



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: 11/7/19

ONSITE SEWAGE DISPOSAL SYSTEM

P 566442

APPROVAL DATE: 12/4/2019

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 12511 Westland Court

SUBDIVISION: Westland Farm Estates

LOT: 13

TAX ID: _____

CONTRACTOR: Hatfield's Equipment

EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 21701

PHONE: 301-490-4289

PROPERTY OWNER: Williamsburg Group Westland Farm LLC

EMAIL: billmcbride@williamsburgllc.com

OWNER ADDRESS: 5485 Harpers Farm Road, Columbia, MD 21044

PHONE: 410-997-8800

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon Vault

PUMP MODEL: _____

PUMP SIZE _____

PUMP TANK CAPACITY: _____

DISTRIBUTION SYSTEM: ☒ GRAVITY

☐ PRESSURE DOSED

BEDROOMS: 6

APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>156</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8' 7"</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:	If fall cannot be created then a pump will be required	

ISSUED BY: Robert Freemon

ISSUE DATE: 11/7/19

EXPIRATION DATE: 11/7/20

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

SEE ATTACHED
AS BUILT

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH 3' INLET 4' BOTTOM 7'

NUMBER OF TRENCHES 2

TOTAL LENGTH 156 F

ABSORPTION AREA 468 SF + SIDE WALL

DISTRIBUTION BOX LEVEL SPEED

DISTRIBUTION BOX BAFFLE YES

DISTRIBUTION BOX PORT YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL

MANUFACTURER BABYLON

CAPACITY 2000 GAL

SEAM LOC TOP

TANK LID DEPTH ~2'

BAFFLES YES

BAFFLE FILTER NO

MANHOLE LOC FRONT/BACK

6" PORT LOC

WATERTIGHT TEST

SLOTTED YES

DATE ON LID 10/12/2019

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:

11/22/2019 TANK, SDA, TRENCHES STAKED. CONTOUR CHECKED. CONTRACTOR IS ~~GOING TO~~ CORING FOUNDATION FOR SHC. NOTIFIED OF 1% FALL SPEC ON OSDS. MARKED 100' WELL ARC FOR TANK PLACEMENT. OK TO START. (10)

INSTALLATION:

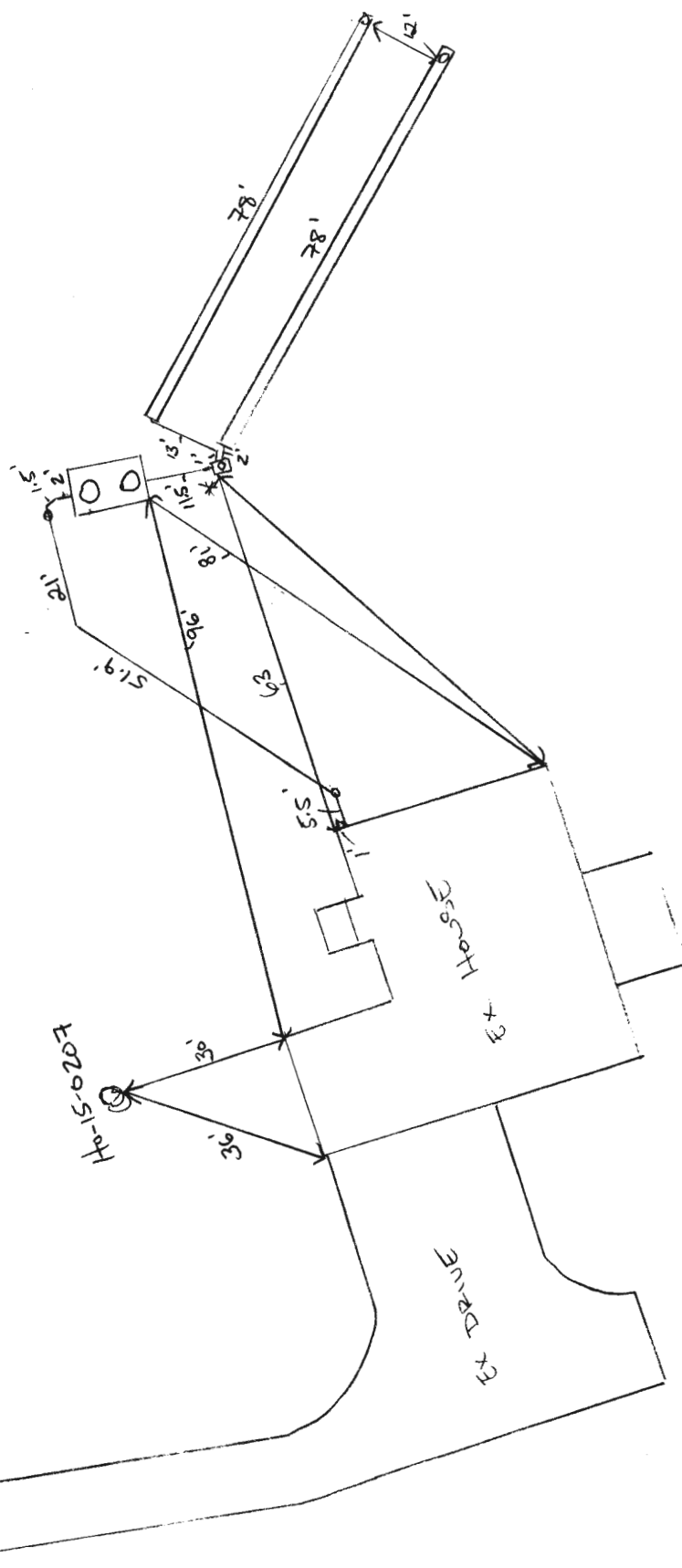
12/3/2019 SHC SL, TANK, AND D BOX SET. (12) 12/4/2019 TRENCHES COMPLETE. CORRECT REALIGN D BOX TO SET LEVELS. COMPLETED AT INSPECTION. D BOX LEVELLED W/ SPEED LEVELS. OK TO BACKFILL. (12)

