

Bureau of Environmental Health
 7178 Gateway Drive Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

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

APPLICATION FOR PERCOLATION TESTING AND SITE EVALUATION

PROPERTY LOCATION

SUBDIVISION/PROPERTY NAME Maiolatesi Property LOT # 2
 PROPERTY ADDRESS 7330 Guilford Road Clarksville 21029
STREET TOWN ZIP
 TAX ACCOUNT # 383862 TAX MAP 35 GRID 22 PARCEL 359 ZONING DESIGNATION Rural Residential

PROPERTY OWNER(S) Robert Maiolatesi

DAYTIME PHONE _____ CELL _____ EMAIL _____

MAILING ADDRESS 7330 Guilford Road Clarksville MD 21029
STREET CITY, STATE ZIP

* APPLICANT CLSI RELATIONSHIP TO OWNER: Agent

DAYTIME PHONE (410) 848-1790 CELL _____ EMAIL alexander@clsi-civileng.com

MAILING ADDRESS 439 E. Main St Westminster MD 21157
STREET CITY, STATE ZIP

I HEREBY APPLY FOR THE NECESSARY TESTING/EVALUATION PRIOR TO ISSUANCE OF SEWAGE DISPOSAL SYSTEM PERMIT(S):

BUILDING:
 RESIDENTIAL WITH 5 EXISTING OR PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE (CURRENTLY 4 bdrm house)
 COMMERCIAL (PROVIDE DETAIL OF TYPE OF USE AND NUMBERS OF EMPLOYEES/CUSTOMERS ON ACCOMPANYING PLAN)

PROPERTY:
 SUBDIVISION: NUMBER OF LOTS INCLUDING RESIDUE: _____
 CONSTRUCT NEW OSDS ON UNDEVELOPED LOT
 REPAIR OR REPLACE FAILING OSDS
 UPGRADE EXISTING OSDS

IS THE PROPERTY WITHIN 2500 FEET OF ANY RESERVOIR?
 YES
 NO

AS APPLICANT, I UNDERSTAND THE FOLLOWING:

- THIS APPLICATION IS VALID FOR TWO(2) YEARS FROM DATE OF FEE PAYMENT AND APPROVAL IS BASED UPON HEALTH OFFICER SIGNATURE OF A PERC CERTIFICATION PLAN PRIOR TO EXPIRATION OF THIS PERMIT.
- THE APPLICATION FEE IS NON-REFUNDABLE
- THIS APPLICATION MUST BE ACCOMPANIED BY ALL APPLICABLE FEES AND A SUITABLE SITE PLAN IN ORDER TO BE PROCESSED
- THIS IS A PUBLIC DOCUMENT

I declare and affirm that to the best of my knowledge, the information contained herein is correct. I declare that I am the owner of the property or duly authorized to make this application on behalf of the owner. I agree to comply with all applicable state and county regulations.

By signature of this application, I hereby grant Howard County Health Department officials the right to enter onto the property for the purpose of inspecting the property as directly related to the requested permit/service.

Alexander 7-15-2013
 SIGNATURE OF APPLICANT DATE

Q: What functions does your controller monitor and how often are the monitored?

A:

Pump run times, 90-day flow data as well as other technical operational information (e.g. Alarm history). Also, for commercial systems, we download and review monthly operational information.

Q: Do you offer a load bearing system?

A:

Yes. H-20 load bearing systems are available for both residential and commercial systems. We can install under parking lots, driveways etc. All H-20 loaded systems are in concrete tanks with access hatches at grade. Most competitive systems are not able to offer this option.

Q: Can you treat FOG?

A.

Yes, our system can treat fats, oils and greases in low (< 40 mg/l) concentrations. For high FOG applications we recommend increasing the size and/or number of traps. (Prefer number of traps to increase cooling surface contact, but maintain same retention time). We require a grease trap exclusively for kitchen waste (keeping sanitary waste separate).

