

APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____ A/P 522962

AGENCY REVIEW: _____ DATE _____

DO NOT WRITE ABOVE THIS LINE

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

CHECK AS NEEDED:

- CONSTRUCT NEW SEPTIC SYSTEM(S)
- REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM
- REPLACE AN EXISTING SEPTIC SYSTEM

CHECK AS NEEDED:

- NEW STRUCTURE(S)
- ADDITION TO AN EXISTING STRUCTURE
- REPLACE AN EXISTING STRUCTURE

CHECK ONE:

- CREATE NEW LOT(S)
- BUILD ON AN EXISTING LOT IN A SUBDIVISION
- BUILD ON AN EXISTING PARCEL OF RECORD

IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?

- YES
- NO

THE TYPE OF STRUCTURE IS:

- RESIDENTIAL WITH _____ PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE (NOTE *UNKNOWN* IF APPROPRIATE)
- COMMERCIAL (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/ CUSTOMERS ON ACCOMPANYING PLAN)
- INSTITUTIONAL/GOVERNMENT (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/USERS ON ACCOMPANYING PLAN)

PROPERTY OWNER(S) Country Vet Hospital

DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS _____
STREET CITY/TOWN STATE ZIP

APPLICANT _____

DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS _____
STREET CITY/TOWN STATE ZIP

APPLICANT'S ROLE: DEVELOPER BUILDER BUYER RELATIVE/FRIEND REALTOR CONSULTANT

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME 17591 Frederick Rd. LOT NO. _____

PROPERTY ADDRESS _____
STREET TOWN/POST OFFICE

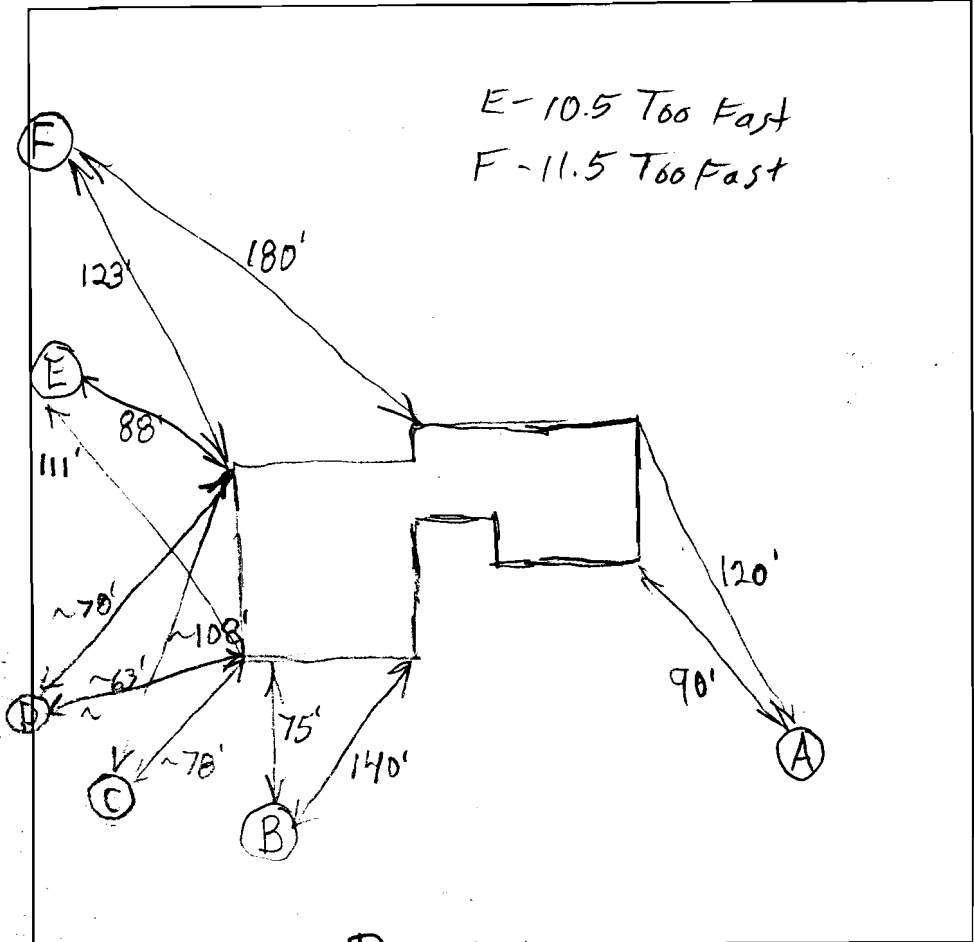
TAX MAP PAGE(S) _____ GRID _____ PARCEL(S) _____ PROPOSED LOT SIZE _____

AS APPLICANT, I UNDERSTAND THE FOLLOWING: THE SYSTEM INSTALLED SUBSEQUENT TO THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS APPLICATION IS COMPLETE WHEN ALL APPLICABLE FEES AND A SUITABLE SITE PLAN HAVE BEEN RECEIVED. I ACCEPT THE RESPONSIBILITY FOR COMPLIANCE WITH ALL M.O.S.H.A. AND "MISS UTILITY" REQUIREMENTS. APPROVAL IS BASED UPON SATISFACTORY REVIEW OF A PERC CERTIFICATION PLAN.

