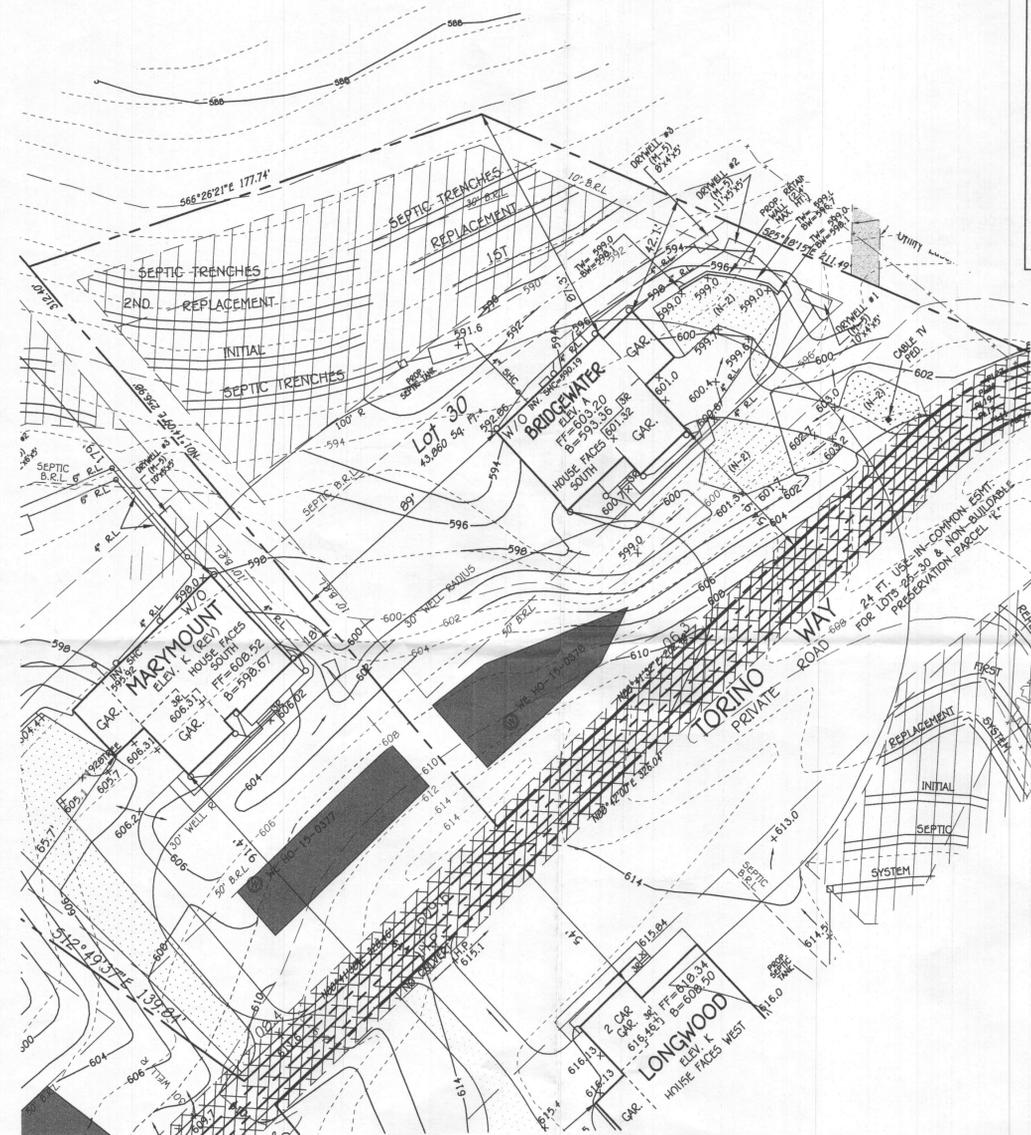
**SEPTIC SYSTEM INSTALLATION SITE PLAN**

**LOT 30**  
 15204 TORINO WAY  
**FAIRLANE FARMS**  
 PHASE TWO  
 ZONED: RC-DEO

TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8  
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 30' DATE: MARCH 7, 2019  
 SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
30	15204 TORINO WAY

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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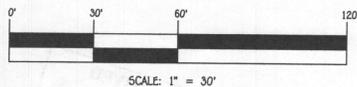
**PLAN**  
SCALE: 1" = 30'



