

Office of the Health Officer

8930 Stanford Drive, MD 21045

Main: 410-313-6300 | Fax: 410-313-6303

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

DATE: March 11, 2024

TO: Mike Razavi (Applicant)

Via E-mail: mike@raztecengineers.com

RE: **OSDS Plan- 3190 Daisy Road
Woodbine, MD 21797**

Mr. Razavi,

I have reviewed your OSDS for 3190 Daisy Road and revisions are needed. On your OSDS plan the following needs to be addressed:

- The tank schematic shown cannot be used according to our current regulations. We have not worked with Old Castle Precast and when I tried to visit the website to see what products and services they supply, the site was not available. We use tank providers who design tanks according to our regulations. A few companies we use is Mayor Brothers, Backriver Precast, and Babylon Precast. Please note I am not recommending them, however I wanted to give you an idea of which companies we normally work with.

Note: I have attached the Howard County Regulations for your convenience. Visit Sec 3.810 and review (c.) Septic Tank Construction and (d.) Septic Tank Installation Requirements.

If you have any questions or correspondence, I can be reached at the above address or by telephone at (410) 313-2775.

Respectfully,

Dana Bernard

Dana Bernard, REHS/RS, Environmental Specialist II
Well and Septic Program

Howard County Health Department

Bureau of Environmental Health, Columbia, MD 21045 - 410-313-1771

SEWAGE DISPOSAL PERMIT NO. A- _____ P- _____

RESIDENTIAL PERMIT
(NUMBER OF BEDROOMS: _____)

COMMERCIAL PERMIT
(DESIGN FLOW: _____ GPD)

PERMITEE: _____

LOCATION: _____

3190 Daisy Road

****POST THIS CARD WHERE IT CAN BE SEEN FROM ROAD****

STOP ALL CONSTRUCTION ON SEWAGE
DISPOSAL SYSTEM AND CONTACT HEALTH
DEPARTMENT BEFORE CONTINUING

Inspector

Date

WORK IS SATISFACTORY, OK TO
CONTINUE

Inspector

Date

COMMENTS: _____

FINAL INSPECTION MADE, OK TO
COVER ALL WORK

Inspector

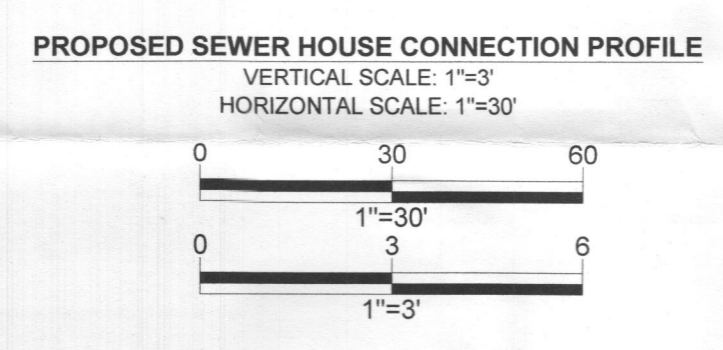
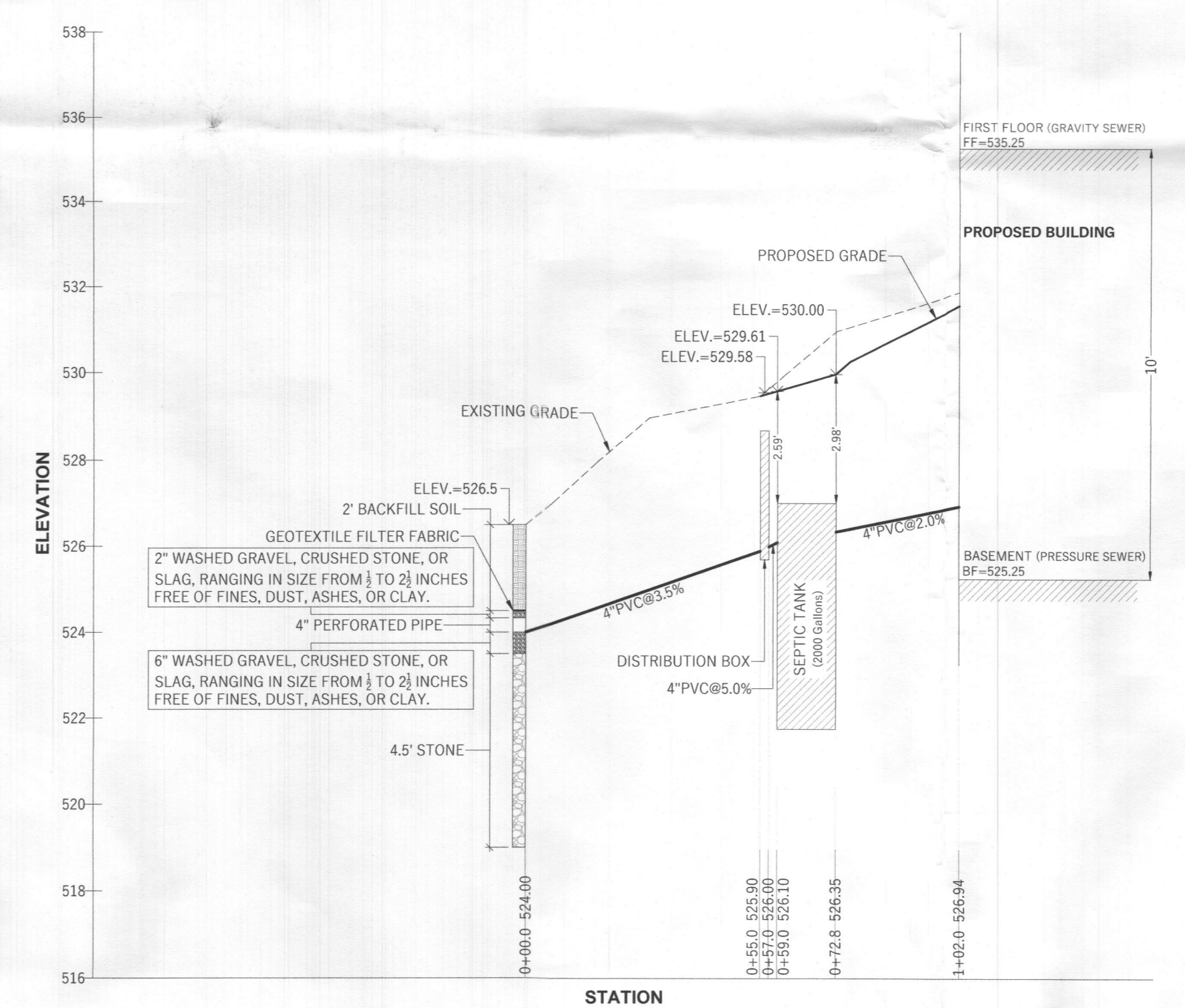
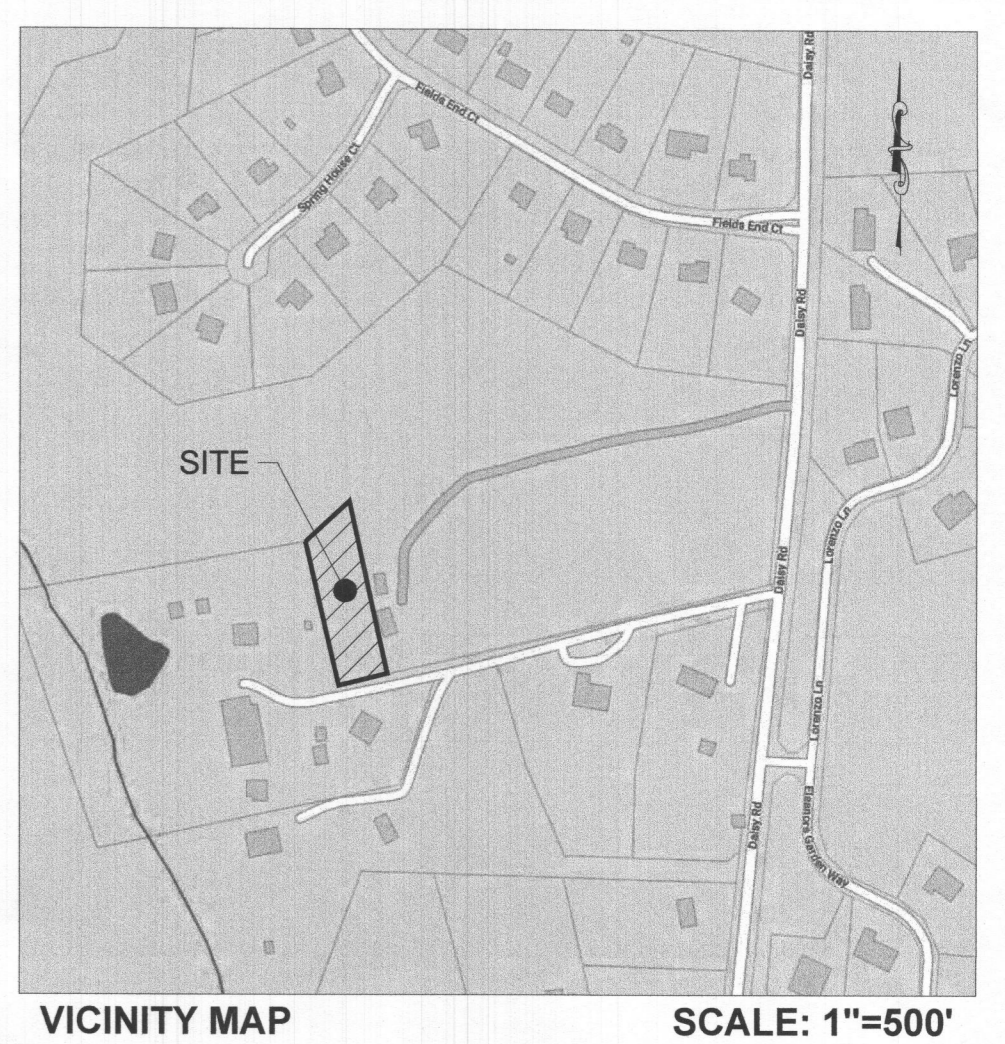
Date