TEST RESULTS WILL BE MAILED TO APPLICANT. _____
SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM
3525-H ELLICOTT MILLS DRIVE, ELLICOTT CITY, MARYLAND 21043-4544 (410) 313-1771 FAX (410) 313-2648
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

A/P (A)
 6' Fill
 2.5-7' Topsoil
 Br Sa Cl Loam ~35% Rock
 9.5-10' ~50% Rock
 11.5' >50% Rock
 12' (B)
 Dense Red Br Cl Loam ~10% Rock
 Or and Yel Sa Loam ~20% Rock
 6-6.5' >50% Rock
 11.5' (C)
 Red Br Sa Cl Loam ~10% Rock
 4.5-5' Purplish Decayed Rock Si Texture
 7.5' Or Br Sa Loam 25-30% Rock
 9' >50% Rock



E-10.5 Too Fast
 F-11.5 Too Fast

Rt. 144

(D)
 Dense Or Br Sa Cl Loam Trace Rock 3.5-4.5
 Dense Or Si Loam ~10% Rock 6.5'
 Or Sa Loam ~10-15% Rock >50% Rock 8'
 (E)
 Dense Or Br Sa Cl Loam ~20% Rock 3.5-4.5
 Dense Or Brand Yel Sa Loam ~30% Rock 10'
 >50% Rock 10.5'
 (F)
 Dense Or Br Sa Cl Loam Trace Rock 4'
 Dense Or Brand Beige Sa Loam ~25% Rock >50% Rock 10.5'
 11.5'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2nd INCH	P/F/H
8/11/05	A	8'12" V	11:26	11:48	12:26	28	F
	B	11.5'					F
	C	5'9" V	12:39:30	~3/4" in 30 minutes			F
	D	4'2" / 8' V	1:14	~1/4" in 20 minute			F
	E	4'10.5" V	1:55	2:12	>30		F
	E	5'9" / 11.5" V	3:47	3:50:30	3:58	7 1/2	P
	F	11'0" / 11.5" V	2:47	Pulled <1/4" in 10 minutes			F
		5'10"	2:58	3:15	3:39	24	P

REMARKS (A) 9.5' O.K., 12' Too Fast, (B) 5' 11.5' Too Fast
 SANITARIAN B. Baker BACKHOE Eagles OTHERS
 TEST HOLES USED IN SDA E+F AVG. PERC TIME 16 SQ. FT/BR
 TRENCH WIDTH 3' INLET DEPTH 4.5' MAX. BOT DEPTH 6' EFFECTIVE SW None
 C-9' too fast D-8' Too Fast



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PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME Country Vet Hospital LOT NO. _____

PROPERTY ADDRESS 17591 Frederick Road
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) _____ GRID _____ PARCEL(S) _____ PROPOSED LOT SIZE _____

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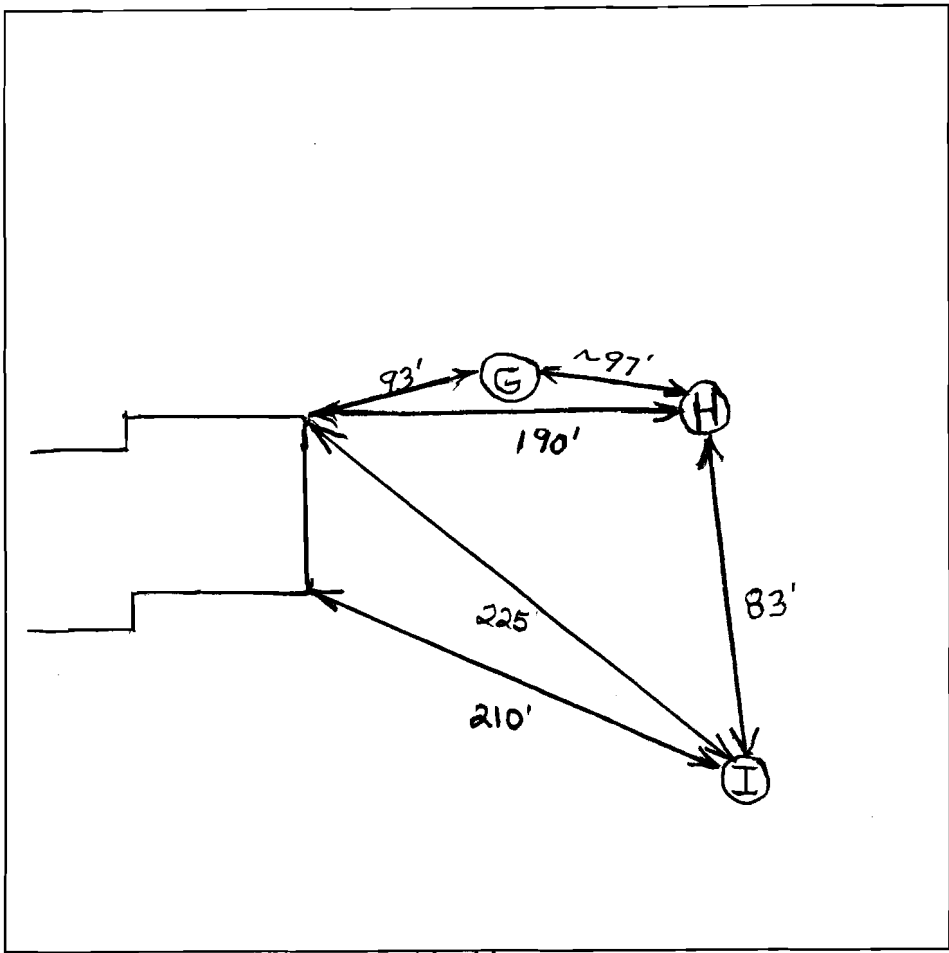
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TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

