PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 50380 F

A REPAIR

DISTRICT

DATE 10/7/94

DATE SYSTEM APPROVED 10/24/94

INSPECTOR C.B.

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
~~461-9933~~

362679

INDEXED

Jack Fyock Septic Service IS PERMITTED TO INSTALL ____ ALTER X

ADDRESS 13775 Triadelphia Road Glenelg, Maryland 21737 PHONE 988-9270

SUBDIVISION Forest Hills LOT 19 ROAD 5668 Trotter Road

PROPERTY OWNER Mr. Wynne

ADDRESS 5668 Trotter Road
Clarksville, Maryland 21029

SEPTIC TANK CAPACITY ____ GALLONS

NUMBER OF BEDROOMS 3

125 SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED 100' of trench plus (1) dry well trench

REPAIR - PURPOSE - SYSTEM HAS FAILED.

Call for inspection when ground is opened so sanitarian can recommend repair. 10/11/94

10/24 (New bank please) CBF

PLANS APPROVED BY CBF at site for C.W. → DATE 10/24/94

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)

BUILDING PERMIT SIGNED AND RETURNED 9/11/2002

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 B00138161 GARAGE - BEDROOM - PORCH

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.

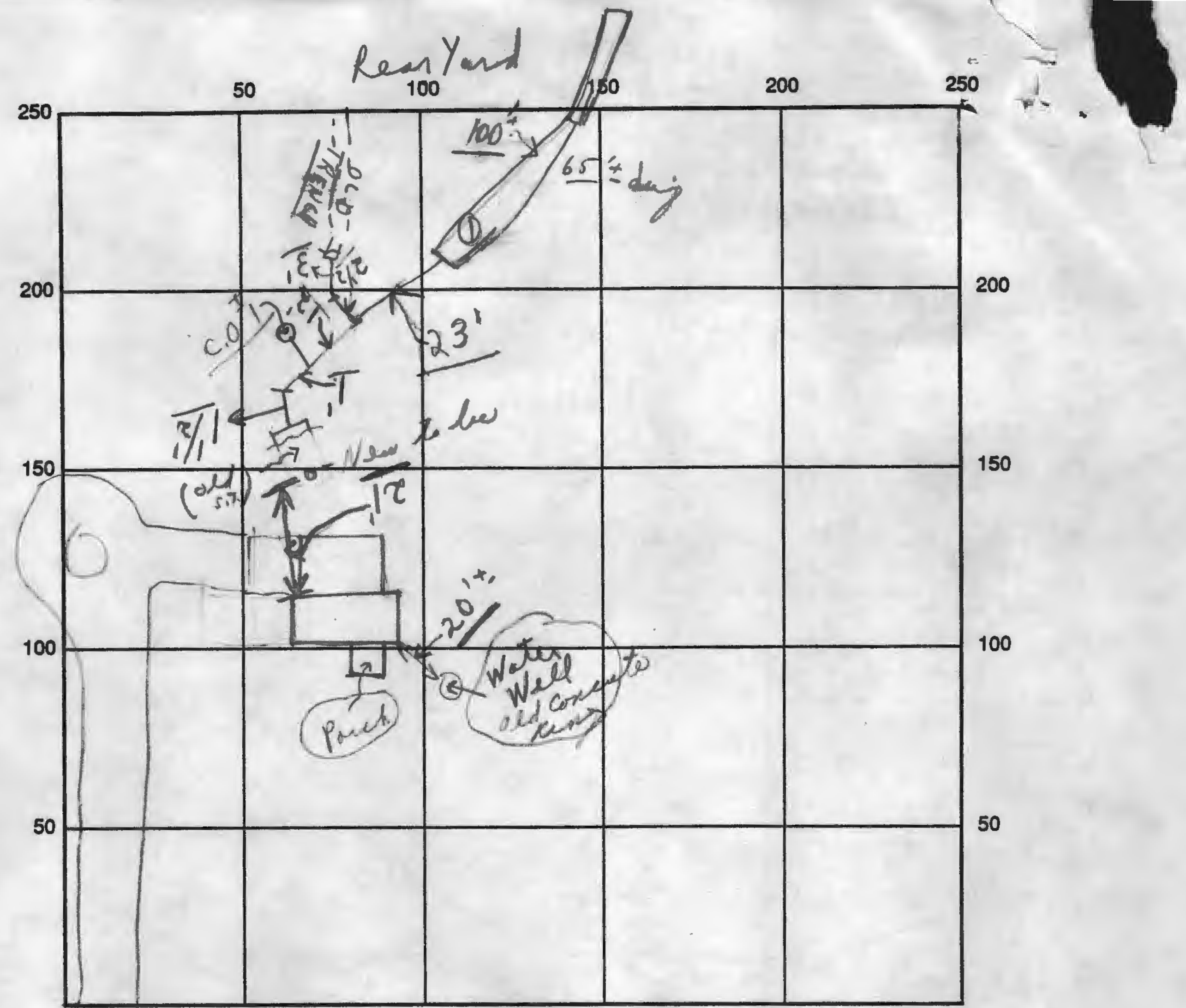
NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

