04-319885

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 50651

A 48395

DISTRICT

DATE 04/13/95

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
~~X45X-5530X~~ 313-2640

INDEXED

DATE SYSTEM APPROVED 4/25/95

INSPECTOR

Fogle's Septic Clean, Inc. IS PERMITTED TO INSTALL X ALTER

ADDRESS 558 Obrecht Road, Sykesville, Maryland 21784 PHONE 795-5674

SUBDIVISION Jefferson Property LOT Tenant House ROAD 18653 Penn Shop Road

PROPERTY OWNER John M. & Pearl H. Jefferson

ADDRESS 18653 Penn Shop Road
Mt. Airy, Maryland 21771

S A N D M O U N D S Y S T E M

Number of Bedrooms 3

Septic Tank Capacity 1500 Gallons - Top Seamed and Two Chambered

Pump Chamber 1000 Gallons, Top Seamed

Sand Mound to be installed as per previously approved (06/17/93) Design Plans and Specifications (as drawn by Jim Clise).

- Stake out initial sand mound site and call for field varification by local health dept.
- Rope off reserve sewage disposal area during entire construction phase.
- Provide a copy of recent seive analysis of sand mound sand for health department approval.
- 48 hours notice required prior to construction of sand mound.
- Any deviation from the approved plans must be verified and approved by this department prior to implimentation.

PLANS APROVED BY Ronald J. Pinkley DATE 04/13/95

COVER NO WORK UNTIL INSPECTED AND APPROVED

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

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° ELBOWS NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

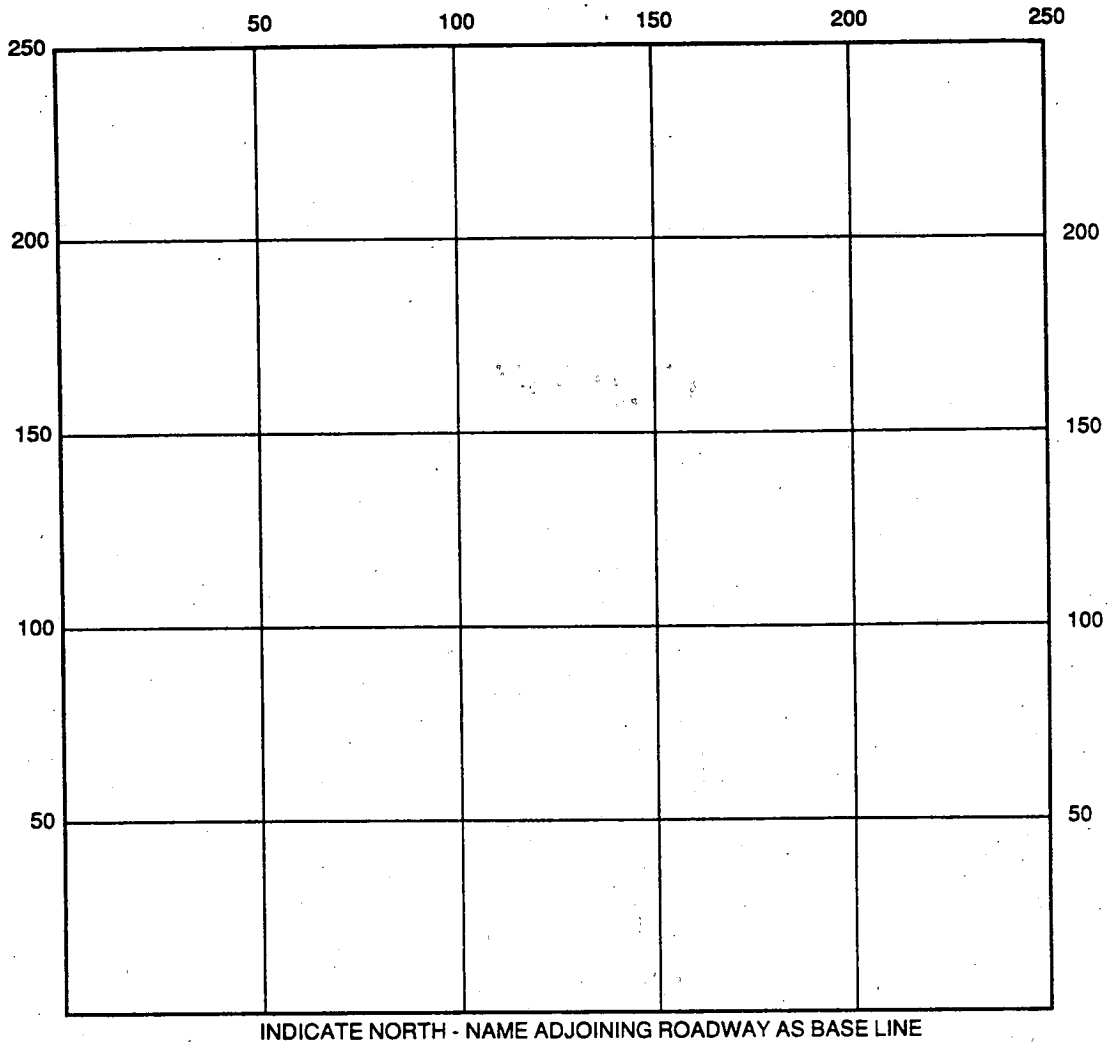
NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**
***CALL 461-9933 FOR INSPECTION OF SEPTIC SYSTEM.**

HD-260(6-90)

48395



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

Pump Chamber 1000 gal Top Seamed
SEPTIC TANK LEVEL 1500 gal Top Seamed, 2 chambered Manholes S.T. & P.C.
~~CLEANOUTS~~ _____

~~DISTRIBUTION BOX LEVEL~~ — Pressured Dosed

Gravel Bed Ground Level to Top Edge of Sand Bed
DRAIN FIELD/~~TITLE~~ DEPTH _____ FT. ~~TRENCH~~ WIDTH _____ FT. ~~INLET~~ DEPTH _____ FT.
" " Length

EFFECTIVE GRAVEL DEPTH _____ FT. TOTAL LENGTH _____ FT. of SM, perforation diameters
~~total~~ width _____ Ft' of S.M., " " spacing

Laterals
NUMBER OF ~~TRENCHES~~ _____ ONE SIDEWALL/BOTTOM AREA _____ SQ. FT.

DRYWALL INSIDE DIAMETER _____ FT. EFFECTIVE DEPTH BELOW INLET _____ FT.

Gravel Bed
~~ABSORBENT~~ AREA _____ SQ. FT. observation pipes ① ②
Basal Area
_____ sq ft

REMARKS: _____

DATE SYSTEM APPROVED _____ INSPECTOR _____

4/19/95 Continue S.M. Const. est. 2PM - gravel bed insp. (RP)

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 50651

A ___

DISTRICT ___

DATE 4-13-95

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
461-9933

DATE SYSTEM APPROVED ___

INSPECTOR ___

Fogle's Septic Clean, Inc. IS PERMITTED TO INSTALL ___ ALTER ___

ADDRESS 558-R Obrecht Road, Sykesville, Maryland 21784 PHONE 795-5674

SUBDIVISION Jefferson Property LOT Tenant House ROAD 18653 Penn Shop Road

PROPERTY OWNER John M. & Pearl H. Jefferson

ADDRESS 18653 Penn Shop Road
Mt. Airy, Maryland 21771

SEPTIC TANK CAPACITY ___ GALLONS

NUMBER OF BEDROOMS ___

___ SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED ___

Interim Permit to prepare ground and begin sand placement as per approved plan submitted by S/E Engineering, Inc. Permit valid through April 18, 1995 only. Applicant to secure complete permit by that date. Temporary extension thru April 19, 1995

Approved 4/19/95 RP.

PLANS APROVED BY [signature] DATE 4/13/95

COVER NO WORK UNTIL INSPECTED AND APPROVED

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

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° **ELBOWS** NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

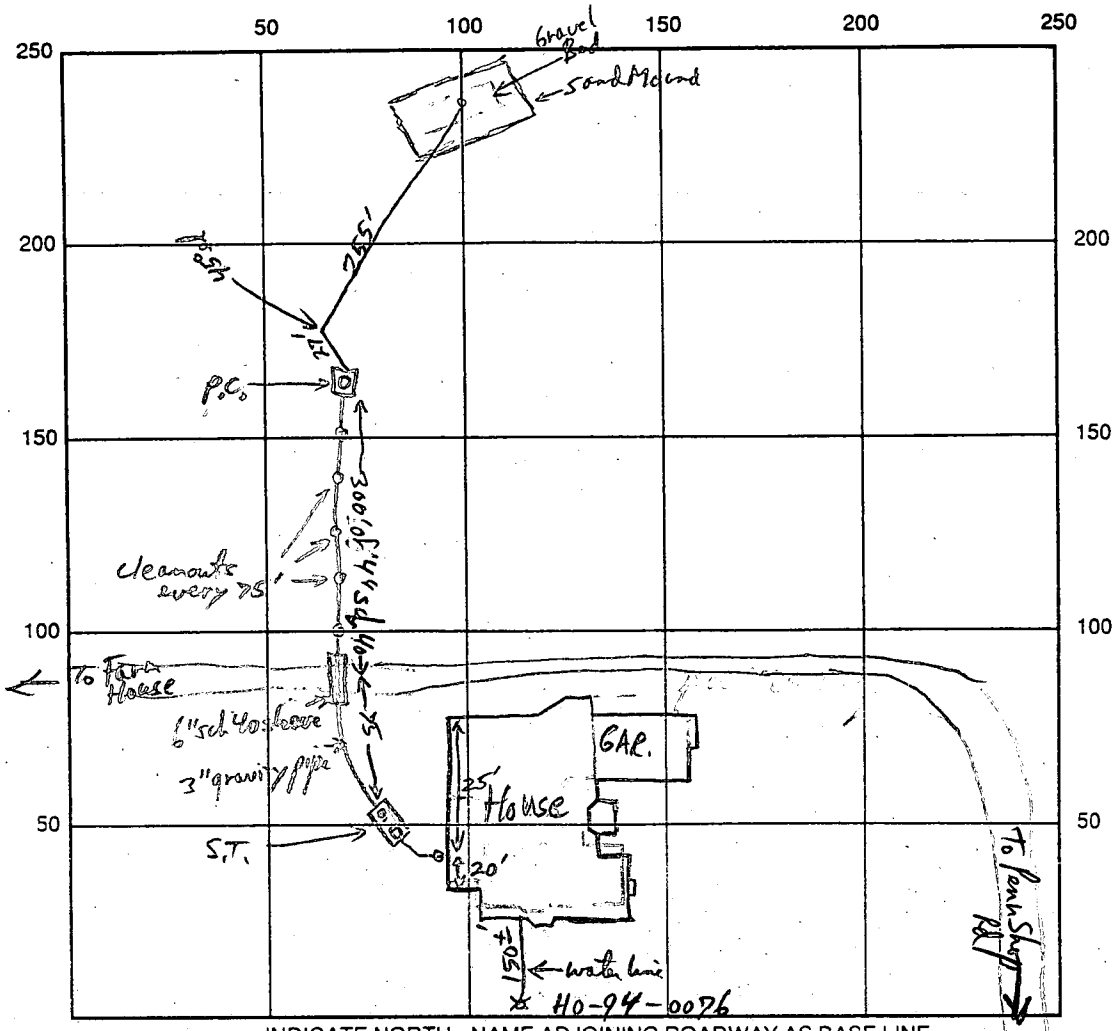
NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**

***CALL 461-9933 FOR INSPECTION OF SEPTIC SYSTEM.**

HD-260(6-90)



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

Pump Chamber 1000 gal Topseamed P.C. Manhole

SEPTIC TANK LEVEL 1500 gal Top Seamed 2 chamber CLEANOUTS Man hole + cleanouts + HSE Cleanout ST.

Sand Mound

DISTRIBUTION BOX LEVEL NA

DRAIN FIELD/TITLE DEPTH _____ FT. TRENCH WIDTH _____ FT. INLET DEPTH _____ FT.

EFFECTIVE GRAVEL DEPTH _____ FT. TOTAL LENGTH _____ FT.

NUMBER OF TRENCHES _____ ONE SIDEWALL/BOTTOM AREA _____ SQ. FT.

DRYWALL INSIDE DIAMETER _____ FT. EFFECTIVE DEPTH BELOW INLET _____ FT.

Sandmound is 70' long 35' wide.

ABSORBENT AREA _____ SQ. FT. Bed 4'1"x9' — 3 laterals each side (19½' long beds) center Feed — 3½ spacing of perf., 5/16" dia perf.

REMARKS: Initial ST stakeout incorrect — correct location selected. New orientation approved to accomodate field contours; OK to cover piping & ST. to P.C. RJP 4/17/95 Sandmound ground Finally plowed (furrows in correct orientation) and sand being placed to protect from rain; will call when ready to have gravel bed RJP 4/18/95 Sand formed up, ready for gravel Fill bed; pipes cut, drilled & ready to install. OK to proceed RJP 4/19/95 Pump is Guilds Model WE0311L — using Neoprene type all weather control Box at P.C. — alarm will be placed in House — Ok RJP. 4/20/95 Pump test OK. Water observed entering bed. DKS Sand Mound covered & finish graded with Topsoil — Needs to be grass seeded yet RJP 4/25/95

DATE SYSTEM APPROVED 4/25/95 INSPECTOR RJP

C 1 5155 SEQUENCE NO. (DENV USE ONLY)
1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER A 48 395

ST/CO USE ONLY DATE Received (8–13)	DATE WELL COMPLETED (15–20)	Depth of Well (22–26) (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" (28–37)
	0 5 3 1 9 4	3 2 5	H0-94-0076

OWNER Jefferson (last name) John (first name)
STREET OR RFD 18653 Poon Shop Rd TOWN Lily Corner
SUBDIVISION ____ SECTION ____ LOT ____

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	2	
Brown Shale	2	30	
Brown Slate	30	35	✓
Blue Slate	35	60	
Brown Slate	60	65	✓
Blue Slate	65	225	
Flint Rock	225	230	✓
Blue Slate	230	325	

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 116
Ralph Moyer
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes **(Y)** 44 / no N 44
TYPE OF GROUTING MATERIAL
CEMENT **(C M)** 45 46 BENTONITE CLAY B C 45 46
NO. OF BAGS 10 NO. OF POUNDS 1000
GALLONS OF WATER 60
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. (48 TOP 52) to 37 ft. (54 BOTTOM 58)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
S T STEEL C O CONCRETE **(P L)** PLASTIC O T OTHER

MAIN CASING TYPE (60–61)	Nominal diameter top (main) casing (nearest inch) (63–64)	Total depth of main casing (nearest foot) (66–70)
P L	6	42

OTHER CASING (if used) — EACH CASING
diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below
S T STEEL B R BRASS BRONZE **(H O)** OPEN HOLE P L PLASTIC O T OTHER

C 2
1 2

EACH SCREEN — DEPTH (nearest ft.)

	type	from	to
1	H O (8–9)	40 (11–15)	325 (17–21)
2	(23–24)	(26–30)	(32–36)
3	(38–39)	(41–45)	(47–51)

SLOT SIZE 1____ 2____ 3____
DIAMETER OF SCREEN (56–60) (NEAREST INCH)

GRAVEL PACK from ____ to ____
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

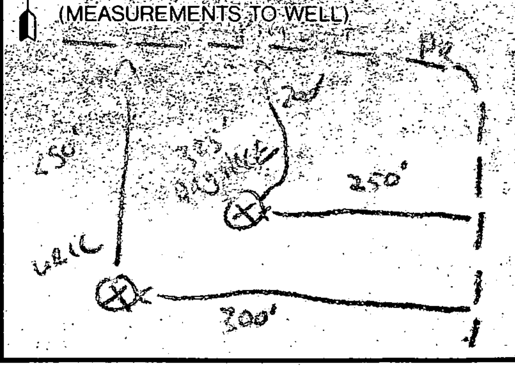
OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER) 10:50
T 70 TELESCOPE CASING
(E.R.O.S.) 72 LOG INDICATOR
W Q 74 75 76 OTHER DATA

C 3
1 2

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8–9)
PUMPING RATE (gal. per min. to nearest gal.) 4 (11–15)
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 31 (17–20)
WHEN PUMPING 86 (22–25)
TYPE OF PUMP USED (for test)
A air 27 | P piston 27 | T turbine 27
C centrifugal 27 | R rotary 27 | O other (describe below) 27
J jet 27 | **(S)** submersible 27

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES **(NO)**
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE (29)
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)
PUMP HORSE POWER (37–41)
PUMP COLUMN LENGTH (nearest ft.) (43–47)
CASING HEIGHT (circle appropriate box and enter casing height)
(+) above 49 / − below 49 LAND SURFACE 2 (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



COUNTY

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P _____

A _____

DISTRICT _____

DATE _____

DATE SYSTEM APPROVED _____

INSPECTOR _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
461-9933

Fogle Septic IS PERMITTED TO INSTALL _____ ALTER _____

ADDRESS ~~18653 Penn Shop Rd.~~ PHONE _____

SUBDIVISION Jefferson Property LOT Tenant House ROAD 18653 Penn Shop Rd

PROPERTY OWNER _____

ADDRESS _____

SEPTIC TANK CAPACITY Pump Chamber 1000 gal / 1500 GALLONS Top Seamed Pump Chamber Top seamed 2 chamber Septic Tank

NUMBER OF BEDROOMS 3

_____ SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED _____

Interim Permit to prepare ground and begin Sand Placement as per approved Plan Submitted by S/E Engineering Inc. Permit Valid Thru April 18th only. Applicant to Secure Complete Permit by that Date.