AP (G)

3'-4' Red Br Sa Cl Loam Fill ~25% Rock
 6'-7' Grayish Br and Black Fill ~10% Rock
 9' Red Br Sa Cl Loam 30-40% Rock
 9.5' >50% Rock
 Hard Bottom

(H)
 2.5'-3' Or Br Sa Cl Loam ~60% Rock
 Or Red Br Sa Loam ~40% Rock
 6'-6.5' >50% Rock
 8.5'

(I)
 3' Red Br Sa Cl Loam ~20% Rock
 Red Br Sa Loam 30-40% Rock
 5'-5.5' 40-50% Rock
 8' >50% Rock
 10'



Rt. 144

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2nd INCH	P/F/H
9/19/05	G	9.5' V					
	H	8.5' V					
	I	4' / 10' V	12:05	12:06:50	12:09:35	2 min 45 sec M	
Hole I is close to original grade							

REMARKS _____
 SANITARIAN B. Baker BACKHOE S. Baker OTHERS _____
 TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____

SEPTIC SYSTEM REPAIR / UPGRADE / EVALUATION REQUEST

Please fill out this form completely and check off the reason for the request:

Date requested: _____

Reason for Request

Failing System (includes surface discharge or inadequate treatment zone)

Has the contractor verified through excavation/pumping evaluation, that there are no pipe blockages?

In support of a building permit. Type of building addition: _____

*System relocation for proposed addition for setback compliance _____

*Verification of adequate system capacity per COMAR 26.04.02.02D (4) _____

To replace collapsed septic tank or upgrade tank capacity _____

To replace collapsed drywell _____

Septic Contractor: Fogle's Septic

Contractor's Address: 580 Obrecht Rd

Sykesville

Contractor's Phone #: 410 795-5670

Property Address: 17591 Frederick Rd

Property (Subdivision) & Lot # _____

Owner's Name: Country Vet Hospital (Dr. Armitage)

Is public sewer available/nearby: _____

Names of Any Previous Owners: _____

Year House Built: _____

of Existing Bedrooms: 3Brms + Clinic bath + 1/2 of Clinic sinks

of Bedrooms after completion of addition: _____

Has this request been discussed previously with a Sanitarian, who? _____

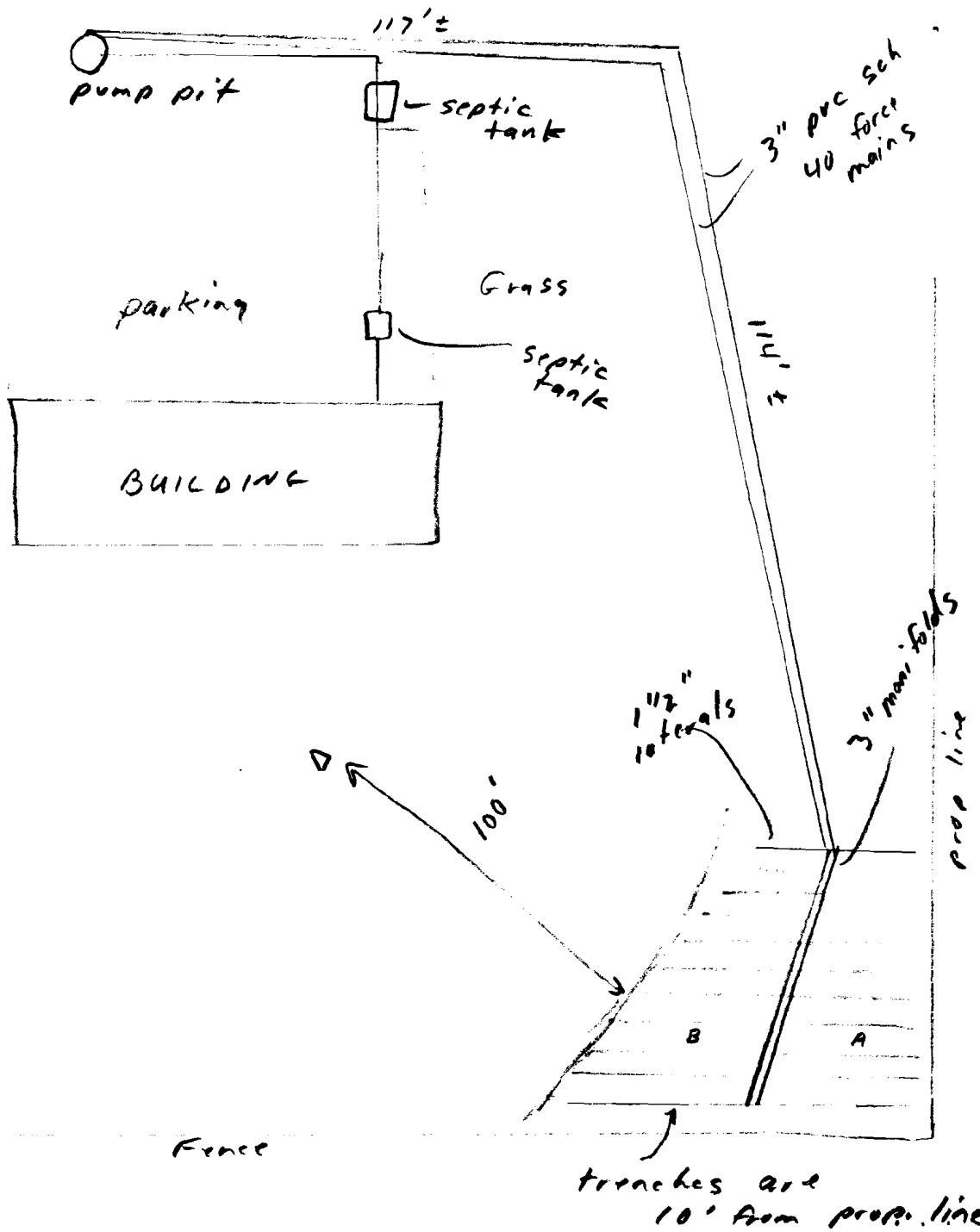
If public sewer is close, further research will be performed to verify availability and possible hook up to public sewer.