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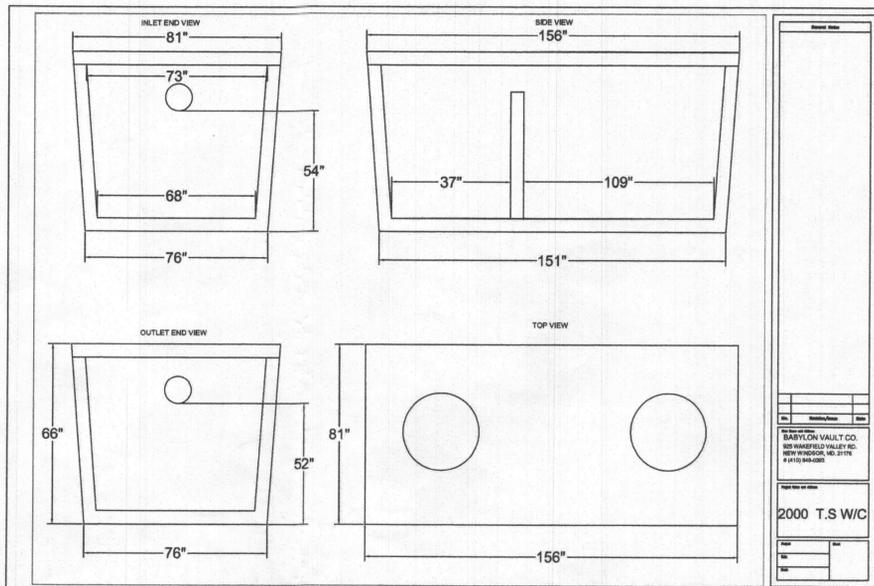
*Michael J. DeCicco*  
Signature of Professional Engineer  
7/3/19  
DATE

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

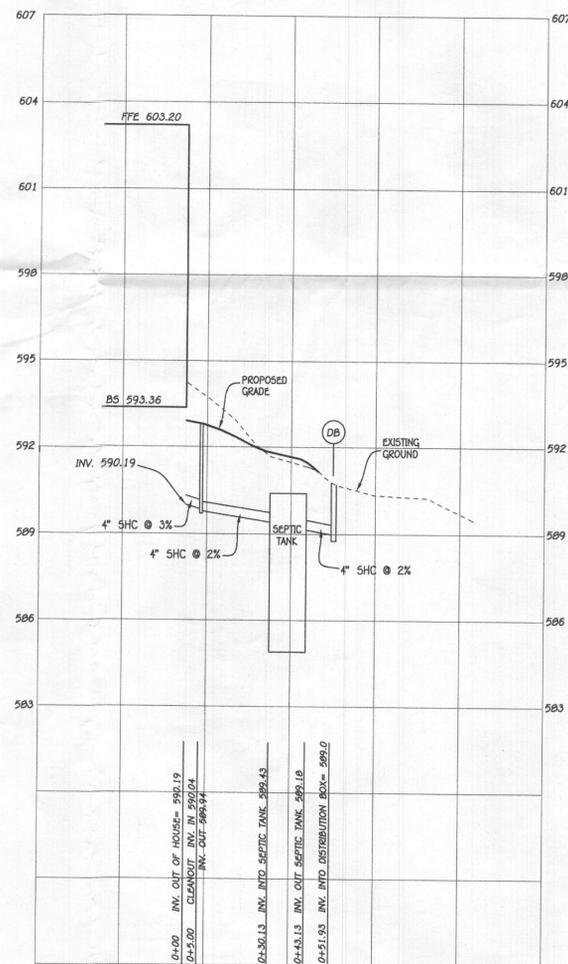


SCALE: 1" = 30'

