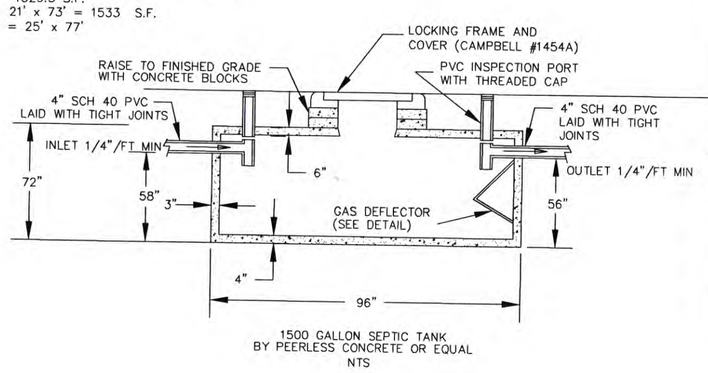
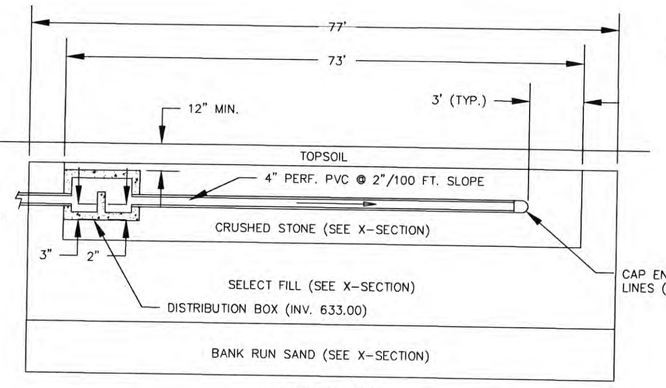
NOTE:

ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE SAFETY CODES. APPLICABLE SAFETY CODES SHALL MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS AND ADDITIONS THERETO OF THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S "OCCUPATIONAL SAFETY AND HEALTH STANDARDS"(OSHA);"SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION" OF THE STATE OF NEW JERSEY, DEPARTMENT OF LABOR AND INDUSTRY, BUREAU OF ENGINEERING AND SAFETY; "CONSTRUCTION SAFETY CODE,"AND "MAINTENANCE, CONSTRUCTION AND DEMOLITION," AND"BUILDING CODE".

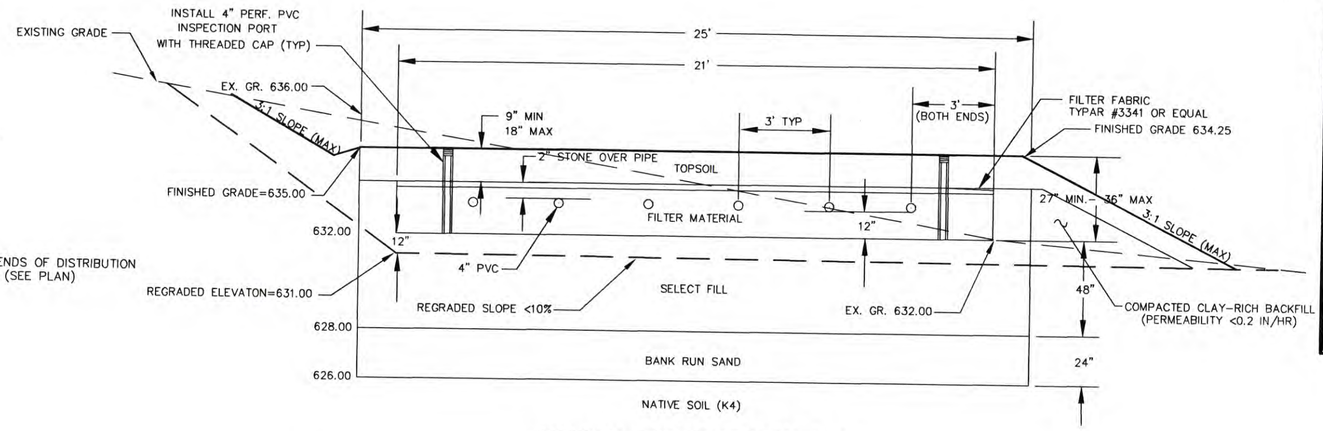
DESIGN DATA
Daily flow for 6 bedroom dwelling = 950 gal/day
(950 gal/day) (1.61 S.F./gal/day)= 1529.5 S.F.
Required area = 1529.5 S.F.
Designed area = 21' x 73' = 1533 S.F.
With fill enclosure = 25' x 77'