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

HD-260(6-90)

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

P 50380 F



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL Existing CLEANOUTS (S.T New to be) / C.O. #1 OK

DISTRIBUTION BOX LEVEL (Not used)

DRAIN FIELD/TITLE DEPTH 5' to 7' FT. TRENCH WIDTH 3 FT. INLET DEPTH 3' FT.

EFFECTIVE GRAVEL DEPTH 2½' to 5' FT. TOTAL LENGTH 100 ± FT. plus New ↑

NUMBER OF TRENCHES 1 ONE SIDEWALL/BOTTOM AREA 300+ SQ. FT. (plus old system 1 Trench)

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

ABSORBENT AREA 300+ SQ. FT. + (1 Trench of Old System)

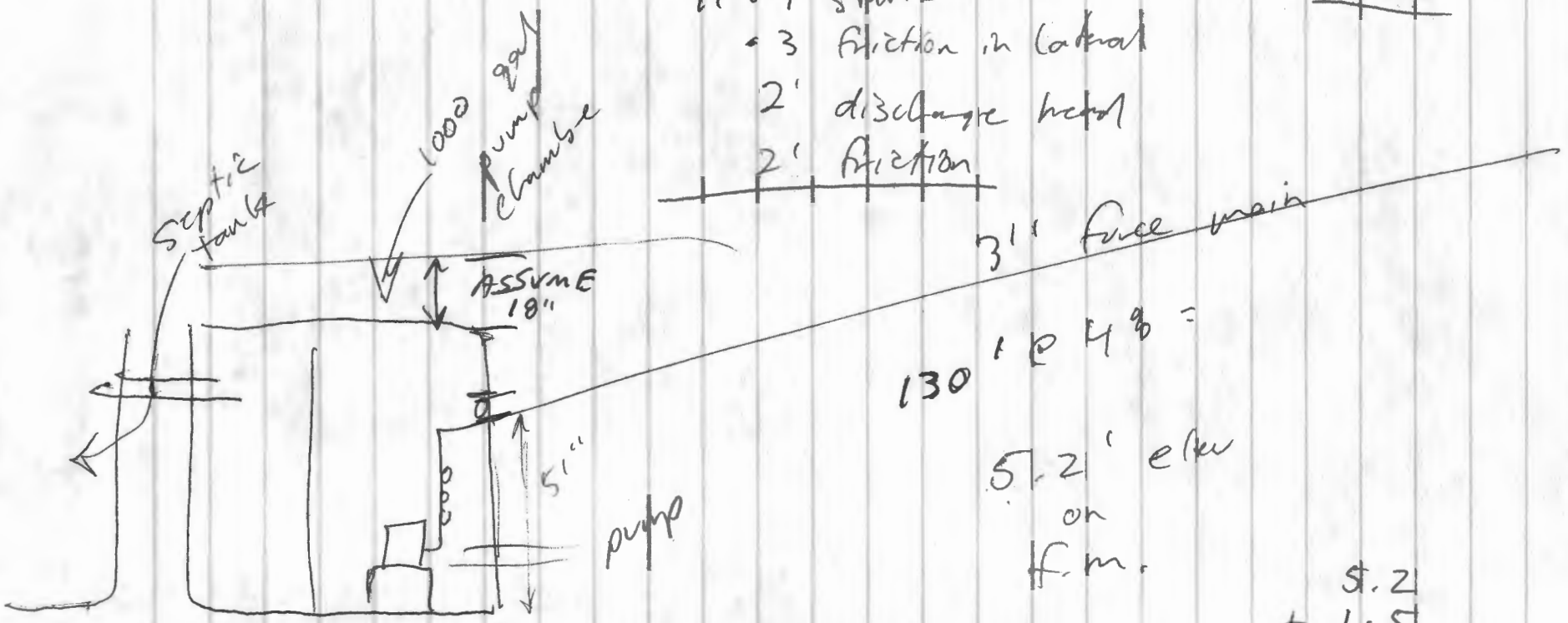
REMARKS: Final 10/24/94 - Abandoned old trench and used 1 old and 1 new system; Final ok to cover as finish material on site; CKS (OK to stone asgo, etc.)