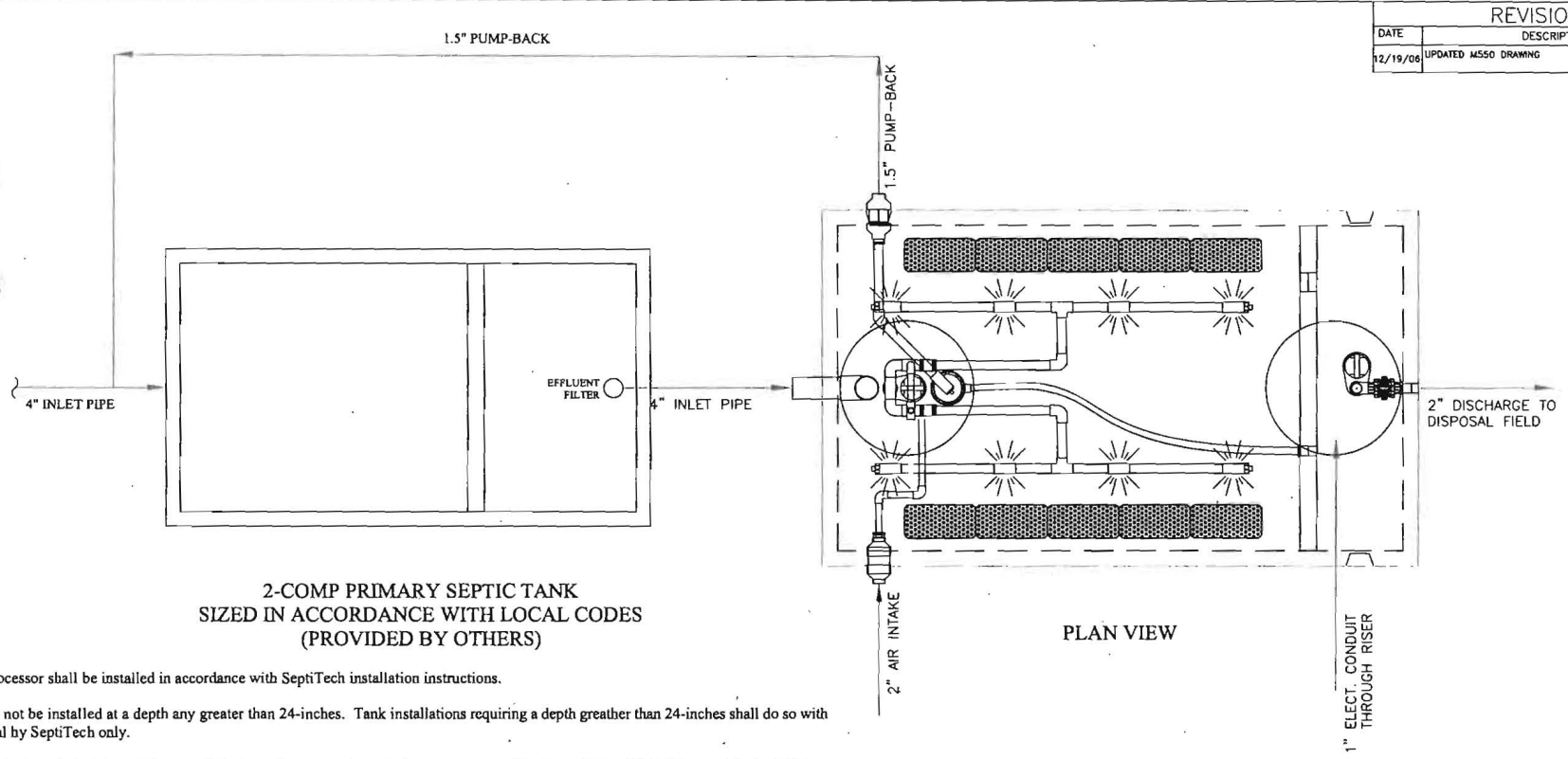
Q: How do pump stations interface with SeptiTech technology?

A: Nearly all of the time our built in discharge pump (duplex for larger systems) eliminates the need for a separate pump station. We size and program discharge pumps to meet pumping requirements of the disposal field, within limits. (Our default discharge cycle is for discharge 24-times per day. If a requirement calls for field dosing 4 times per day at 75-gallons per minute at 1500-gpd, then this can interfere with our treatment protocol.

Q: What are overall strengths and weakness of SeptiTech technology?

A:

Strengths	Weaknesses
1. Usually eliminates pump station	1. Relatively high power consumption.
2. H-20 load bearing option available	2. Relatively higher priced than some simple systems.
3. We can fit our system into multiple local tank suppliers to reduce overall cost.	3. Must have pumped discharge – no gravity flow through (although this is also a positive to prevent system neglect and abuse.)
4. Can monitor system remotely.	4. Pumps are not name-brand. Gould is known, but Tsurimi is not necessarily well-known.
5. Visually pleasing. No above ground components.	5.
6. Low maintenance	
7. Small footprint	
8. Custom PLC-control to meet site-specific needs and requirements.	
9. Robust and fast start-up Immediate treatment upon start-up with optimal BOD/TSS numbers within 7 days and 30 days for total nitrogen.	




2-COMP PRIMARY SEPTIC TANK
 SIZED IN ACCORDANCE WITH LOCAL CODES
 (PROVIDED BY OTHERS)

