



**CLINTON COUNTY HEALTH DEPARTMENT**  
**135 Margaret Street, Plattsburgh, NY, 12901**  
**Phone: (518) 565-4870 Fax: (518) 565-4843**

**SEWAGE TREATMENT SYSTEM PERMIT APPLICATION**

This packet contains all the information needed to obtain a construction permit and Certificate of Acceptance from the Clinton County Health Department (CCHD) as required by Article IX of the Clinton County Sanitary Code and Appendix 75-A of the New York State Sanitary Code.

**\*\*\* CONSTRUCTION PERMITS ARE REVIEWED BY APPOINTMENT ONLY \*\*\***

**MONDAY – FRIDAY (Please call this office at 565-4870 to schedule an appt.)**

- NEW SYSTEM – PRIVATE LOT (Conventional) - \$70.00**
- NEW – APPROVED SUBDIVISION – Post 1989 - \$50.00**
- REPLACEMENT SYSTEM (Conventional) - \$55.00**
- NEW ENGINEERED SYSTEM (Alternative) - \$170.00**
- REPLACEMENT ENGINEERED SYSTEM (Alternative) - \$75.00**
- REPLACEMENT COPY OF CERTIFICATE OF ACCEPTANCE - \$10.00**

PLEASE MAKE CHECKS PAYABLE TO: **CLINTON COUNTY TREASURER**

**INSTRUCTIONS**

- (1) Fill out the Permit Application Form (pgs. 5 & 6). Please include all the relevant information about your proposed or existing home.
- (2) Consult the CCHD to determine whether the septic system is a new or a replacement system.
- (3) **(A) NEW SYSTEM:**  
 If your lot is in a Realty Subdivision approved by CCHD, your soil evaluation has already been done for you. Proceed to Step 5.

If your lot is not in a Realty Subdivision, you will need a Professional Soil Evaluator to conduct the soil tests on your site. Only soil evaluators that are listed on pgs. 7 & 8 may submit soil and site data for new systems. Make arrangements for the soil evaluator to come to your site and perform the tests. Inform the soil evaluator to come to your site and perform the tests. Inform the soil evaluator of the location of the proposed system, and have them indicate on the Plot Plan (p. 6) exactly where the tests were performed. The soil evaluator will fill out the Soil & Site Data Sheets (pgs. 9-12).

<b>HOMEOWNER RESPONSIBILITIES</b>	<b>SOIL &amp; SITE EVALUATOR RESPONSIBILITIES*</b>
1. Determine location of the individual Sewage treatment system. 2. Arrange for all necessary excavations. 3. Supply an adequate amount of water for Percolation tests. 4. Obtain completed Soil & Site Data Sheets from the soil evaluator (blue sheets).	1. Conduct all soil & site evaluations according to NYS Sanitary Code, Appendix 75-A Standards. 2. Conduct deep-hole test and use test date to determine proper depth for percolation tests. 3. Conduct percolation tests. 4. Fill out Soil & Data Sheets (blue sheets) with test results and mark test locations on Plot Plan Sheet (pink sheet).

\*The Soil & Site Evaluator is not responsible for the actual design of the septic system. CCHD can provide technical assistance and shall reserve the right to be present at any soil and site evaluation.

## **CONSTRUCTION PERMIT INSTRUCTIONS (Cont.)**

### **3. (B) REPLACEMENT SYSTEM:**

Fill out the "Determination of Status" form on p. 3 and have this form reviewed by CCHD. Once CCHD determines that the system is a replacement system, you may continue with this replacement system instructions; otherwise, you must follow the instructions for a new system.

You will need soil tests conducted on your site. For replacement systems, these tests may be performed by either: **(1) a soil evaluator listed in the enclosed approval list; (2) your chosen contractor, or; (3) yourself.** Whoever is chosen as "soil evaluator: must fill out the Soil & Site Data Sheets (pgs. 9-12).

4. If soil tests are satisfactory, refer to p. 16 to determine the required length of absorption trenches.
5. Before any construction, complete and submit the Construction Permit Application Form (pgs. 5 & 6), along with the Soil & Site Data Sheets (pgs. 10 & 12) to CCHD. For lots in an approved subdivision, the Soil & Site Data Sheets are not necessary as the soil and site information is taken from the approved subdivision plan on file with CCHD.

If the soil test and the plot plan are satisfactory, the Construction Permit will be approved by CCHD and you will be given two copies of your approved permit. **(NOTE: The Construction Permit is valid for a two-year period from the date of approval).**

If your permit cannot be approved for a conventional system due to poor soil and site conditions, you may obtain the services of NYS Licensed Design Professional to design an engineered (alternative) septic system to handle your particular situation. All alternative systems must be reviewed by this Department as described under **ALTERNATIVE TYPES OF SYSTEMS** on p. 17. (NOTE: The Engineer/Design Professional that you choose may reserve the right to base their decision on their own deep-hole and percolation test results).

