

E. The discharge of water from downspouts, foundation drains, etc. or other unused DELAWARE TOWNSHIP septic tank or on or over the disposal system is prohibited.

ORDINANCE #8

ARTICLE II

An Ordinance of the Township of Delaware, Mercer County, Pennsylvania, defining and regulating individual sewage disposal systems; requiring minimum standards governing the design, construction and installation of septic tank soil absorption systems, privies and chemical type toilets; authorizing the issuance of permits and providing for penalties for violations.

SECTION I Minimum Distances

Property 10 feet
Occupied Buildings 10 feet

1.1 For the purposes of this Ordinance, the following words and phrases shall have the meanings ascribed to them in this section.

1.1.1 Sanitary Officer- shall mean the legally designated authority of the Township of Delaware, Mercer County, Pennsylvania or his authorized representative.

1.1.2 Individual sewage disposal system- shall mean a sewage disposal system other than a public or community system which receives either human excreta or liquid waste or both from one or more premises. Included within the scope of this definition are septic tank soil absorption systems, privies, and chemical type toilets and such other types as may be prescribed in regulations.

1.1.3 Permit or license- shall mean a written permit or license issued by the sanitary officer, permitting and- or licensing the construction of an individual sewage disposal system under this ordinance.

1.1.4 Person- shall mean any institution, public or private corporation, individual, partnership or other entity.

SECTION II

REQUIREMENTS FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEMS

The following standards shall apply for the installation, alteration, repair or extension of individual sewage disposal systems in the Township of Delaware.

A. No septic tank shall be located to provide less than the minimum distances as stated in Article I.

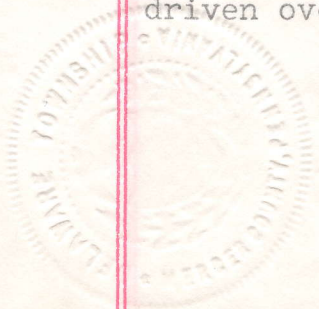
B. The liquid capacity of a septic tank serving a dwelling shall be based on the number of bedrooms contemplated in the dwelling, which is listed in the following Table II:

A. No raw sewage, septic tank effluent or seepage from a soil absorption system shall be discharged to the surface water, nor shall it be discharged, except as hereinafter provided, into any rock formation, the structure of which is not conducive to purification of water by filtration.

B. No installations of individual sewage disposal systems shall be made in low areas or areas which may be subject to flooding.

C. To protect underground water supply in areas with a high ground water table or where limestone or any geological formation similarly faulty is covered by less than fifty (50) feet of earth, the final disposal unit shall be a tile field. The bottom of the trenches shall be above the water table and at least two (2) feet above the surface of the faulty rock formation.

D. No bulldozers, trucks or other heavy machinery shall be driven over the system after installation.



E. The discharge of water from downspouts, foundation drains, etc. or other unused water into the septic tank or on or over the disposal system is prohibited.

ARTICLE II

SEWER CONSTRUCTION

A. No buried or concealed portion of the building sewer or building drain or branch thereof serving any premise shall be located less than the following minimum distances:

TABLE I
Sewer and Septic Tank Minimum Distances

Property Line	10 feet
Occupied Buildings	10 feet
Buried Water Pipe	10 feet
Under Pressure	
Domestic Water Supply	50 feet
Buried Water Pipe	
Under Suction	50 feet

B. The portions of any buried sewer more than fifty (50) feet from a well or buried suction line shall be of adequate size and constructed of cast iron, vitrified clay, cement- asbestos or bituminized fiber pipe. Any building drain or building sewer shall be not less than four (4) inches in diameter.

C. Bell and spigot of vitrified clay pipe shall be prepared to form a concentric opening uniform in width around the pipe of which the opening shall be filled with an acceptable sawer joint compound. Cement joints shall be painted on the outside and left smooth on the inside by drawing a swab or scraper through the joint. The line shall have a grade of not less than 1/8 inch per foot. The ten (10) feet of sewer immediately preceding the septic tank shall slope not more than 1/4 inch per foot. No 90 degree ells shall be permitted and where the direction of the sewer is changed in excess of 45 degrees, accessible cleanouts shall be provided.

ARTICLE III

SEPTIC TANK

A. No septic tank shall be located to provide less than the minimum distances as stated in Table 1.

B. The liquid capacity of a septic tank serving a dwelling shall be based on the number of bedrooms contemplated in the dwelling, which is listed in the following Table II:

TABLE II

Minimum Capacities for Septic Tanks

(provides for use of garbage grinders, automatic washers and other household appliances.)