PLAN VIEW

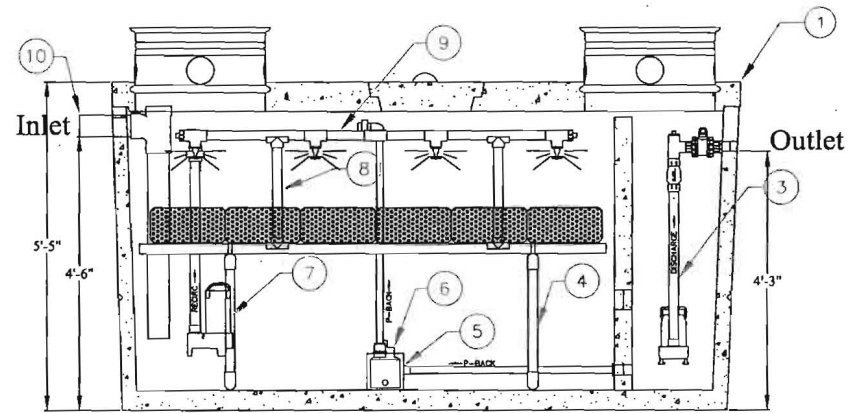
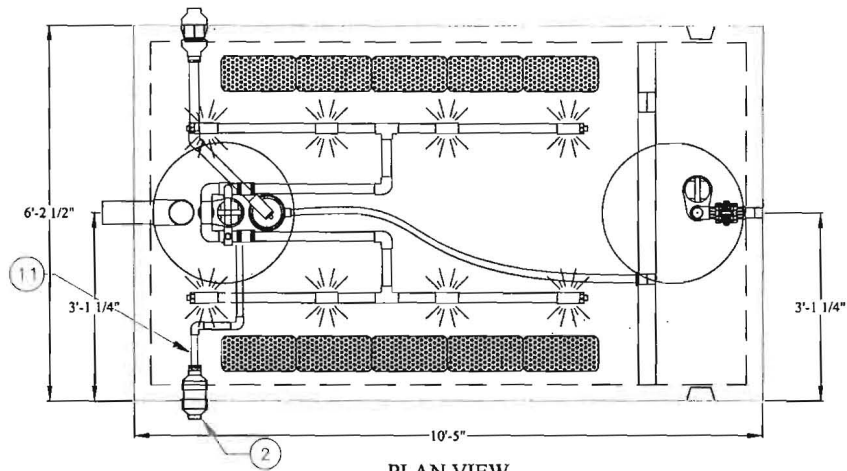
REVISIONS		
DATE	DESCRIPTION	INIT
12/19/06	UPDATED M550 DRAWING	JSC

GENERAL NOTES

- SeptiTech processor shall be installed in accordance with SeptiTech installation instructions.
- Tank(s) shall not be installed at a depth any greater than 24-inches. Tank installations requiring a depth greater than 24-inches shall do so with prior approval by SeptiTech only.
- Tank(s) shall be installed with a minimum of 6-inches of compacted crushed pea stone or sand bedding. Select fill shall be used for backfilling around tanks.
- Exterior Piping: Contractor is responsible for supplying and installing all exterior piping per SeptiTech installation drawings.
- Air Intake Piping: Air intake snorkel shall be installed within 100 feet of the processor tank. Air intake piping shall be installed such that a positive pitch is provided back towards the processor tank such that any condensation build up is free to drain.
- Pipe Insulation: Contractor is responsible for insulating all piping exterior to the SeptiTech processor including the discharge line from the processor to the disposal field.
- Tank Insulation: After tank has been installed, contractor shall insulate the top and sides of the processor tank below frost depth (4-feet minimum) with 2" rigid foam (blue) board insulation and then complete backfilling.
- Electrical: All electrical work is the responsibility of the contractor's licensed electrician and is not provided by SeptiTech. System Controller should be installed in a heated building where an ambient temperature range of 60 to 90 degrees F is maintained. If the control panel must be located outside, please notify SeptiTech, Inc. so a heater may be installed within the enclosure.

		DES. BY: DRR
		DR. BY: WDR
		CK. BY: DRR
PROJECT NO.:		
M550(C) MAINE INSTALLATION SCHEMATIC		
DATE: 3-11-02	DWG. NO.:	
SCALE: 1/2" = 1'-0"	REV.:	1

REVISIONS		
DATE	DESCRIPTION	INIT
02/19/06	UPDATED M550 DRAWING	JSC



ITEM	QTY.	PART NO.	DESCRIPTION
11	1	#####	Air Header Assembly
10	1	#####	Inlet Piping Assembly
9	1	#####	Spray Header Assembly
8	1	#####	Spray Header Support Structure
7	1	#####	Recirculation Pump
6	1	#####	Pump Back Assembly
5	1	#####	Pump Back Stand Assembly
4	1	#####	Support Structure
3	1	#####	Discharge Pump Assembly
2	3	#####	Wall Insert Assembly
1	1	#####	1500 Gal. Concrete Tank



DES. BY: DRR
DR. BY: WDR
CK. BY: DRR

PROJECT NO.:

M550(C) MAINE
TOTAL TANK LAYOUT

DATE:	3-11-02	DWG. NO.:	
SCALE:	1/2" = 1'-0"	REV.:	1

Answers to Questions Asked by Engineers

Q: What about SeptiTech's Power Consumption?

A:

More robust trickling filter technology means that system is generally higher consumer of electricity than some of the simpler treatment technologies BUT PLC controlled SeptiTech system is more flexible and versatile to minimize power use. For example:

- a. System automatically adjusts for no flow conditions. (1st 24 hours after no flow = no change, or 80% of each 30 minute cycle. 2nd 48 hours of no flow = step down to 25% of each 30 minute cycle. Then it transitions into "refresh" mode of 7.5 minutes every 4 hours. Commercial systems are a bit different with expectation of more constant flows. (Recirc pump is workhorse – consuming the bulk of power. Pumpback and discharge consume very small percentage of overall power).
- b. If flows are way under design capacity, adjustments can be made manually (via the PLC) to reduce the standard 20/30 run time (although 30 minute duty cycle remains constant). Typical reduction is down to 60% recirc from standard 80% recirc. (based on full capacity and continuous use).
- c. Majority of competitive technologies do not have the ability to be re-programmed to fit on-site conditions.