PLANS APROVED BY _____ DATE _____

COVER NO WORK UNTIL INSPECTED AND APPROVED

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

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° **ELBOWS** NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

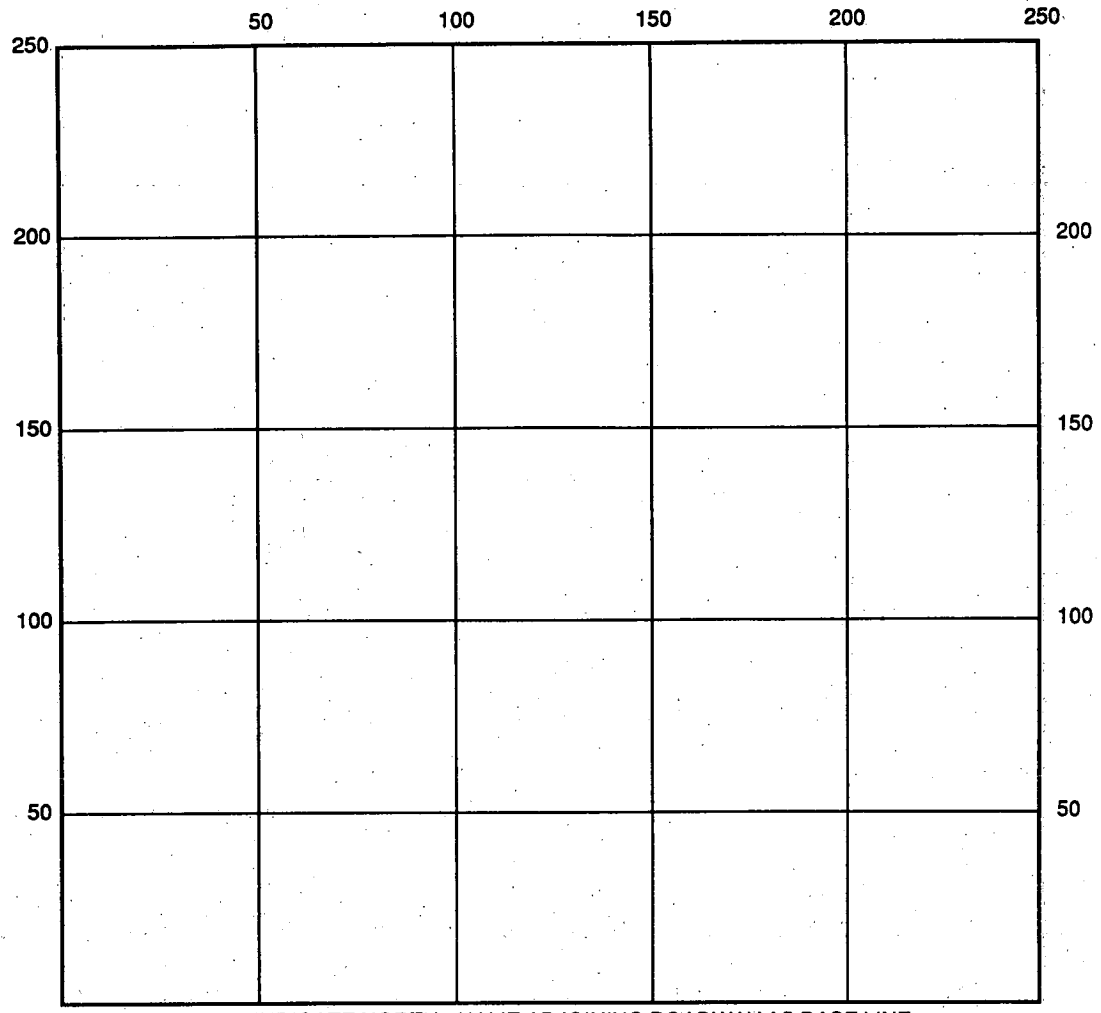
NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**

***CALL 461-9933 FOR INSPECTION OF SEPTIC SYSTEM.**

HD-260(6-90)

A



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL _____ CLEANOUTS _____

DISTRIBUTION BOX LEVEL _____

DRAIN FIELD/TITLE DEPTH _____ FT. TRENCH WIDTH _____ FT. INLET DEPTH _____ FT.

EFFECTIVE GRAVEL DEPTH _____ FT. TOTAL LENGTH _____ FT.

NUMBER OF TRENCHES _____ ONE SIDEWALL/BOTTOM AREA _____ SQ. FT.

DRYWALL INSIDE DIAMETER _____ FT. EFFECTIVE DEPTH BELOW INLET _____ FT.

ABSORBENT AREA _____ SQ. FT.

REMARKS: _____

DATE SYSTEM APPROVED _____ INSPECTOR _____

APPLICATION

HOWARD COUNTY

PERMIT APPLICATION

DEPARTMENT OF INSPECTIONS, LICENSES & PERMIT
3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043

SERIAL NUMBER 56416

BUILDING ADDRESS (HOUSE NO., STREET, TOWN OR AREA)
19653
Penn Shop Rd. Mt Airy, Md 21771

LOT NO.	PARCEL NO.	SEC.	AREA	BLOCK NO.	LIBER	FOLIO
A	76	N.A	N.A	9		

SUB DIVISION	ZONE	ZONE MAP	ELEC. DIST.	CENSUS TR.
N.A	RC	6	4	—

OWNER NAME AND ADDRESS — PHONE NO.
19653 Penn Shop Rd. (301) 829-2671
John M. & Pearl H. Jefferson

OCCUPANT'S NAME AND ADDRESS — PHONE NO.
same as above

~~ARCHITECT OR~~ ENGINEER'S NAME AND ADDRESS — PHONE NO.
See Mc...
C.M. Mc... Eng. 461-0079

CONTRACTOR'S NAME AND ADDRESS — PHONE NO.

EXISTING USE	PROPOSED USE
FARM	SFD

EST. CONSTRUCTION COST	LICENSE NUMBER	PERMIT FEE
150...		

GRADING/SEDIMENT CONTROL ☐ YES ☐ NO — SDP #

DESCRIPTION OF WORK AUTHORIZED
3-Bedrooms

SIZE OF BLDG.	FRONT	DEPTH	HEIGHT

TYPE OF BLDG.	AREA	VOLUME	ROOF
B. ROOMS			
ROOMS			
BATHS			
FIREPLACES			

FOOTINGS	FOUNDATION	S. WALLS

UTILITIES

WATER/WELL	SEWER/SEPTIC	GAS	ELECTRICITY	TYPE OF HEAT	AC
well	septic			oil	—

I have carefully examined and read this application and know the same is true and correct, and that is doing this work, all provisions of Howard County Ordinances and the State Laws of Maryland will be complied with, whether specified or not; and I will notify the Department of Inspections, and Permits twenty-four hours in advance when I am ready for the inspections called for elsewhere in the application; and that no work will be covered up until such inspections have been complied with.

SIGNATURE

TITLE — DATE

W/S CODE

FOR OFFICE USE ONLY

DISTRICT IN FEET FROM R/W LINE TO FRONT BUILDING LINE ______

SIDE YARD ______
(DISTANCE IN FEET FROM SIDE BLDG. LINE TO SIDE PROPERTY LINE)

TO SIDE BUILDING LINE ______
DISTANCE IN FEET, REAR YD. REQUIRING SET

BACK ______ (CORNER LOT ONLY)

SDP # ______

Check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

FUNCTION	DATE	SIGNATURE APPROVAL
ZONING/PLANNING		
SHA		
SEDIMENT/GRADING		
BUILDING OFFICIAL		
WATER & SEWER		
HEALTH DEPT.	9-26-94	Amy McMiller
FIRE PROTECTION		
STORM WATER MGM.		

APPROVED — DATE

CAUTION

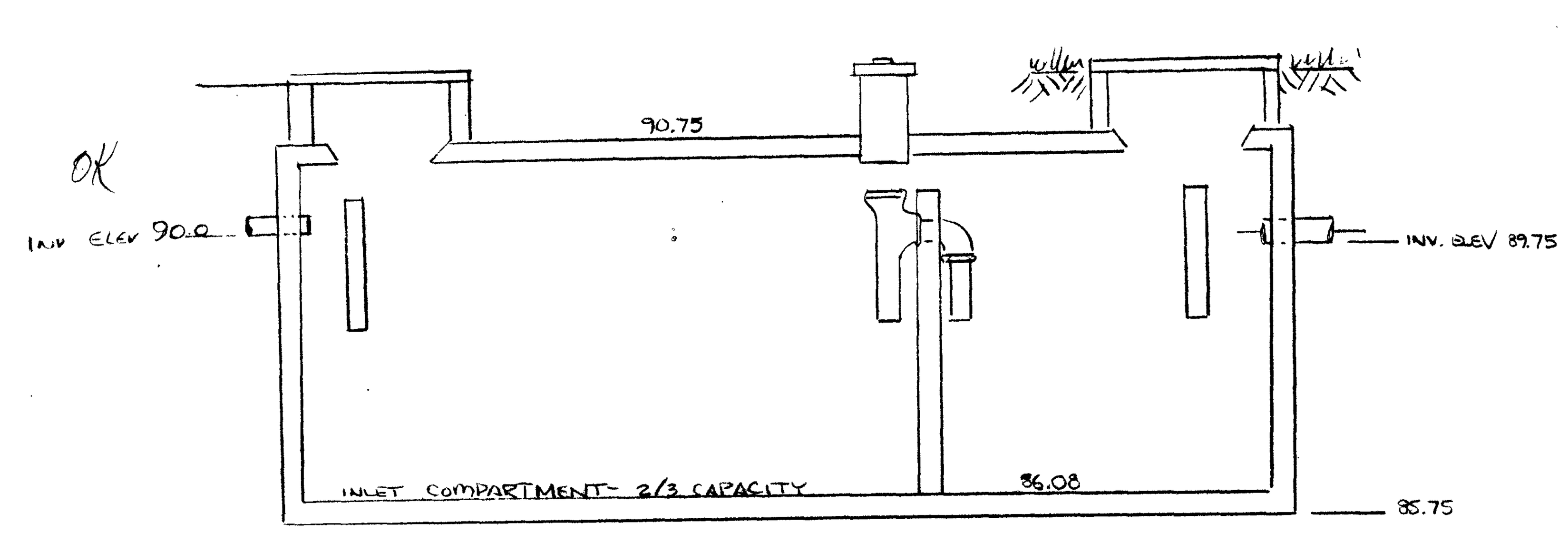
To begin construction before a permit placard has been issued and displayed on the job is a violation of the law.

Use and occupancy permit must be applied for two weeks before it will be issued.

IMPORTANT: PLEASE SHOW ZIP CODES AND AREA CODES WHEREVER REQUIRED.

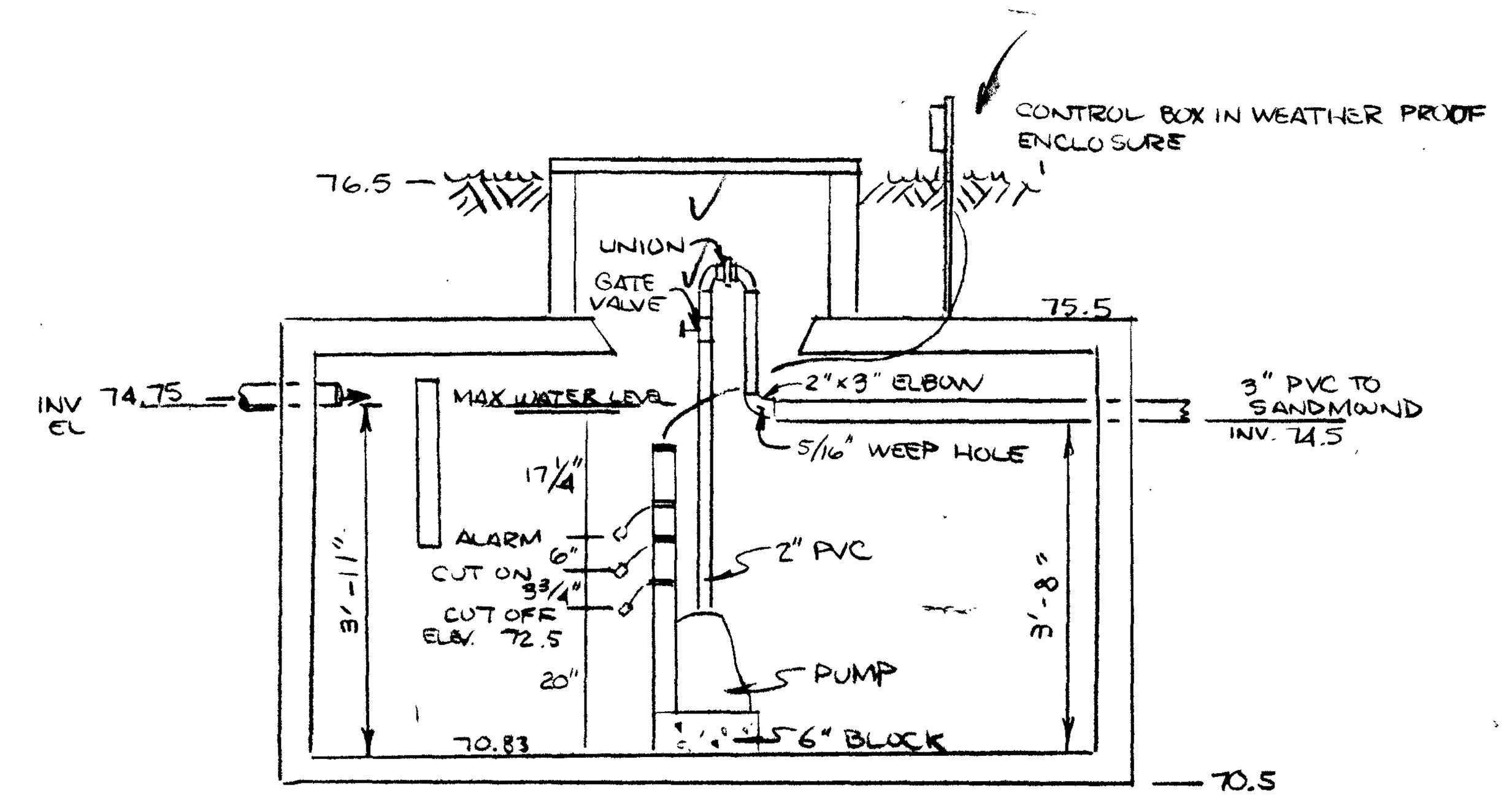
LP-69-591

Distribution of Copies:
White - Building Official
Green - Planning & Zoning
Yellow - Engineering
Pink - Health Dept.
Gold - S.H.A.



