TECHNICAL SECTION 2000 TRAINING

LIQUID WASTE

LAND USE

SOLID WASTE

BIOSOLIDS

HOUSING

VECTOR

WATER

- INDIVIDUAL
- PUBLIC

LIQUID WASTE LAWS

PORTER COLOGNE WATER QUALITY ACT

Creates the State Water Resources Control Board

Water Resource Control Board is divided into 9 Regional Water Quality Control Boards.

Each Regional Board has developed a Basin Protection Plan and implemented guidelines for on-site sewage.

MOU grants county the authority to oversee on-site program. Local ordinance and regulations are reviewed by RWQCB to ensure compliance with Basin Plan.

LIQUID WASTE LAWS

CALIF. HEALTH AND SAFETY CODE

Section 5411 - Prohibits improper discharge of waste.

17920.3 - substandard housing code sections.

UNIFORM PLUMBING CODE

Adopted by local ordinances and CA state law.

Governs prohibitions, construction, materials, and inspections.

LIQUID WASTE LAWS

LOCAL ORDINANCES

FUNCTION OF A SEPTIC SYSTEM

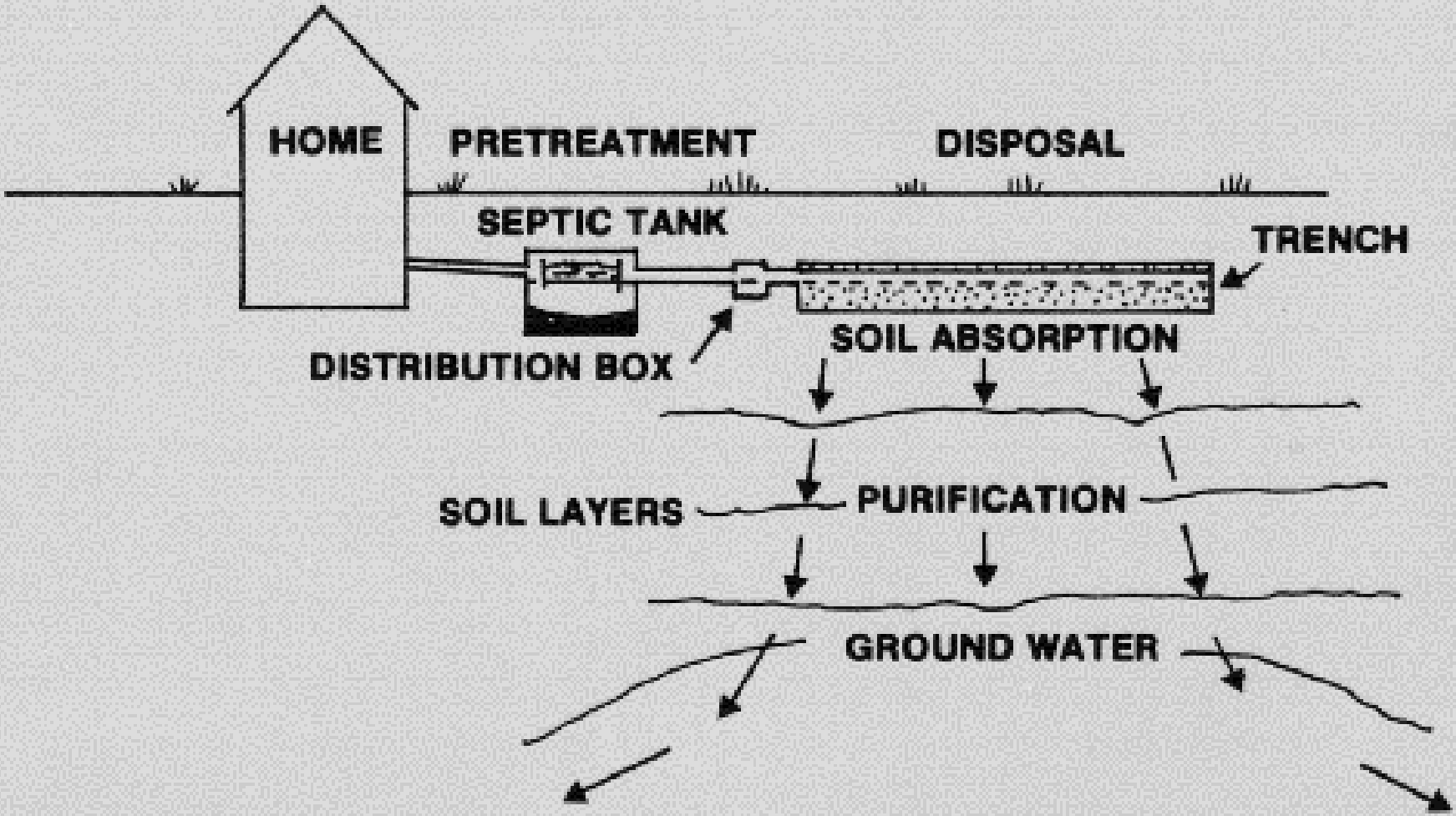
- TREAT SEWAGE SO THAT IT IS MADE HARMLESS.

  KILL DISEASE CAUSING BACTERIA, VIRUSES, AND PROTOZOANS.

  REDUCE HOUSEHOLD CHEMICAL CONCENTRATIONS.

  REDUCE BIOLOGICAL OXYGEN DEMAND.

- DISPOSE OF SEWAGE (MAKE IT GO AWAY).


HOME
PRETREATMENT
DISPOSAL
SEPTIC TANK
TRENCH
DISTRIBUTION BOX
SOIL ABSORPTION
SOIL LAYERS
PURIFICATION
GROUND WATER

LIQUID WASTE
STEPS TO INSTALLING A SEPTIC SYSTEM

SITE EVALUATION

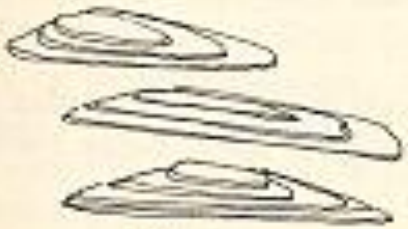
WITHOUT THOROUGH SITE EVALUATION TO DETERMINE THE BEST LOCATION AND DESIGN OF THE SEPTIC SYSTEM EVEN A WELL CONSTRUCTED AND PROPERLY USED SYSTEM MAY PREMATURELY FAIL.