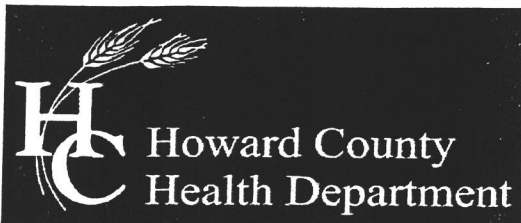
FINAL INSPECTOR

DATE OF APPROVAL

12/4/2019

CORRECTIVE ACTION
* 22 BEND ON EFFLUENT
LINE TO D BOX TO
SET APES LEVEL
NOT SHOWN





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Twitter: HowardCoHealthDep

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

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Westland Farm Estates Lot: Lot 13

Initial system: Application rate: 1.2 Effective area beginning depth: 5 Bottom maximum depth: 7

1st Replacement: Application rate: 1.2 Effective area beginning depth: 5 Bottom maximum depth: 8

2nd Replacement: Application rate: 0.8 Effective area beginning depth: 7 Bottom maximum depth: 8

Design Flow = 150 gallons per day per bedroom

Design flow ÷ application rate = square footage of drainfield required

Linear length of trench required = drainfield square footage x sidewall reduction percentage ÷ trench width

Sidewall reduction credit formula:

$$\frac{W + 2}{W + 1 + 2D} \times 100 = \text{Percent of length of standard trench where } W = \text{trench width and } D = \text{depth between effective area beginning depth and trench bottom.}$$

Standard design requirements:

- All trenches must be equal length unless low pressure dosed
- All trenches must be on contour
- Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any trench using over 3.5' of effective sidewall. In those cases, the spacing formula is $2D + W$ up to a maximum spacing of 18'.
- Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench (spacing is measured edge to edge)
- Maximum trench length is 100'
- Maximum pipe depth is 4'

Additional requirements:

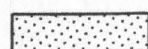

Keep all trenches away from 556.

Approved: Hank Oswald Date: 5/18/15
4/3/18 (2nd repl.)

GENERAL NOTES:

