

Jefferson County Board of Health



On-Site Sewage Disposal Regulations Including Subdivision Regulations Manufactured Home and Travel Trailer Park Regulations

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Chapter 1

General Provisions

1.1 Authority

The Jefferson County Board of Health is authorized to promulgate these Regulations under and by virtue of the authority of Section 22-3-2, Sections 22-26-2 through 22-26-5 (Code of Alabama, 1975); and Act No. 659,(Alabama Legislature, Regular Session 1978).

1.3 Structure and Numbering of Regulations

1.3.1 Chapters The normal division of the Regulations are chapters, which should encompass a broad subject matter. Chapters are numbered consecutively in Arabic throughout the regulations

1.3.2 Parts The normal division of chapters are parts. A part should be devoted to a specific subject matter within a chapter. Parts are numbered consecutively in Arabic throughout each chapter and shall include the number of the chapter set off by a decimal point. Thus the part number for Part 15 within Chapter 3 is 3.15.

1.3.3 Sections The normal divisions of parts are sections. The section is the basic unit of these Regulations. Sections are numbered consecutively in Arabic throughout each part and shall include the numbers of the part set off by a decimal point. Thus, the section number for Section 26 Part 3.15 is 3.15.26.

1.3.4 Internal Division of Sections Whenever internal divisions are necessary, sections shall be subdivided into paragraphs, paragraphs into subparagraph, and subparagraphs into subdivisions, designated as follows:

Terminology	Illustrative Symbol
Paragraph	a)
Subparagraph	1)
Subdivision	i)

1.4 Additional Requirements

The Board may require compliance with requirements other than those contained herein, when such requirements are deemed essential by the Board to maintain safe and sanitary conditions. The Board may approve the use of new or innovative technologies, when deemed appropriate, and set such conditions for their use as may be necessary.

1.5 Severability

- 1.5.1 The provisions of these Regulations are severable. If any provision of these Regulations is found to be invalid, or if the application of these Regulations to any person or circumstance is invalid, such invalidity shall not affect other provisions or applications which can be given effect without the invalid provision or application.
- 1.5.2 If a provision of these Regulations is found to be in conflict with a provision of any other statutes, rules, or requirements, then the more restrictive of such provisions shall apply.

1.6 Violations and Penalties

It shall be unlawful to develop a subdivision; develop or operate a manufactured home park; to build, maintain, repair, clean or use a sewage collection, treatment and/or disposal system in violation of these Regulations. Any person, firm or corporation failing to comply with any provision of these regulations may be enjoined by a Circuit Court in Jefferson County, upon suit brought on behalf of the Jefferson County Board of Health.

1.7 Appeals

Any person who, (a) after proper application, is denied a permit, certificate of competency, or variance; or (b) is in possession of a valid permit, certificate of competency, or variance and is notified in writing of the intent to suspend, revoke, or deny renewal of said permit, certificate of competency, or variance shall be provided the reasons therefore and may, within seven days following receipt of said notice, apply in writing for a hearing to the Health Officer. The Health Officer shall fix the time and place for such hearing. Following such a hearing the decision of the Health Officer shall be final except that such decision may be reviewed by the Circuit Court of Jefferson County.

1.8 No Guarantee Implied

Issuance of a permit to construct or permit to repair for an onsite sewage disposal system, and subsequent approval of same by representatives of the Health Department shall not be construed as a guarantee or warranty that such systems will function satisfactorily for any given period of time. Due to variables influencing system function which are beyond the scope of these Regulations said representatives do not assume any liability for damages which are caused or which may be caused, by malfunction of such system.

1.9 Variances

The Director shall be empowered to grant variances to the requirements of these Regulations in situations when the strict application of such requirements would create a unique or unfair burden upon those affected. Variances may be authorized only when it can be reasonably demonstrated that no hazard to public health and safety, no

nuisance, and no degradation of the natural environment will result. All variances will be granted in accordance with Part 2.12 or Section 4.2.8 of these Regulations.

1.10 General Provisions for Sanitary Systems

1.10.1 Whenever new construction is proposed or any on-site sewage disposal system malfunctions so as to create a potential or actual public health hazard or nuisance and cannot be reasonably repaired, the owner and/or occupant shall be required to connect to a sanitary sewer system when any portion of the lot or parcel of land in question is within a distance of one hundred (100) feet of a sanitary sewer existing within any public street, alley, or right-of-way which abuts or joins the lot or parcel of land.

1.10.2 Every on-site sewage disposal system shall be operated and maintained in such a way so as to prevent hazards to public health and safety, and degradation of the natural environment.

1.10.3 It shall be prohibited for any person to:

- a) Discharge or deposit sewage, or to allow sewage to be deposited, upon the ground surface; into a lake, river, stream or ditch; or in any location other than public sewer, or on-site sewage disposal system acceptable to the Health Department.
- b) Discharge non-biodegradable waste, hazardous waste, or any waste containing high levels of any metals or chemicals from industrial, agricultural, or commercial establishments into an on-site sewage disposal system.

1.10.4 Every premise not served by a public sewer shall be served by an on-site sewage disposal system acceptable to the Health Department.

1.10.5 Every premise shall be provided with an appropriate number of toilet facilities as provided for in the Standard Plumbing Code.

1.10.6 The use of water saving devices or fixtures is encouraged for all on-site sewage disposal systems.

1.11 Definitions

Words, terms, and expressions utilized in these Regulations shall have the meanings as defined in this Part. Words, terms, and expressions which are not defined in this Part shall possess their commonly accepted meanings in accordance with standard English usage.

When used in these Regulations and for the purposes thereof, the following terms and words shall be construed to have the meaning assigned to them as follows except where the context prohibits.

Act 659 - Shall mean Act 659, Alabama Legislature, Regular Session 1978.

Aerobic Treatment Unit - An on-site sewage treatment device which supplies oxygen to the sewage so that biological waste reduction occurs by aerobic bacteria.

Alternate/Experimental On-site Sewage Disposal System - An on-site sewage disposal system requiring unconventional, new or innovative design or methods of sewage handling, treatment or disposal. See Section 2.8.3. of these Regulations.

Application - Shall mean Application for: On-site Sewage Disposal Permit, Subdivision development, Manufactured Home Park development or Manufactured Home Park operation.

Approved Lot - A lot that has been approved by the Health Department and is acceptable for an on-site sewage disposal system subject to the provisions of these Regulations and provided, however, that approval of the lot does not constitute approval of the construction plan layout as required by these Regulations.

Bedrock - The solid rock underlying soils. Boulders and soft sandstone which are capable of being removed or ripped with conventional septic tank installation equipment shall not be considered as being bedrock.

Board - The Jefferson County Board of Health and includes any officer, employee or agent of said Board authorized to act for and on behalf of said Board with respect to the enforcement and administration of these Regulations.

Building Drain - That part of the lowest piping of a drainage system which receives the discharge from soil and waste drainage pipes inside the walls of the building and conveys it to the house sewer.

Central Sewage Treatment System - A system for sewage treatment acceptable to the Health Department, whereby all the sewage from a Manufactured Home/Mobile Home Park or subdivision shall be collected in a network of sanitary sewers and conveyed by water to a common location for treatment.

Certificate of Competency - A certificate authorized and required under Section 11 of Act 659 and issued by the Health Department to a person who shall have demonstrated compliance with all applicable provisions of Parts 8.2 and 8.3 of these Regulations.

Certified Installer - A person engaged in the business of installing and/or repairing on-site sewage disposal systems and who has a certificate of competency for such business as required by Act 659.

Cleaner - See sewage cleaner.

Commercial Building - A structure other than a single-family residence or dwelling.

Construction Plan - A scaled layout drawing consisting of construction details as required in Section 2.2.5 of these Regulations and submitted with the application.

Conventional On-Site Sewage Disposal System - An on-site sewage disposal system which consist of a standard septic tank(s) with either level header or serial distribution field lines which are eighteen (18") - twenty-four (24") wide and installed at a twenty-four (24") - thirty-six (36") depth. Field lines will employ clean aggregate and four (4") perforated pipe and meet all requirements of Part 3.4 of these Regulations.

Covenant To Run With The Land - An agreement between the property owner and another which is recorded in the office of the Probate Judge or other records office, as required by Section 2.9.14 of these Regulations, which runs with the land and which cannot be separated from the land until public sewer is available and premise is connected to said sewer, and which is intended to bind successors in title.

Crossover - Non-perforated ridged or non-perforated flexible pipe used for the purpose of connecting one effluent distribution line to another and installed as specified in Appendix F-2 of these Regulations. Overflow pipe or relief line used in these Regulations shall mean the same as crossover.

Curtain Drain - A man-made subsurface drainage structure intended to intercept and divert groundwater.

Dependent Trailer Unit - A manufactured home/mobile home not having a toilet, bathtub or shower, or any manufactured home/mobile home not providing a plumbing system suitable for connection to an on-site sewage disposal system or central sewage treatment system.

Developer or Sponsor - A person who engages in building development and/or subdivides property as defined in these Regulations.

Director - Shall mean the Director of the Bureau of Environmental Health for the Jefferson County Department of Health or his duly authorized representative.

Disposal Field - An area consisting of open jointed or perforated piping placed in trenches, mounds, or other arrangements which utilizes the soil for absorption and treatment of effluent from on-site sewage treatment and disposal system, clothes washing machines, grease traps or other wastes appurtenance.

Dwelling - A house, mobile home, shelter or building or portion thereof which is occupied in whole or in part as the home, residence or sleeping place of one or more human beings.

Effluent - Partially or completely treated sewage flowing out of any sewage treatment device.

Effluent Disposal Line - Open jointed or perforated pipe placed in trenches in a soil disposal field for the purpose of distributing effluent.

Effluent Distribution Line - See effluent disposal line.

Effluent Line - A solid non-perforated pipe from septic tank, grease trap, or aerobic treatment unit outlet tee to the header line or to the effluent disposal line if no header line is employed.

Engineer - A person registered as a professional engineer with the State of Alabama Board of Registration for Professional Engineers and Land Surveyors, practicing under the rules of Professional Conduct (Code of Ethics) and experienced in, and has an understanding of soil, geological and topographical conditions which may affect the operation of on-site sewage disposal systems.

Experimental/Alternate On-site Sewage Disposal System - See alternate/experimental on-site sewage disposal system.

Field Line - See effluent disposal line.

Flood - The general and temporary condition of partial or complete inundation of land areas caused from the overflow of surface waters.

Flood Plain - Any normally dry land area that is susceptible to being inundated by waters of the one percent (1.0%) annual chance flood, i.e., the one hundred (100) year flood.

Flood Prone Area - Any area which will normally be subject to a flood during some portion of a year.

Grease Trap - A watertight tank or receptacle in which the grease present in sewage is intercepted and congealed and from which it may be skimmed from the surface of the liquid waste for disposal.

Groundwater - Subsurface water occupying the zone of saturation.

Header Line - A pipe, perforated or non-perforated, from the effluent line to the effluent disposal line for the purpose of equal distribution of effluent.

Health Department - The Jefferson County Department of Health and its agencies, employees and instrumentalities.

Health Officer - The Health Officer of the Jefferson County Department of Health or his duly authorized representative.

House Sewer - That part of the building drainage system which extends from the end of the building drain, and which receives the discharge of any building drain and conveys it to a sanitary sewer or an individual on-site sewage disposal system.

Installer - See Certified Installer

Land Surveyor - See Surveyor

Lithic Contact - A boundary between soil and continuous, coherent underlying material. The underlying material must be sufficiently coherent to make hand digging with a spade impractical (hardness of three (3) or more on Mohs Scale).

Low Water Use Toilets - Toilets engineered and designed to flush on 1.6 gallons of water or less.

Low Water Use Urinals - Urinals engineered and designed to flush on 1.0 gallon of water or less.

Lot - A part of an approved subdivision or a parcel of land intended for the building of a single dwelling, building, or other development.

Manufactured Home/Mobile Home - A movable or portable dwelling built on a chassis, connected to utilities, built for use with or without a permanent foundation and designed or used for full-time occupancy.

Manufactured Home/Mobile Home Park - Any site, lot, field, or tract of land, privately or publicly owned or operated, upon which four (4) or more manufactured homes/mobile homes, used for living, eating, or sleeping quarters are, or are intended to be located; such establishment being a place where housing accommodations are available or may be established, whether operated for or without compensation, by whatsoever name or title they are colloquially or commercially known. The term "Manufactured Home/Mobile Home Park" shall not include those lots developed for sale to individual owners; these developments being regulated under individual lot or subdivision requirements.

Manufactured Home/Mobile Home Space - A parcel of land in a manufactured home/mobile home park for the placement of a single Manufactured Home/Mobile Home and the exclusive use of its occupants.

Mottling - Spots or blotches of different color or shades of color interspersed with the dominant soil color. Oxidation (bright colors) and reduction (chroma of three (3) or less) are caused by alternating aerobic and anaerobic conditions which occur due to seasonally fluctuating groundwater or saturation caused by a perched water table.

Multifamily Dwelling - A dwelling which is designed to be occupied by more than one family, living as separate family units, and in which the rooms are occupied in apartments, suites or groups, including tenant houses, flats, houses, apartment hotels, condominiums, duplex apartments, kitchenette apartments and all other dwellings similarly occupied, whether specifically enumerated herein or not.

Munsell Color Notation - A standard method of color notation which applies numerical value to hue, value, and chroma (for example, "Yellowish Brown 10YR5/6") to describe soil color.

Non-Conventional On-Site Sewage Disposal System - On-site sewage disposal systems which do not meet conventional standards but do not employ new or experimental technology. See Section 2.8.2 of these Regulations.

Non-Residential Structure - See commercial building.

NSF - National Sanitation Foundation

On-Site Sewage Disposal System - Any system of piping, treatment devices, or other facilities that convey, store, treat, or dispose of sewage on the property where it originates or on adjacent or nearby property under control of the user where the system is not connected to a public sewer.

Paralithic Contact - Boundary between the soil and discontinuous partially weathered igneous, metamorphic, or sedimentary rock, with characteristics similar to rock, but which is not soft, loose or friable like saprolite. When evaluated in place, it is compact

and grinds when encountered by auger but may be penetrated with an auger or backhoe.

Perched Groundwater - Subsurface water in a saturated zone that is supported by an impervious or restrictive soil layer level above the normal regional groundwater.

Percolation Test - A procedure, as outlined in Appendix B of these Regulations, for estimating the capacity of a soil to transmit water after that soil has reached saturation.

Permit - Shall mean either Application for On-Site Sewage Disposal Permit, Permit to Construct, Permit to Use/Operate, or Permit to Repair.

Permit to Construct - Shall mean an approved Application for On-Site Sewage Disposal Permit by the Health Department with stated conditions of approval.

Permit to Repair - Is a written recommendation by the Health Department, issued prior to any action being taken to repair or modify an on-site sewage disposal system.

Permit to Use/Operate - Is a written approval from the Health Department that all conditions in the Permit to Construct have been satisfied and that the on-site sewage disposal system or facility is approved for use.

Person - Any individual, corporation, firm, company, or any other legal entity.

Portable Toilet - A portable self-contained privy.

Premise - Any structure, which is served or should be served by an on-site sewage disposal system.

Primary Disposal Area - The area where the on-site sewage disposal system is located or is proposed to be located.

Privy or Dry Closet - A receptacle, place or method used for the purpose of containing or disposing of human excreta other than by use of a water closet and not connected to water under pressure. This definition does not include alternate systems.

Professional Soil Classifier - Such person who by reason of his or her knowledge of soil classification acquired by professional education and practical experience, is qualified to engage in the practice of soil classification, as defined in Act No. 81-766, Alabama Legislature, Regular Session 1981.

Refusal - The point at which bedrock is encountered.

Renovation- The reconstruction of any premise served by an on-site sewage disposal system. This reconstruction includes any work for which a building permit is required by the local building jurisdiction.

Rejected Lot - Any lot that has been found unacceptable for the use of a proposed on-site sewage disposal system.

Residence - See dwelling.

Residential Structure - Shall mean a single-family dwelling.

Rippable - Rock that is sufficiently soft, thinly bedded or fractured so that excavation in it can be made by the conventional operation of trenching machines, backhoes, augers or small rippers and other equipment common to construction of small pipelines, sewer lines, dwellings and the like.

Rock - The consolidated or partially consolidated mineral matter or aggregate, including bedrock or weathered rock, which has one or more of the following characteristics: jointing, bedding planes, or strike and dip. Rock does not have the properties or structure of soil, and may be exposed at the land surface or be overlain by soil or saprolite.

Sanitary Sewer - The conduits, sewers, and all devices and appurtenances by means of which sewage is collected, pumped, treated and disposed.

Sanitary Station - A facility used for receiving and disposing of sewage from travel trailers, auto campers, and other recreational units holding tanks.

Saprolite - Material weathered from igneous or metamorphic rock, without soil structure, which is soft, loose, and friable in place and can be penetrated easily with an auger or backhoe.

Secondary Disposal Area - Area reserved for the duplication of the primary disposal area.

Septage - Sewage or a mixture of sewage, sludge, fatty materials, human feces and liquid removed during the pumping of a sewage tank.

Septic Tank - A horizontal water-tight tank or receptacle used as a reservoir for the purpose of receiving or depositing sewage, contents or drainage from water closet, lavatories, showers, bathtubs, clothes washing machines, kitchen sinks, grease traps, dishwashers, or other similar household appurtenances until anaerobic decomposition is to a considerable extent effected.

Sewage - The water-carried human, animal or vegetable wastes from residences, buildings, institutions, food service and industrial establishments, and other similar facilities.

Sewage Cleaner - A person engaged in the business of cleaning sewage tanks and who has a valid certificate of competency for such business as required by Act 659.

Sewage Tank - A watertight tank or receptacle used as a reservoir for the purpose of receiving, treating, or depositing sewage. Sewage tanks include, but are not limited to, septic tanks, holding tanks, portable toilets, privies, grease traps, aerobic treatment units and other similar sewage holding appurtenances.

Sewage Treatment Device - Shall mean septic tank, grease trap, or aerobic treatment unit.

Sinkhole - A depression in the topography without a surface outlet for drainage from the low point. Sinkholes are common in areas containing limestone and generally result from the collapse of solution cavities.

Soil - The naturally occurring, unconsolidated mineral and organic material of the land surface developed from rock or other parent material, which is less than or equal to 2.0 millimeters in size as measured in place. Soil consists of sand, silts, and clays or combinations of these textures and may contain larger aggregate materials such as rock or paralithic material, as well as variable amounts of naturally occurring organic materials. Soil includes O, A, E, B, and C horizons, as defined in the latest edition of National Soil Survey Manual of the USDA, Soil Conservation Service.

Soil Disposal Field - See disposal field.

Soil/Site Evaluation - The practice of investigating, evaluating, and reporting basic soil and site conditions which apply to on-site sewage disposal.

Soil Survey - The systematic examination of soils in the field or in laboratories, their description and classification, and the mapping of kinds of soil and the interpretation of soils according to their adaptability for various land use conducted according to the standards of the USDA, Soil Conservation Service.

Spa - A unit designed for recreational and therapeutic use which is not normally drained, cleaned, or refilled for each user. It may include, but not be limited to, hydrojet circulation, mineral baths, air induction bubbles, or some combination thereof. Terminology for a spa includes, but is not limited to, "therapeutic pool", "hydrotherapy pool", "whirlpool", "hot spa", "hot tub", etc.

Sponsor - See developer.

Standard Building Code - The latest edition of the Standard Building Code of the Southern Building Code Congress International.

Standard Plumbing Code - The latest edition of the Standard Plumbing Code of the Southern Building Code Congress International.

Subdivision - The portion of a lot, tract or parcel of land which is divided or re-subdivided, whether at one time or in stages, into two or more lots, excluding the remnant of the original lot, tract or parcel, for the purpose, whether immediate or future, of building development. This definition includes, but is not limited to, any area to be developed for use as a permanent site, whether for sale, lease or rental, for the placement or construction of single-family dwellings, commercial buildings, townhouses, condominiums, and other such multiple dwellings. The division of land into two or more lots through sale at public or private auction is considered an act of creating a subdivision for the purposes of this part.

Submitting Professional - Professional Engineer, Surveyor, or Professional Soil Classifier.

Surface Waters - All waters of any river, stream, watercourse, pond, lake, swamp or spring located partially or wholly within Jefferson County.

Surveyor - A person registered as a land surveyor with the State of Alabama Board of Registration for Professional Engineers and Land Surveyors and practicing under the Rules of Professional Conduct (Code of Ethics) experienced in, and has an understanding of, soil and geological and topographical conditions which may affect the operation of on-site sewage disposal systems.

Vicinity Map - A map which includes the region near or about a place and the proximity to prominent, permanent and established landmarks and which indicates correct road or street names and numbers and which is sufficiently accurate to locate the property without additional direction or assistance.

Water Closet - A type of closet or receptacle normally containing water into which human excreta will, in the course of proper or ordinary use thereof, fall or be deposited, and which equipped that such excreta will be washed or carried by water flowing through the same at appropriate intervals into a house sewer or other system of drainage or method used for the disposal of such excreta, sewage or contents in a sanitary manner.

Watering Station - A facility for filling the water storage tanks of travel trailer, auto camper, and other recreational units with potable water from an approved water system.

Wet Weather Season - That portion of the year receiving the highest amount of rainfall that is most unfavorable to the proper functioning of an effluent disposal field because of soil characteristics such as, but not limited to, shrink swell potential, perched or apparent high water table, or other such conditions. Generally, the wet season is December through April, but it may vary during a year in any one location depending upon soil type and amount of rainfall received during a particular period.

Withheld Lot - Any lot that has been excluded from approval by the Health Department for the use of an on-site sewage disposal system pending further evaluations.

1.12 Effective Date

These Regulations shall be in full force and effect immediately after promulgation and adoption by the Board.

Chapter 2

Application and Evaluation Requirements

2.1 Approval Required to Construct an On-Site Sewage Disposal System

No person shall obtain a building permit and/or begin site excavation, construction or installation of any structure requiring an on-site sewage disposal system until said person has made application for and received written approval from the Health Department to install an on-site sewage disposal system. This requirement applies to all development including lots in approved subdivisions which will utilize an on-site sewage disposal system.

2.2 On-Site Sewage Disposal Application and Accompanying Materials

2.2.1 When applying for approval to install a new on-site sewage disposal system, a fully completed application and a construction plan layout submitted in triplicate of the proposed system is required.

2.2.2 Application forms are provided by the Health Department and all submittals shall be on these forms.

2.2.3 An application fee as approved by the Board of Health shall be submitted by the applicant prior to the Health Department's processing of the on-site sewage disposal system application.

2.2.4 The on-site sewage disposal system application and construction plan layout shall be completed and signed by an Engineer, Land Surveyor, or Professional Soil Classifier, except for applications for conventional on-site sewage disposal systems submitted for approved subdivision lots. All applications shall be signed by the applicant.

2.2.5 The construction plan layout, as a minimum, shall contain a construction plan drawn to scale (maximum scale 1" = 50'; Large tracts of land may be submitted on a scale of 1" = 100' or 1" = 200' with construction details shown at 1" = 50') and shall indicate the following:

- a) Legal Description
- b) Lot Dimensions
- c) Location of proposed dwelling including decks, sidewalks, driveways, any other structures (existing or proposed) or improvements including, but not limited to garages, barns, swimming pools, retaining walls, gazebos, or any other similar structures.
- d) Any anticipated cut and/or fill.

- e) Layout of proposed on-site sewage disposal system including septic tank or aerobic treatment unit location and the primary disposal area shown on ground contour with the maximum and minimum depth indicated. If fill is required, the depth shall be indicated.
- f) Location of a secondary disposal area for repair. (i.e. 100% duplication area).
- g) Relative elevations and direction of slope, any surface drainage and direction of flow.
- h) Any wells on the proposed lot and any other well (in use or not) within one-hundred (100) feet of the proposed system.
- i) Location of all known testing including soil inspection pits and percolation tests.
- j) Location of all underground utilities such as gas, water, telephone, electric, cable T.V. and other similar lines.
- k) A vicinity map with existing landmarks indicating accurate location of the subject property if said property is other than a lot located in an approved subdivision.
- l) Any flood prone area. See 2.9.12 of these Regulations.
- l) Any areas with slope greater than twenty five (25) percent.
- m) Detailed architectural floor plans of the house may be required if house size, shape, number of bedrooms, etc. are in question.
- n) Any easements on the proposed lot. See Section 2.9.11 of these Regulations.
- o) Any other information as required by the Health Department in its sole discretion that may be necessary in evaluating the proposed on-site sewage disposal system.

2.2.6 Any omission of required information may result in the application and construction plan layout being returned for completion and/or delays in processing.

