APPLICATION

PERCOLATION TESTING

A 514179

P _____

DISTRICT _____

DATE _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2640

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER Edward Ziegler C/O Northridge Development LLC

ADDRESS 14045 Gared Drive, Glenwood, MD 21738 PHONE 410-730-1074

AGENT OR PROSPECTIVE BUYER _____

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION _____ LOT NO. _____

ROAD AND DESCRIPTION _____

_____

TAX MAP _____ PARCEL # _____

SIZE OF LOT _____ TYPE BLDG. _____
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. _____
(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

DISAPPROVED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____

REASONS FOR REJECTION OR HOLDING _____

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____ DATE _____

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D # _____ DATE _____

THIS IS NOT A PERMIT

HD-216 (3/92)

A5/4179 Edward Zieglar Prop. c/o Northridge Development SE Corner / Penn Shop Rd and Rt 27

COUNTY #

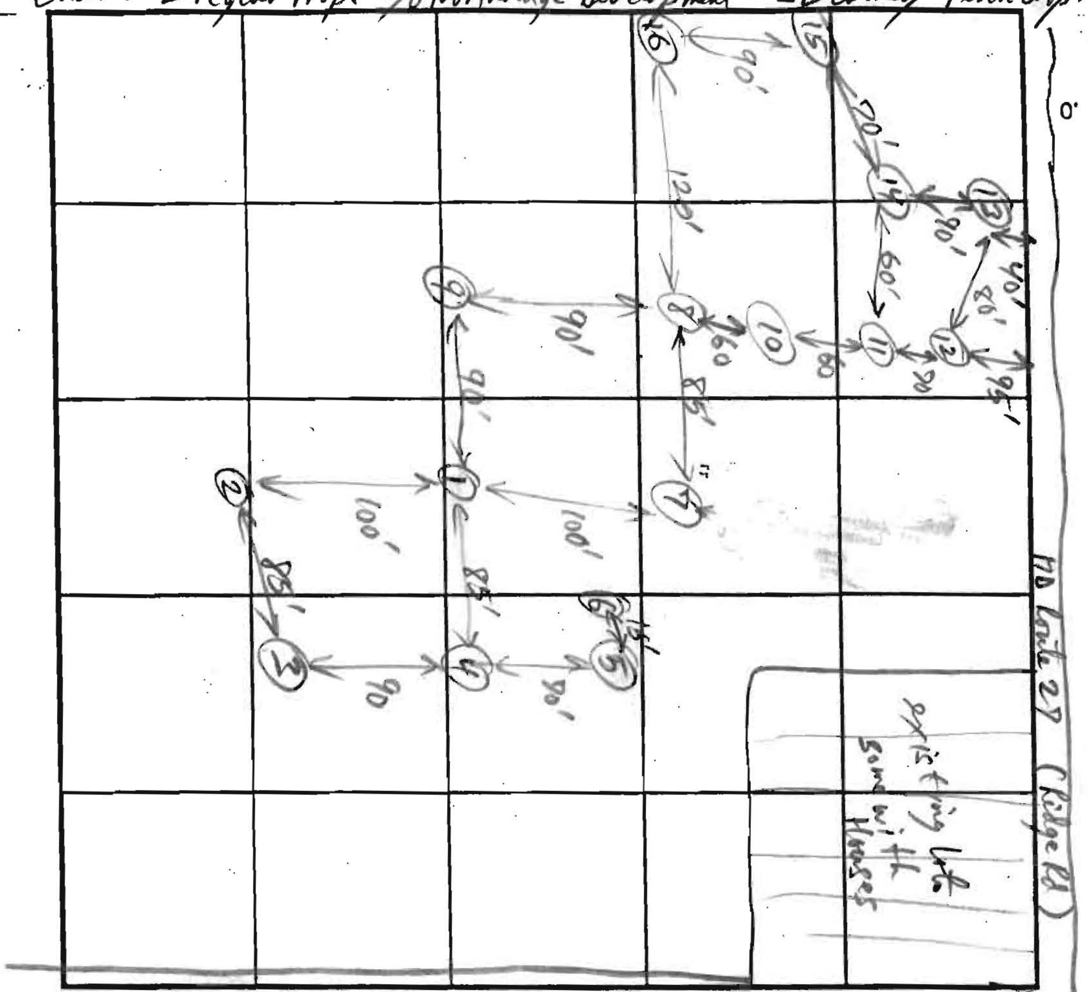
SOIL PROFILE

0' 1, 4, #2

8"

SOIL PROFILE

0'



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME	
9/7/00	#2 (6" post hole)	v 11½' , 4' Second (Missed First)	10:49:39	10:49:51	10:50:40	Too Fast	49 sec	Fail
	#3	v 11½ @ 4'	10:09:39	10:11:04	→	10:14:54	3m50sec	Fail (Too Rocky)
		@8'	2:04:10	2:04:38	2:05:00	Too fast	22 sec	Fails
		@5½'	2:07:15	2:22:46	pulled @ Top of 3rd Mark	¾"± in 30 min	Too Slow 40 min	Fail
		Between #3 + #4 @19"	2:18:30 →		pulled @ 3:00	No Movement (in 42 min)	Too Slow	Fail
	#4	v 11' 3½'	11:30:35	Middle 11:38:21	Too Rocky →	11:52:30	14 min	Too Rocky Fail
	(in Blue Rock)	@ 9'	1:52:29	1:57:22	→	2:17:40	20 min	
	(in channery clay loam)	@ 6'	1:58:50 →	2:30 (still on First Mark)	pulled 3:00	about ¼ in 1 hr	Too Slow	Fail
	#1	v 11'	No Test - Profile similar to Holes #2-4				Fail	
	#5	Refusal @	4 Ft - Rock Ledge Begins @ 2'		>50% channers @ 15"		Too Rocky	Fail
	#6	Refusal @	3'3" - "	" "	@ 15"	>60% channers @ 12"		Fail

REMARKS Too Rocky at variable depths, Variable perc rates, Mostly Too Slow + Too Fast
Too Slow in upper 2 ft for Channery Sand loams

TYPE OF SOIL Linganore

TESTED BY R. Pribley ALSO PRESENT Chuck Zopp

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME Fail TRENCH WIDTH ______

INLET DEPTH ______ MAXIMUM BOTTOM DEPTH ______ SQ. FT/BEDROOM ______

9/7/00
10:00

APPLICATION

1:52:27

PERCOLATION TESTING

A 514179

P

Purpose - establish (10K ft²) SDA to serve ex lot of record

DISTRICT

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2640

DATE 8/9/2000

I gave copy to Cindy DelZoppo on 9/26/00

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

No longer Owner - send to Buyer per Cindy D

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER ~~Edward Ziegler~~ c/o Northridge Development LLC

ADDRESS 14045 Jared Drive, Glenwood MD 21738 PHONE 410-230-1074

AGENT OR PROSPECTIVE BUYER

ADDRESS NA PHONE

PROPERTY LOCATION:

SUBDIVISION NA LOT NO.

ROAD AND DESCRIPTION East side of Rt 99 and the South side of Penn Shop Rd.

TAX MAP 6 PARCEL # 10 Gd 2

SIZE OF LOT 33Ac TYPE BLDG. SFD
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. Cindy DelZoppo
(SIGNATURE OF APPLICANT)

APPROVED BY FOR DATE

DISAPPROVED BY FOR DATE

HOLD PENDING FURTHER TESTS

REASONS FOR REJECTION OR HOLDING

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # DATE

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # DATE

THIS IS NOT A PERMIT

HD-216 (3/92)

A 5/14/79 Ed Zeigler Property SE/Penn Shop Rd c Route 27
COUNTY #

SOIL PROFILE

0'
1 4 #2
8" Dark Brown CL (green)
Olive Brn CL greasy feel
5% vf gravel (2 VF Sbk)
13" Mix color olive Brn greasy feel CL (5-10% Mod Flag)
32" (m f sbk)
Mix Neutral Brn CL Evident pockets/phylite (v coarse blocky)
7' 60-70% Rock (phylite) (Flags)
30% fine textured channers
only 10-15% greasy feel SL (Mix of phylite & residuum)
11½

#3
Some upper horizons to #1
Mix greenish olive Brn - yel Brn greasy CL
4 Red Brn L 4½
30% Flags
5 Big Pocket of Rock
greater than 50% Rock (Phylite c few qtz intrusions)
Mostly Blue phylite chips of rock 20% - 50% Red Brn Silt Mix
9½
11½

#4 (all post hole digger i.e. 6" diameter)				
@ 9' 1:52:22 (in Blue Rock) → 1:57:22 → 2:17:40 (20 min) but very Rocky				
@ 6' 1:58:50 (in cl CL) → 2:30 still on First Nail → 3:00 still on 1st Nail (about 3/4 in 1 hr) Fail				
Between 2 & 3 ft @ 19" 2:18:30 → pulled @ 3:00 — No Movement at all Fail				
#3 @ 8 ft 2:04:10 → 2:04:38 → 2:05:00 (22 sec) Fail Too fast				
@ 3½ ft 2:07:15 → 2:29:46 → pulled @ Top of 3rd Nail (about 3/4" in 30 ± 40 min) Fail				
see attached Map				
#15 — Linganore profile, Blue Rock starts @ 5' (V Steel 9') Fail				
#16 — Linganore, Blue Rock starts @ 5' (>50%) (40% pockets start @ 3' (V 9')) Fail				

SOIL PROFILE
13
0'
Topsoil
Bt Red & Red Brn chCL (2 F sbk) 20% channers
2' Transitional 30-50% channers
Bc
3½ Red Brn - olive Brn
C1 v ch (50-75%) Loam
Too channery Mostly > 5"
9' 90% Red Schist (green schist 20%) chert (5%) and co SL
V 9'

#4 Blue phylite starts @ 4'
#1 High channery product 3 ft - 7½ ft, 7½ - 10'
#15 dark Brn CL (2 f-m cbk) (2 f-m cbk) 0-3' 5 Blue Phylite Rock 10'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME
9/7/00	#2	V 11½' 6" post hole second pour 4'	10:49:39	10:49:51	10:50:40	Too fast	49 sec Fail
overall hole Too Rocky	#3	V 11½' 4'	10:09:34	10:11:04	→	10:14:54	3m 50 sec Fail
	#4	V 11' 3½	11:30:35	Mottled ped 11:38:21	Too Rocky 11:38:21	11:52:30	14 min Fail
	#1	V 11	No Test — Profile similar to above #2-4 Test Holes				Fail
	#5	Refusal @ 4'	Rock ledge begins @ 2'	>50% channers @ 15"		Rock	Fail
	#6	" @ 3'3"	" " " @ 15"	"	" @ 12"	"	Fail
	#7	V 9½ Refusal,	Phylite (40-60%) channers	Start @ 3'			Fail
	#8	V 11 (phylite)	High percent Rock starts @ 6 ft				Fail
	#9	V 10	70% phylite start @ 7 ft				F
	10	V 4½	Refusal — Rock starts @ 2½ ft				Fail
	11	V 10½	Phylite starts at 10', but pockets @ 3-4½', and 6-8½ ft				?
mly Glenelg	{12	V 9	Rocks @ 6 & 8 ft (flaggy red schist No phylite)				?
	13	V 9	Red soils (Mt Airy) — see soil description				Fail
	14	V 10	Linganore Rock seam 5' Bottom @ 45° strike to west				Fail
	15						

Sometimes profiles are similar to above test holes

REMARKS generally rocky (phylitte) in 14 of 16 Test Holes — inconsistent perc rates — Mostly too fast or Too slow.