Q: Can you treat high strength wastewater?

A:

Absolutely. We design system based on biological and hydraulic loading and err toward conservative design.

- a. For designs of standard domestic wastestreams we assume strength of BOD—250 mg/l, TSS—150 mg/l and TN—40-45 mg/l.
- b. Our system design allows us to retain water in the system longer than other technologies. (We're not a "one-gallon-in = one-gallon-out" system).
- c. Note: Since our system is a biologic process, we do not treat industrial or chemical wastestreams.

Q: To what purification level do you treat?

A:

Typically to whatever level is specified.

- a. Virtually always meet NSF standards of 30/30 (BOD and TSS). NSF and ETV test data shows very low single digit range numbers.
- b. Careful to make sure that requirements are realistic. For instance, cannot achieve nitrification (TKN to Nitrate) unless BOD is less than 15 mg/l.
- c. Nitrogen: Maximum stand alone denite number is about 75% removal (using our denitrification system). We can only achieve single digit TN numbers with the addition of a Nitrex system.
- d. Our technology does not currently treat for phosphorus.
- e. One reason for these low numbers is the fact that we dilute incoming wasteflows with a reservoir of previously cleaned, retained water. (About 500-gallons of retained capacity in an M400 system).

Operation Note: Since our system operates within the high and low float band (about 4-inches in a residential system), and it takes 23-24 gallons to increase water depth by 1-inch in an M400 system, then there is about 92-gallons of surge capacity. When high float alarm is triggered, then the discharge pump automatically come on so that system operates within the surge capacity (between high and low floats). During normal operation however, the discharge is timer based and discharges only once per hour and only alters from this program if the high float is triggered.

Q: How far from system can the air intake pipe be located?

A:

We recommend a maximum of 100-feet although this is not an absolute.

- a. When warm humid air condenses and cools in the underground pipe, condensation moisture accumulates in pipe. This must drain back into system so it is important that the pipe be free-draining and pitched positively (min. 2% or 1/4" to 1-foot) back to processor.
- b. Locate pipe away from windows if possible as there may be a whisper of air intake and we recommend that this is out of easy earshot.

- c. For simple and clean aesthetics, we recommend air intake placement behind trees or bushes.

Q: Are there odors associated with your system?

A:

Open lids to system and you should smell a mild "earthy" treated wastewater smell –not a septic smell.

- a. Systems are typically vented through the vent stack of the building, with air traveling back from the processor back through the septic tank and up through the vent system and stack.
- b. If a pump station is in use to prevent the free flow of air, then system must be vented elsewhere as we do not want air from intake exiting through hatch covers, but rather we offer a vent to offer air from Processor an exit vent of least resistance.

Q: Do you provide electrical, piping or insulation materials?

A:

No. Unless other arrangements have been made, we supply the Processor tank, air intake "muffler," pump-back "T" (for insertion between building and septic tank), and controller.

Typically an electrician supplies electrical materials, the installing contractor supplies exterior piping, exterior fittings and insulation

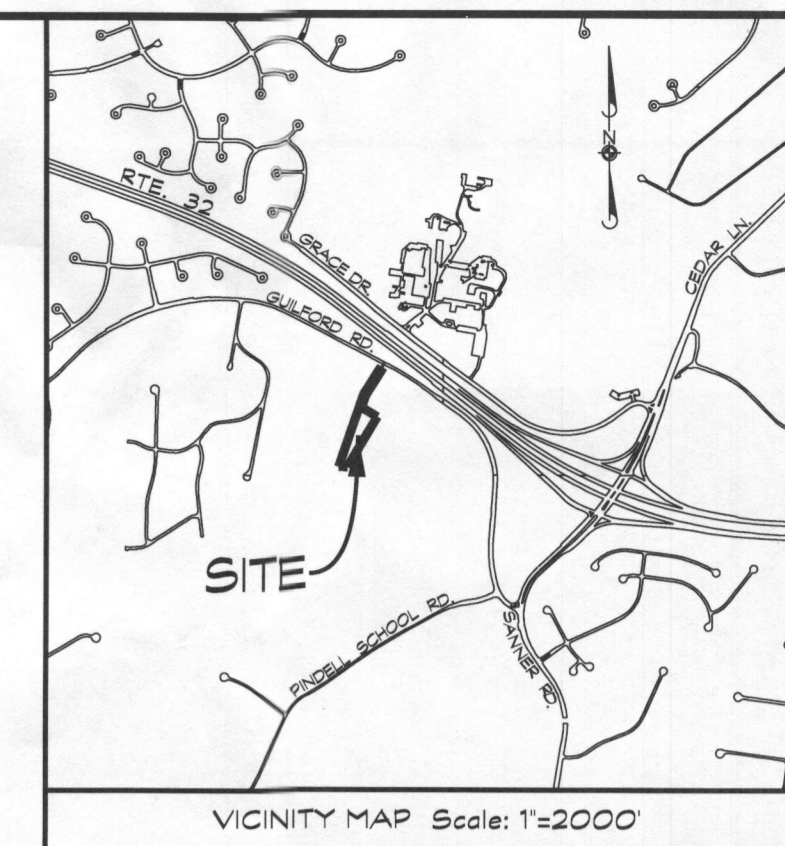
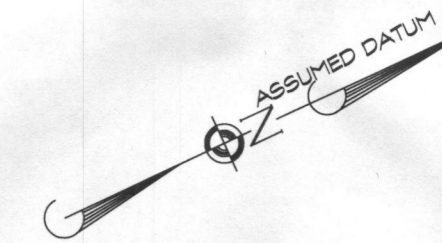
Q: Do you offer a telemetry package with your systems?