LEGEND			
FEATURE	SYMBOL	FEATURE	SYMBOL
EXISTING STRUCTURES	[Symbol]	PROPOSED END SECTION / RIPRAP	[Symbol]
PROPOSED STRUCTURES	[Symbol]	PROP. STORM DRAIN PIPE	[Symbol]
BUILDING RESTRICTION LINE	[Symbol]	PROPOSED DOWN-SPOUT	[Symbol]
PROPERTY BOUNDARY LINE	[Symbol]	EXISTING WATER WELL	[Symbol]
EXISTING TOPOGRAPHY	[Symbol]	PROP. WATER HOUSE CONNECTION	[Symbol]
EXISTING TREE LINE	[Symbol]	PROP. SEWER HOUSE CONNECTION	[Symbol]
EXISTING FENCE	[Symbol]	MICRO BIO-RETENTION	[Symbol]
LIMIT OF DISTURBANCE	[Symbol]	OBSERVATION WELL	[Symbol]
OVERHEAD ELECTRIC WIRE	[Symbol]	PROPOSED STORM DRAIN INLET	[Symbol]
PROP. ELECTRICAL CONNECTION	[Symbol]	PROP. SEWER TRENCH	[Symbol]
PERCOLATION TEST PIT - PASSED	[Symbol]	TO BE REMOVED (TRB)	[Symbol]
PERCOLATION TEST PIT - FAILED	[Symbol]	TO BE SAVED (TBS)	[Symbol]
SEWER / WELL BOX SETBACK	[Symbol]	PROP. SEWER DISTRIBUTION BOX	[Symbol]
EXISTING TREE (TO BE REMOVED)	[Symbol]	PROP. SEWER CLEANOUT	[Symbol]
		SEWAGE DISPOSAL AREA	[Symbol]
		PROPOSED SPOT ELEVATION	[Symbol]
		EXISTING TREE (TO BE SAVED)	[Symbol]