1500 GALLON SEPTIC TANK

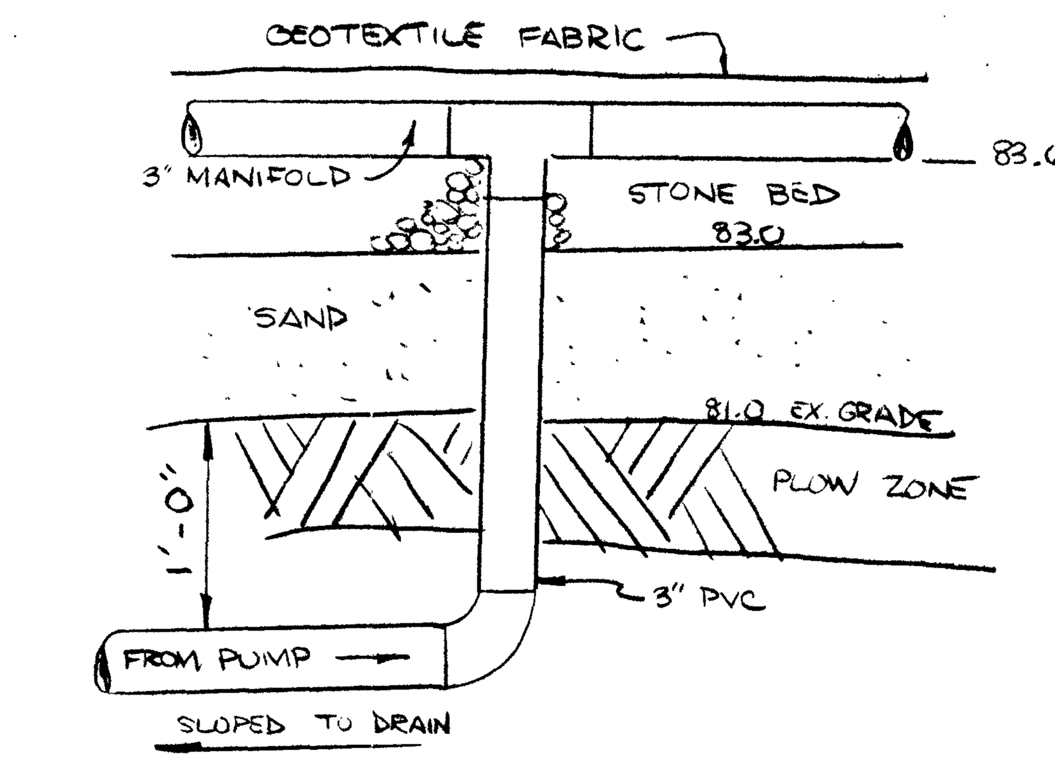
NOT TO SCALE



1000 GALLON PUMP CHAMBER ✓OK

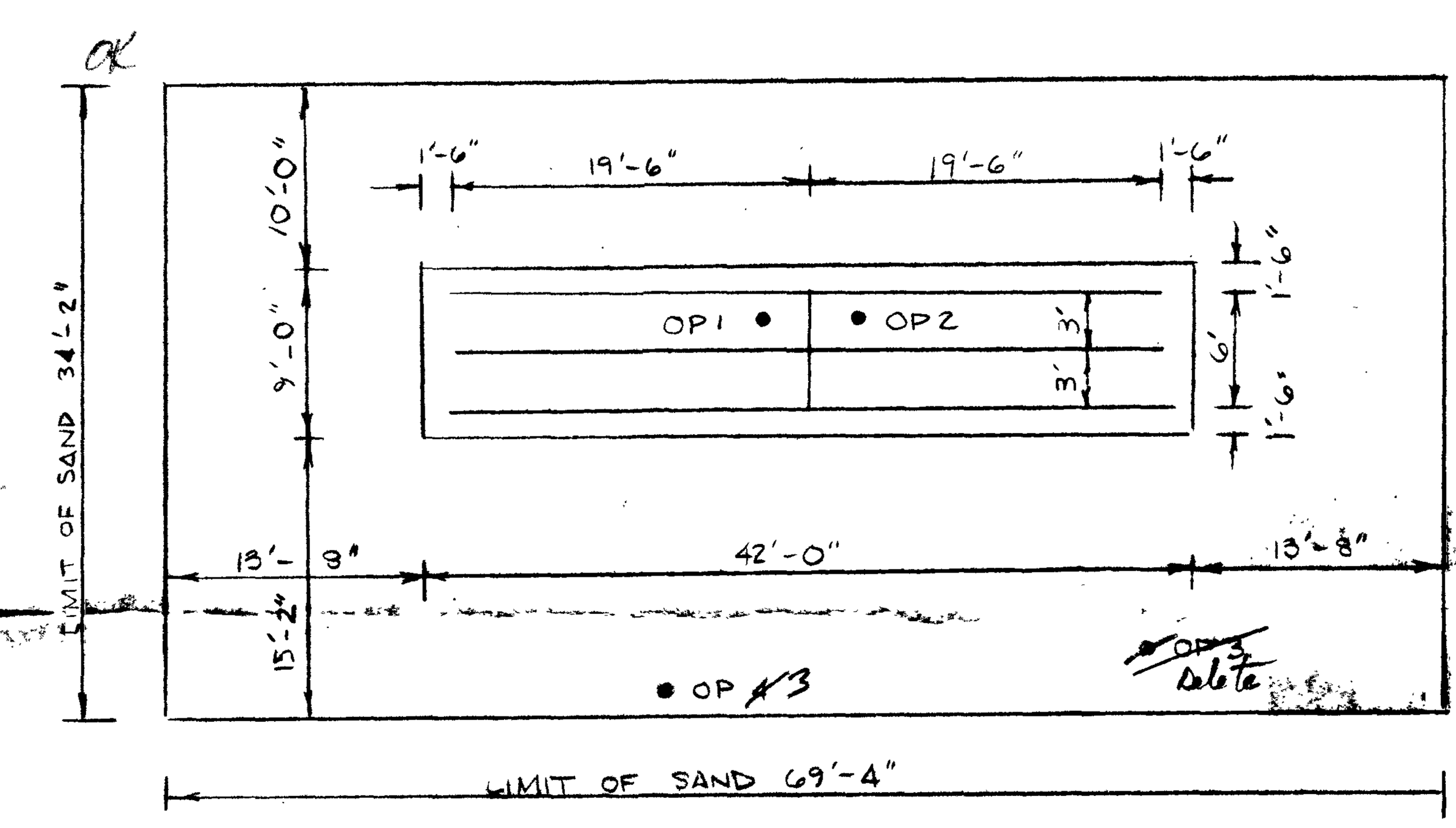
NOT TO SCALE

TANK FLOOR - 8'-4" x 4'-9" = 25 GAL / 1" DEPTH



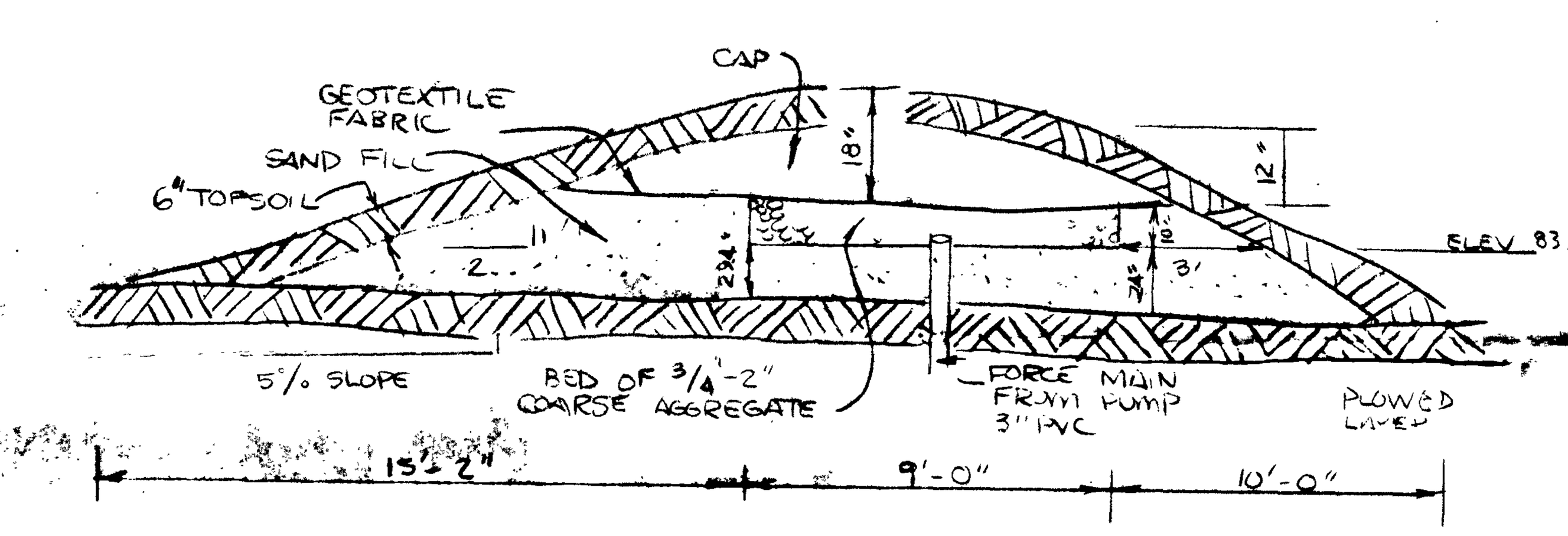
SUPPLY LINE / MANIFOLD DETAIL

NOT TO SCALE



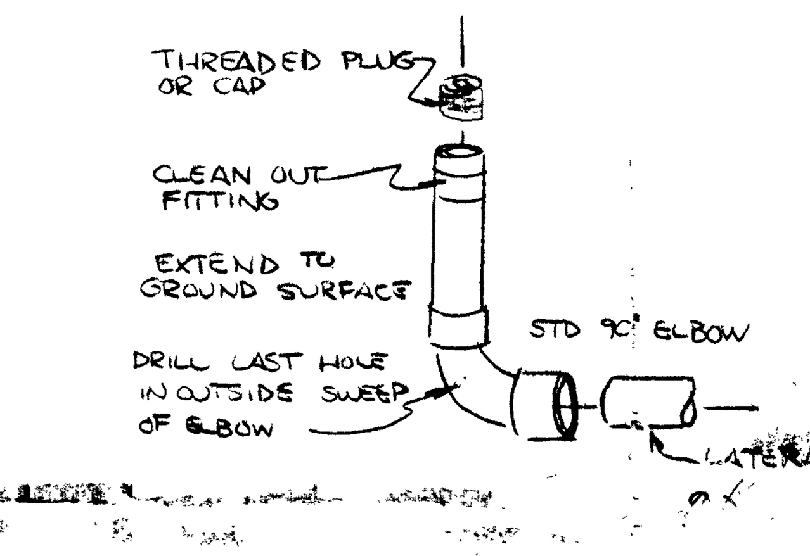
MOUND LAYOUT OK

SCALE: 1" = 10'



SAND MOUND DESIGN OK

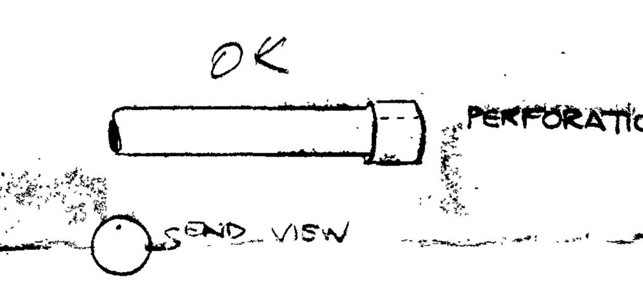
NOT TO SCALE



LATERAL END TURNUP

USE ON LATERALS FARTHEST FROM PUMP

N T S



LATERAL END CAP

USE ON LATERALS NOT EQUIPPED WITH TURN UP

NTS

DESIGN CRITERIA

DESIGN FLOW 450 gpd

1500 gal COMPARTMENTED SEPTIC TANK (TOP SEAM)

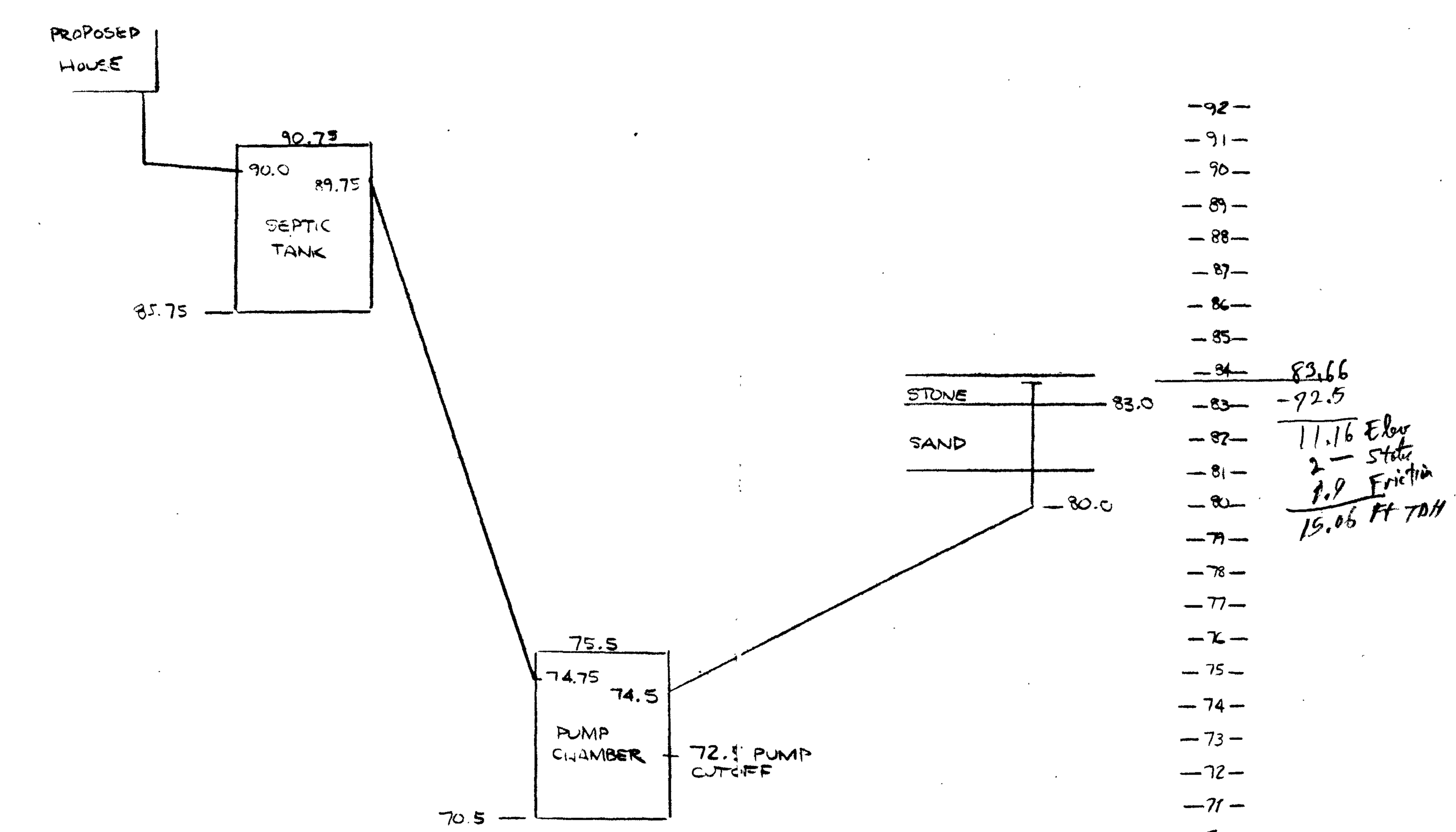
1000 gal PUMP CHAMBER (TOP SEAM)

92 gal DOSE @ 60 gpm

BED AREA 9' x 42' = 378 sq ft.

MOUND AREA 34.16 x 69.33 = 2,368 sq ft

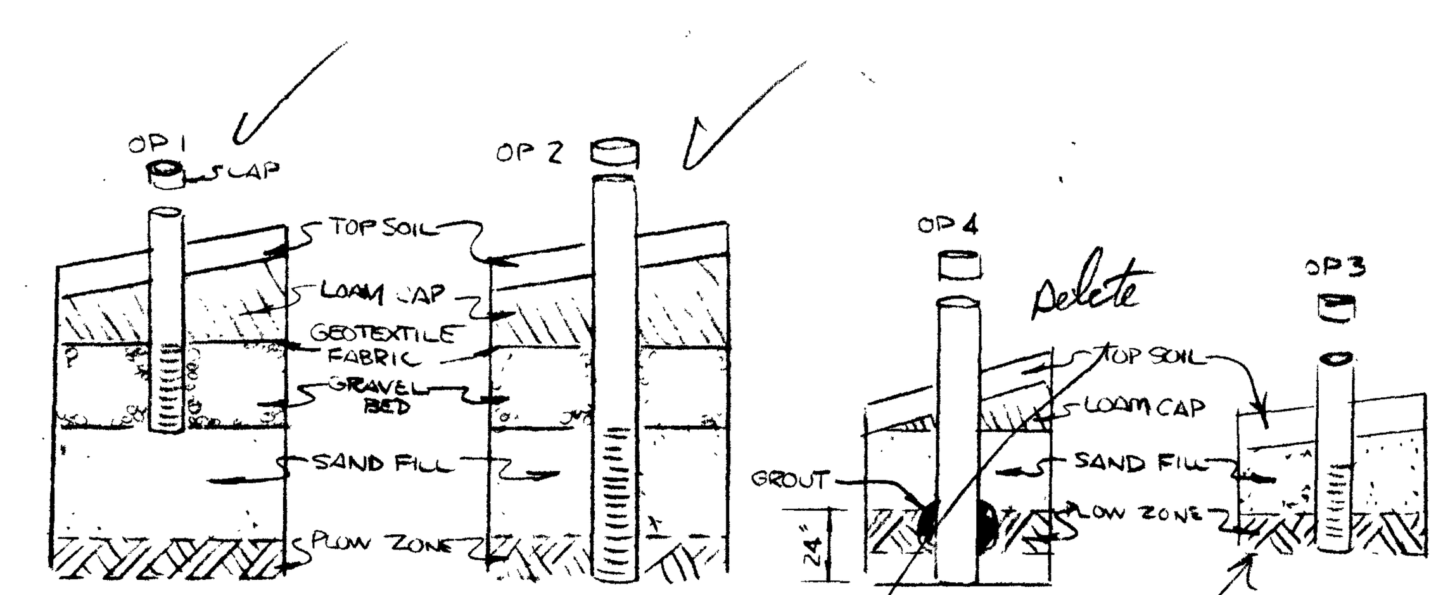
TDH - 15'



HYDRAULIC PROFILE

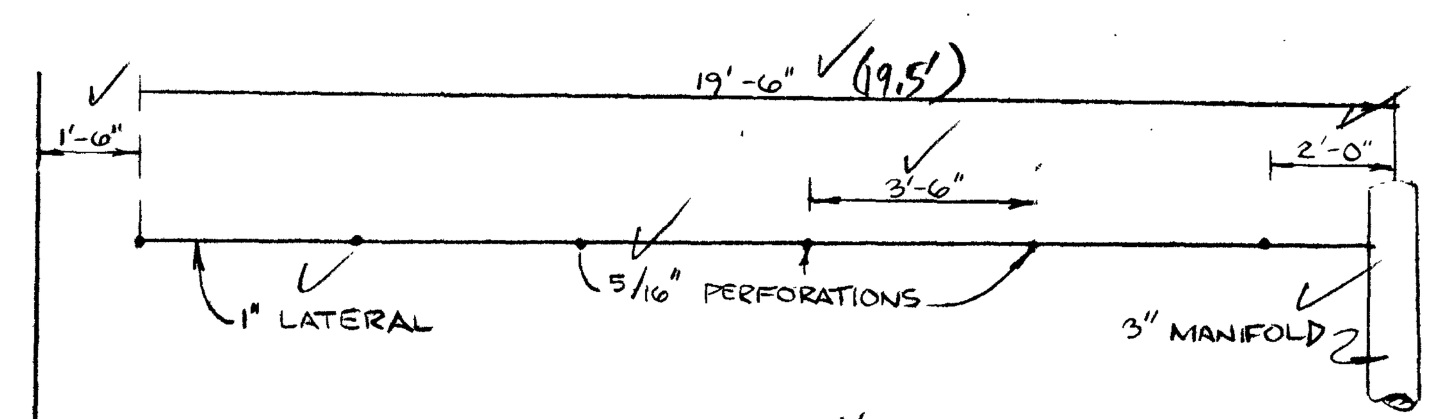
SCALE: V - 1/4" = 1'-0"

H - N T S



OBSERVATION PIPE DETAILS OK

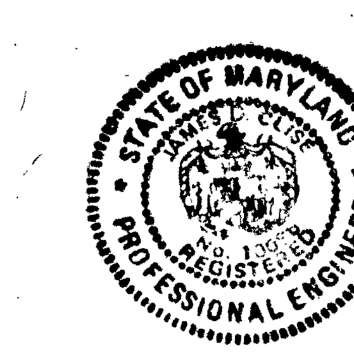
NOT TO SCALE



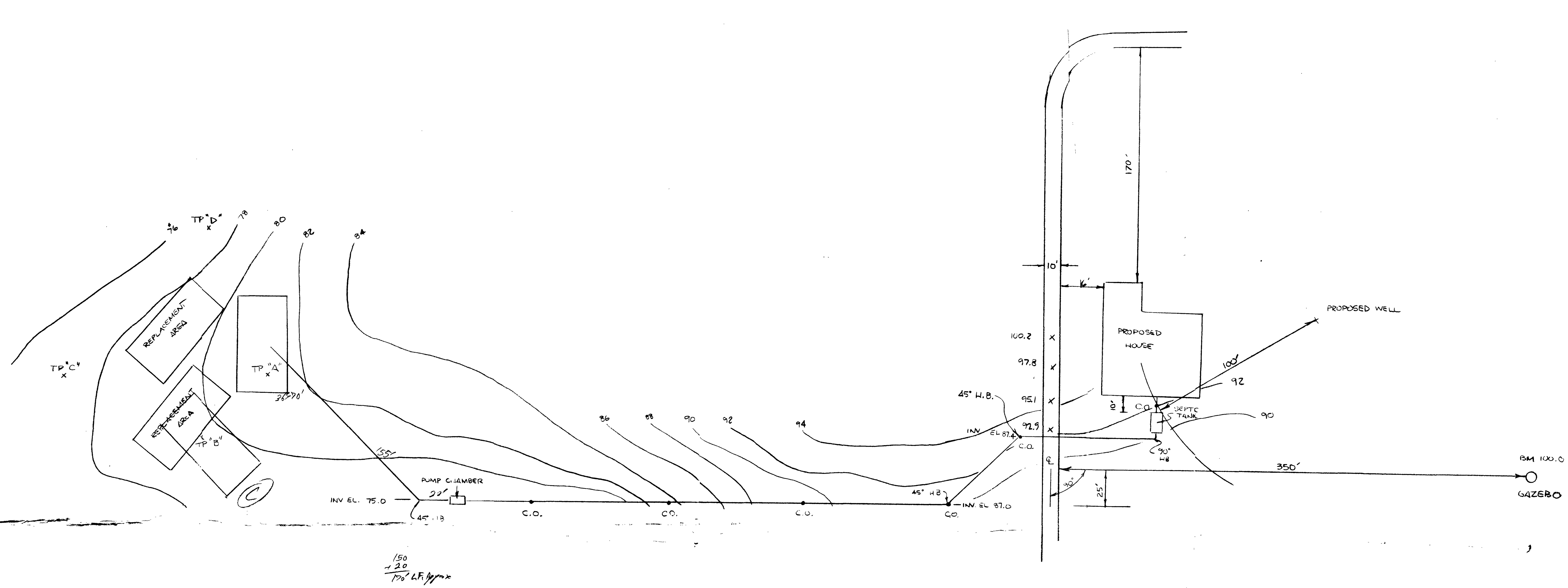
LATERAL DETAIL

TYPICAL

SCALE: 1" = 30'