TYPE OF SOIL Linganore, (one 2 holes Mt Airy) Glenelg

TESTED BY R Pindle ALSO PRESENT Chuck Zepp

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME Fail TRENCH WIDTH

INLET DEPTH MAXIMUM BOTTOM DEPTH SQ. FT/BEDROOM

HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

August 14, 2000

Mr. Edward Ziegler
C/o Northridge Development LLC
14045 Gared Drive
Glenwood, Maryland 21738

RE: **Percolation Test Date**
Proposal: Establish sufficient septic reserve area to serve existing lot
Property ID: Ziegler Property
Penn Shop Road
Tax Map: 6 Parcel #10

Dear Mr. Ziegler:

Percolation testing has been tentatively scheduled for the above referenced property for **Thursday, September 7, 2000 at 10:00 a.m.** Please call this office at (410) 313-2640 to confirm your acceptance of this percolation test date.

You shall be responsible for having a contractor on site to excavate the test holes at the corners of the proposed septic reserve area.

In the event of uncertain weather (i.e., precipitation or extremes of temperature), please contact this office prior to 9:00 a.m. on the test date to determine whether or not percolation testing can be performed on that date. If it is not feasible to perform the test, a new test date shall be assigned.

Percolation test results may be expected by mail two weeks after the completion of the percolation testing.

Thank you in advance for your cooperation in this matter.

Sincerely,

Donna K. Soe, R.S.
Water and Sewerage Program

DKS
cc: file

Bureau of Environmental Health
3525-H Ellicott Mills Drive • Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits (410) 313-1771 Community Environmental Health Program (410) 313-1773
Director (410) 313-2640 TDD(410) 313-2323 TOLL FREE - 1-877-4MD-DHMH

MILDENBERG,
BOENDER & ASSOC., INC. Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax

February 22, 2001

Mr. Ronald Pinkley, R.S.
Howard County Health Department
3525 Ellicott Mills Drive, Suite H
Ellicott City, MD 21043

RE: Penn Shop Road Property
#A514179
Perc Plat

Dear Mr. Pinckley :

On behalf of our client, Northridge Development, LLC, we are enclosing the following revised Perc Certification Plat package for your review and signature approval :

1. One (1) original mylar copy of the Perc Certification Plat.
2. Two (2) blueprint copies of the Perc Certification Plat.

The following is a point by point response to your comments dated January 29, 2001 :

General Notes

1. The typical language was added to the sewage disposal easement note as requested.
2. General note requiring submission of a sand mound construction detail plan has been added as requested.
3. A general note has been added stating that the mounds were sized based on five bedrooms and 750 gpd.

Site Plan

1. An easement has been shown around the sand mounds as requested.
2. The calculations reflect the steepest percent slope of each sand mound.
3. As stated, the calculations reflect the steepest percent slope of each sand mound. The sand mounds have been revised as necessary.

4. OK One-foot contours have been added to the plan as requested.

5. Surveyor's seal has been added to the plan verifying field location of perc holes and elevation in the area of the sand mounds. A note has been added to the plan stating that this information was field run.

Sand Mound Cross Section

1. A typical section of the sand mound system has been provided as requested. Calculation sheets for sand mounds have been enclosed.

2. N/A on this Plan Limiting conditions have not been shown in the typical detail.

3. Understood.

Thank you for your time and consideration. Should you have any questions or comments concerning this matter, please feel free to contact our office.

Very truly yours,
Mildenberg, Boender & Associates, Inc.

Stephanie Demchik

Stephanie Demchik, RLA
Project Manager

cc: Cindy Del Zappo. w/enc.

sjd

Plan ok to send for signature RJP 3/8/01

SM 1

TABLE 3.1

EQUATIONS FOR CALCULATING SAND MOUND DIMENSIONS

BASED ON FIVE BEDROOMS (450 GPD)

Absorption bed ft.² (A × B) = $\frac{\text{Design flow}}{1.2 \text{ gpd/ft.}^2}$ = 625 ft.² ✓

Bed length (B) = 52 ✓ ft. (21 ft. to 101 ft. dependent on site)

Bed width (A) = $\frac{\text{Bed } 625 \text{ ft.}^2}{\text{B } 52 \text{ ft.}}$ = 12 ✓ ft. (15 ft. or less)

Upslope sand fill depth (D) = 48 in. − 2 in. = 24 ✓ in. (12 in. min.)

Downslope sand fill depth (E) = [12 A × 5.76 % slope] + D in. = 29.8 ✓ in.
4% AVER

Cap + topsoil at bed center (H) = 18 in.

Cap + topsoil at bed edge (G) = 12 in.

Total Bed Depth (F) = 10 in.

Sideslope setback (K) = $\frac{[(D + E)}{2}$ + 28 in.] × 3 = 164.7 ✓ in. = 13.725'

Upslope setback (J) = (22 in. + D) × 3 × 0.89 ✓ upslope corr. factor = 122.8 ✓ in. = 10.235'

Downslope setback (I) = (22 in. + E) × 3 × 1.14 ✓ downslope corr. factor = 177.2 ✓ in. = 14.763

Total Width of Mound (W) = 12A + J + I = 444 in. 37 FT OK

Total Length of Mound (L) = 12B + K + K = 953.4 in. 79.5 FT OK

check OK 3/8/01 RJP

SM2 & SM3

TABLE 3.1

EQUATIONS FOR CALCULATING SAND MOUND DIMENSIONS

BASED ON FIVE BEDROOMS (750 GPD)

Absorption bed ft.² (A × B) = $\frac{\text{Design flow}}{1.2\ \text{gpd/ft.}^2}$ = 625 ft.²

Bed length (B) = 52 ft. (21 ft. to 101 ft. dependent on site)

Bed width (A) = $\frac{\text{Bed } 625 \text{ ft.}^2}{\text{B } 52 \text{ ft.}}$ = 12 ft. (15 ft. or less)

Upslope sand fill depth (D) = 48 in. − Z in. = 24 in. (12 in. min.)

Downslope sand fill depth (E) = [12 A × % slope] + D in. = 28.3 in.
3% AVER.

Cap + topsoil at bed center (H) = 18 in.

Cap + topsoil at bed edge (G) = 12 in.

Total Bed Depth (F) = 10 in.

Sideslope setback (K) = $\left[\frac{(D + E)}{2} + 28 \text{ in.}\right] \times 3$ = 1625 in.

Upslope setback (J) = (22 in. + D) × 3 × upslope corr. factor (0.91) = 126 in.

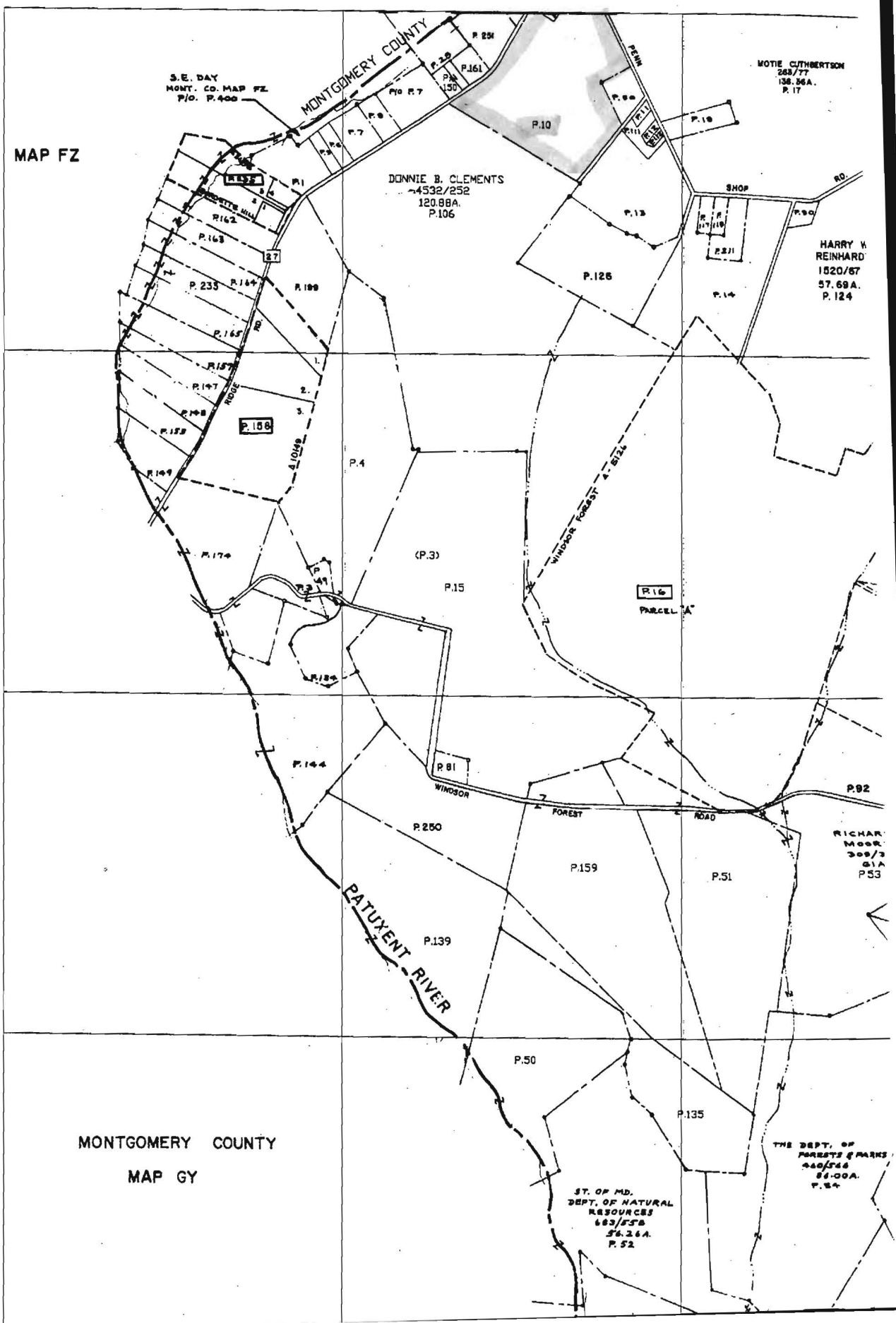
Downslope setback (I) = (22 in. + E) × 3 × downslope corr. factor (1.10) = 166 in.