A:

Yes. Communication packages come standard with commercial units and are installable options on residential systems. Communication packages consist of either autodialer, modem or both. A phone line (not necessarily dedicated) is required, although a wireless package is available. Typical cost for a full communication package components on a residential system is about \$500.

- a. Note: Operational information is still available even without telemetry. Information may be obtained on the OIT screen as well as downloaded from the controller that would include pump run times, 90-day flow data as well as other technical operational information (e.g. Alarm history).

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS EASEMENT ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF THE MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.



SOILS LEGEND	
SOIL	TYPE
GgB	GLENELG
GmB	GLENVILLE
GnB	GLENVILLE
McC	MANOR

GENERAL NOTES

- CURRENT TITLE REFERENCE: OWNER ROBERT MAIOLATESI DEED REFERENCE: LIBER 1343, FOLIO 196 DATE: MAY 1, 1985 GRANTOR: ROBERT MAIOLATESI & WF
- THE PROPERTY SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT
- ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND 200 DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
- THE TOPOGRAPHY OF THIS PLAT IS TAKEN FROM HOWARD COUNTY AERIAL TOPOGRAPHY AND IS VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY.
- HORIZONTAL AND VERTICAL CONTROL FOR THIS SITE IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3428001 AND NO. 3428002
- B.R.L. - DENOTES BUILDING RESTRICTION LINE
- THE BOUNDARY INFORMATION SHOWN IS FROM THE DEED.
- ANY CHANGES TO THE PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- THE PURPOSE OF THIS CERTIFICATION IS TO REPLACE THE EXISTING SEPTIC AREA @ #7330.
- THE LOCATION OF THE EXISTING TRENCHES WERE TAKEN FROM THE AS-BUILT SKETCH PROVIDED BY HOWARD COUNTY HEALTH DEPARTMENT AND ARE NOT BASED ON A FIELD SURVEY BY CLSI INC.

DATA TABULATIONS:

- ZONING DISTRICT: RURAL RESIDENTIAL DENSITY EXCHANGE OPTION
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF SUBDIVISION: 2.48 ACRES

"AS TO THE LOCATION OF THE EXISTING WELLS AND SEPTIC SYSTEMS I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF."

Dennis E. Meckley, Property Line Surveyor No. 10844

"APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEMS"

HEALTH OFFICER, HOWARD COUNTY HEALTH DEPT. DATE

**PERCOLATION CERTIFICATION PLAN
LOT #2
#7330 GUILFORD ROAD
MAIOLATESI PROPERTY**

PLAT # 4 104
TAX MAP 35, GRID 22, PARCEL 359
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