DATE SYSTEM APPROVED 10/24/94 INSPECTOR Charles K. [signature]

pump
78" 6/s

16' TDH
81 gpm
pump

6.5
5.2
11.7 static
.3 friction in lateral
2' discharge head
2' friction



130' @ 4%

5.2' elev
on
f.m.

5.2
+ 1.5
=

1500 gal
forced
backwards

8" Am = 1.28'/100' = 1.664
.332 (+20%)
for fittings

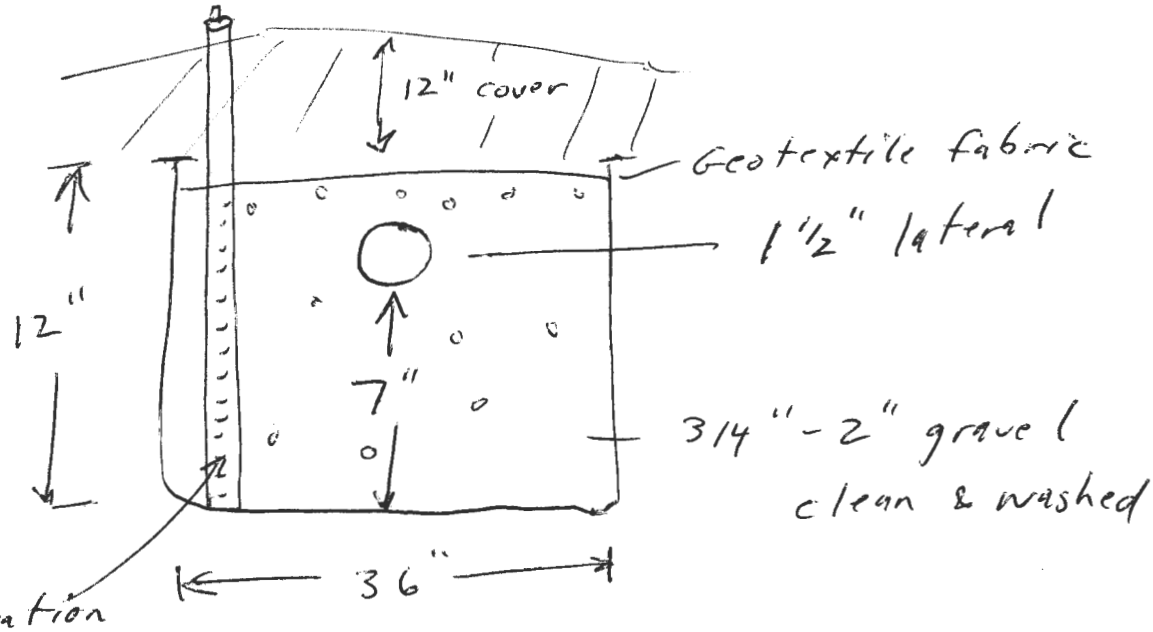
Wynne - Trotter Rd

- For 600 gal @ 0.7 gpd/ft² = 857 ft²
- 857 ft³ / 3' wide = 285 linear ft. trench
- 285 lf / 65 = 4.4 trenches - Use 5 trenches
- Use 1 1/2" laterals
- Use 3" force main
- Use 2" manifold