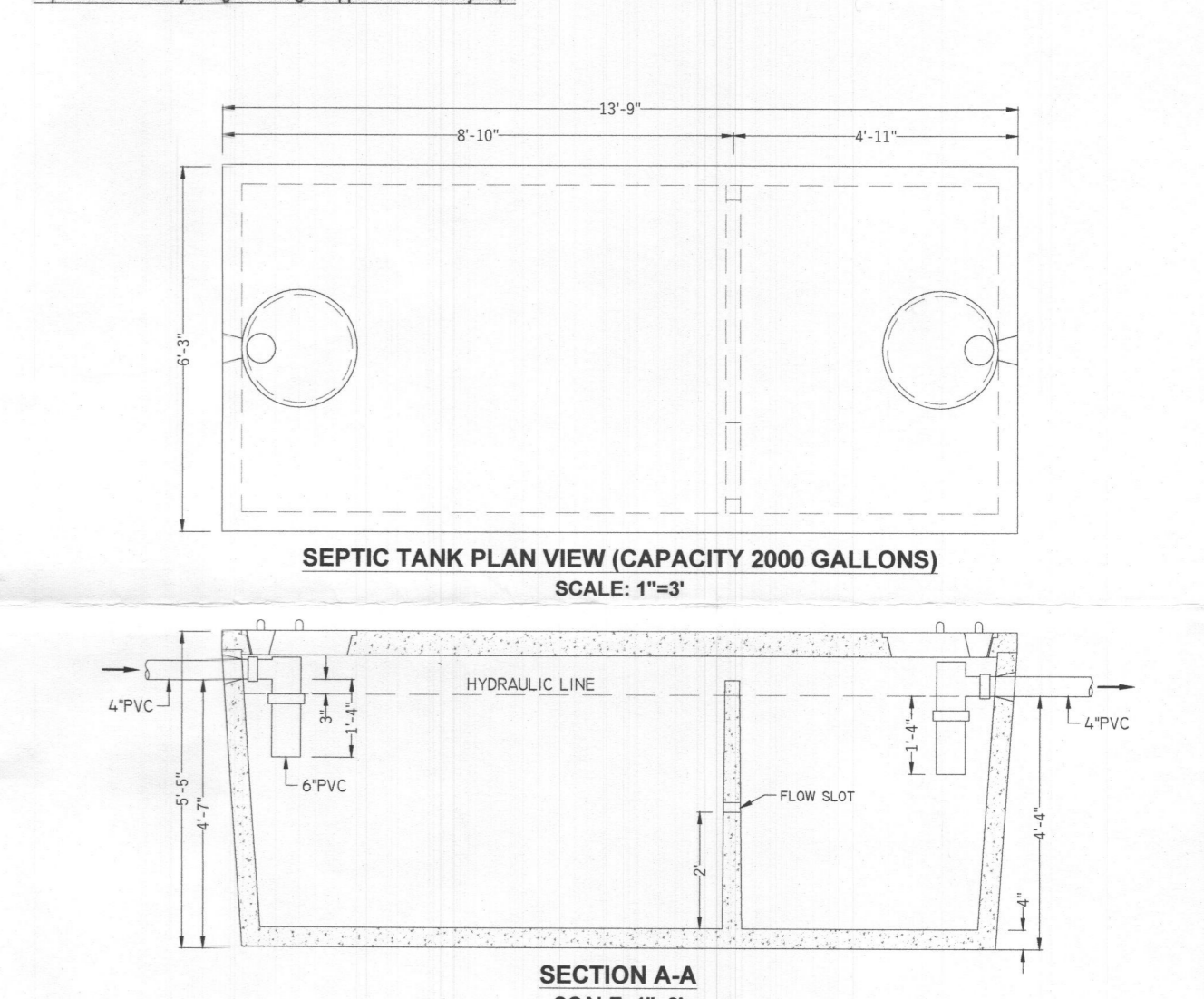
GENERAL NOTES

- Project Name: 3190 DAISY RD, WOODBINE, MD 21797
- Project Address: AKINBODE FUNMILAYO EUNICE
- Owners: 43,553.11 S.F. (1.00 AC)
- Net Tract Area: 122
- Parcel #: 20
- Map: 0006
- Grid: 20158
- Libers: 00195
- Folio: 346033
- Tax Account #: 4
- Election District Number: 4
- Zoning: RC-DEO
- Existing Use: Residential (Single Family)
- Proposed Use: Residential (Single Family)
- Required: Provided
- Setbacks: Front 50', Rear 25', Sides 10', 15.9' & 13.4'
- The Topography information shown herein is based on field-run survey, conducted in May, 2021 by CORNERSTONE SURVEYING, INC., 6024 Clarendon Dr., Owings, MD 20736
- It has been verified to accurately represent the relative changes on the subject property.
- The potable water wells must be installed for 4, and the Well Completion Reports approved by the Health Department, prior to Building Permit Approvals for the respective lots.
- Underground well and sewerage components shown herein are based on available public records and visible surface evidence, no subsurface exploration has been performed to verify their location.
- This plat was prepared without the benefit of a title report. It does not show every matter affecting ownership and use, nor every matter restricting the ownership on use of the property.



SOIL SUMMARY TABLE

Map unit symbol	Map unit name	HSG	K Factor	Hydric Rating	Drainage Class	Acres in ADI	Percent of ADI
GgB	Clayey loam, 3 to 8 percent slopes	B	0.24	0	Well drained	0.51	50.99%
GgC	Clayey loam, 8 to 15 percent slopes	B	0.24	0	Well drained	0.49	49.31%
Total for Area of Interest						1.00	100.00%



Calculations For Septic Design

Design Criteria
 Design Flow = 150 (gpd/Bedrooms) x 5 (Bedrooms) = 750 gpd
 Average of Percolation Rate = 7 Min./Inch
 Application Rate = 0.8 gpd/sq.ft.
 Size of Subsurface Disposal System = 938 SF
 Square Footage of House = 925.25 SF
 Septic Tank Capacity = 2000 Gallons

Drainfield Trench Design

Initial System
 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.6 ft

1st Replacement
 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.6 ft

2nd Replacement
 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.6 ft

DESIGN DATA & GENERAL NOTES

- Concrete Strength f'c = 4000 psi @28 days, Density = 150 pcf.
- Current Portland Type IV per ASTM C 150-02.
- Admixtures & plasticizers per ASTM C260-06 & C494-02.
- Reinforcing per ASTM A108, Min 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, 4" base, & 5" top thickness.
- Max 3' cover.
- Depending on use of tank, Inlet & Outlet baffle may be required by code.

2000 GALLON CAPACITY SEPTIC TANK
 MANUFACTURER: Mayer Brothers Inc
 www.mayerbroprecast.com

NOTES

- Any change to the location or depths to any components must be approved by the engineer and the Howard County Health Department prior to installation. A revised plan may be required.
- The maximum earth cover over the tank is 3 feet. Greater earth cover will require a heavy load bearing tank.
- Electrical work for installation must be performed by a licensed electrician.
- The well (tag# HO-94-4158) has been field located and is accurately shown.
- All wells and septic systems located within 100' of property boundaries and 200' down gradient of any wells and/or septic systems have been shown.
- No grading or placement of dirt/earth or equipment is allowed within the septic area.
- Existing well (tag# HO-94-4158) was field located by CORNERSTONE SURVEYING, INC on NOVEMBER 2020.