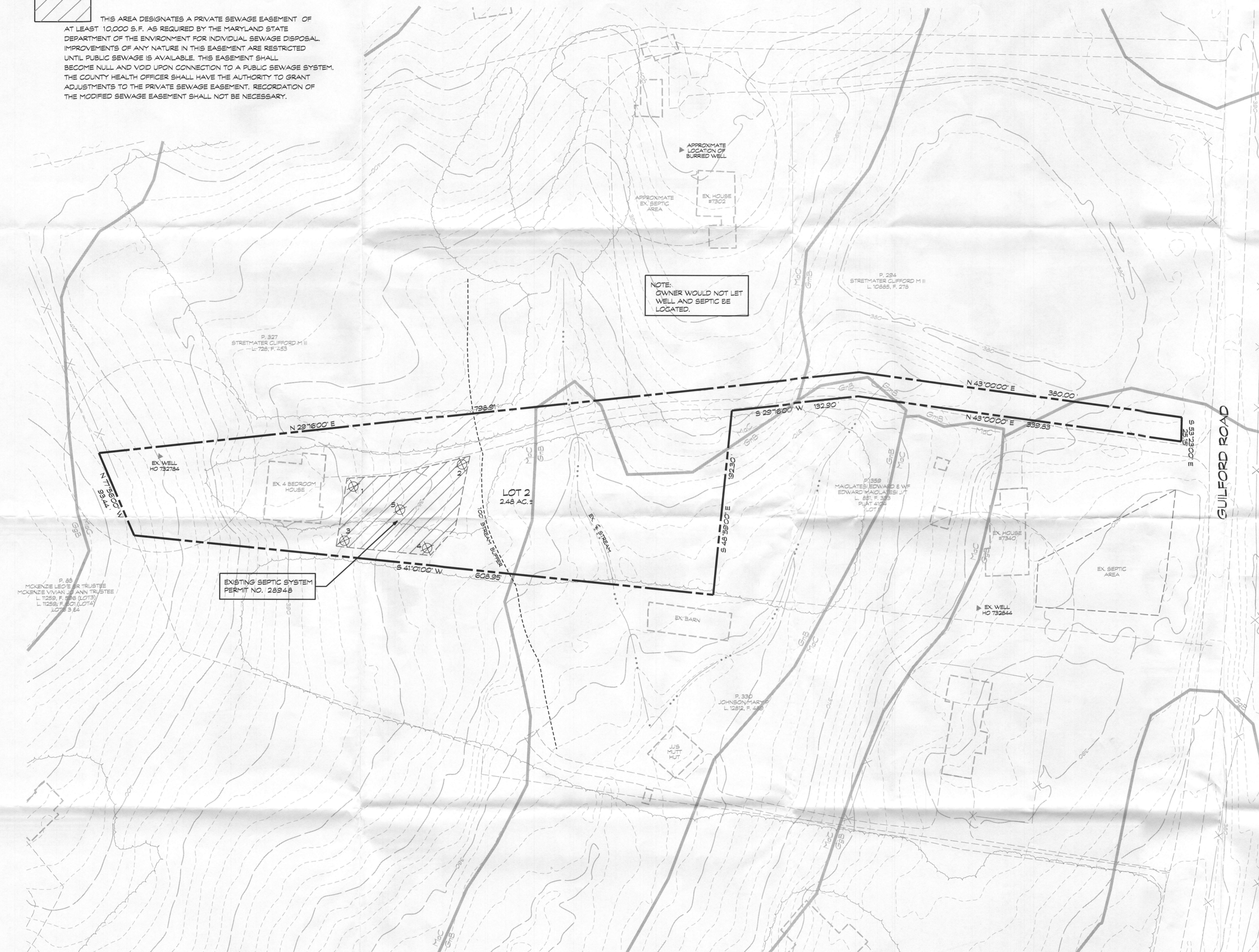
Dennis E. Meckley, Property Line Surveyor Reg No. 10844 License Expires 03/29/16
439 East Main Street Westminster, MD 21157-5539 (410) 848-1790 FAX (410) 848-1791

Date	Revisions	Drawn By:	BM1
		Designed By:	
		Reviewed By:	
		Date:	7/3/13
		Scale:	1" = 50'
		Job No.:	2013079
		Sheet:	1 OF 1

OWNER/ DEVELOPER
ROBERT MAIOLATESI
7330 GUILFORD ROAD
CLARKSVILLE, MD 21029

LEGEND	
	-DENOTES EXISTING SEPTIC RESERVE AREA
	-DENOTES PROPOSED PERC
	-DENOTES APPROVED PERC
	-DENOTES EXISTING WELLS
	-DENOTES BRL (BUILDING RESTRICTION LINE)

PERC RESULTS	
TEST #	RESULT
1	
2	
3	
4	
5	



NOTE: OWNER WOULD NOT LET WELL AND SEPTIC BE LOCATED.

EXISTING SEPTIC SYSTEM PERMIT NO. 28948

LOT 2
2.48 AC.

P. 89
MCKENZIE LEO & BARK TRUSTEES
MCKENZIE VIVIAN & BARK TRUSTEES
L. 11259, P. 308 (LOT 13)
L. 11258, P. 301 (LOT 14)
L. 11257, P. 304

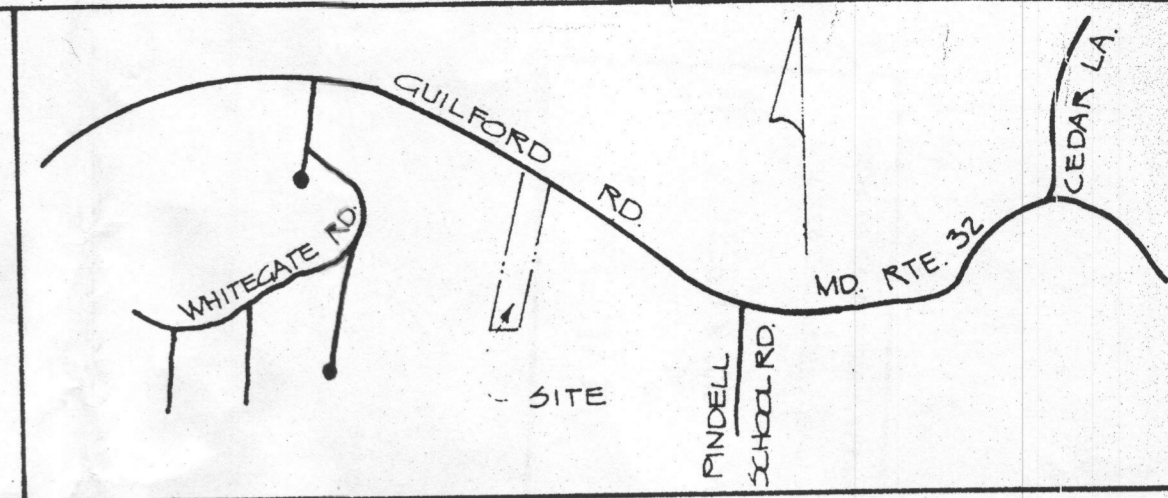
P. 327
STRETMATER CLIFFORD M II
L. 728, P. 453