2.2.7 Additional requirements for non-residential structure application and construction plan layout.

- a) Floor plan of the proposed building to scale.
- b) Use of proposed building.
- c) Maximum and average number of persons that will occupy/use the building.
- d) Estimated peak and average sewage flow rates. The volumes of sewage for commercial, institutional and recreational establishments shall be computed as determined from Appendix A. Actual metered water usage data from similar

facilities may be used in lieu of Appendix A, if properly documented records are provided by the Submitting Professional.

- e) Parking lot details.
- f) Any other information as required by the Health Department in its sole discretion that may be necessary in evaluating the proposed on-site sewage disposal system.

2.2.8 Where a proposed premise is to be served by a potable water source other than an approved public source, the Health Department reserves the right to require water samples to be submitted and approved by the Health Department prior to approving an on-site sewage disposal application. Prior potable water supply approval shall be required in those cases where the Health Department in its sole opinion knows or suspects that unsafe or inadequate water supply may or does exist. Where in the opinion of the Health Department a safe or adequate water supply is not available, the on-site sewage disposal application shall be denied.

2.3 General Requirements for On-Site Sewage Disposal Systems

2.3.1 The proposed location for the on-site sewage disposal system shall give proper consideration to easements, drainage, topography, soil conditions, rock, groundwater, and other existing or anticipated site characteristics.

2.3.2 No system shall be installed in a drainage or other depressed area where water could collect or channel.

2.3.3 The acceptability of a lot or site to support an on-site sewage disposal system of the type and size as required by these Regulations shall be determined on the basis of certified soil test data, site conditions, and daily sewage flow quantity and characteristics.

2.3.4 Site conditions shall include, but not be limited to lot size, slope, drainage, restrictive soil layer elevation, rock outcropping, bedrock elevation, seasonal groundwater elevation, sinkholes, wells, surface drainage or flood prone areas.

2.3.5 The primary disposal field shall be sized in accordance with Appendix E of these Regulations. No residential dwelling on-site sewage disposal system shall have less than three hundred (300) linear feet of field lines.

2.3.6 The septic tank shall be sized in accordance with Appendix D of these Regulations.

2.4 Percolation Test Requirements for Residential Dwelling Applications

2.4.1 The percolation test data shall be certified by an engineer, land surveyor, or professional soil classifier. The seal or registration number of the submitting professional shall be applied to the test results and included in the application.

2.4.2 The Percolation test shall be performed in accordance with Appendix B of these Regulations.

- 2.4.3 The percolation rate shall be reported as the number of minutes required for the water surface to drop one inch (minutes per inch) in the test hole after the soil is saturated. Percolation tests results are considered informational and test results shall be considered with all other site conditions in determining site suitability for on-site sewage disposal.
- 2.4.4 The minimum number of percolation tests required shall be one per residential lot or dwelling. The percolation test shall be conducted in the proposed primary disposal area. The submitting professional certifying the test shall use his judgment in determining the need for additional tests to determine the suitability of the site. The Health Department may require additional testing when in the sole opinion of the Health Department; suitability of the site for on-site sewage disposal is in question.
- 2.4.5 The percolation test hole shall be dug to the depth of the proposed installation of the effluent disposal trenches as determined from results of the soil inspection pit. The depth of the percolation test hole shall not be less than twelve (12) inches or greater than thirty-six (36) inches, except as approved in writing by the Health Department.
- 2.4.6 All percolation tests shall be flagged and identified. The flagging and identification shall be in place when the Health Department evaluates the test.
- 2.4.7 When in the sole opinion of the Health Department the percolation tests results appear to be non representative, site evaluation of soil characteristics shall be used to determine suitability of the site for on-site sewage disposal.
- 2.4.8 All known percolation test results, dates, and locations shall also be reported in the On-Site Sewage Disposal System Application.
- 2.5 Soil Inspection Pit Requirements for Residential Dwelling Applications
- 2.5.1 The soil inspection pit data shall be certified by a engineer, land surveyor, or professional soil classifier. The seal or registration number of the submitting professional shall be applied to the data results and included in the application.
- 2.5.2 The minimum number of soil inspection pits shall be one per lot or dwelling. Additional soil inspection pits may be required if marginal or questionable soil and/or site characteristics are encountered. The Health Department may require additional inspection pits when percolation test results are nonrepresentational of actual soil conditions. The Health Department may require additional inspection pits when in the sole opinion of the Health Department, suitability of the site is in question or varying soil/site conditions exist.
- 2.5.3 The soil inspection pit shall be in the primary disposal area and in the area of the percolation test. Soil inspection pits in the secondary area may be required when in the sole opinion of the Health Department the primary area is considered marginal for on-site sewage disposal.
- 2.5.4 Soil inspection pits shall be five (5) feet deep or to refusal.

2.5.5 Inspection pits shall be described and documented vertically from top to bottom by horizons or layers. This description shall include the following:

- a) Depth of each horizon or layer; example: 0-6", 6-15", and 15-60".
- b) Color shall be indicated by Munsell color notation.
- c) Texture shall be described using United States Department of Agriculture (U.S.D.A.) textural classes. See Appendices P, P-1, and P-2 of these Regulations.
- d) Depth to bedrock.
- e) Depth to water at time of evaluation and depth to seasonal water table as indicated by drainage mottles.
- f) Depth to, and of, any impervious or highly restrictive layers.
- g) Any unusual feature or features including excessive stoniness, rockiness, rock out crops, concretions, pans, or extreme textural or color changes, including mottling.

2.5.6 Soil inspection pits shall be flagged and identified for easy location and safety.

2.5.7 It is recommended that soil inspection pits be dug by a backhoe. These pits shall be dug in such a manner as to allow safe and easy access to the soil profile. See Appendix Q of these Regulations.

2.5.8 Where the soil inspection pits are hand dug, such inspection pits shall be large enough to allow safe and easy access to the soil face to a depth of sixty (60) inches.

2.6 Percolation Test and Soil Inspection Pit Requirements for Non-Residential Structure Applications

2.6.1 Percolation test requirements:

- a) The percolation test data shall be certified by a engineer, land surveyor, or professional soil classifier. The seal or registration number of the submitting professional shall be applied to the test results and included in the application.
- b) Percolation test shall be performed in accordance with Appendix B of these Regulations.
- c) The minimum number of percolation tests shall be determined from Table 2.6.1 below. Where more than one percolation tests are required, they shall be evenly divided between the proposed primary and secondary areas. Where only one test is required, it shall be in the primary area.

Table 2.6.1

Estimated Sewage Flow GPD	*Minimum Number of Percolation Tests Required
500 or less	1
501 - 2000	2
2001 - 5000	3
5001 and up	4

* The Health Department may require more percolation test where marginal soil conditions exist.

2.6.2 Soil inspection pit requirements:

- a) Soil inspection pit data shall be certified by an engineer, land surveyor, or professional soil classifier. The seal or registration number of the submitting professional shall be applied to the data results and included in the application.
- b) Soil inspection pits shall be dug in accordance with Section 2.5 and Appendix Q of these Regulations.
- c) The minimum number of soil inspection pits shall be determined from Table 2.6.2 below. Soil inspection pits shall be evenly divided between the proposed primary and secondary areas. The minimum number of soil inspection pits shall be one in the primary and one in the secondary areas.

Table 2.6.2

Estimated Sewage Flow GPD	*Minimum Number of Soil Inspection Pits Required
500 or less	2
501 - 2000	4
2001 - 5000	6
5001 and up	8

* The Health Department may require more soil inspection pits where marginal soil conditions exist.

2.7 Wet Season Evaluation

- 2.7.1 Where the submitting professional or the Health Department has an indication by soil or site characteristics, experience, testing, previous test results, reports, or other information that a lot is unsuitable for on-site sewage disposal, the applicant, owner, developer or agent may request wet season evaluation of a lot by the Health Department.
- 2.7.2 Backhoe dug soil inspection pits shall be required for wet season evaluations.
- 2.7.3 At the sole discretion of the Health Department additional percolation tests may be required.
- 2.7.4 At the sole discretion of the Health Department monitoring wells may be required. See Appendix R of these Regulations.

2.8 Types of On-Site Sewage Disposal Systems

- 2.8.1 Conventional System: These systems shall consist of a standard septic tank(s) with either level header or serial distribution field lines which are eighteen (18) - twenty-four (24) inches wide and installed twenty-four (24) - thirty-six (36) inches deep in original soil. Field lines shall employ clean aggregate and utilize four (4) inch diameter perforated pipe and meet all requirements of Part 3.4 of these Regulations.
- 2.8.2 Non-Conventional Systems: These systems do not meet conventional standards, nor employ new or experimental technology. Examples include but shall not be limited to:
 - a) Shallow placement systems, less than twenty-four (24) inches in depth.
 - b) Pump systems with less than or equal to forty (40) feet of head
 - c) Eight (8) and ten (10) inch diameter fabric wrapped pipe
 - d) Use of five hundred (500) gallons per day, NSF Class I approved aerobic treatment units on residential dwellings.
 - e) Oversized disposal areas, two hundred (200) linear feet of field lines per bedroom and greater.
 - f) Alternating disposal areas
 - g) Systems utilizing four (4) foot centers between field lines
 - h) Field lines wider than twenty-four (24) inches.
 - i) Field lines narrower than eighteen (18) inches.

- j) Systems installed on slopes greater than twenty-five (25) percent.
- k) Chambered systems

2.8.3 Alternate or Experimental Systems: These systems shall introduce or employ new or experimental technology.

- a) The Health Department may consider proposals for an alternate or experimental system and in so doing not be restricted by the Regulations provided, when in the sole opinion of the Health Department the success of the system would provide satisfactory treatment and disposal of sewage waste or solve existing sewage problems.
- b) These systems shall require specific written Health Department approval.
- c) These systems shall be submitted by an engineer.
- d) The Health Department shall require adequate maintenance for any alternate or experimental system.
- e) Organic loadings for on-site sewage disposal systems utilizing aerobic treatment units shall be computed based on loading rates as specified in Appendix J of these Regulations.
- f) Examples of Alternate or Experimental systems include but shall not be limited to the following:
 - 1) Low pressure distribution
 - 2) Systems installed partially or wholly in fill material
 - 3) Non-residential aerobic treatment units
 - 4) Residential aerobic treatment units greater than five hundred (500) gallons /day
 - 5) Pump system with greater than forty (40) feet of head.
 - 6) Systems installed deeper than thirty-six (36) inches.
 - 7) Slow rate land treatment (spray irrigation*)
*Residential spray irrigation systems require a minimum of five (5) acres.
 - 8) Constructed wetland systems

2.9 Standards for Approval of Lots Utilizing On-Site Disposal Systems

The following standards shall be met where on-site sewage disposal systems are proposed except as permitted under alternate or experimental systems. See section 2.8.3 of these Regulations.

2.9.1 Lot Size

- a) For residential lots developed after February 1, 1979, the minimum allowable lot size shall be 15,000 square feet if an approved public water supply is available. When an individual well is the proposed source of water the minimum lot size shall be 20,000 square feet. These lots shall have suitable area to install a primary disposal system and provide an area of equal size for the duplication of the original system. Neither the primary nor the duplication area shall be within one hundred (100) feet of a well.
- b) For residential lots developed prior to February 1, 1979 that are less than 15,000 square feet shall each be evaluated on its own merits, see Section 2.9.2 of these Regulations. A lot served by an individual well must have a minimum of 20,000 square feet. Lots less than 15,000 square feet shall have suitable area to install the primary disposal system and provide an area of equal size for duplication of the original system, see Section 2.9.2 of these Regulations.

2.9.2 Factors to be considered in the evaluation of lots less than 15,000 square feet, as in Section 2.9.1 (b), are:

- a) Area of lot in square feet
- b) Size and location of residential dwelling
- c) Number of bedrooms
- d) Site conditions as in Section 2.3.4 of these Regulations
- e) Previous construction or existing structures on the site
- f) Location of driveways and parking areas
- g) Any other factors in the sole opinion of the Health Department

2.9.3 No property shall be improved or developed in excess of its capacity to properly absorb sewage effluent in the quantities and by the means provided by these Regulations.

2.9.4 No lot shall be altered in such a manner that the existing on-site sewage disposal system or secondary area would be adversely affected or in a manner that will make the lot smaller than the stated accepted minimum size.

- 2.9.5 The lot size for non-residential structures shall be large enough for primary and secondary disposal areas as required by these Regulations.
- 2.9.6 Percolation rates shall be between five (5) minutes per inch (mpi) and sixty (60) mpi. Other rates may be acceptable but shall require additional evaluation and may require the use of an alternate or experimental system.
- 2.9.7 For soil textural classifications see Appendix P of these Regulations.
- a) Type 1- Sand, loamy sand, and sandy loam are considered to be slightly limited soil materials for on-site sewage disposal systems.
 - b) Type 2- Loam, sandy clay loam, silt, and silt loams are considered to be moderately limited soil material for on-site sewage disposal systems.
 - c) Type 3- Sandy clay, silty clay, clay loam, and Type 4- clay are severely limited soil materials for on-site sewage disposal systems.
- 2.9.8 Sites for primary and secondary disposal areas shall not have ground water or seasonal ground water elevations within eighteen (18) inches of the disposal trench bottom. This elevation may be determined by actual ground water observation or by the indication of soil characteristics such as mottling, concretions, color etc.
- 2.9.9 Sites for primary and secondary disposal areas shall not have bedrock, or any impervious layer such as certain clays and clay intermixed with broken shale within 18 inches of the disposal trench bottom. Boulders and soft sandstone which are capable of being removed or ripped with conventional septic tank installation equipment shall not be considered as being bedrock, but may be considered restrictive to water flow.
- 2.9.10 Sites for primary and secondary disposal areas on sloping terrain.
- a) For a conventional system maximum slope shall be twenty-five (25) percent.
 - b) For alternate or experimental systems the maximum slope shall be forty (40) percent.
- 2.9.11 Easements and Right-of-Ways
- a) Easement or right-of-way areas for underground utilities, surface or subsurface drainage areas shall not be used in computing lot sizes or as location for individual water supplies or on-site sewage disposal systems.
 - b) Easements or right-of-ways for overhead utilities may be used in computing lot sizes or as location of individual water supplies or on-site sewage disposal system if the holder of such easements or right-of-way areas specifically grants such usage in writing, a copy of which shall be included with the application.
 - c) Easements or right-of-way for roads or streets or thoroughfares shall not be used in computing lot sizes.

- d) Other easements, such as reservoir easements, shall not be used in determining the minimum lot size unless this meets the requirements established by the holder of that easement; however, the on-site sewage disposal system must meet all requirements of these Regulations.

2.9.12 Flood Prone Areas

- a) No lot shall be approved which is located wholly within a flood prone area.
- b) When a lot is located partially within a flood prone area, only that portion of said lot not within the flood prone area may be considered for approval. That portion of the proposed lot located within the flood prone area shall not be used in computing the usable land area for purpose of lot sizing.

2.9.13 Wells used as the source of water supply for individual lots shall not be located in a flood prone area.

2.9.14 Where all or part of the on-site sewage disposal system including the secondary disposal area is proposed to be installed on property other than where the sewage originates, an easement in perpetuity as recorded in a covenant to run with the land will be required. The easement shall be of sufficient area to permit access, construction, and maintenance of the on-site sewage disposal system.

2.10 Health Department Response to Application

2.10.1 After evaluation of the information submitted and investigation of site conditions, the Health Department shall:

- a) Approve, in writing, the construction plan layout and release said lot or lots for building permits; or:
- b) Approve, in writing, with necessary terms or conditions, the construction plan layout and release said lot or lots for building permits. These terms or conditions may include, but shall not be limited to:
 - 1) Septic tank size and location
 - 2) Disposal area size, shape, location, depth and fill material if required.
 - 3) Maximum sewage flow
 - 4) Low water use fixtures
 - 5) Pumps, check valves, force mains, sumps, emergency relief lines, high water alarms, maintenance manholes
 - 6) Additional inspections, if needed
 - 7) Preconstruction meeting or meetings

- 8) Any other conditions in the sole opinion of the Health Department.
- c) Recommend in writing any additional test or changes needed before approval may be granted; or
- d) Disapprove in writing with reasons therefore that the lot is not suitable for on-site sewage disposal.

2.10.2 Unless prior written approval is obtained from the Health Department, the on-site sewage disposal system shall be constructed as required by Paragraph 2.10.1 a) or b).

2.11 Approval Required to Use Existing On-Site Sewage Disposal System

2.11.1 Before a building permit can be issued for renovation of a premise, which is served by an on-site sewage disposal system, applicant must obtain written approval to use the existing on-site sewage disposal system from the Health Department. This approval is to insure that the integrity of the on-site sewage disposal system is not compromised by the proposed renovations, the on-site sewage disposal system is properly sized for the proposed renovations, and that no malfunction is occurring. No construction is to begin without this approval.

2.11.2 Before a permit can be issued to connect a mobile home to an existing on-site sewage disposal system, applicant must obtain a written approval from the Health Department to use the existing on-site sewage disposal system. This does not apply to mobile home/manufactured homes located in parks approved, permitted, and regularly inspected by the Health Department, see Chapter 7 of these Regulations.

2.11.3 If the septic tank has not been cleaned within five years of the date of application to use the existing on-site sewage disposal system, the septic tank shall be cleaned prior to any approval from the Health Department.

2.11.4 The existing on-site sewage disposal system shall be evaluated for upgrade based upon the following conditions:

- a) No part of the on-site sewage disposal system may be located under the existing or proposed structure. Exception to this would be where the addition is on piers (no enclosed foundation) and allows easy access to the sewage tank for cleaning and maintenance.
- b) For on-site sewage disposal systems with a malfunction, positive outlet, or encroachment, repairs shall be required.
- c) For residential dwellings with a net loss or no net gain in the number of bedrooms, no upgrade shall be required. Exception shall be that any septic tank constructed of concrete blocks, metal, or which is not watertight shall be upgraded to a septic tank which meets the requirements of these Regulations.

- d) For residential dwellings with a net gain in the number of bedrooms, an upgrade shall be required to meet the current Regulations for the structure that the on-site sewage disposal will serve.
- e) For non-residential structures the determination for approval of upgrade shall be based on projected water usage for the structure that is to be served.

2.12 Hardship Variances

2.12.1 Hardship variances may be granted by the Health Department under certain conditions. All hardship variances shall be medical in nature and will require the following information be submitted:

- a) A letter from the property owner requesting the variance and detailing the nature of the hardship.
- b) A letter from a physician certifying the medical aspect of hardship.
- c) Any supporting materials or materials requested by the Health Department.

2.12.2 Approval or disapproval of the request will be made in writing with conditions of approval or reasons for disapproval.

2.13 Approval Void After One Year

2.13.1 Approval to construct an on-site sewage disposal system shall be valid for one year from date of issuance.

- a) Any person applying for a building permit on a lot whose permit to construct an on-site sewage disposal system approval has expired shall resubmit all the necessary information as if the lot had never been approved.
- b) If a building permit was issued in the year after the approval to construct an on-site sewage disposal system was issued, then the approval to construct an on-site sewage disposal system is valid for the length of the valid building permit.

2.13.2 Previously approved lots, which are resubmitted for approval shall be re-approved when possible. Factors which may effect re-approval are, but are not limited to the following:

- a) Changes in site conditions, due to excavation, drainage, etc.
- b) Changes to the original proposal (lot size, house size, number of bedrooms, etc.)
- c) Additional or new information
- d) New test results

2.14 Zoning Approval Not Implied

Approval of any lot by the Health Department for the installation of an on-site sewage disposal system does not constitute or imply approval by the County or appropriate municipal agency having zoning or other jurisdiction.

2.15 Revocation of Approval

2.15.1 When any lot has been approved, such approval may be revoked when:

- a) In the sole opinion of the Health Department, conditions of any lot have so changed, or in the actual use of on-site waste disposal system on other lots in vicinity of subject lot has shown that the use of on-site sewage systems on such lot would become a menace to the public's health.
- b) The subject lot is not being developed in accordance with provisions of these Regulations or conditions of approval.
- c) Information submitted for approval was erroneous or was falsified by the applicant or submitting professional.
- d) New information is discovered showing the site to be unsuitable for on-site sewage disposal.
- e) An on-site sewage disposal system is not being or has not been installed as approved by the Health Department.

Chapter 3

Installation and Inspection Requirements

3.1 Permit Required to Install an On-Site Sewage Disposal System

No person shall begin the installation or construction of any new on-site sewage disposal system until the owner has made application for and received a permit to construct an on-site sewage disposal system from the Health Department, see Part 2.1 of these Regulations. This requirement shall apply to all developments, including lots in approved subdivisions which will utilize on-site sewage disposal systems.

3.2 Inspection and Approval Required for Use

3.2.1 The Health Department may make inspections during construction to determine that compliance has been made with the approved construction layout, conditions of approval, and these Regulations. The installation shall not be covered until approval, in writing, has been obtained from the Health Department.

3.2.2 Once an on-site sewage disposal system has been built, but prior to use, the Health Department may make additional inspections to assure that the system is not damaged by grading or construction activities.

3.2.3 No structure requiring an on-site sewage disposal system shall be occupied or used for any residential or non-residential purpose until a permit for use has been issued by the Health Department.

3.2.4 Conditions of approval required by the Health Department shall be in compliance prior to issuance of a permit for use. The Health Department shall determine, in its sole discretion as to the extent to which the on-site sewage disposal system has met conditions of approval and whether a permit for use may be issued.

3.2.5 The Health Department may issue a permission to cover which will allow an installer to cover existing work. This permission to cover is not a permit to use. Further inspections may be required and a permit to use shall be required prior to occupancy. In certain cases uncovering work already covered may be required.

3.3 Location and Minimum Horizontal Distance Clearance of On-Site Sewage Disposal System

3.3.1 The following table specifies minimum horizontal clearance for the item listed in the table and the septic tank and the disposal field.

Table 3.3.1

	Sewage Tank (ft)	Disposal Field (ft)
Individual Water Supply (where not prohibited)	100	100
Property Lines	5	5
Potable water lines and all other utility lines	5	5
Dwellings	5	10*
Surface waters, lakes, ponds creeks and rivers	50	50
Distance from intake when used as a potable water supply	100	100
In-ground swimming pools (as measured from excavation)	15	15
Natural or man-made drainage	15	15
Sinkhole	300**	300**
Retaining walls and vertical cuts	15	15

* Except where finished grade of field lines are below footing grade, 5 feet horizontal clearance is permissible.

**Unless the sponsor submits a report prepared by a qualified geologist which specifically states that there is no danger of contamination of ground water aquifers or of further enlargement of the sinkhole.

3.3.2 No underground potable water lines; utility lines, pipes, or cables shall be installed across, through or under the primary or secondary disposal areas, see Table 3.3.1 of these Regulations for horizontal clearance distances.

3.3.3 The primary and secondary disposal areas for the sewage tank and soil disposal field shall be selected and maintained so that they are free from encroachments by accessory buildings, additions to main buildings, swimming pools, etc., and heavy equipment during construction. In addition, the area under driveways may not be used as primary or secondary disposal areas, in whole or in part, unless specifically approved by the Health Department in writing.

3.4 Construction and Installation of the On-Site Sewage Disposal System

- 3.4.1 It shall be the duty and responsibility of the certified installer to install each new on-site sewage disposal system in accordance with these Regulations and the special conditions contained in the permit to construct. The certified installer shall contact the Health Department prior to construction of the on-site sewage disposal system, in the event problems arise that prevent the system from being installed as shown on the plot plan. An approved copy of the permit to construct and construction plan layout shall be on the site during installation of the on-site sewage disposal system.
- 3.4.2 The pipe size from building drain to septic tank inlet (including ell) shall not be less than three (3) inches in diameter (inside diameter) and shall meet the plumbing code requirements of the appropriate jurisdiction.
- 3.4.3 Sewage tanks shall be installed on undisturbed or well-compacted soil and shall be level from side to side and end to end. All sewage tanks installed with lids deeper than twelve (12) inches from finished grade shall have a minimum of eighteen (18) inch diameter manhole flush with finished grade on inlet and outlet sides.
- 3.4.4 Schedule 40 PVC pipe or equivalent not less than three (3) inches inside diameter shall be used from the sewage tank outlet to an area not less than twelve (12) inches onto undisturbed soil.
- 3.4.5 The joint connection from the sewage tank outlet tee branch to the effluent or header line shall consist of one of the following:
- a) When connecting to a three (3) inch diameter tee, the connection shall consist of a four (4) inch diameter corrugated pipe pushed a minimum of twenty-four (24) inches onto the three (3) inch diameter Schedule 40 PVC pipe and secured with a single adjustable stainless steel band.
 - b) When connecting to a four (4) inch diameter tee, the connection shall consist of the bell end of a section of four (4) inch diameter corrugated pipe pushed over the four (4) inch diameter Schedule 40 PVC pipe from the septic tank tee and secured with an adjustable stainless steel band. This connection shall be further accomplished by using two (2) twenty (20) inch sections of split four (4) inch diameter non-perforated, corrugated plastic pipe sections extended ten (10) inches on each side of the connection point. The first twenty (20) inch section placed with the split upward, and the second twenty (20) inch section placed with split downward and secured with two adjustable stainless steel bands, see Appendix L of these Regulations.
- 3.4.6 The conventional disposal field shall be of the level header or serial distribution system, depending on the site characteristics.
- a) A level header system may be used where the ground area to be utilized for the disposal field does not exceed a maximum fall of twelve (12) inches, see Appendix G of these Regulations

- b) A serial distribution system shall be installed where the ground area to be utilized for the disposal field exceeds a fall of twelve (12) inches between each disposal line, see Appendices F-1a and F-1b of these Regulations
- c) Crossovers or spillovers shall not be counted when determining total linear footage of field lines.