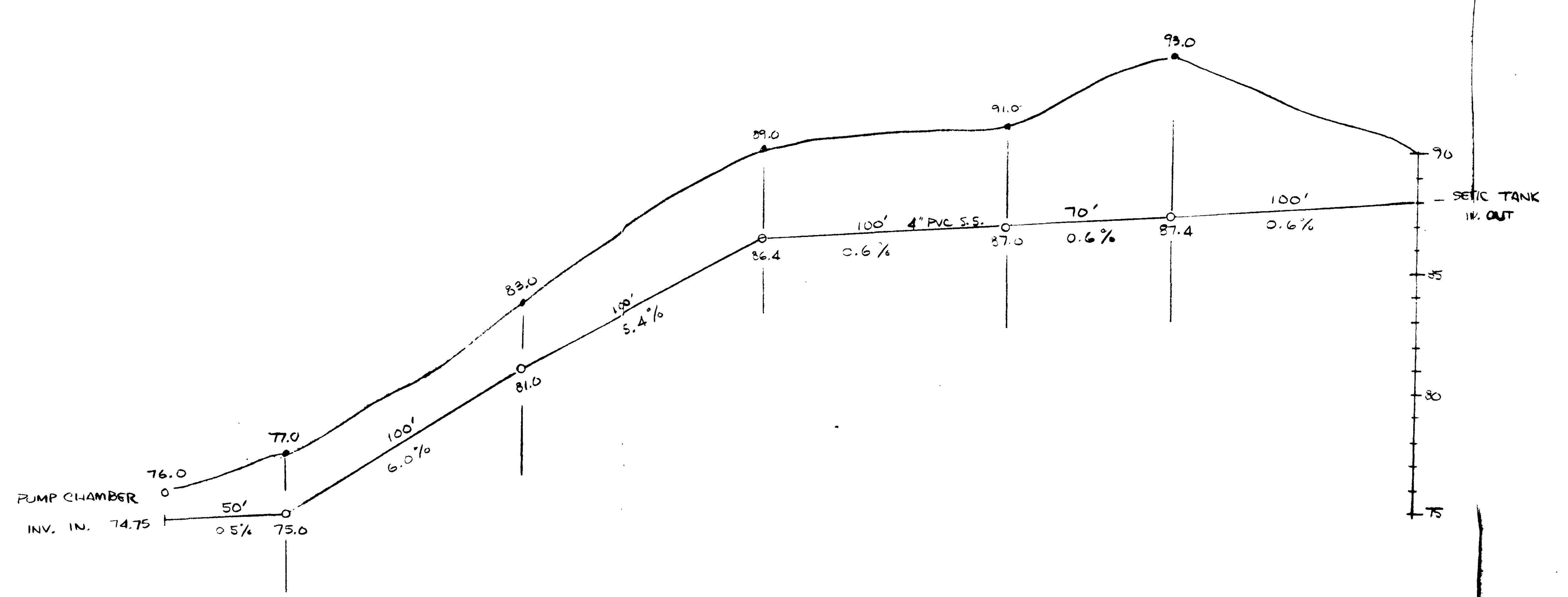


S/E ENGINEERING, INC WESTMINSTER MARYLAND 21157		
SCALE: AS SHOWN	APPROVED BY: JDC	DRAWN BY: AES
DATE: JUNE 1993		
JOHN M. JEFFERSON	19653 PENN SHOP RD	
MT. AIRY, MD.	HOWARD CO.	
SANDMOUND		DRAWING NO. 2 OF 2



SITE PLAN/ HORIZONTAL ALIGNMENT

SCALE: 1" = 30'



EFFLUENT SEWER VERTICAL ALIGNMENT

SCALE: V- 1/4" = 1'
H- 1" = 30'

S/E ENGINEERING, INC
WESTMINSTER MARYLAND 21157

SCALE: AS SHOWN	APPROVED BY: JDC	DRAWN BY AES
DATE: JUNE 1993		

JOHN M. JEFFERSON 18653 PENN SHOP RD
MT AIRY MD. HOWARD CO.

SANDMOUND — DRAWING NO. 1 OF 2

SANITARY/ENVIRONMENTAL ENG., INC.
Consulting Engineers
1414 Washington Road
WESTMINSTER, MARYLAND 21157

(301) 876-7740

LETTER OF TRANSMITTAL

DATE 6/22/93	JOB NO.
ATTENTION Ron Pinkley	
RE:	
Jefferson Sand Mound	

TO Howard Co. Health Dept.
3525-H Ellicott Mills Drive
Ellicott City, MD. 21043

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via ________ the following items:

☐ Shop drawings ☒ Prints ☐ Plans ☐ Samples ☒ Specifications
☐ Copy of letter ☐ Change order ☐ ________

COPIES	DATE	NO.	DESCRIPTION
1			Revised Print
1			Revised Specification

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit ____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit ____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return ____ corrected prints
☐ For review and comment ☐ ________
☐ FOR BIDS DUE ________ 19 ____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS
Revised as per comments dated 6/17/93

4/11/95 Met C. K. Williams of Fogler at Site to discuss layout and tentative time to begin Sand Mound Construction. Apparently Tentative Start ~~[illegible]~~ Monday Apr 17th - He'll confirm appt for eval of site plowing & wetland Sand Specs. Needs Septic Permit Application yet.

Final copy OK includes revisions per my comments [illegible] 6/[illegible]

COPY TO file

SIGNED: Jim Olise

If enclosures are not as noted, kindly notify us at once.

CALLED - CONTRACTOR - NO ...

8/19/92
12/14/92 10:00
5/10/93 NEW AREA

APPLICATION

PERCOLATION TESTING

A 48395

P ______

PREVIOUS OK
PROPOSAL IS TO SUBDIVIDE 1 ACRE FARM-LAND LOT.
CONDITION OF EXISTING FACILITIES NOT YET ADDRESSED!
CW

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

DISTRICT ______

DATE 8/3/92

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 John M. and Pearl H. Jefferson

ADDRESS 18653 Penn Shop Rd. Mt.Airy, Md. PHONE (301) 829-2671

AGENT OR PROSPECTIVE BUYER —

ADDRESS — PHONE —

PROPERTY LOCATION:

SUBDIVISION ______ LOT NO. Lot-2

ROAD AND DESCRIPTION 1400' off SS Penn Shop Rd. .6 mi SE Rt. 27

TAX MAP 6 PARCEL # 16"A"

Farmland Preservation

SIZE OF LOT Acres TYPE BLDG. Single Family Dwelling
(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. X ______
(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)

A48395
COUNTY #

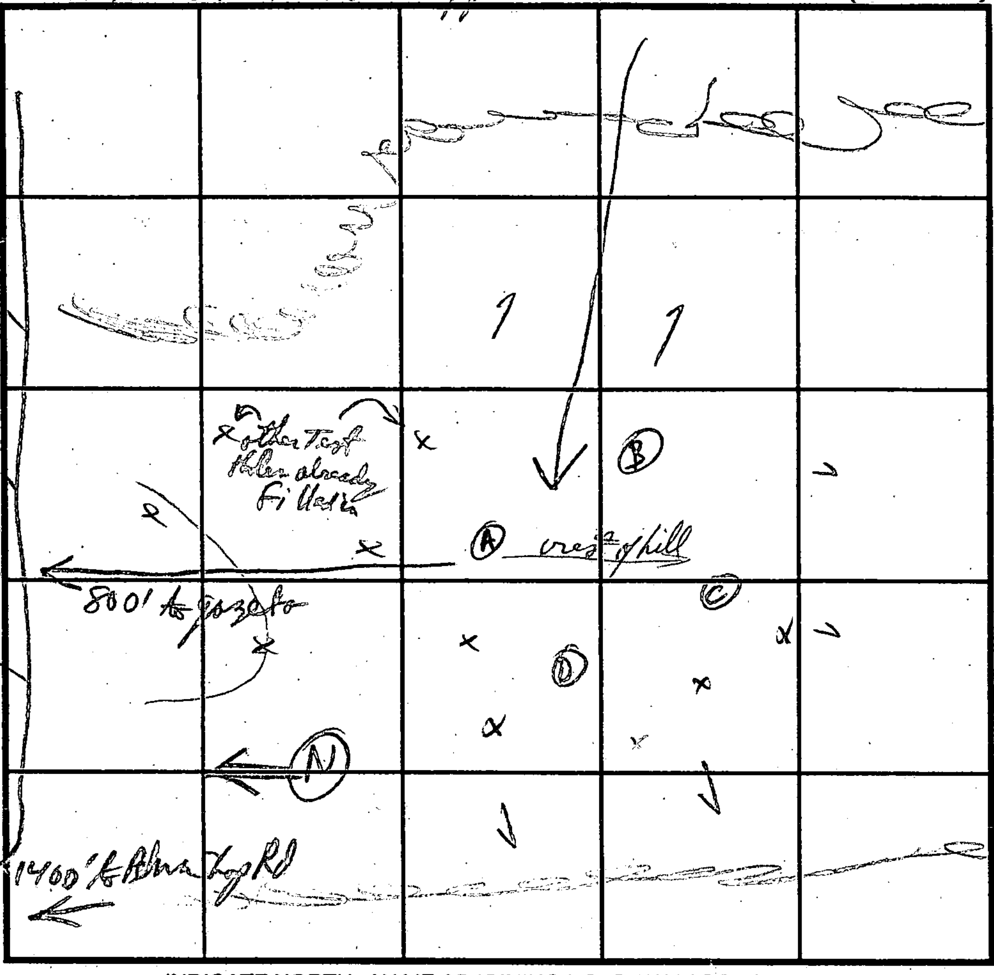
Final Test Site - approved for Sand Mound (See Plans)

SOIL PROFILE A

0'
Brn cherty hL-SiL
Brownish to reddish v. cherty loam to cherty CL
structure 2-3 F sbk is in chert frags (@ 2-4 mm)
30±10% chert
5½
>50% Rock (weathered Red schist)
(some weathered phyllite @ 3-6')
11

B
10"
Brn cherty hL
St Brn to orange cherty CL (some phyllite small pockets)
5½'
50% cherty loam c̄ an orange pocket of 70% by chert at 5½-9'
11'

North C South
10"
Topsoil cherty hL
Red Brn to orange CL Blocky 30% chert
3'
boundary
9'
Tan v. cherty loam (cherty & gritty) 50±% chert
30±% chert
11½'



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

SOIL PROFILE D

0'
Red CL - cherty hCL
1½'
Red - Red Brn v. cherty CL
4½-5½
Red Brn v. cherty loam
≥50% Rock Frags
11'

slopes vary to 3% at crest to 8-12% by hole D.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME	
5-10-93	A	2½' 5'	11:50:40 11:32:40	12:10:48 12:11:08	12:10:48 1:23: ½	12:44:35 in 2 hrs	34 min Too Slow @ 5'	
		V 11' 7½ retest	11:31:30 11:34:48	11:32:40 11:35:50	2" in 70 sec retest 11:40:22	11:42:50 11:41:40	60-70 sec	Too Fast
	B	1½ 4½'	12:32:30 12:01:00	1:53:00 1:53:00	1" in 1" in	80 min 112 min	80 min 112 min	Too Slow
		V 11' 7' retest	11:58:20 → 12:02:07 →	11:59:20 → 12:03:30 →	12:01:00 12:06:50	12:	1½ min Slow to	Marginal
		retest	12:07:10 →	12:09:31 →	12:14:16		4½ min on 3rd test	Marginal
	C	2½' 4½'	1:11:00 12:18:18	1:28:50 12:58:50	1:28:50 12:58:50	2:27 1:27:56	60 min 29 min	Marginal Slow
		V 11½' 8'	12:18:32	12:26:50	12:26:50	12:39:20	12½ min	OK
	D	2½' 5'	1:08:45 12:49:30	1:33:00 12:57:20	1:33:00 12:57:20	2:07:45 1:09:20	34 min 12 min	
		V 11' 8' retest	12:47:00 12:51:40 →	12:47:48 12:52:30	12:48:50 12:53:40 →	12:54:30	1 in 20 sec	Too Fast

REMARKS

TYPE OF SOIL Soil slightly moist to moist (dry in deeper depths) MhB, Mt Airy loam / loam

TESTED BY R. Bentley ALSO PRESENT Mr. Jefferson

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME ______ TRENCH WIDTH ______

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

CALLED - CONTRACTOR - NO INSP.

8/19/92

APPLICATION

12/14/92 10:00

5/10/93 NGW ANGA

PERCOLATION TESTING

A 48395

P

DISTRICT

DATE 8/3/92

REGULAR OK
PROPOSAL IS TO SUBDIVIDE 1 ACRE FARM-CANS LOT.
CONDITION OF EXISTING FACILITIES NOT YET ADDRESSED.
CW)

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 John M. and Pearl H. Jefferson

ADDRESS 18653 Penn Shop Rd. Mt. Airy, Md. PHONE (301) 829-2671

AGENT OR PROSPECTIVE BUYER —

ADDRESS — PHONE —

BLDG. PERMIT SIGNED AND RETURNED 9/26/94
Septic #56416

PROPERTY LOCATION:

SUBDIVISION LOT NO. Lot-2

ROAD AND DESCRIPTION 1400' of 18653 Penn Shop Rd. .6mi SE Rt. 27

TAX MAP 6 PARCEL # 16 "A"

Farmland Preservation

SIZE OF LOT Acres TYPE BLDG. Single Family Dwelling
(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. X
(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

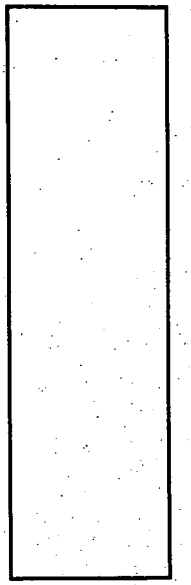
THIS IS NOT A PERMIT

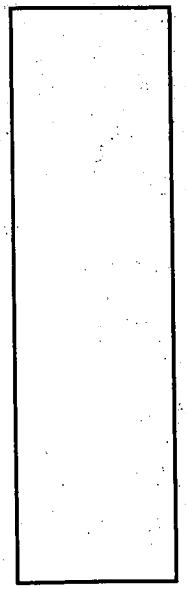
HD-216 (3/92)

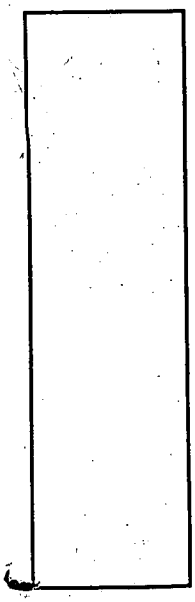
COUNTY #

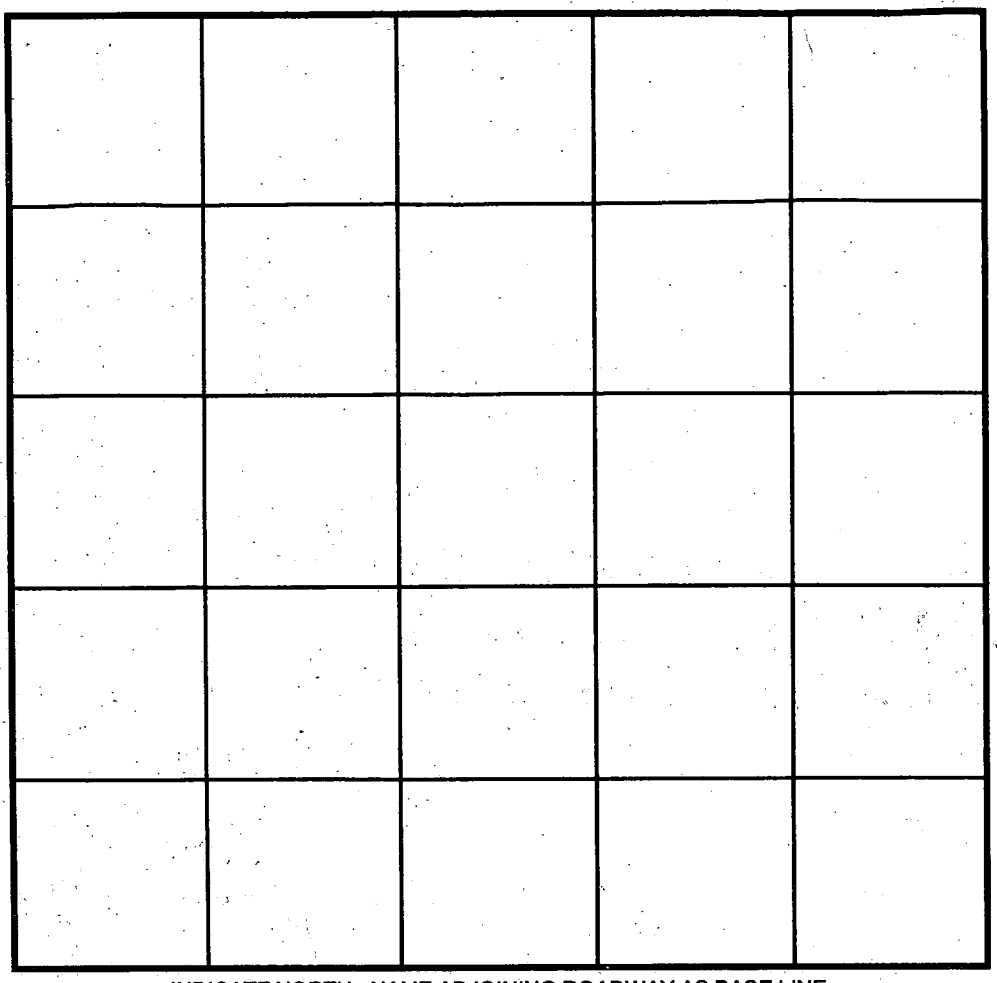
SOIL PROFILE

0'



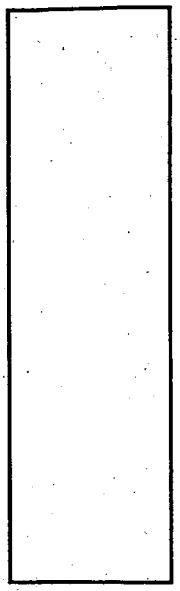






SOIL PROFILE

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

REMARKS _____

TYPE OF SOIL _____

TESTED BY _____ ALSO PRESENT _____

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

APPLICATION

PERCOLATION TESTING

A _____

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
P.O. BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 461-9933

DISTRICT _____

DATE _____

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I, HEREBY, APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER _____