P. 284
STRETMATER CLIFFORD M II
L. 10885, P. 278

P. 359
MAIOLATESI EDWARD & WF
EDWARD MAIOLATESI
L. 881, P. 316
PLAT 4122

P. 330
JOHNSON & ADAMS
L. 12612, P. 488

PLAT-C.M.P. NO. 4104



VICINITY MAP
SCALE: 1" = 1200'

GENERAL NOTES

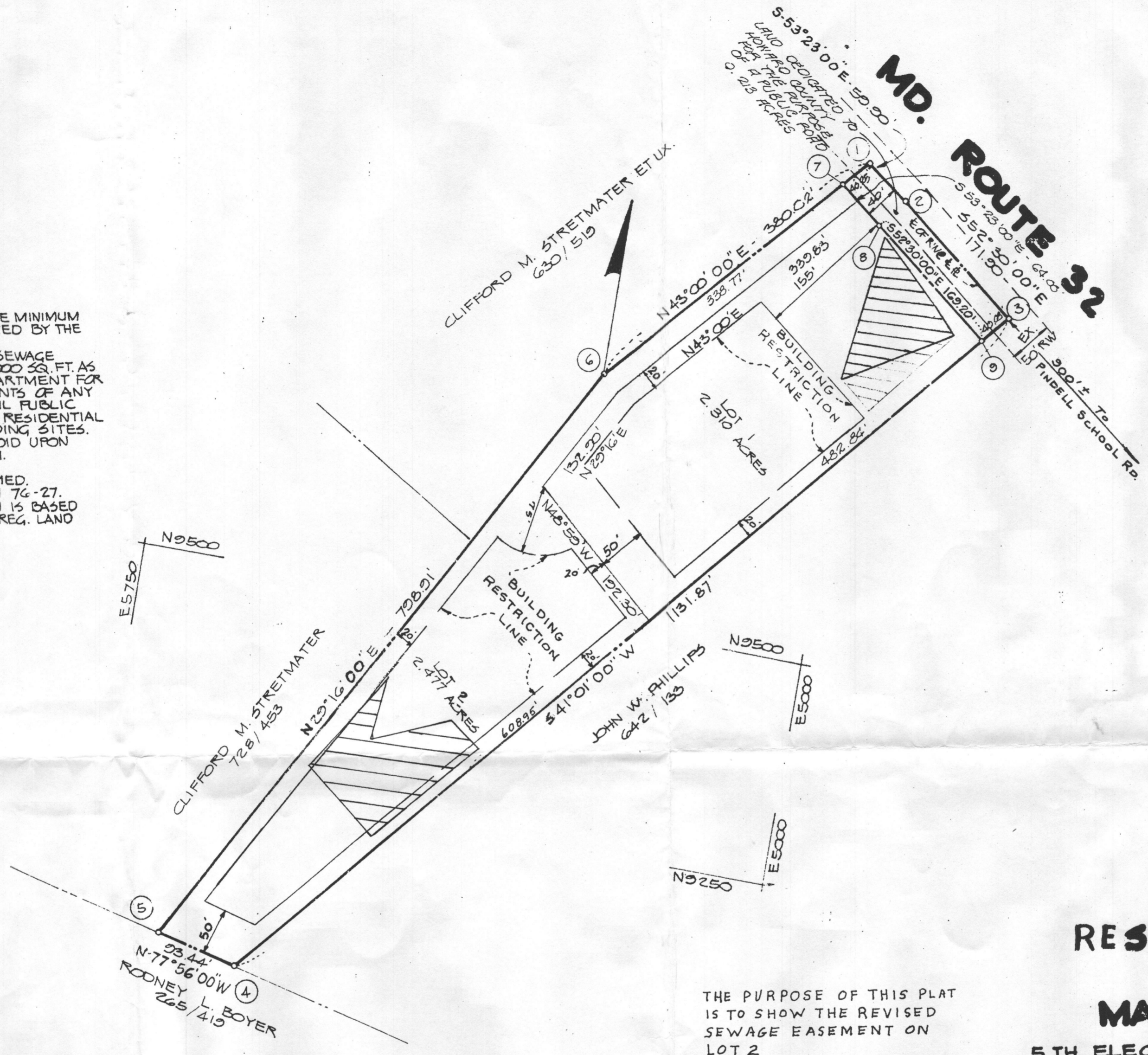
- PROPERTY SHOWN HEREON IS LOCATED ON TAX MAP 35 PARCEL 328.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE HEALTH DEPARTMENT.
- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF APPROXIMATELY 10,000 SQ. FT. AS REQUIRED BY THE MD. STATE HEALTH DEPARTMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THE AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE AND SERVICING ANY RESIDENTIAL STRUCTURES CONSTRUCTED ON THESE BUILDING SITES. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM.
- DEED REFERENCE: 732/702.
- COORDINATES SHOWN HEREON ARE ASSUMED.
- THIS PLAT SUBJECT TO VARIANCE PETITION 76-27.
- BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A SURVEY BY CLAUDE SKINNER, JR., A REG. LAND SURVEYOR, DATED APRIL 18, 1972.