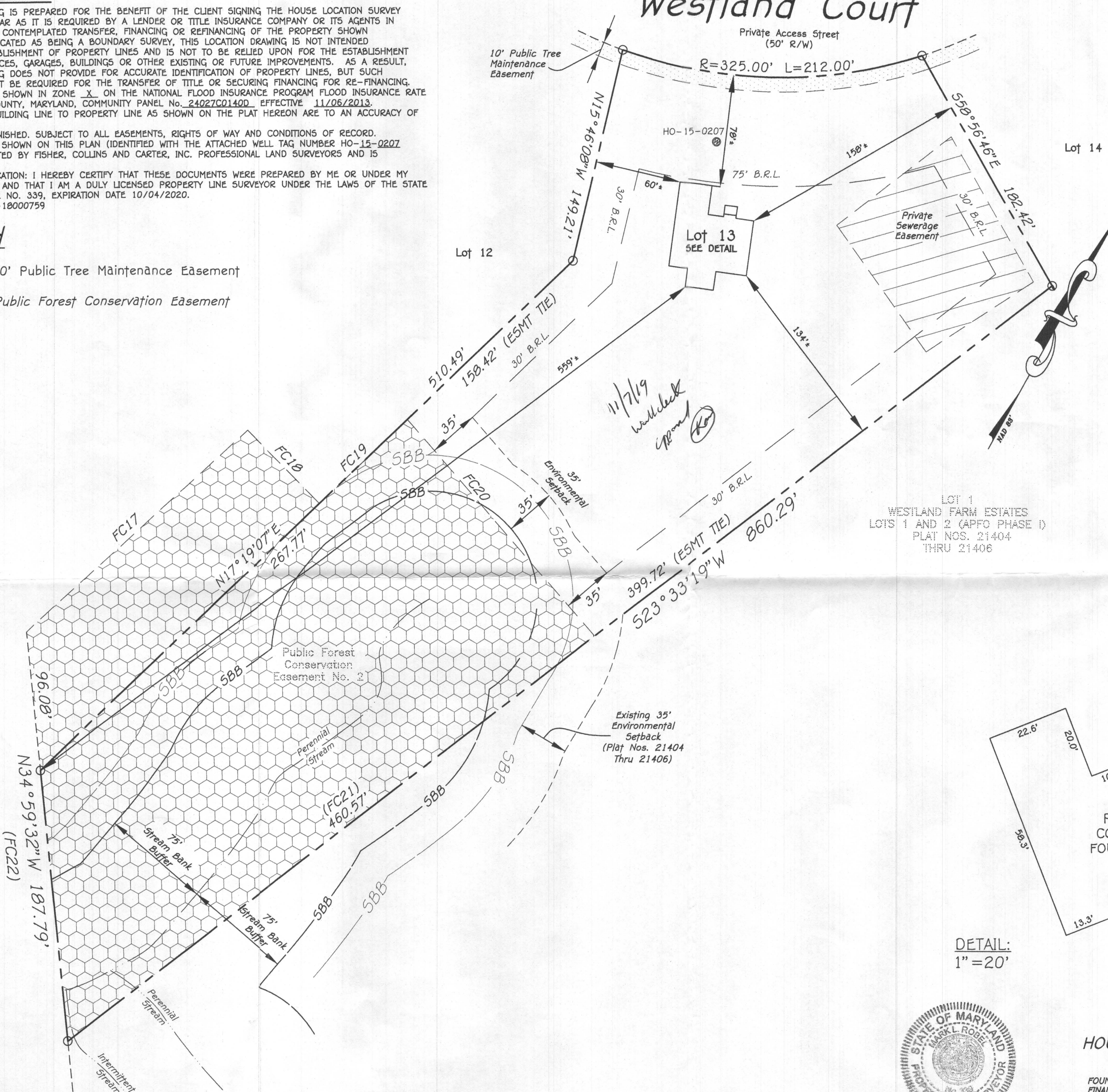
- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INsofar AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS 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. 24027C01400, 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-15-0207) HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2020.
- 7) BUILDING PERMIT # B-18000759

Legend

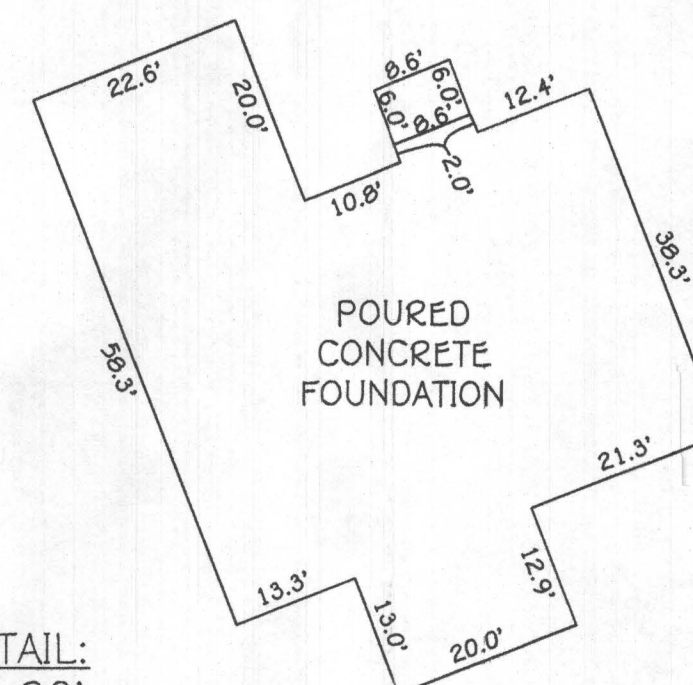
-  10' Public Tree Maintenance Easement
-  Public Forest Conservation Easement