ON SITE REVIEW

SOIL PROFILE EVALUATION

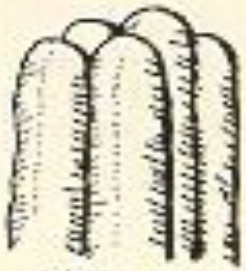
HYDROMETER TEST

PERCOLATION TEST

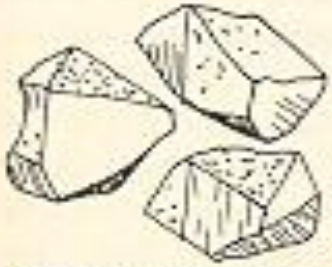


PLATY STRUCTURE

PRISMATIC STRUCTURE



COLUMNAR PRISMATIC STRUCTURE

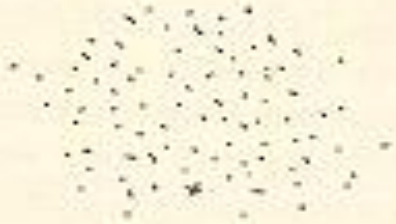


ANGULAR BLOCKY STRUCTURE

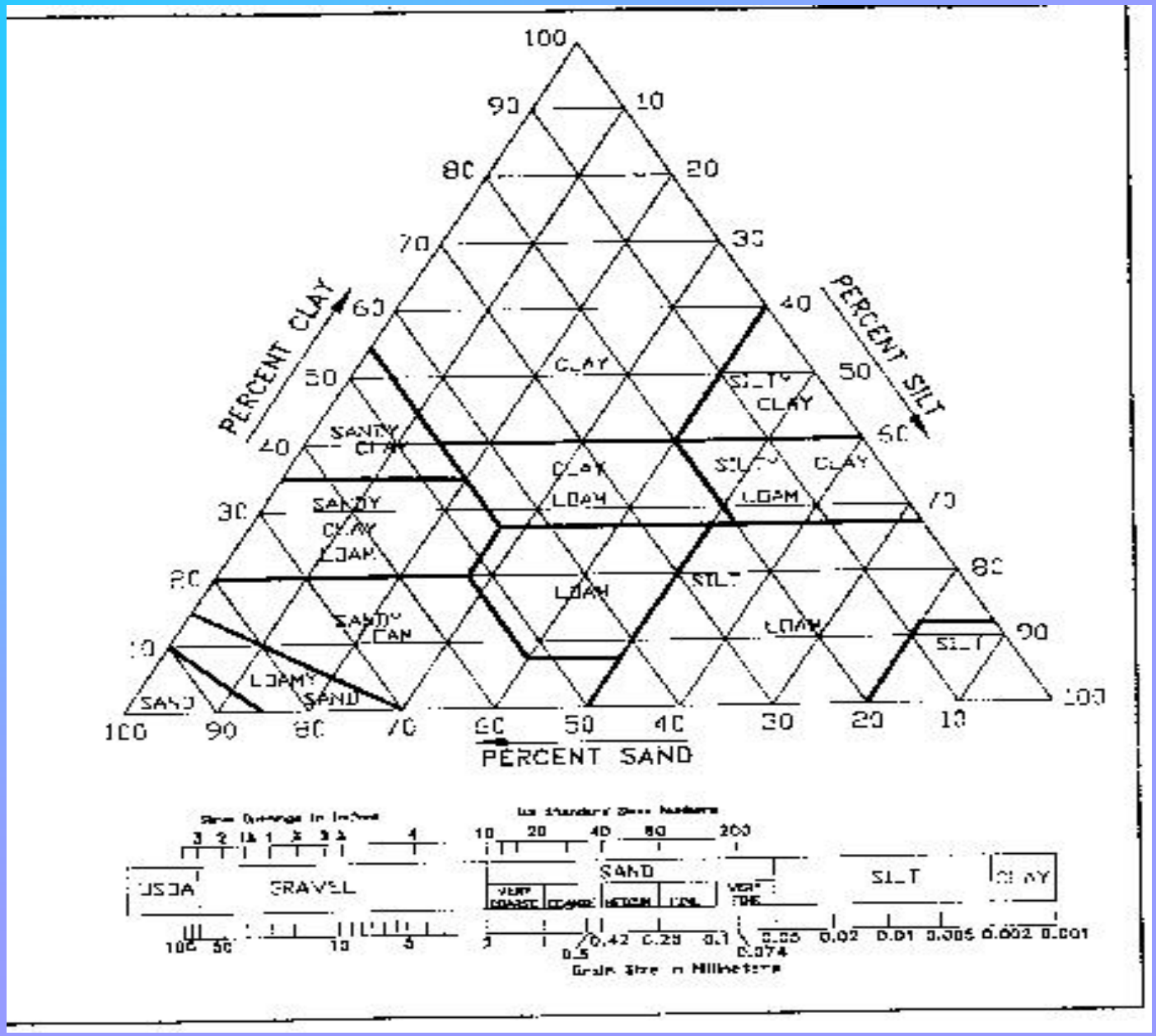
SUBANGULAR BLOCKY STRUCTURE

MASSIVE STRUCTURE

GRANULAR STRUCTURE



SINGLE GRAIN STRUCTURE


PERCENT CLAY
PERCENT SILT
PERCENT SAND
CLAY
SILTY CLAY
SANDY CLAY
CLAY LOAM
SILTY CLAY LOAM
SANDY CLAY LOAM
LOAM
SILT LOAM
SILT
SANDY LOAM
LOAMY SAND
SAND
USDA
GRAVEL
SAND
SILT
CLAY

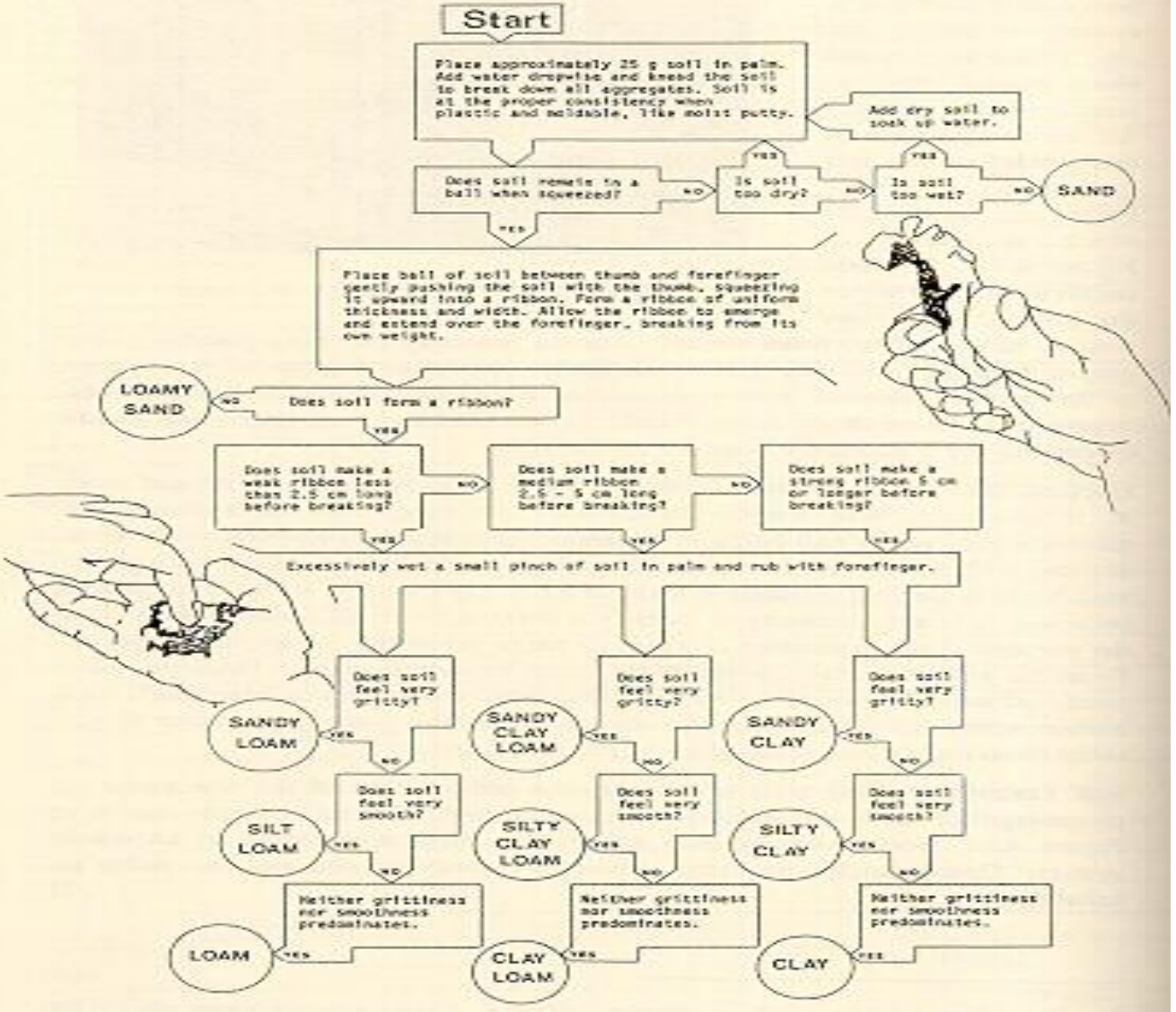
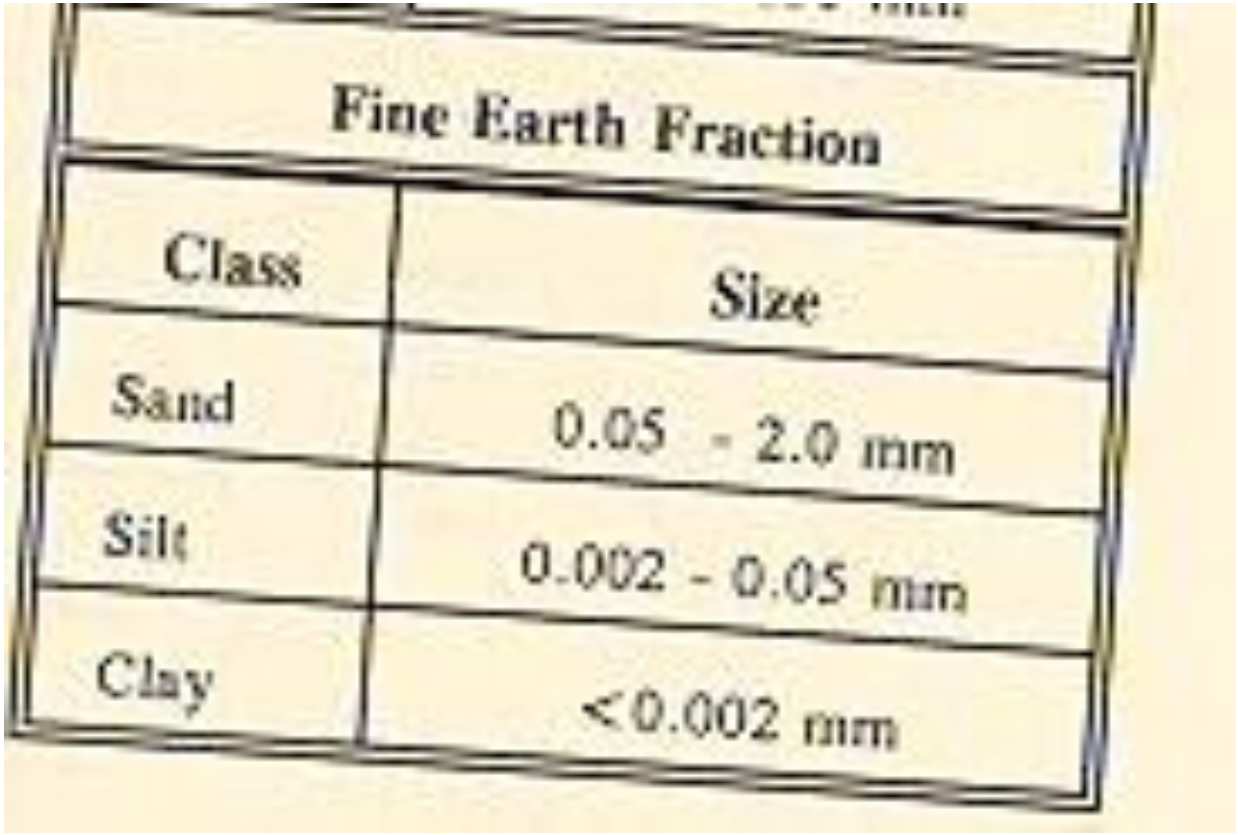
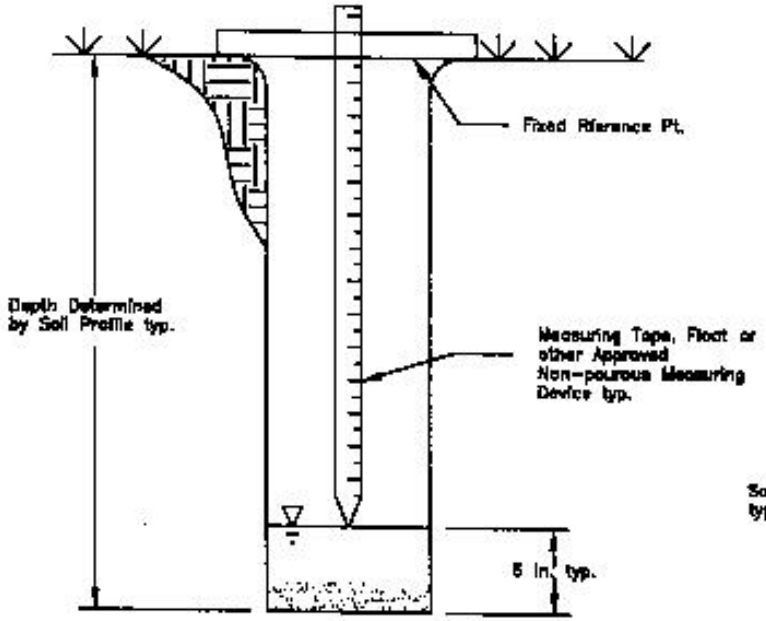


