

Permit No. _____

City of Vineland Health Department

640 E. Wood Street, Vineland, NJ 08360
(856) 794-4131 (ph.) / (856) 405-4608 (fax)
www.vldhealth.org

Application for a Permit to Construct/Alter/Repair an Individual Subsurface Sewage Disposal System

Form 1 – General Information

Type of Permit Needed (Check Applicable Category):

- ___ New Construction
- ___ New System (Existing Structure)
- ___ Repair – *Malfunctioning System (In-Kind Replacement)
- ___ Repair – No Malfunction (In-Kind Replacement)
- ___ Alteration – No Expansion or Change in Use
- ___ Alteration – Expansion or Change in Use
- ___ Alteration – *Malfunctioning System
- ___ Deviation from Standards
- ___ System Abandonment

Location of Project:

Address _____ Block _____ Lot _____

Name of Applicant (Print): _____ Ph. _____

Applicant's Address: _____

Type of Facility:

Residential ___
Commercial / Institutional ___ Specify _____

Type of Waste: Sanitary Sewage Only

***Indicate the type of malfunction and its cause (check all that apply):**

- ___ Ponding or breakout of sanitary sewage or effluent onto the surface of the ground
- ___ Seepage of sanitary sewage or effluent into portions of building below ground
- ___ Back-up of sanitary sewage into the building served, which is not caused by a physical blockage of the internal plumbing
- ___ Any manner of leakage observed from components that are not designed to emit sanitary sewage or effluent
- ___ Direct discharges to ground water (no zone of treatment)
- ___ Contamination of nearby wells or surface water bodies by sanitary sewage or effluent

Describe the cause of the malfunction: _____

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Please ✓ if any of the following apply:

- A privy, outhouse, latrine or pit toilet is present, a system must be installed
- A system must be upgraded as part of a real property transfer
- A cesspool has been identified during a real property transfer and a conforming system must be installed
- A malfunctioning cesspool has been identified and a conforming system must be installed

Other Approvals/Certifications/Waivers/Exemptions required for this project (attach to application)

- Pinelands Commission
- Highlands Water Protection and Planning Act
- U.S. Army Corps of Engineers
- NJDEP-Bureau of Flood Plain Management
- Other – Specify _____

I hereby certify that the information furnished on Form 1 of this application is true. I am aware that false swearing is a crime in this State and subject to prosecution.

Signature of Applicant _____ Date _____

FOR AGENCY USE ONLY

- Application Denied – Reason(s) for Denial / Citation of Rules attached
- Application Approved Subject to Approval by NJDEP

Application Approved **Expiration Date:** _____

Signature of Authorized Agent _____ Date _____

Name and Title: _____

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Form 2a – General Site Evaluation Data Block _____ Lot _____

1. Name of Site Evaluator (print): _____
2. Business Address of Site Evaluator: _____
3. Business Phone Number of Site Evaluator: _____
4. Special Site Limitations Identified (Check appropriate Categories):
 Flood Plains Bedrock Outcrops Wetlands Excessively Stony
 Disturbed Ground Sink Holes Sand Dunes Steep Slopes
 Other – Specify _____
5. Soil Logs – Enter on Form 2b – Use one sheet for each soil log.
6. Considerations Relating to Disturbed Ground:
 - a) Type of Disturbance (Check appropriate categories):
 Filled Area Excavated Area Re-graded Area
 Subsurface Drains Other – Specify _____
 - b) Existing Ground Surface
Elevation Relative to Ground Surface _____
Method of Identification _____
 - c) Suitability of Disturbed Ground
 Unsuitable: Objects Subject to Disintegration or Change in Volume
 Excessively Coarse
 Proctor Test performed _____% Standard Proctor Density = _____
7. Hydraulic Head Test:
 - a) Hydraulically Restrictive Horizon: Depth Top to Bottom _____
 - b) Piezometer A: Depth to Bottom _____ Depth of Water Level (24 hrs) _____
 - c) Piezometer B: Depth to Bottom _____ Depth of Water Level (24 hrs) _____
 - d) Witnessed by _____
Signature _____ Date _____
8. Attachments (Check items included):
 Site Plan
 Key Map Showing Location of Site on U.S.G.S. Quadrangle or Other Accurate Map
 Key Map Showing Location of Site on U.S.D.A. Soil Survey Map
 Other – Specify _____
9. **I hereby certify that the information furnished on Form 2a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.**