No. of bedrooms	Minimum Tank Capacity
2 or less	750 Gallons
3	900 Gallons
4*	1000 Gallons
*For each additional bedroom, add 250 Gallons.	

For institutional type systems, motels, etc., the liquid capacity of a septic tank shall provide a sewage detention period of not less than twenty-four (24) hours in the tank. Sewage flow shall be computed according to types of establishment and water use. With sewage flows greater than one thousand five hundred (1,500) gallons per day, the liquid tank capacity shall equal one thousand one hundred twenty-five (1,125) gallons plus seventy-five (75) percent of the daily anticipated sewage flow.

C. The liquid depth of any septic tank or compartment thereof shall not be less than thirty (30) inches nor greater than six (6) feet.

D. No tank or compartment thereof shall have an inside horizontal dimension less than thirty-six (36) inches.

E. Inlet and outlet connections of the tank and of each compartment thereof shall be submerged by means of vented tees or baffles.

F. The space in the tank between the liquid surface and the top of the tank shall be not less than twenty (20) percent of the total required liquid capacity, except that in horizontal cylindrical tanks, this space shall be not less than fifteen (15) percent of the total required liquid capacity.

G. The inlet baffle or submerged pipe shall extend below liquid level at least six (6) inches. In no case shall this penetration be greater than that allowed for the outlet device. The inlet baffle must extend at least one (1) inch above the crown of the inlet sewer to divest solids.

H. The outlet baffles or submerged pipe and the baffles or submerged pipes between compartments shall extend below the liquid surface not less than twelve (12) inches or a distance equal to forty (40) percent of the liquid depth. The penetration of the outlet baffles or submerged pipes of a horizontal cylindrical tank shall be thirty-five (35) percent of the total liquid depth.

I. There shall be at least one (1) inch between the underside of the top of the tank and the highest point of the inlet and outlet devices and partitions to provide the required ventilation of the system through the main building stack.

J. The inlet invert shall be a minimum of three (3) inches above the level of the outlet invert.

K. The tank shall be watertight constructed of sound and durable material and not subject to excessive corrosion or decay.

L. Access to each compartment of the tank for inspection and sludge removal shall be provided by a manhole of at least twenty (20) inch dimension or removal cover. Where the top of the tank is located more than eighteen (18) inches below the finished grade, manholes and inspection holes shall extend to approximately eight (8) inches below the finished grade.

M. If the septic tank has more than one compartment, the first compartment shall have a liquid capacity equal to at least one-half (1/2) of the total liquid capacity.

ARTICLE IV

Subsurface Disposal Field

A. The disposal field shall be located in an unobstructed and unshaded area, if possible. The distances given below shall be minimum horizontal separations between the disposal field and the following:



TABLE III

Location Subsurface Disposal Field

Any water supply of buried water suction pipe- Fifty (50) Feet.
 Streams- Fifty (50) feet.
 Occupied Buildings- Ten (10) feet.
 Large Trees- Ten (10) feet.
 Property lines or buried pipe distributing water under pressure- Ten (10) feet.

B. When coarse soil formations are encountered, the fifty (50) feet distance specified in Item IV, A-1 may be increased by the sanitary officer.

C. Effluent from the septic tank shall be discharged to the absorption field through a water tight line with a grade of at least 1/4 inch per foot. Serial distribution of effluent may be required where the grade of the ground surface exceeds six (6) inches in any direction within the area utilized for the absorption field.

D. When a distribution box is used, it shall have a removable cover and insure equal distributions of effluent to tile field lateral lines. At least two (2) lateral lines shall lead from the box.

1. Each tile field lateral line shall be connected separately to the distribution box and shall not be subdivided.
2. The inverts of all outlets shall be at the same elevation and the inlet invert shall be at least one (1) inch above the outlet inverts.
3. The outlet inverts shall be at least four (4) inches above the bottom of the distribution box for the purpose of securing equal distribution of the septic tank effluent to each tile lateral.
4. In the event that septic tank effluent is discharged to the distribution box by pump or syphon, such as in Institutional Type Systems, a baffle shall be installed in the distribution box. The baffle shall be secured to the bottom of the box and shall extend vertically to a point at level with the crown of the inlet pipe. The plane surface of the baffle shall be perpendicular to the inlet floor line.