PERCOLATION TEST RESULTS

Test#	Date Test Performed	Depth	Start	Break 1 st Drop	Stop 2 nd Drop	Time of 2nd Inch	P/F/H
1	5/30/2012	3' - 12"	10:59	11:03	11:08	5 MIN	P
2	5/30/2012	3.5' - 12"	11:28	11:38	11:50	12 MIN	P
3	5/30/2012	REFUSAL					FAIL
4	5/30/2012	3' - 12"	10:37	10:40	10:47	7 min	P
5	5/30/2012	3.5' - 12"	11:50	11:54	12:00	6 min	P
6	5/30/2012	12"		VISUAL	PASS		P
Average							7 min

ON-SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

DAISY ROAD - 1.00A. DAISY RD

PROJECT ADDRESS: 3190 DAISY ROAD, WOODBINE, MD 21797
OWNER/APPLICANT INFO: AKINBODE FUNMILAYO EUNICE, Phone: (443) 280-0158, Email: yonakibode1@hotmail.com

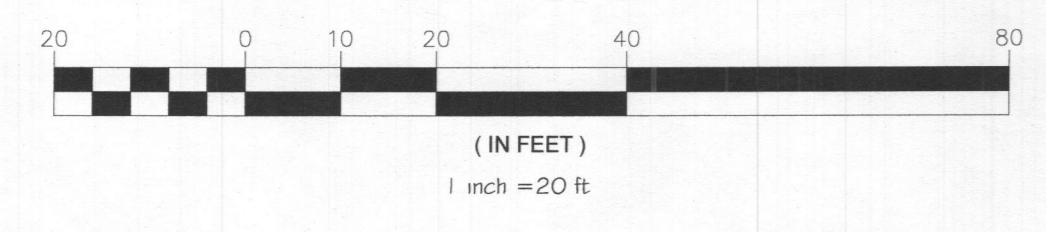
TAX ACC: 346033
PARCEL: 122
ZONING: RC-DEO
LIBERS FOLIO: 20158/196

4th DISTRICT HOWARD COUNTY, MD

RAZTEC ASSOCIATES, INC.
 civil engineers & planners
 3451 Emy's Place, Monrovia, Tel: (301) 775-4394
 Maryland 21770, email: razteceng@comcast.net

PROFESSIONAL'S REVIEW STATEMENT:
 I 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 NUMBER: 22142. EXPIRES: JUNE 15, 2024

REV#	DATE	(REVIEW AGENCY) COMMENTS ADDRESSED
1	03/15/2024	(REVIEW AGENCY) COMMENTS ADDRESSED



DRAWN BY: PG	DATE: MARCH, 2024	SCALE: 1"=20'	SHEET NUMBER: SSP 1 OF 1
CHECKED BY: MR			



LEGEND			
FEATURE	SYMBOL	FEATURE	SYMBOL
EXISTING STRUCTURES		PROPOSED END SECTION / RIPRAP	
PROPOSED STRUCTURES		PROP. STORM DRAIN PIPE	
BUILDING RESTRICTION LINE		PROPOSED DOWN-SPOUT	
PROPERTY BOUNDARY LINE		EXISTING WATER WELL	
EXISTING TOPOGRAPHY		PROP. WATER HOUSE CONNECTION	
PROPOSED GRADING		PROP. SEWER CONNECTION	
EXISTING TREE LINE		MICRO BIO-RETENTION	
EXISTING FENCE		OBSERVATION WELL	
LIMIT OF DISTURBANCE		PROPOSED STORM DRAIN INLET	
OVERHEAD ELECTRICAL WIRE		PROP. SEWER TRENCH	
PROP. ELECTRICAL CONNECTION		TO BE REMOVED	
SOIL TYPE BOUNDARY		TO BE SAVED	
PERCOLATION TEST PIT - PASSED		PROP. SEWER DISTRIBUTION BOX	
PERCOLATION TEST PIT - FAILED		PROP. SEWER CLEANOUT	
SEWER / WELL BOX SETBACK		SEWAGE DISPOSAL AREA	
EXISTING TREE (TO BE REMOVED)		PROPOSED SPOT ELEVATION	
		EXISTING TREE (TO BE SAVED)	