Signature of Soil Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 2b – Soil Log and Interpretation Block _____ Lot _____

1. Log Number _____ Method (Check One): Profile Pit Boring

2. Soil Log

Depth _____ (inches)

Top-Bottom _____

Munsell Color Name and Symbol; Estimated Textural Class: Estimated Volume % Coarse Fragment, If Present; Structure; Moist or Dry Consistence; Mottling – Abundance, Size and Contrast, If Present

3. Ground Water Observations:

Seepage – Indicate Depth _____

Pit/Boring Flooded – Depth after _____ Hours _____

4. Soil Limiting Zones (Check Appropriate Categories):

Fractured Rock Substratum – Depth to Top _____

Massive Rock Substratum – Depth to Top _____

Excessively Coarse Horizon – Depth Top to Bottom _____

Excessively Coarse Substratum – Depth to Top _____

Hydraulically Restrictive Horizon – Depth Top to Bottom _____

Hydraulically Restrictive Substratum – Depth to Top _____

Perched Zone of Saturation – Depth Top to Bottom _____

Regional Zone of Saturation – Depth to Top _____

5. Soil Suitability Classification: _____

6. I hereby certify that the information furnished on Form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 3a. Soil Permeability Data Block _____ Lot _____

Assign a number for each test and a letter for each test replicate. Show test data and calculations on Form 3b, 3c, 3d, 3e, 3f or 3g. Use one sheet for each separate test or test replicate.

1. Summary of Data – Enter data for each test replicate on a separate line.

| Type of Test | Test (number) | Replicate (letter) | Depth (inches) | Result* |
|--------------|---------------|--------------------|----------------|---------|
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*For tube permeameter, pit-bailing and piezometer tests report results in inches per hour. For soil permeability class rating give soil permeability class number. For percolation test report result in minutes per inch. For basin flooding test report result as positive if basin drains completely within 24 hours after second filling, negative otherwise.

2. Design Permeability/Percolation Rate: Specify Test Number _____
 - __Average of Test Replicates
 - __Single Replicate
 - __Slowest of Replicates

| Type of Limiting Zone Identified | Test Number |
|----------------------------------|-------------|
| | |
| | |
| | |

3. Attachments (Check items included):
 - __Form 3b – Tube Permeameter Test Data – Number of Sheets _____
 - __Form 3c – Soil Permeability Class Rating Test Data – Number of Sheets _____
 - __Form 3d – Percolation Test Data – Number of Sheets _____
 - __Form 3e – Pit-Bailing Test Data – Number of Sheets _____
 - __Form 3f – Piezometer Test Data – Number of Sheets _____
 - __Form 3g – Basin Flooding Test Data – Number of Sheets _____

4. I hereby certify that the information furnished on Form 3a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 3b. Tube Permeameter Test Data

1. Test Number _____ Replicate (Letter) _____ Date Collected _____
2. Material Tested: Fill Test in Native Soil – Indicate Depth _____
3. Type of Sample: Undisturbed Disturbed
4. Sample Dimensions: Inside Radius of Sample Tube, R, in cm _____
Length of Sample, L, in inches _____
5. Bulk Density Determination (Disturbed Samples only):
Sample Weight (Wt. Tube Containing Sample – Wt. of Empty Tube), grams _____
Sample Volume (L x 2.54cm./inch x 3.14R²), cc _____
Bulk Density (Sample Wt./Sample Volume), grams/cc) _____
6. Standpipe Used: No Yes – Indicate Internal Radius, cm _____
7. Height of Water Level Above Rim of Test Basin, in inches:
At the Beginning of Each Test Interval, H₁ _____
At the End of Each Test Interval, H₂ _____
8. Rate of Water Level Drop (Add additional lines if needed):