A Sanitarian will be in contact within three business days depending upon the urgency of the situation to coordinate the scheduling of the repair /upgrade/evaluation. No inspection will be performed without fee collection at the office.

Environmental Sanitarian tentatively assigned _____

MD Rt. 144

Grass



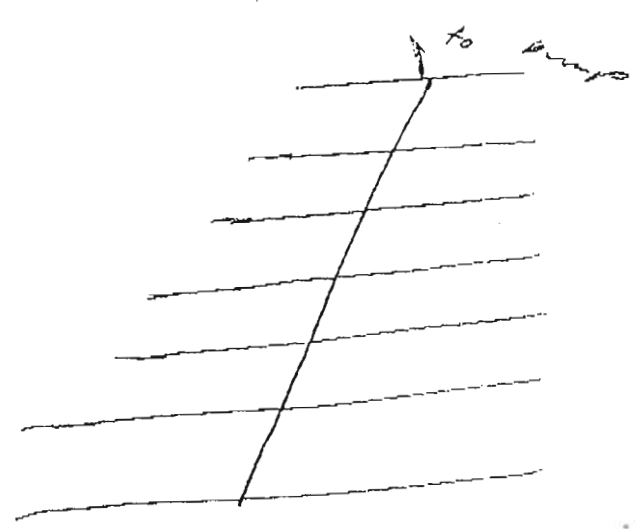
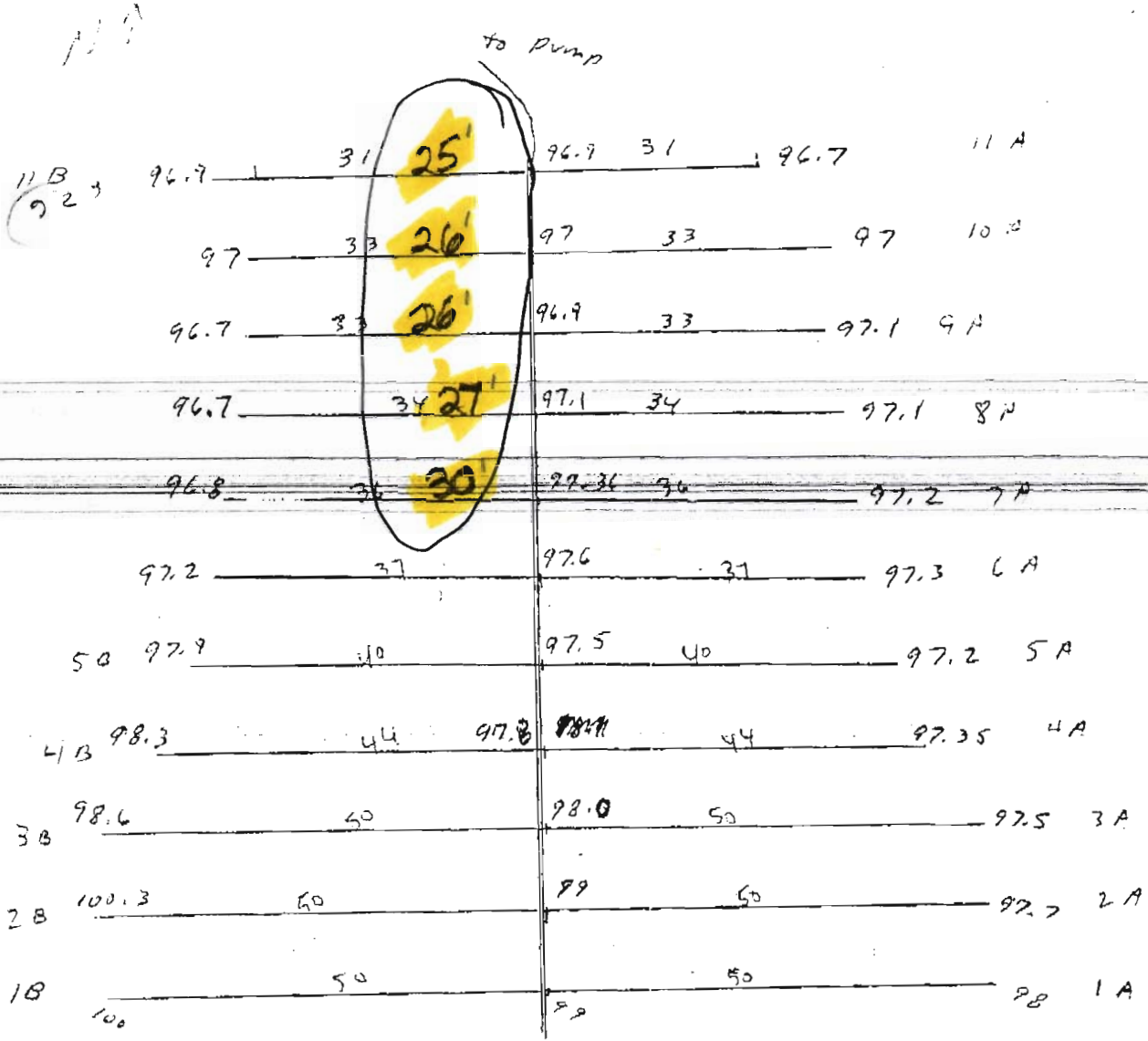
site plan