GENERAL NOTES

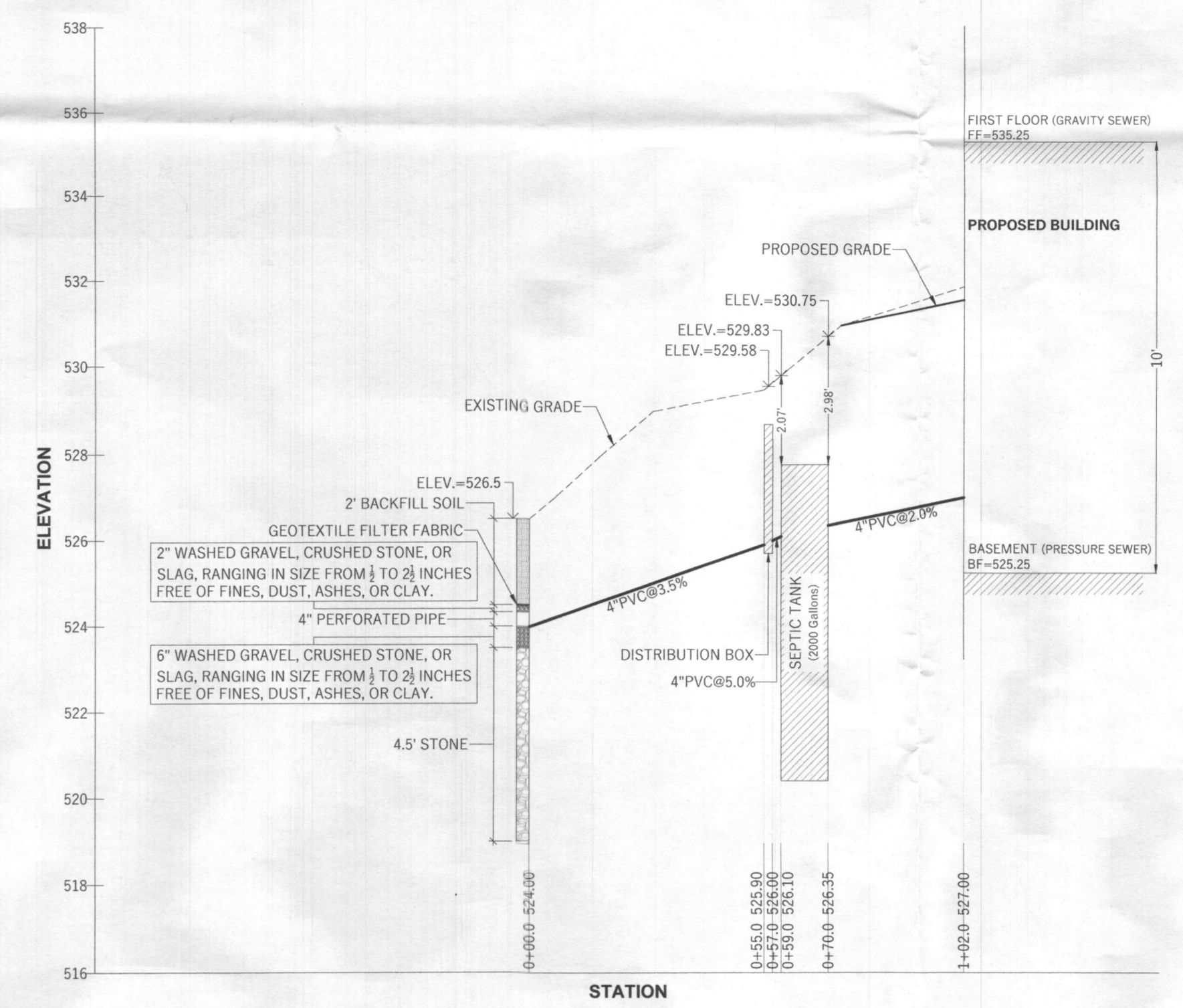
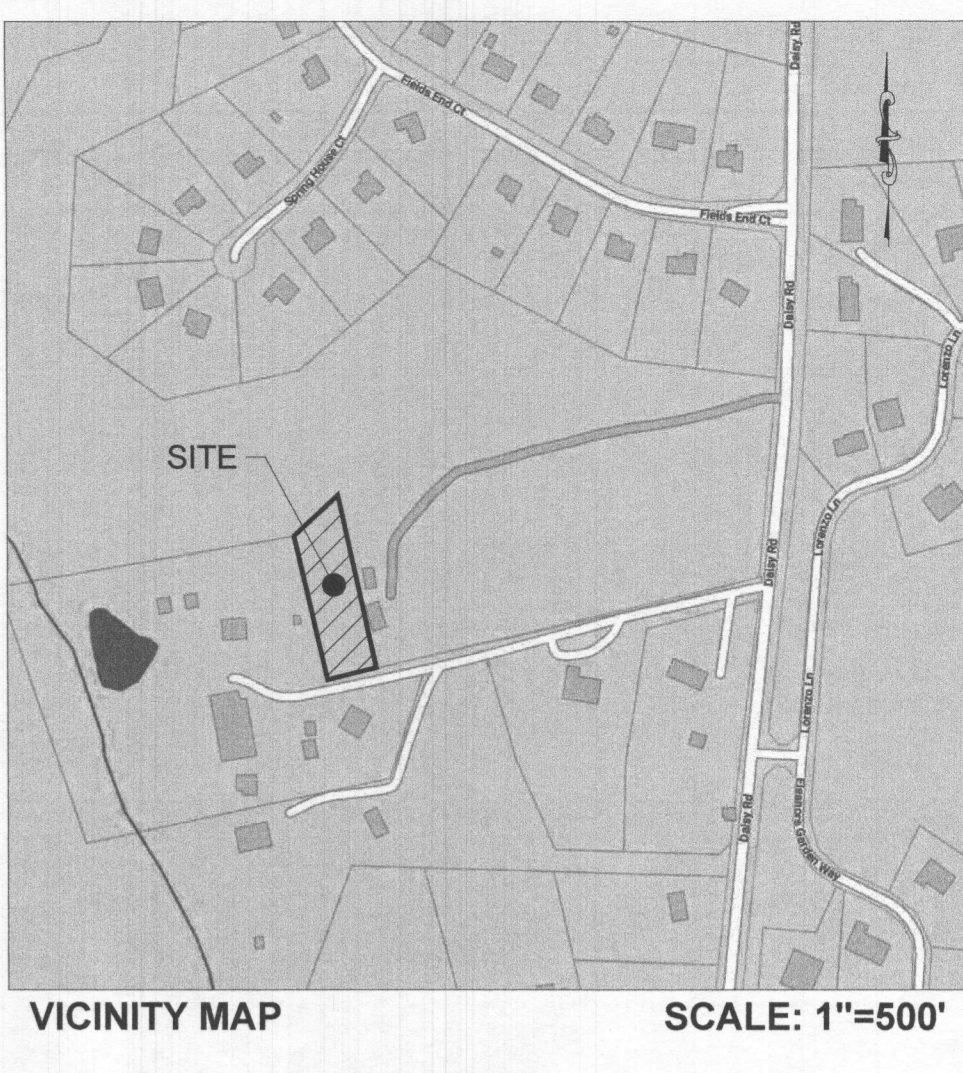
- Project Name: 3190 DAISY RD - 1.00A, DAISY ROAD
- Project Address: 3190 DAISY RD., WOODBINE, MD 21797
- Owners: AKINBODE FUNMILAYO EUNICE
- Net Tract Area: 43,553.11 S.F. (1.00AC.)
- Parcel #: 122
- Map: 20
- Grid: 0006
- Lib: 20158
- Folio: 00195
- Tax Account #: 346033
- Election District Number: 4
- Zoning: RC-DEO
- Existing Use: Residential
- Proposed Use: Residential (Single Family)
- Setbacks: Required: Provided
- Front: 50' 94.3'
- Rear: 25' 193.4'
- Sides: 10' 15.9' & 13.4'

16. The Topography information shown hereon is based on field-run survey, conducted in May, 2021 by CORNERSTONE SURVEYING, INC.
6024 Clarendon Dr, Owings, MD 20736