6. Only with an approved Construction Permit in your possession may you proceed with the installation of the sewage treatment system. You should also contact any other agencies that may have jurisdiction to insure compliance with their regulations. The system must be installed as specified on the Construction Permit. If, in the course of installing the system, field changes become necessary, CCHD must be notified. CCHD must approve the proposed changes, and revise the approved Construction Permit before changes can be made to the system.
7. When the sewage treatment system has been completed, but not covered, notify CCHD at least 24 hours in advance that you are ready for final inspection. An inspector will visit the site sometime between 8am – 4pm to check the installed system against CCHD's copy of the approved Construction Permit.
8. If the final inspection is satisfactory, a Certificate of Acceptance for the individual sewage treatment system will be issued to the owner. Possession of a copy of the Certificate of Acceptance is your assurance that the system has been installed in accordance with New York State Standards, and if well maintained, will function properly.

# SEWAGE TREATMENT SYSTEM

## DETERMINATION OF STATUS

**\*\*\* REQUIRED FOR REPLACEMENT SYSTEMS ONLY\*\*\***

Please answer the following questions:

	YES	NO
Is this new construction on previously undeveloped property:		
<b>CHANGE IN SIZE/INTENDED USAGE:</b>		
Is there an addition of one or more bedrooms compared with the preexisting structure?		
Is this a seasonal dwelling converted to year-round use?		
<b>PRIOR SYSTEM:</b>		
Was there a previous septic system installed on this lot?		
Has it been in use for the past 5 years?		
Was it approved by the Clinton County Health Department?		
<b>OCCUPANCY:</b>		
Has the lot been continuously occupied to present?		
Has the lot been unoccupied for 5 years or more?		
Is there a prior Certificate of Occupancy granted by the Town Codes Officer?		

What year was the house built/structure placed on lot? \_\_\_\_\_

What year was sewage system installed? \_\_\_\_\_

**I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE:**

\_\_\_\_\_  
OWNER'S SIGNATURE \_\_\_\_\_ DATE

<b><u>HEALTH DEPARTMENT USE ONLY</u></b>		
BASED ON THE ABOVE CRITERIA, THE SEPTIC SYSTEM IS:	NEW	REPLACEMENT
DUTY OFFICER/PROGRAM SUPERVISOR _____	DATE _____	

**\*\*NOTES\*\***

Permit # \_\_\_\_\_

### SEWAGE TREATMENT SYSTEM CONSTRUCTION PERMIT APPLICATION

Owner Name \_\_\_\_\_ Telephone (H) \_\_\_\_\_ (C) \_\_\_\_\_

Mailing Address \_\_\_\_\_

(Address where you receive your mail)

### PROPOSED DEVELOPMENT

Tax Map ID# \_\_\_\_\_ (PLEASE ATTACH A COPY OF YOUR TAX MAP)

911 Address \_\_\_\_\_

Exact Directions to Site \_\_\_\_\_

Township \_\_\_\_\_ Legislative District \_\_\_\_\_

Lot Type: Private Lot / Approved Subdivision Subdivision Name \_\_\_\_\_ Lot # \_\_\_\_\_

APA: Is an APA permit required? Yes / No (if yes, please contact the APA first for a determination of jurisdiction).

Building Type: Wood Frame / Mobile Home / Double-Wide Home / Modular Home / Log / Other \_\_\_\_\_

Number of Bedrooms: 1 / 2 / 3 / 4 / 5 / Other \_\_\_\_\_

Foundation: Full Basement / Half-Basement / Slab / Block Supports / Other \_\_\_\_\_

Type of System: New / Replacement / Engineered (Consult Clinton County Health Dept. for definitions of new & replacement systems)

Water Supply: Drilled Well / Dug Well / Public Water Supply / Other \_\_\_\_\_

If not on public water, indicate type of water pump: Submersible (pressure) / Siphon-jet (suction)

If not a new home, will low-flow fixtures (1.6 gallons / toilets) be installed in the home? Yes / No

Will a garbage disposal be installed? Yes / No If yes, a dual-compartment tank with a gas baffle is required

Will a several-person hot tub spa be installed: Yes / No

Leach Field Type: Crushed Stone Trenches / Plastic Chambers / Eljen Units / Other \_\_\_\_\_

System to be installed by \_\_\_\_\_

Owner's Signature \_\_\_\_\_ Date \_\_\_\_\_

(By signing, you agree that all information is accurate)

HEALTH DEPARTMENT USE ONLY	
_____	_____
Fee Paid	Receipt #
_____	_____
Permit Approved by	Date

HEALTH DEPARTMENT USE ONLY	
_____	
Final Construction Approval By	
_____	
Date	

Construction permits expire 2 years from the date of approval, and can be renewed in 2-year increments.



## SOIL TEST REFERRAL LIST

Effective January 1, 1994, the Clinton County Health Department will require percolation and deep-hole tests for all NEW Individual Sewage Treatment (IST) Systems to be conducted by one of the following: PROFESSIONAL ENGINEER, REGISTERED ARCHITECT, LICENSED LAND SURVEYOR, SOIL SCIENTIST OR CERTIFIED GEOLOGIST. This Department recommends contacting several of the firms on this referral list since prices and types of services vary. If your building site requires an ALTERNATIVE SYSTEM, engineered plans must be submitted by a Design Professional, who may reserve the right to base the design on their own percolation and deep-hole test data; therefore, if you determine that a Design Professional may be required, you may want to have them conduct the initial percolation and deep-hole tests.

