

**BURLINGTON COUNTY HEALTH DEPARTMENT
15 PIONEER BOULEVARD, WESTAMPTON
PO BOX 6000 MOUNT HOLLY, NEW JERSEY 08060**

APPLICATION FOR APPROVAL TO CONSTRUCT/ALTER AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

GENERAL INFORMATION – Form 1

- Type of Permit needed (check applicable categories):

New Construction	Alteration/Expansion or Change in Use	Alteration/Malfunctioning System
Deviation from Standards	Repairs to Existing System	Alteration/No Expansion or Change of Use
 - Location of Project:
Municipality _____ Block _____ Lot _____
Street Address _____ Zip _____
 - Name of Applicant (print): _____
 - Applicant's Present Address: _____
 - Phone Number: _____
 - Type of Facility:
Residential
Commercial/Institutional
Specify Type of Establishment: _____
 - Type of Wastes to be discharged:
Sanitary Sewage
Industrial Wastes
Other – Specify: _____
 - Other Approvals/Certification/Waivers/Exemptions (Attach to Application)
Pinelands Commission
NJDEP – Bureau of Flood Plain Management
U.S. Army Corps of Engineers
Other – Specify: _____
9. I hereby certify that the information furnished above 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	
<input type="checkbox"/> Application Denied – Reason for Denial/Citation of Rules Violated: _____	
<input type="checkbox"/> Application Approved	<input type="checkbox"/> Application Approved Subject To Approval By NJDEP
Date of Action _____	Signature of Authorized Agent _____
Name & Title _____	

GENERAL SITE EVALUATION DATA – Form 2A

- Name of Site Evaluator (print) _____
 - Business Address of Site Evaluator _____
 - Business Phone _____
 - Special Site Limitations Identified (Check Appropriate Categories):

Flood Plains	Bedrock Outcrop	Wetlands	Excessively Stony	Disturbed Ground
Sink Holes	Sand Dunes	Steep Slopes	Other – Specify _____	
 - Soil Logs – Enter on form 2B – Use one sheet for each soil log
 - Considerations Relating to Disturbed Ground:
 - Type of Disturbance (Check appropriate categories):
Filled area Excavated Area Re-graded Area Subsurface Drains Other – Specify _____
 - Pre-existing Natural Ground Surface
Elevation Relative to Existing Ground Surface _____ Method of Identification _____
 - Suitability of Disturbed Ground
Unsuitable: Objects Subject to Disintegration or Change in Volume Excessively Course
Proctor Test Performed - % Standard Proctor Density = _____
 - Hydraulic Head Test:
 - Hydraulically Restrictive Horizon: Depth Top to Bottom _____
 - Piezometer A: Depth to Bottom _____ Depth of Water Level (24 hrs) _____
 - Piezometer B: Depth to Bottom _____ Depth of Water Level (24 hrs) _____
 - Witnessed by _____ Signature _____ Date _____
 - 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 Site Evaluator _____ Date _____
- Signature of Professional Engineer _____ License # _____
(please seal this form)

SOIL LOG & INTERPRETATION – Form 2B

Municipality _____ Block _____ Lot _____

- 1. Log Number _____ Method (Check One): Profile Pit Boring
- 2. Soil Testing witnessed by BCHD? YES NO BY WHOM? _____
- Soil Testing legally waived by whom? _____
- 3. Soil Log
Depth (inches) _____ DATE SOIL LOG CONDUCTED _____
Top-Bottom: _____

Munsell Color Name & Symbol; Estimated Textural Class; Estimated Volume % Course Fragment, if present; Structure; Moist or Dry Consistency; Mottling – Abundance, Size & Contrast, if present.

4. Ground Water observations:

Seepage – Indicate Depth _____
Pit/Boring Flooded – Depth after _____ Hours _____

5. Soil Limiting Zones (Check Appropriate Categories):

Fractured Rock Substratum – Depth to Top _____	Massive Rock Substratum – Depth to Top _____
Excessively Course Horizon – Depth Top to Bottom _____	Excessively Course 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 _____

6. Soil Suitability Classification: _____

7. I hereby certify that the information furnished on Form 2B 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 Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____
(please seal this form)

SOIL PERMEABILITY DATA – Form 3A

Municipality _____ 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. Enter data for each test replicate on a separate line.

Type of Test	Test (number)	Replicate (letter)	Depth (inches)	Result*

* 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

3. Identification and Classification

Type of Limiting Zone Identified	Test Number

4. 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 _____

5. 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 Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____
(please seal this form)

TUBE PERMEAMETER TEST DATA – Form 3B

1. Test Number _____ Replicate (Letter) _____ Date Collected _____

2. Material Tested: Fill _____ Tested 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 2.54 cm./inch x 3.14 R²), 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):

Table with 3 columns: Time, Start of Test Interval, T1; Time, End of Test Interval, T2; Length of Test Interval, T, minutes.