3.4.7 Any header lines installed shall be at least four inches in diameter and shall be laid level. The header line shall be of durable material with tight joints. Filter material may be used under the header line. Any header line installed under paving, parking or other areas of vehicular traffic shall be at least Schedule 40 PVC.

3.4.8 The bottom of each trench shall be level within a maximum grade of two (2) inches per one hundred (100) feet.

3.4.9 The trench shall follow approximately the ground surface and contours so that variation in trench depth shall not exceed twelve (12) inches.

3.4.10 Unless otherwise approved or specified by the Health Department, the maximum depth of a trench shall be thirty-six (36) inches and the minimum depth shall be twenty-four (24) inches.

3.4.11 Unless otherwise approved or specified by the Health Department, there shall be a minimum of five (5) feet of undisturbed earth between adjacent trenches.

3.4.12 Care must be exercised in constructing crossover or relief lines to ensure an undisturbed block of earth remains between the trenches. The trench for the relief pipe, where it connects with the preceding absorption trench, shall not be dug deeper than the top of the gravel, see Appendix F-2 of these Regulations. The relief line shall be at least four (4) inches lower than the invert of the septic tank outlet. Crossovers shall be perpendicular (approximately) to the absorption trenches, unless otherwise approved by the Health Department. Spillovers in-line with the absorption trench are not acceptable without specific approval of the Health Department.

3.4.13 All systems utilizing serial distribution shall be designed with a minimum of one crossover or relief line for trenches less than or equal to one hundred (100) feet in length, see Appendix F-1A of these Regulations. A minimum of two crossover or relief lines for trenches greater than one hundred (100) feet in length except where otherwise approved by the Health Department, see Appendix F-1B of these Regulations.

3.4.14 All trenches and effluent disposal lines in the soil disposal area shall conform to the following:

- a) Minimum width of trenches shall be eighteen (18) inches, except as otherwise approved by the Health Department.
- b) Maximum grade of effluent distribution lines shall be two (2) inches per one hundred (100) feet.

- c) Minimum diameter of effluent disposal pipe shall be four (4) inches internal diameter (I.D).
- d) Effluent disposal lines shall be:
 - 1) Constructed of rigid or semi-rigid plastic pipe
 - 2) In lengths no longer than ten (10) feet
 - 3) Perforated with at least three-fourth (3/4) inch openings on four and one-half (4-1/2) inch centers (approximately) and a minimum of three rows.
- e) Effluent disposal lines and filter material shall be protected by the use of building paper, straw, or similar materials approved by the Health Department.
- f) Filter material shall be of crushed stone, gravel, slag, or material of equivalent strength and durability and shall be no less than one fourth-inch (1/4) nor more than two and one-half (2-1/2) inches in size. Filter material shall be free of dust or very fine particles.
- g) Effluent disposal lines shall have a minimum of two (2) inches of filter material cover over top of pipe and a minimum of six (6) inches of filter material below the pipe.

3.4.15 Trenches shall not be excavated when the soil is wet enough to smear or compact easily. If the soil is saturated to such an extent that it appears to be sealing, the installer shall notify the Health Department and request assistance before proceeding with the installation. Severe smearing or failure to notify the Health Department of such conditions may void the approval or cause the installation permit for use to be denied.

3.4.16 The disposal area shall be protected against vehicular traffic prior to, during, and after on-site sewage disposal system installation. If specifically approved in writing by the Health Department, traffic lids as prescribed in Section 5.2.11 of these Regulations may be used and traffic may be allowed to cross the septic tank.

3.5 Additional Requirements for Non-Residential Structures

3.5.1 Low water-use fixtures are required for all non-residential structures which utilize on-site sewage disposal.

3.5.2 Maintenance manholes are required over each end of the sewage tank and one manhole over the pump sump for all non-residential structures.

3.6 Residential Dwellings Utilizing Separate Disposal Lines

3.6.1 A separate effluent disposal line for washing machine waste may be installed. The separate effluent disposal line shall equal to a minimum of twenty (20) percent of the

total effluent disposal line footage required but in no case shall the washer line be less than seventy-five (75) feet or the remainder of the system less than three hundred (300) feet. See Table 3.6.1 for examples of required footage.

Table 3.6.1

EXAMPLES

Bedrooms	Required Footage	Length of Washer Line	Remaining	Total
2	300	75	300	375
3	375	75	300	375
3	450	90	360	450
3	525	105	420	525
4	500	100	400	500
4	600	120	480	600

3.6.2 Separate grease traps and effluent disposal lines are not recommended by the Health Department for residential use.

3.7 Pump Systems

3.7.1 Requirements for on-site sewage disposal systems utilizing a pump. The basic parts of a pump system are: An Underwriters Laboratory (U.L.) approved sewage ejector pump, pump sump, force main, check valve, high water alarm, gravity flow emergency relief.

- a) Only U.L. approved sewage ejector pumps shall be allowed. Pumps shall be properly sized by the pump manufacturer or representative, an engineer, or other qualified individual to insure the pump has adequate capacity to distribute effluent to the primary or secondary disposal area.
- b) The pump sump shall have a minimum capacity of 230 gallons and shall be constructed as required by Parts 5.6 and 5.7 of these Regulations. Any pump sump installed with the lid deeper than twelve (12) inches from finished grade shall have a minimum of eighteen (18) inches diameter manhole flush with finished grade.
- c) The force main shall be constructed of proper diameter schedule 40 PVC or equivalent. The diameter of the force main shall be sized by the pump manufacturer, engineer, or other qualified individuals.
- d) A check valve shall be properly installed in the force main between the pump and the disposal field. The valve shall be within twenty-four (24) inches of the pump outlet and within the pump sump.
- e) A high water alarm shall be installed in a conspicuous location preferably in or on the building structure. Alarms may be audible, visual, or both. Pumps and alarms shall be inspected and tested in operation prior to issuance of the permit to use.

f) Every pump system shall have a means of gravity flow emergency relief. Approvable methods are as follows:

- 1) A fifty (50) to one hundred (100) foot emergency relief line shall be installed in an area where it is reasonably certain that ground water would not create a malfunction of the system. Conventional field line and/or fabric-wrapped pipe installed in accordance with these Regulations shall be acceptable. Inlet ells and outlet tees are not required from the sump to the emergency relief line, however, three (3) or four (4) inch diameter schedule 40 PVC pipe shall be required from the pump sump outlet to an area no less than twelve (12) inches onto undisturbed earth.
- 2) An enlarged capacity pump sump, 1000 gallon septic tank as a minimum, shall be used as a pump sump and set up to have approximately 800 gallons of emergency storage capacity.
- 3) If elevations allow, a field line associated with the primary disposal field may be connected for emergency relief provided at least fifty (50) to one hundred (100) feet of field line is available.

3.7.2 The Health Department shall observe the pump in operation and discharging to the field lines prior to issuance of the permit to use.

3.8 Installation of Curtain Drains

3.8.1 The Health Department may require the installation of curtain drains when there is a possibility of laterally moving ground water affecting an on-site sewage disposal system.

3.8.2 When curtain drains are required by the Health Department as a condition of approval, they shall be constructed by a certified installer.

3.8.3 Curtain drains shall be considered as part of the disposal system and shall be inspected by the Health Department.

3.8.4 A typical curtain drain is shown in Appendix S of these Regulations.

3.9 Sanitary Pit Privies

3.9.1 A pit privy for new construction shall be approved only for installation in remote locations but in no case shall such installations be permitted for buildings with indoor plumbing or served by water under pressure.

3.9.2 A pit privy shall be located in accordance with the requirements of Sections 2.9.8, 2.9.9, and 3.3.1 of these Regulations.

3.9.3 The excavation or pit shall be:

- a) At least three and one-half (3-1/2) feet square.
- b) Five (5) feet deep below ground surface.
- c) Fitted with a restraining curb to prevent caving and with adequate openings to allow liquids to seep into surrounding soil.
- d) Located or constructed on a mound to provide drainage of roof water away from the pit to prevent erosion or caving.

3.9.4 The floor shall:

- a) Cover the pit tightly to prevent entrance of flies.
- b) Rest on a suitable foundation to prevent settling, sagging, erosion, or caving.

3.9.5 The foundation, floor, and seat riser shall be of concrete or other impervious materials that will not warp, crack or develop openings sufficiently large for the entrance of insects or leakage of excreta. The floors and seat risers shall not be constructed of wood.

3.9.6 The seat riser shall be:

- a) Fitted with a seat and a self-closing cover to effectively prevent the entrance of flies when privy is not in use.
- b) Vented to a point above the roofline.
- c) Joined to the floor forming a water and insect tight seal.

3.10 Portable Toilets

3.10.1 Approval for the installation and use of portable toilets sites, construction sites, revivals, special events, encampments and other temporary locations where numbers of people congregate for periods of short duration shall be required. Construction, installation, maintenance, and utilization shall conform to requirements of this Part.

3.10.2 The number of portable toilets provided shall be determined in accordance with Appendices I-1, I-2, and I-3 of these Regulations.

3.10.3 Portable toilets shall be portable and self-contained.

3.10.4 The waste receptacle shall be:

- a) Non-absorbent
- b) Acid resistant
- c) Non-corrosive

- d) Easily cleanable material
- e) Water-tight
- f) Fly tight.

3.10.5 Floors and interior walls shall have a nonabsorbent finish and be easily cleanable.

3.10.6 All units shall be adequately provided with toilet tissue.

3.10.7 All units for male use shall be provided with urinals.

3.10.8 All units shall be kept clean and deodorized to prevent a nuisance due to odor, flies, mosquitoes, or rats.

3.10.9 All units shall be provided with a self closing door and a privacy latch.

3.10.1 A maintenance contract for pumping must be provided, at the time of application, with a person who holds a valid certificate of competency as required in Chapter 8 of these Regulations.

3.11 Alternate or Experimental Systems

3.11.1 The Health Department may consider proposals submitted by an Engineer, for an alternate or experimental on-site sewage disposal system as outlined in Section 2.8.3 of these Regulations.

3.11.2 Any new device, equipment, disposal method, technique, or technology shall be subject to Health Department policy or requirements until applicable regulations are promulgated.

3.11.3 No alternate or experimental on-site sewage disposal system shall be installed without a permit to construct. The Health Department may make inspections during installation to determine that the system is being installed as permitted.

3.11.4 The installation shall not be covered until approval, in writing, has been obtained from the Health Department.

3.11.5 The applicant shall provide assurance that adequate maintenance is and shall be continuously available for any aerobic treatment unit after installation.

3.12 Abandonment of Septic Tank

When use of a septic tank is discontinued, the septic tank shall be abandoned and its further use prohibited. An abandoned septic tank shall be pumped out, then the bottom shall be opened or ruptured to prevent the tank from retaining water and finally the tank shall be filled with a suitable material.

3.13 Grease Traps

Grease traps shall be required for all commercial establishments which prepare or serve food. Grease traps shall be not less than 1000 gallons in capacity and shall be constructed as shown in Appendix T of these Regulations. Grease traps are not recommended for residential use.

Chapter 4

Maintenance and Repair of On-site Sewage Disposal Systems

4.1 Maintenance Responsibility

Any person owning or controlling property upon which an on-site sewage disposal system is installed shall be responsible for maintenance of the system. The following criteria shall be met to assure proper system maintenance.

- 4.1.1 Systems shall be maintained at all times to prevent seepage of sewage or effluent to the surface of the ground or contamination of the ground waters. Ground waters include both surface and subsurface waters.
- 4.1.2 Sewage tanks are recommended to be checked at least once every three to five years, or once a year if garbage grinder discharges to the tank, to determine if sludge and scum needs to be removed.
- 4.1.3 Grease traps shall be cleaned as often as necessary to maintain at least fifty (50) percent of retention capacity.
- 4.1.4 Aerobic treatment units shall be maintained annually by a manufacturer trained representative or person completely knowledgeable of the unit to be serviced and in the business of servicing aerobic units.

4.2 Requirements for Repair or Modification of Soil Disposal Field

- 4.2.1 Before any repairs or additions to the soil disposal field of any on-site sewage disposal system may be undertaken, a permit to repair shall be obtained from the Health Department to make repairs or additions to said soil disposal field. This requirement may be fulfilled provided the owner of the on-site sewage disposal system which is to be repaired completes the waiver form as presented in Appendix N of these Regulations. All portions of this form shall be completed and shall be good for conventional on-site sewage disposal system repairs only.
- 4.2.2 After repairs or additions to any soil disposal field have been completed but prior to covering, the same shall be inspected and construction approved in writing by the Health Department.
- 4.2.3 Repairs to crossovers associated with disposal fields may be made without written permit from the Health Department provided the installer notifies the Health Department by telephone prior to the beginning of said crossover repairs and said repairs are not covered for a period of one hour after repairs are completed.
- 4.2.4 No swimming pool shall be constructed on any lot upon which an on-site sewage disposal system has been installed until property owner has verified that installation of

the swimming pool will not encroach on the primary or secondary disposal areas. If the swimming pool would encroach on the existing primary or secondary disposal areas pool construction shall be allowed only if adequate area may be designated to replace that part of the primary or secondary disposal area which will be encroached upon. Any repairs or modifications to the existing on-site sewage disposal system shall be performed in compliance with Part 4.2 of these Regulations.

- 4.2.5 Secondary disposal areas shall remain free of encroachments until such time as the on-site sewage disposal system is abandoned and the structure is connected to public sewer.
- 4.2.6 No residence served by an on-site sewage disposal system after completion of repairs or modifications to said system shall have less than three hundred (300) total linear feet of field lines in service to the residence. The Health Department in its sole discretion may allow less footage where it is physically impossible due to lot size or where it has been proven by previous use that less than three hundred (300) linear feet of field lines has functioned satisfactorily.
- 4.2.7 All on-site sewage disposal system repairs or modifications shall meet the requirements of these Regulations, unless prior written approval is obtained from the Health Department. No repair requiring non-conventional or alternate means shall be made without specific approval from the Health Department.
- 4.2.8 The Health Department may grant a variance from a specific provision of these Regulations in a particular case, subject to appropriate conditions, where an existing sewage disposal system is malfunctioning or where there exists the danger that existing systems will fail, thereby creating problems of public health significance.

4.3 Requirements of Cleaning and Repairing Septic Tanks

4.3.1 Information required:

- a) Persons engaged in the cleaning or maintaining on-site sewage disposal systems shall, prior to cleaning any on-site sewage disposal system, notify the Health Department and provide the following information:
 - 1) Address of sewage tank to be cleaned.
 - 2) Date sewage tank is to be cleaned.
 - 3) Time sewage tank is to be cleaned.
 - 4) Owner of sewage tank.
 - 5) Where the sewage taken from tank is to be disposed.

Sewage tank cleaning which occurs after normal work hours of the Health Department shall be reported on the next Health Department workday.

Sewage tank cleaning associated with mortgage request or permission to use applications shall be scheduled during normal work hours, twenty four (24) hours in advance to insure that a Health Department inspector is on site during cleaning.

- b) The sewage cleaner shall record on forms provided by the Health Department the following information and shall submit said forms to the designated employee at the approved disposal sites when sewage wastes are disposed.
 - 1) The Certificate of Competency number.
 - 2) Address or addresses of origin of sewage waste collected.
 - 3) Type of facility cleaned.
 - i) Septic tank
 - ii) Grease trap
 - iii) Other type of on-site sewage disposal tank.
 - 4) Date facility cleaned.
 - 5) Volume of sewage wastes disposed.
 - 6) Time sewage tank cleaned.
 - 7) Name of sewage tank cleaner.
 - 8) Time sewage disposed.
 - 9) Bacteria: active_____ inactive_____
 - 10) Water level: correct_____ flooded_____
- c) If any cleaner or installer undertakes to make repairs to any tank in connection with and related to cleaning same, he shall report to the Health Department within five days from date of said repairs the following information:
 - 1) The address of the facility repaired.
 - 2) Date and time the facility is repaired.
 - 3) The nature of the repairs.

4.3.2 Sewage Tank Openings

- a) The cleaner shall cause any tank that has been cleaned to remain open for a period of time not less than one hour from the time said cleaner notifies the Health Department of the time the tank is to be cleaned.

- b) The cleaner shall at the time of cleaning of tank open the tank in such a manner so as to allow visual inspection of all compartments and the inlet and outlet fixtures.
- c) The inlet, outlet, and baffle of the septic tank shall be inspected to determine if repairs to same are needed. The cleaner if authorized by the owner, lessee, or person responsible shall make the necessary repairs before placing covers on the septic tank after cleaning. If the cleaner is not authorized by the owner, lessee, or person responsible to make the repairs, he shall include such information in the report required in Paragraph 4.3.1b of these Regulations.

4.3.3 For the purposes of this Part, the term tank, whether septic, sewage, or other, includes any closed pipe downstream from the tank outlet but does not include any of the soil disposal field or crossovers.

4.3.4 No person shall be allowed to clean tanks unless proof has been furnished satisfactory to the Health Department that said person:

- a) Operates suitable and adequate equipment, and
- b) Has obtained permission in writing from the appropriate governmental agency or unit controlling ultimate sewage disposal for the dumping of sewage into a sewage treatment facility or sewer system, and
- c) Has a certificate of competency as required in Chapter 8 of these Regulations.

4.4 Disposal of Sewage

No sewage shall be disposed of by any person except in a manner and at a disposal site approved by the Health Department, Jefferson County Engineering Department, or the State of Alabama Department of Public Health.

4.5 Sewage Tank Cleaning Truck Requirements

4.5.1 All sewage tank cleaning trucks shall have a minimum capacity of 1500 gallons.

4.5.2 All openings on the cleaning truck's carrier tank and piping shall be sealed to prevent leaks or spillage.

4.5.3 A sign with letters at least six (6) inches in height shall be displayed on each side of the truck showing the name, address, telephone number, and Health Department permit number. The Health Department permit sticker shall be conspicuously displayed on the carrier tank behind the driver's door.

4.5.4 The carrier tank used for collecting, removing, and transporting the contents of the sewage tanks shall be conspicuously and permanently labeled "FOR SEWAGE ONLY" at or near the inlet and outlet valves of the tank. This lettering shall be at least three inches in height. The use of the carrier tank for any other purpose is prohibited.

Chapter 5

Septic Tanks and Grease Traps

5.1 General Design Requirements for Septic Tanks

- 5.1.1 Design of the septic tank shall be such as to assure uniform horizontal flow throughout its entire length, permitting adequate retention and access for cleaning.
- 5.1.2 Each tank shall be designed so that they shall not collapse or rupture when subjected to anticipated earth and hydrostatic pressures when the tanks are either full or empty.
- 5.1.3 Each tank shall have no less than two (2) compartments. Where only one tank is used, the baffle forming the compartments shall be so located that the inlet compartment shall comprise two thirds (2/3) of the effective liquid capacity.
- 5.1.4 The design capacity of a tank shall be as specified and approved by the Health Department, but shall not be less than two (2) times the estimated daily sewage flow. For residential dwellings the design capacity shall be determined in accordance with Appendix D of these Regulations.
- 5.1.5 The length of the tank shall be one and one-half (1-1/2) to two (2) times the width. The minimum inside width of a septic tank shall not be less than three (3) feet.
- 5.1.6 The minimum effective liquid depth of a septic tank shall be three (3) feet and the maximum effective liquid depth shall be six (6) feet. Greater liquid depths shall require special consideration and approval by the Health Department.
- 5.1.7 A minimum air space of eight (8) - twelve (12) inches shall be provided between the liquid surface and the underside of the top of the tank.
- 5.1.8 The tank's inlet ell or tee and an outlet tee shall be constructed of Schedule 40 PVC or equivalent. The inlet ell or tee shall extend at least eighteen (18) inches below the water level. The invert of the outlet tee shall be at least three (3) inches below the invert of the inlet ell or tee and shall extend at least six (6) inches above and eighteen (18) inches below the water level. A special outlet structure may be proposed by an Engineer for consideration by the Health Department for special projects or for standard usage by the septic tank manufacturer or installer.
- 5.1.9 The baffle forming the two (2) compartments shall have an opening four (4) inches wide extending the width of the baffle and located twelve (12) inches below the water level measured to the top of the opening. Allowance shall be made for adequate support of the upper portion of the baffle. A space of two (2) inches shall be provided between the top of the baffle and the underside of the tank cover. Two (2) inch by four (4) inch openings shall be provided in bottom corners for the baffle wall.

5.2 Tanks Constructed of Concrete

- 5.2.1 Septic tanks built of concrete shall be pre-cast or poured in place, see Appendix O of these Regulations.
- 5.2.2 Concrete septic tanks shall be designed by mix and water-cement ratio for a minimum unit compressive strength of 3000 pounds per square inch at twenty eight (28) days of curing.
- 5.2.3 Concrete septic tanks shall be watertight, free of voids or pits with walls reasonably straight and plumb.
- 5.2.4 Concrete shall be placed in the forms at a rate such that the concrete is plastic at all times and consolidates in all parts of the form and around all reinforcement steel and embedded fixtures without segregation of materials.
- 5.2.5 Reinforcement shall be securely tied in place to maintain position during concrete placing operations. The minimum concrete cover for reinforcing bars, mats, or fabric shall not be less than one (1) inch.
- 5.2.6 Poured or constructed in place concrete septic tanks shall be built in accordance with good construction practices. All septic tanks shall have adequate steel reinforcing to maintain structural integrity. All reinforcement shall have a minimum of one (1) inch of concrete cover.
- 5.2.7 Pre-cast concrete septic tanks with capacities of less than 1200 gallons shall have minimum wall and bottom thickness of two (2) inches. Pre-cast septic tanks with capacities of 1200 gallons or more shall have minimum wall and bottom thickness of three (3) inches. Pre-cast concrete septic tanks shall have adequate steel reinforcing to facilitate handling, but as a minimum shall have six (6) inch x six (6) inch, #10 gauge welded steel wire reinforcement, see Appendix O of these Regulations.
- 5.2.8 Septic tanks of concrete poured in place shall have minimum wall and bottom thickness of four (4) inches.
- 5.2.9 Septic tanks with capacities of less than 1200 gallons shall have lids or tops of concrete with minimum thickness of three (3) inches when pre-cast and four (4) inches when poured in place. Septic tanks with capacities of 1200 gallons or more shall have lids or tops with minimum thickness of four inches. Lids shall be reinforced in accordance with current engineering practices and as approved by the Health Department.
- 5.2.10 Openings in the top of the septic tank shall be provided over each compartment to enable effective removal of solids from all parts of the tank. Said openings to be no less than eighteen (18) inches in diameter or eighteen (18) inches by eighteen (18) inches square.
- 5.2.11 Vehicular traffic lids shall be designed and constructed to protect the tank from the superimposed load from vehicles driving directly over the tank. Manufacturer of the

vehicular traffic lid shall certify the design and construction of the lid will support without failure the expected load for the proposed installation.

5.2.12 Bottom of concrete septic tanks shall be constructed in one piece. Water stops or other sound construction techniques shall be used in making the walls an integral part of the bottom.

5.3 Tanks Constructed of Plastic or Fiberglass

5.3.1 Each plastic or fiberglass tank and manufacturer shall conform to Parts 5.1 and 5.6 of these Regulations.

5.3.2 All plans, drawings, design standards and specifications shall be certified by an engineer with knowledge and experience with fiberglass and plastics.

5.3.3 Each tank shall be of uniform thickness and free from defects that may affect their water-tightness, serviceability, or durability. Completed tank shall present a smooth finish both inside and outside, free of spalls, pits, and honeycombs.

5.3.4 Shell components for each tank may be welded together with an appropriate bonding material at the septic tank installation site.

5.3.5 Test reports from an independent testing laboratory may be required by the Health Department to substantiate a manufacturer's tank design.

5.3.6 Each fiberglass and plastic tank shall have clear concise instructions from the manufacturer for the proper installation of the tank.