Total Width of Mound (W) = 12A + J + I = 436 in. 36.3 FT

Total Length of Mound (L) = 12B + K + K = 949 in. 79.1 FT

Similar to #1's footprint on plan are all OK for pre cert Plan 3/8/01 RP

186766.1mN
383586.8mE



9/20/00 Zeigler Prop.

#2 Too fast @ 4.0' no other testing Fail

#3 Had too fast & too slow perc times - no passing rate at any depth Fail

#4 Passing rate @ 3.5' and 9.0' but too slow at 6.0' - no way to design trench for this hole that would function properly

A McMillen

Howard County Health Department
Bureau of Environmental Health
Unit H
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043-4544

USA
33

Edward Ziegler
Northridge Development LLC
14045 Gared Road
Glenwood, Maryland 21738

TEST DATA

NAME Zeigler Property — FILE NO A514179

LOCATION SE/ Rt 27 @ Pennsylvania Rd — COUNTY Howard

DATE 10/27/00

GRID ____ E

RECORDED BY R Pinkney ____ N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP18/21	I 17	15-20"	2:18:00		7" even	
		Reset 8"	2:28:00		6 3/16"	
			3:03:00		4 3/16"	
			3:06:00		7" even	
			3:32:00		5 1/4"	
			3:48:00	5/8" in 17 min	4 3/8"	
			4:05:00	2" in 30 min	3 1/8"	
				1 x 15 mpi		Pass
	I 18	15-20"	2:31:00	Too Slow	7" even	
			3:01	only 3/16" in 1 hr	6 13/16"	
				1 x 160 mpi		Too Slow
						Fails
	I 16	14-20"	2:44:30		7" even	
		reset @ 8"	3:07:00		5 7/8" even	
			3:08:06		7" even	
			3:27:00		6 5/16"	
			3:47:00	9/8" in 43 min	5 5/8"	
			4:00		5 1/4	
			4:30	3/4" in 30	4 0"	
				1 x 40 mpi		Pass

TEST DATA

NAME Zeigler Property FILE NO A514/99

LOCATION SE/Rt 29 + Pennsylvania Rd COUNTY Howard

DATE 10/27/00

GRID E

RECORDED BY R. [illegible] N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
	I 25	15"-20"	2:49:00		7" even	
		Reset to 8"	3:09:00		6" even	
			3:10		7" even	
			3:21		6" even	
			3:43:20		3 7/8"	✓
			3:55	12 mpi	2 5/8	pass
	I 26	15-21"	2:59:00		7" even	
			dry by 3:10			
		Refill to 8"	3:14:00		7" even	
			3:25:00		6" even	
			3:42:00	3/4" in 17 min	5 1/4"	
			3:45		5" even	
			3:59	1" in 26 min	4 3/8"	
			4:25	≈ 26 mpi	3 3/8"	pass

TEST DATA

NAME Zeigler Property — FILE NO A514 179

LOCATION ~~E~~S/Rt 29 just S/ Penn Shop Rd — COUNTY Howard

DATE 10/27/00

GRID ____ E

RECORDED BY RPBailey ____ N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP24	I24	16-20½"	11:38:00		7" even	
			11:42		6 5/16"	
		Reset @ 7½" top	11:52:41		4 3/4"	
			11:55:20		7" even	
			12:05:30		5 3/4"	
		reset @ 7½"	12:14:30		4 11/16"	
			12:17:30		7" even	
			12:28:30	10 min	5 7/16"	
			12:38:00		5" even	pass
TP24	I23	16-20½"	11:46:24		7" even	
			11:56:24		6 5/8"	
			12:07:20		6 1/4	
			12:16:00		6" even	
			12:26:00		5 3/4"	
			12:44:00		5 3/8	
		reset @ 7"	1:05		4 7/8"	
			1:15:00	11 min	7" even	
			1:41:00	50 mpi	6 7/16"	pass
			2:04:00		6" even	
TP24	I22	16-21"	11:50:35		7" even	
			12:09:00		5 7/8"	
			12:19:00		5 15/32"	
			12:29:00		5 1/32"	
			12:45:00		4 3/8"	
		reset @ 7"	1:06:00		3 3/4"	pass
			1:14:00		7" even	
		>	1:40:00	1½" in	6 3/16"	
		<	2:01:00	≈ 33 mpi	5 9/16	

TEST DATA

NAME Zeigler Property

LOCATION SE corner of Route 27 + Penn Shop Rd

FILE NO A514179

COUNTY Howard

DATE 10/29/00

GRID E N

RECORDED BY [illegible signature]

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP18/21	I21	14-20"	12:02:00 12:12:00 12:22:20 12:32:00 12:47:00 1:07:00		7" even 6 1/2" 6 1/8 5 13/16 5 7/16 5" even	✓
		reset @ 7"	1:17:00 1:42:00 2:05	≈47 mpi	7" even 6 7/16" 5 15/16	Pass
TP18/21	I19	15-21"	12:52:00 1:08 1:18 1:43 2:06	No Movement in an hour Fail	7" even 6 3/4" 6 11/16" No Change 6 11/16 No Change	✓ Too Slow Fail
TP18/21	I20	14-18" reset due to bubbling	12:57:30 1:09:30 1:20:00 1:44:20 2:10 2:53	7/8" in 43m ≈120 mpi	7" even 7" even 6 11/16 6 5/16 6" even 5 5/8"	✓ Too Slow Fail

MARYLAND DEPT. OF THE ENVIRONMENT
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION REPORT
SOIL PROFILE DESCRIPTION

LOT SECTION

FILE NO.
MD. GRID:
TAX MAP/B/P: TM6 Parcel 10 – Zeigler Property
SUBDIVISION: along Rt 27
DATE: 10/27/00
BY: RJ Pinkley

DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving, moisture, etc.)
HOLE TP 18/21									
Ap	0-9"	ch hL-L	dark Brn 7.5-5YR 5/4	—		3m gran – 3f sbk	mfr	10-15% ch	sl moist cm-f roots, worm holes
Bt	9"-27"	ch CL	Red 2.5YR 4/8	—		2f-m sbk	mfi – mfr	20-30% f-m ch	Sl moist
Bc	27-41"	ch hL-CL	Red 2.5YR 4/6-4/8	—		Massive – (1vf sbk)	mfr	20% vf ch 10-15% f-m ch	high % of channers are phyllite – slaty schist
C1	41"-95"	ch L [illegible]	Brn-Ydbrn 5YR 5/4-5/6	—		Massive – Ls	mfr – mfi	35% 33 vf-f ch 10-15% m ch	(Mostly bluish grey phyllite & slaty schist & some chlorite schist) slightly greasy feel.

Slope%–	EL.(ft)–	Chroma 2–	Least Permeable Layers–
Landscape Position–		Water BLS–	Limiting Zones–

Additional Remarks–

MARYLAND DEPT. OF THE ENVIRONMENT
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION REPORT
SOIL PROFILE DESCRIPTION

FILE NO. A514179
MD. GRID:
TAX MAP/B/P: TM6, P10 – Zegler Property – Northridge Development, LLC
SUBDIVISION:
DATE: 10/27/00
BY: R/ Pickley

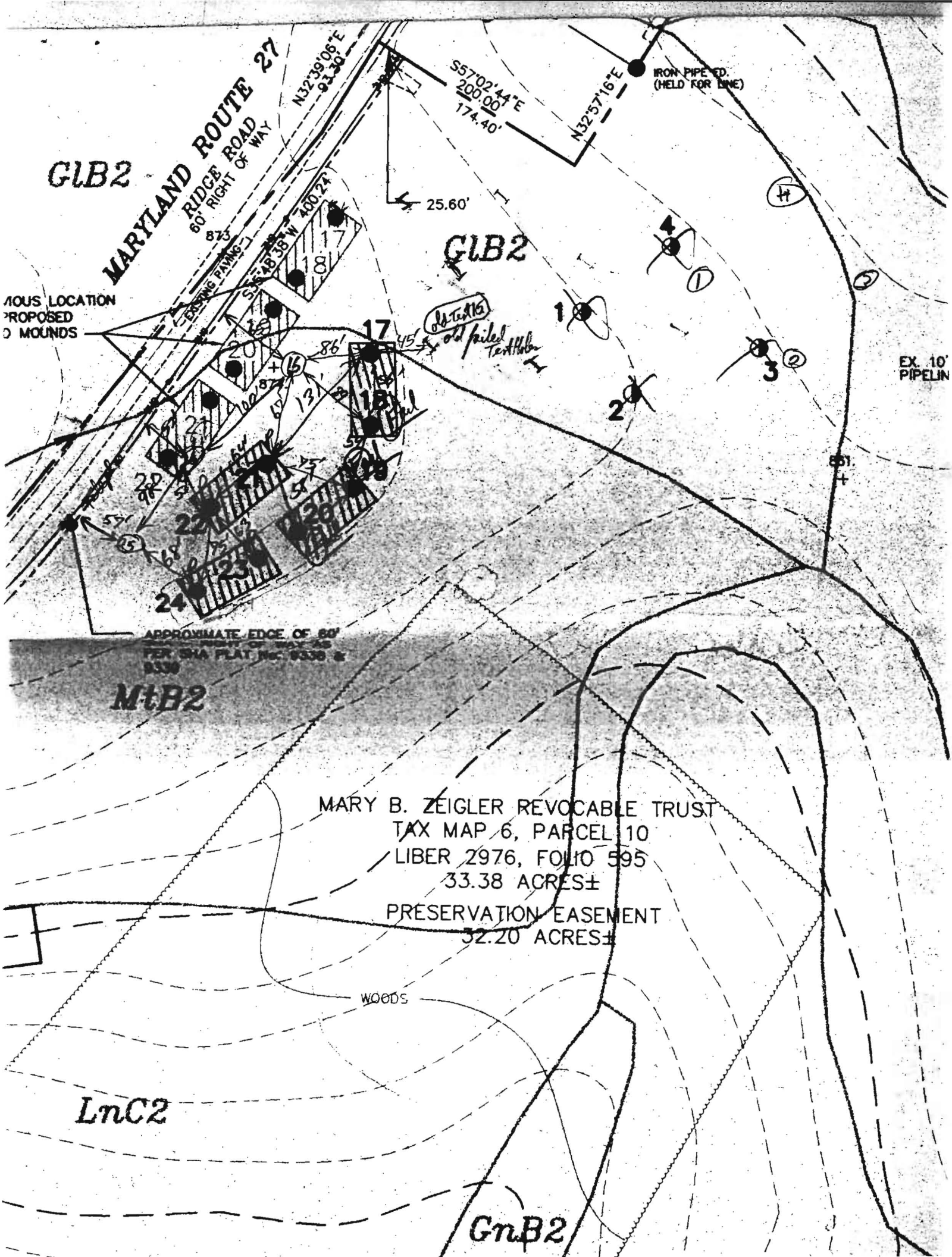
LOT SECTION

DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving, moisture, etc.)
HOLE TP 24									
Ap	0–8"	chL-CL	Str Brn 7.5-5YR 5/6	—	—	3 m-f gran – vf-f sbk	mfi-mfr	15-25% channers	Sl half Moist cf roots 2 t clay films
Bt1	8"–16"	chCL	Red-yel Red 2.5YR 5/6	—	—	2 F Sbk	mfr	5-10% f channers	Sl Moist (mod plastic) 3 t clay films
Bt2	16"–28"	chCL	Red 2.5YR 4/8	—	—	3f blk (platy?)	mfr	10% vf channers 5% c channers	St Moist (mod plastic)
Bc	28"–44"	chL	Red-yel Red 2.5-5YR 5/8	—	—	Massive – Ls	mfr-mvfr	15% vf-f ch 15%-20% m ch	Sl Moist
C1	44"–5½'	chL	Red Brn-Red 2.5YR 4/6	—	—	Massive – Ls	mfr-mvfr	20-40% vary size channers	Sl Moist
C2	5½'–9½'	CL	Red 10R 4/8	—	—	Ls	mvfr-Ls	50-80% in channers + flags	>50% pockets Sl Moist