9. Calculation of Permeability:

K, (in/hr.) = 60 min/hr. x r²/R² x L (in)/T(min) x ln(H1/H2)
= 60 min/hr. x ___/___ x ___/___ x ln(___/___) = _____

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 (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 Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____
(please seal this form)

SOIL PERMEABILITY CLASS RATING DATA – Form 3C

1. Test Number _____ Replicate (Letter) _____

2. Sample Depth _____ Soil Pit/Boring Number _____ Date Collected _____

3. Coarse Fragment Content:

Total Weight of Sample, WT, grams _____

Weight of Material Retained on 2mm sieve, WCF, grams _____

Wright % Coarse Fragment (WCF./WT x 100) _____

4. Oven Dry Weight (24 hrs., 105°C) of 40 Gram Air Dry Sample, grams, Wt. _____

5. Hydrometer Calibration, R_c _____

6. Hydrometer Reading – 40 seconds, grams, R₁ _____

Temperature of Suspension, °F _____

7. Corrected Hydrometer Reading, grams, R₁' _____

8. Hydrometer Reading – 2 hours, grams, R₂ _____

Temperature of Suspension, °F _____

9. Corrected Hydrometer Reading, grams, R₂' _____

10. % Sand = (Wt. – R₁') / Wt. x 100 = (_____ - _____) / _____ x 100 = _____

11. % Clay = R₂' / Wt. x 100 = _____ / _____ x 100 = _____

12. Sieve Analysis:

a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction

(Soil Retained in 0.047 mm Sieve), grams _____

b. Wt. of Fine Plus Very Fine Sand Fraction

(Sand Passing 0.25 mm Sieve), grams _____

c. % Fine Plus Very Fine Sand (b/a) _____

13. Soil Morphology (Natural Soil Samples Only):

Structure of Soil Horizon Tested _____

Consistency of Soil Horizon Tested: Dry Moist

14. Soil Permeability Class Rating (Based upon average textural analysis of this replicate and other replicate samples _____)

15. I hereby certify that the information furnished on Form 3C 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 Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____
(please seal this form)

GENERAL DESIGN DATA – Form 4

1. Volume of Sanitary Sewage, gal _____

Residential: No. of Dwelling Units _____ total No. of Bedrooms _____ Garbage Disposal _____ Expansion Attic _____

Commercial / Institutional – Indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source Of data, frequency of readings, average daily flow, and maximum recorded daily reading

2. Alterations or Repairs

a.) Reason for Alteration or Repair (Check appropriate categories):

Expansion or Change in Use _____ Upgrade Existing Facilities _____
Correct Malfunctioning System _____ Other – Specify _____

b.) Describe Nature of Alteration or Repairs: _____

3. System Components:

a.) Grease Trap Capacity, gals _____

Show Calculation Used _____

b.) Septic Tank Capacities, gals: first (single) compartment _____
second compartment _____
third compartment _____

c.) Advanced Treatment Unit: Type _____

d.) Effluent Distribution

Method: Gravity Flow _____ Gravity Dosing _____ Pressure Dosing _____
Dosing Device: Pump _____ Siphon _____

e.) Dosing Tank Capacities, gals: Total Capacity _____ Dose Volume _____ Reserve Capacity _____

f.) Laterals: Number _____ Total Length _____ Pipe Size _____ Spacing _____

g.) Chambers: Number _____ Total Length _____

h.) Connecting Pipe: Size _____ Length _____

i.) Manifold: Size _____ Length _____

j.) Disposal Field: Type of Installation _____

Design Permeability (Percolation rate) _____

Trenches: Width _____ Total Length _____

Bed: Area _____

k.) Seepage Pits: Design Percolation Rate _____

Number of Pits _____ Total Percolating Area Provided _____

4. Attachments (Check items included):

- General Plan Showing Location of All System Components
- X – Sections of Each system Component Including Grease Traps, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drains
- Pump Performance Curve
- Other – Specify _____

5. I hereby certify that the information furnished on Form 4 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 Professional Engineer _____ License # _____
(please seal this form)

DESIGN OF PRESSURE DOSING SYSTEM – Form 5

1. Configuration of Distribution network:

Type of manifold: End Central
 Distribution Laterals: Number _____ Length, ft. _____ Spacing, ft. _____
 Hold Diameter, in. _____ Hold Spacing, in. _____
 Diameter of Laterals, in. _____

2. Lateral Discharge Rate:

Design Pressure Head at Distal End of Laterals, Hp, Ft. _____
 Hold Discharge Rate, Q, gpm _____
 Number of Holes per Lateral, n _____
 Lateral Discharge Rate, (Q x n), gpm _____

3. Manifold Length, ft. _____ Manifold Diameter, in. _____

4. System Discharge Rate, gpm _____

5a. 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 _____

5b. 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 _____

6. Dose Volume:

Design Volume of Sewage, gal/day _____
 Design Permeability, in/hr _____ or Percolation Rate, min/in _____
 Internal Volume of Distribution Network _____
 Dose Volume _____

7. I hereby certify that the information furnished on Form 5 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 Professional Engineer _____ License # _____
 (please seal this form)