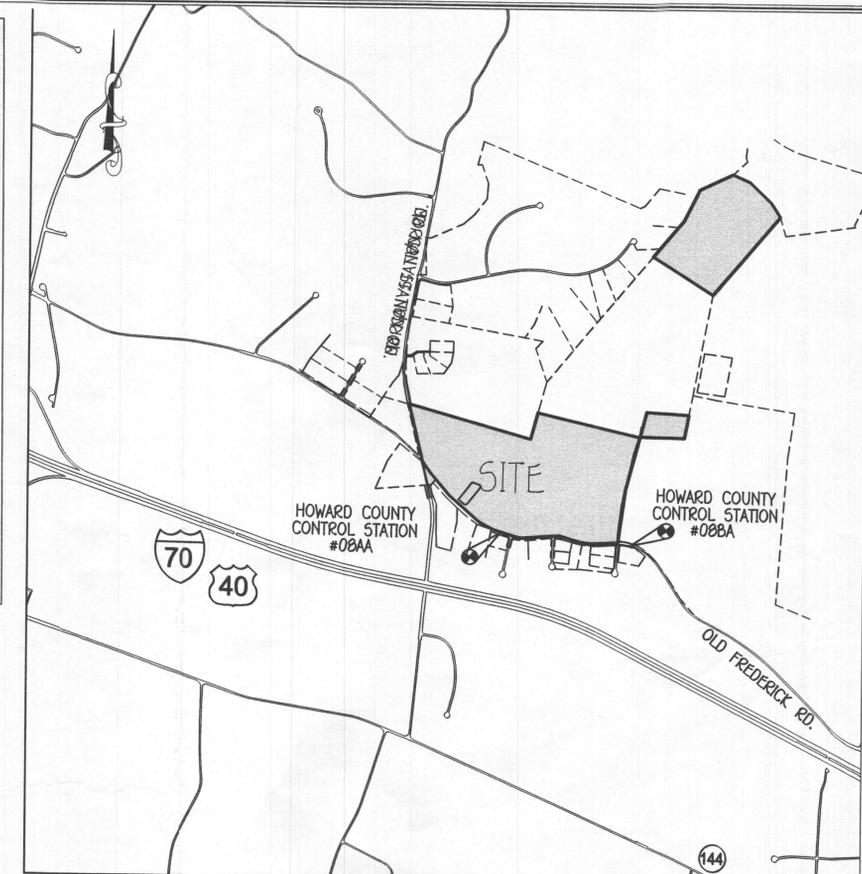
**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 18272 BALDWIN NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
410-661-2899



BABYLON VALLEY CO. 200 WINDFELD VALLEY RD. NEW WINDFELD, MD 21778 #410-398-0200	
2000 T.S/W/C	
DATE	7/3/19
BY	MC
CHECKED	MC
SCALE	AS SHOWN



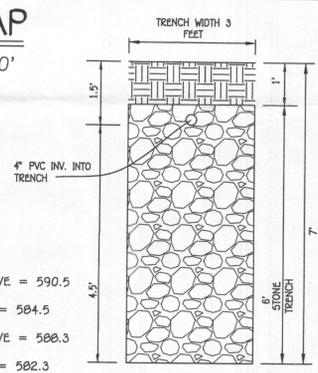
**SEPTIC PROFILE**  
SCALE: 1" = 30'



**VICINITY MAP**  
SCALE: 1" = 1200'

FFE 603.20  
BSE 593.36  
INV. OUT OF HOUSE = 590.19  
PROP. GROUND AT CLEANOUT #1 = 592.6  
INV. INTO CLEANOUT = 590.04  
INV. OUT OF CLEANOUT = 589.94  
EX. GROUND AT SEPTIC TANK = 591.2  
PROP. GRADE ABOVE SEPTIC TANK = 591.6  
TOP OF SEPTIC TANK = 590.43  
INV. INTO SEPTIC TANK = 589.43  
INV. OUT OF SEPTIC TANK = 589.18  
EX. GROUND AT DISTRIBUTION BOX = 590.5  
INV. INTO DISTRIBUTION BOX = 589.0  
INV. OUT OF DISTRIBUTION BOX = 588.92

Approved Septic System Plan  
Howard County Health Department  
*Mark Oswald*  
Signature  
7/23/19  
Date



**INITIAL TRENCH DETAIL**  
SCALE: 1" = 2'

**INITIAL SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 3 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+(2\*3)) = 0.5  
TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET  
(USE 2 TRENCHES AT 78.13 LF.)  
TRENCH SPACING = 2D+W = ((2\*3) + 3) = 9' 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 3 FEET  
TRENCH DEPTH = 7 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 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+(2\*2)) = 0.625  
TRENCH LENGTH = 312.5 SF x 0.625 = 195.31 FEET  
(USE 2 TRENCHES AT 97.66 LF.)  
TRENCH SPACING = 2D+W = ((2\*2) + 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 3 FEET  
TRENCH DEPTH = 5 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 2 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+(2\*2)) = 0.5  
TRENCH LENGTH = 312.5 SF x 0.5 = 156.25 FEET  
(USE 2 TRENCHES AT 78.13 LF.)  
TRENCH SPACING = 2D+W = ((2\*2) + 3) = 7' USE 10'