Use pump 71 gpm @ 18' TDH

Wynne
Trotter Rd.

Trench Detail

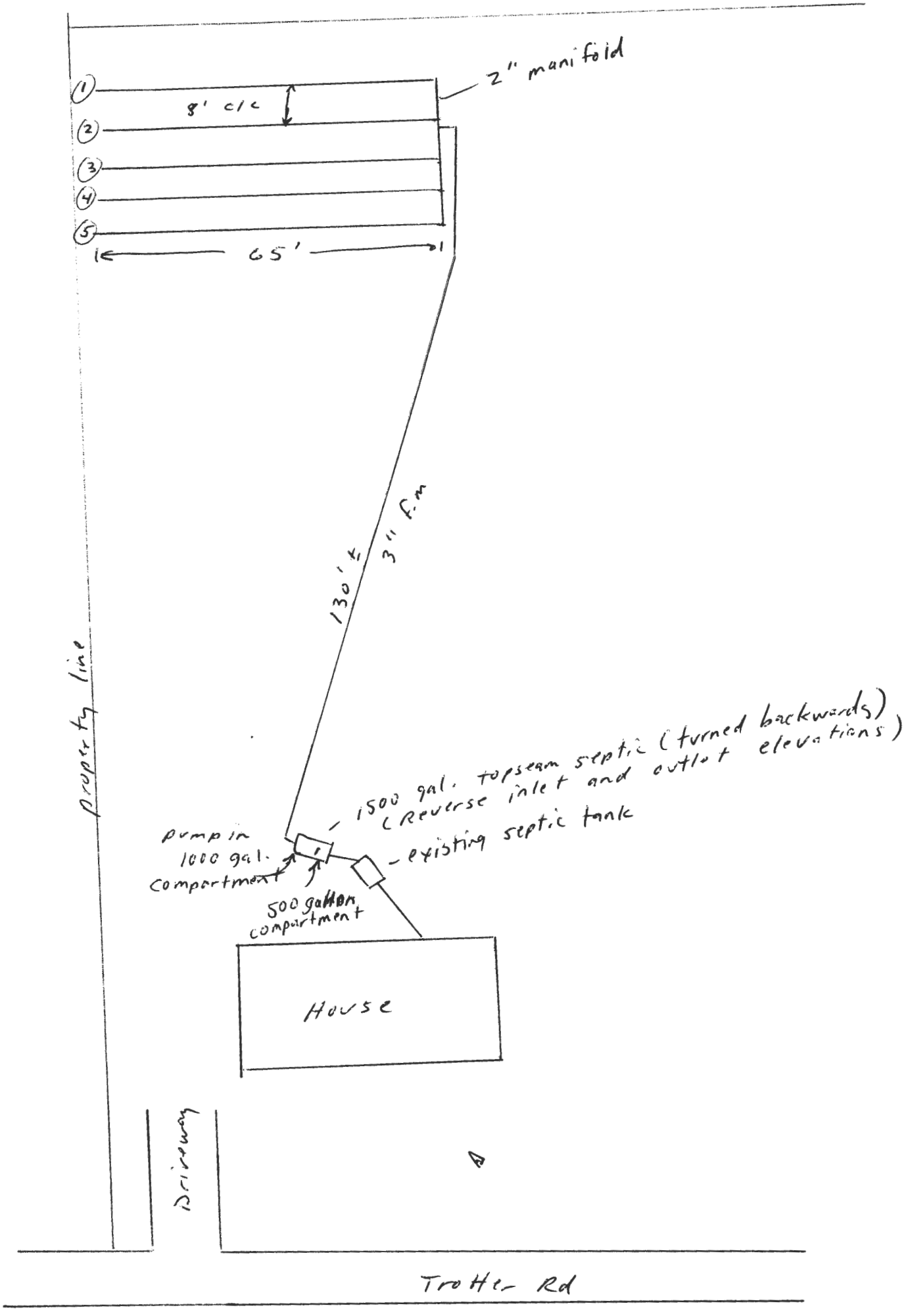