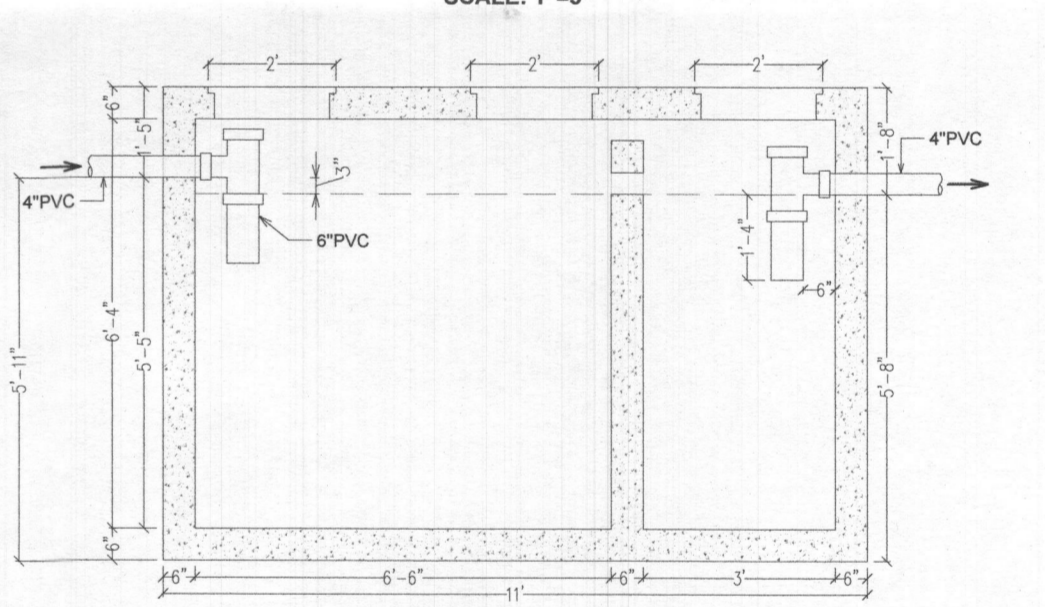
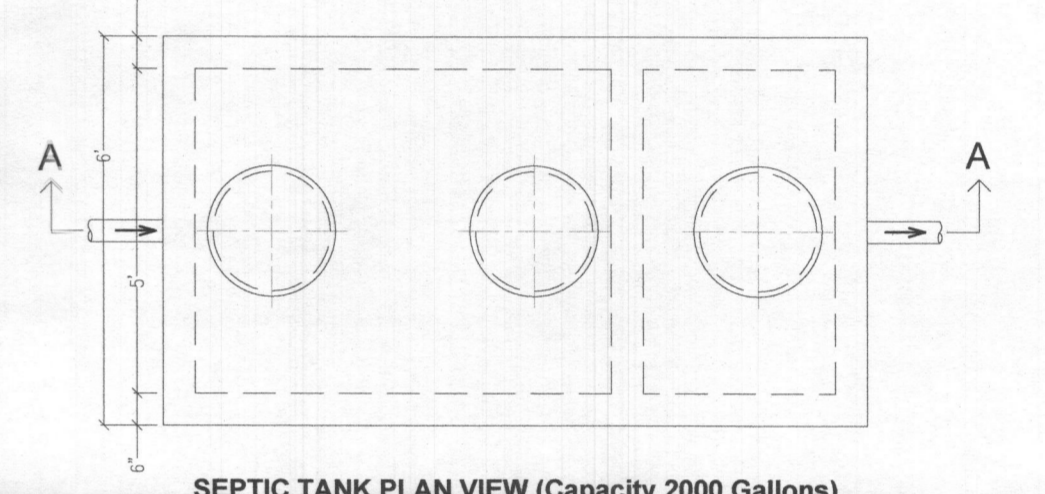
17. The potable water lines must be installed for 4. and the Well Completion Reports approved by the Health Department, prior to Building Permit Approvals for the respective lots.

18. Underground well and sewerage components shown hereon are based on available public records and visible surface evidence, no subsurface exploration has been performed to verify their location.

19. This plat was prepared without the benefit of a title report. It does not show every matter affecting ownership and use, nor every matter restricting the ownership on use of the property.



SOIL SUMMARY TABLE							
Howard County, Maryland (MD027)							
Map unit symbol	Map unit name	HSG	K Factor	Hydric Rating	Drainage Class	Acres in AOI	Percent of AOI
GgB	Gently loam, 3 to 6 percent slopes	B	0.24	0	Well drained	0.51	50.69%
GgC	Gently loam, 6 to 15 percent slopes	B	0.24	0	Well drained	0.49	49.31%
Total for Area of Interest						1.00	100.00%



2000 GALLON CAPACITY SEPTIC TANK
MANUFACTURER: **OLDCASTLE**
www.oldcastleprecast.com

- NOTES**
- Any change to the location or depths to any components must be approved by the engineer and the Howard County Health Department prior to installation. A revised plan may be required.
 - The maximum earth cover over the tank is 3 feet. Greater earth cover will require a heavy load bearing tank.
 - Electrical work for installation must be performed by a licensed electrician.
 - The well (tag# HO-94-4158) has been field located and is accurately shown.
 - All wells and septic systems located within 100' of property boundaries and 200' down gradient of any wells and/or septic systems have been shown.
 - No grading or placement of dirt/earth or equipment is allowed within the septic area.
 - Existing well (tag# HO-94-4158) was field located by CORNERSTONE SURVEYING, INC on NOVEMBER 2020.

PERCOLATION TEST RESULTS

Test#	Date Test Performed	Depth	Start	Break 1" Drop	Stop 2" Drop	Time of 2nd Inch	P/F/H	
1	5/30/2012	3' - 12"	10:59	11:03	11:08	5 MIN	P	
2	5/30/2012	3.5' - 12"	11:28	11:38	11:50	12 MIN	P	
3	5/30/2012	REFUSAL			@8'		FAIL	
4	5/30/2012	3' - 12"	10:37	10:40	10:47	7 min	P	
5	5/30/2012	3.5' - 12"	11:50	11:54	12:00	6 min	P	
6	5/30/2012	12"		VISUAL	PASS		P	
Average							7 min	

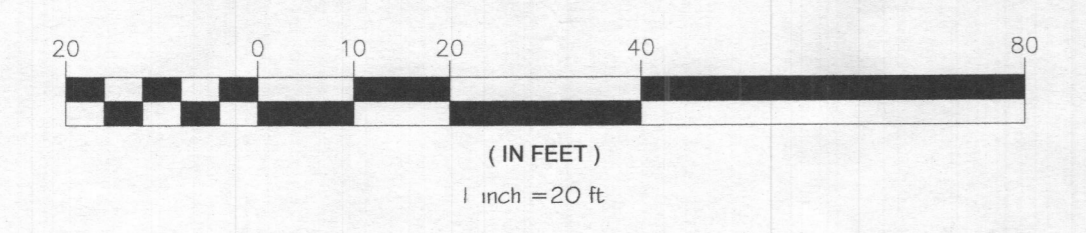
Calculations For Septic Design
Design Criteria
Design Flow = 150 (gpd/Bedrooms) x 5 (Bedrooms) = 750 gpd
Average of Percolation Rate = 7 Min./Inch
Application Rate = 0.8 gpd/sq.ft.
Site of Subsurface Disposal System = 938 SF
Square Footage of House = 9251 SF
Septic Tank Capacity = 2000 Gallons

Drainfilled Trench Design
Initial System
Width of Trench (W) = 3 ft
Effective Depth of Gravel Below Pipe (D) = 5 ft
Percent of Length of Standard Trench = $(W+2)/(W+1+2D) \times 100 = 36\%$
Length of Standard Trench = $938 / 3 = 312.67$ ft
Length of Trench = $312.67 \times 0.36 = 112.6$ ft

1st Replacement
Width of Trench (W) = 3 ft
Effective Depth of Gravel Below Pipe (D) = 5 ft
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REV#	DATE



ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

DAISY ROAD - 1.00A, DAISY RD

PROJECT ADDRESS: 3190 DAISY ROAD, WOODBINE, MD 21797

OWNER/APPLICANT INFO: AKINBODE FUNMILAYO EUNICE
Phone: (443) 280-0158
Email: yoniskinbode1@hotmail.com