Figure 4.9 - Steps in soil texturing

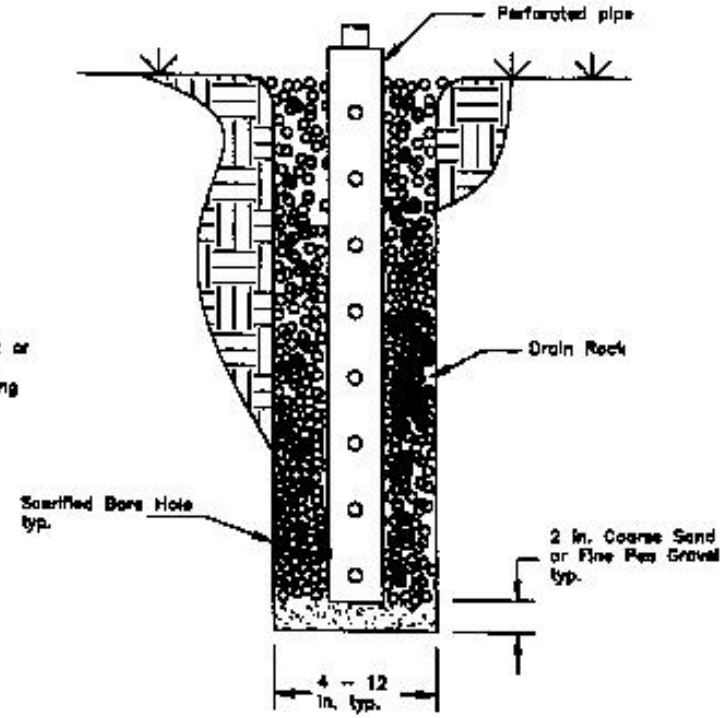


Fine Earth Fraction	
Class	Size
Sand	0.05 - 2.0 mm
Silt	0.002 - 0.05 mm
Clay	<0.002 mm

Type 1



Type 2



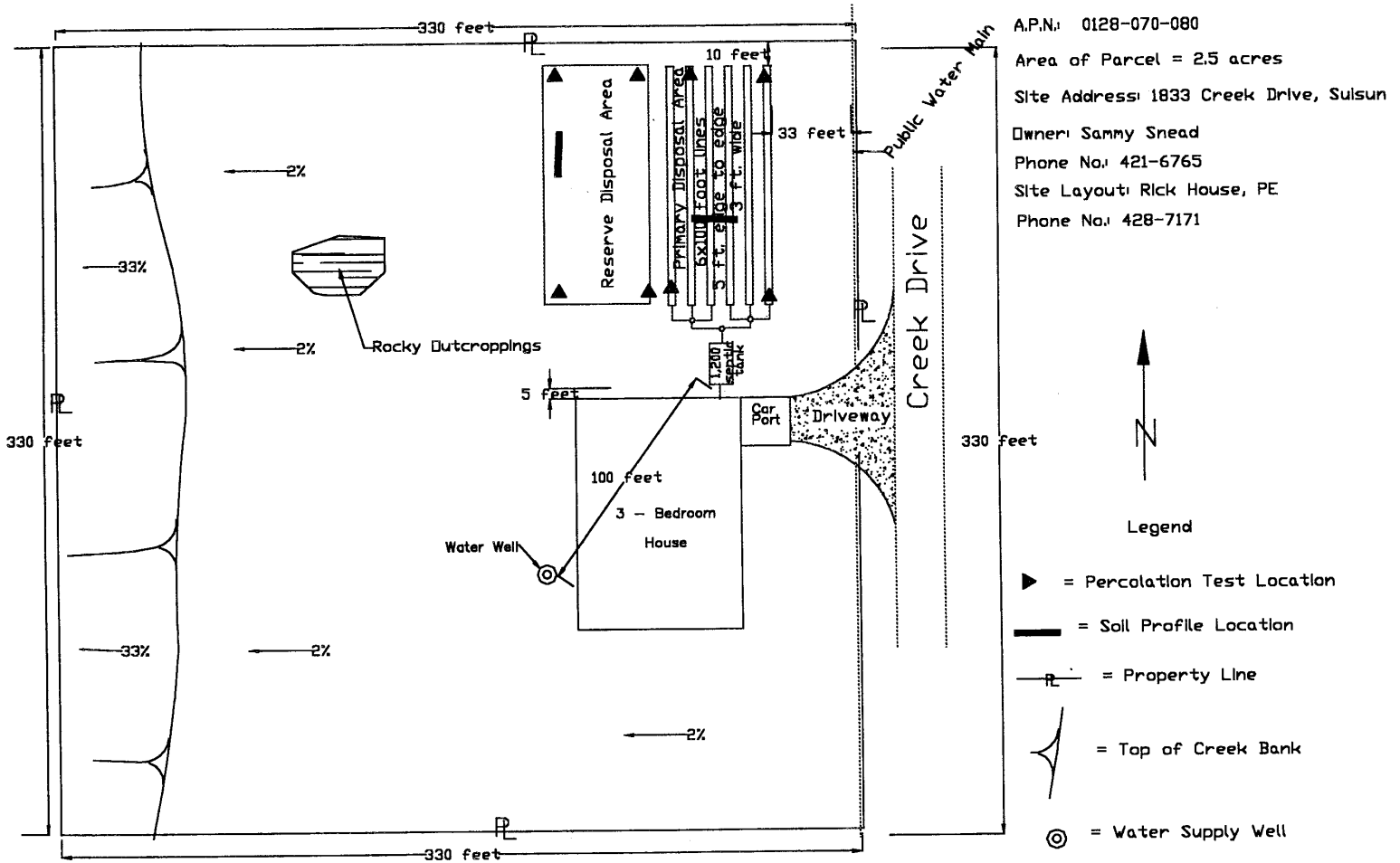
Solano County Stabndard Detail		
Figure 5: Standard Percolation Test Holes		
DATE: 9.11.2000	SCALE: NTS	DRAWN BY: JLC