| Time, Start of Test Interval, t ₁ | Time, End of Test, Interval, t ₂ | Length of Test Interval, t, minutes |
|--|---|-------------------------------------|
| | | |
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9. Calculation of Permeability:

$$K, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln (H_1/H_2) =$$

$$60 \text{ min/hr} \times \text{____}/\text{____} \times \text{____}/\text{____} \times \ln (\text{____}/\text{____}) = \text{_____}$$

10. Defects in the Sample (Check appropriate items):
 None Cracks Worm Channels Root Channels Soil/Tube Contact
 Large Gravel Large Roots Dry Soil Smearing Compaction
 Other – Specify _____

11. I hereby certify that the information furnished on Form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 3c. Soil Permeability Class Rating Data

1. Test Number _____ Replicate (Letter) _____
2. Sample Depth _____ Soil Pit/Boring Number _____ Date Collected _____
3. Coarse Fragment Content:
Total Weight of Sample, W.T., grams _____
Weight of Material Retained on 2mm sieve, W.C.F., grams _____
Wt. % of Coarse Fragment (W.C.F./W.T. x 100): _____
4. Oven Dry Weight (24 hrs., 105°C) of 40 Gram Air Dry Sample, grams, Wt _____
5. Hydrometer Calibration, Rc _____
6. Hydrometer calibration temperature (°F) _____
7. Hydrometer Reading – 40 seconds, grams, R1 _____
Temperature of Suspension, °F _____
8. Corrected Hydrometer Reading, grams, R1' _____
9. Hydrometer Reading – 2 hours, grams, R2 _____
Temperature of Suspension, °F _____
10. Corrected Hydrometer Reading, grams R2' _____
11. % sand = (Wt. – R1')/Wt. x 100 = (_____ - _____) / _____ x 100 = _____
12. % clay = R2'/Wt. x 100 = _____ / _____ x 100 = _____
13. Sieve Analysis:
 - a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction (Soil Retained in 0.047mm Sieve), grams _____
 - b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25mm Sieve), grams _____
 - c. % Fine Plus Very Fine Sand (b/a) _____
14. Soil Morphology (Natural Soil Samples Only):
Structure of Soil Horizon Tested _____
Consistence of Soil Horizon Tested: Dry ___ Moist ___
15. Soil Permeability Class Rating (Based upon average textural analysis of this replicate and other replicate samples) _____
16. **I hereby certify that the information furnished on Form 3c of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.**

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 3d. Percolation Test Data

1. Test Number _____ Replicate (Letter) _____ Date Tested _____
2. Depth _____
3. Pre-soak: _____
__Sandy Textured Soil Only, Shortened Pre-soak – Indicate Time Required for 12 Inches of Water to Drain after Second Filling, Minutes _____
__Four Hour Pre-soak Completed – Indicate Result: _____
__Test Hole Drained Within 16 to 24 Hours After Pre-Soak
__Test Hole Did Not Drain Within 24 Hours After Pre-soak
4. Rate of Fall Data:
 - a. Time Interval Selected, Minutes _____
 - b. Record the Drop in Water Level During Each Time Interval to the Nearest 1/10th-Inch on the Lines Below:

| Depth of Water, Start of Interval (inches) | Depth of Water, End of Interval (inches) | Drop in Water Level (inches) |
|---|---|------------------------------|
| | | |
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5. Percolation Rate:
 - a. Time, minutes, Required for a Six-inch Drop in Water Level _____
 - b. Percolation Rate = $a/6 = \text{_____}/6 = \text{_____} \text{ min/in}$
6. **I hereby certify that the information furnished on Form 3d of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.**

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 4 – General Design Data

Street Address _____ Block _____ Lot _____

1. Volume of Sanitary Sewage, gals/day _____
___ Residential: _____ No. of Dwelling Units _____ Total Number of Bedrooms _____
(Circle one) Ejector Pump: Yes / No Garbage Grinder: Yes / No Expansion Attic: Yes / No
___ Commercial / Institutional – Indicate Type of Establishment and Show Method of Calculation.