5.4 Grease Traps

5.4.1 All grease traps which are or are intended to be installed, constructed, prefabricated, precast, offered for sale or sold shall be in accordance with these Regulations.

5.4.2 Grease traps are not recommended for use with residential septic tank systems.

5.4.3 Commercial food preparation establishments shall install a grease trap on the kitchen waste line. Those establishments which by the nature of their operations or the product proposed, produce little grease waste may be excluded from this requirement.

5.4.4 The grease trap shall be designed in accordance with current engineering standards and in accordance with Appendix T of these Regulations.

5.4.5 The grease trap shall be constructed so as to allow:

- a) The grease in suspension to cool and rise to the surface and
- b) Be large enough to hold the grease laden wastes long enough to allow this cooling to take place.

5.4.6 The grease trap, when installed, shall be placed at an accessible location outside the building where it can be easily pumped and maintained and the effluent disposed of in a manner approved by the Health Department.

5.4.7 The grease trap shall be constructed in accordance with the following specifications:

- a) The effluent line from a grease trap shall be connected to the house sewer or to a separate effluent disposal system to afford final disposal of grease laden wastes by an approved method.
- b) The minimum capacity for a grease trap, for new construction, shall be 1000 gallons. In no case shall the minimum capacity provide for less than two (2) days retention.
- c) The inlet to the grease trap shall be either a three (3) or four (4) inch diameter PVC or equivalent tee in accordance with local jurisdiction plumbing code.
- d) The grease trap shall have a "tee" on the outlet. The outlet "tee" shall extend at least six (6) inches above and to within twelve (12) inches of the tank bottom. The invert of the outlet shall be three (3) inches below the invert of the inlet. A grease trap shall have more than one (1) compartment but in no case shall the outlet "tee" be omitted. See Appendix T of these Regulations.
- e) The top of the grease trap shall be located at or above the ground level. Where this is not practical, manholes shall be provided from the top of the grease trap to the surface level.

5.5 Pump Sump

5.5.1 A pump sump shall be constructed of any material approved for the construction of a septic tank. A pump sump shall meet the applicable requirements set forth in these Regulations for a septic tank made of that material.

5.5.2 A pump sump shall meet the requirements of Part 5.6 of these Regulations.

5.5.3 Minimum pump sump capacity shall be 230 gallons.

5.6 Approval of a Prefabricated Septic Tank, Pump Sump, or Grease Trap

5.6.1 Manufacturer of a prefabricated septic tank, pump sump, or grease trap shall submit plans and specifications in duplicate for all such tanks to the Health Department. Such plans and specifications shall show all dimensions, reinforcing, structural calculations, and such other pertinent data as may be required by the Health Department.

5.6.2 Independent laboratory tests and calibrations may be required by the Health Department on any prefabricated tank, the cost of which shall be assessed against the

manufacturer. The Health Department may also require certification by a Structural Engineer concerning the structural strength of the proposed tank.

- 5.6.3 Written approval for each set of tank plans shall be provided by the Health Department.
- 5.6.4 The Health Department shall issue a permit and assign a number to the manufacturer whose plans have been approved and maintain a listing of permitted manufacturers.
- 5.6.5 Any violation of these Regulations may result in the revocation of the permit for a specified tank series.
- 5.6.6 Permits are not transferable.
- 5.6.7 Each septic tank, grease trap, and pump sump installed shall be obtained from a manufacturer permitted by the Health Department.
- 5.6.8 Each septic tank, pump sump, or grease trap shall be clearly marked by indentation, waterproof paint, or other approved means with the assigned manufacturer's number, date of tank manufacture, and the liquid capacity in gallons. This identification marking shall be on the outlet end of the septic tank or grease trap so that it is readily visible after installation and prior to covering.
- 5.6.9 Prior to shipping the first tank in an approved series, the tank shall be inspected by the Health Department at the plant site for compliance with approved plans. The manufacturer shall allow forty-eight (48) hours to make said inspection.
- 5.6.10 The Health Department may in its sole discretion make periodic inspections at the manufacturing facility to determine if the tanks and/or tank forms comply with the Regulations.
- 5.6.11 The issuance by the Health Department of a permit for an approved tank series shall not imply acceptability or approval of an individual tank at the construction site.

5.7 Manhole Covers

Manhole covers shall be constructed of cast iron, concrete, or other material approved by the Health Department.

Chapter 6

Subdivision Regulations

6.1 Approval Required

- 6.1.1 No person shall develop or commence development of a subdivision, an addition to a subdivision, or record a subdivision without first making application for and obtaining written approval from the Health Department.

6.2 General Provisions

- 6.2.1 The sponsor or developer shall employ an Engineer to do the necessary work and recommend the proper and adequate methods of water supply and sewage disposal for the proposed subdivision.
- 6.2.2 Except as provided in Part 6.3 of these Regulations any person making application for approval to develop a subdivision shall submit both a Preliminary and Final Report and comply with all requirements of these Regulations. At the discretion of the submitting Engineer the Preliminary Report requirements of Part 6.4 of these Regulations may be combined with the Final Report.
- 6.2.3 Reports shall be signed in all appropriate places by the sponsor. A representative may sign for the sponsor provided a power of attorney authorizing such representation is filed with the report. The sponsor's mailing address and phone number shall be included in the report.
- 6.2.4 Capped lateral sanitary sewers shall be installed in subdivisions proposing to use on-site sewage disposal systems in drainage areas served or proposed to be served by a trunk sanitary sewer. Requirement of capped sewers will be determined by the Health Department in accordance with the Capped Sewer Resolution adopted by the Board.

6.3 Exceptions to the Subdivision Regulations

- 6.3.1 The following activities shall not be considered creating a subdivision for the purposes of these Regulations:
 - a) Dividing a parcel of land for the purpose of a bona fide gift.
 - b) Dividing a parcel of land under the provisions of a will or under the laws of intestate succession.
 - c) Dividing the original parcel into no more than four tracts with no street construction or utility installation involved. Any further division of this original

parcel will require submittal of all information as required under these Regulations.

6.3.2 Land subdivided for single-family residential purposes into lots of not less than three acres in size shall not be subject to these Subdivision Regulations where said lots:

- (a) Do not have access to a public sewer system and have a plat restriction that the land will not be further divided into parcels of less than three acres in size until such lots have access to a public sewer system.
- (b) Meet all other requirements of these Regulations.

6.3.3 Where said land is subdivided into parcels containing any tracts five acres in size and larger, such tracts shall not be subject to the provisions of these Subdivision Regulations. Said lots shall meet all other requirements of these Regulations.

6.4 Preliminary Subdivision Water Supply and Sewage Disposal Report

The intent of the preliminary report is to assist the sponsor in determining whether to proceed with further development of the land, prior to submitting the information required on the final application.

6.4.1 The Preliminary Report may be combined with the Final Report as one report, at the discretion of the submitting Engineer. By so doing the Engineer accepts that the Health Department may reject or require changes in any part of the proposed subdivision.

6.4.2 Application for approval of the Preliminary Report shall be submitted on forms provided by the Health Department.

6.4.3 An application fee as approved by the Board of Health shall be submitted by the applicant prior to the Health Department processing the Preliminary Report.

6.4.4 The Preliminary Report shall be accompanied by the following:

- a) Vicinity map shown on the plat of the area, locating the subdivision by permanent and prominent landmarks, with related distances giving the name of existing streets, roads and highways and indicating all property adjoining the proposed subdivision which is owned or controlled by the sponsor.
- b) Soil survey as conducted by the United States Department of Agriculture, Soil Conservation Service and recorded in the Soil Survey of Jefferson County, Alabama. A copy of the soils map from the Soil Survey of Jefferson County, Alabama with subject property outlined. The preliminary map shall indicate the boundaries of the various soil classifications and a rating of each kind of soil in terms of its limitations for use as a septic tank absorption field. The terms slight, moderate, and severe shall to be used for rating the soils. For those soils with moderate or severe ratings, major soil factors limiting their use shall be stated.

- c) Boundary plat of the area proposed to be developed which includes legal description and shows appropriate contours. The plat shall have inscribed upon it the approximate soil boundaries and soil classifications as described in the soil survey; any structures, wells, or any other improvements existing in the proposed subdivision at the time of the submission of the Preliminary Report; the identity of all abutters, where available; all adjoining subdivisions; and the location of all surface waters, wells, sinkholes, caves, landfills, open or covered dump areas, springs (especially wet weather) and surface mining operations on the property being subdivided and approximate location of those within 100 feet of the subdivision. Maximum scale shall be 1"= 200'.
- d) A letter from the appropriate public water system supplying the water or from their engineer showing proof that a satisfactory amount of water and water pressure, in accordance with provisions as specified by the Alabama Department of Environmental Management, will be available to this subdivision. When the design of the distribution system for the subdivision is questionable, a letter will be required from the sponsor or his engineer indicating design criteria and necessary calculations used for the design of this system.
- e) A report, when commercial buildings are planned, indicating the types of commercial establishments proposed for the area and the types and amounts of sewage or other liquid wastes which will be generated by each establishment.

6.4.5 Three copies of the information required for the Preliminary Report shall be submitted to the Health Department for review. After receipt and review of a completed application, the Health Department shall notify the engineer and sponsor and shall:

- a) Approve in writing, the subdivision area as proposed; or
- b) Indicate in writing that the proposed subdivision area appears to be adequate for on-site sewage disposal; or
- c) Specify in writing any corrections or additional information necessary to receive preliminary approval; or
- d) Indicate in writing that the proposed subdivision area is not suitable for development under these Regulations. This disapproval shall specify the reasons and shall inform the sponsor of his right to appeal the decision.

6.4.6 If the Preliminary Report discloses possible problem soil areas, the Health Department may require percolation tests and soil inspection pits in the questionable areas to determine if the area is suitable or if lot sizes shall be increased above the minimum requirements. These tests may be observed by the Health Department. The Health Department may participate in field investigation of the property at any stage of development of submittal.

6.4.7 If a subdivision is to be served by a new public water supply, an engineering report shall be submitted with or prior to the submittal of the preliminary application. The engineering report shall cover the source of supply, distribution system and storage.

Approval of the public water supply shall be obtained and a Permit to Construct said public water supply shall be issued by the Alabama Department of Environmental Management. No lots shall be released nor shall any applications for building permits be granted until said public water system has been constructed and approved by the Alabama Department of Environmental Management.

6.4.8 For subdivisions utilizing on-site sewage disposal systems in areas where live sewer is not available, the following information for those areas of the proposed subdivision where the soil has been rated in the "Soil Inventory and Evaluation for Septic Tank Absorption Fields" report as having severe limitations for septic tank absorption fields shall be provided with the preliminary report:

- a) For those areas rated severe due to depth of water, depth to rock, and slope, a specific description of the soils taken from one soil inspection pit per acre (or portion thereof) indicating depth per soil type and depth to water; where rock is encountered, a description of the type of rock and whether it is rippable, permeable, etc., shall be included. Soil inspection pits shall be in compliance with applicable Part 2.5 of these Regulations.
- b) For those areas rated severe due to slope, the percentage of the proposed subdivision area with slopes greater than 25% shall be denoted on the boundary plat.
- c) For those areas rated severe due to periodic flooding, the percentage of the proposed subdivision area that is in the flood prone area shall be denoted on the boundary plat.

6.4.9 For subdivisions proposing to utilize on-site disposal systems in areas where live sewers are available, the following information shall be provided with the preliminary report:

- a) A soil map with the area to be subdivided outlined on the soil map and a "Soil Inventory and Evaluation for Septic Tank Absorption Fields," as prepared by the Soil Conservation Service, U.S. Department of Agriculture.
- b) Certification by the governmental agency having jurisdiction that connection to sanitary sewer will only be authorized for those lots that, on the basis of these Regulations, are deemed unacceptable by the Health Department for an on-site sewage disposal system.
- c) The sponsor may, at his discretion, choose to submit the information required in Section 6.5 of these Regulations. If the sponsor chooses not to submit this additional information, then the Health Department shall, after general review of the Preliminary Report, require that each lot be submitted on an individual basis to determine compliance with these Regulations.

6.4.10 For subdivisions utilizing a public water supply and a public sewage collection and treatment system, a Preliminary Report which consist of the following shall be submitted:

- a) Water approval letter from the local public water authority, and
- b) Sewage disposal approval letter from the local public sewer authority.

6.5 Final Subdivision Water Supply and Sewage Disposal Report

6.5.1 The sponsor of any subdivision proposing to utilize on-site sewage waste disposal systems as a means of sewage disposal shall, after approval of the Preliminary Report and before commencing development or recording the subdivision, submit original and two copies of the Final Report to the Health Department. If the engineer at his discretion submits a combined Preliminary and Final Report, the combined report shall include the original and two copies.

6.5.2 This Final Report shall be on forms supplied by the Health Department and shall include all required information. The Final Report shall be submitted well in advance of the anticipated construction date since any lack of necessary information could cause delay.

6.5.3 A subdivision plat indicating the following information shall be attached to the Final Report:

- a) A dimensioned layout to scale of the proposed lots, streets, and easements. The maximum scale shall be one inch equals fifty feet (1"=50').
- b) Lot and block numbers.
- c) Topography of area showing contour intervals sufficient to show existing or proposed drainage, drains, original and finished grades where changes are anticipated. Contour intervals shall not exceed ten feet. Topographical maps shall be confirmed by on-site inspection by the engineer or surveyor providing the information.
- d) A footprint of the proposed house along with driveway layout.
- e) A primary and secondary disposal area locations shall be indicated on each lot. The soil test shall be located in the primary disposal area. The septic tank and field lines shall be drawn to scale with appropriate linear feet of field lines indicated.
- f) A vicinity map shown on the plat of sufficient detail to allow field location of the property.
- g) An adequate plan showing existing and proposed drainage and easements for surface or subsurface drainage.
- h) Location and results of additional percolation test and/or soil inspection pits required due to unrepresentative results or unusual soil conditions.

- i) All percolation test holes and soil inspection pits shall be identified and located accurately on each lot.
- j) Percolation tests shall be in accordance with Part 2.4 of these Regulations.
- k) Soil inspection pits shall be in accordance with Part 2.5 of these Regulations.
- l) The area of each lot shall be calculated and reported in square feet.

6.6 Standards for Approval of Subdivisions Utilizing On-Site Sewage Disposal Systems

- 6.6.1 Lot size shall be in compliance with Section 2.9.1a of these Regulations, except that lots not utilizing public water supplies shall have a minimum lot size of one acre.
- 6.6.2 Subdivision lots shall be in compliance with Part 2.9 of these Regulations.
- 6.6.3 No subdivision or portion of a subdivision shall be resubdivided after final approval, except as noted in Part 6.3, without being in compliance with these Regulations.
- 6.6.4 Percolation test shall meet the requirements of Part 2.4 of these Regulations.
- 6.6.5 Soil inspection pits shall meet the requirements of Part 2.5 of these Regulations.
- 6.6.6 Where a soil survey report indicates that the soil or soils underlying a proposed subdivision may be unsuitable for ground disposal systems, where nearby existing septic tank systems are malfunctioning due to problems caused by soils of the same classification as those underlying the proposed project, or where test data submitted conflict with other valid sources of information, the Health Department shall reserve the right to withhold approval and further consideration of the proposed subdivision pending submittal of any additional tests requested by the Health Department.
- 6.6.7 To facilitate the field investigation and evaluation of the proposed subdivision, one of the following field orientation requirements shall be completed before the Final Report is submitted:
 - a) Center lines of all roads and streets to be clear-cut and marked. Station locations at a minimum of each 100 feet shall be indicated on plat; or
 - b) Field stakes shall be placed and identified on a fifty (50) foot grid system; or
 - c) Staking the corners of all lots.
- 6.6.8 Where proposed water supply is from an existing public water system, the following information shall be submitted:
 - a) The correction factor where contours of the subdivision are shown and an assumed datum is used.

- b) Overflow elevation of the water storage tank serving the subdivision.
- c) Size of transmission mains serving the subdivision.
- d) Layout of the distribution system showing the size of all lines within the subdivision. The design shall incorporate provisions for fire protection where possible and, at a minimum, facilities to flush the system.
- e) A letter from the appropriate public water system or their consulting engineer indicating approval of the water distribution system and future acceptance of project when completed.
- f) A letter from the appropriate public water system supplying the water or from their consulting engineer showing proof that a satisfactory amount of water and water pressure, in accordance with provisions as specified by the Alabama Department of Environmental Management, will be available to this subdivision. When the design of the distribution system for the subdivision is questionable, a letter will be required from the sponsor or his engineer indicating design criteria and necessary calculations used for the design of this system.

6.6.9 Where a subdivision is proposed to be served by individual wells or a community well, a preliminary well will be dug prior to approval of the subdivision to determine the quantity and quality of water available. The following information will be furnished to the Health Department; all necessary applications and specifications for construction, log of well, yield of well, chemical and bacteriological analysis, and any other information necessary for approval of well. Any well used as a water supply for a subdivision shall be constructed in compliance with requirements of the Alabama Department of Environmental Management.

6.7 Subdivisions with Live Sanitary Sewers

6.7.1 For subdivisions proposing to utilize a sewerage system with treatment and surface discharge to a receiving stream, a preliminary sketch showing the location and size of the proposed treatment facilities and location and size of the proposed point of discharge shall be submitted with or prior to the submittal of the Preliminary Report in lieu of soils report. No approval shall be given by the Health Department for any subdivision proposing to use a subdivision sewerage system with surface discharge until approval is obtained from the Alabama Department of Environmental Management for the sewage treatment facilities and the discharge point.

6.7.2 When a subdivision is to be served by a sewage collection system and connected to an existing sewerage system or sewage treatment facility designed for it, a letter from the appropriate system assuring proper operation and maintenance shall accompany the preliminary application.

6.7.3 For subdivisions proposing to utilize sanitary sewers, the source of water supply shall be submitted with the preliminary application with information as required in Section 6.6.8.

6.8 Decision of Health Department

6.8.1 After review and field investigation and after receipt of all necessary information, the Health Department shall:

- a) Approve, in writing, the subdivision as proposed; or
- b) Recommend, in writing, any additional information or data needed or any corrections to be made in order to receive approval or advise the sponsor of reasons for withholding action on the subdivision application; or
- c) Indicate, in writing, reasons therefore that the proposed subdivision or portion of proposed subdivision is not suitable for on-site sewage disposal systems; or
- d) In approving a subdivision for on-site sewage disposal, the Health Department may with reason withhold certain lots from approval or place special restrictions of approval on certain lots. The Health Department shall specify, in writing, the reasons for withholding the approval of any lot or lots.

6.9 Requirements After Subdivision Approval is Obtained

6.9.1 After receiving approval of the subdivision, but prior to obtaining a building permit and before constructing or installing the on-site sewage disposal system, the sponsor, builder, developer, or owner of an approved lot or lots shall, on forms provided by the Health Department, make application for "Construction Layout Approval" in compliance with Part 2.1 of these Regulations.

6.9.2 In applying for a construction layout approval, any applicable special conditions or restrictions imposed or required in the final subdivision approval shall be complied with.

6.9.3 Subdivisions proposed for on-site sewage disposal systems located in drainage basins designated by the Health Department as requiring capped sewers will be required to install capped sanitary sewers as a condition of approval.

6.9.4 A copy of the contract covering the installation of the capped sanitary sewers with a map approved by the appropriate county or municipal engineering department showing each lot to be served must be on file with the Health Department prior to the release of any lots for construction.

6.9.5 A copy of the water mains extension contract covering the installation of mains within the subdivision and also a map showing lots to be served by each portion of the contract shall be on file at the Health Department prior to release of any lots for construction.

6.9.6 A copy of the Record Map indicating approved and withheld lots.

6.10 Pit Privies

6.10.1 The use of pit privies shall not be an acceptable means of sewage disposal in a subdivision development.

6.11 Alternate/Experimental Systems

6.11.1 The Health Department may consider alternate/ experimental systems, in accordance with all the requirements of Part 3.11 of these Regulations.

6.12 Flood Prone Areas

6.12.1 All subdivisions proposed to be developed wholly or partially within a flood prone area as defined by these Regulations, except subdivisions to be developed utilizing a sewer system, either public or private, and a public water supply shall, in addition to the other requirements of these Regulations, comply with the following requirements:

- a) No approval shall be given to any such subdivision which lies wholly within a flood prone area.
- b) Where a proposed subdivision is located partially within a flood prone area, that portion of the subdivision not within the flood prone area may be considered for approval. That portion of the proposed subdivision lying within the flood prone area may be subdivided and included as a portion of a lot or lots but shall not be included in computing the usable land area for purposes of lot sizing.

6.13 Revocation of Final Approval

6.13.1 Where a subdivision and the lots located therein have received final approval, such approval may be revoked as to any or all of such lots when:

- a) In the opinion of the Health Department, conditions of any lot or lots have so changed or the actual use of on-site waste disposal systems on other lots in the subdivision has shown that the use of on-site system on such lot or lots would become a menace to the public health.
- b) The subject subdivision is not being developed in accordance with these Regulations or with the conditions of approval of the subject subdivision.
- c) Information submitted for approval was erroneous or was falsified by the sponsor or by his engineer or land surveyor.

6.14 Zoning or Engineering Approval Not Implied

6.14.1 Approval by the Health Department of a subdivision does not imply approval of the subdivision by the County or appropriate municipal government of any zoning or engineering requirements.

6.15 Time Limitation on Approvals

6.15.1 Subdivision approvals shall be considered valid as long as there are no violations of Part 6.13.

Chapter 7

Manufactured Home Park Regulations and Travel Trailer Park Regulations

7.1 Approval Required

- 7.1.1 No manufactured home park shall be constructed or expanded without plans and specifications being approved by the Health Department and by the local zoning jurisdiction.
- 7.1.2 Manufactured homes shall not hereafter be parked in any manufactured home park unless plumbing and sanitation facilities have been installed and maintained in conformity with these Regulations.
- 7.1.3 Where the manufactured home park sewerage cannot be connected to a public sewer for final disposal, the method or means of sewage disposal shall be in accordance with these Regulations.

7.2 Requirements for Approval

- 7.2.1 No site shall be used for a manufactured home park which does not afford ample space or conditions suitable for an approved water supply and sewage disposal system in accordance with these Regulations.
- 7.2.2 The sponsor or developer shall employ an Engineer to do the necessary work and recommend the proper and adequate methods of water supply and sewage disposal for the proposed manufactured home park.
- 7.2.3 When applying for approval to construct the manufactured home park, a fully completed application and construction plan shall be submitted in triplicate. Application forms are provided by the Health Department and all submittals shall be on these forms.
- 7.2.4 The following information shall be submitted on the construction plan:
 - a) Vicinity map showing location of area with reference to surrounding developments and community as a whole; and legal description.
 - b) Construction Plan Showing:
 - 1) Dimensioned layout showing proposed lots, streets, and easements.
 - 2) Block and lot number.
 - 3) Topography of area showing contours, drains, original grades and finished grades where changes are anticipated.

- 4) Location and identification of percolation test holes where required.
 - 5) Location and identification of soil inspection pits, where required.
 - 6) Location, size, and type of water main piping to be used in the manufactured home park development.
 - 7) Location, size, and type of sewer lines where applicable. Said plans shall include manhole location and detail, sewer line specifications and a sewer profile.
 - 8) A profile of a "typical" service pad showing the individual mobile home sewer riser and "P" trap and the water service line.
 - 9) Location of proposed septic tank and field lines where applicable and when required by these Regulations. In addition a secondary area for 100% duplication of field lines is required.
 - 10) Location for two off street parking spaces.
 - 11) Any other pertinent or necessary information regarding the water supply and/or sewage disposal systems as required by the Health Department.
- c) Drainage plan showing original or natural drainage plus additional surface or subsurface drainage to be provided and the reason for it.
 - d) Name of appropriate water works and the location, size, and pressure at tap point of the water main that is to supply the park, if a public water supply is the proposed source of water for the manufactured home park.
 - e) Where a public water supply is not available, all necessary applications and specifications for construction, log of well, yield of well, chemical analysis, and any other information necessary for approval of well or other source as a water supply shall be furnished to the Health Department. Any well used as a water supply for a manufactured home park shall be constructed in compliance with requirements of the Alabama Department of Environment Management.
 - f) Signed statement covering the following:
 - 1) The distance to nearest public water main and size of that main where a private or community water system is proposed.
 - 2) The distance to nearest public sewer, and whether accessible by gravity. A comparative cost analysis between two or more different methods of sewage disposal shall be given when required by the Health Department, or where there is any possibility of a public sewer being economically available.

7.2.3 Percolation test shall meet the requirements of Part 2.4 of these Regulations.

7.2.4 Soil inspection pits shall meet the requirements of Part 2.5 of these Regulations.

7.3 Water Supply

7.3.1 Adequate supply of water under pressure from a source and of a quality approved by the Health Department and meeting the regulations of the Alabama Department of Environmental Management, shall be piped to each manufactured home lot and to each building where water usage is indicated.