E. Minimum seepage area of the disposal field shall be determined by a stabilized percolation rate. The soil shall have an acceptable percolation rate, without interference from ground water or impervious strata below the level of the absorption system.

The following conditions shall be met:

1. The maximum elevation of the ground water table shall be at least four (4) feet below the surface. Rock formations or other impervious strata shall be at a depth greater than four (4) feet below the bottom of the trench.
2. The percolation time shall be within the range of those indicated in the following table:

1. These figures do not include effluents from septic tanks that receive wastes from garbage grinders and automatic washing machines. Extra capacity of 20 per cent shall be added for garbage grinders and 40 per cent for automatic washing machines. Extra capacity of 60 per cent shall be added when both are used.
2. Absorption area for standard trench is computed as trench-bottom area.
3. Absorption area for seepage pits is computed as effective sidewall area beneath the inlet.
4. Soils are unsuitable for seepage pits or leaching.

TABLE IV

Absorption Area Requirements

for Private Residences

(provides for garbage grinders and automatic sequence washing machines.)

Percolation rate (Time required for water to fall one (1) inch, in minutes.)	Required absorption area, in square feet per bedroom standard trench and seepage pits.
1 or less.....	70
2.....	85
3.....	100
4.....	115
5.....	125
10.....	165
15.....	190
30.....	250
45.....	300
60.....	330

1. In every case, sufficient area, shall be provided for at least two (2) bedrooms.
2. Absorption area for standard trenches is computed as trench bottom area.
3. Absorption area for seepage pits is computed as effective side-wall area beneath the inlet.
4. Soils are unsuitable for seepage pits if the percolation rates are thirty (30) minutes or more and are unsuitable for any subsurface leaching system if the percolation rate is sixty (60) minutes or more. Alternate disposal systems shall be permitted only after recommendation by the sanitary officer and approved by Township Supervisors.

TABLE V

Absorption Area Requirements
for Other Establishments*

Percolation rate (Time in minutes for water to fall one (1) inch.)	Maximum rate of sewage application (Gallons per square foot per day) for standard trenches and seepage pits.
1 or less.....	5.0
2.....	3.5
3.....	2.9
4.....	2.5
5.....	2.2
10.....	1.6
15.....	1.3
30.....	0.9
45.....	0.8
60.....	0.6

*Institutional Types

1. These figures do not include effluents from septic tanks that receive wastes from garbage grinders and automatic washing machines. Extra capacity of 20 per cent shall be added for garbage grinders and 40 per cent for automatic washing machines. Extra capacity of 60 per cent shall be added when both are used.
2. Absorption area for standard trench is computed as trench-bottom area.
3. Absorption area for seepage pits is computed as effective sidewall area beneath the inlet.
4. Soils are unsuitable for seepage pits or leaching

systems if the percolation rate is thirty (30) minutes or more and unsuitable for any subsurface leaching system if the percolation rate is more than sixty (60) minutes.

F. Construction for disposal trenches*

1. Trenches in a disposal field shall be constructed in accordance with the following standards:
 - a. Minimum number of lines per field- two (2)
 - b. Maximum length of individual lines- one hundred (100) feet.
 - c. Minimum bottom width of trench- twelve (12) inches.
 - d. Maximum bottom width of trench- thirty-six (36) inches.
 - e. Minimum depth of tile lines (bottom) eighteen (18) inches.
 - f. Maximum depth of tile lines (bottom) thirty-six (36) inches.
 - g. Uniform grade of tile trench- two (2) to four (4) inches per one hundred (100) feet.

*Using syphons and pumps

- h. Uniform grade of tile lines- two (2) to four (4) per hundred (100) feet.
- i. Minimum aggregate material under tile- six (6) inches.
- j. Minimum aggregate material over tile- two (2) inches.
- k. Spacing of trenches:

TABLE VI

Distances Between Trenches

Trench width, inches	Minimum Distance between center line of trenches, feet
12 to 18.....	6
18 to 24.....	6.5
24 to 30.....	7.0
30 to 36.....	7.5

2. Pipe used for the line between the septic tank and distribution box and between the distribution box and tile laterals to the point where the laterals are separated shall have watertight joints. Pipes used under driveways or other areas subject to heavy loads shall be bell and spigot cast iron with leaded caulked joints or equal.
3. Field tile used in the disposal field shall be four (4) inch agricultural drain tile twelve (12) inches in length and shall be laid with $\frac{1}{4}$ inch open joints. Alternate materials may be used if equivalent performance is indicated.
 - a. All bends used in the disposal field shall have tight joints at each end of the bend.
 - b. All open joints shall be protected on the top by strips of asphalt treated building paper or by other acceptable means.
4. Aggregate materials shall be crushed stone, gravel or similar insoluble, durable and acceptable material $\frac{1}{2}$ to $2\frac{1}{2}$ inches in size. The filter materials shall

- surface. Where the top is more than eighteen (18) inches below the ground surface, there shall completely encase the tile.
5. The top of the aggregate material shall be covered with a two (2) inch layer of hay or straw to prevent settling of backfill material into the filter material.