### **ARCHITECTURAL & ENGINEERING DESIGN ASSOCIATES – DESIGN PROFESSIONAL**

P. O. Box 762  
Plattsburgh, NY 12901  
(518) 562-1800

### **ARCHITECTURE, ENGINEERING & LAND SURVEYING NORTHEAST, PLLC**

10-12 City Hall Place, Suite 201  
Plattsburgh, NY 12901  
(518) 561-1598

### **MARK BUCKLEY (ADIRONDACK PROFESSIONAL SERVICES) – DESIGN PROFESSIONAL**

P. O. Box 401  
Willsboro, NY 12996  
(518) 963-4467

### **PAUL AGNEW – GEOLOGISTS**

51 Agnew Road  
Morrisonville, NY 12962  
(518) 534-0122     [www.pagnew.com](http://www.pagnew.com)

### **RYAN BURNS, P.E. – UPSTATE DESIGN ASSOCIATES, LLC – DESIGN PROFESSIONAL**

P.O. Box 60  
Port Kent, NY 12975  
(518) 834-9898

### **DOUGLAS R. FERRIS, P.E. – EARTH SCIENCE ENGINEERING, P. C.**

P. O. Box 2412  
Plattsburgh, NY 12901  
(518) 572-3036     [dferris@zebratechllc.com](mailto:dferris@zebratechllc.com)

### **DEAN LASHWAY, L.L.S**

2806 Miner Farm Road  
Altona, NY 12910  
(518) 236-9333

**NORTH COUNTRY ENGINEERING & PLANNING – DESIGN PROFESSIONAL**

2136 NYS Rt. 22B  
Morrisonville, NY 12962  
(518) 561-7560

**THOMAS J. LABOMBARD, P.E. – DESIGN PROFESSIONAL**

Civic Center, Rm. 3-8  
1790 Rt. 22  
Keeseville, NY 12944  
(518) 834-7729

**MICHAEL OLIVER, P. E. – DESIGN PROFESSIONAL**

P. O. Box 365  
West Chazy, NY 12992  
(518) 570-0978     [oliver1465@gmail.com](mailto:oliver1465@gmail.com)

**MARK PETRASHUNE – LICENSED LAND SURVEYOR**

P. O. Box 821  
Dannemora, NY 12929  
(518) 492-2215

**NORMAN L. STONE, P. E. – DESIGN PROFESSIONAL**

102 Sunnywood  
Chazy, NY 12921  
(518) 846-8703

**NORTH WOODS ENGINEERING**

348 Lake Street  
Saranac Lake, NY 12983  
(518) 891-4975

**PETER E. GIBBS, P.E. – ENGINEERING VENTURES, INC.**

208 Flynn Ave., Suite 2A  
Burlington, VT 05401  
(802) 863-6225

**ROBERT M. SUTHERLAND, P.E. – DESIGN PROFESSIONAL**

11 MacDonough Street  
Plattsburgh, NY 12901  
(518) 561-6145

**MOSER ENGINEERING**

**JAMES MOSER, P.E.**

73 Bugby Road  
Chazy, NY 12921  
(518) 846-3160     [moserengineering@yahoo.com](mailto:moserengineering@yahoo.com)

## **CONSTRUCTION SAFETY FOR DEEP-HOLE TESTS AND SEPTIC SYSTEM INSTALLATIONS**

Excavations, such as for deep-hole tests and septic tanks, may create safety hazards. Experience warns us that depths as shallow as five (5') feet below ground level have caused injury and loss of life. It is the contractor's and the soil evaluator's responsibility to ensure that working conditions on the work site are not hazardous to workers or to the public. Federal OSHA Construction Standards are applicable to excavations and trenches.

Homeowner's constructing / repairing their own systems should be especially careful when working in or near excavations. Excavations should not be left open and unattended. Excavations should be covered, lighted and barricaded or fenced to prevent injury to the public.

It is recommended that the Underground Facilities Protection Corporation (UFOP) be contacted **PRIOR TO ANY EXCAVATION** to determine the location of any underground utilities in the area and thereby, avoiding potential hazards and disruption of utility service.

**THE UFOP TELEPHONE NUMBER FOR UPSTATE NEW YORK IS:  
1 (800) 962-7962**

It is important to remember that not every utility is registered with this service. It may be necessary to do a thorough investigation into the history of a site to identify all the potential hazards that may lie underground there.