MAP GRID: 20 6
TAX ACC: 346033
PARCEL: 122
ZONING: RC-DEO
LIBERTY FOLIO: 20158 195

4th DISTRICT
HOWARD COUNTY, MD

PROFESSIONAL REVIEW STATEMENT
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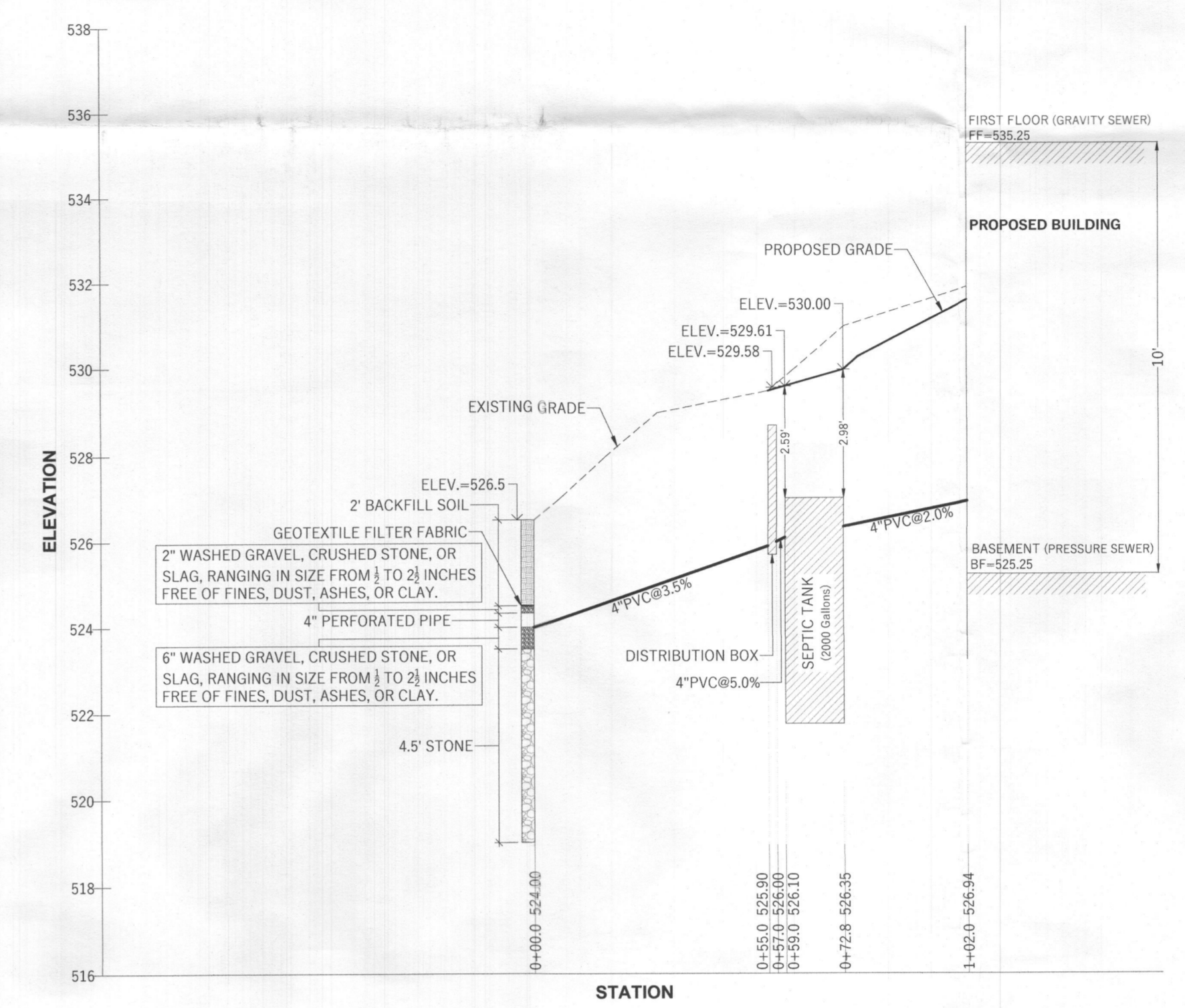
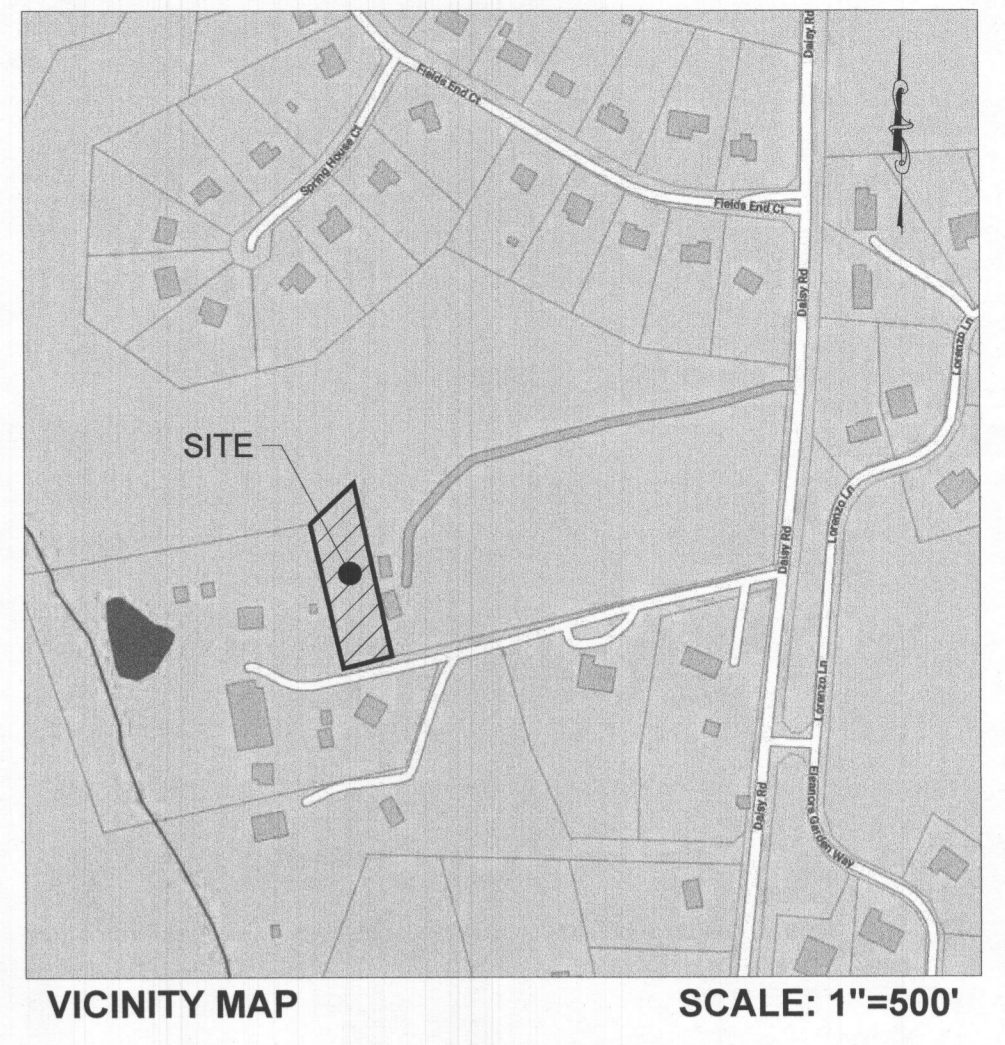
RAZTEC ASSOCIATES, INC.
civil engineers & planners
3451 Emys Place, Monrovia, MD 21770
Tel: (301) 775-4394
email: raztecengr@comcast.net