7.3.2 All piping fixtures or devices used in the installation of the water supply system for manufactured home parks or parts thereof, shall conform to the quality and weights of materials required by the Standard Plumbing Code.

7.3.3 All piping fixtures or devices designed and used in the manufactured home park water supply system and service connections shall be installed in conformance with the Standard Plumbing Code.

7.3.4 No cross-connection shall be made or permitted to exist between any public water supply and any private water supply.

7.3.5 No water pipe shall be laid in or on the ground less than 5 feet from any sewer or sewage treatment facility except that a water pipe may cross over and above a collection sewer at right angle with a foot or more vertical distance between the two pipes.

7.3.6 All plumbing connections to be inspected and approved by the local plumbing authority.

7.4 Lot Size Requirements

7.4.1 For manufactured home parks where individual on-site systems are the proposed method of sewage waste disposal, the minimum lot size shall be 15,000 square feet per manufactured home and lots must meet requirements of these Regulations.

7.4.2 For all other manufactured home parks served by a "central sewage treatment system", the appropriate zoning authority's lot size shall govern. Where a central or clustered on-site sewage disposal system is proposed, enough suitable land must be made available to install the on-site system and have area in reserve for 100% duplication of field lines.

7.5 Sewage Disposal

7.5.1 Sewer inlets shall be 4-inch diameter and extend above grade 3 to 6 inches. Each inlet shall be provided with a gas-tight seal when connected to a manufactured home and have a gas-tight seal plug for use when not in service. See Appendix U of these Regulations for typical sewer connection.

- 7.5.2 Unless otherwise provided for in these Regulations, all piping or devices used in the installation of drainage systems for manufactured home parks or parts thereof, shall conform to the quality and weights of materials required by the Standard Plumbing Code.
- 7.5.3 All plumbing fixtures, piping drains, appurtenances, and appliances designed and used in a park drainage system and service connections shall be installed in conformance with the Standard Plumbing Code.
- 7.5.4 For those manufactured home parks utilizing a central sewage treatment system with outfall to a public sewer, the sanitary sewer layout and construction details shall be approved by the appropriate municipal or Jefferson County Engineering Departments and the Health Department. For those parks utilizing central sewage treatment system with on-site disposal the layout and construction details shall be approved by the Health Department.
- 7.5.5 For those manufactured home parks utilizing individual on-site sewage disposal systems, the layout and construction details shall be approved by the Health Department.
- 7.5.6 All manufactured home parks proposed after the effective date of these Regulations utilizing individual on-site sewage disposal systems shall meet the requirements of these Regulations.

7.6 Travel Trailer Parks

- 7.6.1 In manufactured home parks providing spaces for travel trailers, auto campers, or other recreational-type units utilizing holding tanks, a sanitary station shall be provided in the ratio of one sanitary station for each 50 spaces or fraction thereof. Such sanitary stations shall be approved by the Health Department, and shall, at the minimum, consist of: a trapped four-inch cast iron or equivalent sewer pipe connected to an approved sewerage system or holding basin, surrounded at the inlet end by a concrete apron sloped to drain, and provided with a suitable hinged cover; and a water outlet with the necessary appurtenances properly protected from backflow or back siphonage, connected to an approved water system to permit wash down of the immediate adjacent areas. A sign shall be erected to indicate water at this location is not for filling water storage tanks.
- 7.6.2 Sanitary stations as required in this section shall not be connected to a septic tank and ground absorption system or other sewage treatment system unless said system is designed specifically and solely for the sanitary station. Sanitary stations which connect directly to the public sewerage system are exempt from the provisions of this paragraph.
- 7.6.3 Holding basins or storage tanks servicing sanitary stations shall be provided with a pumping schedule that is maintained so that no overflow occurs.

7.6.4 Any sewage treatment facility or holding basin constructed or proposed for construction to serve a sanitary station shall be approved by the Health Department, prior to use.

7.7 Service Buildings and Facilities

7.7.1 Manufactured home parks accommodating, providing for, or catering to one or more dependent trailer units, shall provide one or more service buildings which contain the necessary toilet and bath facilities as determined from the following table:

Table 7.7.1

Number of Parking Spaces	Toilets		Urinals	Lavatories		Showers	
	Men	Women	Men	Men	Women	Men	Women
1 - 15	1	1	1	1	1	1	1
16 - 30	1	2	1	2	2	1	1
31 - 45	2	2	1	3	3	1	1
46 - 60	2	3	2	3	3	2	2
61 - 80	3	4	2	4	4	2	2
81 - 100	3	4	2	4	4	3	3

7.7.2 The sewage disposal system and water supply for any such service building shall meet all the requirements of these, or any other pertinent rules and regulations of the Jefferson County Board of Health and the Alabama Department of Environmental Management.

7.7.3 One or more service buildings, in addition to those required in Part 7.7 of these Regulations, shall be provided at such locations as to be reasonably accessible to residents of the park which shall include space and separation for a park manager's office, storage of maintenance equipment and supplies; provided that a manufactured home placed on a lot may be used for this purpose.

7.7.4 Buildings shall not be placed over any collector sewer or sewage disposal facility.

7.8 Electrical Power

The distribution system for electricity within a manufactured home park shall conform to local codes or regulations, and shall be approved by the proper authority; provided that there shall be no electric wire placed on the ground or in any manner whereby an electrical hazard may exist.

7.9 Decision of the Health Department

7.9.1 After review and field investigation and after receipt of all necessary information, the Health Department shall;

- a) Approve, in writing, the manufactured home park as proposed; or

- b) Recommend, in writing, any additional information or data needed or any corrections to be made in order to receive approval or advise the sponsor of reasons for withholding action on the manufactured home park application; or
- c) Indicate, in writing, reasons therefore that the proposed manufactured home park or portion of the proposed manufactured home park is not suitable for on-site sewage disposal systems; or
- d) In approving a manufactured home park for on-site sewage disposal, the Health Department may with reason withhold certain spaces from approval or place special restrictions of approval on certain spaces. The Health Department shall specify, in writing, the reasons for withholding the approval of any space or spaces.

7.10 Alternate/Experimental Systems

7.10.1 The Health Department may consider alternate/experimental systems, in accordance with the requirements of Part 3.11 of these Regulations.

7.11 Operational Permit Required

7.11.1 Upon completion of construction and after receiving construction approval of the Manufactured Home Park, the owner/operator shall make application to the Health Department for an Operational Permit. Application forms shall be provided by the Health Department.

7.11.2 The Operational Permit shall be issued based upon certification by an Engineer that the Manufactured Home Park is in compliance with the construction plans as approved by the Health Department.

7.11.3 The permit shall:

- (a) Be issued upon payment of the appropriate fees to the Health Department.
- (b) Be non-transferable to another person.
- (c) Be posted in a conspicuous and protected place on the premises.
- (d) Expire on an annual basis twelve (12) months from the effective date of issuance or upon transfer of ownership.
- (e) Be renewed during the sixty (60) days prior to the expiration date each year.
- (f) Be specific as to the number of units approved for the park.

7.11.4 The issuance and/or renewal of an operational permit for a Manufactured Home Park shall be conditioned upon compliance with these regulations as determined by periodic inspections of the site and premises.

7.11.5 No person shall operate a Manufactured Home Park without having applied for and obtained an initial constructional approval, in the case of a new facility, and/or an operational permit or permit renewal issued by the Health Department based upon compliance with these regulations.

7.12 Maintenance and Operation

7.12.1 Each Manufactured Home Park shall be under the supervision of a manager as designated on the application form, who shall be reasonably available at all times. Should there be a change of manager during the operational year, the Health Department shall be notified in writing within ten (10) days of such change.

7.12.2 Each Manufactured Home Park shall be equipped and arranged so that all areas are accessible for maintenance and removal of all garbage, rubbish, and waste. Cleaning and maintenance of common use areas such as road, street, alleys, public park areas, pool areas, and un-rented or vacant mobile home spaces shall be the responsibility of the owner or permit holder.

7.12.3 Facilities and/or receptacles shall be provided at each occupied manufactured home space for the accumulation and storage of household garbage and trash which is watertight, impervious, and suitable to protect the contents from access by insects, rodents, and other animals. These requirements shall not apply to those Manufactured Home Parks where an approved centralized location for the storage and collection of garbage is provided and serviced through commercial contract.

7.12.4 No standing water shall be allowed to pool in the Manufactured Home Park and the premises shall be kept free of refuse and debris which may provide harborage for rodents, or contribute to mosquito or fly propagation. When such conditions are found to exist in the common use areas of the Park, the owner or operator shall take action to exterminate pests or eliminate the potential propagation sites. Responsibility for rodent and insect control on individually owned or leased premises within the Manufactured Home Park shall be the responsibility of the lessee, owner, or other person in control of said premises.

Chapter 8

Certificates of Competency

8.1 Certificates of Competency Required

- 8.1.1 No person shall engage in the business of installing, repairing, cleaning, or maintaining on-site sewage disposal systems without having applied for and obtained a Certificate of Competency from the Health Department.
- 8.1.2 Any Certificate of Competency issued by the Health Department shall not be transferable to another person or upon sale or change of ownership of the firm or corporation.
- 8.1.3 The Health Department may suspend, revoke, or deny any Certificate of Competency as provided in Section 12 of Act No. 659, Alabama Legislature Regular Session 1978.
- 8.1.4 Holder of Certificate of Competency is responsible for any work performed under that Certificate of Competency.

8.2 Requirements for Certificate of Competency

- 8.2.1 Any person wishing to obtain a Certificate of Competency shall truthfully and to the best of his ability complete the application form supplied by the Health Department. Upon completion, this form shall be submitted to the Health Department for review and shall include background information on the applicant and an affirmation by the applicant to abide by all rules and regulations governing on-site sewage disposal in Jefferson County, Alabama. Furthermore the applicant must show evidence that said applicant has as a minimum one year of experience installing or maintaining on-site sewage disposal systems.
- 8.2.2 Upon review and approval of an application for a Certificate of Competency, the applicant shall successfully complete an examination administered by the Health Department of current rules and regulations governing on-site sewage disposal in Jefferson County, Alabama. Each person engaged in the business of installing, repairing, cleaning, or maintaining on-site sewage disposal systems shall have at least one owner of the business that has successfully completed the examination.
- 8.2.3 Payment of all applicable fees shall be made prior to the issuance of a Certificate of Competency to any person.
- 8.2.4 Any person wishing to obtain a Certificate of Competency shall file with the Health Department a Surety Bond in an amount not less than Five Thousand Dollars (\$5000.00). The applicant shall be principal on said bond and the Health Department shall be the obligee. The bond must be kept in force for as long as the certificate holder holds a valid Certificate of Competency. The Board or any party injured by a

holder of a Certificate of Competency may bring an action on the bond of any such holder.

8.3 Certificate of Competency Annual Renewal

8.3.1 Certificates of Competency are valid from January 1 through December 31 of each year.

8.3.2 Annual renewal requires a completed application, payment of annual fee (as set by the Board), and approval of the application by the Health Department.

8.3.3 Failure to file a completed application and pay the renewal fee prior to December 31 of each year will be cause for the renewal of the Certification of Competency to be denied. Holder must reapply for a new Certificate of Competency as in Part 8.2 of these regulations.

APPENDIX A

MINIMUM GUIDELINES SEWAGE VOLUME BY TYPE OF ESTABLISHMENT

Type of Establishment	Sewage Flow Gallons/person/day (Unless otherwise noted)
<u>Residential</u>	
Hotels, motels and rooming houses	
(per resident)	50
(per employee)	11
Private dwellings, multifamily dwelling, apartment	
(per unit)	
(two bedrooms or less)	300
(three bedrooms or more, gal/bedroom/day)	150
<u>Commercial</u>	
Airline catering	(per meal served)3
Airports	(per passenger-not including food).....5
Airports	(per employee)10
Auto Service Station	(per restroom).....630
Bar	(per customer)6
	(per employee)14
Barber Shop	(per chair)80
Beauty Shop	(per station)300
Boarding Home	(per resident)75
Bus Service Area	
- not including food5
Country Clubs	
- not including food	(per member).....30
Day Workers at Offices20
Domiciliary	(per bedspace)125
Drive-in Theater	(per space - not including food).....10
Factories and Plants	
	(per shift - no industrial waster)20
	(per shift - with showers)30
Laundries, self-service	(per washer)580
Movie Theaters	(per seat - not including food).....5
Restaurants	
	(toilet and kitchen waste per patron)10
	(additional for bars and cocktail lounges).....2
	(kitchen waste per meal served)3
	(with paper service per meal served)1.5
	(fast food - check water use of similar facilities)
Shopping Center	(per parking space)1.5
	(per employee)11
Stores	(per public toilet).....528
Work or construction camps50

Institutional

Churches	(per auditorium seat - not including food).....	5
Hospitals	(per bed space)	250
Institutions other than hospitals	(per bed space).....	125
Schools	15
	(with boarding).....	75
	(with cafeteria).....	20
	(with cafeteria, gym, and showers).....	25

Recreational

Camps	(day - no meals served).....	10
	(resort).....	125
	(night and day - with limited plumbing).....	50
	(campground - individual hookups - per space)	100
	(campground - no individual hookups - per space)	50
Fairground and Parks, Picnic	(with bathhouses, showers, and flush toilets).....	15
	(toilet waste only)	5
Marina	(toilet waste only - per boat slip).....	10
	(with bathhouse - per boat slip)	30
Swimming Pools and Bathhouses	10

Minimum Requirements - Actual use may vary, other water-use documentation may be submitted.

APPENDIX B

STANDARD PROCEDURE FOR PERFORMING SOIL PERCOLATION TESTS

PERCOLATION TEST PROCEDURE

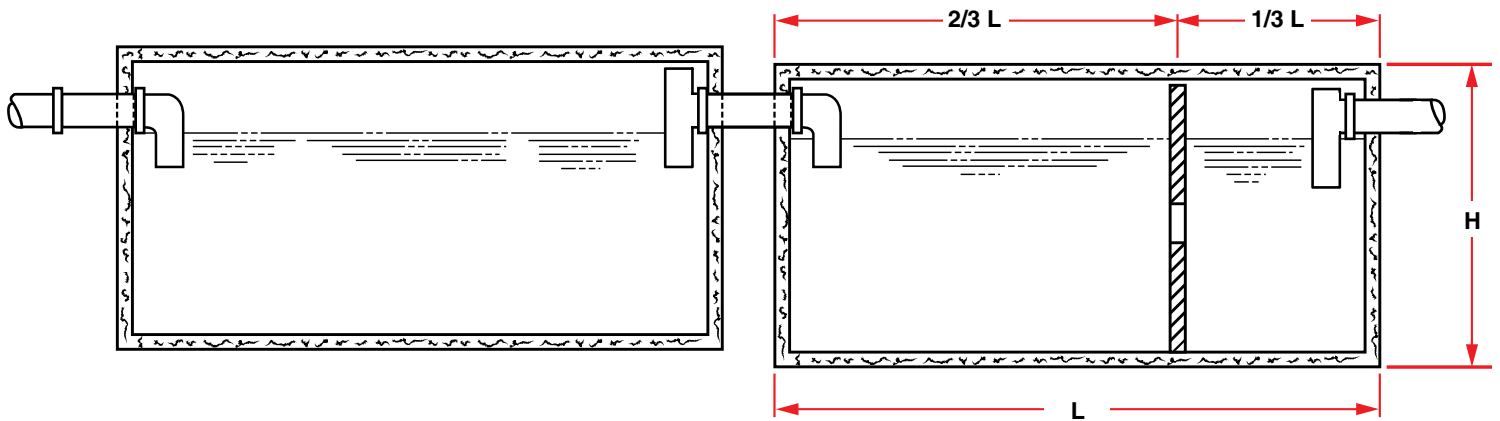
Procedure for Performing Soil Percolation Tests - Soil percolation tests shall be performed in accordance with the following procedures:

- (a) Using soil data from the soil inspection pit, dig or bore the percolation test hole to the depth of the proposed effluent distribution trenches, not less than 24 inches or greater than 36 inches* (not less than 12 or greater than 24 inches for shallow placement) with a diameter of eight to 12 inches. In order to remove any glazed or burnished spots on the walls of the test hole, the walls shall be scratched or made rough so as to provide a natural soil interface for absorption. All loose materials shall be removed from the hole. A two-inch layer of coarse sand or fine gravel shall be added to protect the bottom from scouring and sediment.
- (b) Percolation test holes shall be filled with clear water to a minimum depth of 12 inches over the sand or gravel. Water shall be added to the test hole as often as necessary to maintain the 12 inch depth for a **minimum of four hours**, in order to saturate the surrounding soil.
- (c) Percolation test measurements shall be made no later than eight hours following the saturation process. The drop of the water surface at 30 minute intervals over a **four-hour period** shall be measured from a fixed reference point outside the test hole.
- (d) After the saturation process, the test shall be performed by adjusting the water level to a depth of six inches over the sand or gravel. From a fixed reference point outside the test hole, the depth to water shall be measured at 30-minute intervals for a period of not less than four hours. Water shall be added as necessary to maintain the water surface above the sand or gravel. The percolation rate will be determined by the drop of water surface which occurs in the last 30-minute interval, provided that the absorption rate has stabilized. If there is an appreciable difference in the last two readings of the four-hour interval, the test will continue to be made at additional 30-minute intervals until the rate stabilizes. The rate shall be considered to be stabilized when the last two readings are approximately the same.

*Any other depth must receive approval from the Jefferson County Department of Health prior to testing.
- (e) For soils which absorb the first six inches of water in less than 30 minutes following saturation, measurements on the water surface shall be made at ten-minute intervals over a period of one hour. The drop of water surface which occurs in the final ten minutes shall be used to compute the percolation rate.
- (f) The percolation rate shall be reported as the number of minutes required for the water surface to drop one inch in the test hole after the rate is stabilized.

APPENDIX C

CONNECTION OF TWO SEPTIC TANKS IN SERIES



APPENDIX D

MINIMUM CAPACITIES FOR SEPTIC TANKS FOR RESIDENTIAL DWELLINGS

Number of Bedrooms	Minimum Liquid Capacity (Gallons*)	
	With Garbage Grinder	Without Garbage Grinder
≥3	2000	1000
4	2500	1500
additional bedrooms	250 each	200 each

* Nothing in these requirements is intended to prevent the use of two (2) prefabricated septic tanks in series to achieve these capacity requirements.

APPENDIX E

SIZING THE SOIL DISPOSAL FIELD

Type	Soil Texture By Feel Analysis*	Anticipated Soil Absorption Rate Range (min/in)	Lineal Feet of Effluent Disposal Lines (2) (3) (minimum trench width = 18")	
			Commercial ft/gal	Residential ft/bedroom
1	Sand Loamy Sand Sandy Loam	5 to 29	1.0	125
2	Sandy Clay Loam Loam Silt Loam Silt	30 to 49	1.5	150
3	Sandy Clay Clay Loam Silty Clay Loam Silty Clay	50 to 60	1.8	175
4	Clay	>60 (1)		

(1) Over 60 min/in not generally considered suitable for conventional subsurface sewage disposal, see Sec. 2.8.3 of these Regulations for alternate system requirements.

(2) For separate washing machine effluent disposal line see Sec. 3.6.1 of these Regulations.

(3) In no case shall the total length of the effluent disposal lines for a residential dwelling be less than 300 feet.

*See Appendix P-1 of these Regulations.