ADDRESS _____ PHONE _____

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 _____

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

_____

_____

HD-216

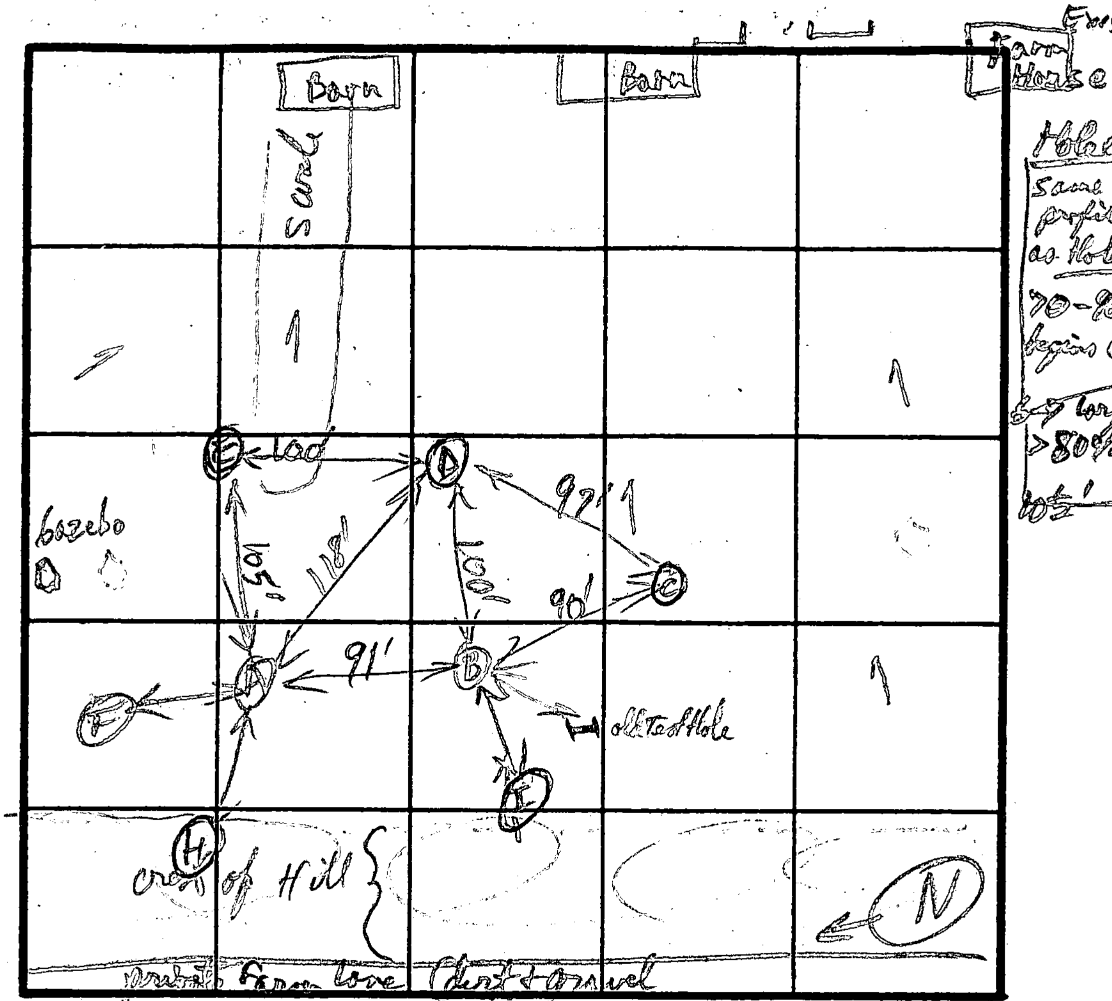
THIS IS NOT A PERMIT

East

Hole A

SOIL PROFILE

0'	Str Brn Ch SiCL
8"	Red-Red Brn Ch SiCL
4½	Red Ch



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

Hole C
Same MtC2 profile upper 3 ft as Hole B
70-80% Rocky begins @ 3½-4'
8 large stones >80% Begin 10½'

Hole B

	Str Brn Ch SiCL
6-8"	Lt Brn - Red Ch SiCL
2'	Red-Red Brn ch SiCL 30-40% Ch
3½	Lt Brn Red Ch SiL 30% ch
5-6'	60-80% Weathered Mica Schist Channers & Flags
11'	

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME	
8/19/92	A	@4½'	11:08:21	11:10:50	11:10:50	11:16:00	5 min	
		@8' V 11'	11:08:36	11:16:20	11:16:03	11:24:40	8 min	
	B	@4'	11:20:30	11:28:00	11:28:00	11:46	18 min	LPDor Very Shallow Trench
		@7'	11:18:29 Retest 11:21:40	11:19:05 11:22:30	11:22:30	11:23:40	1 min	Too Fast
		V 11'	Too Channery Rock	below 5½ ± ½ ft				
	C	@3½	11:[illegible]-	11:49?	11:49:35	11:49:54	24 sec	Fail
		7' W 10½	11:48:00	11:48:13	Big Rock		13 sec	
	D	@3½	11:43:00	12:08	12:08	still ⅓" 12:45	Too Slow	Fail
		@7'	11:43:30	11:44:00	11:44:10	11:44:50	40 sec	
	E	5'	Refused because Too	Much Shale	Not Tested		Fail	Fail
	L	4'	Refused Rock @ 4'				Fail	Fail

Hole D
Similar to Hole B but Channers are smaller @ 60-80% Rocky Level below 5-6'

REMARKS Too Rocky for Any but Ultra Shallow Systems — Need S.M. Test

TYPE OF SOIL MtC2 Mount Airy Channery Loam

TESTED BY RJ Pinkley ALSO PRESENT

APPLICATION

PERCOLATION TESTING

A ____________

P ____________

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
P.O. BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 461-9933

DISTRICT ____________

DATE ____________

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I, HEREBY, APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER John M & Pearl H. Jefferson

ADDRESS 18653 Penn Shop Rd, Mt Airy, MD PHONE 829-2671

PROSPECTIVE BUYER ____________

ADDRESS ____________ PHONE ____________

PROPERTY LOCATION:

SUBDIVISION ____________ LOT NO. Lot 2

ROAD AND DESCRIPTION 1400' off SS/Penn Shop Rd .6 mi SE/Rt 27

TAX MAP 6 PARCEL # 16 "A"

SIZE OF LOT 194.4 Acres TYPE BLDG Farmland Preservation
(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 ____________

REJECTED BY ____________ FOR ____________ DATE ____________

HOLD PENDING FURTHER TESTS ✓ Shallow System or Alternative system, More Tests Needed DATE 8/28/92 [illegible]

REASONS FOR REJECTION OR HOLDING ____________

HD-216

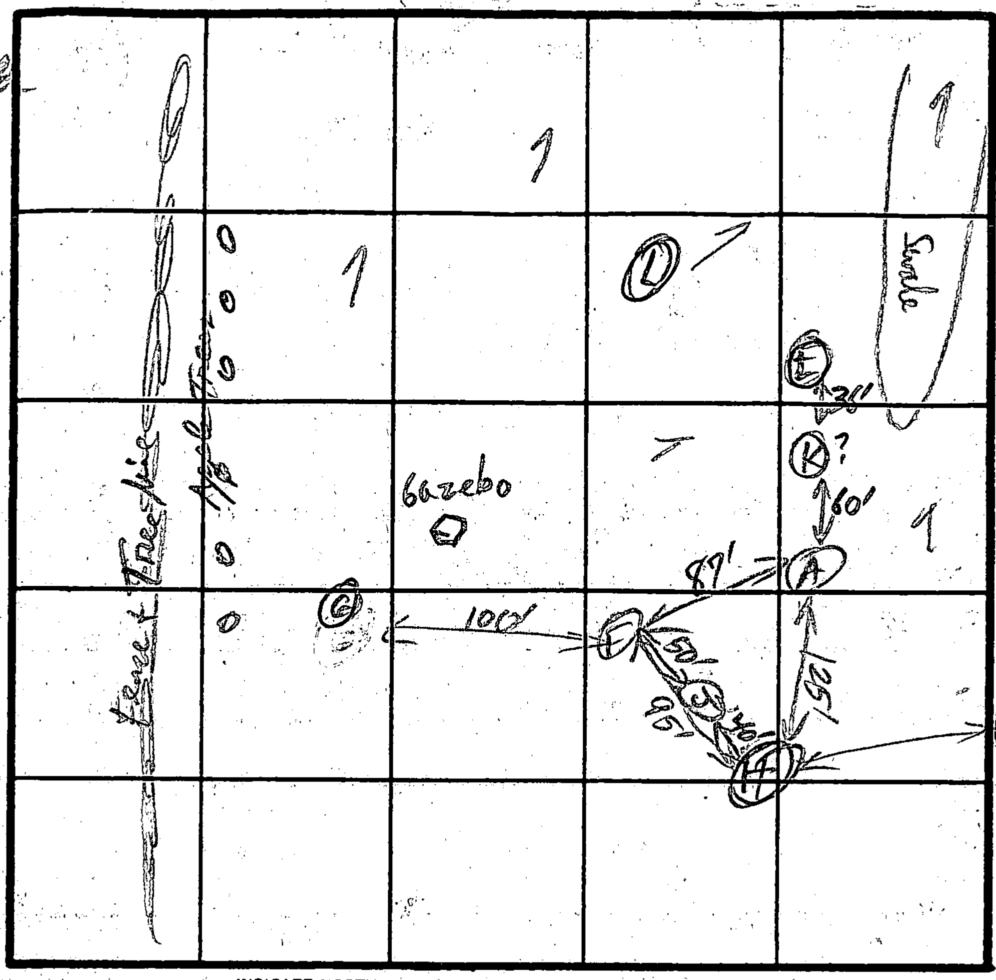
THIS IS NOT A PERMIT

Jefferson Prop
18653 B[illegible]

Hole G

SOIL PROFILE

0' – 8" Topsoil hL [illegible]
Red SiCL
30% ch
3' – Transition
Red Brn
& Yel Red
vch SiL
40-55% Rocky
6'



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

Hole J
Same Profile as (G)

Hole K
upper 4½-5' like Hole B (Typical Mt Airy)
1st Bluegrey Shale about at 5½' to 11' >60% ch to Flags

Hole F Similar to Hole A

Hole H
Dark Grey Brn Loam
6" – Str Brn-Yel Brn ChSiCL (10YR 5/3)
4' – Mix Red + Yel Red Brn CL 30-50% ch
6' – Dark Blue Grey ch Loam
CR ↓ Rx – Very thin gravel phyllite under Red Shale (thin >90% Some gravels + chunks)
9½

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME	
8/19/92	F	@ 3'	12:27:46	12:30:00	12:30:00	12:36:00	6 min	
		@ 7'	12:25:18	12:27:46	12:27:46	12:31:18	3½ min	
		✓ 7'						
	(G)	@ 2½'	Not Tested					
		✓@ 6½'	3+" in 30 seconds Soils >50% ?! @ 3+ft				Too Fast	Fail
	H	3½'	1:06:50	1:17:00	Still on 1st Nail		Too Slow	
		@ 6'	1:02:13 Rockier @ 6-9 ft	1:06:37	1:06:37	1:11:30	5 min	Fail
	I	50-60%	Rock from 1½' to	Stop @ 5½ ft			Too Rocky	Fail
	J.	✓ 6'	Not tested				Too Fast?	Fail
	K		Hitting Phyllite @ 5½ ft					

K Rock is Deep Red + Dark Blue Grey Shale ('greasy like phyllite')
@ 6½' 2:41:10 – 2:50:12 → 3:01:30 11 min
@ 3½' 2:47 [illegible] 20 min Too Slow
@ 9' 3:11:25 → 3:15:00 → 3:19:00 (4 min in Rock)

REMARKS

TYPE OF SOIL

TESTED BY RP[illegible] ALSO PRESENT

Jefferson Property
18653 Bru Shop Rd
Parcel 16

(L) Sched. Refusal
Rock @ 4'

HOWARD COUNTY HEALTH DEPARTMENT

Joyce M. Boyd, M.D., County Health Officer

Reply to: Craig D. Williams
313-2640 or 313-2641

August 20, 1992

Mr. John M. Jefferson
18653 Penn Shop Road
Mt. Airy, Maryland 21771

RE: PERCOLATION TEST RESULTS
APPLICATION # A-48395
Lot 2, Penn Shop Road

Dear Mr. Jefferson:

Percolation testing conducted August 19, 1992 on the above referenced property indicated limited satisfactory soil conditions. Two of the test holes were judged passed; all other test locations failed due to excessively rock content and faster than acceptable percolation rates. Copies of the test results are enclosed.

Landscape position was also a factor which hampered the prospects for approval. The most promising soils were located at the head of a swale which drains toward the current water supply for the existing farmhouse on the property.

It is the preliminary judgement of this office that this area failed the percolation test because a sewage disposal easement of sufficient size could not be established. Should a review of this decision be requested, such review is contingent upon submission of a scaled percolation certification plat showing actual locations and elevations of all excavated test holes and a suitable house and well site. The plat should also include the topography of the area under consideration and the location of the existing well.

This should be submitted within sixty (60) days to allow field verification if necessary. As discussed in the field, it is suggested that other areas on the property be considered for testing. This would seem to carry a greater prospect for approval and could be continued under authorization of this same test application.

Bureau of Environmental Health
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits 313-2640 Community Environmental Health 313-2642
Technical Services 313-2644 Director 313-2645 TDD 313-2323

If you should have any questions regarding this matter, please feel free to contact me at the above address or by calling 313-2604.

Very truly yours,

Craig D. Williams, Director
Water and Sewerage Program

CDW:hs

Enclosures

HOWARD COUNTY HEALTH DEPARTMENT

Joyce M. Boyd, M.D., County Health Officer

Reply to:

August 24, 1992

TO: John M. Jefferson

FROM: Ronald J. Pinkley RP/cw

RE: Perc Letter (A-48395)
off Penn Shop Road, Tested 8/19/92

You may recall we had discussed alternative systems, such as low pressure dosing, elevated bed, and sand mounds, as a possible solution should there prove to be insufficient area suitable for conventional sewage disposal systems.

According to the USDA Soil Survey for Howard County, approximately 25% of the 194 plus acres for this property are unsuitable prospects because of seasonally high water tables and/or close association to seasonal or perennial streams. Less than 2% of the parcel is mapped as Glenelg soil (the best candidate for a conventional system). The remaining approximately 73% of the soils mapped for this property are Mt. Airy and Linganore series which are rated severe, primarily due to shallow depth (i.e. less than 7 ft.) of soil to rock.

Simply put, while testing other sites on this property for conventional systems would be the recommended procedure to follow, please bear in mind that there is a fair to good probability that other sites may be no more suitable for conventional septic systems than the one just tested. In such an eventuality, you may wish to consider specialized testing for use of one of these alternative systems in lieu of further conventional site testing.

If you have any questions regarding such systems or additional testing procedures necessary to evaluate a site for such a system, please feel free to call me at 313-2640.

RJP:hs

Bureau of Environmental Health
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits 313-2640 Community Environmental Health 313-2642
Technical Services 313-2644 Director 313-2645 TDD 313-2323

CALLED - CONTRACTOR - NO ANS?

APPLICATION

8/14/92
12/14/92 10:00
5/10/93 NGW NGA

PERCOLATION TESTING

A 48395
P
DISTRICT
DATE 8/3/92

PROPOSAL IS TO SUBDIVIDE 1 ACRE FARM-LAND LOT. CONDITION OF EXISTING FACILITIES NOT YET ADDRESSED CW

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 John M. and Pearl H. Jefferson

ADDRESS 18653 Penn Shop Rd. Mt. Airy, Md. PHONE (301) 829-2671

AGENT OR PROSPECTIVE BUYER —

ADDRESS — PHONE —

PROPERTY LOCATION:

SUBDIVISION _____ LOT NO. Lot-2

ROAD AND DESCRIPTION 1400' off SS Penn Shop Rd. .6mi SE Rt. 27

TAX MAP 6 PARCEL # 16"A"

Farmland Preservation

SIZE OF LOT Acres TYPE BLDG. Single Family Dwelling
(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)

A48395
COUNTY #

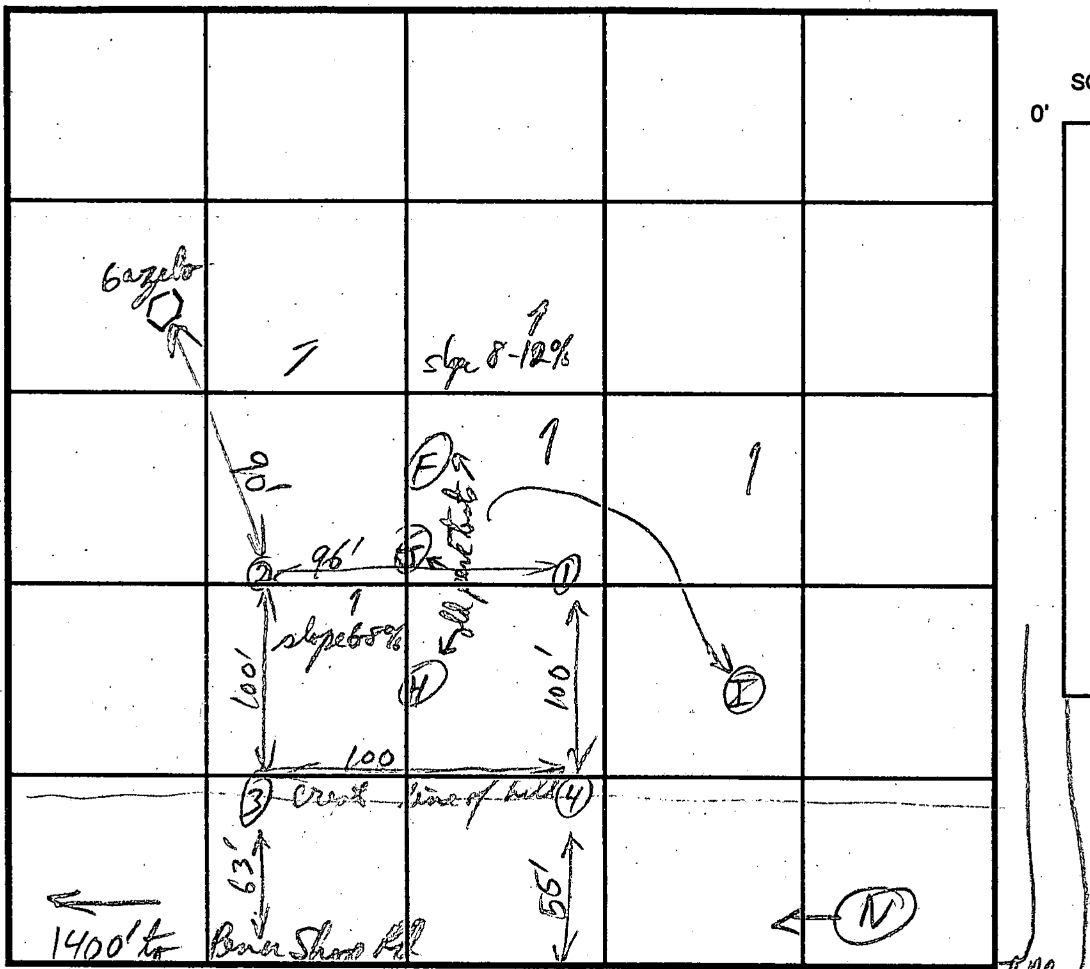
SOIL PROFILE

0'

1

v channery
@2-2½'

Mt Airy
Soil



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE. gravel Rd

SOIL PROFILE

0'

4

Linganore
Red Brown Blue Gray
v. channery Brown
Loam

50%
channery
@2-2½'

phyllite channery in places

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME	
5-10-93	1	2½	2:47:00 2:43:00	2:49:00 2:43:50	2:43:50	-	2 min	Marginal OK
	2	2½	2:56:30	still 1st 1" 3:39:00	Pulled 4:10	~½" in 75 min	Too Slow	Fail
	3	2½	2:57:20 ½" in 3:13	3:36:00 1st "	Pulled 4:07 ½" more	in 30 min	~60 [illegible]	Marginal
	4	2½	3:06:30 Still	3:39:00 on 1st Mil	Pulled @4:05	~¼" in 1 hr	Too Slow	Fail

REMARKS __________

TYPE OF SOIL Mt Airy

TESTED BY R [illegible] ALSO PRESENT __________

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME __________ TRENCH WIDTH __________

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

SANITARY/ENVIRONMENTAL ENG., INC.
Consulting Engineers
1414 Washington Road
WESTMINSTER, MARYLAND 21157

(301) 876-7740

LETTER OF TRANSMITTAL

DATE 6/3/93	JOB NO.
ATTENTION	
RE: Jefferson Sand Mound	

TO Ron Pinkley
Howard Co. Health Dept
Ellicott City, MD

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☑ Prints ☐ Plans ☐ Samples ☑ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
2	6/93		Prints -
2	6/93		Specifications
1			Calculations

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☑ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS Your prompt review & response will be appreciated

COPY TO Mr. John M. Jefferson
file

SIGNED: Jim Clarke

PRODUCT 240 NEBS Inc., Groton, Mass. 01471.