DRAWN BY: PG
CHECKED BY: MR
DATE: FEB, 2024
SCALE: 1"=20'
SHEET NUMBER: SSP 1 OF 1



LEGEND			
FEATURE	SYMBOL	FEATURE	SYMBOL
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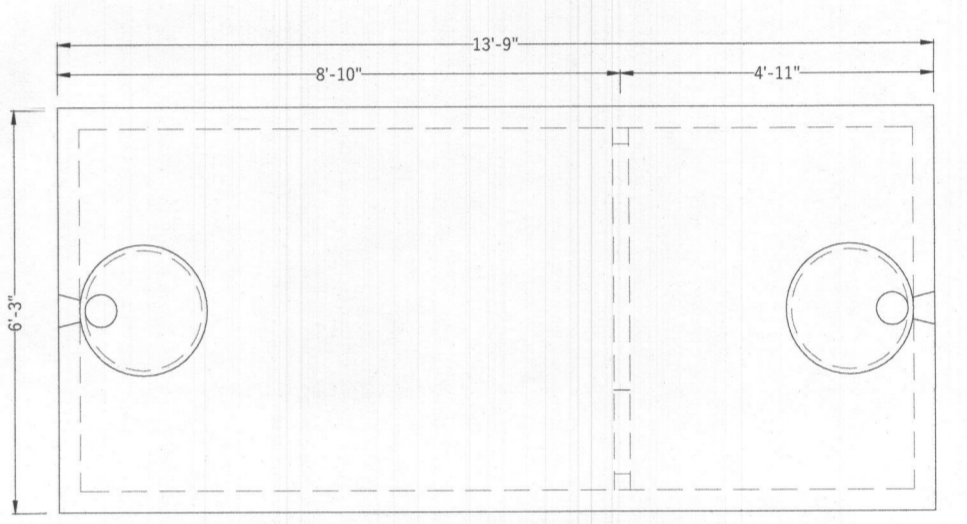
PROPOSED SEWER HOUSE CONNECTION PROFILE
 VERTICAL SCALE: 1"=3'
 HORIZONTAL SCALE: 1"=30'



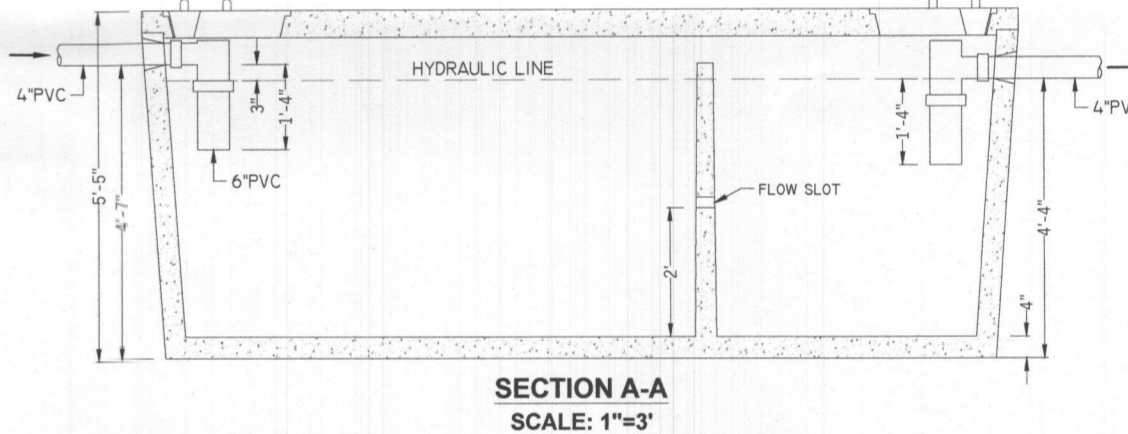
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Total for Area of Interest						1.00	100.00%

https://webtools.survey.sos.gov/usda/gov/Map/WebSoilSurvey.aspx



SEPTIC TANK PLAN VIEW (CAPACITY 2000 GALLONS)
SCALE: 1"=3'



SECTION A-A
SCALE: 1"=3'

DESIGN DATA & GENERAL NOTES

- Concrete Strength (C=4000 psi @28 days, Density=160 pcf.
- Concrete - Portland Type 18 per ASTM C 150-02.
- Admixtures & plasticizers per ASTM C200-86 & C494-02.
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MANUFACTURER: Mayer Brothers Inc
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 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.67 ft

1st Replacement
 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.67 ft

2nd Replacement
 Width of Trench (W) = 3 ft
 Effective Depth of Gravel Below Pipe (D) = 5 ft
 Percent of Length of Standard Trench = ((W+2)/(W+1+2D))x100 = 36 %
 Length of Standard Trench = 938 / 3 = 312.67 ft
 Length of Trench = 312.67 x 0.36 = 112.67 ft

Approved Septic System Plan
 Howard County Health Department
 David Haines
 Signature: [Signature] Date: 5-1-24

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

DAISY ROAD - 1.00A, DAISY RD
 PROJECT ADDRESS: 3190 DAISY ROAD, WOODBINE, MD 21797
 OWNER/APPLICANT INFO: AKINBODE FUNMLAYO EUNICE
 Phone: (443) 280-0158
 Email: yomakinbode@hotmail.com

MAP# GRID: 2015
 TAX ACC.: 346033
 PARCEL: 122
 ZONING: RC-DEO
 LIBER/FOLIO: 20158/196

4th DISTRICT
 HOWARD COUNTY, MD

RAZTEC ASSOCIATES, INC.
 civil engineers & planners
 3451 Emrys Place, Monrovia, MD 21770
 Tel: (301) 775-4304
 email: raztecengr@comcast.net

PROFESSIONAL REVIEW STATEMENT:
 I 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 NUMBER: 22742 EXPIRES: JUNE 15, 2024

DRAWN BY: PG	DATE: MARCH, 2024	SCALE: 1"=20'	SHEET NUMBER: SSP 1 OF 1
CHECKED BY: MR			

REV#	DATE	REVISIONS
1	03/15/2024	(REVIEW AGENCY) COMMENTS ADDRESSED