LIQUID WASTE
STEPS TO INSTALLING A SEPTIC SYSTEM

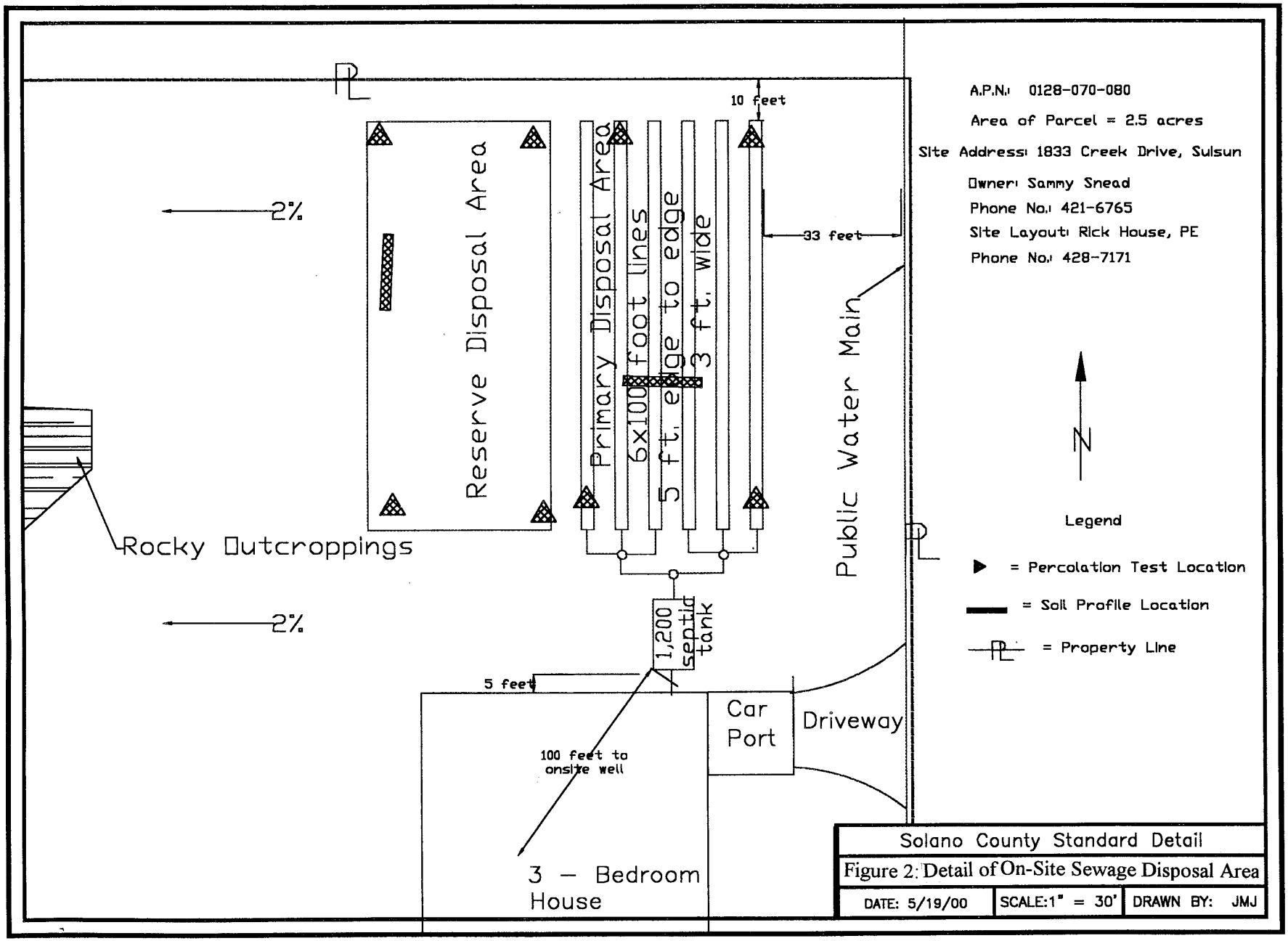
SITE EVALUATION

PLAN REVIEW

IF THE DESIGN DOES NOT ADDRESS CONDITIONS AT THE SITE, EVEN THE BEST CONSTRUCTED AND PROPERLY USED SEPTIC SYSTEM MAY FAIL PREMATURELY OR CAUSE ENVIRONMENTAL CONTAMINATION.



Solano County Standard Detail		
Figure 1: Site Layout		
DATE: 5/19/00	SCALE:1" = 60'	DRAWN BY: JMJ


A.P.N.: 0128-070-080
Area of Parcel = 2.5 acres
Site Address: 1833 Creek Drive, Suisun
Owner: Sammy Snead
Phone No.: 421-6765
Site Layout: Rick House, PE
Phone No.: 428-7171
10 feet
33 feet
2%
Reserve Disposal Area
Primary Disposal Area
6x100 foot lines
5 ft. edge to edge
3 ft. wide
Public Water Main
Rocky Outcroppings
2%
1,200 septic tank
5 feet
Car Port
Driveway
100 feet to onsite well
3 – Bedroom House
N
Legend
= Percolation Test Location
= Soil Profile Location
= Property Line
Solano County Standard Detail
Figure 2: Detail of On-Site Sewage Disposal Area
DATE: 5/19/00
SCALE:1" = 30'
DRAWN BY: JMJ