**SEPTIC SYSTEM  
INSTALLATION SITE PLAN**

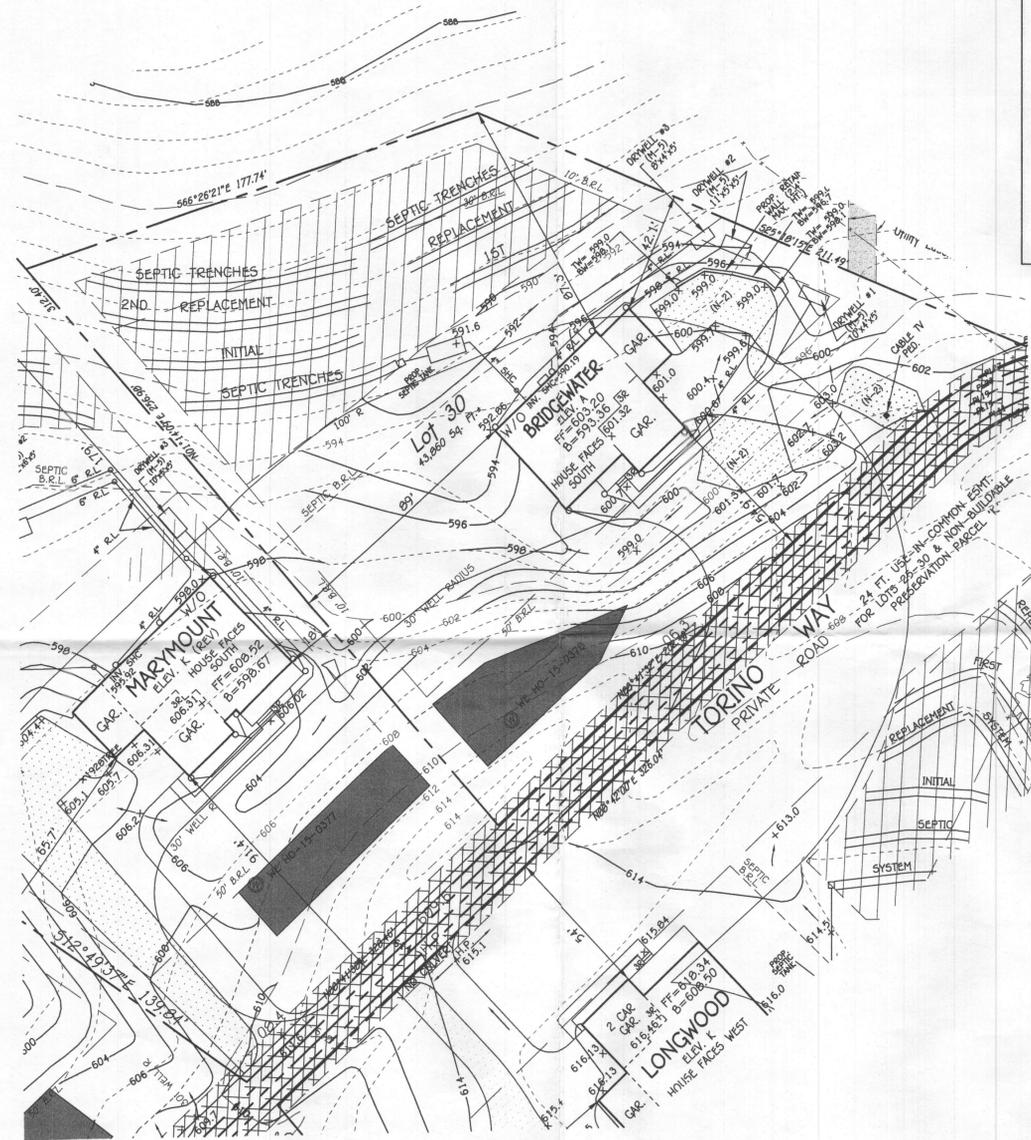
**LOT 30**  
15204 TORINO WAY  
**FAIRLANE FARMS**