APPENDIX F-1A

SERIAL DISTRIBUTION SYSTEM

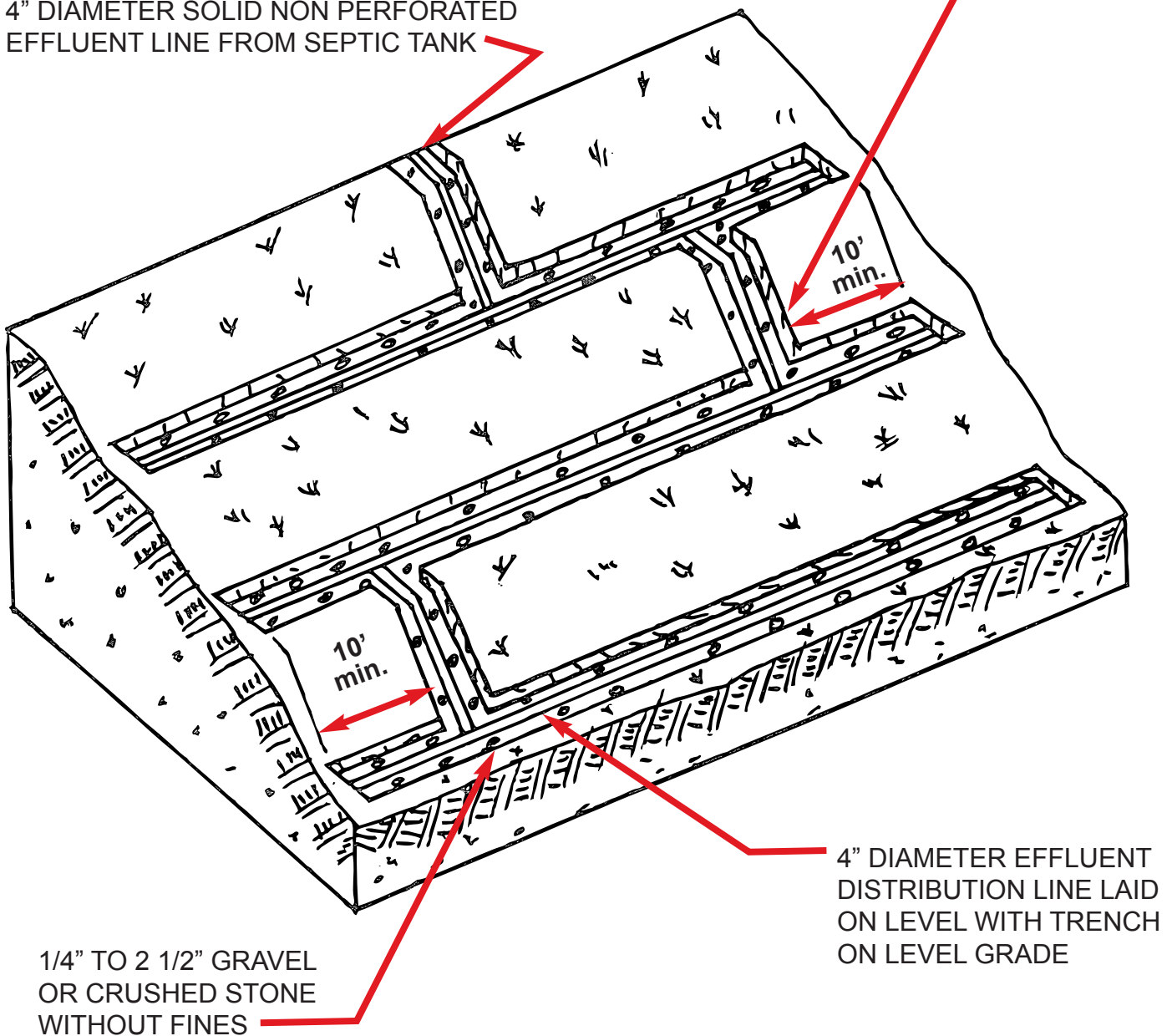
LINE 100 FEET OR LESS IN LENGTH
MINIMUM OF ONE CROSS-OVER REQUIRED

NOT TO SCALE

NOTE: SLOPE 6" OR MORE FROM SEPTIC TANK TO DISPOSAL AREA

4" DIAMETER SOLID NON PERFORATED
EFFLUENT LINE FROM SEPTIC TANK

FOR CROSS-OVER DETAIL
FOR SERIAL DISTRIBUTION
FOR SLOPING GROUND SEE
APPENDIX F-2



APPENDIX F-1B

SERIAL DISTRIBUTION SYSTEM

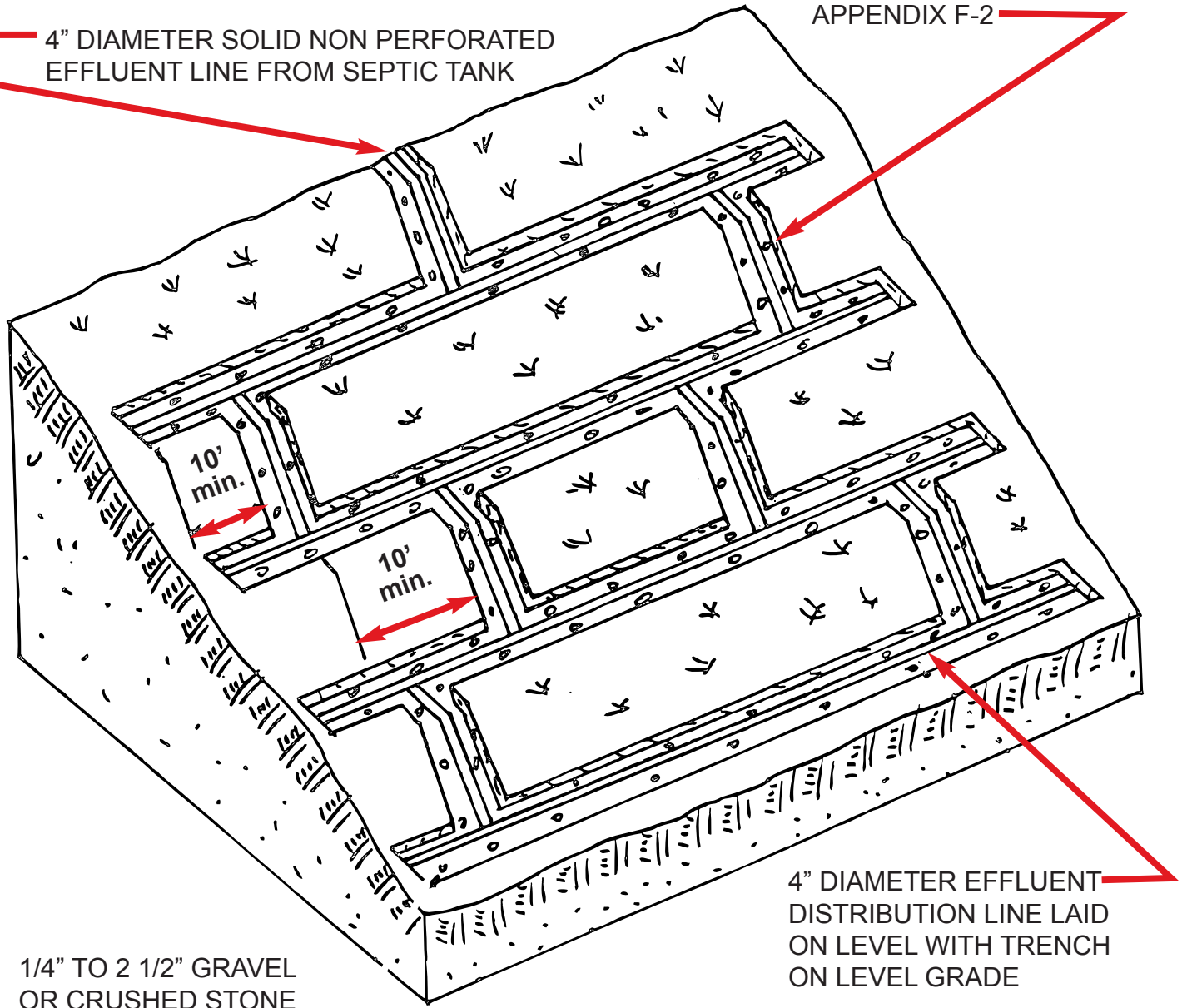
LINE OVER 100 FEET IN LENGTH
TWO CROSS-OVERS REQUIRED

NOT TO SCALE

NOTE: SLOPE 6" OR MORE
FROM SEPTIC TANK TO
DISPOSAL AREA

FOR CROSS-OVER DETAIL
FOR SERIAL DISTRIBUTION
FOR SLOPING GROUND SEE
APPENDIX F-2

4" DIAMETER SOLID NON PERFORATED
EFFLUENT LINE FROM SEPTIC TANK



1/4" TO 2 1/2" GRAVEL
OR CRUSHED STONE
WITHOUT FINES

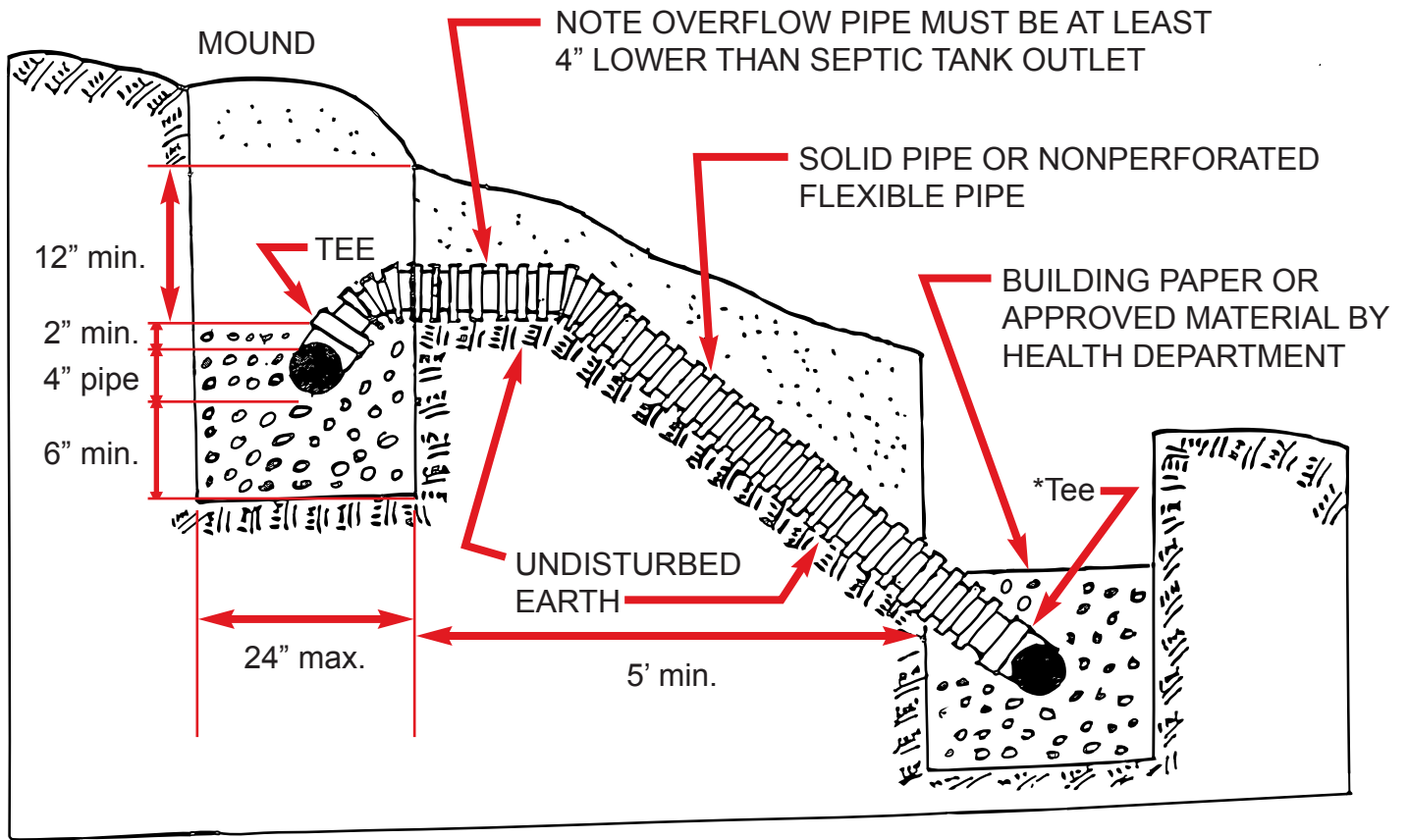
NOTE: LINES LESS THAN 40 FEET LONG
IN THE DISPOSAL SYSTEM WILL
REQUIRE ONLY ONE CROSS-OVER
TO AND FROM FIELD LINES

APPENDIX F-2

CROSSOVER DETAIL

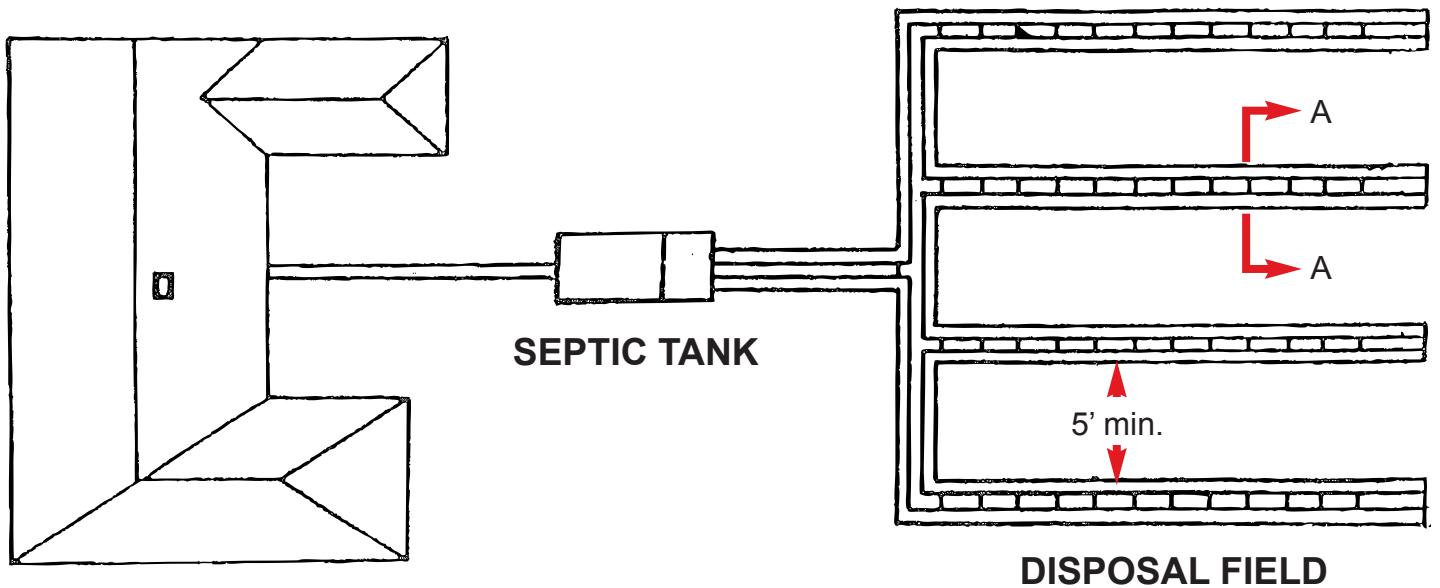
ABSORPTION FIELD SERIAL DISTRIBUTION FOR SLOPING GROUND

LINES 100 FT. OR LESS IN LENGTH SEE APPENDIX F-1A
LINES OVER 100 FT. IN LENGTH SEE APPENDIX F-1B

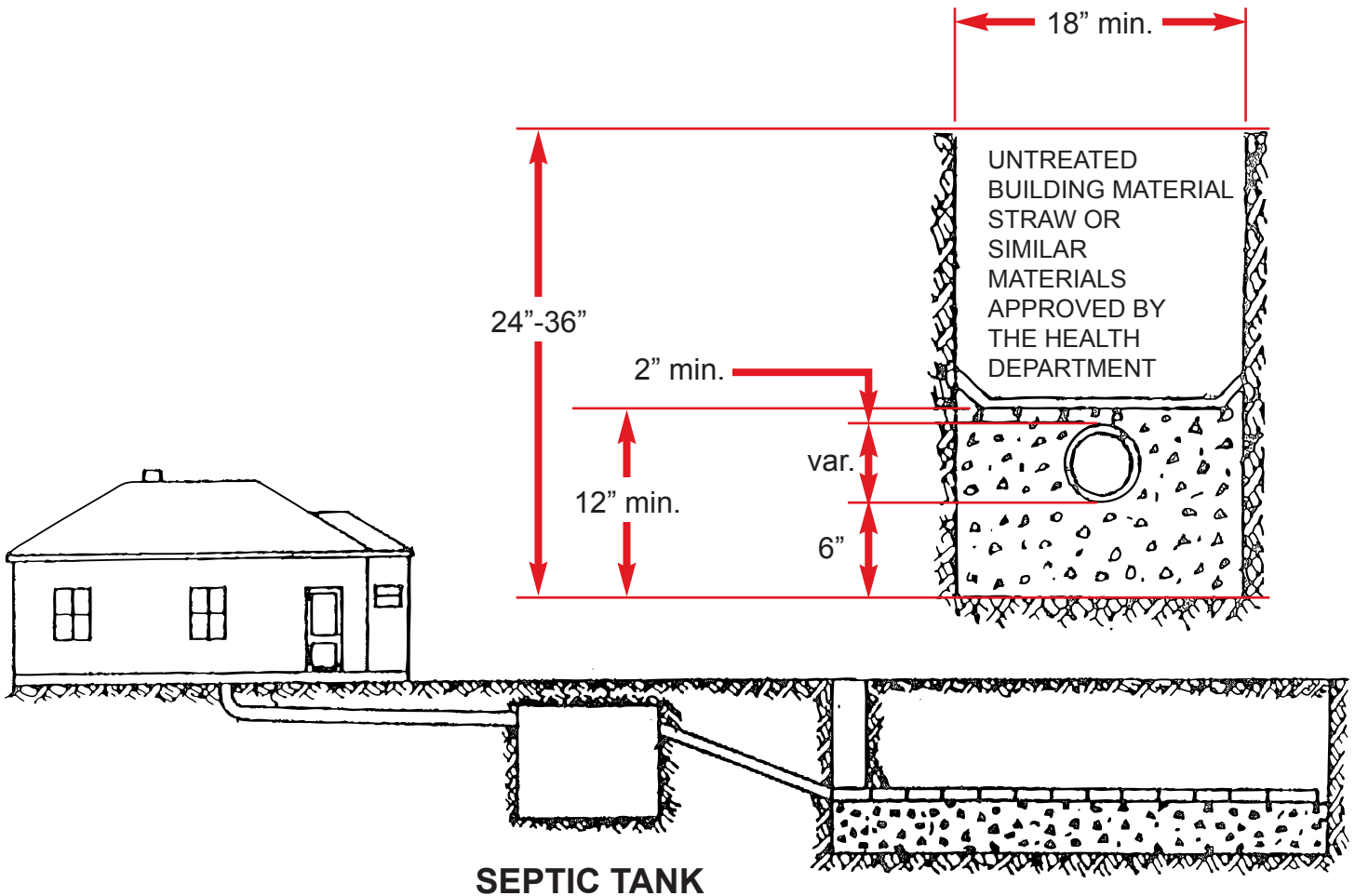


*MINIMUM REQUIRED FITTINGS

APPENDIX G
SECTION A-A
DETAIL OF CONSTRUCTION LAYOUT



TYPICAL PLAN



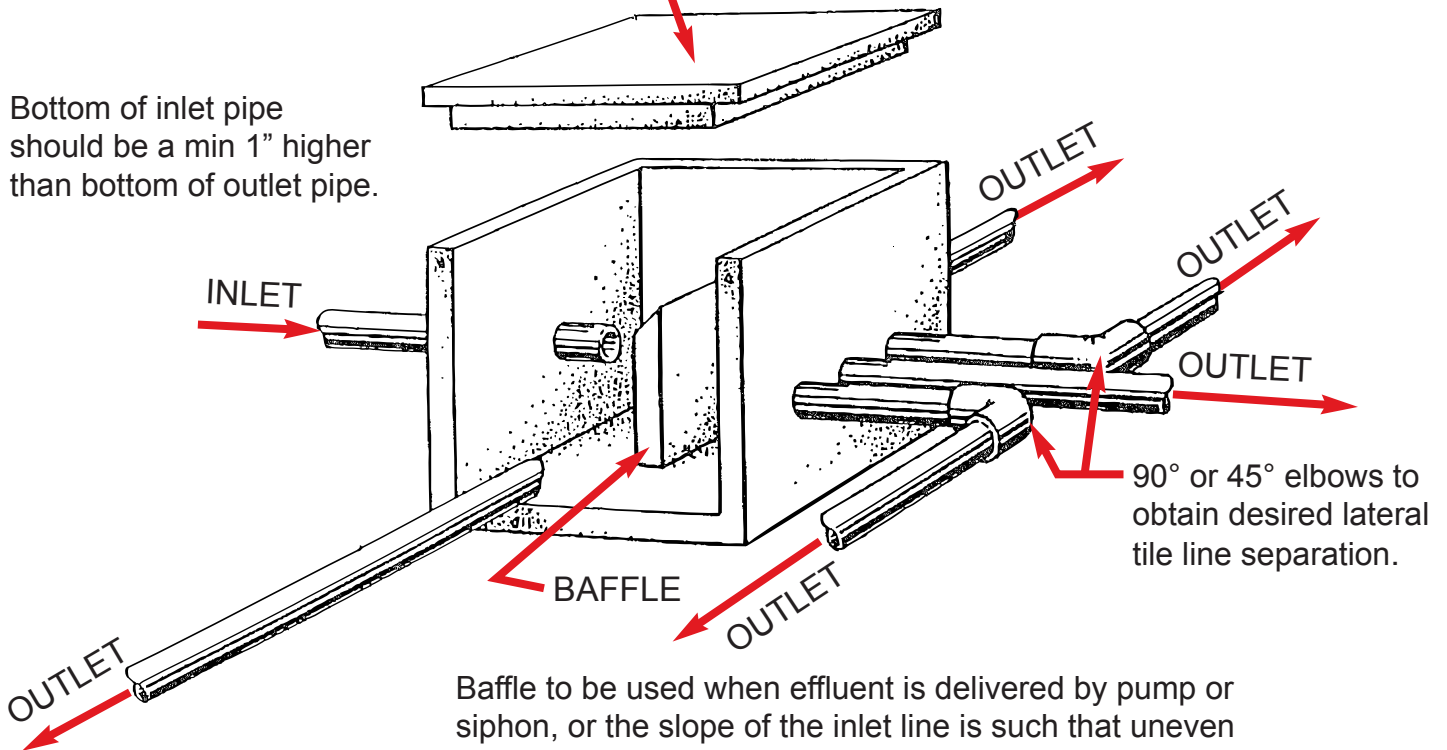
APPENDIX H

TYPICAL DISTRIBUTION BOX

Each tile field lateral shall be connected separately and not subdivided. Inverts shall be at the same elevation. Outlet pipes should have equal slopes for 5 feet after leaving box.

REMOVABLE COVER

Bottom of inlet pipe should be a min 1" higher than bottom of outlet pipe.



90° or 45° elbows to obtain desired lateral tile line separation.

Baffle to be used when effluent is delivered by pump or siphon, or the slope of the inlet line is such that uneven distribution could occur. Top of the baffle at least level with the crown of the inlet pipe.

APPENDIX I-1

PORTABLE TOILET REQUIREMENTS FOR CONSTRUCTION SITES

MINIMUM OF TOILET FACILITIES

Number of Employees	Minimum Number of Toilet Facilities If Serviced Once/Week
1-10	1
11-20	2
21-30	3
31-40	4
Over 40	1 additional facility for each 10 additional employees

Number of Employees	Minimum Number of Toilet Facilities If Serviced More Than Once/Week
1-15	1
16-35	2
36-55	3
56-75	4
76-95	5
Over 95	1 additional facility for each 20 additional employees

APPENDIX I-2

PORTABLE TOILET GUIDELINES FOR SPECIAL EVENTS

GENTLEMEN
MAX. LINE OF QUEUE LENGTH/UNIT: 10 PEOPLE
AVG. TIME BETWEEN USE: 2.0 (HRS)

AVERAGE TIME AT EVENT (HRS)

PEAK CROWD	1	2	3	4	5	6	7	8	9	10
250:	2	2	2	2	2	3	3	3	3	3
500:	2	3	4	4	4	4	4	4	4	4
1000:	4	5	6	7	7	8	8	8	8	8
2000:	6	10	12	13	14	14	14	15	15	15
3000:	9	14	17	19	20	21	21	21	22	22
4000:	12	19	23	25	28	28	28	30	30	30
5000:	15	23	28	32	34	36	36	36	36	36
6000:	17	28	34	38	40	42	42	42	44	44
7000:	20	32	40	44	46	48	50	50	50	50
8000:	23	38	46	50	54	57	57	57	57	57
10000:	30	46	57	63	66	69	69	72	72	72
12500:	36	57	72	80	84	88	88	88	88	92
15000:	44	69	84	96	100	105	105	105	110	110
17500:	50	80	100	110	115	120	125	125	125	125
20000:	57	92	115	125	132	138	138	144	144	144
25000:	72	115	144	154	168	175	175	175	176	184
30000:	88	138	168	192	200	207	207	216	216	216
40000:	115	184	225	250	264	275	276	288	288	288
50000:	144	225	288	312	336	350	350	350	360	360
75000:	216	350	425	475	500	525	525	525	528	550
100000:	288	450	575	625	675	675	700	700	725	725

* "Sanitarian & Health Official Guide", University of Missouri-St. Louis

APPENDIX I-3

PORTABLE TOILET GUIDELINES FOR SPECIAL EVENTS

LADIES

MAX. LINE OF QUEUE LENGTH/UNIT: 10 PEOPLE
AVG. TIME BETWEEN USE: 2.0 (HRS)

AVERAGE TIME AT EVENT (HRS)

PEAK CROWD	1	2	3	4	5	6	7	8	9	10
250:	2	2	3	3	3	3	3	3	3	3
500:	3	4	5	5	5	5	5	5	5	6
1000:	5	7	8	9	9	10	10	10	10	10
2000:	8	13	15	17	18	19	19	19	19	19
3000:	12	19	23	25	28	28	28	30	30	30
4000:	16	24	30	34	36	38	38	38	38	38
5000:	19	32	38	42	44	46	46	48	48	48
6000:	23	38	46	50	54	57	57	57	57	57
7000:	28	42	54	60	63	63	66	66	66	66
8000:	32	48	60	66	72	72	75	75	75	75
10000:	38	60	75	84	88	92	92	96	96	96
12500:	48	75	92	105	110	115	115	120	120	120
15000:	57	92	115	125	132	138	138	144	144	144
17500:	66	105	132	144	154	161	161	168	168	168
20000:	75	120	150	168	175	184	184	192	192	192
25000:	96	150	184	207	225	225	230	240	240	240
30000:	115	184	225	250	264	275	275	288	288	288
40000:	150	240	300	336	350	360	375	375	375	375
50000:	192	300	375	425	450	450	475	475	475	475
75000:	288	450	550	625	650	675	700	700	725	725
100000:	375	600	750	825	875	900	925	950	950	950

* "Sanitarian & Health Official Guide", University of Missouri-St. Louis

APPENDIX J

ORGANIC LOADING RATES BY TYPE OF ESTABLISHMENT

Type of Establishment	Organic Loading Rates Pounds BOD ₅ Person Per Day (Unless Otherwise Noted)
-----------------------	---

Residential

Hotels, motels, and rooming houses	0.15
Private dwellings, multifamily dwelling, or apartments (per unit) 2 bedrooms or less	0.68*
(3 bedrooms or more) (per bedroom)	0.34*

*NOTE: If garbage grinders are installed, multiply organic loading rate by 1.5.