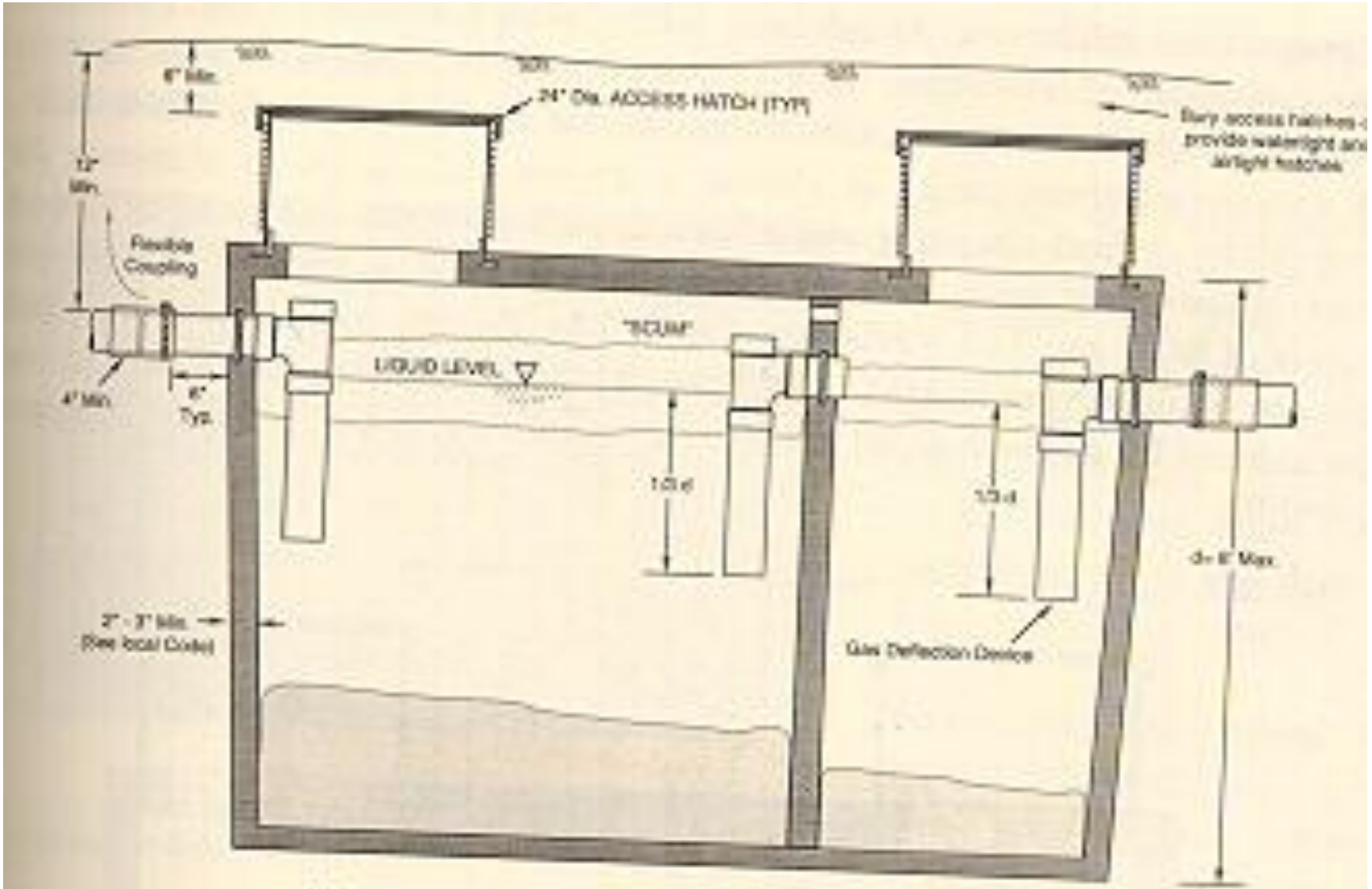
LIQUID WASTE
STEPS TO INSTALLING A SEPTIC SYSTEM

SITE EVALUATION

PLAN REVIEW

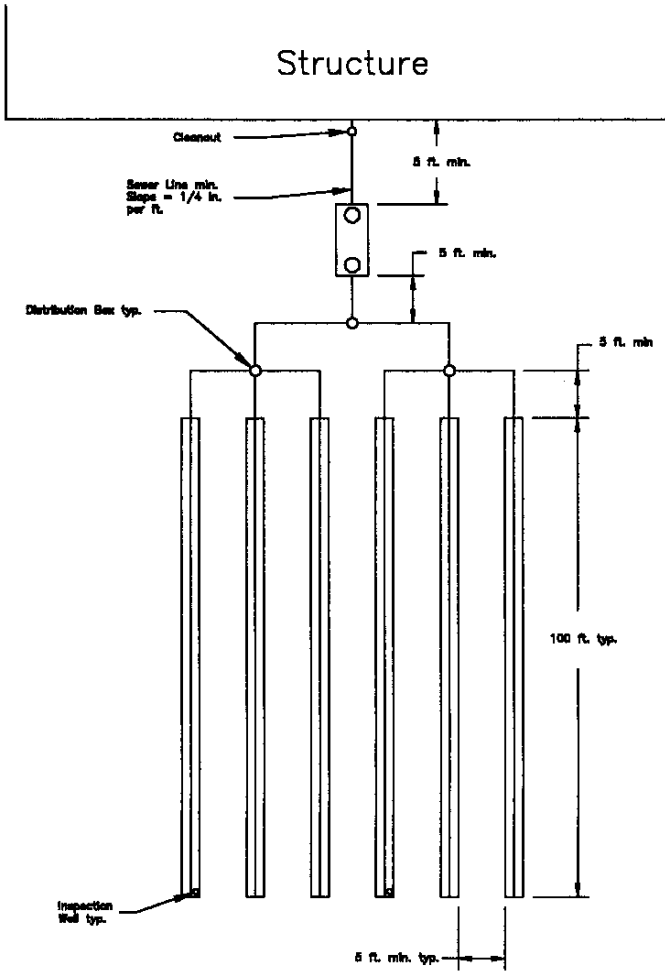
CONSTRUCTION

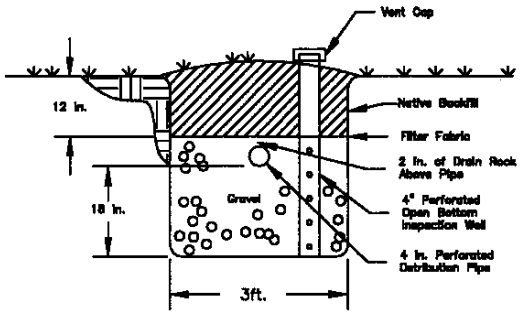
EVEN IF A SYSTEM IS SITED AND USED PROPERLY IT MAY HAVE A SHORTEND LIFESPAN IF FAULTY CONSTRUCTION MATERIALS ARE USED, OR PROPER MATERIALS ARE USED, BUT INSTALLED WRONG.



SIDE VIEW (TYP) TWO - COMPARTMENT 1500 GALLON SEPTIC / PUMP TANK

Figure 3.2



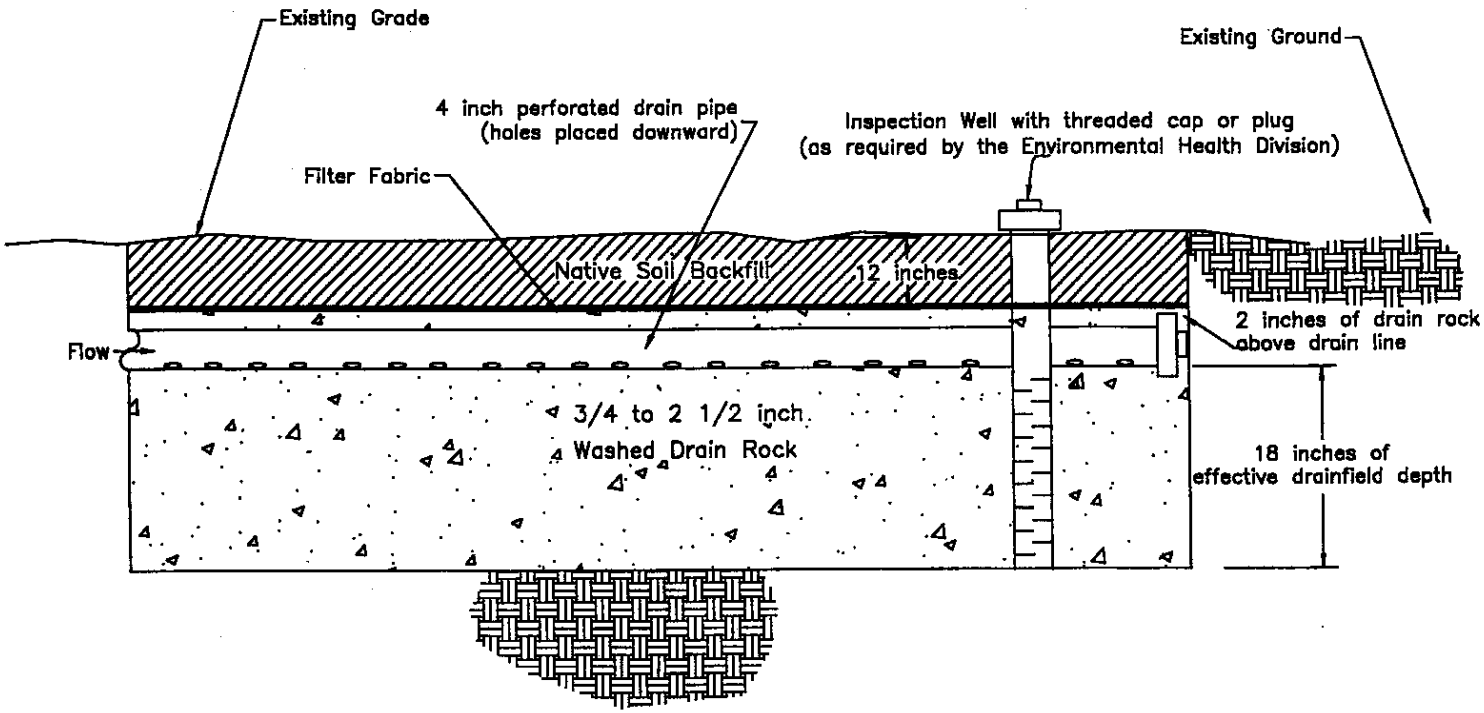


Standard Trench

N.T.S.

Note: The sewage disposal system must be installed so that all minimum setbacks are maintained between individual components of the system and conditions existing on the property. All plans submitted for review must show the system drawn to scale, meeting all minimum setbacks, and installed on contour.