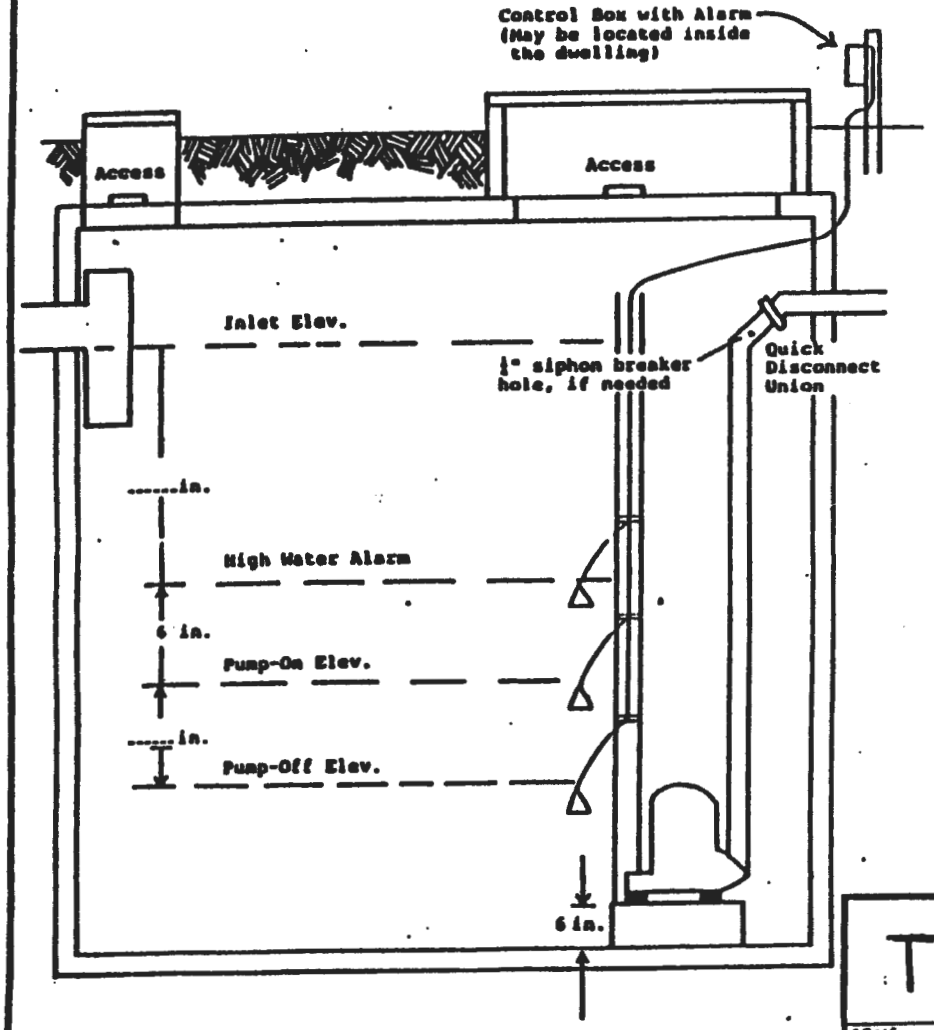
Wynne
Trotter Rd.