**SITE DESCRIPTION**

**PERMIT #** \_\_\_\_\_

**SLOPE** in the area of proposed leach field: Flat (<1%) / Slight (1-5%) / Steep (> 15%)

Please describe slope direction: \_\_\_\_\_

Are there any on-site **streams, wetlands, or waterbodies**? YES / NO Describe \_\_\_\_\_

**VEGETATION:** Dense Woods / Sparse Trees / Open Field / Lawn / Other \_\_\_\_\_

**GRADING:** Has any of the original soil been removed from the proposed leach field area? YES / NO

If yes, how many inches? \_\_\_\_\_

**FILL MATERIAL:** Has any fill material been placed on top of the original soil? YES / NO

If yes, how many inches? \_\_\_\_\_

**NOTE:** DO NOT include fill material or soil that will be removed by grading in the chart below.

**DEEP-HOLE TEST DATA**

**INSTRUCTIONS:**

At least **ONE** deep-hole test must be performed in the area of the proposed leaching system. The hole must be at least 6' (72") deep. The Health Department recommends that the deep-hole test be done during the high groundwater season (in the Spring, before June 30<sup>th</sup>). Caution must be exercised when examining the hole in order to obtain the following information:

**DESCRIPTION OF ORIGINAL SOIL**

DEPTH	SOIL HORIZON	COLOR	TEXTURE	MOTTLING

Depth of hole..... \_\_\_\_\_ inches

Was bedrock encountered? YES / NO..... \_\_\_\_\_ inches

Was till or clay layer encountered? YES / NO ..... \_\_\_\_\_ inches

Was groundwater seepage observed? YES / NO ..... \_\_\_\_\_ inches

Soil mottling, evidence of seasonal high groundwater? YES / NO ..... \_\_\_\_\_ inches

Total depth of useable soil:  
(above bedrock, till, clay soils, seasonal high groundwater, or other limiting factors)..... \_\_\_\_\_ inches

Location of deep-hole test (DH) noted on plat plan: YES / NO

**I CERTIFY THAT THE DEEP-HOLE TEST RESULTS ARE TRUE AND ACCURATE:**

\_\_\_\_\_  
**SIGNATURE OF PERSON CONDUCTING TESTS**

\_\_\_\_\_  
**STAMP/CERT.**

\_\_\_\_\_  
**DATE**

**Title: (please circle one)**

P.E. / L. L. S / R. A / AIPG Geologist / Certified Soil Scientist / Contractor / Homeowner / Other \_\_\_\_\_

## PERCOLATION TEST INSTRUCTION SHEET

### INSTRUCTIONS:

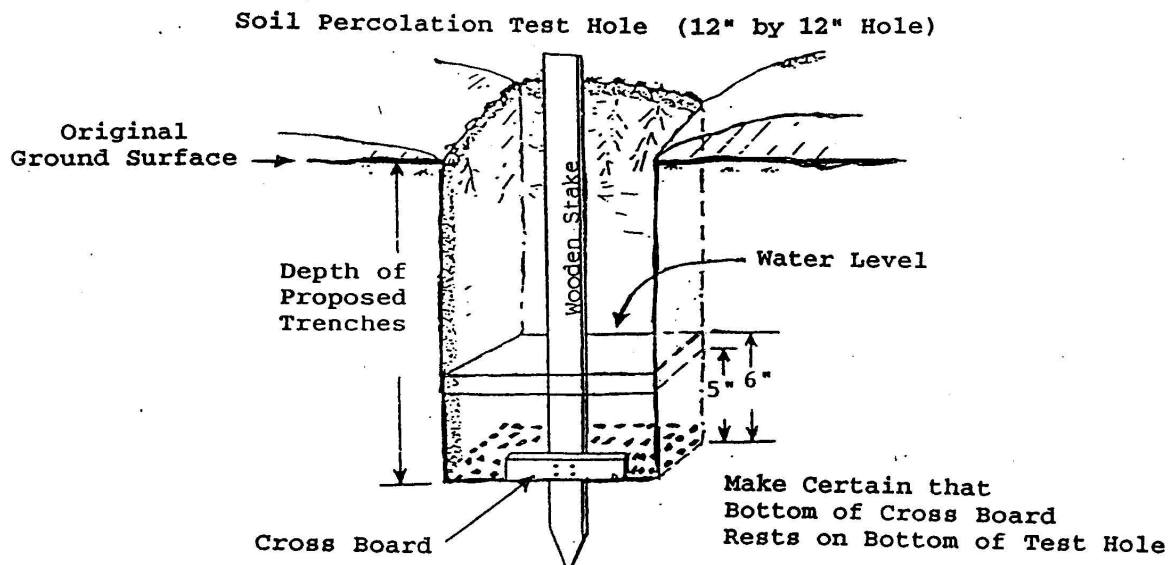
Once the deep-hole test has been completed, dig two percolation test holes in the existing soil, in the area of the proposed leaching system.

**NOTE:** Percolation test holes must be **dug to the depth of the proposed absorption trenches**. If the trench bottoms are to be installed at grade or less than 6" into grade, the percolation tests must be conducted 6" into the original soil. The depth of the proposed absorption trenches is determined by the deep-hole test, as trench bottoms must be a minimum of 2 ft. above any limiting factors (seasonal high groundwater, bedrock, or impermeable soils) that may be found during a deep-hole test. For on-site soil testing, please follow the sequence below:

1. Conduct deep-hole test
2. Determine limiting factors from deep-hole test results
3. Determine type of septic system allowed by limiting factors
4. Conduct percolation tests at the depth of the proposed system

### FOR EACH HOLE:

1. Holes must be 12" x 12" square (or 12" in diameter for circular holes) and spaced at least 20 ft. apart within the proposed leach field area.
2. Scrape the sides of the hole and remove any loose soil from the bottom.
3. Line the bottom of the hole with 2" of crushed stone (to prevent suction on the bottom of the hole).
4. Pre-soak the soil (Thoroughly saturate the hole by filling with water).
5. After pre-soaking, fill the hole with 6" of water.
6. Count the number of minutes it takes the water to drop a distance of 1", from the 6" mark down to the 5" mark. Enter the times on the percolation test data sheet.
7. Fill the hole back up to the 6" mark and repeat the test. Run the test at **least** 3 times in each hole until percolation times **stabilize** (time trials should be within 1 minute of each other for 1-30 min. soil; within 2 minutes for 31-60 min. soil).
8. Mark the location where each hole was dug (P1 & P2) on the Plot Plan.