Country Vet Hospital

<u>Trenches</u>	<u>Trench Lengths</u>	<u>Hole Spacing</u>	<u># of Holes</u>
7A+7B	30'	6 feet	5
8A+8B	27'	6' 9"	4
9A+9B	26'	8' 7"	3
10A+10B	26'	8' 7"	3
11A+11B	25'	8' 4"	3

All Holes $\frac{1}{4}$ " in Diameter

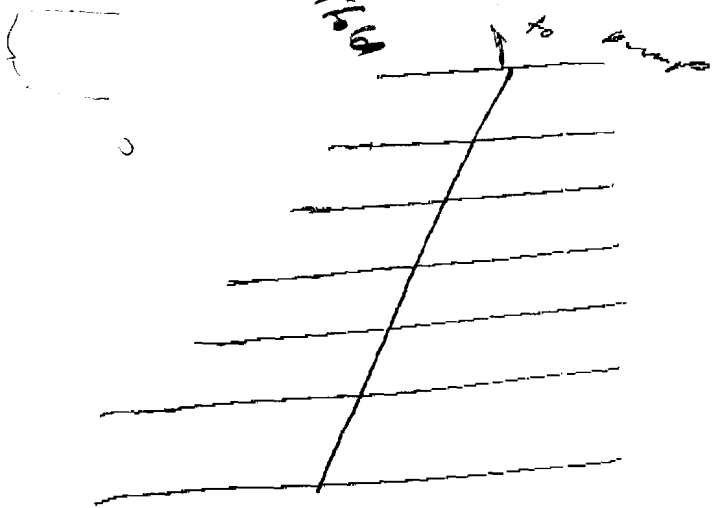
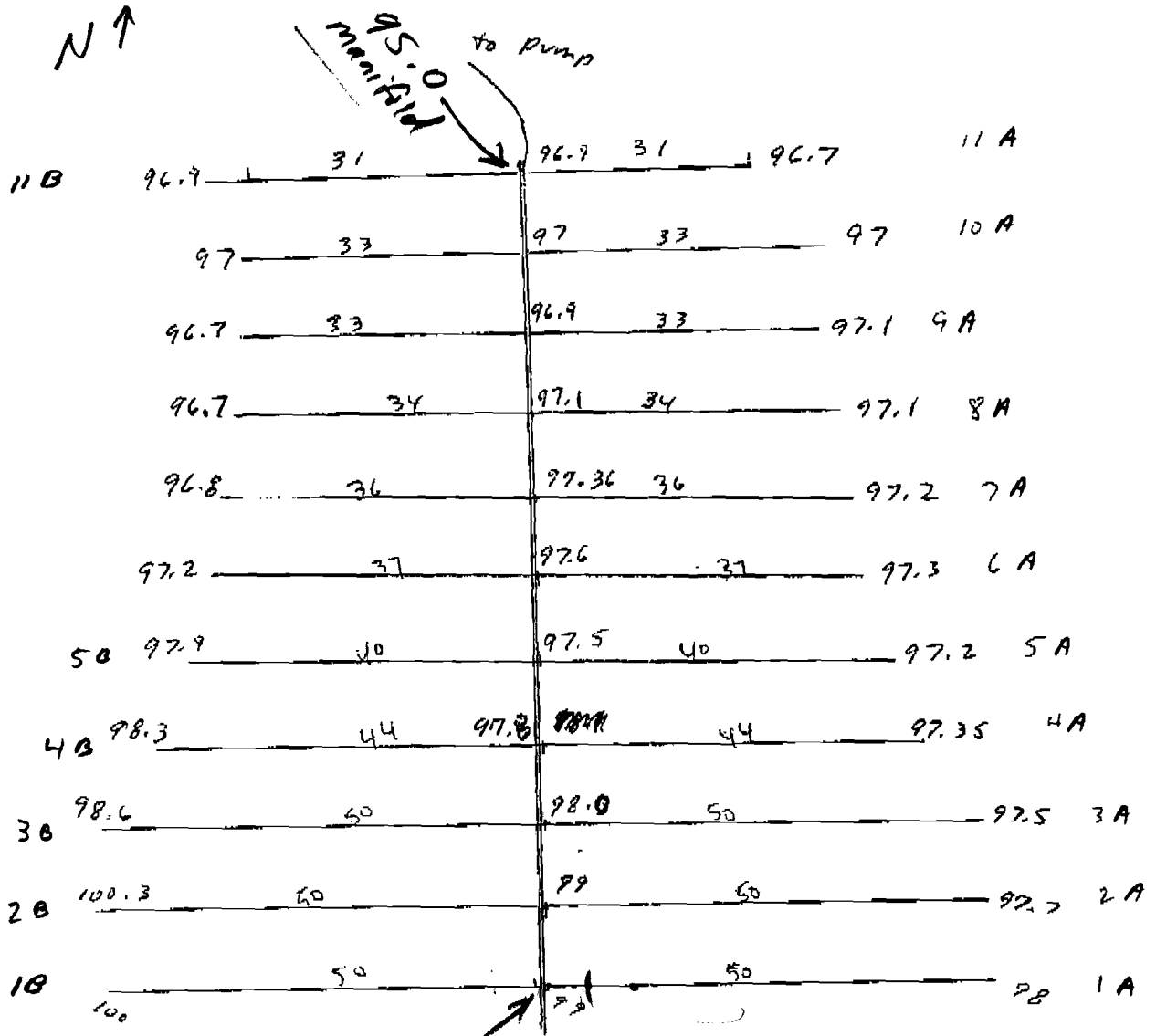
(W) →