Westland Court

Line	Bearing	Length
FC17	N 18°37'13" E	207.71'
FC18	S 73°47'05" E	71.33'
FC19	N 17°19'07" E	84.30'
FC20	S 70°04'45" E	198.84'
FC21	S 23°33'19" W	460.57'
FC22	N 34°59'32" W	203.87'



LOT 1
WESTLAND FARM ESTATES
LOTS 1 AND 2 (APFC PHASE I)
PLAT NOS. 21404
THRU 21406



DETAIL:
1"=20'



Mark L. Robert
PROFESSIONAL LAND SURVEYOR
REG. #339
DATE 10/17/19

HOUSE LOCATION DRAWING

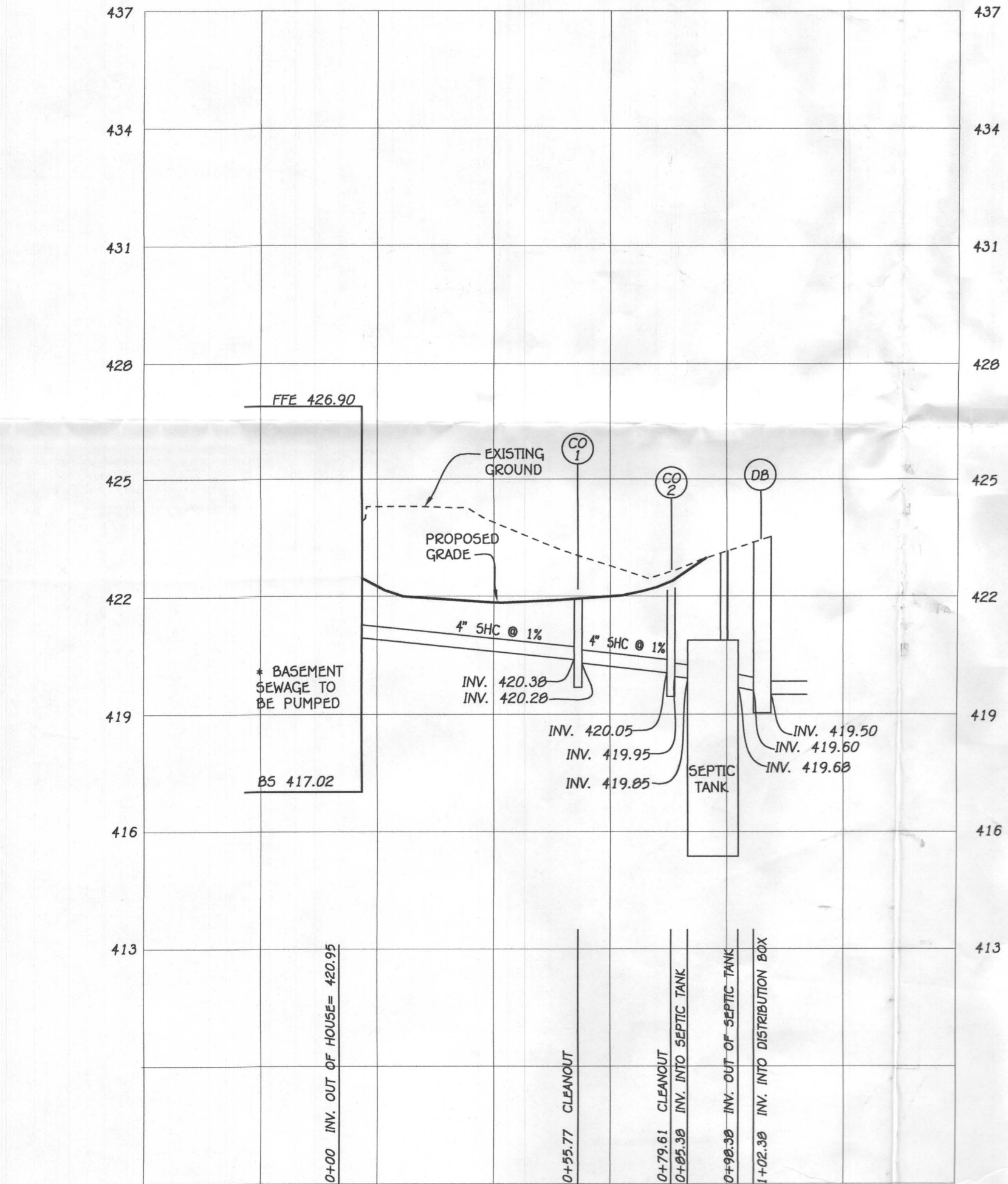
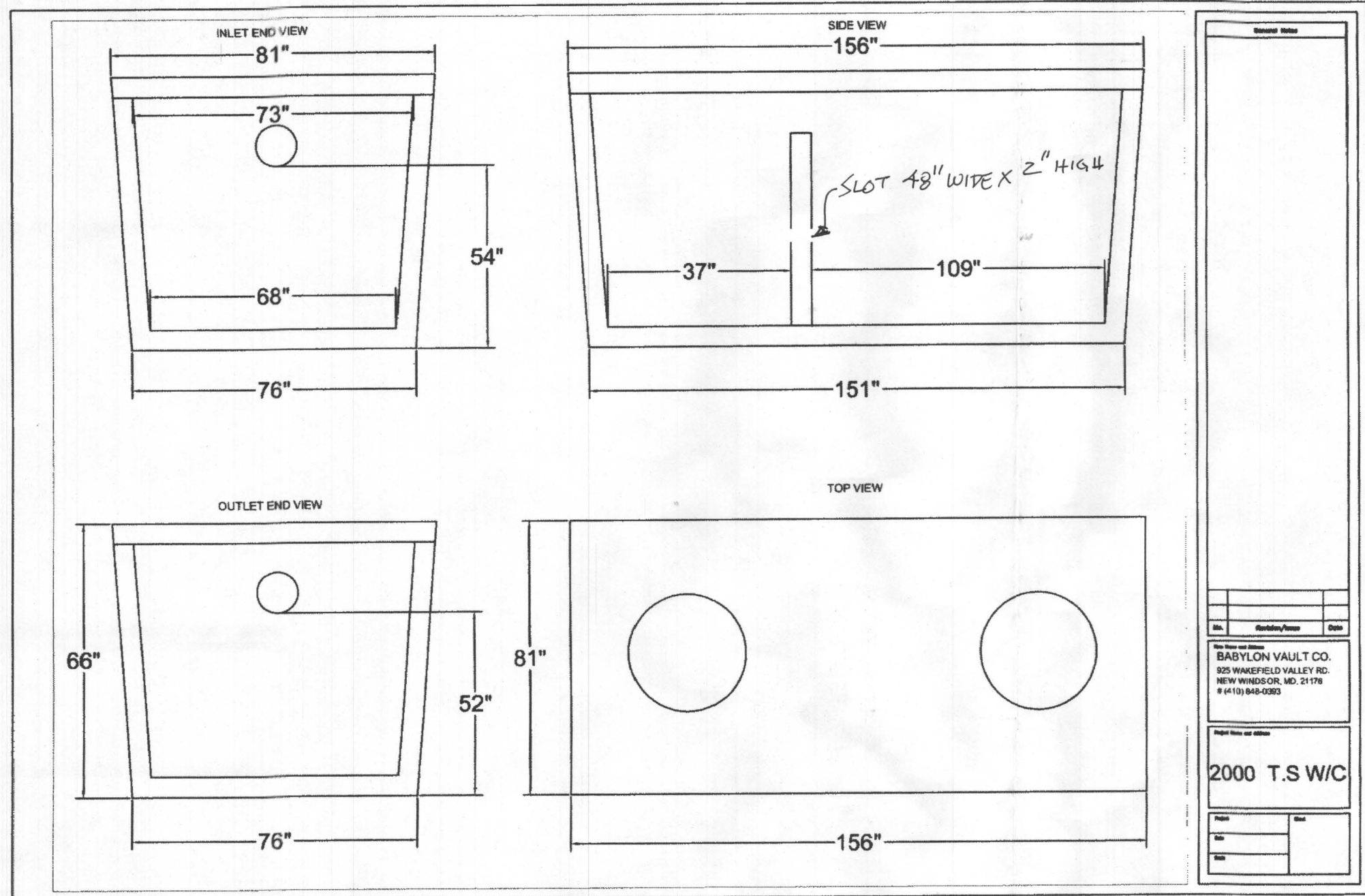
FOUNDATION LOCATION: 10/16/19
FINAL LOCATION:
BOUNDARY SURVEY:
SCALE: 1"=50'
DATE: 10/17/19
DRAWN BY: MD
CHECKED BY: MLR
PROJECT No.: 05062-3003

Walt Check
LOT 13
WESTLAND FARM ESTATES
PHASE II
LOTS 3 THRU 14 AND
OPEN SPACE LOT 15
PLAT NOS. 23985 THRU 23987
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

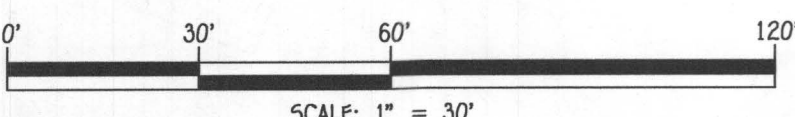
PROPERTY OF
WASHINGTON SUBURBAN
SANITARY COMMISSION
L. 224, F. 130

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

#12511 WESTLAND COURT
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 425.9'