PHASE TWO  
ZONED: RC-DEO

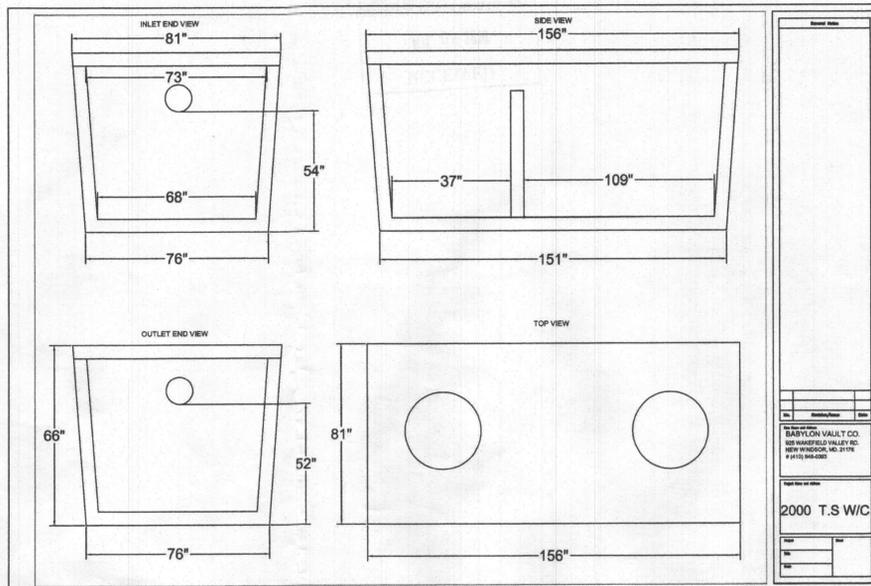
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30' DATE: JULY 5, 2019  
SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
30	15204 TORINO WAY

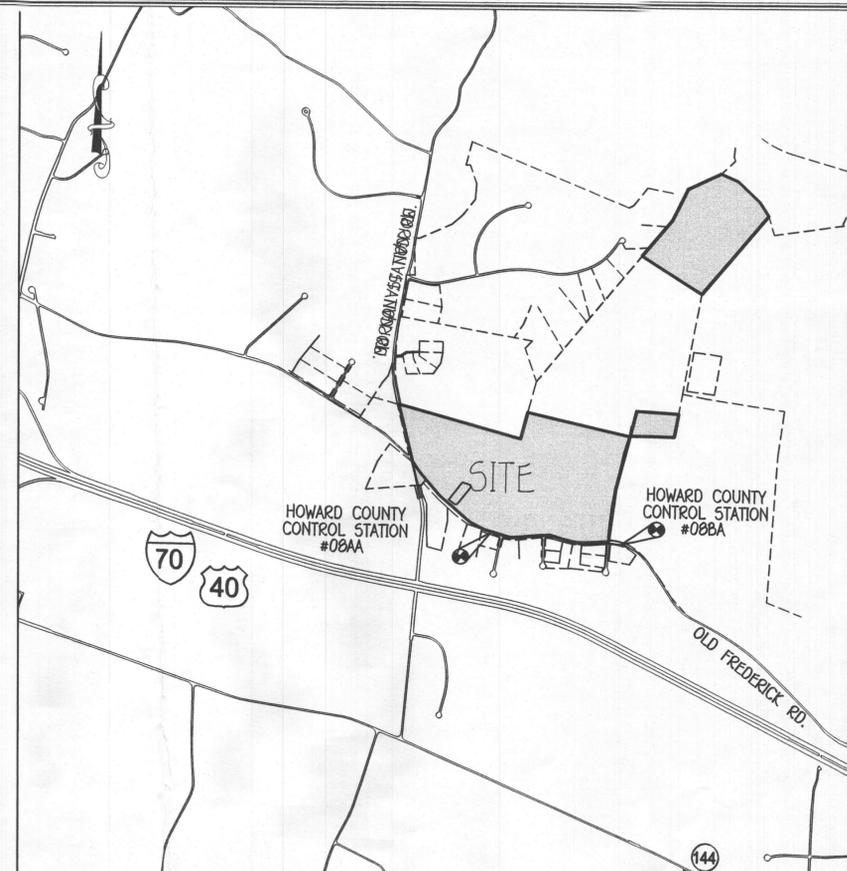
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HO-15-0370 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.