If enclosures are not as noted, kindly notify us at once.

STATE USE INDUSTRIES JESSUP, MD 20794

EMERGENCY/TEMP NO. IF ANY

B 1 1218 SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER HO-94-0076
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		fill in this form completely

OWNER INFORMATION

Date Received (APA): 050294

Last Name / Owner / First Name: JEFFERSON JOHN

Street or RFD: 18653 PENN SHOP RD

Town: MT AIRY State: MD Zip: 21771

DRILLER INFORMATION

Driller's Name: Ralph Mayne MSD/MGD/MWD License No.: 716

Firm Name: Ralph Mayne Well Drilling

Address: 9120 Brown Church Rd. Mt Airy

Signature: Ralph Mayne Date: 4/25/94

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) — circled
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) | JETTED | Jetted & DRIVEN
(AIR-ROTary) — circled | AIR-PERcussion | ROTARY (Hydraulic Rotary)
CABLE | REVerse-ROTary | DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL — circled
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: RP WRITE INITIALS IN BOX PERMIT No. HO-94-0076

B 3 LOCATION OF WELL

COUNTY: HOWARD

SUBDIVISION: JEFFERSON FARM

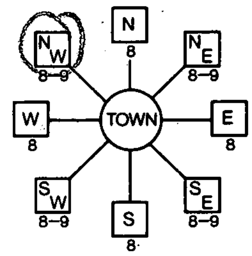
SECTION: — LOT: —

NEAREST TOWN: LONG CORNER

MILES FROM TOWN (enter 0 if in town): 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): NW (circled)



NEAR WHAT ROAD: Penn Shop Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): S (circled)

DISTANCE FROM ROAD: 3000 ENTER FT OR MI: FT

TAX MAP: ______ BLK: ______ PARCEL ______

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Howard COUNTY NO.: A48395

STATE SIGNATURE ______ INSERT S

DATE ISSUED: 051094 CO SIGNATURE: [signature] EXP. DATE: 5/10/95

NORTH GRID: 547000 EAST GRID: 0752000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

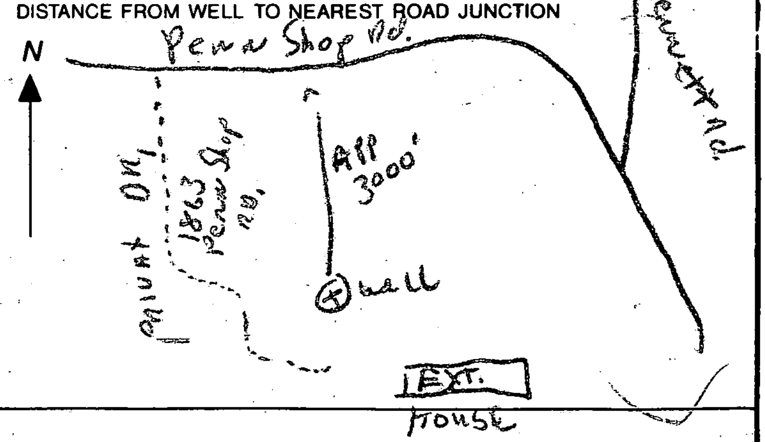
5/31/94
9:30 grout
8:30 pump
csg 42' located OK
gel 37'
grout 10 bags AP 5/31/94

SOURCES OF DRILLING WATER
1. well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 752
N 547

000
000

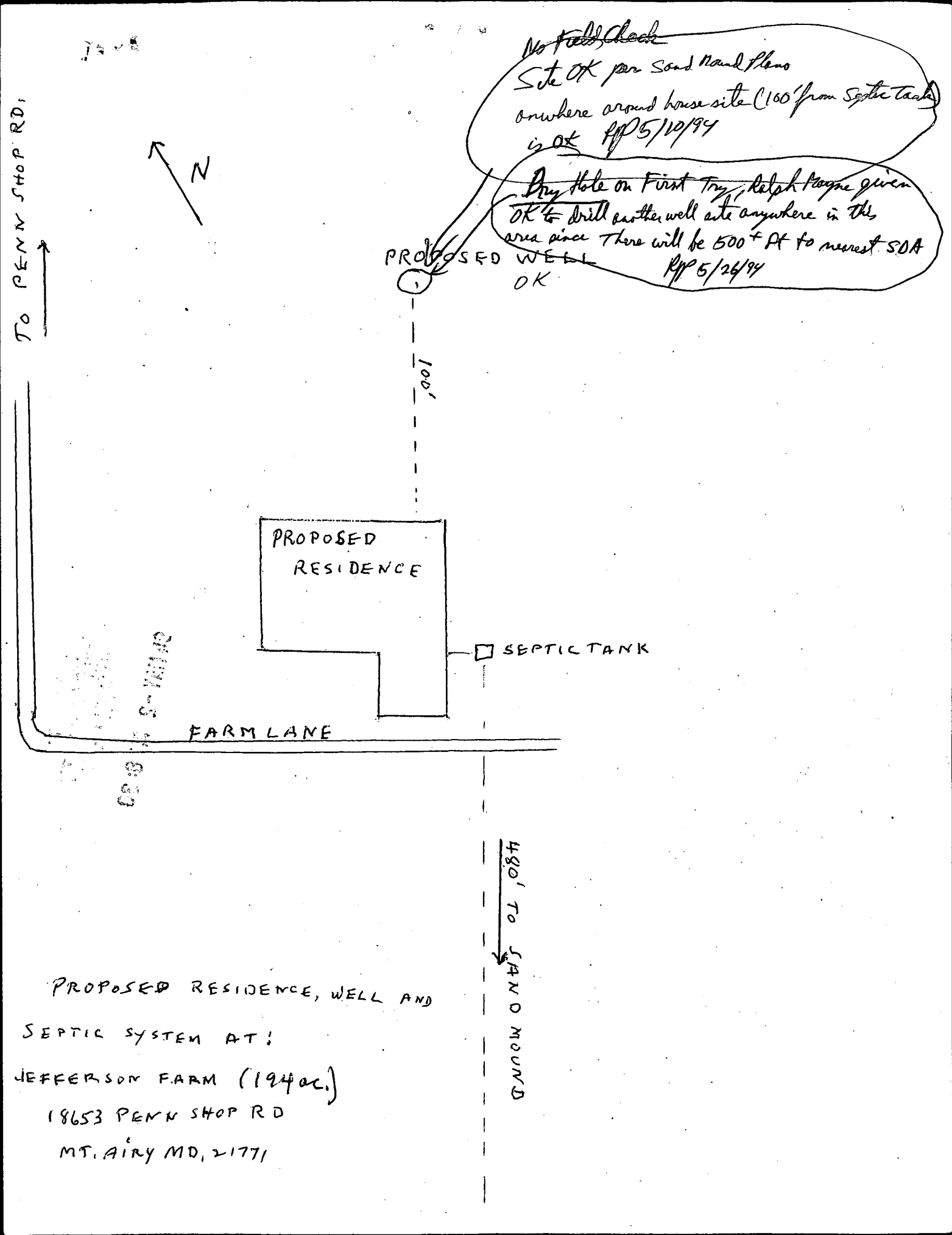
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

NOTE = APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED =

DRILLER



PROPOSED RESIDENCE, WELL AND SEPTIC SYSTEM AT:

JEFFERSON FARM (194 ac.)

18653 PENN SHOP RD

MT. AIRY MD, 21771

John M. Jefferson
18653 Penn Shop Rd.
Mt. Airy, MD 21771

SPECIFICATIONS
SAND MOUND

1. Design Criteria

3 Bedroom House
Design Flow - 450 GPD
1 - 1500 Gal. Compartmented Septic Tank (Top-Seam)
1 - 1,000 Gal. Pump Chamber (Top-Seam)
92 Gal. Dose @ 60 GPM
Bed Area - 9' x 42' = 378 Sq. Ft.
OK Mound Area - 34'-2" x 69'-4" = 2368 Sq. Ft.
TDH - 15'

2. Sewage Treatment

One 1500 gallon compartmented top-seam septic tank is to be installed in series with a 1,000 gallon top-seam pump chamber. The pump chamber is to provide 20" depth for pump elevation and submergence, 3-3/4" for the pump cycle dose, and 6" for the high water alarm. The additional capacity of the pump chamber will provide one (1) day's flow of emergency storage above the high water alarm.

The above capacities, measurements, and tank elevations shown on the drawing are based upon measurements of top-seam septic tanks and pump chambers as manufactured by Mayer Bros., Inc., Elkridge, MD (301) 795-1434.

3. A quick disconnect union and gate valve are to be provided on the pump discharge line as shown on the drawing.

4. Pressure piping from the pump chamber and the manifold are to be 3" Schedule 40 PVC.

5. Distribution laterals are to be 1" Schedule 40 PVC.

6. The pressure supply line, from the pumping station to the absorption bed, is to be installed with a continuous slope back to the pumping station to assure complete drainage of the effluent from the supply line following each pump cycle.

7. A submersible pump to remove 60 gpm against 15' TDH is to be provided. The pump should be a Goulds Model WE 0311 L, 1/3 hp, 115 volts, single phase, or equal. The pump control box is to be located above ground in a weatherproof enclosure.

8. The high water level sounding alarm is to be on a separate electrical circuit. The alarm is to be located inside the house.

9. Sand is to have an effective size between 0.25 and 0.50 mm with a uniformity coefficient no greater than 3.5 A list of suppliers of approved sand is available upon request from the Division of Residential Sanitation, MD Department of the Environment.

10. Gravel for the bed is to be 3/4" to 2" in diameter, washed and free of fines. Gravel is to be inspected and approved prior to placement. Following covering of the laterals with gravel, a layer of geotextile fabric is to be applied. Crushed limestone is not an acceptable substitute for gravel.

11. A test of the pumping system and distribution piping is required prior to covering the system.

12. Each 1" lateral is to be 19'-6" long with six (6) perforations 5/16 inch in diameter spaced 42" apart. A turn-up, as shown on the drawing, is to be provided on the extreme end of the lateral farthest from the pump. The other laterals are to terminate with an end cap, perforated as shown on the drawing.

13. The attached construction procedures as prepared by the Individual Septics & Wells Program, Department of the Environment, are included as a part of these specifications.

S/E Engineering, Inc. 5/25/93

John M. Jefferson
18653 Penn Shop Rd.
Mt. Airy, MD 21771

SPECIFICATIONS
SAND MOUND

1. Design Criteria

3 Bedroom House
Design Flow - 450 GPD
1 - 1500 Gal. Compartmented Septic Tank (Top-Seam)
1 - 1,000 Gal. Pump Chamber (Top-Seam)
92 Gal. Dose @ 60 GPM @ 15 Ft TDH
Bed Area - 9' x 42' = 378 Sq. Ft.
Mound Area - 34'-2" x 69'-4" = 2368 Sq. Ft.
TDH - 15'

Should be 34'2" - 1675.6

2. Sewage Treatment

One 1500 gallon compartmented top-seam septic tank is to be installed in series with a 1,000 gallon top-seam pump chamber. The pump chamber is to provide 20" depth for pump elevation and submergence, 3-3/4" for the pump cycle dose, and 6" for the high water alarm. The additional capacity of the pump chamber will provide one (1) day's flow of emergency storage above the high water alarm.

The above capacities, measurements, and tank elevations shown on the drawing are based upon measurements of top-seam septic tanks and pump chambers as manufactured by Mayer Bros., Inc., Elkridge, MD (301) 795-1434.

3. A quick disconnect union and gate valve are to be provided on the pump discharge line as shown on the drawing.

4. Pressure piping from the pump chamber and the manifold are to be 3" Schedule 40 PVC.

5. Distribution laterals are to be 1" Schedule 40 PVC.

6. The pressure supply line, from the pumping station to the absorption bed, is to be installed with a continuous slope back to the pumping station to assure complete drainage of the effluent from the supply line following each pump cycle.

7. A submersible pump to remove 60 gpm against 15' TDH is to be provided. The pump should be a Goulds Model WE 0311 L, 1/3 hp, 115 volts, single phase, or equal. The pump control box is to be located above ground in a weatherproof enclosure.

check for curve

8. The high water level sounding alarm is to be on a separate electrical circuit. The alarm is to be located inside the house.

9. Sand is to have an effective size between 0.25 and 0.50 mm with a uniformity coefficient no greater than 3.5 A list of suppliers of approved sand is available upon request from the Division of Residential Sanitation, MD Department of the Environment.

10. Gravel for the bed is to be 3/4" to 2" in diameter, washed and free of fines. Gravel is to be inspected and approved prior to placement. Following covering of the laterals with gravel, a layer of geotextile fabric is to be applied. Crushed limestone is <u>not</u> an acceptable substitute for gravel.

11. A test of the pumping system and distribution piping is required prior to covering the system.

12. Each 1" lateral is to be 19'-6" long with six (6) perforations 5/16 inch in diameter spaced 42" apart. A turn-up, as shown on the drawing, is to be provided on the extreme end of the lateral farthest from the pump. The other laterals are to terminate with an end cap, perforated as shown on the drawing.

13. The attached construction procedures as prepared by the Individual Septics & Wells Program, Department of the Environment, are included as a part of these specifications.

SECTION FIVE

CONSTRUCTION PROCEDURES

5.1. GENERAL

Proper construction is extremely important if the sand mound is to function as designed. Installation of a sand mound system is prohibited when soils are frozen. Construction of the mound should not occur if the soil is too wet. Compaction and puddling of the soil in the location of the mound and downslope should be avoided. Soil is too wet for construction of the mound if a sample, taken anywhere within the upper eight inches, when rolled between the hands forms a wire. If the sample crumbles, the soil is dry enough for construction to proceed.

5.2. EQUIPMENT

The following special equipment is recommended:

1. A small track-type tractor with blade for placing and spreading the sand fill.
2. A cordless drill for drilling holes in the pipe on-site.
3. A moldboard or chisel plow for plowing the soil within the perimeter of the mound. A rototiller may be used on structureless soils with USDA sand textures.
4. A rod and level for determining bed elevations, slope on pipes, outlet elevation of septic tank, slope of site, etc.

5.3. MATERIALS

The following specifications are required:

1. Sand fill material must be approved by the local Approving Authority prior to hauling to the site. Submit a sample to the local Authority for analyses at least three weeks in advance of construction or select a sand fill from the list of potential sand suppliers. If a sample is submitted for analyses a fee will be charged. Sand fill shall have an effective size between 0.25 mm and 0.5 mm with a uniformity coefficient of 3.5 or less. A copy of the receipt from the sand supplier showing the company name, address, phone number, date and product name will be required.
2. Aggregate shall be clean aggregate free of fines and between 3/4 to 2 inches in diameter.
3. Geotextile fabric shall be of a type approved by the Approving Authority.
4. Cap material shall be soil relatively free of coarse fragments and preferably a clay loam or silt loam texture.

5.4. TANK INSTALLATION AND SITE PREPARATION

5.4.1 Locate and rope-off the entire sewage disposal area to prevent damage to the area during other construction activity on the site. Vehicular traffic over the disposal area should be prohibited to avoid soil compaction.

5.4.2 Install septic tank(s) and pumping chamber(s) and pump as shown on the drawings. Call for inspection.

5.4.3 Stake out the initial and recovery mound perimeters in their proper orientation as shown in the drawings. Reference stakes offset from the mound corner stakes are recommended. Locate the upslope edge of the absorption bed within the mound and determine the ground elevation at the highest location. Reference this elevation to a benchmark for future use. This is necessary to determine the bottom elevation of the absorption bed.

5.4.4 Excess vegetation should be cut and removed. Trees should be cut at ground level and stumps left in place.

5.4.5 Determine the location where the force main from the pumping chamber will connect to the distribution network manifold within the mound.

5.4.6 Install the force main from the pumping chamber to the proper location within the mound. Pipe should be laid with uniform slope back to the chamber so that it drains after dosing. Cut and stub off pipe one foot below existing grade within the proposed perimeter of the initial mound. Backfill trench and compact to prevent seepage along the trench.

5.4.7 Plow the soil within the perimeter of the mound to a depth of about eight inches, if the soil is not too wet. Moldboard or chisel plows may be used. Plowing should be done along the contour, throwing soil upslope. Use a two bottom or larger Moldboard plow. In wooded areas with stumps, roughening the surface to a depth of four to six inches with backhoe teeth may be satisfactory. However, all work should be done from the upslope or sides of the mound if at all possible. Rototilling may be used on soils with USDA textures of sand. After plowing, all foot and vehicular traffic shall be kept off the plowed area.

5.5. FILL PLACEMENT

5.5.1 Relocate and extend the force main several feet above the ground surface.

5.5.2 Place the approved sand fill material on the upslope edge(s) of the plowed area. Keep delivery trucks off the plowed area. Minimize traffic on the downslope side. Fill should be placed and spread immediately after plowing. Move the fill

material into place using a small track-type tractor with a blade. Work from the end and upslope side. Always keep a minimum of six inches of material beneath the tracks of the tractor to minimize compaction of the natural soil. The fill material should be worked in this manner until the height of the fill reaches the elevation of the top of the absorption bed.