## SEWER PIPE REQUIREMENTS – HOUSE TO SEPTIC TANK

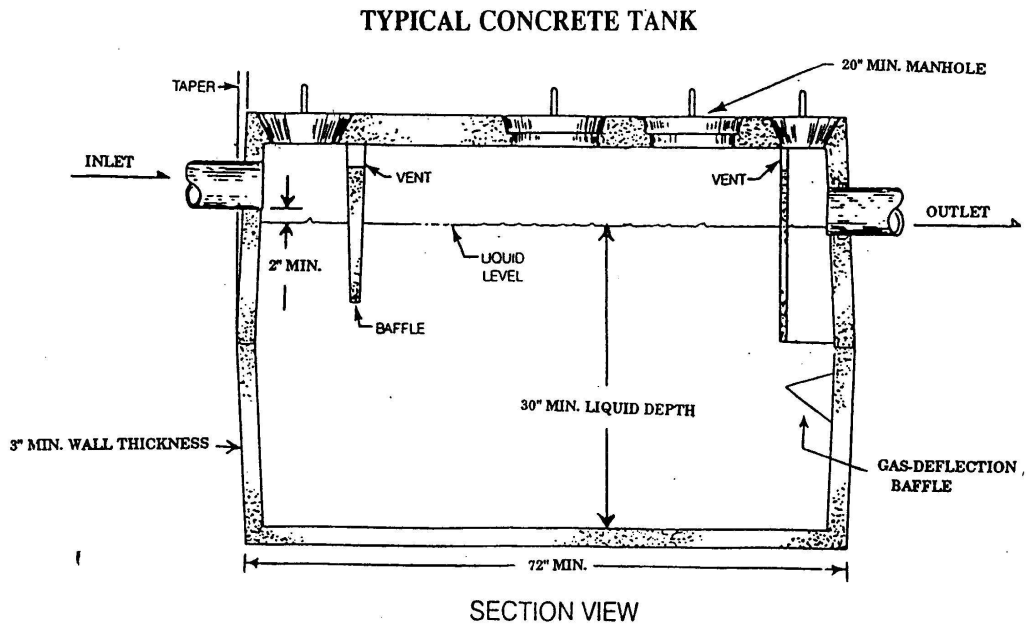
1. Four inch (4") minimum diameter.
2. Tight joining pipe (PVC, Cast Iron, etc....) with ¼" wall thickness.
3. The septic tank connection must be watertight.
4. Pipe should have no less than ¼" per foot slope.
5. Pipe must have a clean-out fitting in the basement or crawl space.
6. Inlet and outlet pipe must have ends cut flush with the inside of the tank (within ½").
7. Pipe must have no sharp bends (angles of more than 45°).

### SEPTIC TANK REQUIREMENTS Minimum Tank Size

# Bedrooms	W/O Accessories	With Garbage Disposal	With hot tub/Spa	Garbage Disposal & Hot tub/Spa
1-2	1,000	1,000 DC*	1,000	1,250 DC*
3	1,000	1,250 DC*	1,250	1,500 DC*
4	1,250	1,500 DC*	1,500	1,750 DC*
5	1,500	1,750 DC*	1,750	2,000 DC*

\*DC = Dual Compartment Septic Tank Required

**DUAL COMPARTMENT TANKS MUST MEET HEALTH DEPARTMENT SPECIFICATIONS AND INCLUDE A GAS DEFLECTION BAFFLE OR OTHER ACCEPTABLE OUTLET MODIFICATION**