Slope%– EL.(ft)– Chroma 2– Least Permeable Layers– Bt1 > Bt2 (Both channery clay Loams) (Better structure in Bt2)
Landscape Position– Summit & shoulder Water BLS– NA Limiting Zones– Excessive Rockyness below 5½'
Additional Remarks–

D-3

V9½, >50% channery pockets >50% / schist @ 5½–9½'


MARYLAND ROUTE 27
RIDGE ROAD
60' RIGHT OF WAY
N32°39'06"E
93.30'
S57°02'44"E
200.00'
174.40'
N32°57'16"E
IRON PIPE FD.
(HELD FOR LINE)
25.60'
GlB2
GlB2
MtB2
LnC2
GnB2
EXISTING PAVING
S35°48'38"W 400.24'
873
VIOUS LOCATION
PROPOSED
D MOUNDS
old failed
EX. 10'
PIPELIN
APPROXIMATE EDGE OF 80'
PER SHA PLAT Nos. 9338 &
MARY B. ZEIGLER REVOCABLE TRUST
TAX MAP 6, PARCEL 10
LIBER 2976, FOLIO 595
33.38 ACRES±
PRESERVATION EASEMENT
32.20 ACRES±
WOODS

TEST DATA

NAME Zeigler Property — FILE NO A514179

LOCATION SE corner of Route 27 + Penn Shop Rd — COUNTY Howard

DATE 10/27/00

GRID ____ E ____ N

RECORDED BY RPBailey

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP18/21	I21	14-20"	12:02:00		7" even	
			12:12:00		6 1/2"	
			12:22:20		6 1/8	
			12:32:00		5 13/16	
			12:47:00		5 7/16	
			1:07:00		5" even	✓
		reset @ 7"				
			1:17:00		7" even	
			1:42:00	≥ 47 mpi	6 7/16"	
			2:05		5 15/16	Pass
TP18/21	I19	15-21"	12:52:00		7" even	
			1:08		6 3/4"	
			1:18		6 11/16"	
			1:43	No Movement in an hours	No Change	
			2:06		6 11/16 No Change	✓
				Fail		Too Slow
						Fail
TP18/21	I20	14-18"	12:57:30		7" even	
		reset due to bubbling.				
			1:09:30		7" even	
			≥ 1:20:00		6 11/16	
			≤ 1:44:20		6 5/16	
			2:10		6" even	✓
			2:53	7/8" in 43m	5 5/8"	
				≥ 120 mpi		Too Slow
						Fail

MARYLAND DEPT. OF THE ENVIRONMENT
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION REPORT
SOIL PROFILE DESCRIPTION

LOT SECTION

FILE NO.
MD. GRID:
TAX MAP/B/P: TM6 Parcel 10 – Zeigler Property
SUBDIVISION: along Rt 27
DATE: 10/27/00
BY: RJ Pinkley

DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving,moisture,etc.)
HOLE TP 18/21									
Ap	0-9"	ch hL-L	Dark Brn 7.5-6YR 5/4	—		3 m gran – 3f sbk	mfr	10-15% ch	sl. Moist c m-f roots, worm holes
Bt	9"-27"	ch CL	Red 2.5YR 4/6	—		2f-m sbk	mfi – mfr	20-30% f-m ch	Sl Moist
Bc	27-41"	ch hL-CL	Red 2.5YR 4/6-4/8	—		Massive – (LvP sbk)	mfr	20% vf ch 10-15% f-m ch	high % of channers are phyllite – slaty schist
C1	41"-96"	ch L [illegible]	Brn-Red Brn 5YR 5/4-5/6	—		Massive – Ls	mfr – mfr	35% vf-f ch 10-15% m ch	(Mostly bluish grey phyllite & slaty schist & some albite schist) slight greasy feel.

Slope%– EL.(ft)– Chroma 2– Least Permeable Layers–
Landscape Position– Water BLS– Limiting Zones–
Additional Remarks–

D-3

TEST DATA

NAME Ziegler Property FILE NO A514179

LOCATION ES/Rt 97 just S/ Penn Shop Rd COUNTY Howard

DATE 10/27/00

GRID E

RECORDED BY R Pinkley N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP24	I24	16–20½	11:38:00		7" even	✓
			11:42		6 5/16"	
		reset to 7½"	11:52:41		4 3/4"	
			11:55:20		7" even	
			12:05:30		5 3/4"	
		repour to 7½	12:14:30		4 11/16"	
			12:17:30		7" even	
			12:28:30		5 7/8"	
			12:38:00	10 mpi +	5" even	pass
TP24	I23	16–20½"	11:46:24		7" even	
			11:56:24		6 5/8"	
			12:07:20		6¼	
			12:16:00		6" even	
			12:26:00		5 3/4"	
			12:44:00		5 3/8	✓
		reset @ 7"	1:05		4 7/8"	
			1:15:00	1" in	7" even	
			1:41:00	50 mpi	6 7/16"	pass
			2:04:00		6" even	
TP24	I22	16–21"	11:50:35		7" even	
			12:09:00		5 7/8"	
			12:19:00		5 15/32"	✓
			12:29:00		5 1/32"	
			12:45:00		4 3/8"	
		reset to 7"	1:06:00		3 3/4"	pass
			1:14:00	1½" in	7" even	
			1:40:00	≤ 33 mpi	6 3/16"	
			2:01:00		5 9/16	

MARYLAND DEPT. OF THE ENVIRONMENT ONSITE SEWAGE DISPOSAL SYSTEM SITE EVALUATION REPORT SOIL PROFILE DESCRIPTION	FILE NO. A514179 MD. GRID: TAX MAP/B/P: TM6, P10 – Zeigler Property – Northridge Development LLC SUBDIVISION: DATE: 10/27/00 BY: R. Pinkley

LOT SECTION

DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving, moisture, etc.)
HOLE TP 24									
Ap	0-8"	chL-CL	Str Brn 7.5-5YR 5/6	—	—	3 m-f gran → vf-f sbk	mfi-mfr	15-25% channers	Slight Moist c f roots 2+ clay films
Bt1	8"-16"	chCL	Red-yel Red 2.5YR 5/6	—	—	2 F sbk	mfr	5-10% f channers	Sl Moist (mod plastic) 3+ clay films
Bt2	16"-28"	chCL	Red 2.5YR 4/8	—	—	3 f blk (platy)	mfr	10% vf channers 5% c channers	Sl Moist (mod plastic)
Bc	28"-44"	chL	Red-yel Red 2.5-5YR 5/8	—	—	Massive-Ls	mfr-mfr	15% vf-f ch, 15%-20% m ch	Sl Moist
C1	44"-5½'	chL	Red Brn-Red 2.5YR 4/6	—	—	Massive-Ls	mfr-mfr	20-40% var. size channers	Sl Moist
C2	5½'-9½'	cL	Red 10R 4/8	—	—	Ls	mfr-Ls	50-80% channers + flags	in >50% pockets Sl Moist

Slope%–	EL.(ft)–	Chroma 2–	Least Permeable Layers– Bt1 > Bt2 (Both channery clay loams) (Better structure in Bt2)
Landscape Position– Summit & shoulder		Water BLS– NA	Limiting Zones– Excessive porosity below 5½'

Additional Remarks–

D-3

V 9½, >50% channery pockets >50% / schist @ 5½-9½'

TEST DATA

NAME Zeigler Property

FILE NO A514199

LOCATION SE/Rt 29 + Penn Shop Rd

COUNTY Howard

DATE 10/27/00

GRID E

N

RECORDED BY R Bentley

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method,Moisture,Biopores)
	I 25	15"-20"	2:49:00		7" even	
		Reset to 8"	3:09:00		6" even	
			3:10		7" even	
			3:21		6" even	✓
			3:43:20		3 5/8"	
			3:55	12 mpi	2 5/8	pass
	I 26	15-21"	2:59:00		7" even	
			dry by 3:10			
		Repour to 8"	3:14:00		7" even	
			3:25:00		6" even	
			3:42:00	3/4 in 17 min	5 1/4"	
			3:45		5" even	
			3:59	1" in 26 min	4 3/8"	
			4:25	26 mpi	3 3/8"	pass

MARYLAND DEPT. OF THE ENVIRONMENT
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION REPORT

SOIL PROFILE DESCRIPTION

LOT SECTION

FILE NO.
MD. GRID:
TAX MAP/B/P:
SUBDIVISION:
DATE:
BY:

DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving,moisture,etc.)
HOLE									

Slope%– EL.(ft)– Chroma 2– Least Permeable Layers–

Landscape Position– Water BLS– Limiting Zones–

Additional Remarks–

TEST DATA

NAME Zeiler Property — FILE NO A514179

LOCATION SE/ Rt 27 @ Pennsylvania — COUNTY Howard

DATE 10/27/00

GRID ____ E

RECORDED BY RPhilley ____ N

HOLE NO.	TEST NO.	DEPTH	CLOCK TIME	ELAPSED TIME	MEASUREMENT	REMARKS (Method, Moisture, Biopores)
TP18/21	I 17	15-20"	2:18:00		7" even	
			2:28:00		6 3/16"	
		Reset 8"	3:03:00		4 3/16"	
			3:06:00		7" even	
			3:32:00		5 1/4"	✓
			3:48:00	5/4" in 17m	4 3/8"	
			4:05:00	2" in 30m	3 1/8"	
				≈ 15 mpi		Pass
	I 18	15-20"	2:31:00	Too slow	7" even	
			3:01	only 3/16" in ½hr	6 13/16"	
				≈ 160 mpi		Too Slow ✓
						Fails
	I 16	14-20"	2:44:30		7" even	
		reset @ 8"	3:07:00		5 7/8" even	
			30:00:06		7" even	
			3:27:00		6 5/16"	
			3:47:00	9/8" in 43	5 5/8"	
			4:00	3/4" in 30	5 1/4"	
			4:30	≈ 40 mpi	4 1/2"	Pass

MARYLAND DEPT. OF THE ENVIRONMENT
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION REPORT

SOIL PROFILE DESCRIPTION

LOT SECTION

FILE NO.
MD. GRID:
TAX MAP/B/P:
SUBDIVISION:
DATE:
BY:

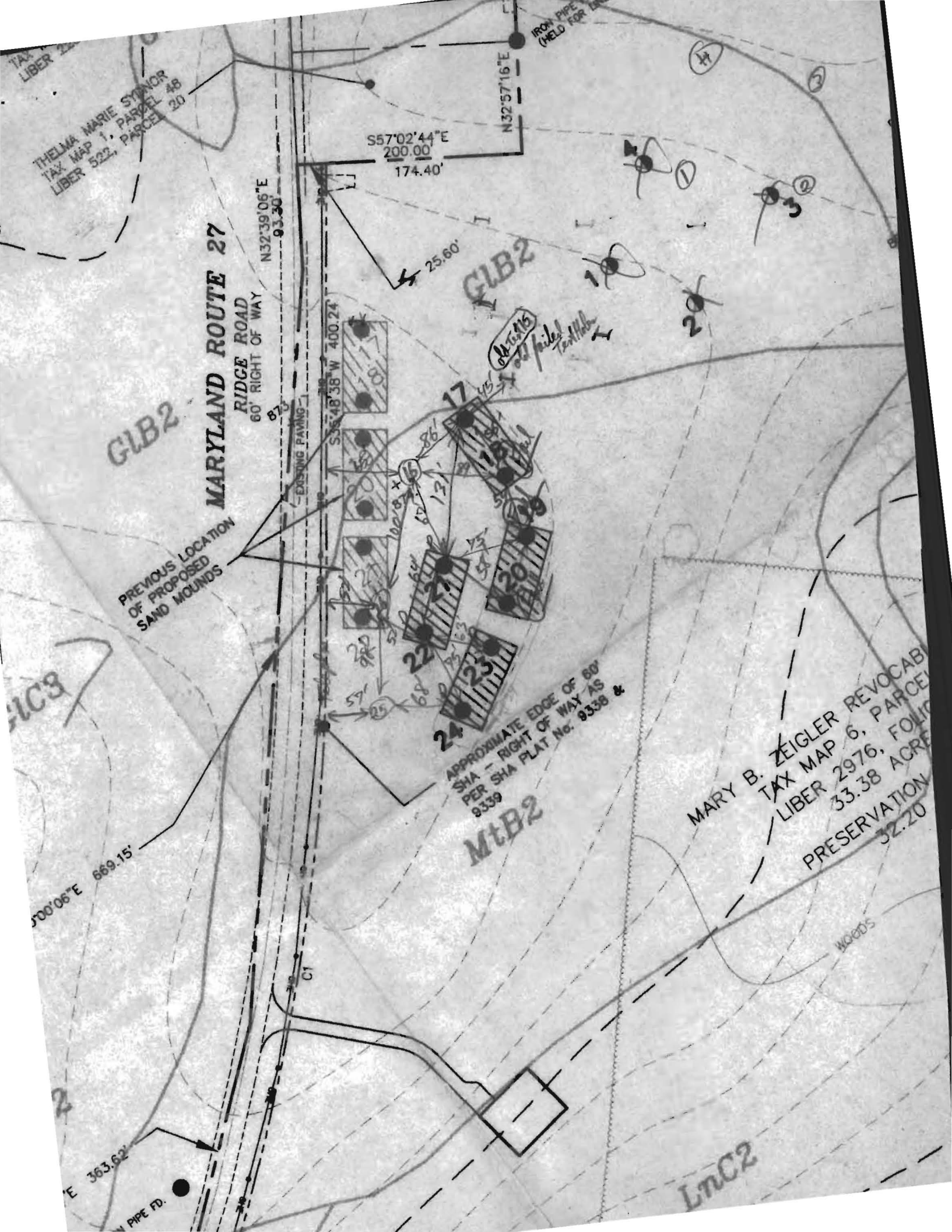
DEPTH		TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION		STRUCTURE	CONSISTENCE	%ROCK BY VOL.	REMARKS (Caving,moisture,etc.)
HOLE									

Slope%– EL.(ft)– Chroma 2– Least Permeable Layers–

Landscape Position– Water BLS– Limiting Zones–

Additional Remarks–

D-3


THELMA MARIE SYDNOR
TAX MAP 1, PARCEL 46
LIBER 522, PARCEL 20
N32°57'16"E
S57°02'44"E
200.00'
174.40'
N32°39'06"E
93.30'
MARYLAND ROUTE 27
RIDGE ROAD
60' RIGHT OF WAY
25.60'
GlB2
S56°48'38"W 400.24'
EXISTING PAVING
PREVIOUS LOCATION OF PROPOSED SAND MOUNDS
APPROXIMATE EDGE OF 60' SHA - RIGHT OF WAY AS PER SHA PLAT No. 9338 & 9339
MtB2
GlC3
MARY B. ZEIGLER REVOCAB
TAX MAP 6, PARCE
LIBER 2976, FOLI
33.38 ACRE
PRESERVATION
32.20
WOODS
LtC2
669.15'
363.62'
PIPE FD.
C1

HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

October 16, 2000

Northridge Development, LLC
14045 Gared Drive
Glenwood, Maryland 21738

RE: **Percolation Test Date**
Proposal: Sand mound percolation testing
Property ID: Zeigler Property
Penn Shop Road
Tax Map: 6 Parcel #10

Dear Sir or Madam:

Sand mound percolation testing has been tentatively scheduled for the above referenced property for **Friday, October 27, 2000 at 10:00 a.m.** Please call this office at (410) 313-2640 to confirm your acceptance of this percolation test date.

You shall be responsible for having a contractor on site to excavate the test holes at the corners of the proposed septic reserve area(s).

In the event of uncertain weather (i.e., precipitation or extremes of temperature), please contact this office prior to 9:00 a.m. on the test date to determine whether or not percolation testing can be performed on that date. If it is not feasible to perform the test, a new test date shall be assigned.

Percolation test results may be expected by mail two to three weeks after the completion of the percolation testing.

Thank you in advance for your cooperation in this matter.

Sincerely,

Donna K. Clark, R.S.
Water and Sewerage Program

DKC
cc: file

Northridge Development LLC
14045 Gared Drive
Glenwood, Maryland 21738
410-730-1074
fax 410-730-8823

(RJP)

TO: Kim Clark

FROM: Cindy DelZoppo

DATE: Oct. 6, 2000

SUBJECT: Penn Shop

DESCRIPTION:

Enclosing two perc plats with sand mound system. Would appreciate a new perc date as soon as possible.

Any questions please don't hesitate to call

Called CDZ

Kim

I explained a Need to dig several exploratory deep Trenches and shallow standard perc tests for prelim evaluation First before starting Infiltrometer test. Project May take 2 days of testing to complete. Most testing will be inside circled area initially (4 possible Mound sites)

OK to schedule perc dates. (I have Medical Test/Treatments on Oct 24-25 and Oct 31-Nov 1)

Ron 10/13/00

10/12

Ron -
This is follow up to the perc you recently did.
Please review this test plan for sand mound ~~testing~~
I've tentatively scheduled it for Friday, Oct 27th @ 10:00.
Please let me know if it's ok.

Thanks!
Kim

RECEIVED
OCT 06 '92

MILDENBERG,
BOENDER & ASSOC., INC. Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax

October 5, 2000

RJP

Mr. ~~Steve Krieg~~
Howard County Health Department
3525 Ellicott Mills Drive, Suite H
Ellicott City, MD 21043

RE: Penn Shop Road Property
Tax Map 6, Parcel 10
Revised Perc Test Plat

Dear Mr. Krieg :

On behalf of our client, Northridge Development, we are transmitting the enclosed two (2) sets of the revised Perc Test Plat showing the proposed sand mound areas for the above referenced project.

Thank you for your time and effort. Should you have any additional questions or comments concerning this matter, please feel free to contact myself or Mr. John Mildenberg.

Very truly yours,
Mildenberg, Boender & Associates, Inc.

Stephanie Demchik
Project Manager

cc: Cindy Del Zappo. w/enc.

sjd

H:\00-011\wp\011-05.hd.wpd

850
IRON PIPE FD. (HELD FOR LINE)
N32°57'16"E
EX. 10' EASEMENT FOR
PIPELINE - L. 2976,
S57°02'44"E
200.00'
174.40'
N32°39'06"E
93.30'
25.60'
GlB2
861
RIDGE ROAD
60' RIGHT OF WAY
EXISTING PAVING
S35°48'38"W 400.24
873
874
17
18
19
20
21
22
APPROXIMATE EDGE OF 60' SHA RIGHT OF WAY AS PER SHA PLAT No. 9338 & 9339
MtB2
MARY B. ZEIGLER REVOCABLE TRUST
TAX MAP 6, PARCEL 10
LIBER 2976, FOLIO 595
33.38 ACRES±
PRESERVATION EASEMENT
32.20 ACRES±
WOODS
C1
Proposal is Not acceptable
Proposal does Not show proper concern for optimal orientation of Sand Mounds
and No other preliminary testing has been performed also. They were instructed to do a wide search for sites with Non Linganore Soils first.
Need to do prelim testing before Scheduling S.M. infiltration tests
APP 10/13/00

HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

September 15, 2000

Edward Ziegler
Northridge Development LLC
14045 Gared Road
Glenwood, Maryland 21738

RE: Percolation test results
Application Number: A514179
Proposal: Lot of Record
Property ID: Ziegler Property
Penn Shop Road
Tax Map: 6 Parcel: 10

Dear Mr. Ziegler:

Percolation testing was conducted September 7, 2000 on the above referenced property. All of the sixteen test holes excavated were unsatisfactory for the installation of a conventional sewage disposal system, although there was only time available that day to run percolation tests in three of the above excavation trenches. The two trenches tested in detail (i.e. at four separate depths ranging from 1 ½ to 8 ft. below grade) exhibited variable percolation rates (from too fast to too slow). Such variable percolation rates, when combined with the high percentage of rock fragments observed in most of the test holes, suggest the sites tested are incompatible with the optimum performance requirements of a modern septic system. Copies of the percolation test results are enclosed.

If you wish to schedule additional percolation testing dates for this property, you should contact Ms. Kim Soe at 410-313-2640 to make that arrangement. However, given the large size of your property, I suggest you initially conduct exploratory excavations without health dept. involvement. I suggest 200-ft. intervals, more or less, over the more likely suitable areas. In my experience, the areas mapped as Mt. Airy and Glenelg soil types are the more likely to have compatible soils, if not for subsurface, then for sand mound type septic systems. In my experience, the Linginore soil types generally have a poor rate of success due to shallow depth to fractured rock and subsoil with relatively higher clay content and lower channery content than the Mt. Airy soils.

Once you locate several likely looking sites, you may then call to schedule another percolation test date.

If you have any questions regarding this matter, please feel free to contact me at the address below or by calling (410) 313-2640.