PRESSURE DISTRIBUTION ON SLOPING SITES

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)
1		65	2	5/16	1.63	7.2	9	14.7
2		65	2.6	5/16	1.87	8.125	8	14.9
3		65	3.3	5/16	2.12	9.28	7	14.8
4		65	3.9	5/16	2.28	10	6	13.7
5		65	4.6	1/4	1.58	8.125	8	12.6
						)		
						1/2 spacing to		
						trench ends		

NOTE: CHART DOES NOT INCLUDE COLUMN TO ACCOUNT FOR FRICTION LOSSES IN THE MANIFOLD


2" manifold
8' c/c
1
2
3
4
5
65'
130' ±
3" F.M
property line
1500 gal. topseam septic (turned backwards)
(Reverse inlet and outlet elevations)
existing septic tank
pump in
1000 gal.
compartment
500 gallon
compartment
House
Driveway
Trothe Rd



231 in³ per gal.
7.48 gal per ft³

PUMP AND PUMP CHAMBER NOTES

1. The pump chamber must provide sufficient capacity to allow for storage of the dose and one day design flow between the high water alarm and the inlet of the first septic tank. It is also recommended that sufficient capacity be provided so that the pump can be set on a block and remain submerged at all times.
2. The pump chamber must be watertight and protected against buoyant forces and meet all horizontal separation distances in State and County regulations.
3. Chambers that are constructed with seams and joints above the high water table are required.
4. A 24-hour leakage test may be conducted to demonstrate watertightness prior to final construction approval.
5. A manhole access must be brought above the surface of the ground using watertight risers.
6. The pump shall be capable of delivering _____ gpm at _____ ft. of head, which includes 2 ft. of head at the distal end of the laterals.
7. The use of a three float system to control pump-on, pump-off and the high water alarm is recommended. The float system must be capable of delivering the specified dose.
8. Measurements are based on inside dimensions of _____.
9. The control box or panel should be located outside of the pump chamber either in a waterproof enclosure or in the house.
10. The high water alarm must be wired on a seperate electrical circuit.
11. A flow meter or event counter and elapsed time meter are required to determine gallons pumped to the system.
12. A test of the pumping system and distribution network will be required prior to covering. The force main can be partially covered as long as all joints, elbows, tees, etc. are visible. The test will require sufficient water on-site to activate the pump through several pumping cycles. Provisions to protect the pumping system and distribution network from erosion and sedimentation during construction should be made by contractor.

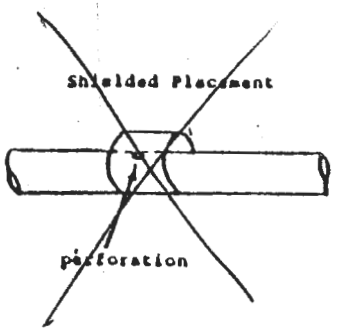
TYPICAL PUMPING CHAMBER

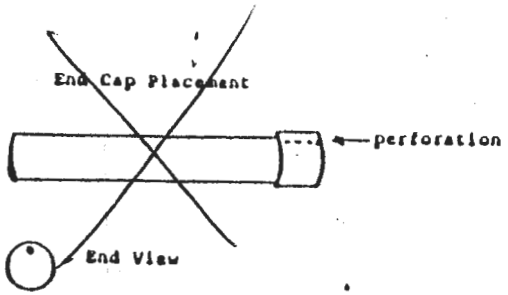
SCALE Not to Scale		DRAWN BY
DATE:		REVISED