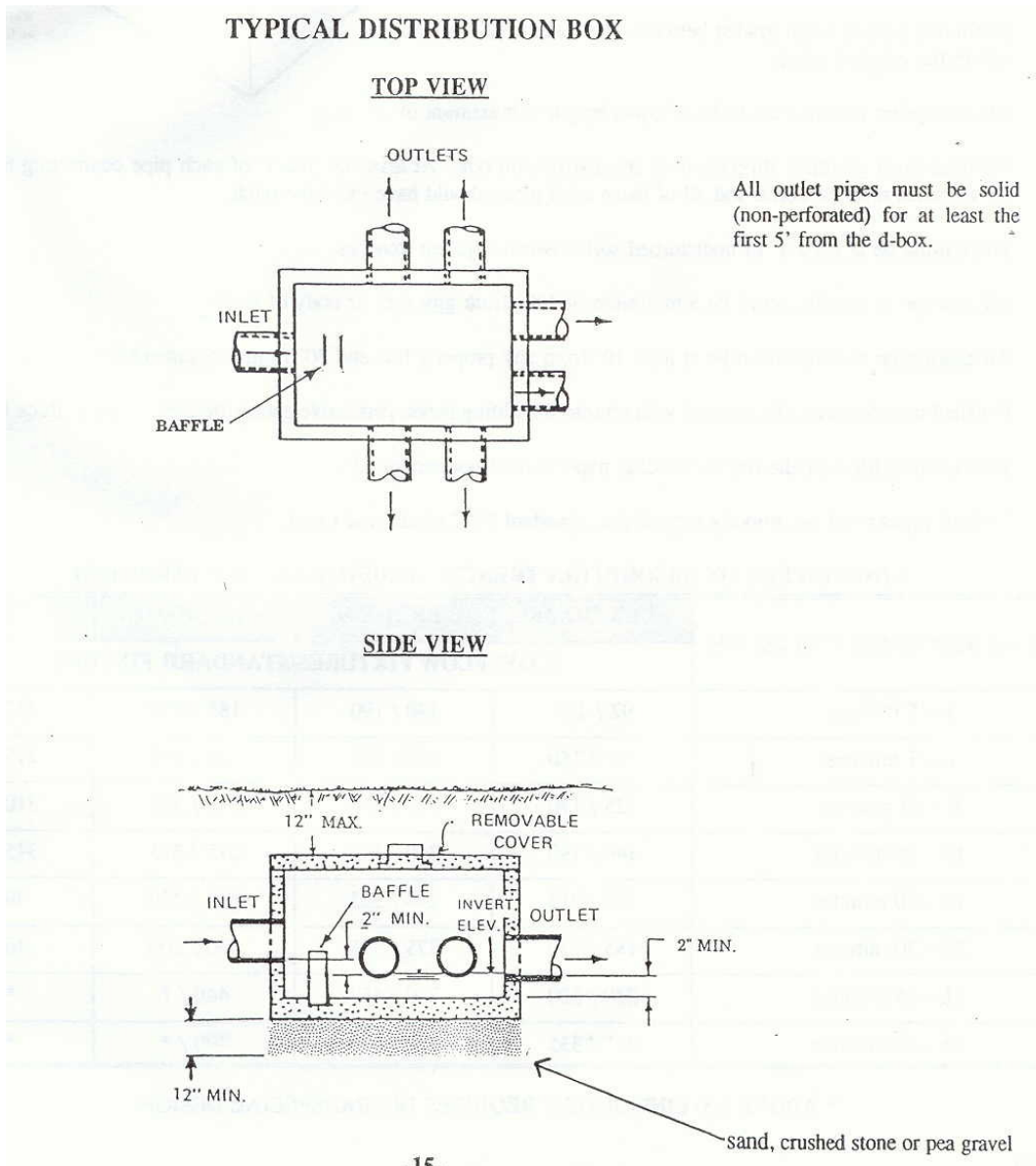


## SEWER PIPE REQUIREMENTS – SEPTIC TANK TO DISTRIBUTION BOX

The pipe from the septic tank to the distribution box must be 4" minimum diameter tight joining pipe (PVC, Cast Iron, etc...) with 1/4" wall thickness. Pipe must have a slope of no less than 1/8" per foot.

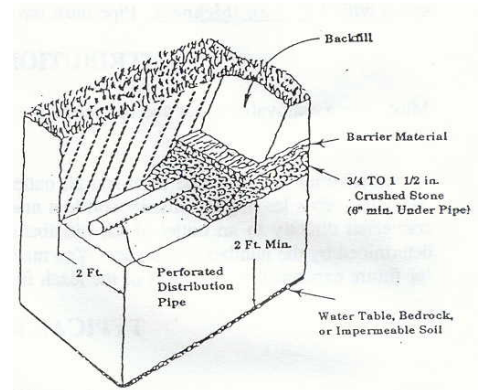
### DISTRIBUTION BOX REQUIREMENTS

1. Must have a removable cover and be located not more than 12" below grade, on a 12" bed of sand, crushed stone or pea gravel.
2. The distribution box must be level and all outlet pipes must be at the same level to insure even distribution of flow. All outlet pipes leaving the distribution box (no "T"'s allowed). The number of outlets required will be determined by the number of trenches. You may wish to get an oversized distribution box with extra outlets to provide for future expansion/replacement of the leach field. Pre-cast distribution boxes are available in a variety of sizes.



## CONVENTIONAL STONE ABSORPTION TRENCH REQUIREMENTS

1. Trenches are to be 24" wide, and installed parallel to ground contours.
2. Trench bottoms must be **level**, and at least 2' above the high groundwater level, bedrock, impermeable soil, or limiting factor.
3. Sides and bottoms of trenches must be raked prior to placement of crushed stone.
4. The aggregate required is washed gravel or crushed stone 3/4" to 1 1/2" in diameter. Larger diameter material, finer substances, or run of bank gravel are unacceptable.
5. Minimum depth of crushed stone must be 12" (6" of crushed stone **below** the distribution pipe line and 2" **above** the pipe).
6. Perforated pipe is to be graded between 1/16" and 1/32" per foot within the crushed stone.
7. All absorption trenches are to be of equal length, a maximum of 60' long.
8. All lines must originate **directly** from the distribution box. At least first 5' of each pipe connecting the D-box to the trenches must be solid, and all of these solid pipes should have the same pitch.
9. There must be at least 4' of undisturbed soil between adjacent trenches.
10. All absorption trenches must be a minimum of 100' from **any** well or body of water.
11. All absorption trenches must be at least 10' from any property line and 20' from a basement foundation.
12. Finished trenches are to be covered with untreated building paper, permeable geotextile fabric, or 4" thick layer of hay.
13. The soil backfill over the hay or building paper should not exceed 12".
14. Ends of pipes must be properly capped (i.e., standard PVC plastic end caps).