Stc. elevations

N ↑

(W) →



Sfc. elevations

Polylok
PL-625
upto 10,000

Zabel A300 ~~XXXX~~
Up to 2400 gpd

~~XXXX~~
Commercial
Filters

- Need turnup at end of each trench
- 2" of gravel over Laterals
- 2 - 1000 gallon tanks (Top Seam)
- Geotextile Fabric on Top of Stone
- Need Effluent Filter Such as Zabel A300-8"x32"
- If Septic Tanks are Deeper Than 3', Then a traffic bearing lid is required
- Need Control Panel for Dual Alternating Pump System with event counter
- Existing Drywell Must Be Pumped Out and Filled With Dirt
- Schedule 40 for All Pipe
- Manhole Access Required For Effluent Filter
- Pump Chamber Must Have High Water Alarm on Separate Circuit
- Give 48 Hour Notice ~~to Health~~ and Meet Health Department On Site Before Starting

Friction Loss

- 1 ~~2.0~~' - loss in 3" manifold
 - 2.0 - discharge head @ upper lateral
 - 6.0' - 3" force main loss
 - Static head
-

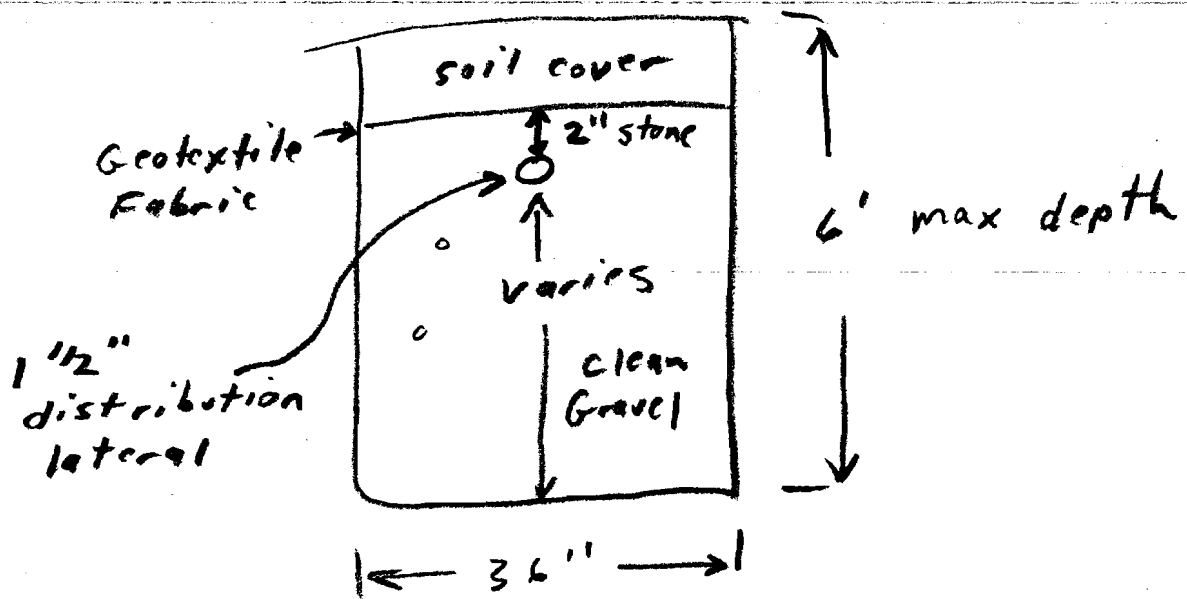
$$\text{T.D.H.} = \frac{10.0}{9'} + \text{static (elevation head)}$$

For 94 gpm through 3" pipe

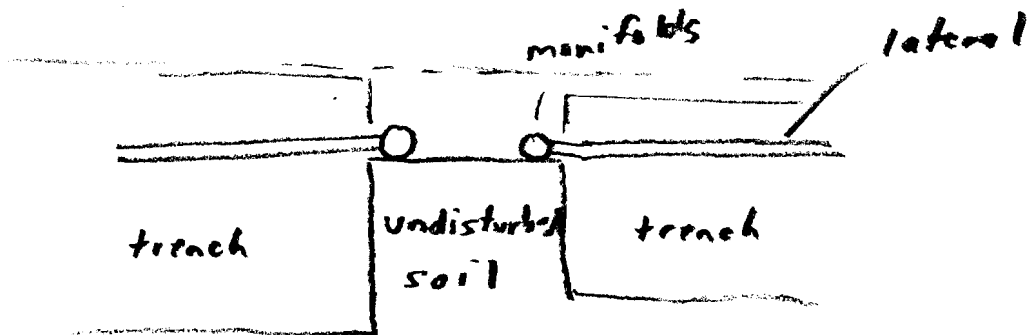
$$\text{Dose} = 350 \text{ gal}$$

5 x laterals =	5 x 43.5 gal =	226 gal
3" force main =		84 gal
3" manifold =		38 gal
		<hr/>
		350 gal