SEPTIC PROFILE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

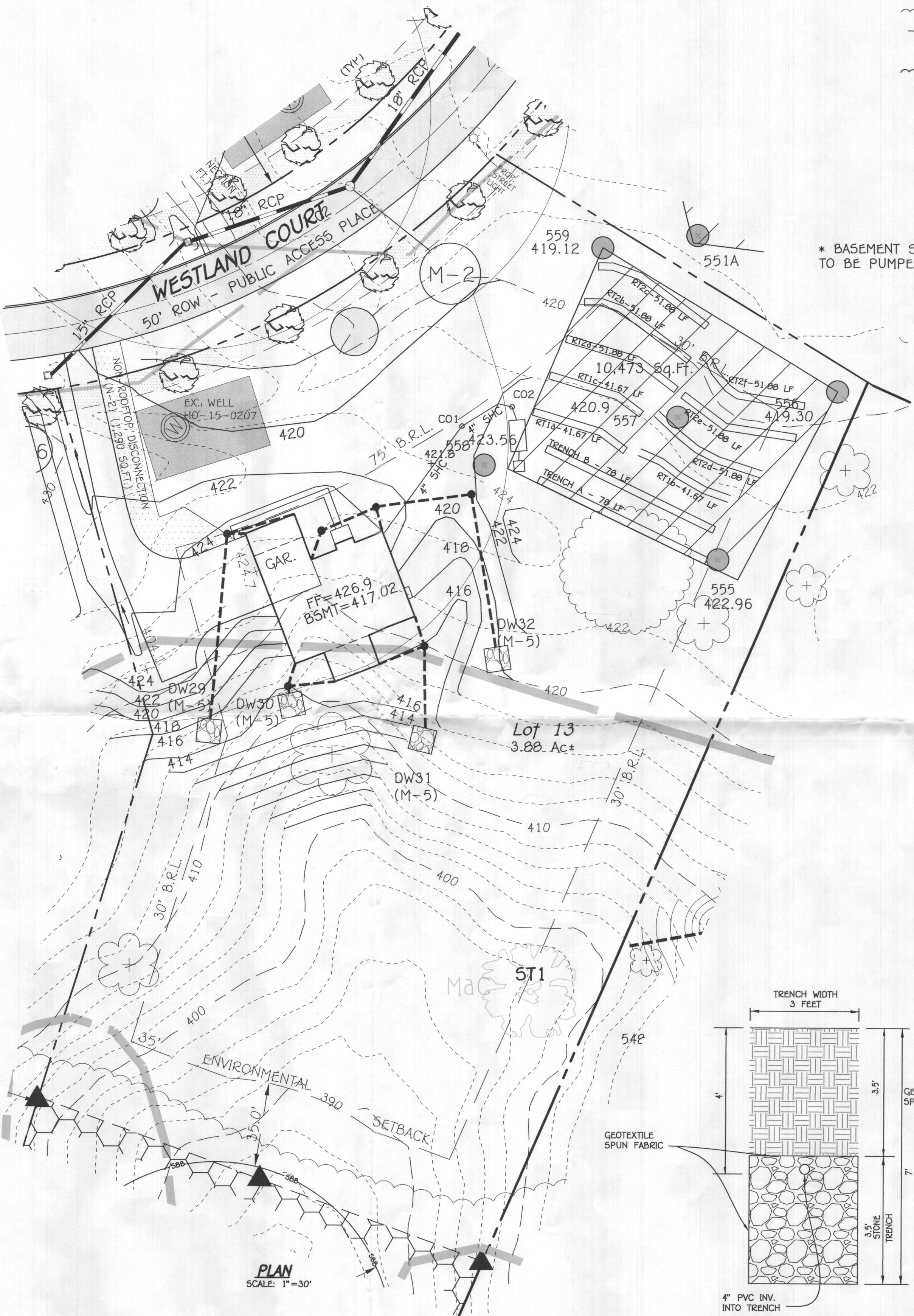


FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895

OWNER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5405 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800