### LINEAR FEET OF ABSORPTION TRENCH NEEDED (based on 2' wide trench)

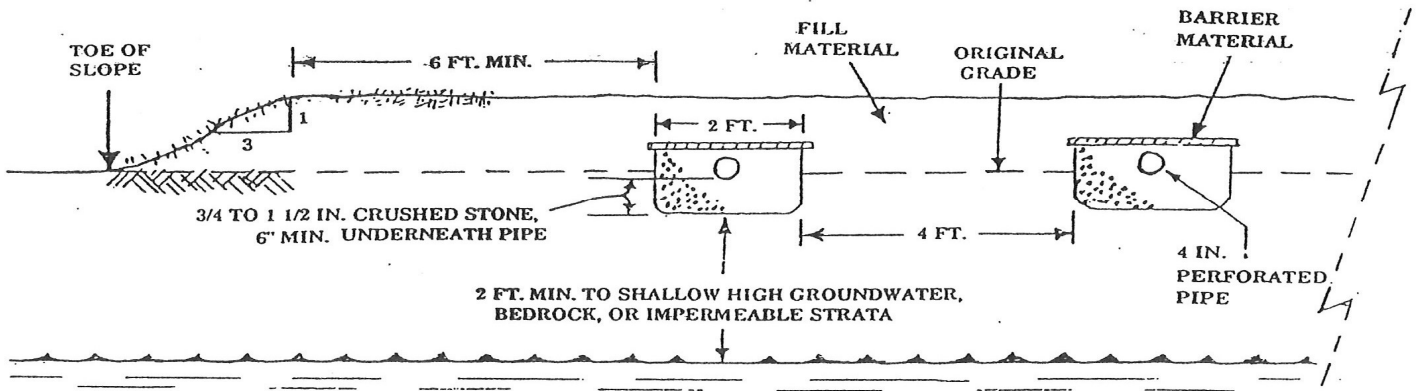
Time for water to drop 1" in test hole	2 BR HOME	3 BR HOME	4 BR HOME	5 BR HOME
<b>(LOW-FLOW FIXTURES/ STANDARD FIXTURES)</b>				
1-5 minutes	92 / 125	140 / 190	185 / 250	230 / 315
6-7 minutes	110 / 150	165 / 225	220 / 300	275 / 375
8-10 minutes	125 / 170	185 / 250	245 / 335	310 / 420
11-15 minutes	140 / 190	210 / 285	275 / 375	345 / 470
16-20 minutes	160 / 215	240 / 325	315 / 430	395 / *
21-30 minutes	185 / 250	275 / 375	370 / 500	460 / *
31-45 minutes	220 / 300	330 / 450	440 / *	* / *
46-60 minutes	245 / 335	370 / 500	490 / *	* / *

**\* ABOVE 500 LINEAR FEET REQUIRES DOSING / SPECIAL DESIGN SHALLOW ABSORPTION TRENCHES**

**APPLICATION:**

There is an alternative to conventional trenches for the sites that have less than 4' of usable soil. As long as there is at least **2' of usable soil** above groundwater, bedrock or impermeable soil, **SHALLOW ABSORPTION TRENCHES** may be used. Shallow trenches are constructed in fill material, extending into the existing natural soil.

**SHALLOW TRENCH SYSTEM – END VIEW**



**CONSTRUCTION NOTES**

**TRENCHES ARE INSTALLED AS DESCRIBED UNDER “CONVENTIONAL TRENCHES” (page 16) WITH THE FOLLOWING ADDITIONAL CONSIDERATIONS:**

1. Usable fill shall have a percolation rate similar to, but not faster than, the usable soil percolation rate, and the fill must be placed **prior** to excavating the trenches.
2. The depth of the fill shall not be greater than 30" (including 6" of topsoil).
3. Fill shall extend at least 6' beyond edges of trenches (in all directions) before starting the tapered edge.
4. The edge of the fill material shall be tapered at a slope of no greater than one vertical to three horizontal.
5. Bottoms of all trenches shall **not** be above original soil.
6. Trench bottoms shall be level, and trenches shall be parallel to ground contours.
7. All separation distances noted in the diagram above must be met. If trench bottoms are to be at grade, all separation distances are to be measured from the "toe of the slope" (see diagram).
8. On sloped sites, a diversion ditch must be constructed uphill from the fill to prevent surface runoff from entering the fill.