Very truly yours,

Ronald J. Pinkley, R.S.
Water and Sewerage Program

Enclosures
cc: file

Bureau of Environmental Health
3525-H Ellicott Mills Drive • Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits (410) 313-1771 Community Environmental Health Program (410) 313-1773
(410) 313-2640 TDD(410) 313-2323 TOLL FREE - 1-877-4MD-DHMH

Letter cross hand delivered to
Cindy del Zoppo on 9/26/00
@ on-site meeting in the office
& gave her an extra copy plus
copies of data sheets for the engineers
RP 9/26/00

Ron - Cindy only
inquired about other
technologies available
I faxed her the MDE
memo about innovative
& alternative options
OR to send PUC letter

HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

January 29, 2001

Northridge Development LLC
C/o Cindy Del Zappo
14045 Gared Road
Glenwood, Maryland 21738

RE: Percolation Certification Plan (A514179)
Purpose: Sand Mound for a Lot of Record
Property ID: Former Zeigler Property
Penn Shop Road @ Rte 27
Tax Map 6, Parcel 10

Dear Ms. Del Zappo:

This office has reviewed the plan for the above referenced property. This plan is not yet ready for signature. The following comments apply:

The Percolation Certification Plan

General Notes

1. Include typical language in the general notes describing the sewage disposal easement. Specify this septic area is **suitable for sand mound type septic systems only**. Delete any language referencing the typical 10,000 sq.ft. area. You may include the actual square footage of the SDA at the end of this paragraph.
2. Add a general note specifying a sand mound construction detail plan is to be submitted for review and approval by the Howard County Health Dept. prior to issuance of a building permit for this property. (This note may be omitted if the SM Design Plan is included within the Perc Certification Plan).
3. The Plan and specifications must state the number of bedrooms in the house for which this septic system is designed. The plan should also specify the maximum Daily Design Flow in gallons for this septic system.

Site Plan

1. Sand mounds should be enclosed within a designated Sewage Disposal Easement boundary, which should extend at least 20-ft. downslope of the lower edge of the lowest sand mound and at least 10 ft beyond the mound sides and top (25-ft. where near any physical topographic or design limitations). Designate the actual square footage of this easement. Ample area for placement of construction material, outside but close to the SDA, should be made available.
2. Clearly identify the percent slope used in the sand mound calculations. The sand mound footprints must be sized for the steepest slope shown in that part of the SDA in which each mound is sited, though individual mounds may be designed for sites with different slopes.
3. Show calculations for the sand mound with the steepest slope proposed. Revise the sand mound footprints accordingly.
4. Show one-foot elevation contour lines, at least in and immediately surrounding the SDA. (two-foot elevation contour intervals are permissible where slopes are gentle).
5. Provide a surveyor's affidavit that the percolation test holes and elevation contour (at least in the sand mound areas) were field located.

Sand Mound Cross Section

1. Provide one. Use the house size, design flow, and slope discussed elsewhere and comparable with numbers given in your calculation sheet, which may be attached separately.
2. Your limiting conditions, if shown in the diagram, should be "fractured rock" rather than "water table".
3. For perc plan only, this detail could be "typical" instead of actual.

If you have any questions regarding this matter, you may contact me at the address below or by calling (410) 313-2640.

Very truly yours,

Ronald J. Pinkley, R.S.
Water and Sewerage Program

cc: Mildenberg, Boender & Assoc., Inc.
File

HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

November 8, 2000

Northridge Development LLC
14045 Gared Road
Glenwood, Maryland 21738

RE: Percolation test results
Application Number: A514179
Proposal: Lot of Record-Sand Mound
Property ID: Ziegler Property
Penn Shop Road
Tax Map: 6 Parcel: 10

Dear Mr. Ziegler:

Percolation testing conducted Friday, October 27, 2000 on the above referenced property indicated limited unsatisfactory soil conditions. Limiting conditions were fractured rock at shallow depth. Copies of the percolation test results are enclosed.

While test results indicated this property unsuitable for conventional subsurface sewage disposal septic systems, testing and landscape position indicate this site may be suitable for conventional sand mound type sewage disposal systems. Please note: Infiltrometer tests # 18,19, & 20 failed for conventional sand mounds and should not be included in the final design.

A Percolation Certification Plan should be submitted to this office for review and approval prior to any request for well, septic, or building permit approval. Once approved suitable area has been demonstrated, a Percolation Certification Plan will be required which should include information specific for sand mound systems. Examples are given below:

- actual locations of all recently excavated test holes
- all existing buildings and well site (indicate abandoned & sealed where applicable) on this lot as well as any proposed additions
- locations of existing wells and septics within 100 feet of property boundaries
- streams/swales/springs and any other relevant landscape features
- field-matched contour lines in new sewage disposal area (one foot contour intervals for sand mound plans)
- the footprints for three sand mounds per building lot with correct topographical orientation within the SDA
- designate the percent slope used in the sand mound calculations (may not exceed 12%)
- a typical cross sectional diagram of the primary sand mound. Specify the number of bedrooms (i.e. the daily design flow) for which this SM design was intended.
- typical language in the general notes describing the sewage disposal easement. Specify this septic area is **suitable for sand mound type septic systems only**. Delete any language referencing the typical 10,000 sq.ft. Area. You may include the actual square footage of the SDA at the end of this paragraph.
- Add a general note specifying a sand mound detail construction plan is to be submitted for review

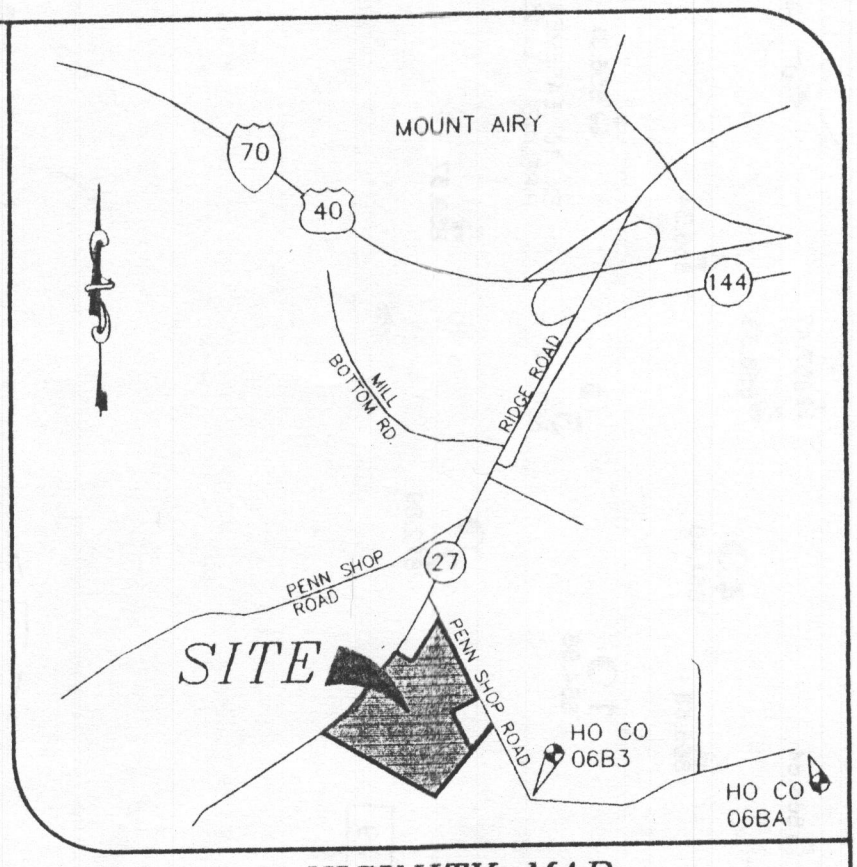
and approval by the Howard County Health Dept. prior to issuance of a building permit for the residence.

If you have any questions regarding this matter, you may contact me at the address below or by calling (410) 313-2640.

Very truly yours,

Ronald J. Pinkley, R.S.
Water and Sewere Program

Enclosures
cc: Cindy Del Zappo
file



VICINITY MAP

SCALE: 1"=2000'

GENERAL NOTES:

1. SUBJECT PROPERTY ZONED RC-DEO PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
2. COORDINATES BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 06BA & 06B3.

STA. NO. 06BA	N 611,660.086	ELEV. 817.08
	E 1,267,349.299	
STA. NO. 06B3	N 611,265.343	ELEV. 856.44
	E 1,264,511.025	

3. THIS PLAT IS BASED ON A BOUNDARY SURVEY PERFORMED ON OR ABOUT APRIL 2000 BY MILDENBERG, BOENDER & ASSOCIATES, INC.
4. ● DENOTES AN IRON PIPE FOUND.
   ⊛ DENOTES A P.K. NAIL FOUND.
   ◆ DENOTES IRON ROD FOUND.
   ○ DENOTES AN ANGULAR BREAK.
5. SITE LOCATION :
   TAX MAP 6, PARCEL 10
   DEED REFERENCE : 2976/595
   SITE AREA : 33.38 ACRES ±
6. TOPOGRAPHIC DATA SHOWN HEREON IS BASED ON HOWARD COUNTY'S 200 SCALE TOPOGRAPHIC MAPS.
7. BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
8. SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968, SHEET 1.
9. NO FLOODPLAIN EXISTS ON SITE.
10. PRIVATE WATER AND PRIVATE SEWERAGE WILL BE UTILIZED.
11. ▨ THIS AREA (23,213 SQ. FT.) DESIGNATES A PRIVATE SEWERAGE EASEMENT SUITABLE FOR SAND MOUND TYPE SEPTIC SYSTEMS ONLY AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT, & RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
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2/22/01