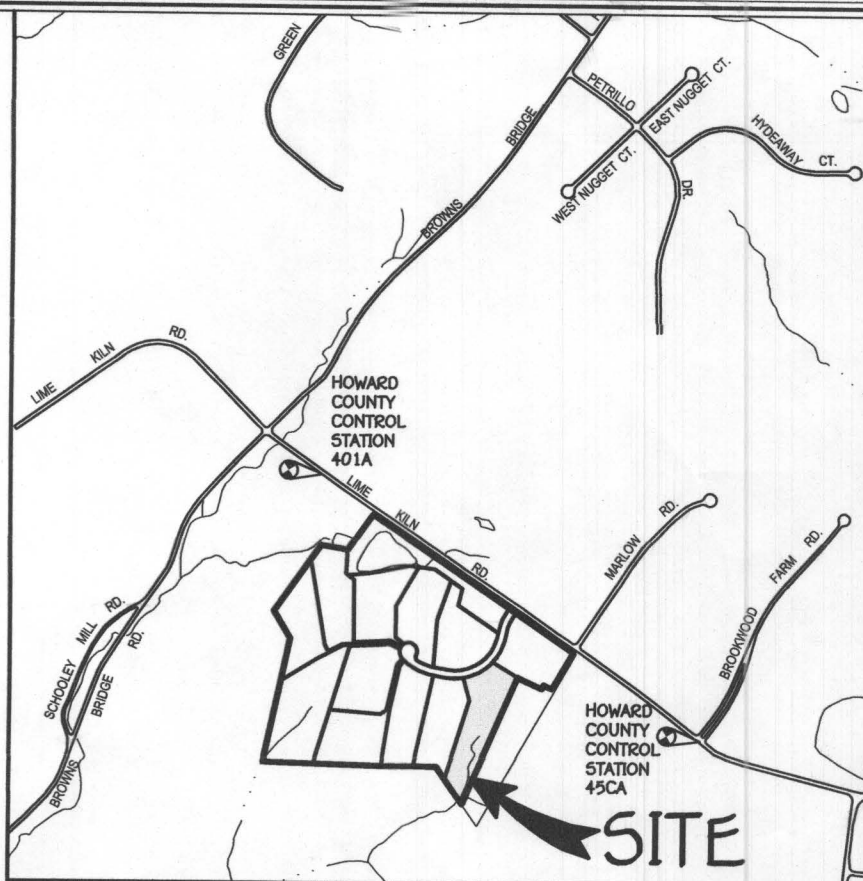
TRENCH DESIGN									
TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF TRENCH (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STARTS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)
A	423.5	420.0	419.5	3.5'	3.5'	416.5	5.0'	2.0'	3.0'
B	423.0	419.5	419.0	3.5'	3.5'	416.0	5.0'	2.0'	3.0'

NOTE:
THE EXISTING WELLS SHOWN ON THIS PLAN, HO-15-0207 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.



- LEGEND**
- EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - - - EXISTING TREE LINE
 - SOIL LINES AND TYPES
 - ⊙ DENOTES EXISTING WELL
 - ⊙ DENOTES PROPOSED TREELINE
 - ⊙ DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
 - ⊙ 538 PASSED PERC HOLES
 - ⊙ 537A FAILED PERC HOLES

* BASEMENT SEWAGE TO BE PUMPED



VICINITY MAP
SCALE: 1" = 1200'

GENERAL NOTES:

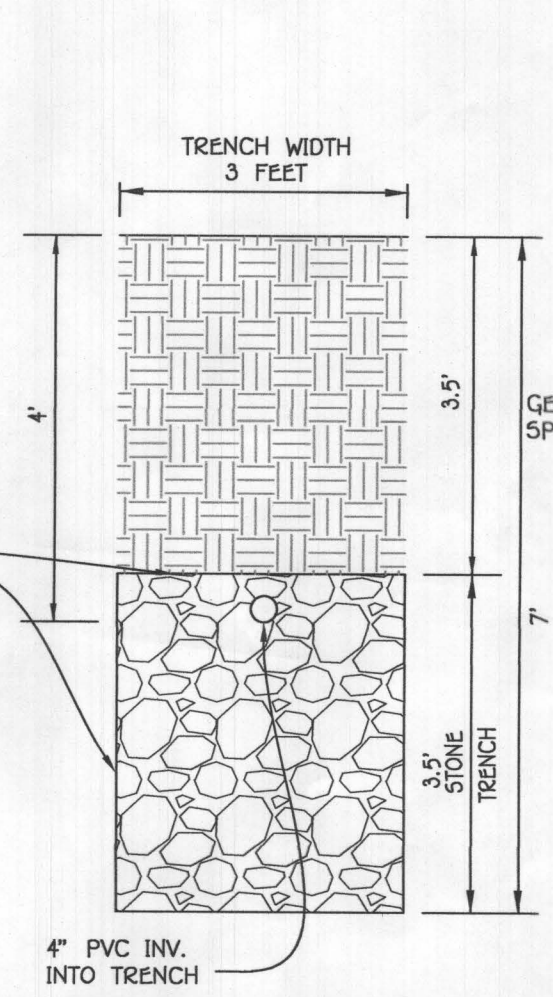
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
- ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION.
- TOPOGRAPHIC CONTOURS BASED ON HARFORD AERIAL SURVEYS, INC. DATED JANUARY 2006 AND SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT APRIL, 2006 AND JANUARY, 2015.
- BOUNDARY OF LOT BASED ON PLAT #23996 AND FIELD SURVEY BY FISHER, COLLINS & CARTER, INC.
- ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
- PLAT REFERENCE: 23895 THRU 23987.
- SUBJECT PROPERTY ZONED: R8-DEO
- TOTAL AREA OF PROPERTY: 3.88 AC.
- WETLANDS, STREAMS, THEIR BUFFERS, FLOODPLAIN, AND STEEP SLOPES DO NOT EXIST ON THIS LOT.
- SOILS SHOWN HEREON ARE BASED ON NRCS WEB SOIL SURVEY AND HOWARD COUNTY SOILS MAP 3.
- 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.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK. (IF NOT A LOAD BEARING SEPTIC TANK)
- THE WELL HO-15-0207 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC.
- The well box arch, septic tank, and SDP must be professionally staked by a licensed surveyor prior to installation.
- If fail cannot be created a pump tank may be required.