**ALTERNATIVE TYPES OF SYSTEMS**

If soil and site evaluation reveals that there is **less than 2' of usable soil** on a site, then **ALTERNATIVE** types of sewage treatment systems such as modified sites, mounds, etc... may be used. The plans for these systems must be designed and submitted by an engineer. The engineer that you choose may reserve the right to base their decision on their **own** deep-hole and percolation tests. The following procedure is used for the approval of alternative systems.

1. Engineered plans for alternative systems must be submitted to the Health Department to be reviewed by a Health Department contract engineer. Please allow adequate time for the review process.
2. Once the plans are approved by the Health Department, the system may be installed.
3. After the system is installed, the design engineer will inspect the system to make sure it was installed according to their plan, and will issue a "Letter of Completed Works" to the Health Department which will assure that the system meets their specifications.
4. Once the Health Department receives the "Letter of Completed Works" from the design engineer, a Certificate of Approval will be issued.

**CLINTON COUNTY HEALTH DEPARTMENT  
ENVIRONMENTAL UNIT  
133 Margaret Street  
Plattsburgh, NY 12901  
Telephone (518) 565-4870      Fax (518) 565-4843**

## **YOUR PRIVATE WATER WELL**

### **Before the well is installed:**

Establish a site for the well that will protect it from contamination;

- ❖ Where possible, the well should be located uphill and a maximum possible distance from any potential sources of contaminants, such as septic systems, pesticide or fertilizer storage areas, road salt storage, gasoline and fuel oil tanks.
- ❖ Surface water should drain away from the area of the well.
- ❖ Maintain the following minimum separation distances:
  - 10 ft. to any building
  - 15 ft. to property lines
  - 50 ft. to septic tank
  - 100 ft. to sewage system
  - 50 ft. to stream, lake, or wetland

Hire a well driller who is registered with the New York State Department of Environmental Conservation (NYSDEC). A list of registered drillers can be obtained from the Clinton County Health Department (CCHD).

Determine if there are any existing unused wells on the property. These wells should be properly abandoned to protect your groundwater source from contamination. Please contact the CCHD for information on proper well abandonment procedures.

### **After installation:**

- ✓ The well casing should extend at least 18 inches **ABOVE** the ground surface (at least 2 feet above the 100 year flood elevation).
- ✓ The well casing should extend at least 50 feet **BELOW** the ground surface.
- ✓ The ground surface immediately around the well should be graded to direct surface water away from the well.
- ✓ The new well should be shock-disinfected. This procedure is often performed by the well driller at the time of installation. The CCHD can also provide directions on how to shock-disinfect the well.
- ✓ Make sure the well is protected with a tight fitting, vermin-proof well cap or sanitary seal that is properly vented. The vent should face downward, be screened, and be at least 1 foot above the ground surface.
- ✓ The water should be tested to establish safety of the new water source. This should be done after shock-disinfection, when there is no longer any chlorine present in the water. Please refer to Table 1 for tests recommended by the CCHD.
- ✓ Get a complete well log, receipt and results of any tests from your well driller and keep these records in a safe place!



<b>Table 1: Individual Residential Well Water Supply Quality Testing</b>	
<b>Test</b>	<b>Maximum Contaminant Level (MCL)</b>
Coliform Bacteria	Any positive result is unsatisfactory
Chloride	250.0
Lead	0.015 mg/L
Nitrates	10 mg/L at Nitrogen
Nitrites	1 mg/L as Nitrogen
Iron	0.3 mg/L
Manganese	0.3 mg/L
Sodium	No designated limit**
pH	No designated limit
Hardness	No designated limit
Alkalinity	No designated limit
Turbidity	5 NTU

mg/L- milligrams per liter

MCL- defines the highest concentrations of contaminants allowed in public water supplies as set by the New York State Health Department and the Environmental Protection Agency (EPA).

NTU- Nephelometric Turbidity Units

More than 20mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. More than 270 mg/L should not be consumed by people on moderately restricted sodium diets.

Also test for contaminants that might be located in your area. For example: Test for volatile organic chemicals (VOCs) if oil, petroleum, or solvents are stored nearby; if there has been a spill; or for pesticides and herbicides if a well is located close to an area used for agriculture. Contact the CCHD if you have any questions.

### **Maintaining your well:**

- Protect the well from animal, chemical and groundwater contamination.
- Occasionally check the condition of the well cap or seal to ensure it is not cracked or loose. Also check the casing for cracks or holes and make sure that surface water is diverted away from the well.
- Prevent backflow of contaminated water into your water supply by installing backflow prevention devices (check valves or vacuum breakers) on all faucets with hose connections. An air gap should also be maintained between water supply lines and a potential source of contamination (For example: a hose and water in a swimming pool or puddle).
- Test for coliform bacteria and nitrate annually. You should test more frequently if there is a change in water taste, odor, color or clarity; if your neighbors find a particular contaminant in their water; or if there is a pregnancy or unexplained illness in the household. Under these circumstances, you may also contact the CCHD for assistance and advice.
- Disinfection of a well should be performed any time the well is exposed to the environment. For example: if the well cap is removed and/or repairs are made to the well or submersible pump. Contact the CCHD for technical advice.
- Have your well inspected every 10-20 years by a qualified well driller or pump installer.
- Keep good records on your well!

Please note that the CCHD does not recommend dug wells as potable water supplies.