Commercial

Airports (per passenger-not including food)	0.02
Airports (per employee)	0.05
Bus service areas not including food	0.02
Day Workers at offices	0.05
Drive-in theaters (not including food-per space per day)	0.02
Factories and plants (exclusive of industrial wastes) per shift	0.05
Movie Theaters (per auditorium set-not including food)	0.02
Restaurants (employees)	0.05
Restaurants (kitchen wastes per meal served)	0.03**
Work or construction camps	0.15

**NOTE: If the restaurant has a garbage grinder, add 0.03 pounds per meal.

Institutional

Churches (per auditorium seat-not including food)	0.02
Hospitals (staff and patients)	0.30
Schools, boarding	0.17
Schools	0.04
Schools (with cafeteria)	0.05***
Schools (with cafeteria, gym and showers)	0.06***

***NOTE: If cafeteria has garbage grinder, add 0.01 pounds per person.

Recreational

Camps, day (no meals served)	0.05
Camps, resort	0.17
Camps, (night and day) with limited plumbing	0.15
Camps, (tourist) trailer or campground with individual sewer hookups (per space)	0.17
Camps, (tourist) trailer or campground (per space)	0.15
Fairground and parks, picnic-with bathhouses, showers, and flush toilets	0.05
Fairground and parks, picnic (toilet wastes only)	0.02
Swimming pool and bathhouses	0.03

APPENDIX K

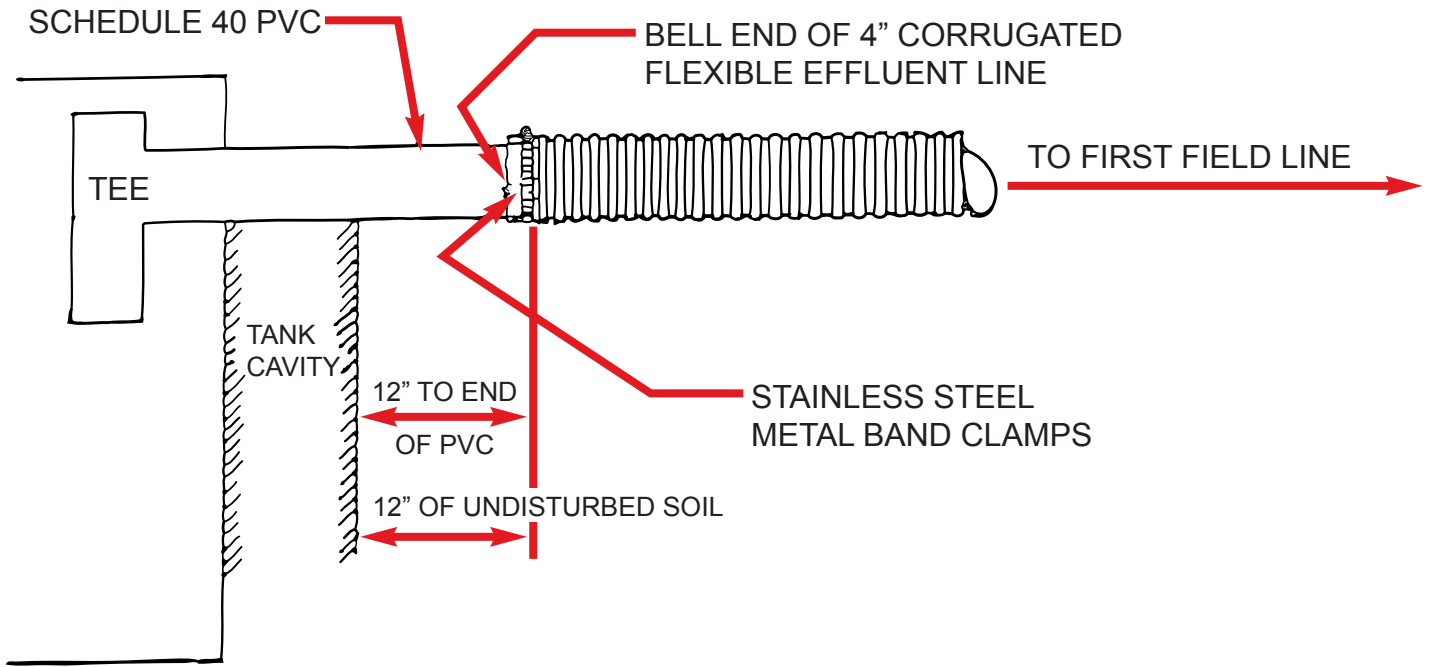
MINIMUM REQUIREMENTS FOR GRAVEL-LESS PIPE

Trench bottom - minimum width	18"
Trench bottom - maximum width	24"
Trench bottom - minimum depth	18"
Trench bottom - maximum depth	36"
Effluent distribution line - minimum diameter	8"
Effluent distribution line - maximum diameter	10"

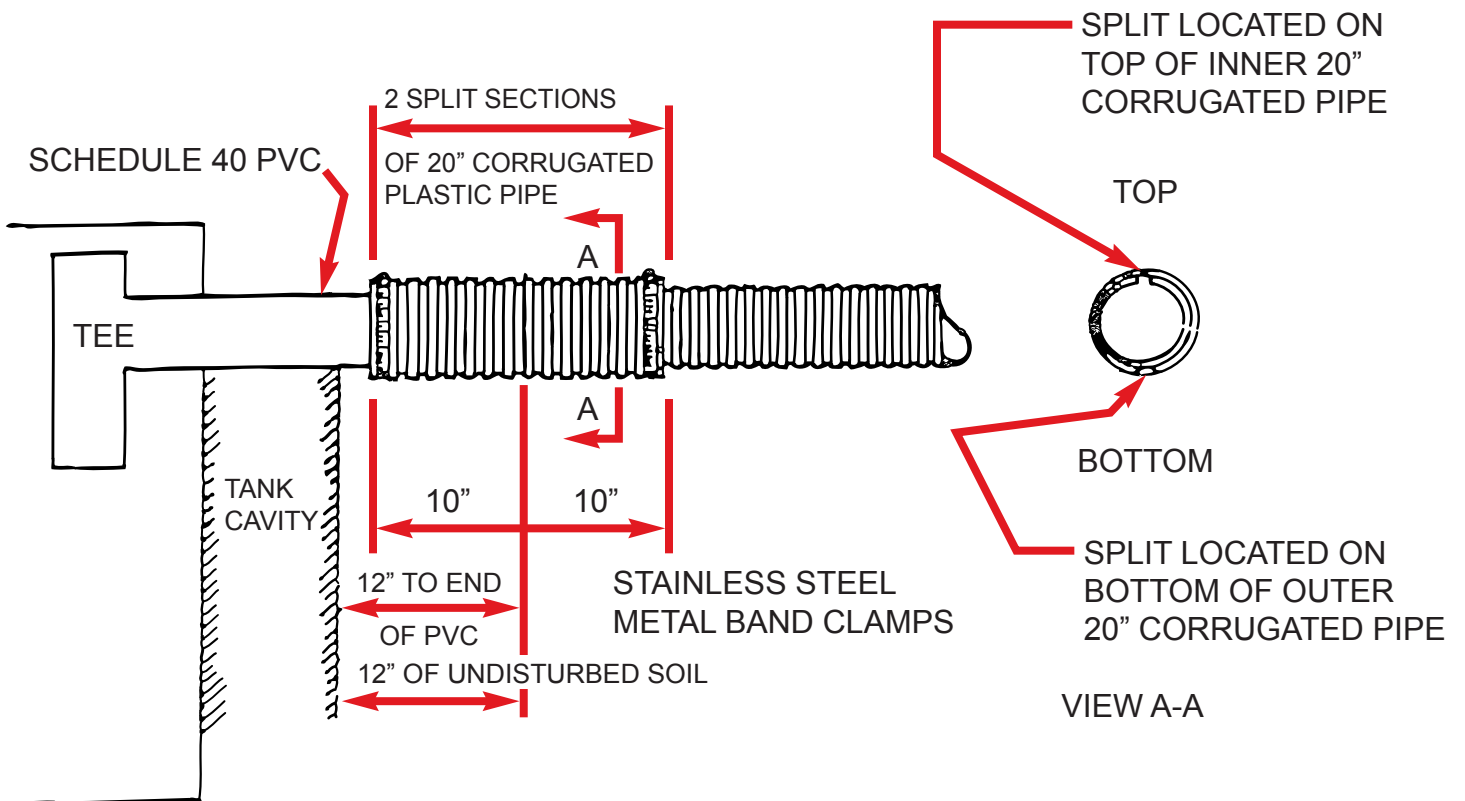
Large diameter effluent distribution lines shall be manufactured in accordance with the following specifications:

- 1) The 8" and 10" I.D. tubing shall be corrugated polyethylene, or similar strength and durability material, meeting the requirements of ASTM F667, Standard Specification for 8" and 10" corrugated polyethylene tubing with the following exceptions:
 - a) Perforations shall be clearly cut and uniformly spaced along the length of the tubing as follows: a minimum of two (2) rows of three-eighths inch (3/8") to one-half (1/2") diameter holes located 115° - 125° apart along the bottom half of the tubing (each 57.7° - 62.5° up from the bottom center line). Any additional rows of perforations shall be equally located, about the bottom center line, above the rows of perforations listed above. These perforations should be staggered so that there is only one (1) hole in each corrugation.
 - b) The tubing shall be marked with a visible top location stripe.
- 2) Filter Wrap - All large (8 - 10") diameter effluent distribution lines shall be encased, at the point of manufacture, with a spun bonded nylon, or other material of similar strength and durability filter wrap.
- 3) Endcaps, connectors, and fittings manufactured by the maker of the gravel-less pipe to be used for all installations of the gravel-less pipe to be used for all installations of the gravel-less pipe.
- 4) The Health Department reserves the right to limit the use of the gravel-less pipe in soil Type 3 and Type 4, see Appendix P of these Regulations.

APPENDIX L



BEFORE 20" SPLIT SECTION ADDED



AFTER 20" SPLIT SECTION ADDED

APPENDIX N

JEFFERSON COUNTY DEPARTMENT OF HEALTH WAIVER OF PERMIT TO REPAIR CONVENTIONAL ON-SITE SEWAGE DISPOSAL SYSTEM

I, _____, owner of property located at
name (print legibly)

_____, do hereby request no permit
Street City Zip

to repair be issued by the Health Department for the following repairs associated with my currently malfunctioning on-site sewage disposal system:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

I understand that any and all repairs shall conform to the Regulations and shall be inspected and/or permitted by the Health Department upon completion.

I do hereby authorize _____ to make the above repairs.
(Company)

Signed: _____
(Property Owner)

Phone: H. _____ Wk. _____

Date: _____

I, _____, certified installer in Jefferson County, Alabama acknowledge that any and all repairs made in conjunction with this waiver shall meet the Regulations concerning conventional on-site sewage disposal systems. I further acknowledge that I shall contact the Health Department and receive a permit to repair if this repair should require any **non-conventional, alternate, or experimental** installation. I also acknowledge that an inspection of the repair is required.

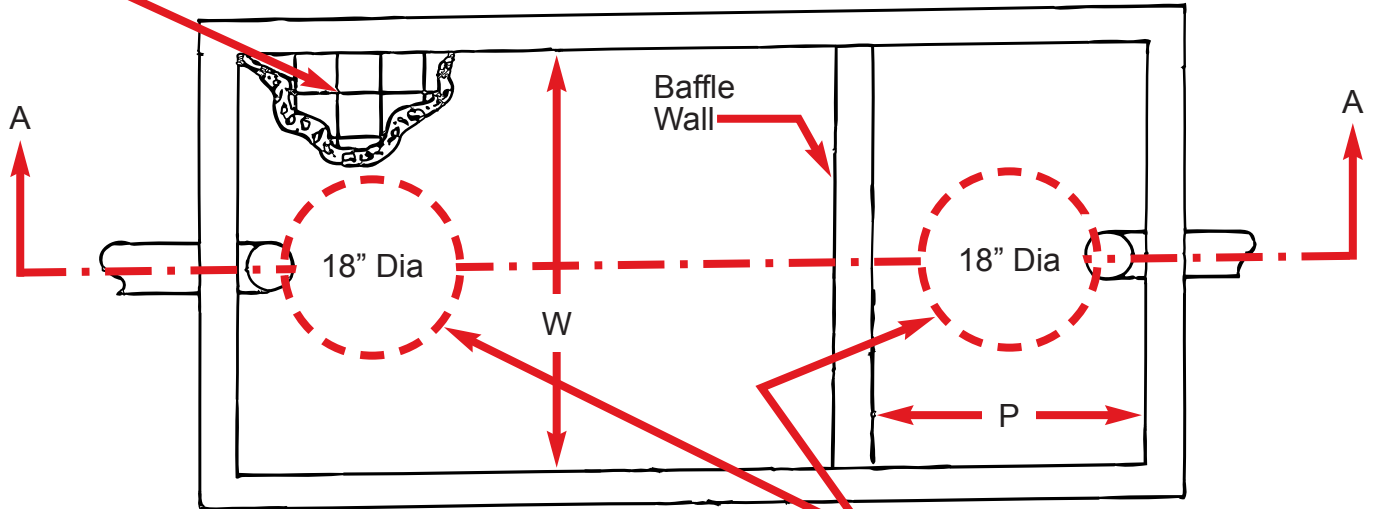
Signed: _____
(Certified Installer)

Date: _____

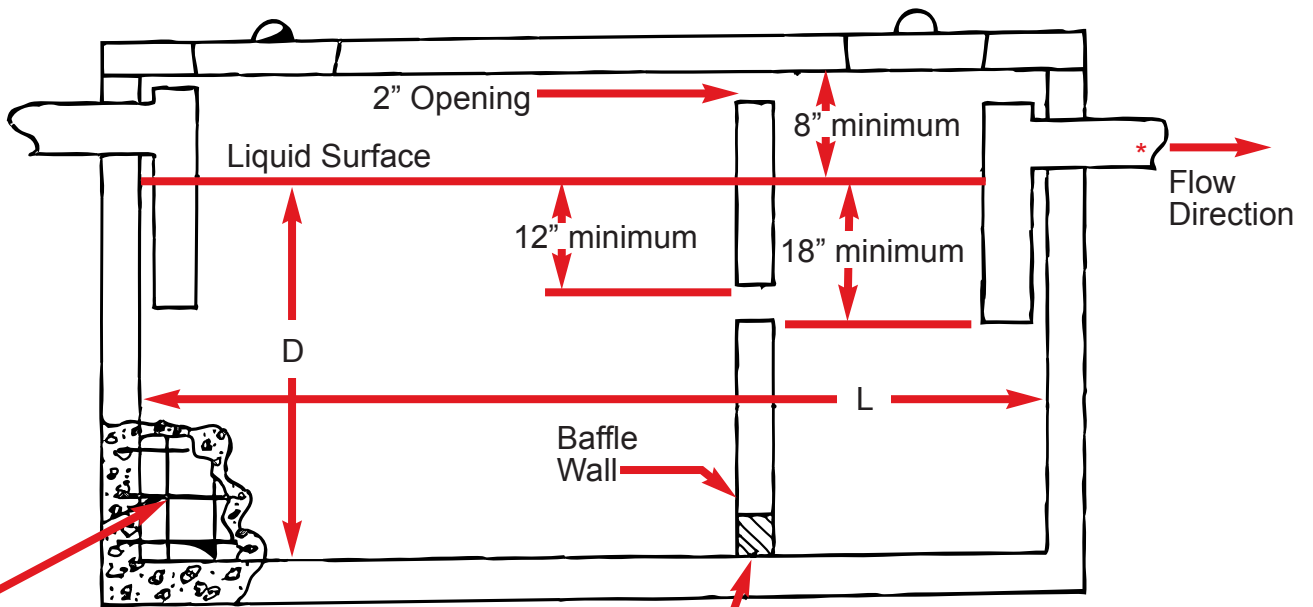
APPENDIX O

SEPTIC TANK DETAILS

Minimum 6" x 6" No. 10 Welded Steel



Locate Inspection Holes Near Inlet and Outlet



Minimum 6" x 6"
No. 10 Welded Steel

SECTION A-A

4" x 6" Opening-Bottom
Corners of Baffle

See Part 5.1 of these Regulations for dimensions.

D- Liquid Depth

L- Tank Length

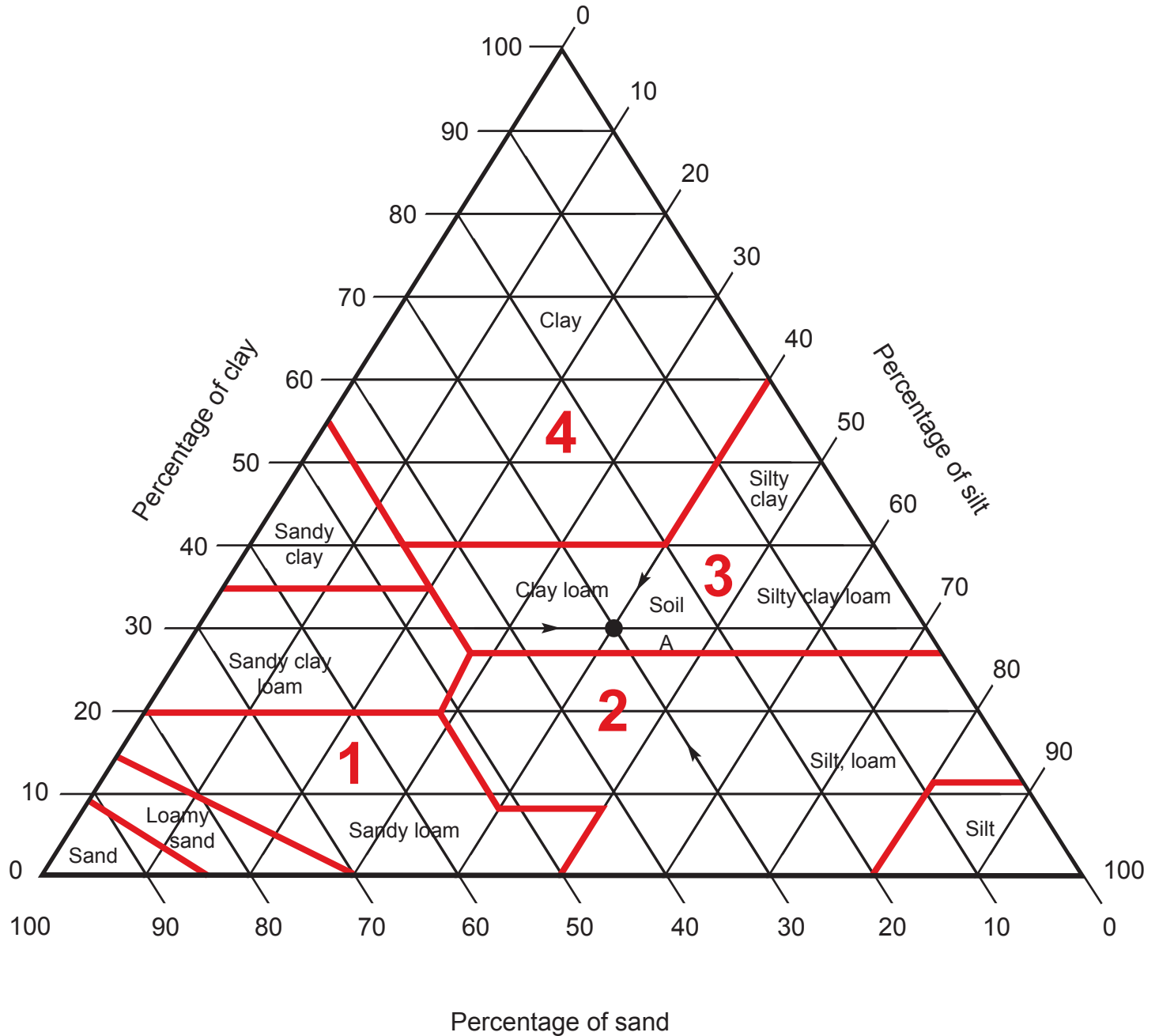
W- Tank Width

P- Position of Baffle Wall

*NOTE: Invert of outlet tee is to be 3 inches below the invert of the inlet tee.

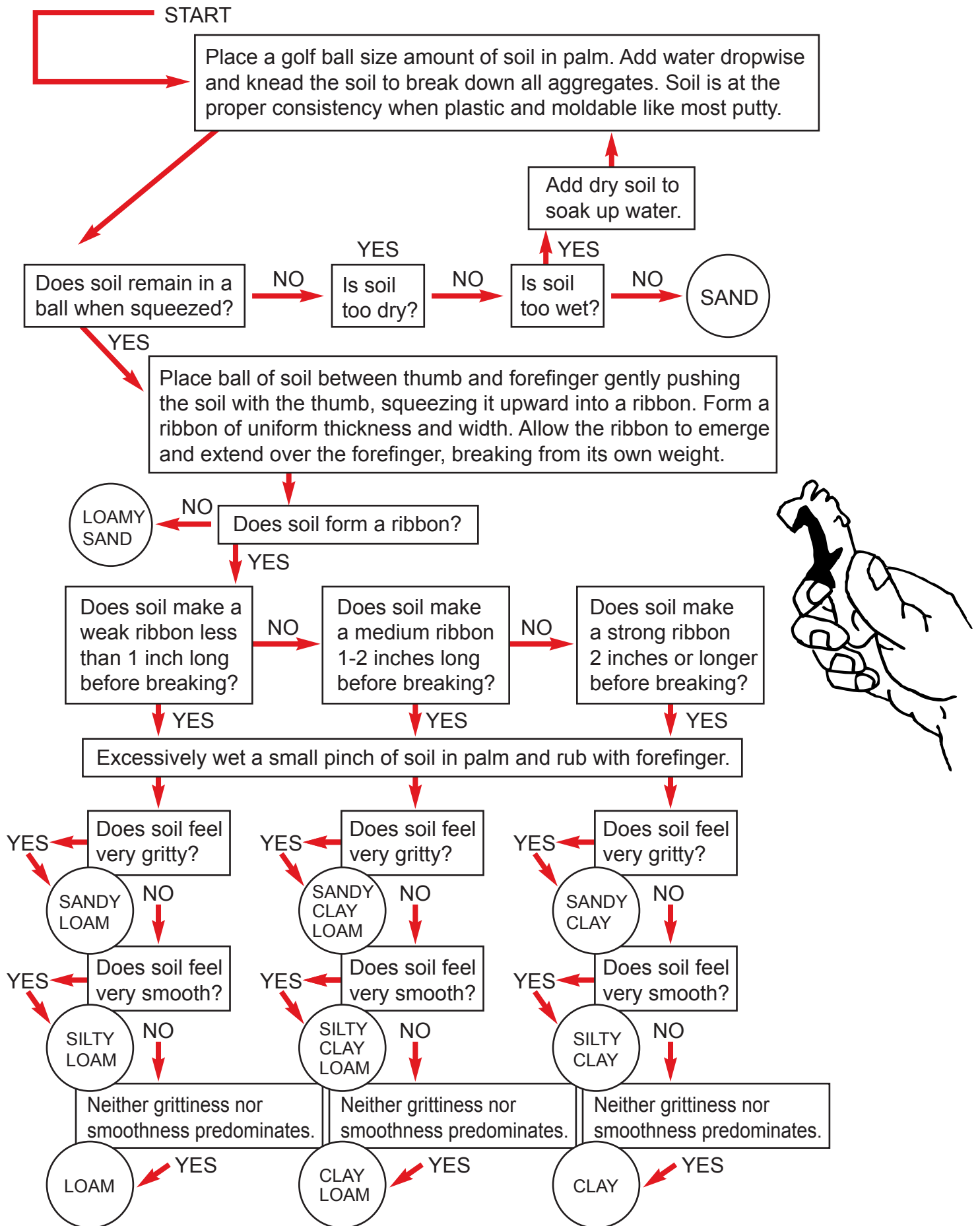
APPENDIX P

USDA SOIL TEXTURAL CLASSIFICATION JEFFERSON COUNTY DEPARTMENT OF HEALTH SOIL TEXTURAL TYPES



See Appendix E of these Regulations for anticipated percolation rates per soil textural type.

APPENDIX P-1 TEXTURE BY FEEL ANALYSIS



APPENDIX P-2

FIELD GUIDE TO SOIL TEXTURE CLASSES (USDA)

Introduction - The purpose of this test is to provide a standard procedure for estimating soil texture in the field. The texture is estimated by the “feel” of the moist soil. The texture of a soil cannot be estimated by “feel” if it is either dry or wet.

Definitions

Particle Size Classes

-Sand - Sand has a particle size ranging from 0.05 millimeters (mm) to 2.0 mm in diameter. Sand imparts a gritty feel to soil due to the shape of the individual particles.

-Silt - Silt has a particle size ranging from 0.002 mm to 0.05 in diameter. When moist, silt has a floury feel and does not ribbon when pressed between the thumb and forefinger due to the shape of the individual particles. When placed between the teeth, silt has a gritty feeling.

-Clay - Clay has a particle size less than 0.02 mm in diameter. Clay exhibits colloidal properties, has a negative charge, and is flat and platelike in shape. Moist clay is sticky and will ribbon readily when pressed between the thumb and forefinger. When placed between the teeth, clay has a smooth, slick feeling.

-Soil Texture - Soil texture refers to the relative proportions of sand, silt and clay particles in a soil material that has a particle size less than two (2) mm in diameter. Soil texture is an indicator of infiltration capacity, permeability, degree of aeration and drainage, as well as other physical characteristics of a soil material.

-Soil Texture Classes - The United States Department of Agriculture (USDA) has identified 12 soil texture classes as follows: sand, loamy sand, sandy loam, sandy clay loam, loam, silt loam, silt, silty clay loam, clay, clay loam, sandy clay and silty clay. Each texture class has a distinctive characteristic (s) which can be estimated in the field by trained personnel.

-Distinguishing Characteristics - The following characteristics are based on moist soil:

TYPE 1

-Sand - Sand has a gritty feel, does not stain the fingers and does not form a ball when moist.

-Loamy Sand - Loamy sand has a gritty feel, stains the fingers (silt and clay) and forms a weak ball, but cannot be handled without breaking.

-Sandy Loam - Sandy loam has a gritty feel, and forms a ball that can be picked up with the fingers and handled with care without breaking.

TYPE 2

-Loam - Loam may have a slightly gritty feel, but does not show a finger print and forms only short ribbons of from 0.25 inch to 0.50 inch in length. Loam will form a ball that can be handled without breaking.

-Silt Loam - Silt loam has a floury feel when moist and will show a finger print, but will not ribbon and forms only a weak ball.