1500 GALLON SEPTIC TANK
BY PEERLESS CONCRETE OR EQUAL
NTS

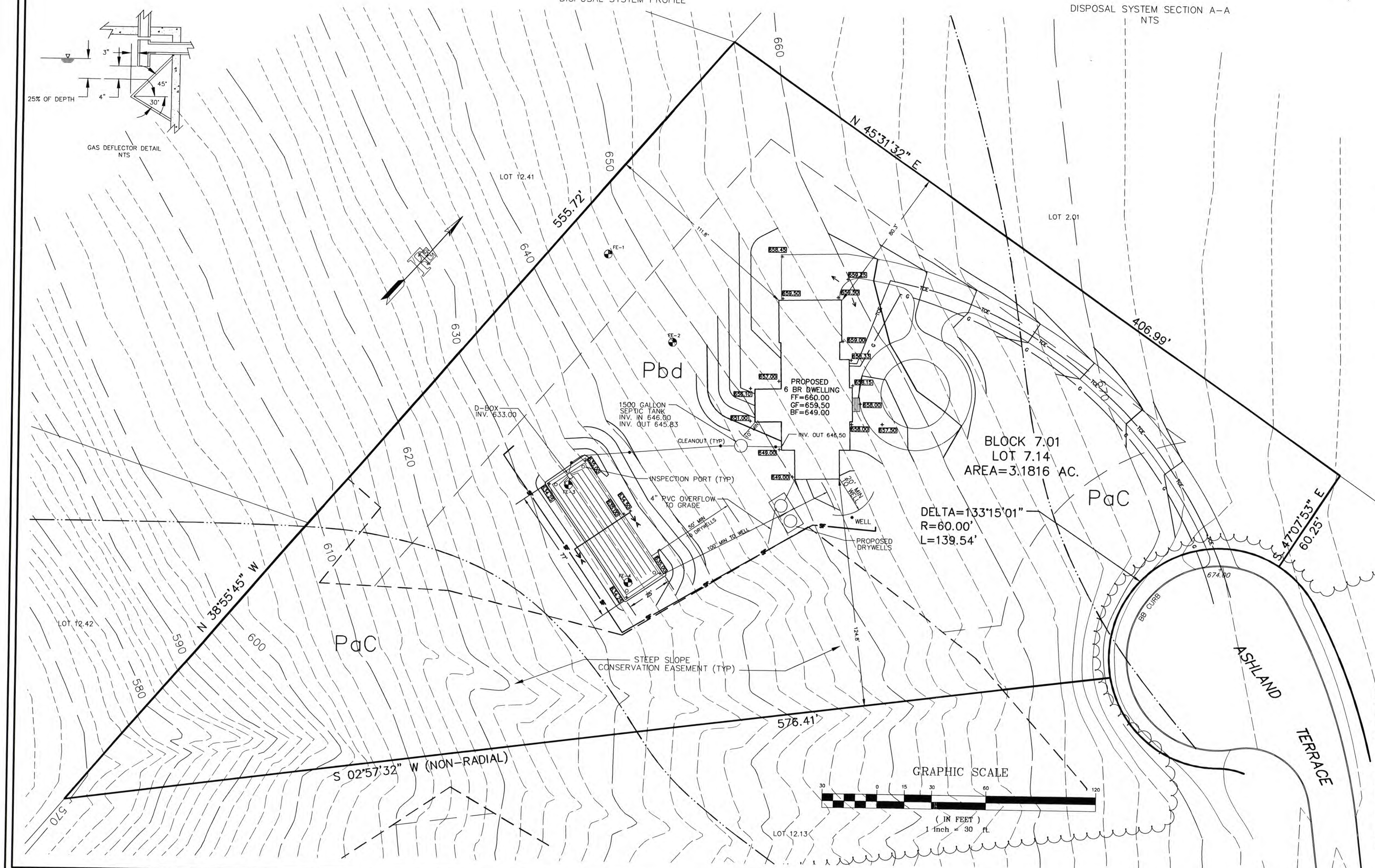


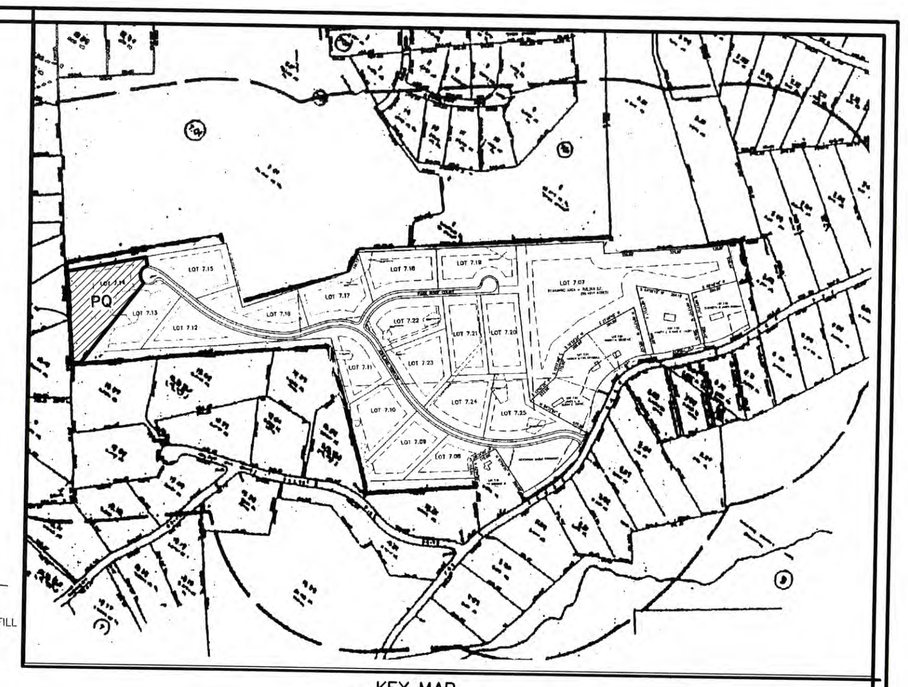
DISPOSAL SYSTEM PROFILE



DISPOSAL SYSTEM SECTION A-A
NTS

GAS DEFLECTOR DETAIL
NTS





KEY MAP
SCALE: 1"= 500'

General Notes
1. All work to be done in accordance with Chester Township Board of Health and N.J.D.E.P. "Standards for Subsurface Sewage Disposal Systems".
2. Disposal System installer to locate buried utilities on site prior to construction.
3. Locations of disposal bed, septic tanks, and pump pit to be located by design engineer prior to construction.
4. Any smeared or compacted soil surface which have been produced on the bottom or sidewalls of the excavation shall be removed to expose a fresh soil surface which is rough and uneven.
5. Filter material shall be covered with filter fabric (Mirafi # 140 or equivalent) or 4" thick salt hay. Edges of adjacent sheets of filter fabric shall overlap 6 inches.
6. Backfill shall be of earth similar to that found at the site and shall be free of large stones, broken masonry, stumps, and other waste materials. Berm material to be clay rich.
7. Grade area to divert surface water away from disposal area.
8. Filter material shall conform to NJDOT size 3, 4, or 24, free of fines, dust, ashes or clay.
9. No heavy machinery (rubber tire) allowed on bed area during or after construction.