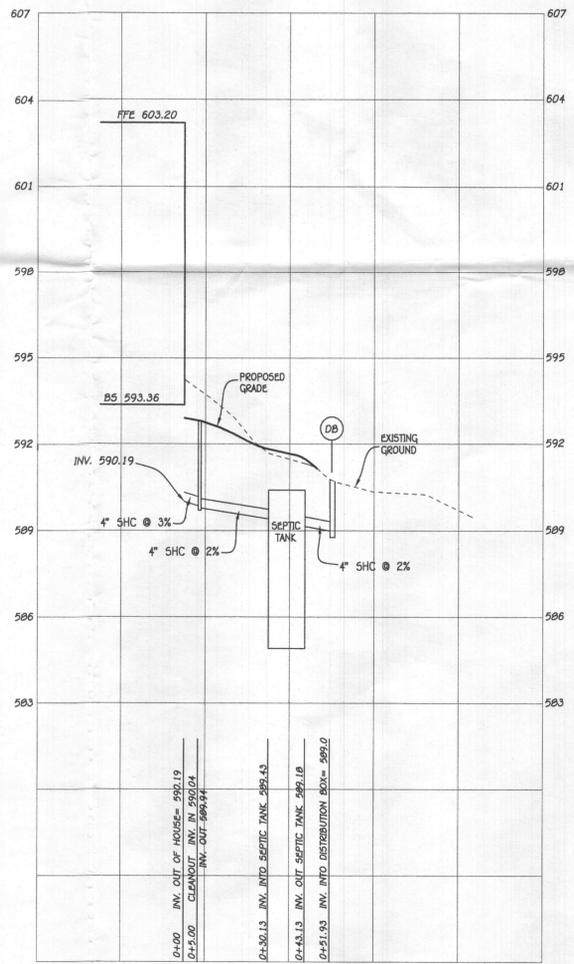
PLAN  
SCALE: 1" = 30'



BABYLON VALLEY CO. 100 WINDFALL VALLEY RD. NEW WINDSOR, MD 21118 P 410-364-0001	
Model No.	2000 T.S.W.C.
Material	
Color	
Notes	

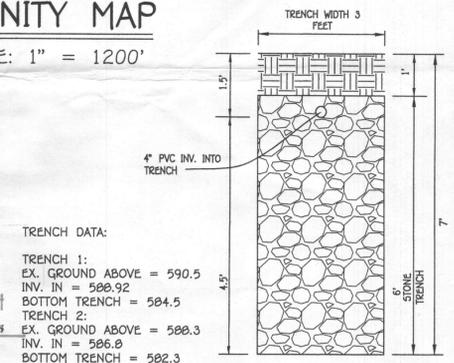


VICINITY MAP  
SCALE: 1" = 1200'



SEPTIC PROFILE  
SCALE: 1" = 30'

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TOP OF SEPTIC TANK = 590.43  
INV. INTO SEPTIC TANK = 589.43  
INV. OUT OF SEPTIC TANK = 589.10  
EX. GROUND AT DISTRIBUTION BOX = 590.5  
INV. INTO DISTRIBUTION BOX = 589.0  
INV. OUT OF DISTRIBUTION BOX = 588.92



INITIAL TRENCH DETAIL  
SCALE: 1" = 2'

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**1ST REPLACEMENT SYSTEM**

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(USE 2 TRENCHES AT 97.66 LF.)  
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

**2ND REPLACEMENT SYSTEM**

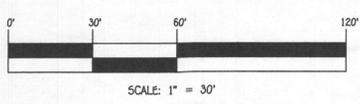
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 3 FEET  
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SEPTIC SYSTEM  
INSTALLATION SITE PLAN

LOT 30  
15204 TORINO WAY  
FAIRLANE FARMS  
PHASE TWO

ZONED: RC-DEO  
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30' DATE: JULY 5, 2019  
SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
30	15204 TORINO WAY



SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELKROTT CITY, MARYLAND 21042  
(410) 461-2895

OWNER/DEVELOPER  
NY HOMES  
9720 PATENTWOOD WOODS DRIVE  
COLUMBIA, MD 21046  
410-373-5956



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: 02/22/2021.

*Michael J. Vitucci*  
Signature of Professional Engineer  
7/3/19  
DATE