-Silt - Silt has a floury feel when moist and sticky when wet, but will not ribbon and forms a ball that will tolerate some handling.

-Sandy Clay Loam - Sandy clay loam has a gritty feel, but contains enough clay to form a firm ball and may ribbon to form 0.75 inch to one-inch pieces.

TYPE 3

-Silty Clay Loam - Silty clay loam is sticky when moist and will ribbon from one (1) to two (2) inches. Rubbing silty clay loam with the thumbnail produces a moderate sheen. Silty clay loam produces a distinct finger print.

-Clay Loam - Clay loam is sticky when moist. Clay loam forms a thin ribbon of one (1) or two (2) inches in length and produces a slight sheen when rubbed with the thumbnail. Clay loam produces a nondistinct fingerprint.

-Sandy Clay - Sandy clay is plastic, gritty and sticky when moist, and both forms a firm ball and produces a thin ribbon to over two (2) inches in length.

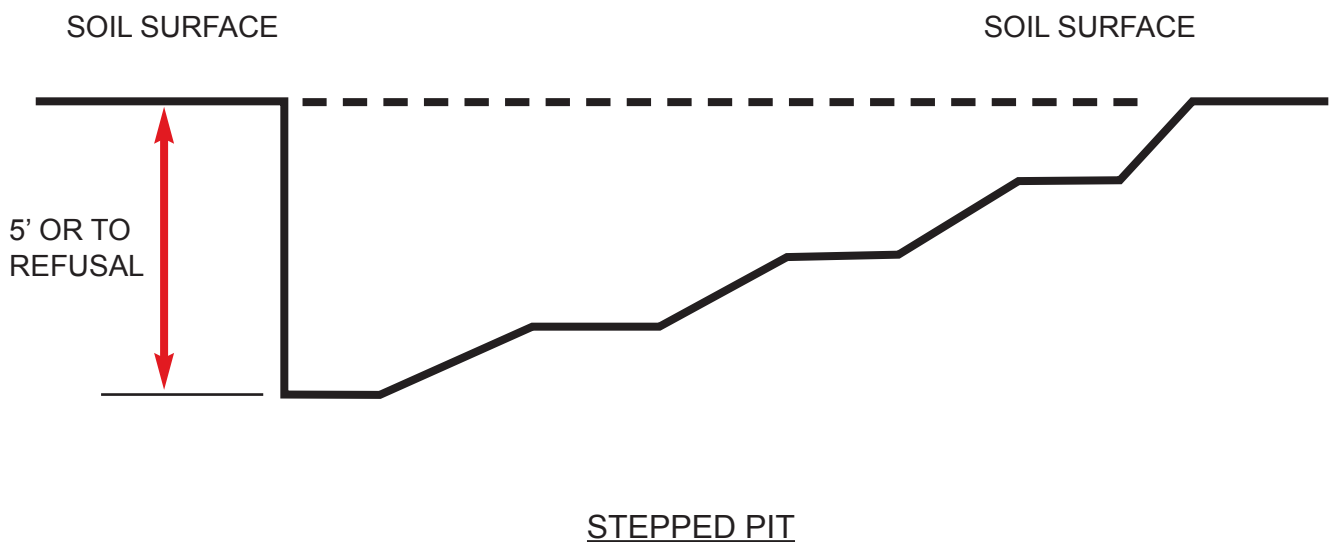
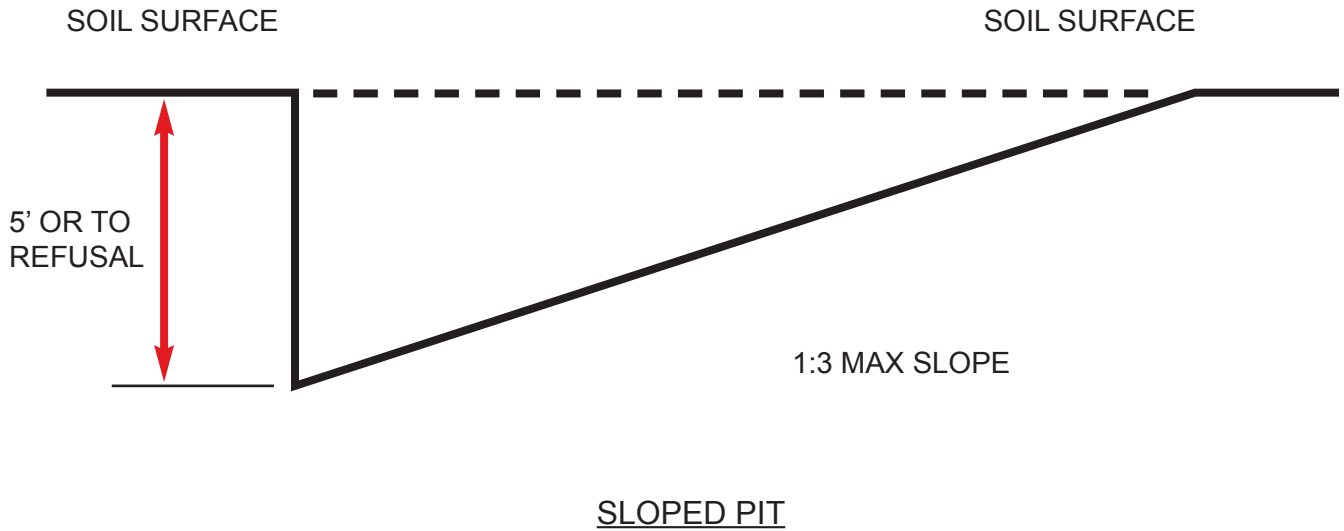
-Silty Clay - Silty clay is both plastic and sticky when moist and lacks any gritty feeling. Silty clay forms a firm ball and readily ribbons to over two (2) inches in length.

TYPE 4

-Clay - Clay is both sticky and plastic when moist, produces a thin ribbon over two (2) inches in length, produces a high sheen when rubbed with the thumbnail, and forms a strong ball resistant to breaking.

APPENDIX Q

MINIMUM GUIDELINES FOR BACKHOE DUG SOIL INSPECTION PITS

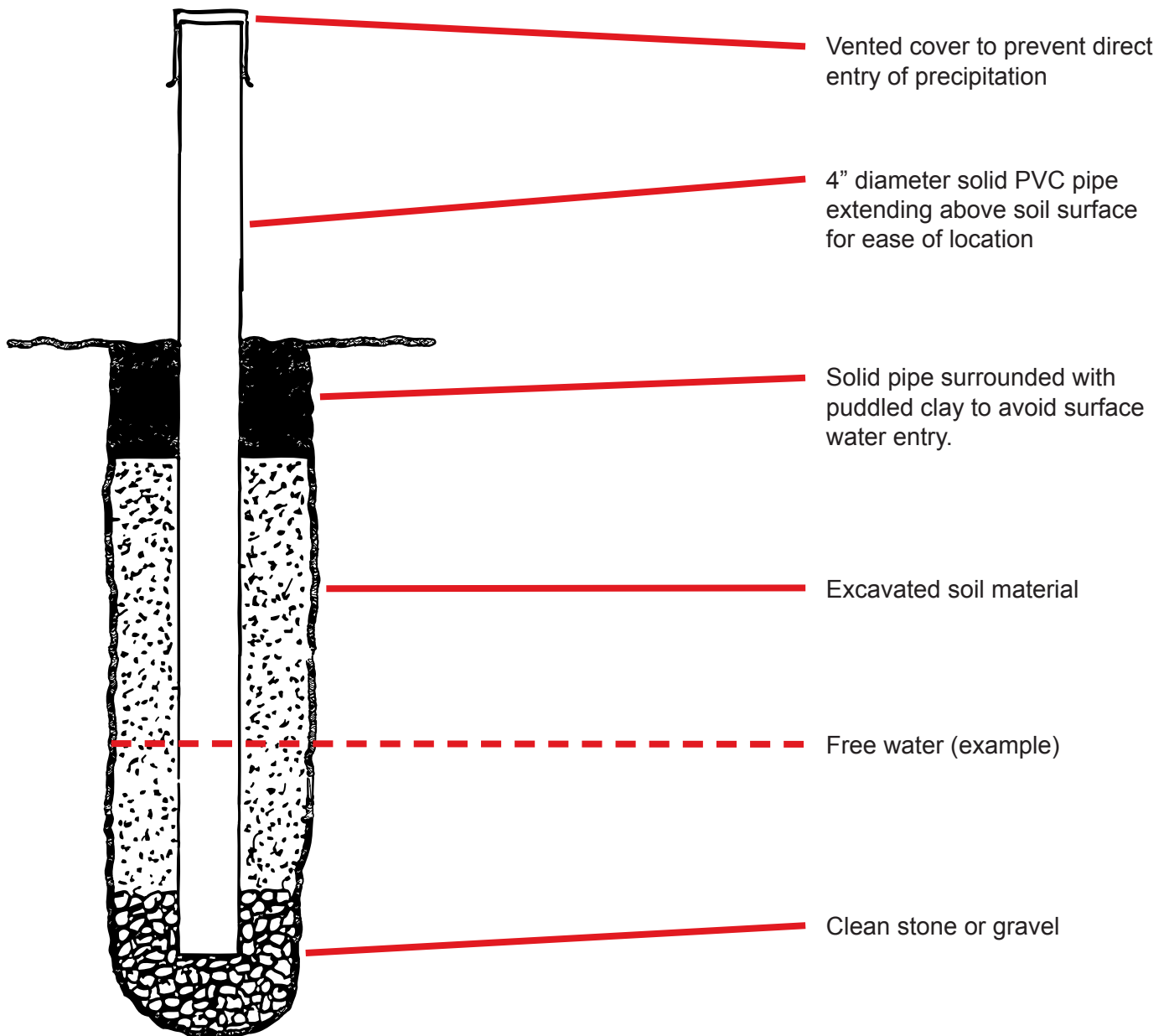


NOTE: For the safety of everyone all inspection pits should be dug in a manner which will allow an individual to walk in or out. Health Department will not evaluate unsafe pits.

APPENDIX R

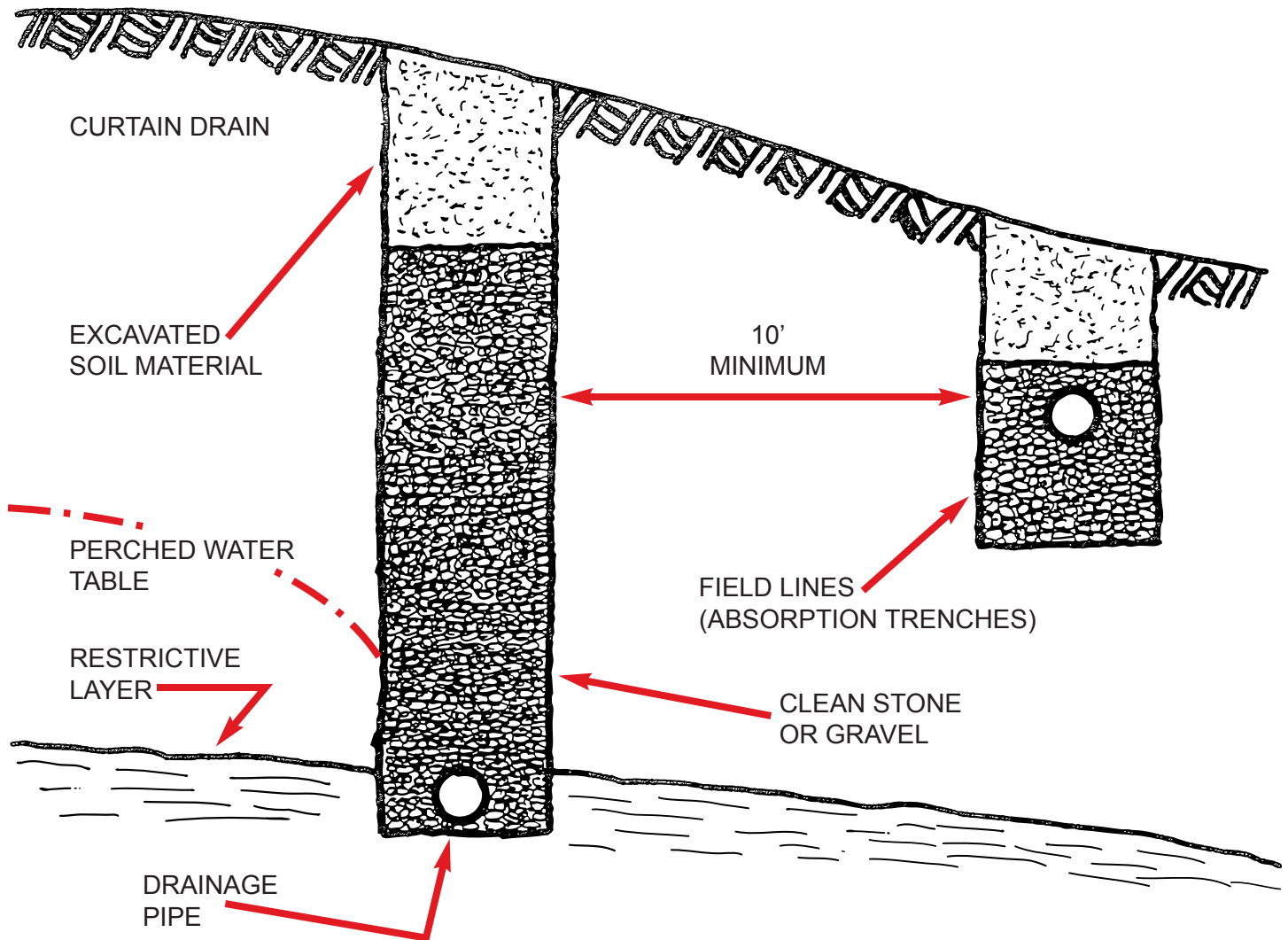
MONITORING WELL

Measurements to the free water level in the observation wells shall be reported with an accuracy of 1/2". Documentation of high ground water levels for approved monitoring programs shall be done during the Spring when ground water levels are normal or above normal.



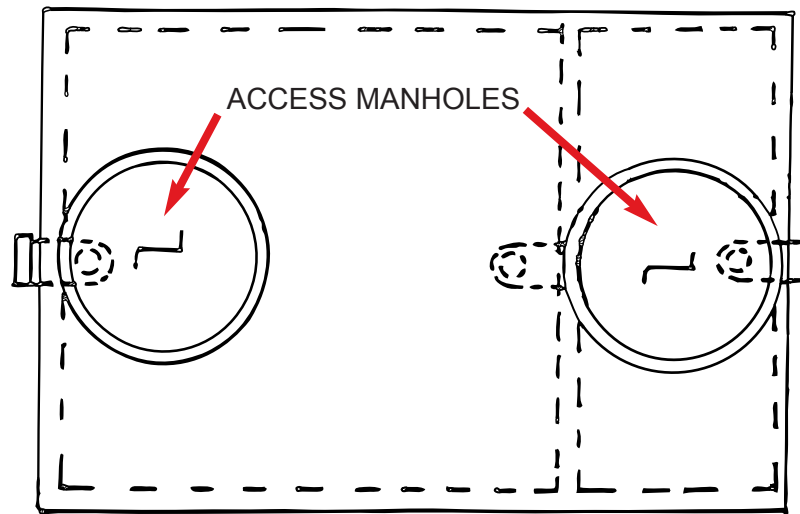
APPENDIX S

TYPICAL CURTAIN DRAIN



NOTE: Curtain drain typically is 18" in width, depth is to be a minimum of 12" below the bottom of the lowest field line. Clean stone or gravel is to be brought to within 12" of the ground surface. Downhill side of the curtain drain may be required to be lined with a heavy mil roll plastic. The french drain should be dug a minimum of 10' upgradient from the first field line. The drainage pipe should be laid so that water will exit the pipe by gravity flow, with exiting water entering an existing drainage course.

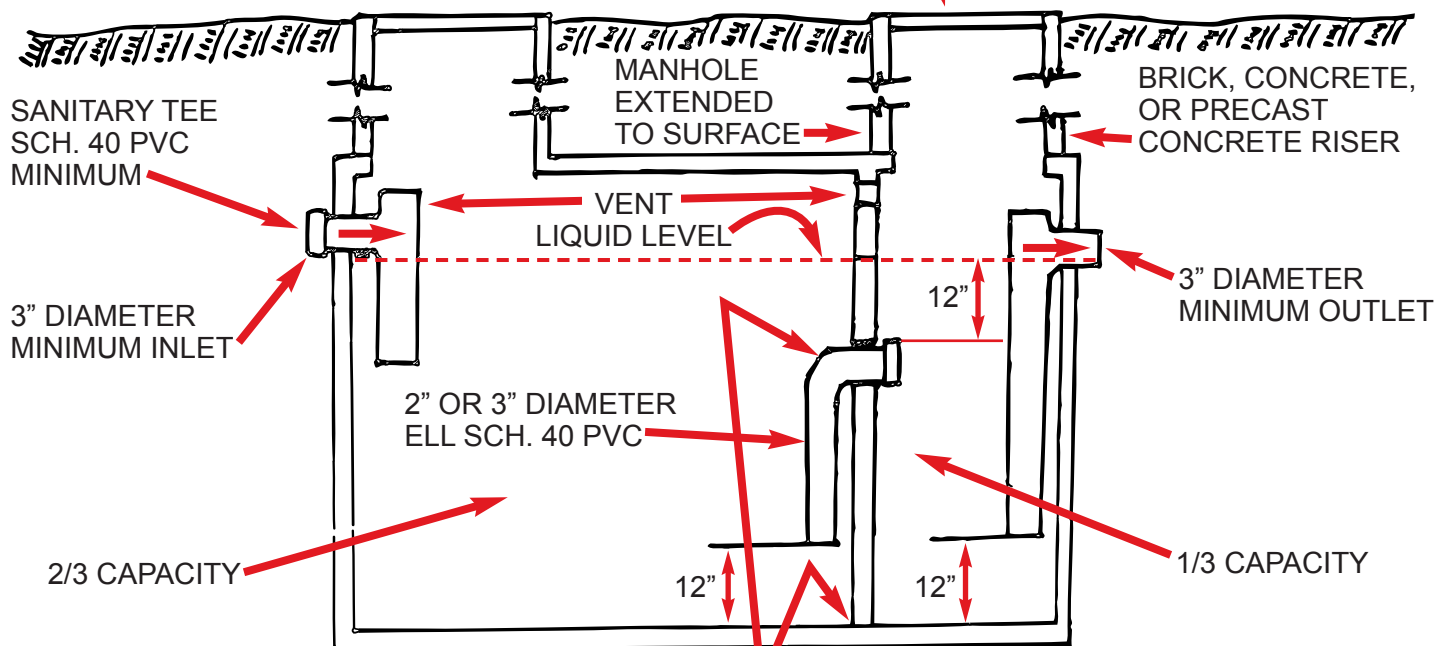
APPENDIX T
1000 GALLON GREASE TRAP



PLAN VIEW

Minimum 24" diameter C.I. manhole covers or other materials as approved by health department

ROUND SURFACE

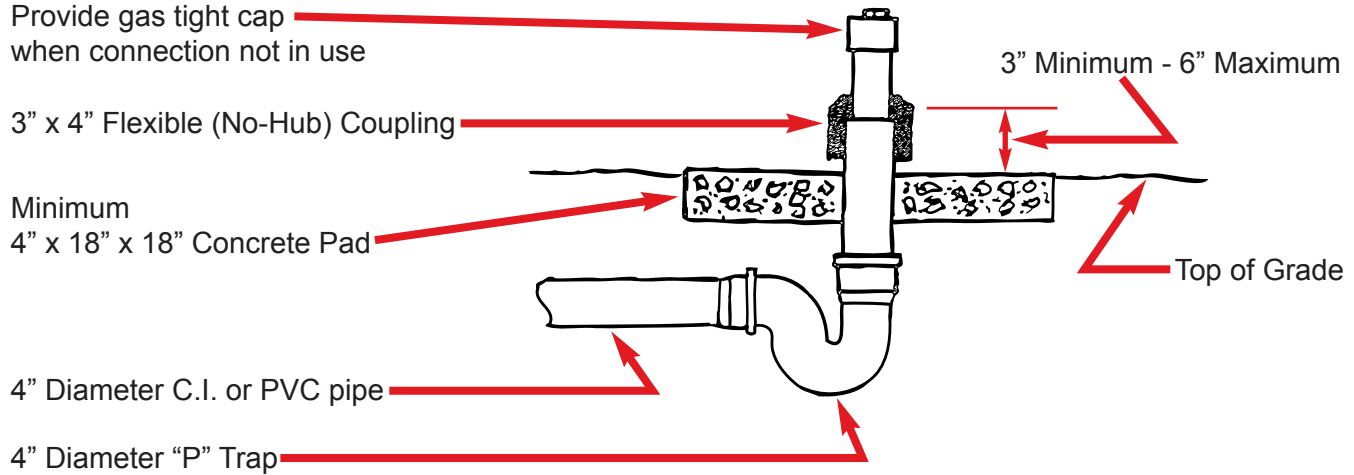


SEAL BAFFLE WALL COMPLETELY

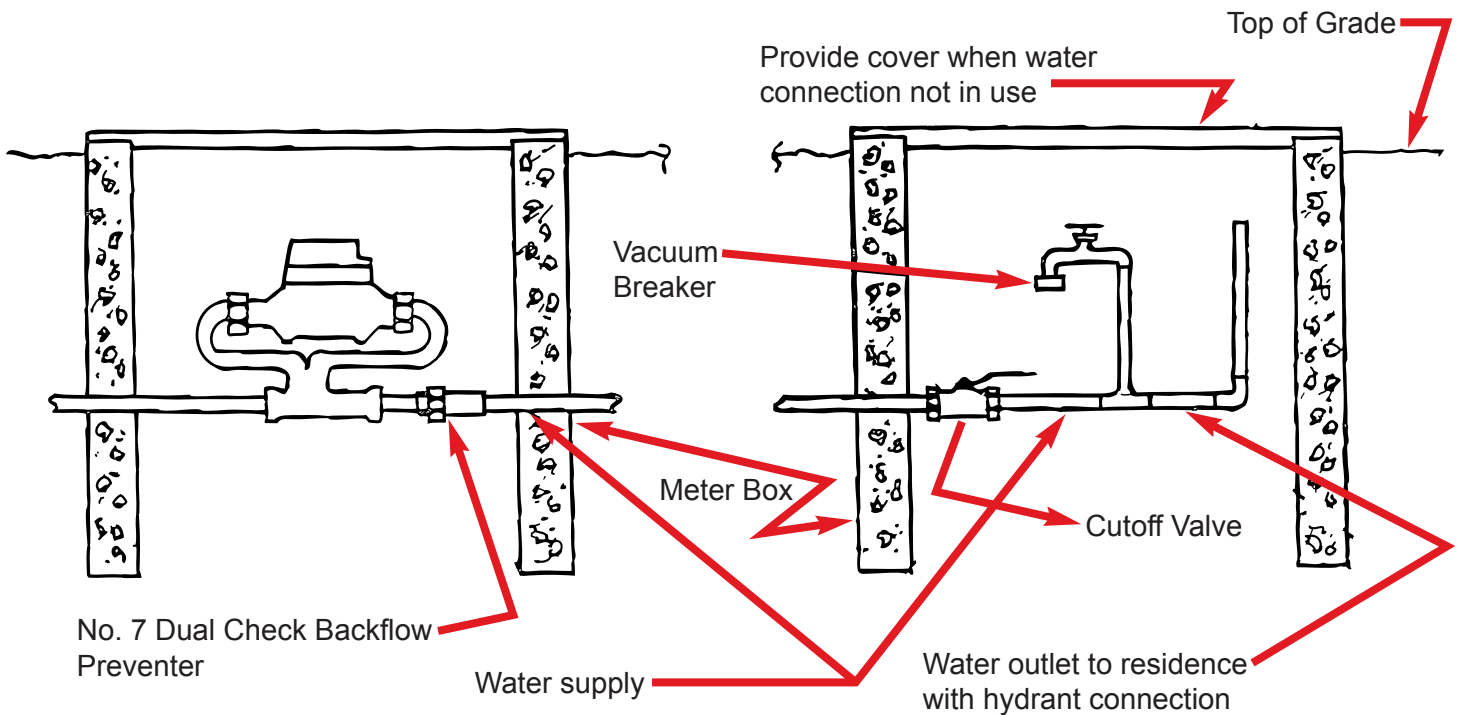
SECTION VIEW

APPENDIX U

TYPICAL MANUFACTURED HOME AND TRAILER PARK WATER AND SEWER CONNECTIONS



SEWER CONNECTION (One per Home/Trailer space)



WATER SUPPLY CONNECTION (One per Home/Trailer space)