G. Seepage pits:

1. Seepage pits shall be used for disposal of septic tank effluent only when the installation of tile disposal trenches is due to unfavorable soil absorption in top soil mantle, ground water level, topography and will not reduce the safety of surrounding water supplies. The pit excavation shall terminate at least four (4) feet above the highest known or calculated water table.
2. The location of seepage pits shall be not less than the stated minimum distances from the following:
 - a. Any water supply well or buried water suction pipe- fifty (50) feet
 - b. Occupied buildings- twenty (20) feet
 - c. Property lines and buried pipe distributing water under pressure- ten (10) feet.
 - d. Other seepage pits- three (3) times the diameter of the largest pit (edge to edge).
3. Effective absorption area of a seepage pit is the vertical wall area (based on the dug diameter) of the impervious strata below the inlet.
 - a. Required seepage area shall be determined by the percolation test made in each vertical stratum penetrated. The weighted average of the results shall be computed to obtain a design figure. Soil strata in which the percolation rates are in excess of 30 minutes per inch shall not be included in computing the absorption area. No allowance shall be made for impervious strata or bottom area.
 - b. All pits shall have a diameter of at least four (4) feet.
4. Construction of all seepage pits shall conform to the following requirements:
 - a. To prevent cave-in, the pit shall be lined with brick, stone or block at least four (4) inches thick, laid in a radial arch to support the pit walls.
 - b. The brick, stone or block shall be laid watertight above the inlet and with open joints below the inlet to provide adequate passage of liquids.
 - c. A minimum annular space of six (6) inches between the lining and excavation wall shall be filled with crushed rock or gravel.
 - d. The top of the seepage pit, shall be constructed to be capable of supporting the over burden of earth and any reasonable load to which it is subjected. Access to the pit shall be provided by means of a manhole or inspection hole equipped with a watertight cover. The seepage pit may terminate in a conventional manhole top, frame and cover. The top of the seepage pit shall be not less than twelve (12) inches below the ground

surface. Where the top is more than eighteen (18) inches below the ground surface, there shall be provided an inspection pipe of not less than four (4) inch diameter extend-through the cover to a point above the tank not more than six (6) inches below finished ground level. The top of the inspection pipe shall be provided with a removable water tight cap and its location shall be marked at the ground surface.

SECTION III

PERMITS

3.1 It shall be unlawful for any person to construct, alter, or extend individual sewage disposal systems within the Township of Delaware unless he holds a valid permit issued by the sanitary officer in the name of such person for the specific construction alteration or extension proposed. The permit issued by the sanitary officer is in addition to any other building permits usually required and must be obtained prior to construction, alteration and extension of the residence or facility to be served. A sanitation permit must be obtained prior to construction of a dwelling or commercial structure.

3.2 All applications for permits shall be made to the sanitary officer who shall issue a permit upon compliance by the applicant with provisions of this ordinance and any regulations adopted hereunder and shall be accompanied by a ten (\$10.00) dollar fee payable to the Township of Delaware.

3.3 The sanitary officer may refuse to grant a permit for the construction of any individual sewage disposal system where public or community sewage system are reasonably available.

3.4 Applications for permits shall be in writing, shall be signed by the applicant and shall include the following:

- 3.4.1 Name and address of the applicant
- 3.4.2 Lot and block number of property on which construction, alteration or extension are proposed.
- 3.4.3 Complete plan of the proposed disposal facility, with substantiating data, if necessary, attesting to its compliance with the minimum standards of the sanitary officer.

3.4.4 Such further information as may be required by the sanitary officer to substantiate that the proposed construction, alteration or extension comply with regulations promulgated by the sanitary officer.