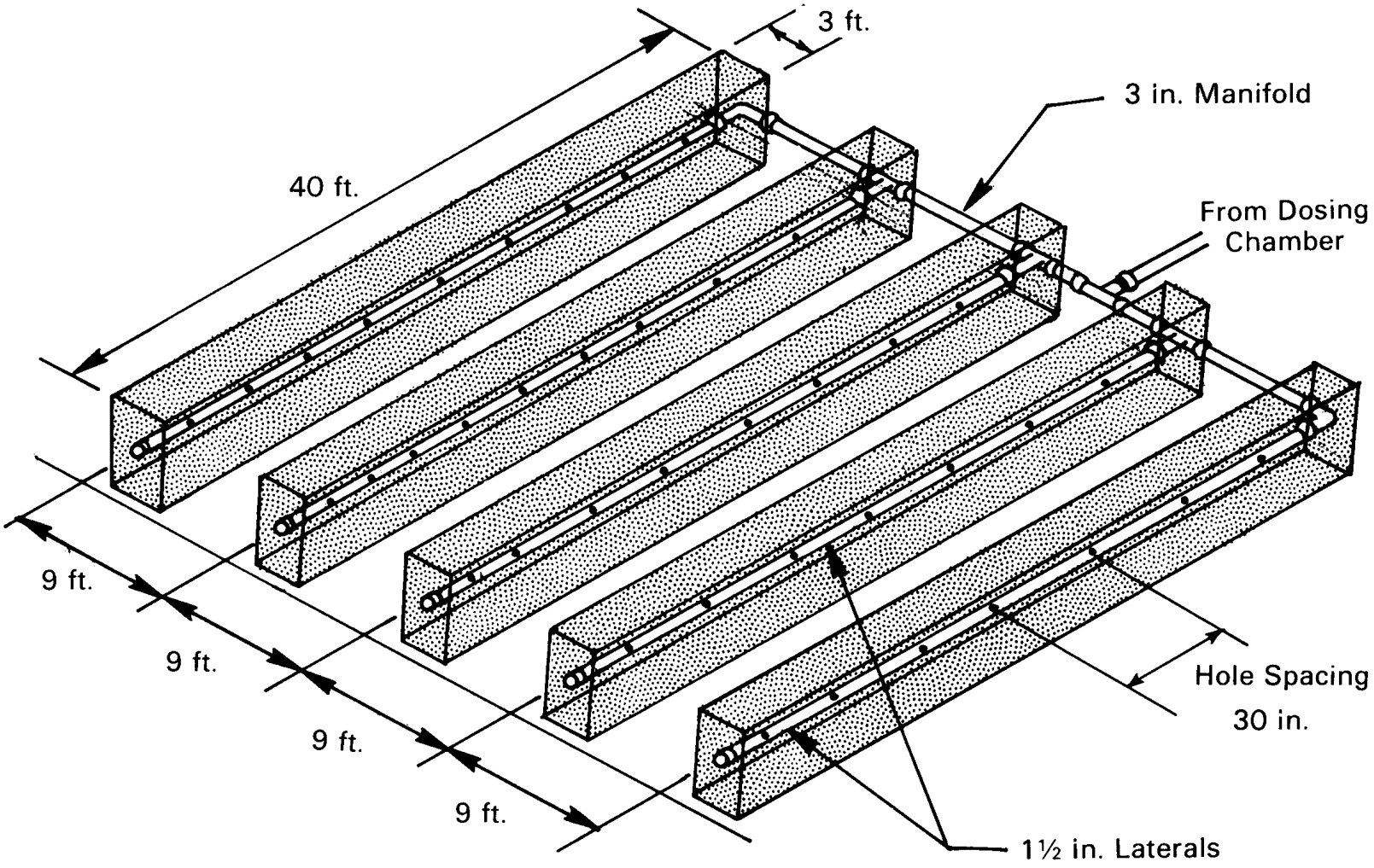
Solano County Stabndard Detail		
Figure 8: Standard Sewage Dispsoal System		
DATE: 5.19.2000	SCALE: NTS	DRAWN BY: JLC