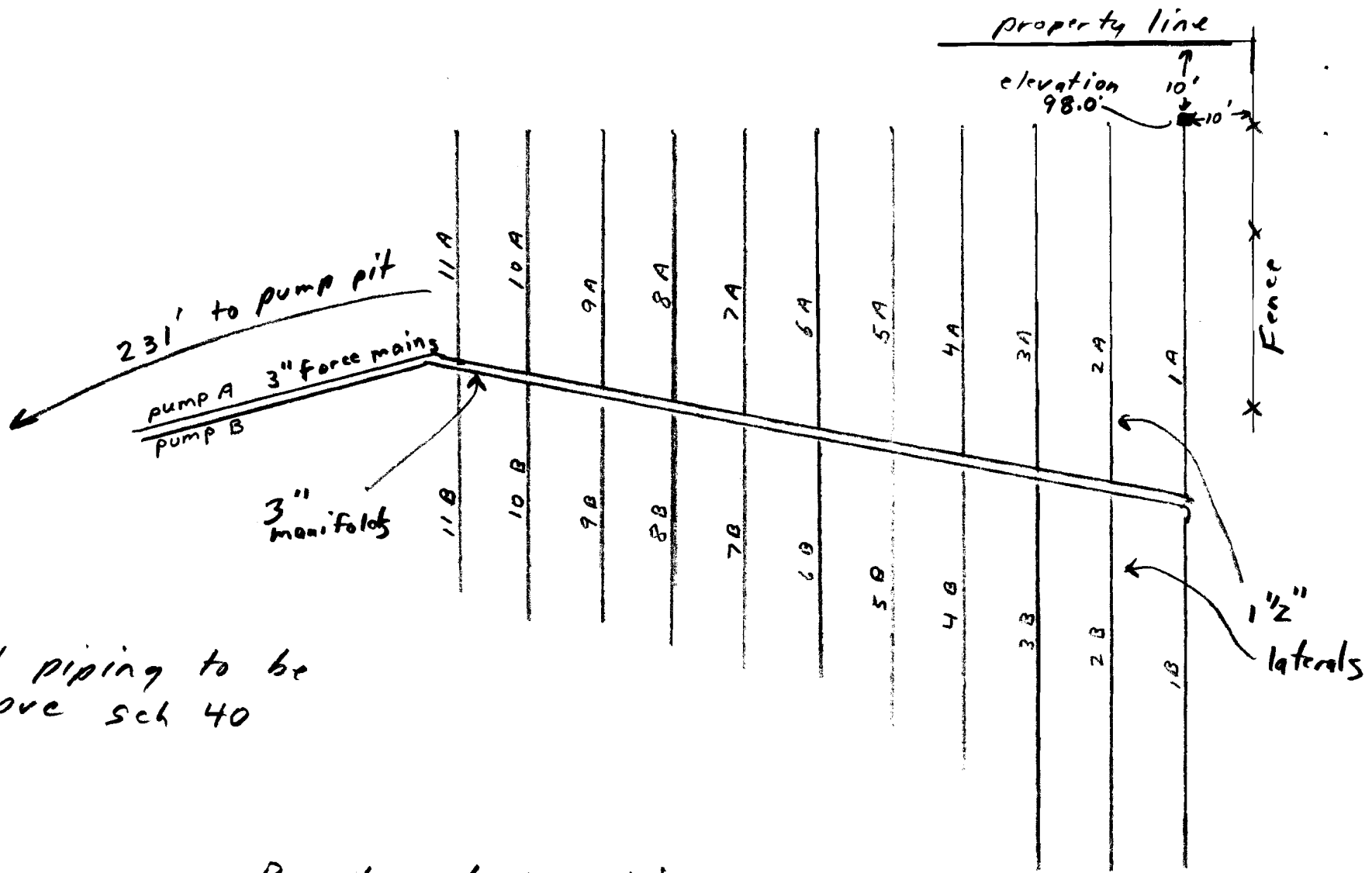
Pump must deliver 94 gpm
@ 9' + elev. difference
between pump & upper most
lateral.