5.5.3 With the blade of the tractor, form the absorption bed. Hand level the bottom of the bed and check it for proper elevation. The bed should be level for proper functioning of the mound. Call for inspection.

5.5.4 Shape the sides of the sand fill to design slope (ie., 3:1 or flatter).

5.6. BED AND DISTRIBUTION NETWORK

5.6.1 Carefully place the coarse aggregate in the bed. Do not create ruts in the bottom of the bed. Level the aggregate to a minimum depth of six inches.

5.6.2 The distribution network is assembled in place setting the manifold to ensure draining the laterals between doses. The laterals should be laid level with the holes directed downward. Call for inspection. Test the pumping chamber and distribution network with clean water.

5.6.3 Place additional aggregate to a depth of at least two inches over the crown of the pipe.

5.6.4 Place the approved geotextile fabric over the aggregate bed. The fabric may extend beyond the bed over the sand fill.

5.7. COVER MATERIAL

5.7.1 Place a finer textured soil material such as sandy clay loam, clay loam, or silt loam on top of the fabric over the bed. The minimum depth of this cap shall be six inches at the outer edges of the bed and 12 inches along the center.

5.7.2 Place a minimum of six inches of good quality topsoil over the entire mound surface including the sideslopes. Call for final inspection.

5.8. VEGETATION

5.8.1 Fertilize, lime, seed and mulch the entire surface of the mound. Grass mixtures adapted to the area should be used.

5.8.2 Consult the county extension agent or Soil Conservation Service for recommendations.

Jefferson Property
18653 Penn Shop Rd
Mt Airy MD

TABLE 3.1

EQUATIONS FOR CALCULATING SAND MOUND DIMENSIONS

Absorption bed ft.² (A × B) = $\frac{\text{Design flow}}{1.2 \text{ gpd/ft.}^2}$ = 375 ft.² (450 gpd) 5% Slope

Bed length (B) = 42 ft. (21 ft. to 101 ft. dependent on site)

Bed width (A) = $\frac{\text{Bed } 375 \text{ ft.}^2}{\text{B } 42 \text{ ft.}}$ = 9 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. = 29.4 in. (.05, 5.4 + 24)

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) = $\left[\frac{(D + E)}{2} + 28 \text{ in.}\right] \times 3$ = 164.1 in. (13.675') (24 + 29.4 = 53.4 → 26.7 → 54.7)

Upslope setback (J) = (22 in. + D) × 3 × upslope corr. factor = 120.75 in. (10.0625') (22 in. + D = 46; 138; 0.875)

Downslope setback (I) = (22 in. + E) × 3 × downslope corr. factor = 181.956 in. (15.163') (22 in. + E = 51.4; 154.2; 1.18)

Total Width of Mound (W) = 12A + J + I = 410.706 in. (34.226') or 34' 3" OK (12A = 108)

Total Length of Mound (L) = 12B + K + K = 69.35 Ft. (or 69' 4" OK) (12B = 42; K + K = 27.35')

Mound Area 2373.6 ft²

SANITARY/ENVIRONMENTAL ENG., INC.
Consulting Engineers
1414 Washington Road
WESTMINSTER, MARYLAND 21157
(410) 876-7740

JOB Jefferson - Sand Mound -
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

450 gpd - 375 Sq. Ft. min. 5% slope OK

Bed 9 x 42 = 378 Sq. Ft. BED OK

24" Sand depth - up side - 9 x .05 = 108 x .05 = 5.4 ✓
29.4" " " down slope

Side slope set back - $\frac{24 + 29.4}{2}$ + 24" x 3 = 164" = 13'-8" ✓

Upslope = 24 + 22 x 3 x .875 = 120" = 10' OK ✓

Downslope = 29.4 + 22 x 3 x 1.18 = 182" = 15'-2" OK ✓

Mound Area = 9' + 10' + 15'-2" = 34'-2" wide OK
42 + (2 x 13'-8") = 69'-4" OK
34.16 x 69.33 = 2368 Sq. Ft. OK
2374 sq ft.

Dose - 450 / 6 = 75 ✓

Cap - 3" line - 170' = 1.7 x 38.4 ✓ = 65.3 gal
Plus 5 x 117' - 1" laterals = 4.5 x 5 x 1.17 = 26.3
91.6 (92 gal) OK
@ 25 gal / 1" in 1000 gal pump chamber - 91.84
use 3 3/4" / dose OK

Pumping rate = 36 x 1.63 = 58.7 (59 gpm) OK

TDH - Elevation Difference 83.66 - 72.50 = 11.16 ✓
Disted head 2.00 ✓
Friction loss - 170 + 3' manifold + 4L - Lumin - Valve - T
40 3 2 15
233' - 3" @ 59 gpm - (60) 1.90
f = 0.81 x 2.33 = 1.9 ✓OK
15.06 ✓

TDH = 15' OK

SM, Plan Review for Jefferson, John @ 1863 Penn Shop Rd
6/14/93

Site Plan 5% Slope

Scale SM = 52' x 27'

34.2' x 69.4

Spec (24'2" x 69'4" = 2364 ft²
(24.16?)
1675.5

S.T. Invert 87.0
PC Invert 74.75
Elev Drop = 12.25'

Vert Align
Total length gravity supply line

100'	.6%
70'	.6%
100'	.6%
100'	5.4%
100'	6.0%
50'	0.5%
520' LF gravity line ST → P.C.	

ST 25 gal/vert"

Elev pump
83.66
72.5 pump off
11.16 Elev diff
2.0 Safety Head
13.16 Ft of Head
Friction Head

using 3" sch 40 F.M. + manifold

Mound Layout - SM Dim 34'2" x 69'4"

Bed 9' wide x 42' long = 378 ft² Bed OK

450 / 1.2 = 375 ft² min

upslope depth sand 24"
downslope " " 29.4"

17.25
× 25 g/"
431.25 gal storage greater
OK
+150-250 gal Freeboard

(sch 40)
170 LF of 3" line = 1.7 × 38.4 = 65.28 gal → 65.28 gal
plus 5 × 117'
26.46
91.74 ≈ 92 gal OK

19.6'
×6
117.6 LF of 1" lateral = (1.17 × 5 × 4.5 = 26.46 (sch 40)
5.292)

92/25 gal/1" vert = 3.68 ≈ 3 3/4"/dose ≈ OK

Friction loss 170 LF @ 60 gpm for 3" PVC = 0.81 × 1.7 = 1.377 ≈ 1.4' of Head friction
2.0 Safety
11.16 Elev
14.56 Ft of Head

so size on 15' of Head OK ✓

perf Spacing
19.6'/lateral ÷ 3.5' perf spacing = 5.6 ≈ 5 or 6 per

5 × 3.5 = 17.5 F + 2.0' 1st Perf to Manifold = 19.5/lateral

19.6
× 2
39' ≈ {1½' between lateral end & end of Bed.
{1½' between lateral and edge of Bed.

Jefferson Twp S.M. — 4 suggested changes — Approval otherwise

① change 24 — 34.2 ft on Mound Dim Spec Sheet

② ~~Make~~ May Delete ~~Detail~~ for OP #4 — place OP #3 @ OP #4 location on Mound Layout Detail

③ Site Plan copy measures closer to 1:40 scale

④ Reorient layout Mound #1 on ~~Test Hole B~~ TPB so that it's long axis is perpendicular to the one shown this to better align that S.M. with prevailing contour.

HOWARD COUNTY HEALTH DEPARTMENT

Joyce M. Boyd, M.D., County Health Officer

June 17, 1993

Reply to:

Mr. James Clise
c/o Sanitary/Environmental Engineer, Inc.
1414 Washington Road
Westminster, Maryland 21157

RE: Sand Mound Design
John M. Jefferson Property
18653 Penn Shop Road
Mt. Airy, Maryland 21771

Dear Mr. Clise:

This office has reviewed the design plans and specifications for a sand mound sewage disposal system to service the above referenced property. I am pleased to inform you that these plans are approved as submitted.

However, there are several minor changes suggested for the final copy of these plans as noted below:

1. On the specification sheet, page 1, order design criteria - correct mound area to read (34' - 2" x 69' - 4").

2 You may delete the detail for OP#4 as there is no perched water table at this site. If the deletion is used, place OP#3 at OP#4's site on the mound layout detail.

3. Reorient the repair mound (nearest TPB) so that it's long axis will be perpendicular to the one shown, for a suggested better orientation to the prevailing contours. (Copy of proposed change enclosed.)

If you have any question, please call me at 313-2640, Monday through Friday, 8:30 a.m. - 5:00 p.m.

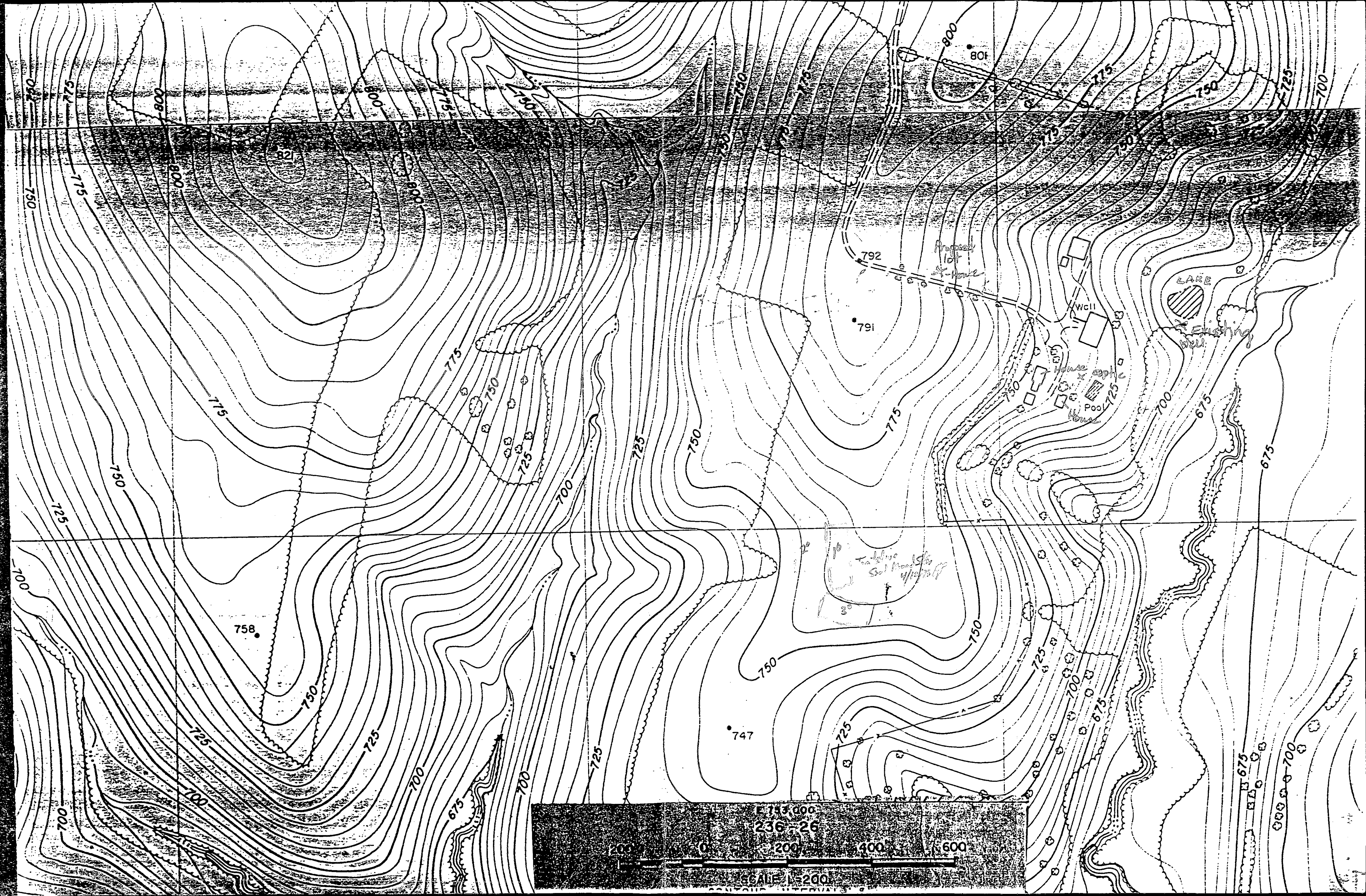
Above requested changes were in final plan received 6/24/93 RJP

Very truly yours,

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

RJP:jr

Bureau of Environmental Health
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits 313-2640 Community Environmental Health 313-2642
Technical Services 313-2644 Director 313-2645 TDD 313-2323

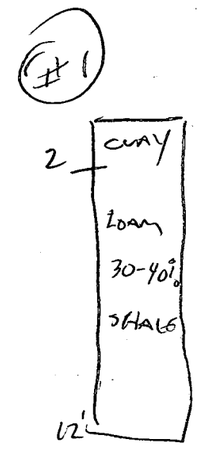


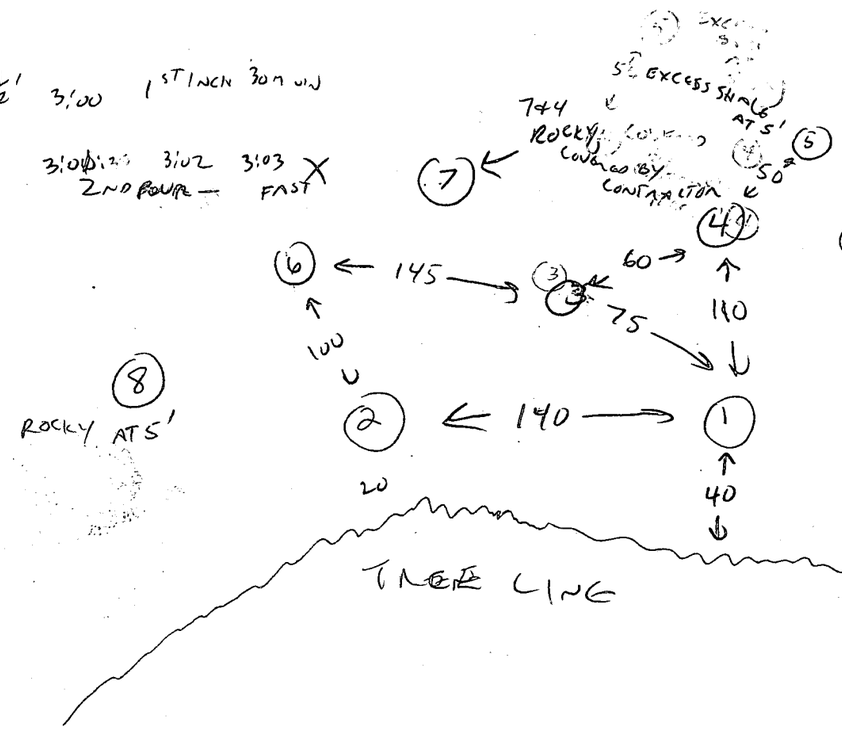
821
801
792
791
758
747
Proposed lot & house
Well
LAKE
Existing well
House
septic
Pool
House
236-26
200
0
200
400
600
SCALE 1"=200'

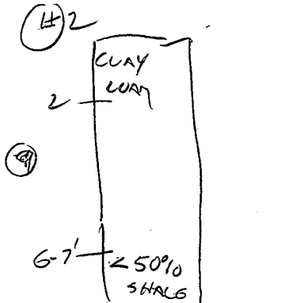
#1 3' 2138;30 2139;30 2141 1½ MIN OK
8' 2138;30 2140;30 2144 3½ MIN
12 VLSOL 30-40% SHALE

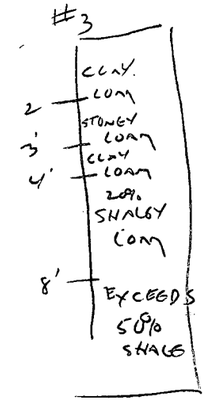
#3 3 2146;30 2154 3102 8 MIN VLC SHALLOW
8 2144;30 2148 2150 2 MIN
12 ROCKY BELOW 8'

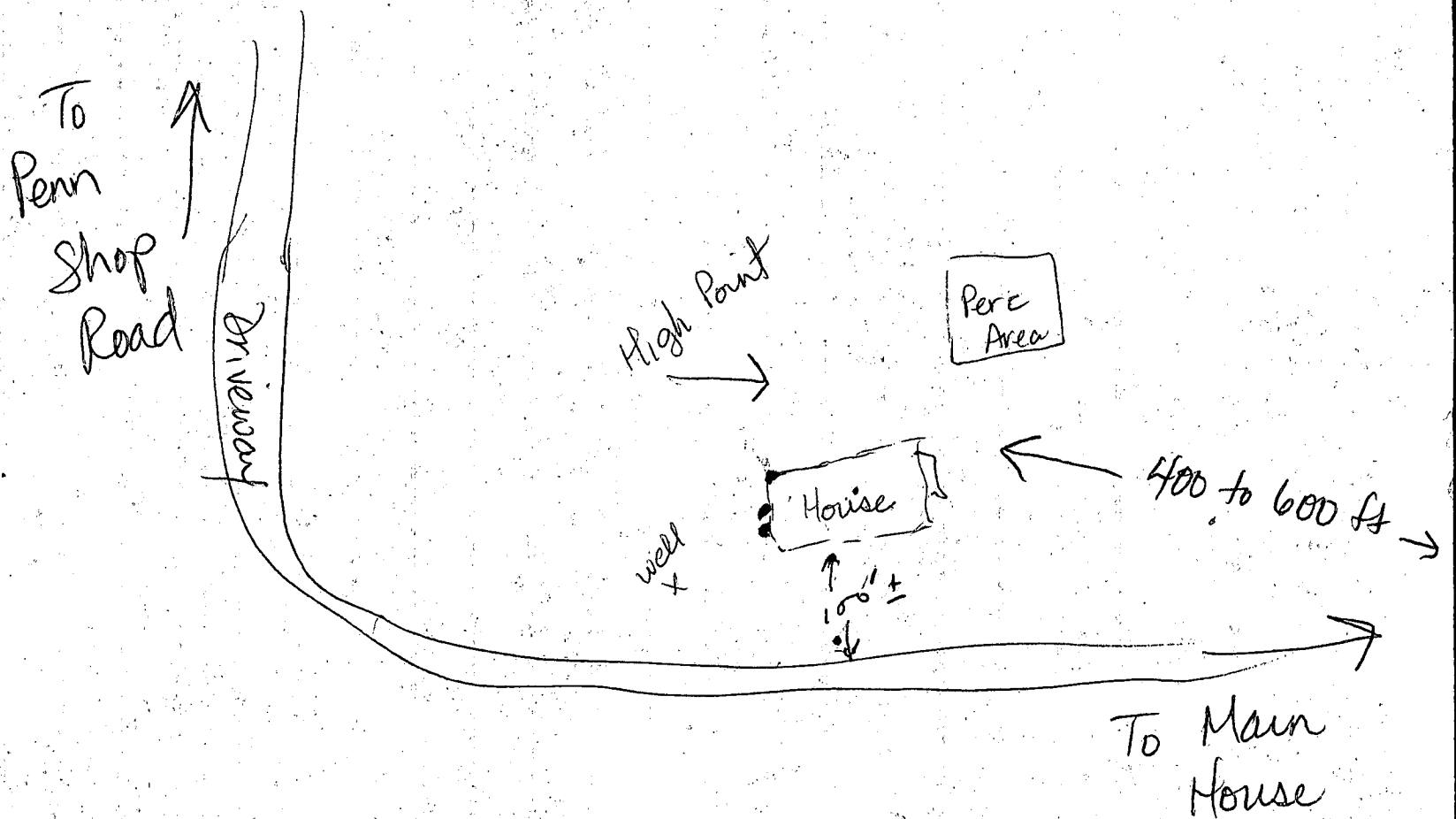
#2 2½' 3100 1ST INCH 30 MIN
5' 3104;25 3102 3103 X
2ND POUR — FAST










To Penn Shop Road
Driveway
High Point
Perc Area
House
well
100' ±
400 to 600 ft
To Main House

HOWARD COUNTY HEALTH DEPARTMENT

Joyce M. Boyd, M.D., County Health Officer

August 3, 1992

Reply to:

Mr. and Mrs. John M. Jefferson
18653 Penn Shop Road
Mt. Airy, Maryland 21771

RE: Percolation Testing
Penn Shop Road
Tax Map: 6 Parcel: 16"A"

Dear Mr. and Mrs. Jefferson:

A percolation test date has been reserved for 10:00 a.m., Wednesday, August 19, 1992.