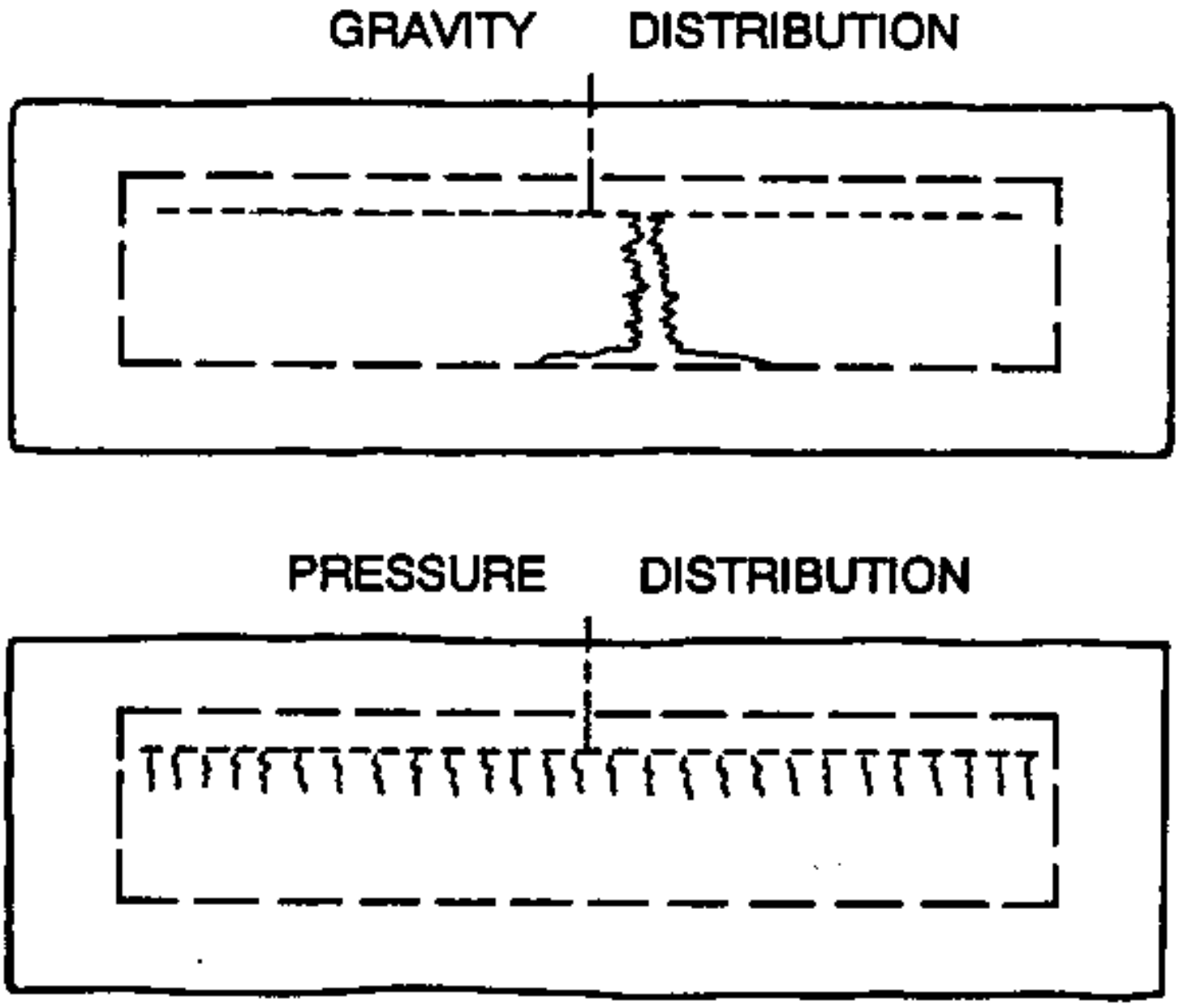


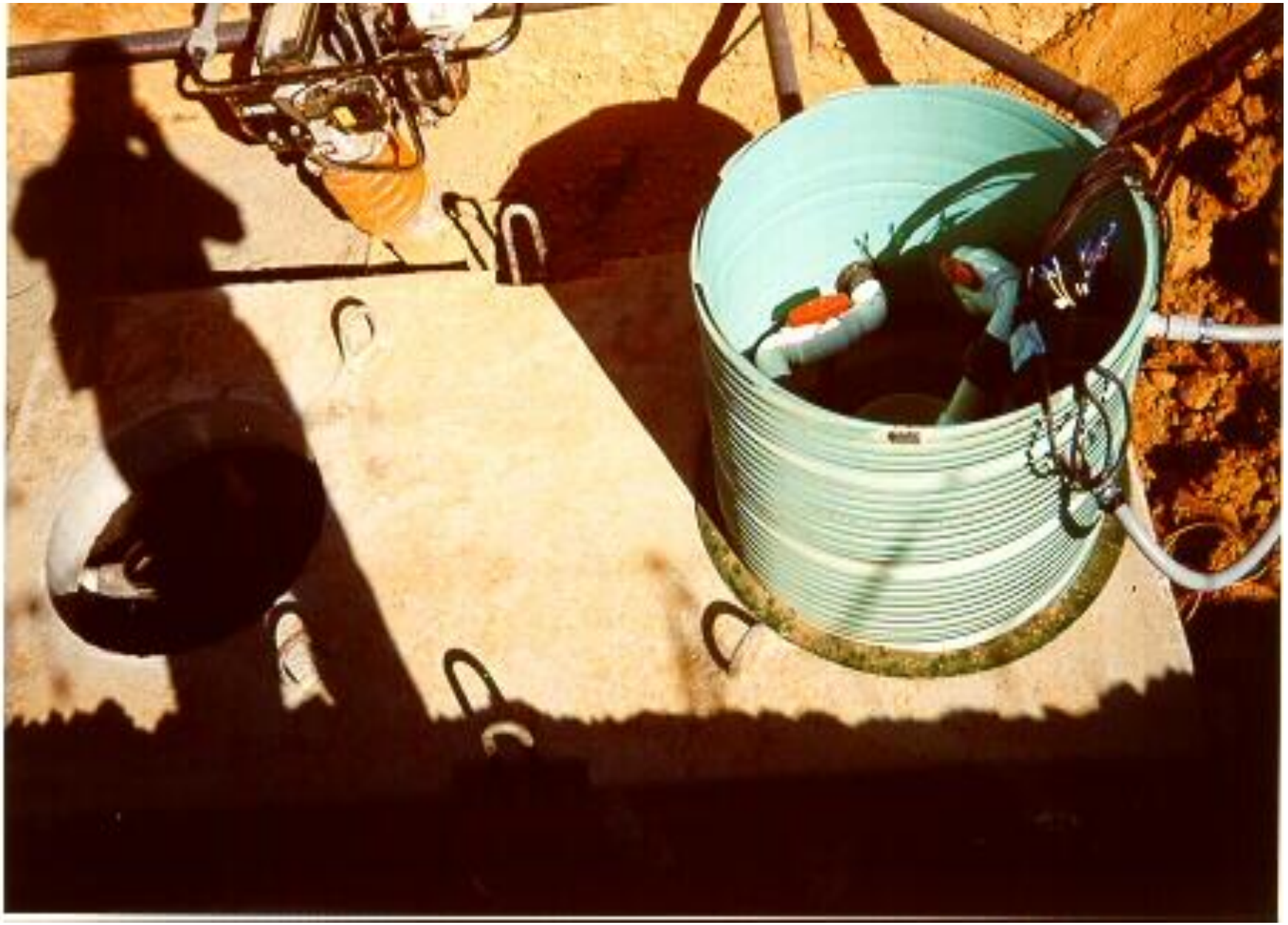
Solano County Standard Detail		
Figure 9 – Drainfield Side View		
DATE: 05.18.00	SCALE: N.T.S.	DRAWN BY: kac

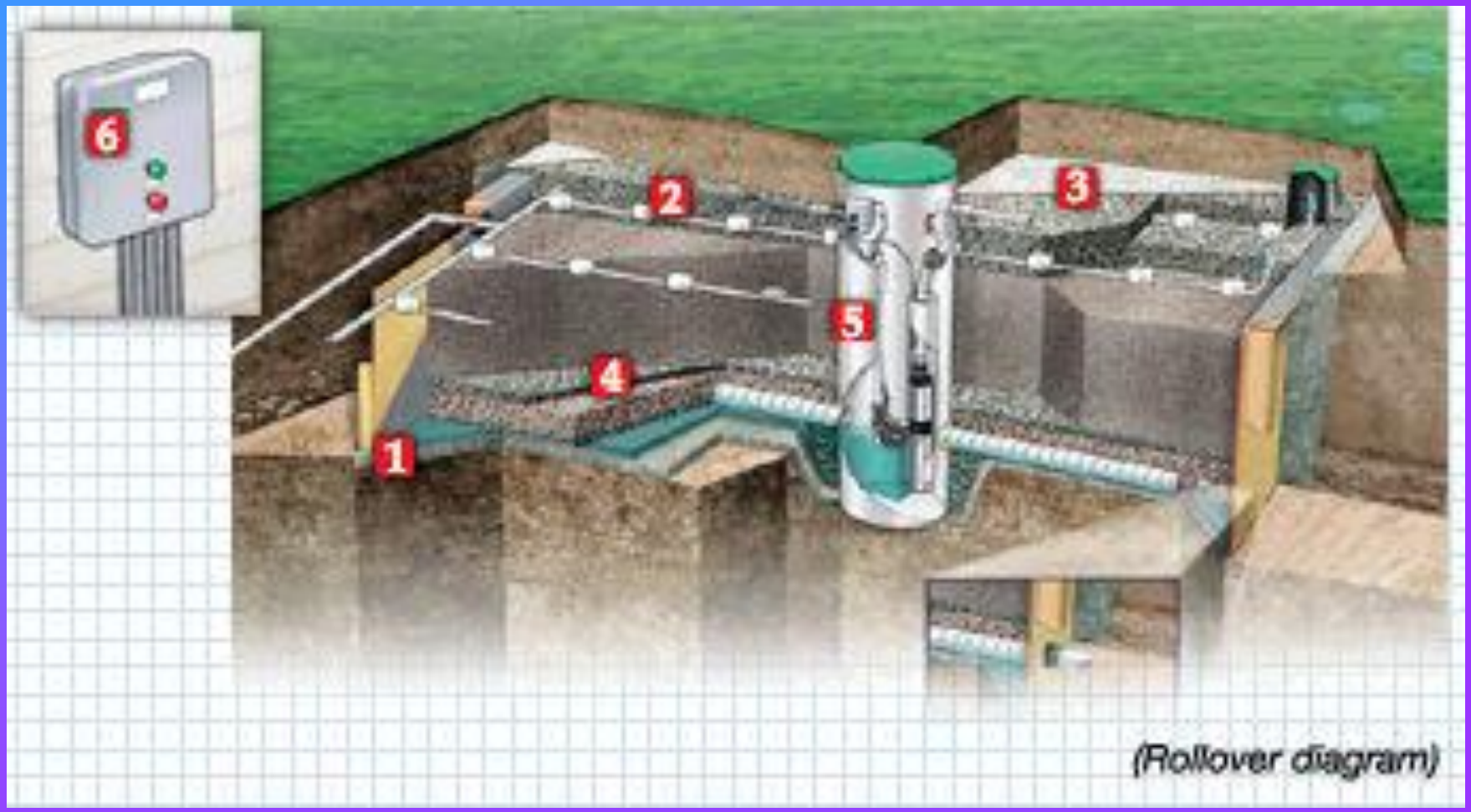
FIGURE 7-31

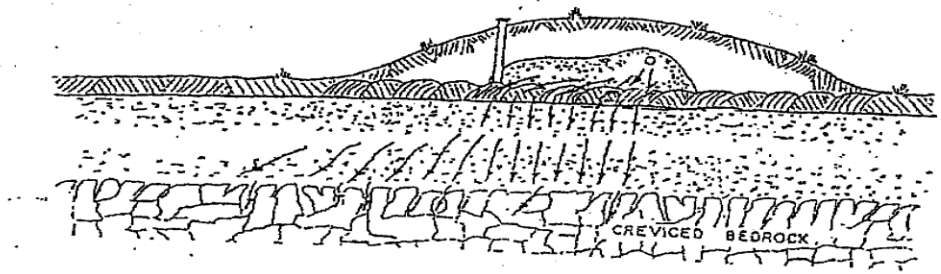
DISTRIBUTION NETWORK FOR EXAMPLE 7-2



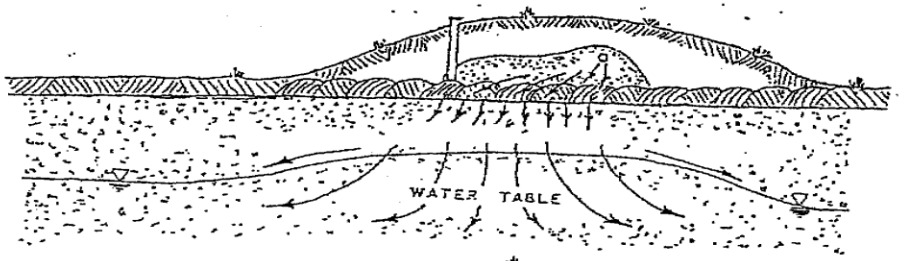

GRAVITY DISTRIBUTION
PRESSURE DISTRIBUTION



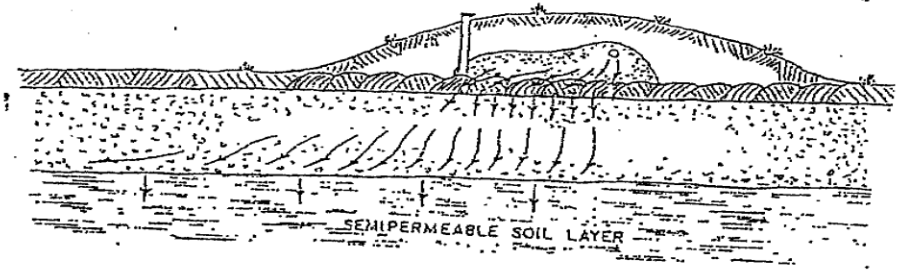

6
2
3
5
4
1
(Rollover diagram)