10. This system is not designed for use with garbage disposal.
11. There are no adjacent wells within 100' of proposed disposal bed.
12. There are no disposal beds within 50' of proposed disposal bed.
13. Boundary, topo and existing features taken from plan entitled "Preliminary Major Subdivision, Roxcliticus Ridge Estates," by Couvrette Associates, Inc., last revised 6/12/98.
14. Topography from NGVD 1929 vertical datum.
15. Provide cleanouts on sewer pipe every 50' minimum.
16. This plan for septic system design only. For lot grading and details, see grading and soil erosion control plan by this firm.

SET-BACKS
1. Proposed disposal bed is to be 100' from streams, adjacent wells and 50' from adjacent disposal systems.
2. Maintain seepage pits a minimum of 50' from disposal bed.
3. Maintain septic tank 50' from well and 10' from dwelling.

SEWER LINES, DISTRIBUTION LINES

1. Minimum slope of sewer line to be 1/4" per foot.
2. Slope of pipe in disposal bed to be 0"-2"/100 feet.
3. Cap ends of distribution lines.
4. Two row perforated pipe to be in accordance with ASTM D2729.
5. Building sewer pipe to be 4" schedule 40 PVC pipe installed with 10" of sand all around.
6. 4" perforated PVC inspection ports with threaded caps to be set in the ends of the disposal bed.
7. Header pipes from d-box to laterals to be solid PVC.