3.5 Complete plan for the purpose of obtaining a permit to be issued by the sanitary officer shall include:

- 3.5.1 The number, location and size of all sewage disposal facilities to be constructed, altered or extended.
- 3.5.2 The location of water supplies, water supply piping, existing sewage disposal facilities, buildings or dwellings and adjacent lot lines.
- 3.5.3 Plans of the proposed sewage disposal facilities to be constructed, altered or extended.

3.6 Any person whose application for a permit under this ordinance has been denied may request and shall be granted a hearing on the matter before the Township Supervisors within 30 days after receipt of the request.

3.7 Licensing

3.7.1 It shall be a violation of this Ordinance for any person to construct, alter or extend any sewage disposal system within the Township of Delaware when any such person receives a consideration or makes a charge for any such service or services without first complying with the following provisions:

7.1 In any case where a provision of this ordinance conflicts with a provision of any other ordinance or regulation of the Township of Delaware existing on the date of the adoption of this ordinance, the provisions of this ordinance shall prevail to the extent that they do not conflict with a provision of any other ordinance or regulation of the Township of Delaware existing on the date of the adoption of this ordinance.

3.7.1.A Secures a license from the Sanitary Officer for a fee of twenty-five (\$25.00) dollars.

3.7.1.B Posts a bond with the sanitary officer in the amount of one thousand (\$1000.00) dollars for the use of the Township Supervisors for the faithful compliance with the construction provisions of this ordinance.

3.7.1.C Any such license shall be for a one year period and may be renewed by paying an annual fee of ten (\$10.00) dollars. Licenses may be revoked, suspended or refused for proper causes by the Township Supervisors.

SECTION IV

INSPECTIONS

4.1 The sanitary officer is hereby authorized and directed to make such inspections as are necessary to determine satisfactory compliance with this ordinance and regulations promulgated hereunder.

4.2 It shall be the duty of the owner or occupant of a property to give the sanitary officer free access to the property at reasonable times for the purpose of making such inspections as are necessary to determine compliance with the requirements of this ordinance and regulations promulgated hereunder.

SECTION V

ALTERNATE ENFORCEMENT

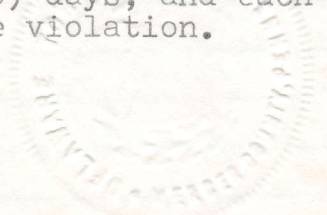
5.1 Delaware Township reserves the right, relative to the enforcement of all the provisions of this ordinance, to enter into an agreement with any adjoining Township whereby one person may be the legally designated authority for both townships.

Lester Kaufman
Secretary

SECTION VI

PENALTIES

6.1 Any person who violates any provision of this ordinance or any provision of any regulations adopted by the political subdivision pursuant to authority granted by this ordinance shall upon conviction be punished by a fine of not less than one hundred (\$100.00) dollars nor more than one hundred (\$100.00) dollars, or by imprisonment for not less than five (5) days nor more than thirty (30) days; and each day's failure to comply shall constitute a separate violation.



SECTION VII

CONFLICT OF ORDINANCES,
EFFECT ON PARTIAL INVALIDITY

7.1 In any case where a provision of this ordinance is found to be in conflict with a provision of any zoning, building, fire, safety or health ordinance or code of this Township of Delaware existing on the effective date of this ordinance, the provision which establishes the higher standard for the promotion and protection of the health and safety of the people shall prevail. In any case where a provision of this ordinance is found to be in conflict with a provision of any other ordinance or code of the Township of Delaware existing on the effective date of this ordinance which establishes a lower standard for the promotion and protection of the health and safety of the people, the provisions of this ordinance shall be deemed to prevail and such other ordinance or codes are hereby declared to be repealed to the extent that they may be found in conflict with this ordinance.

7.2 If any section, subsection, paragraphs, sentence, clause or phrase of this ordinance shall be declared invalid for any reason whatsoever, such decision shall not affect the remaining portions of this ordinance, which shall remain in full force and effect; and, to this end, the provisions of this ordinance are hereby declared to be severable.

SECTION VIII

EFFECTIVE DATE

8.1 This ordinance shall be effective on and after the first (1st) day of January, 1967. Ordained and enacted this 6th day of December, 1966.

Board of Supervisors
of Delaware Township,
Mercer County,
Pennsylvania
Arden L. Saul
Chairman

Board of Supervisors
of Delaware Township,
Mercer County,
Pennsylvania
ATTEST:
Lester Kaufman
Secretary

* * * * *

Note- This ordinance was typed from the original document exactly as written.

July 9, 1987
Shari J. Ray
Secretary/Treasurer

Shari J. Ray