2. Alterations or Repairs

- a) Reason for Alteration or Repair (check appropriate categories)

___ Expansion or Change in Use

___ Upgrade Existing Facility

___ Correct Malfunctioning System

___ Other – Specify: _____

- b) Describe Nature of Alteration or Repair: _____

3. System Components

- a) Grease Trap Capacity (gals) _____ Show Calculations Used _____

- b) Septic Tank Capacities (gals) _____

First (single) Compartment _____ Second Compartment _____ Third Compartment _____

- c) Effluent Distribution Method: Gravity Flow _____ Gravity Dosing _____ Pressure Dosing _____

Dosing Device: Pump _____ Siphon _____

- d) Dosing Tank Capacity (gals): Total Gals _____ Reserve Capacity _____

- e) Laterals: Number _____ Total Length _____ Pipe Size _____ Spacing _____

- f) Connecting Pipe: Size _____ Length _____

- g) Manifold: Size _____ Length _____

- h) Disposal Field: Type of Installation: _____ Design Permeability (Percolation Rate): _____

Bed: Length _____ Width _____ Area _____

Trenches: Width _____ Total Length _____

- i) Seepage Pits: Design Perc Rate _____ Number of Pits _____ Total Perc Area Provided _____

4. Attachments (check items included)

___ General Plan of System Showing Location of All System Components

___ Cross Sections of Each System Component Including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drains

___ Pump Performance Curve

___ Soil Survey Map of Area

___ General Area Location Map

___ Other- Specify _____

5. I hereby certify that the information furnished on Form 4 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (NJSA 58:10A-1 et seq.) and is subject to penalties as prescribed in NJAC 7:14-8.

(Circle one)

Signature of NJ Licensed Professional Engineer (seal required) / Applicant / Septic Contractor

Date _____

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Form 5. Design of Pressure Dosing System

1. Configuration of Distribution Network:

Type of Manifold: ___End ___Central

Distribution Laterals: Number_____ Length, ft_____ Spacing, ft_____

Hole Diameter, ins_____ Hole Spacing, ins_____

Diameter of Laterals, ins_____

2. Lateral Discharge Rate:

Design Pressure Head at Supply End of Laterals, Hp, ft_____

Hole Discharge Rate, Q, gpm_____

Number of Holes per Lateral, n_____

Lateral Discharge Rate, (Q x n) gpm_____

3. Manifold Length, ft_____ Manifold Diameter, ins_____

4. System Discharge Rate, gpm_____

5. Dose Volume:

Design Volume of Sewage, gal/day_____

Design Permeability, in/hr_____ or Percolation Rate, min/in_____

Internal Volume of Distribution Network_____

Dose Volume_____

6a. Pump Selection:

Diameter of Delivery Pipe_____ Length of Delivery Pipe_____

Friction Loss in Delivery Pipe, Hf, ft_____

Elevation of Dosing Tank Low Water Level_____

Elevation of Lateral Invert_____

Elevation Head, He, ft_____

Total Operating Head, Ht (Hp + Hf + He), ft_____

Pump Model_____ Rated Horsepower_____

Pump Discharge Rate at Total Operating Head, gpm_____

6b. Siphon Elevation:

Diameter of Delivery Pipe_____ Length of Delivery Pipe_____

Friction Loss in Delivery Pipe, Hf, ft_____

Velocity Head, Hv, ft_____

Total Operating Head, Ht (Hp + Hf + Hv), ft_____

Elevation of Lateral Invert_____

Elevation of Siphon Invert_____

7. I hereby certify that the information furnished on Form 5 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer_____ Date_____