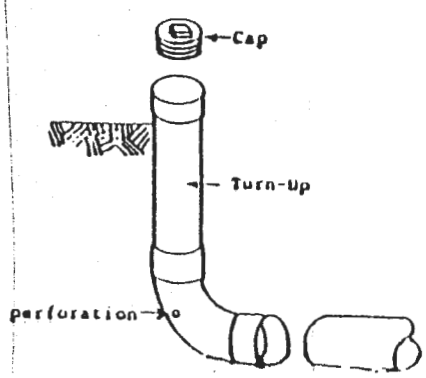
DEPARTMENT OF THE ENVIRONMENT

DRAWING NUMBER

ALTERNATIVES FOR PLACEMENT OF THE END PERFORATION IN A DISTRIBUTION LATERAL







Use on each lateral

DISTRIBUTION SYSTEM NOTES

1. End ~~or Center~~ feed distribution system
2. Number of laterals = 5
3. Length of laterals = <65' (greater than 55')
4. Diameter of laterals = 1 1/2"
5. Space between laterals = 8'
6. Space between lateral and bed's edge = NA
7. Diameter of perforations = 5/16 in. & 1/4"
8. Space between perforations = varies
9. Perforations per lateral = varies
10. Perforation discharge for 5/16 in. dia. perforation at 2ft. of head = 1.63 gpm
11. Lateral discharge rate = 12.6 - 14.9 gpm
12. Total discharge rate = 71 gpm
13. A pump must be selected that can deliver 71 gpm at 16' head
14. Dose = 218 gal
15. Diameter of force main = 3"
16. Diameter of manifold = 2"

see chart for hole spacings and # of holes per trench

PRESSURE DISTRIBUTION SYSTEM

SCALE Not to Scale		DRAWN BY
DATE		REVISED

DEPARTMENT OF THE ENVIRONMENT

DRAWING NUMBER

USE 1.5"

Wynne — Trotter Rd. laterals

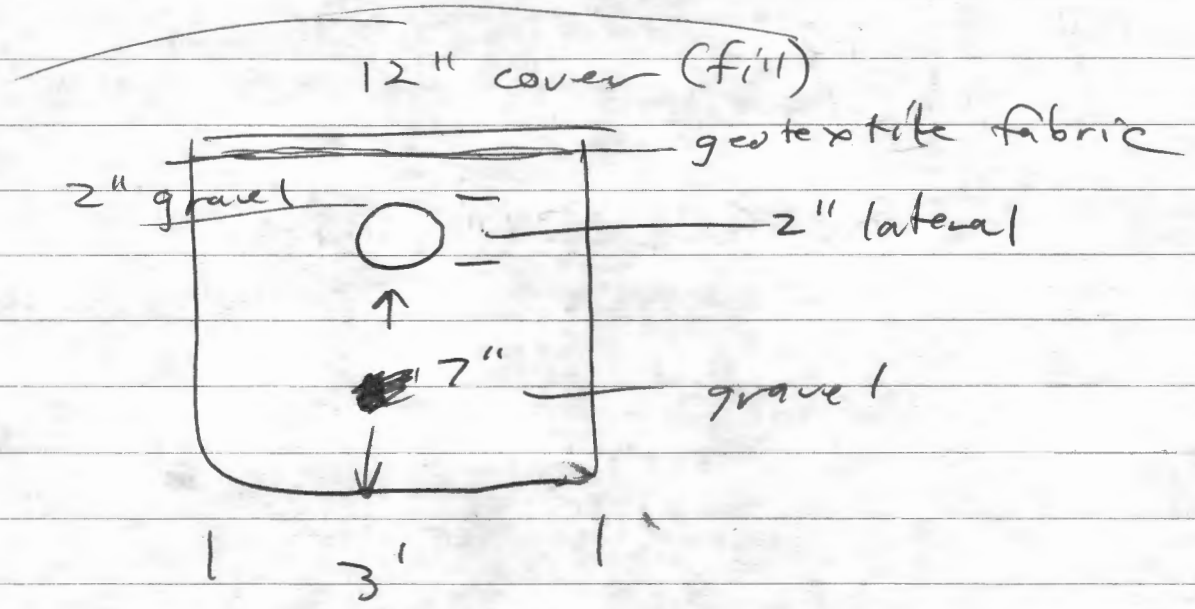
5 trenches 65' long, 3' wide

8' spacing c/c 12" TO w/ cap

for 600 gpd @ 0.7 gpd/ft²

8 % slope in disposal area

OR use 4 trenches @ 0.8



130' of 3"

32' of 2"

1½" laterals = 10.6/100'

307 @ 10.6/100

162 gal = 5% vol. lats

50

6

DOSE = 218 gal