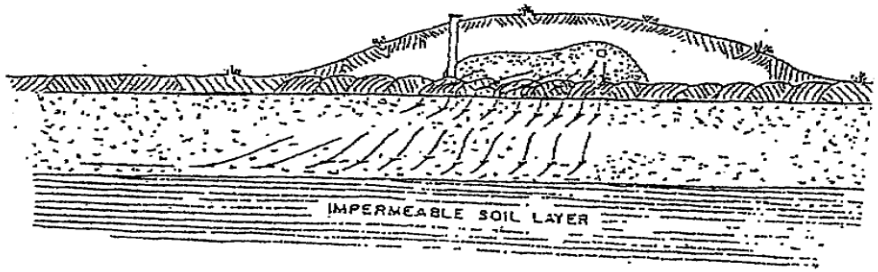
System overlaying a permeable soil lens over creviced bedrock. Estimated Linear Loading Rate = 8 to 10 gal/day/LF



System overlaying a deep permeable soil lens over a fluctuating water table. Estimated Linear Loading Rate = 6 to 8 gal/day/LF



System overlaying a shallow permeable soil lens over a semi-permeable soil layer. Estimated Linear Loading Rate = 5 to 6 gal/day/LF



System overlaying a shallow permeable soil lens over an impermeable soil layer. Estimated Linear Loading Rate = 3 to 4 gal/day/LF

Figure 16: Profile View of Typical Mound System.

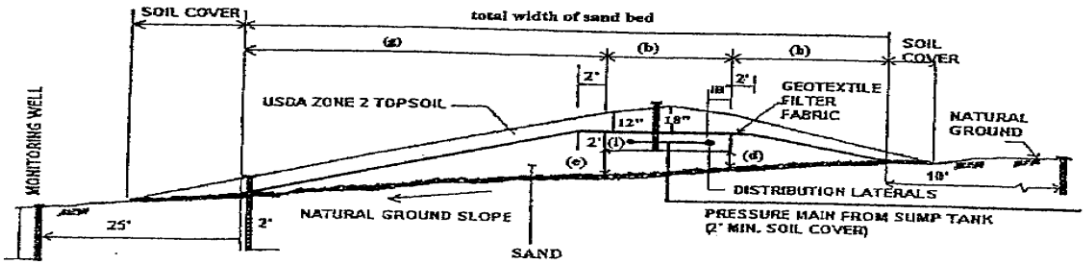
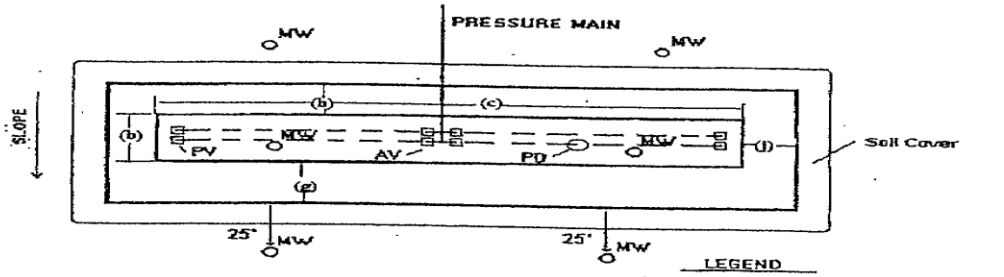


Figure 17: Plan View of Typical Mound System.



Mound Width = (b)+(b)+(g)

Mound Length = (c)+2(j)

LEGEND

MW = MONITORING WELL

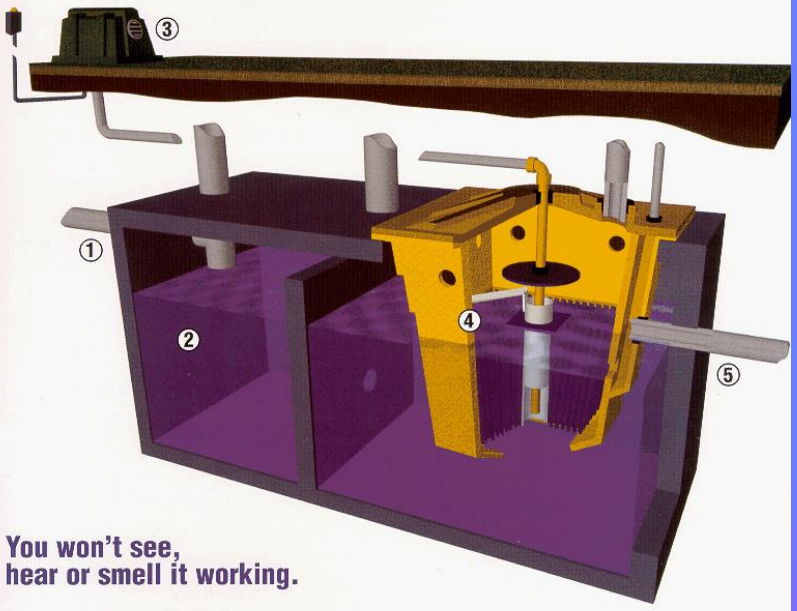
PD = 1 1/4" PVC SCH 40 PIPE 3/16" HOLES 24" O.C.

AV = ADJUSTING VALVE 1 1/4" PVC SCH 80 GATE VALVE

PV = PURGE VALVE 1 1/4" PVC SCH 80 BALL VALVE

PM = 3" PVC SCH 40

Introducing FAST® Wastewater Treatment Systems



You won't see, hear or smell it working.

① FAST® wastewater treatment systems process all the wastewater from single family homes, clusters of homes, small communities or even the high strength wastes from restaurants or commercial facilities.

② Natural separation and settling processes occur in the first compartment of the underground tank.

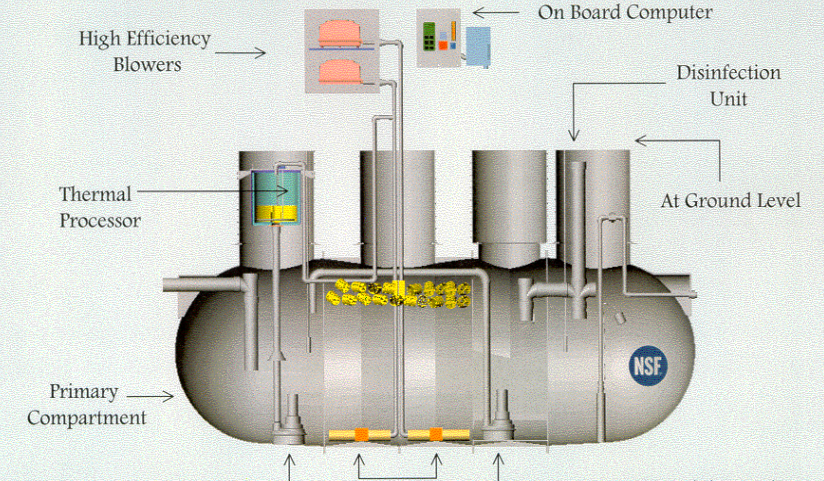
③ Remote blower (the system's only moving part) delivers large volumes of air into the heart of the system, creating vigorous water movement. FAST is oxygen-rich and self-cleaning.

④ Proven, reliable FAST treatment module provides the perfect environment for "friendly bacteria" to grow and multiply. FAST consistently processes and removes more than 95% of common impurities. Special patented technology allows exceptional Total Nitrogen reductions (including nitrates) of more than 70%.

⑤ Clear, odorless treated water is ready for standard or innovative dispersal.

MicroSepTec

NSF



IAPMO TANK CERTIFICATION FOR:
600 Gallon per day - 1200 Gallon per day - 1500 Gallon per day

LIQUID WASTE

AFTER INSTALLATION

Operation and Maintenance

EVEN WITH PROPER SITING, DESIGN, AND CONSTRUCTION, A SYSTEM WILL HAVE A SHORTENED LIFESPAN IF NOT PROPERLY OPERATED OR MAINTAINED.