TANKS AND DISTRIBUTION BOXES

1. Certification for frost resistance (ACI 318-16-4.5.1) and watertightness (ACI 318-16-4.5.2) shall be provided by the manufacturer and the certification displayed on the tank.
2. All inside concrete surfaces shall be sealed with two coatings of an appropriate inert coating to minimize corrosion (coal tar pitch). Coating of pre-cast tank shall be applied by the manufacturer prior to delivery to the job site. Distribution boxes and pump pits must also be coated.
3. Septic tank shall be placed upon a firm and stable foundation so that the potential for uneven settlement or shifting is minimized. Tanks to be installed directly on undisturbed natural soil. If the excavation is dug too deep, it shall be backfilled to the proper elevation with compacted sand. Compacted sand to be observed by design engineer prior to installation of tank.
4. Tank invert connections to be sealed with an expanding grout or a manufactured water-proof pipe coupling which is incorporated into the wall of the tank.
5. Outlet baffles or tees shall be provided with gas deflection baffle.
6. All manholes shall be extended flush with finished grade by means of a riser fitted with a removable water-tight cover. Covers shall be bolted or locked to prevent access by children. Covers shall be of cast iron when a concrete riser is used.
7. An inspection port extending to finished grade shall be provided over each tank or compartment inlet or outlet which is not directly below a manhole. Inspection ports shall extend to finished grade and shall be constructed of 4" cast iron or PVC pipe with a locked or bolted cap.
8. The septic tank(s) installation shall be such that the high seasonal water table shall be no higher than 1' below the outlet or any joints of the septic tank.
9. The installation of all septic tanks shall prevent flotation.
10. All tanks with joints below the elevation of the outlet pipe invert shall be tested for leakage. Health Department to be notified prior to backfilling and testing.

INSPECTION SCHEDULE/AS BUILT REQUIREMENTS
In order to prepare an as-built drawing in compliance with local requirements, the design engineer or his authorized agent and health department must observe the following phases of construction:

* Open excavation(s), perform tests in bottom of bed(s)/trenches
* Permeability or percolation tests are to be conducted in select fill material in 2' lifts
* Select fill before placement of stone
* Septic tank, distribution box and piping prior to backfilling

* Final grading, including seeding and mulching of disturbed ground

The contractor shall provide 48 hours notice to the engineer and health department for each phase of work.

SELECT FILL
1. Select fill material, in zone of treatment, shall comply with the following:
A. Material larger than 2mm (coarse fragment) shall not exceed 25% by weight or 15% by volume.
B. Material finer than 2mm shall comply with the following textural composition:
85%-95% sand (0.05 to 2.0 mm)
5%-15% silt and clay (smaller than 0.05 mm)
minimum 2% clay (smaller than 0.002 mm)
C. Permeability to be between 6 to 20 inches per hour, or a percolation rate from 3 to 15 min/inch, after installation.

2. Install select fill in 8"-12" lifts and compact lightly with roller or tracked vehicle.
3. The permittee is required by the Chester Township Health Department to have the select fill material sampled and tested by a soils engineer and be in compliance with New Jersey Department of Environmental Protection specifications. A composite sample shall be obtained by sampling an on-site stockpile which contains at least half the total required material at two locations or by sampling material from two locations in the disposal bed with a minimum of 2' of select fill installed. Sampling to be witnessed by design engineer.
4. A composite mechanical analysis, including sieve and hydrometer testing, will be required of each sample. A copy of the laboratory test report shall be furnished to the Department of Health, prior to the installation of gravel.

BANK RUN SAND shall meet the following requirements:
A. Textural analysis (composition by weight of size of fraction passing the two millimeter sieve) 85% or more sand.
B. Permeability greater than 2 inches/hour or percolation rate faster than 15 minutes/inch; however, in no case shall the permeability be less than that of the select fill in the zone of treatment above it.

CHESTER TOWNSHIP
BOARD OF HEALTH
APPROVED
7/26/99

NO.	DATE	REVISION

DRAWN BY:	SCALE:	PROJ. NO. 981125-14
JEH	1" = 30'	FIELD BOOK: FB X P X
CHKD BY: PWF	FILE: 981125-14-SEPTIC.DWG	

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N.J. PROFESSIONAL ENGINEER
NO. 32978

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CHESTER, NEW JERSEY 07930
908-879-6209

SEPTIC SYSTEM PLAN

LOT 7.14 BLOCK 7.01
TOWNSHIP OF CHESTER
MORRIS COUNTY
NEW JERSEY

SHEET 1 OF 1

DATE: 7/16/99 REVISION:

RECEIVED
JUL 21 1999
CHESTER TOWNSHIP
BOARD OF HEALTH