LEGEND

● PASSED PERC HOLES

◑ FAILED PERC HOLES

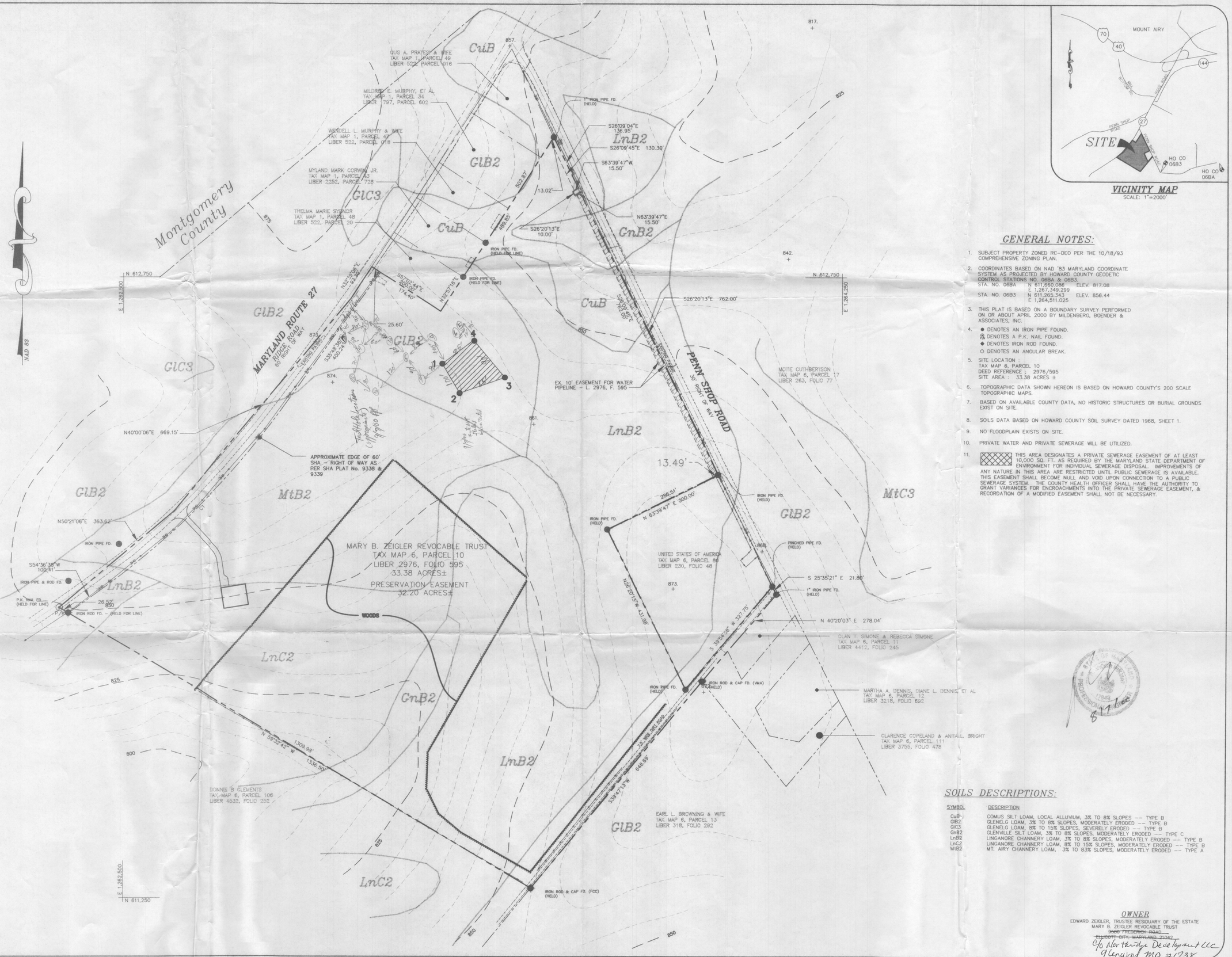
project	date
2000-011	FEB 2001
illustration	engineering
SJD	SJD
scale	approval
1"=100'	

no.	description	date
	revisions	
	Sent for signature 2/22/01 MP	

PENN SHOP ROAD PROPERTY

TAX MAP 6 - PARCEL 10 - BLOCK 2
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PERC CERTIFICATION PLAT



VICINITY MAP
SCALE: 1"=2000'

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SOILS DESCRIPTIONS:

SYMBOL	DESCRIPTION
CuB	COMUS SILT LOAM, LOCAL ALLUVIUM, 3% TO 8% SLOPES -- TYPE B
GlB2	GLENELG LOAM, 3% TO 8% SLOPES, MODERATELY ERODED -- TYPE B
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GnB2	GLENVILLE SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE C
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MtB2	MT. AIRY CHANNERY LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE A

OWNER
EDWARD ZEIGLER, TRUSTEE RESIDUARY OF THE ESTATE
MARY B. ZEIGLER REVOCABLE TRUST
~~9980 FREDERICK ROAD~~
~~ELLICOTT CITY, MARYLAND 21042~~
C/o Northridge Development LLC
Glenwood MD 21738
14045 Gared Drive

project	2000-011	date	aug 2000
illustration		engineering	SJD
scale	1"=100'	approved	SJD

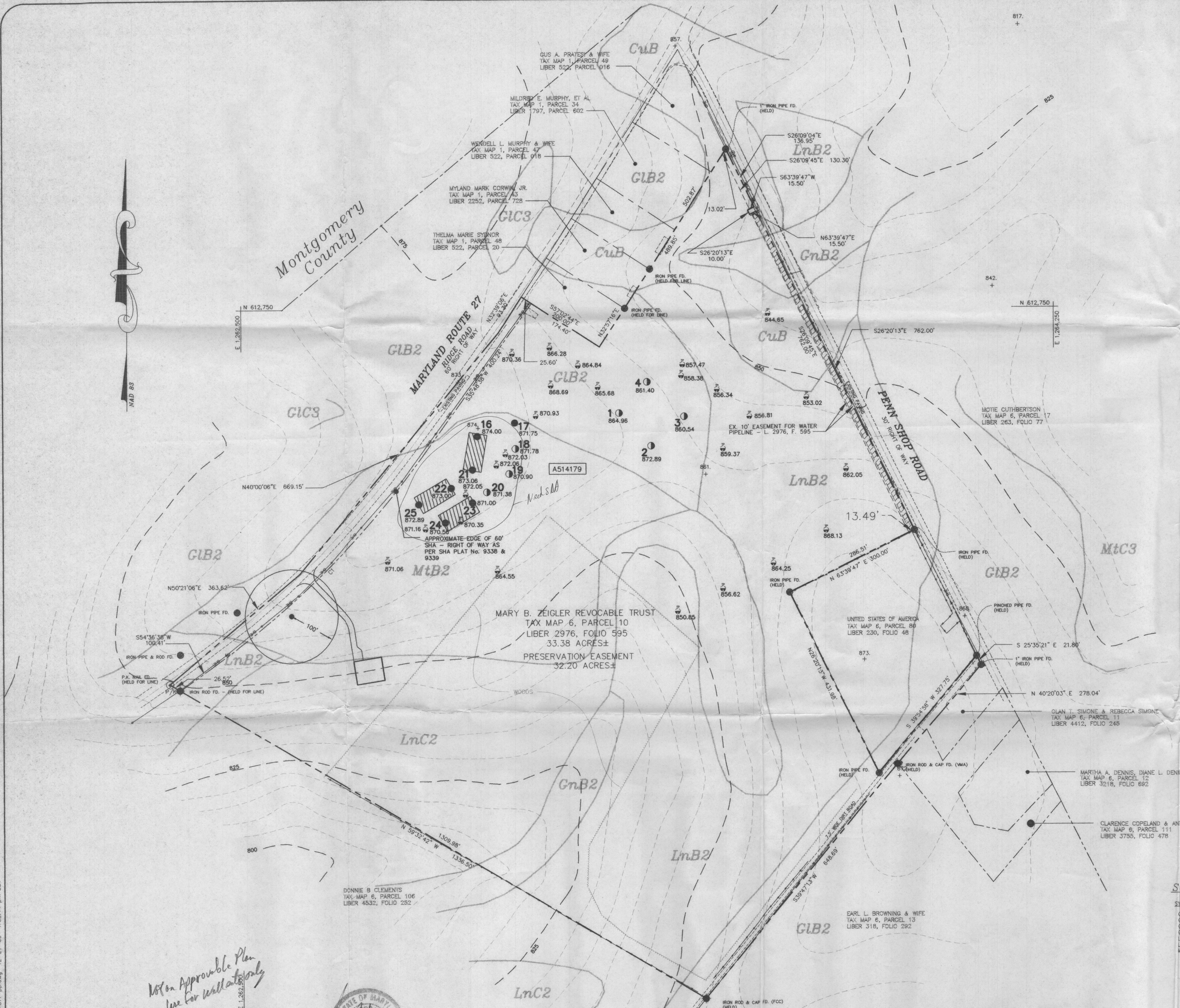
no.	description / revisions	date

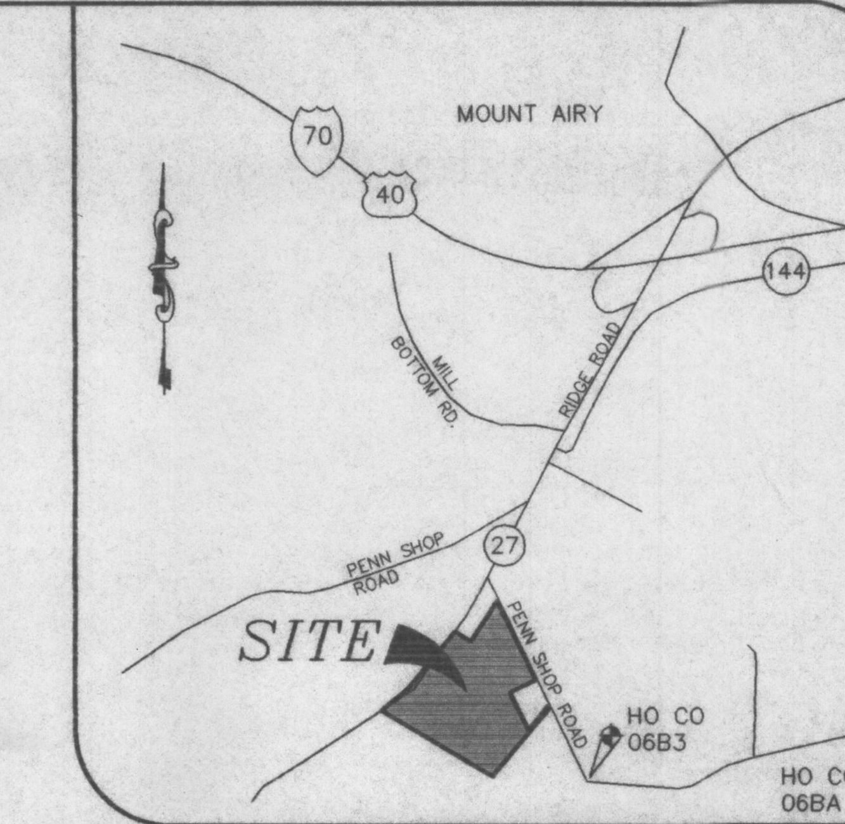
PENN SHOP ROAD PROPERTY

TAX MAP 6 - PARCEL 10 - BLOCK 2
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PERC TEST PLAT

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax. (410) 997-0296 Tel. (301) 621-5521





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11. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST ~~10,000 SQ. FT.~~ AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR (Sand Mound Type) INDIVIDUAL SEWERAGE DISPOSAL (only). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT, & RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.

(B) Delete; (optional – give actual easement area (in sq ft) at end)

(C) 12. a Sand Mound Design & Construction plan is to be submitted to Howard County Health Dept for review and approval prior to building permit.

on site plan – SM footprints are oriented OK – but
(A) Enclose Sand Mound Footprints in SDE envelope – the perimeter of the SDA must be at least 30 ft downslope of the lower edge of the SM footprints – 10 to 20 ft on upslope & sideslopes is suggested minimums.

(D) The Plan and Specifications Must State the # of Bedrooms (i.e. design daily flows) for which this Sand was designed.

(E) The plan must identify the percent slope on which the Sand Mound Calculations were based. Use the steepest slope shown within the proposed SDA.

(F) Provide Calculations for Sizing the Sand Mound Proposed. This may be submitted as an attachment to the Plan.

(G) Provide a Typical Cross Section Detail of the Sand Mound on the Plan; substitute "bedrock" rather than "water table" for the limiting condition.