AREA TABULATIONS

TOTAL NUMBER OF LOTS: 2
 TOTAL AREA OF LOTS: 4.787 AC.
 TOTAL AREA OF R/W: 0.213 AC.
 TOTAL AREA OF PLAT: 5.00 AC.

COORDINATES

N ^o .	NORTH	EAST
1	10000.000	5000.000
2	9964.272	5048.078
3	9859.626	5184.455
4	9725.608	4441.633
5	9625.142	4350.256
6	9722.074	4740.825
7	9970.562	4972.548
8	9955.557	4992.739
9	9829.987	5158.159



FILED OCT 2 1978

Received for Transfer
 HOWARD COUNTY
Ann Marie
 Transfer Clerk
 Date 10/2/78 Plat

**RESUBDIVISION PLAT
 LOTS 1 & 2
 MAIOLATESI PROPERTY**

5TH ELECTION DISTRICT
 SCALE: 1" = 100'
 HOWARD COUNTY, MD.
 AUGUST 31 1978

THE PURPOSE OF THIS PLAT IS TO SHOW THE REVISED SEWAGE EASEMENT ON LOT 2

OWNER & DEVELOPER

ROBERT MAIOLATESI
 3116 CORDOBA STREET
 SILVER SPRING, MD. 20904

OWNERS STATEMENT

WE ROBERT MAIOLATESI, PENNY MAIOLATESI, EDWARD MAIOLATESI & SANTINA MAIOLATESI, OWNERS OF THE PROPERTY SHOWN HEREON, HEREBY ADOPT THIS PLAN OF SUBDIVISION; AND IN CONSIDERATION OF THE APPROVAL OF THIS PLAT BY THE OFFICE OF PLANNING AND ZONING ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES. ALL EASEMENTS OR RIGHT OF WAYS AFFECTING THE PROPERTY ARE INCLUDED IN THIS PLAN OF SUBDIVISION.

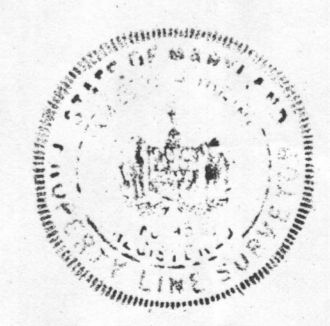
WITNESS OUR HANDS THIS 1 DAY OF September, 1978

Robert Maiolatesi
Penny Maiolatesi
Edward B. Maiolatesi
Santina B. Maiolatesi

J. Carl Hudgins
 WITNESS

SURVEYORS CERTIFICATE

I HEREBY CERTIFY THAT THE FINAL PLAT SHOWN HEREON IS CORRECT, THAT IT IS A SUBDIVISION OF ALL OF THE LAND CONVEYED BY JOHN W. PHILLIPS, ET UX. TO ROBERT MAIOLATESI, ET AL. BY DEED DATED AUGUST 15, 1975 AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 732 AT FOLIO 702 AND THAT ALL MONUMENTS ARE IN PLACE AS SHOWN IN ACCORDANCE WITH THE ANNOTATED CODE OF MARYLAND, AS AMENDED.



J. Carl Hudgins
 James Carl Hudgins PLS.#96

8-31-78
 DATE

APPROVED: FOR PRIVATE SEWERAGE AND PRIVATE WATER SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT.

Joseph Boyler 9-25-78
 COUNTY HEALTH OFFICER DATE

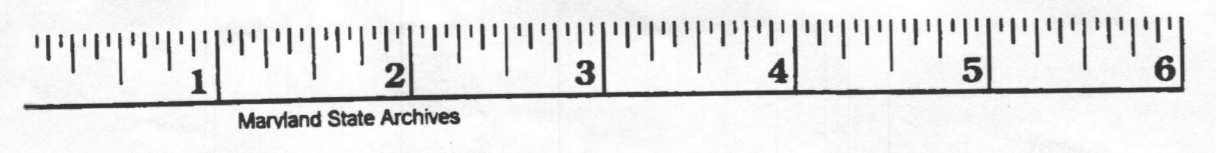
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

[Signature]
 DIRECTOR, A.P.Z. DATE

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Richard E. Freudenberger 9/26/78
 DIRECTOR DATE

NTT Assoc. Inc.
 Suite 105 Clark Bldg.
 Columbia Md. 21044
 321-0307



MSA 55U 1244-1269