You will be responsible for having a contractor on-site to excavate test holes at the corners of proposed percolation area.

The proposal is to subdivide a single lot from a larger property containing two existing houses. No health department records could be located regarding the location or condition of the existing well and septic system.

Part of the subdivision review process is to ensure that any remainder existing parcel has adequate provision for its water supply and waste disposal requirements.

To this end, percolation testing should be conducted to confirm that the condition of the existing septic system is satisfactory. For an existing house, a $25.00 septic repair permit fee can be assessed instead of the standard $225.00 percolation test fee. The well would also be subject to construction inspection to ensure that it is properly protected.

Please call to confirm test date and to discuss testing requirements for existing house.

Thank you for your cooperation in this matter.

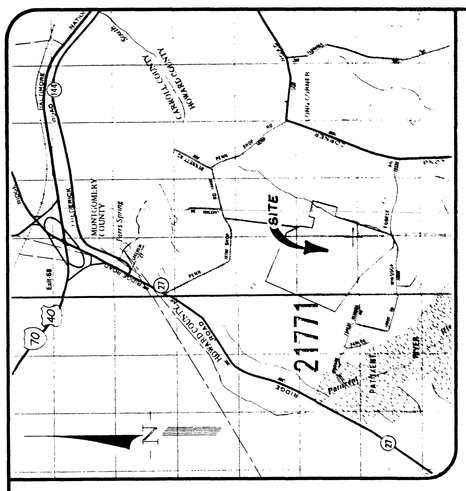
Very truly yours,

Craig Williams, DEN

Craig Williams, Program Director
Water and Sewerage Program

CW:jr

Bureau of Environmental Health
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits 313-2640 Community Environmental Health 313-2642
Technical Services 313-2644 Director 313-2645 TDD 313-2323



LINE	DIRECTION	DISTANCE
1 – 2	N 39°40'59" E	162.76'
2 – 3	N 24°10'59" E	191.86'
3 – 4	S 76°55'16" W	47.56'
4 – 5	S 21°38'00" W	1595.00'
5 – 6	S 46°11'06" W	57.76'
6 – 7	S 13°26'06" W	74.00'
7 – 8	S 78°33'54" E	485.46'
8 – 9	N 30°46'29" E	977.97'
9 – 10	S 44°50'00" E	33.00'
10 – 11	N 43°50'38" W	803.64'
11 – 12	S 42°32'36" W	331.03'
12 – 13	S 69°18'15" E	160.31'
13 – 14	S 24°29'22" W	240.76'
14 – 15	S 67°39'40" E	608.29'
15 – 16	N 17°15'23" E	266.79'
16 – 17	N 10°17'50" W	[illegible]
17 – 18	S 36°23'54" E	397.60'
18 – 19	N 36°48'5[illegible]" W	546.44'
19 – 20	S 39°39'12" W	[illegible]
20 – 21	S [illegible] W	[illegible]
21 – 22	S 21°59'[illegible]" E	[illegible]
22 – 23	N 21°59'07" W	[illegible]
23 – 24	S 33°29'[illegible]" E	[illegible]
24 – 25	S 56°09'25" E	[illegible]
25 – 26	S [illegible] W	[illegible]
26 – 27	S 33°45'[illegible]" E	[illegible]
27 – 28	S [illegible] E	[illegible]
28 – 1	N [illegible] E	[illegible]

PROPERTY OUTLINE DETAIL

SCALE: 1" = 300'

HOUSE FOOTPRINT DETAIL

SCALE: 1" = 20'

VICINITY MAP

COPYRIGHT ADC THE MAP PEOPLE
PERMITTED USE NO 20792173
SCALE 1" = 2000'

GENERAL NOTES:

1. Property outline based on Plat No 5126 "Windsor Forest"

2. See approved "Sandmound Plan" prepared by Sanitary/Environmental Engineering, Inc. dated 6/93 for proposed Septic layout.

PLOT PLAN DETAIL

SCALE: 1" = 100'

Approved Septic System Plan
Howard County Health Department

Amy M. Miller 9-26-94
Signature Date

approved per plans approved by R. Pinkley Hill

SUBMITTED FOR REVIEW

PRINTED
SEP 1 3 1994
R.M. MOCHI GROUP, P.C.
ELLICOTT CITY, MD

project	date
94032.00	9/9/94
illustration	engineering
MAS	JLM
scale	approval
1" = 100'	RMM

description	date
SUBMITTED TO HOWARD COUNTY	

revisions

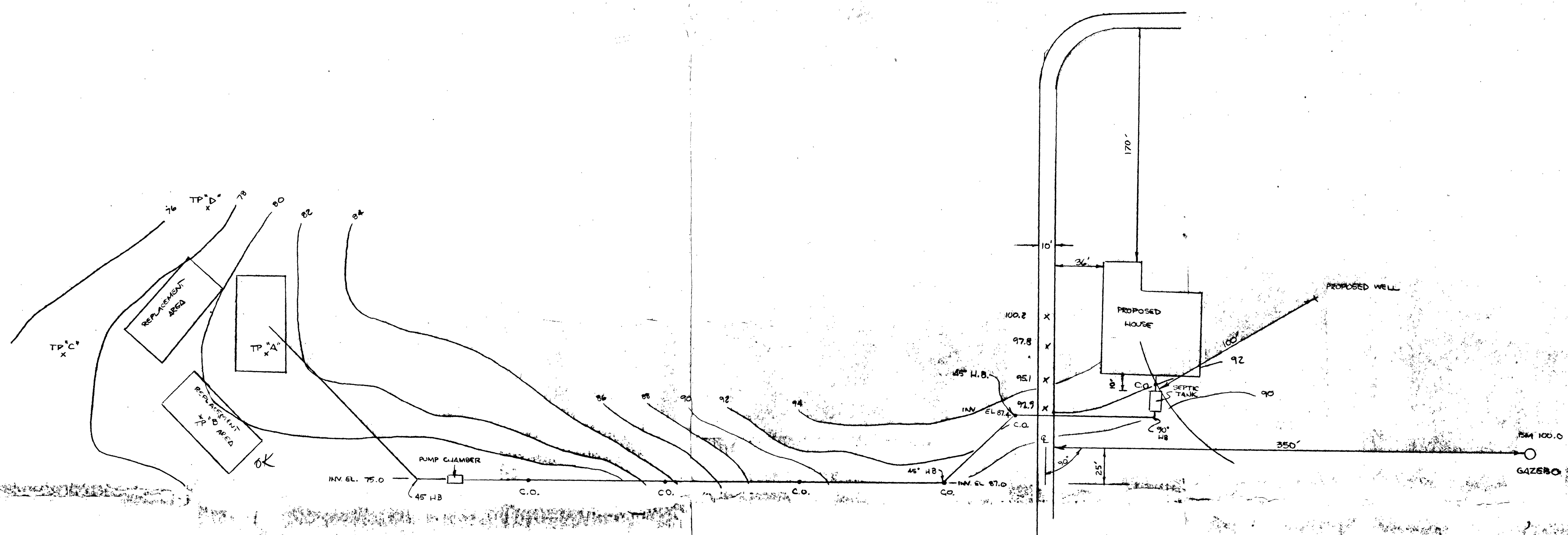
18653 PENN SHOP ROAD
JEFFERSON PROPERTY
ELECTION DISTRICT No. 4
HOWARD COUNTY

PLOT PLAN

R.M. MOCHI GROUP, P.C.
CIVIL ENGINEERS
LAND SURVEYORS
PLANNERS
ENVIRONMENTAL
3300 N. Ridge Road, Suite 235
Ellicott City, MD 21043-3305
(410) 461-0079
Fax: (410) 750-6340

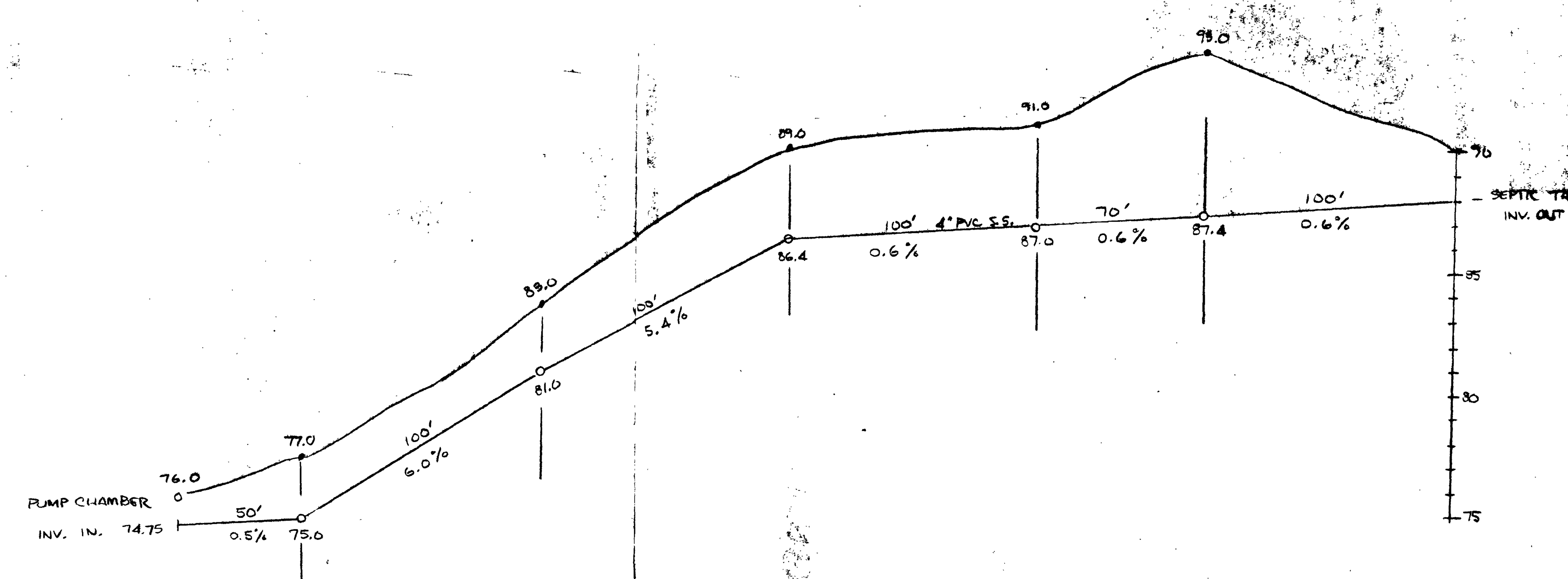
J:\94032-00\94032PLT

1 OF 1



SITE PLAN/ HORIZONTAL ALIGNMENT

SCALE: 1" = 30'



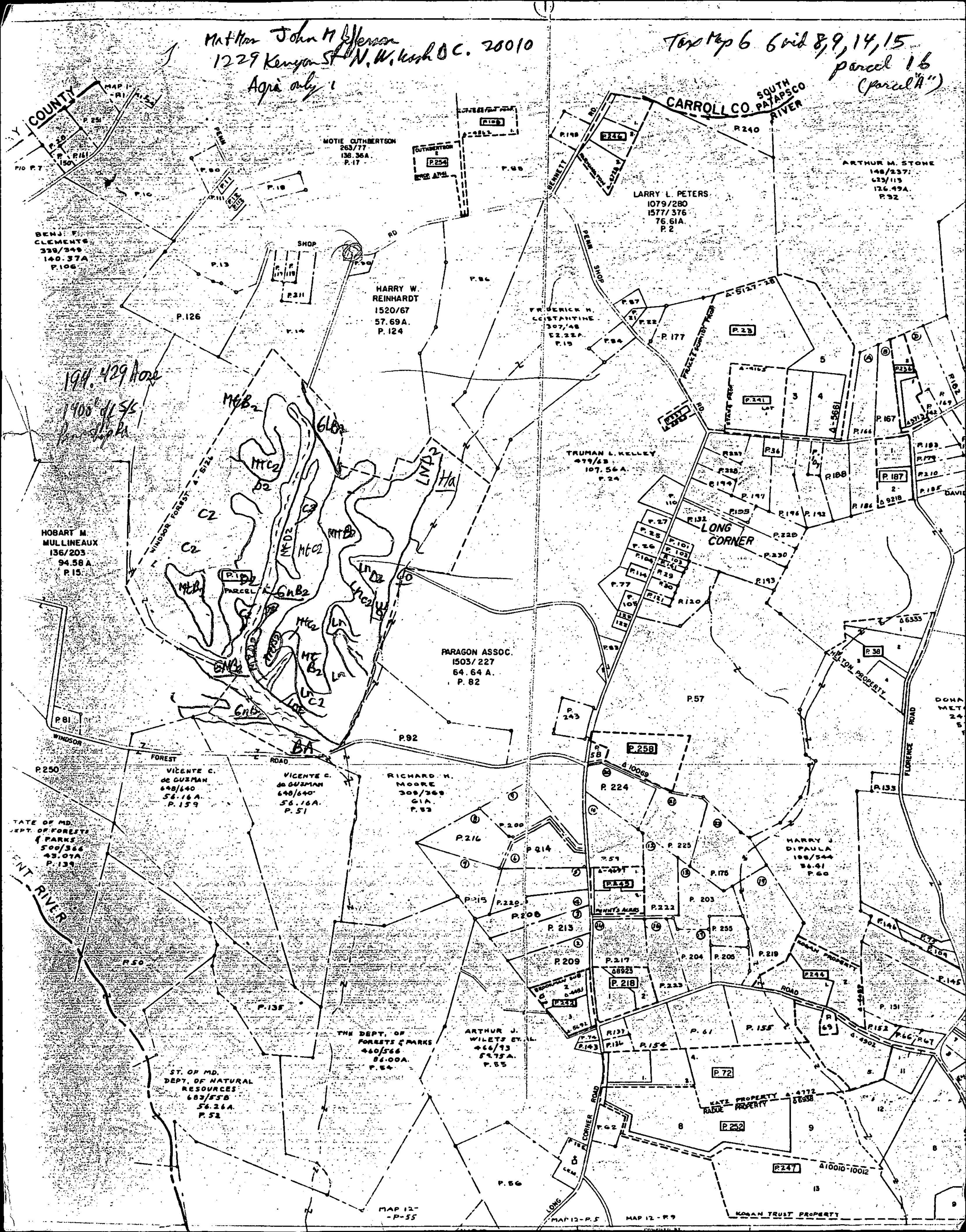
EFFLUENT SEWER VERTICAL ALIGNMENT

SCALE: V- 1/4" = 1'
H- 1" = 30'

Final Approved Plans AP 6/04/93

S/E ENGINEERING, INC.
WESTMINSTER MARYLAND 21157

SCALE: AS SHOWN	APPROVED BY: JDC	DRAWN BY: AES
DATE: JUNE 1993		
JOHN M. JEFFERSON 18653 PENN SHOP RD		
MT. AIRY MD. HOWARD CO.		
SANDMOUND		DRAWING NO. 1 OF 2


Mr & Mrs John M Jefferson
1229 Kenyon St N.W. Wash D.C. 20010
Agri only
Tax Map 6 Grid 8, 9, 14, 15
parcel 16
(parcel "A")
194.429 Acre
CARROLL CO.
SOUTH PATAPSCO RIVER
COUNTY
MOTIE CUTHBERTSON
263/77
138.36A.
P.17
LARRY L. PETERS
1079/280
1577/376
76.61A.
P. 2
ARTHUR M. STONE
148/237
126.49A.
P.32
BENJ. F. CLEMENTS
339/349
140.37A
P.106
HARRY W. REINHARDT
1520/67
57.69A.
P. 124
FREDERICK H. CONSTANTINE
307/48
P.19
TRUMAN L. KELLEY
479/63
107.56A.
P.24
HOBART M. MULLINEAUX
136/203
94.58 A.
P.15
PARAGON ASSOC.
1503/227
64.64 A.
P. 82
LONG CORNER
WINDSOR FOREST ROAD
VICENTE C. de GUZMAN
648/640
56.16A.
P.159
VICENTE C. de GUZMAN
648/640
56.16A.
P.51
RICHARD H. MOORE
305/369
61A.
P.53
HARRY J. DiPAULA
36.41
P.60
STATE OF MD. DEPT. OF FORESTS & PARKS
500/366
43.07A
P.139
THE DEPT. OF FORESTS & PARKS
460/566
86.00A.
P.54
ARTHUR J. WILETS ET AL
466/93
59.75A.
P.85
ST. OF MD. DEPT. OF NATURAL RESOURCES
683/558
56.26A.
P.52
HELTON PROPERTY
KOGAN PROPERTY
KATZ PROPERTY
RADUE PROPERTY
KOGAN TRUST PROPERTY
FLORENCE ROAD
LONG CORNER ROAD
PENN SHOP RD
BENNETT RD
PENNY'S ACRES
SHOP
PARCEL
P.92
P.57
P.224
P.258
P.216
P.214
P.203
P.209
P.213
P.208
P.135
P.50
P.56
P.250
P.81
P.126
P.13
P.14
P.240
P.177
P.61
P.155
P.154
P.72
P.252
P.247
MAP 12 - P.55
MAP 12 - P.5
MAP 12 - P.9