(H) Provide a Top View Detail of the proposed Sand Mound with dimensions matching the above Calculations for the initial SM proposed.

(I) Provide a surveyor's statement attesting to the accuracy of perc test locations, etc.

see Jan 29 01 P.R. Comments letter
RP

LEGEND

● PASSED PERC HOLES

◐ FAILED PERC HOLES

ADDITIONAL PERC HOLES DUG

PROPOSED SAND MOUND AREAS

SOILS DESCRIPTIONS:

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OWNER

EDWARD ZEIGLER, TRUSTEE RESIDUARY OF THE ESTATE
MARY B. ZEIGLER REVOCABLE TRUST
9580 FREDERICK ROAD
ELLICOTT CITY, MARYLAND 21042

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

HOWARD COUNTY HEALTH OFFICER | DATE

00-011/dwg/011-pp.dwg 12-27-00 4:55:14 pm EST

project	date
2000-011	DEC 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	

no.	description	date
	revisions	

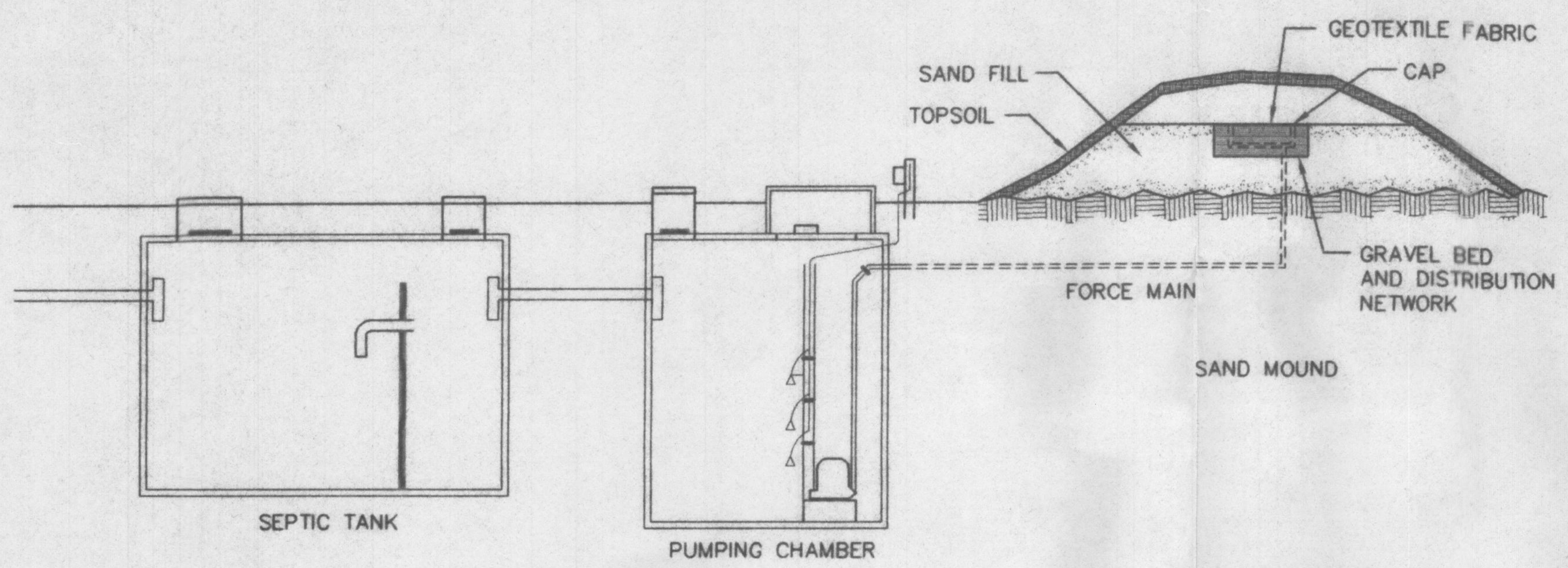
PENN SHOP ROAD PROPERTY

TAX MAP 6 – PARCEL 10 – BLOCK 2
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

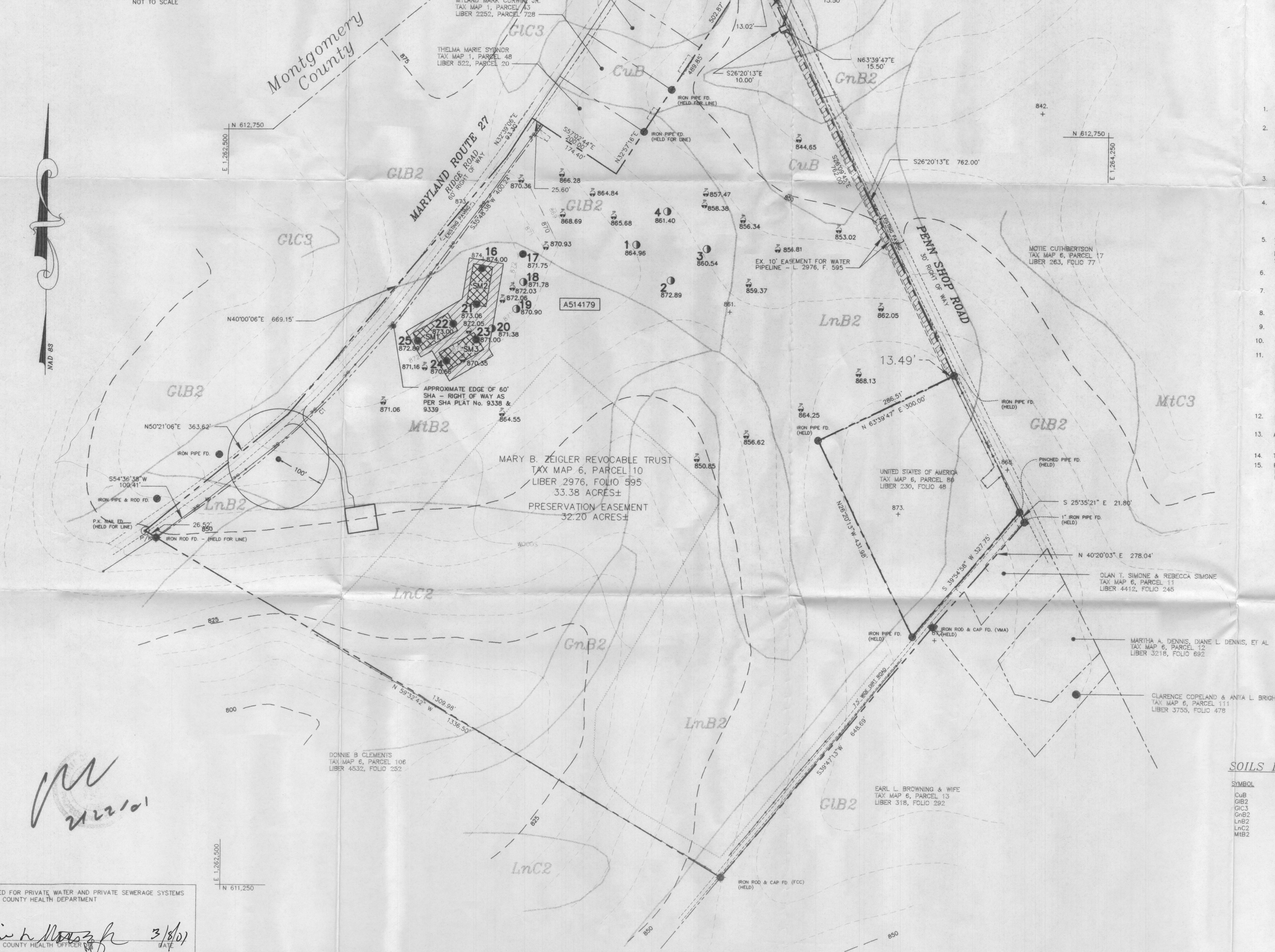
PERC CERTIFICATION PLAT

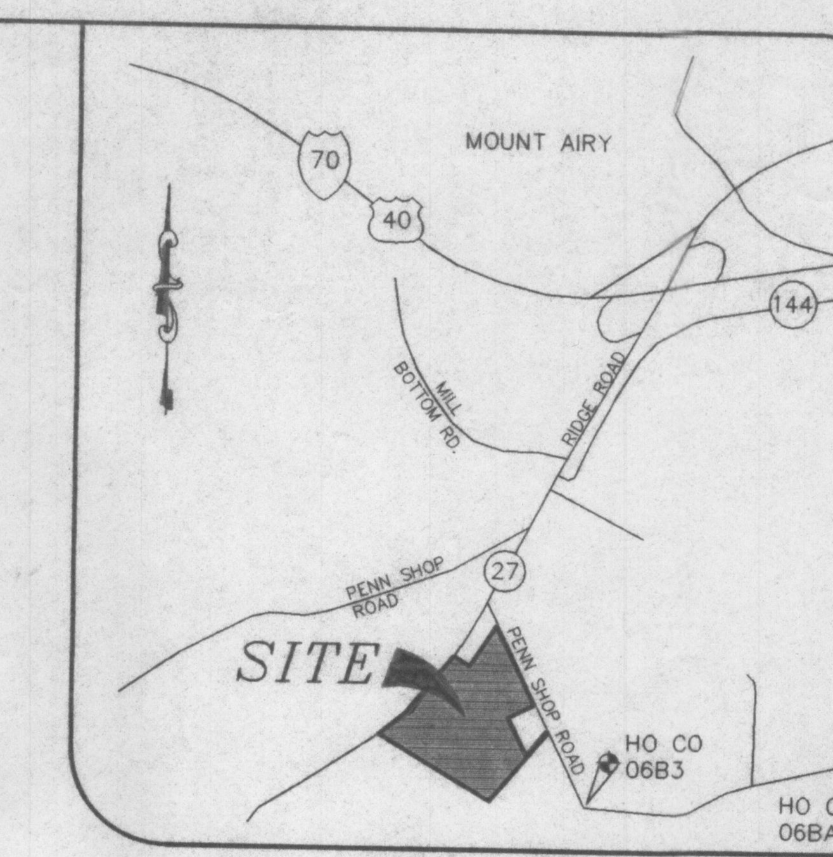
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

PZ514179



TYPICAL CROSS SECTION OF A SAND MOUND SYSTEM
NOT TO SCALE





VICINITY MAP
SCALE: 1"=2000'

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SIGNED

LEGEND

- PASSED PERC HOLES
- FAILED PERC HOLES
- ADDITIONAL PERC HOLES DUG
- PROPOSED SAND MOUND AREAS
- PROPOSED SAND MOUND EASEMENT

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APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
3/8/01
HOWARD COUNTY HEALTH OFFICER DATE

2/22/01

00-011/dwg/011-pp.dwg 2-22-01 9:38:40 am EST

project 2000-011	date FEB 2001		
illustration SJD	engineering SJD		
scale 1"=100'	approval		

no.	description	date
	revisions	

PENN SHOP ROAD PROPERTY

TAX MAP 6 – PARCEL 10 – BLOCK 2
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PERC CERTIFICATION PLAT A514179

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