Approved Septic System Plan
Howard County Health Department
Signature: *[Signature]* Date: 9/17/2019

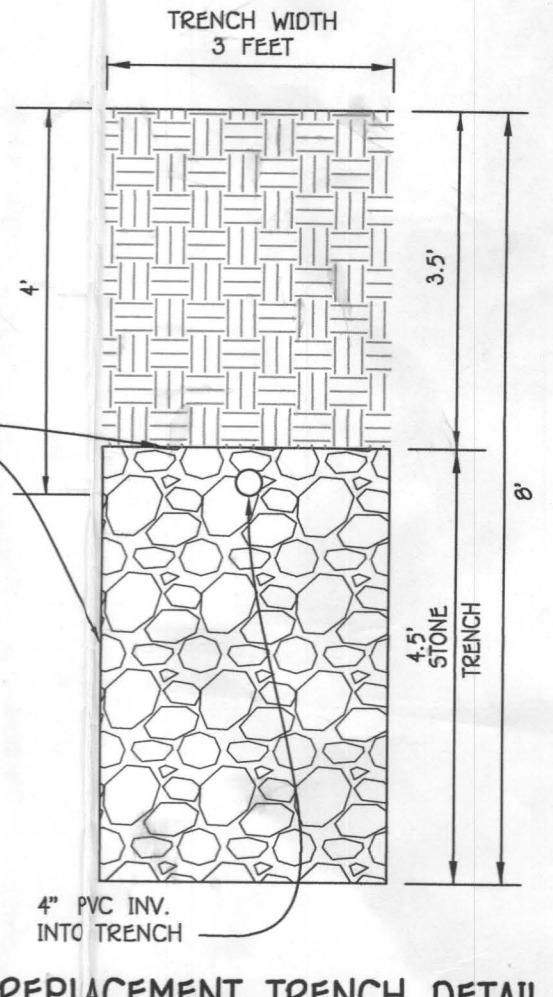
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 900 GPD / 1.2 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2*2)) = 0.625
TRENCH LENGTH = 750 SF x 0.625 / 3 = 156.3 FEET
(2 TRENCHES AT 78.00')
TRENCH SPACING = 2D+W = ((2*2) + 3) = 7' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 1ST REPLACEMENT SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 1.2 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2*3)) = 0.50
TRENCH LENGTH = 750 SF x 0.5 / 3 = 125 FEET
(2 TRENCHES AT 62.50')
TRENCH SPACING = 2D+W = ((2*3) + 3) = 9' USE 10'

SEWAGE DISPOSAL SYSTEM DATA - 2ND REPLACEMENT SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 7 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2*1)) = 0.83
(6 TRENCHES AT 51.88')
TRENCH LENGTH = 1125 SF x 0.83 / 3 = 311.3 FEET
TRENCH SPACING = 2D+W = ((2*1) + 3) = 5' USE 10'



INITIAL TRENCH DETAIL
SCALE: 1"=2'



REPLACEMENT TRENCH DETAIL
SCALE: 1"=2'

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. 30366, EXPIRATION DATE: 01/12/2020.

Signature: *[Signature]* Date: 9/29/19
Signature Of Professional Engineer DATE



SEPTIC PLAN
WESTLAND FARM ESTATES
LOT 13
12511 WESTLAND COURT
TAX MAP #45 PARCEL 28
ZONED R8-DEO
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST, 2019