Trench Cross Section



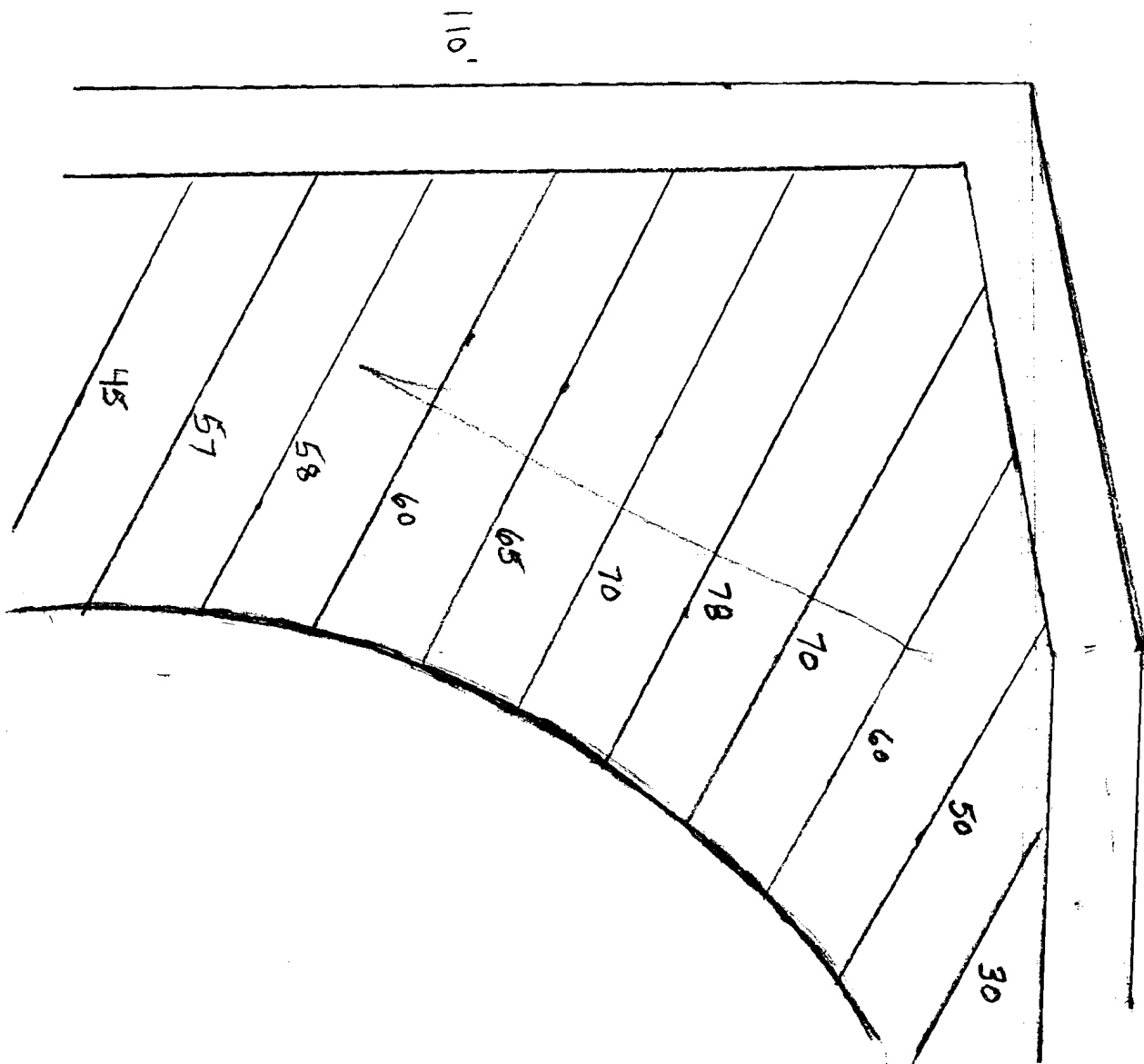
N ↑



All piping to be
pre sch 40

Benchmark Location
& elevation

Scale 1" = 20'



MANIFOLD A
PRESSURE DISTRIBUTION ON SLOPING SITES

LATERAL

Trench	Relative Elevation (ft)	Trench Length (ft)	Head (ft)	Orifice Diameter (in)	Orifice Flow Rate (gpm)	Orifice Spacing (ft)	Number of Orifices	Trench Flow Rate (gpm)
1A	97.3	49	2	5/16"	1.63	7'	7	11.4
2A	97.07	49	2.23	5/16"	1.72	8.16	6	10.32
3A	96.84	49	2.5	5/16"	1.85	8.16	6	10.9
4A	96.61	43	2.76	5/16"	1.91	8.6	5	9.95
5A	96.38	39	2.97	5/16"	2.1	9.75	4	8.4
6A	96.15	36	3.26	5/16"	2.08	9	4	8.32
7A	95.92	35	3.55	1/4"	1.39	6 6	6 5	8.34
8A	95.69	33	3.83	1/4"	1.44	6.75	4	7.2
9A	95.46	32	4.44	1/4"	1.55	8.6	3	6.2
10A	95.23	32	4.7	1/4"	1.6	8.6	3	6.4
11A	95.0	30	5.1	1/4"	1.66	8.33	3	6.64
								94 gpm

TRENCHES ON MANIFOLD B
 PRESSURE DISTRIBUTION ON SLOPING SITES

Trench	Lateral Elevation	Elev. Trench Bottom	Force Main Size	Trench Depth @ Manifold	Trench Depth @ end	Surface Elev. @ manifold	Lateral Size	Surface elev. @ trench end
1 B	97.3	94	3"	5'	6'	99'	1 1/2"	100
2 B	97.07	94.2		4.8'	6.1	99		100.3
3 B	96.84	92.4		5.6	6.0	98		98.6
4 B	96.61	92.3		5.5	6.0	97.8		98.3
5 B	96.38	91.9		5.6	6.0	97.5		97.9
6 B	96.15	92		5.6	6.0	97.6		97.2
7 B	95.92	91.76		5.6	6.0	97.36		96.8
8 B	95.69	91.5		5.6	6.0	97.1		96.7
9 B	95.46	90.9		6.0	5.8	96.9		96.7
10 B	95.23	91.0		6.0	6.0	97		97
11 B	95.0	90.9		6.0	6.0	96.9	✓	96.9

* No trench may be deeper than 6' at any point on manifold A or B.