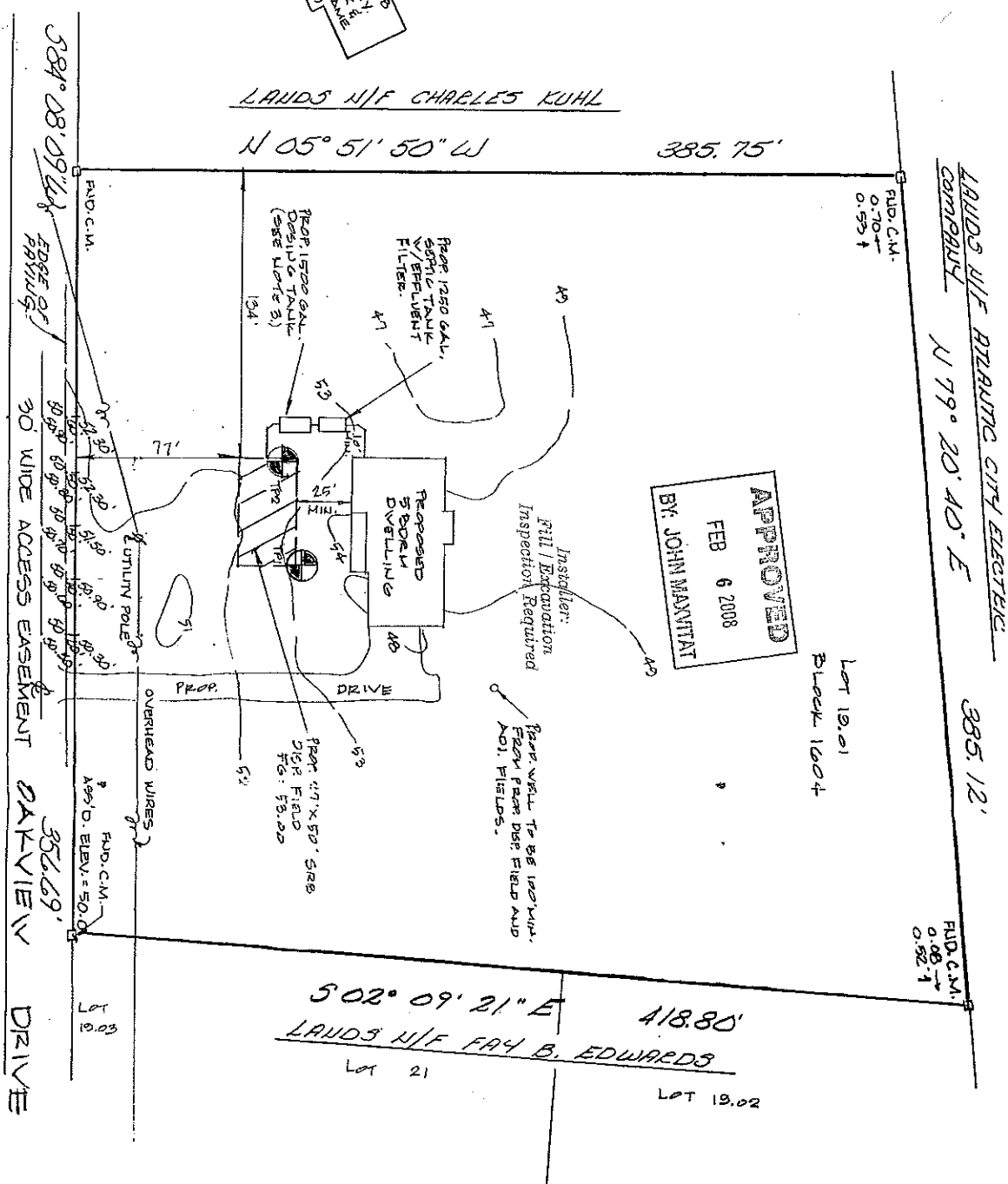


1/2 STY.
BRICK
FRAME
(EXIST.)



1. Boundary and Topography elevations data provided by: John E. Gauntt Assoc., Inc. dated 6/28/07; **This plan for septic design purposes only; Not for any other purpose.**
2. There are no known ISDS/Wells within 150 ft. of proposed ISDS other than shown; **Installer to verify all ISDS/Well locations prior to any construction.**
3. Proposed dosing tank may be eliminated if installer can obtain proper gravity flow to proposed disposal field; Installer to contact SJE for As-Built plan. County fee to be paid by applicant.
4. **No development including clearing and land disturbance is permitted in wetlands or wetlands buffers.**

1.	REVISE	DWELLING / WELL LOCATION	MS	SM	1/30/08
NO.		REVISIONS	DRAWN	APPR	DATE



SJE

SOUTH JERSEY ENGINEERS
P.O. BOX 1406, VOORHEES, N.J. 08043
ph (856) 651-9050 fax (856) 651-9051
N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA26095400

SCALE: 1" = 50'

DRAWN BY: MTS.

SITE PLAN FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM

LOT 1001 BLOCK 1004

TOWNSHIP: VINELAND

SANFORD S. MERSKY, P.E.
PROFESSIONAL ENGINEER'S LIC. # GE28106

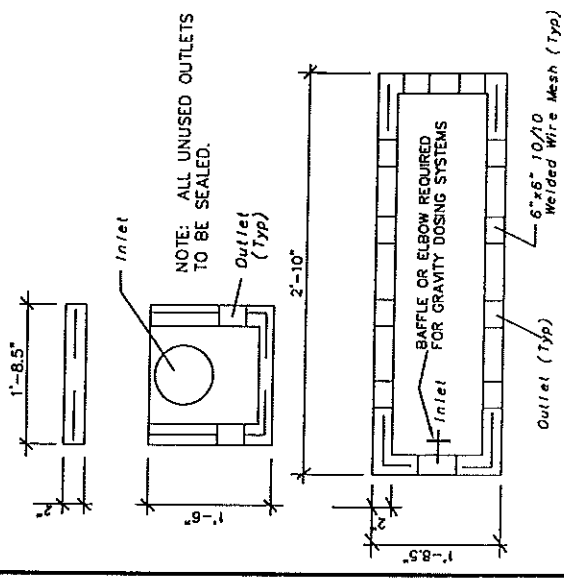


7/17/07

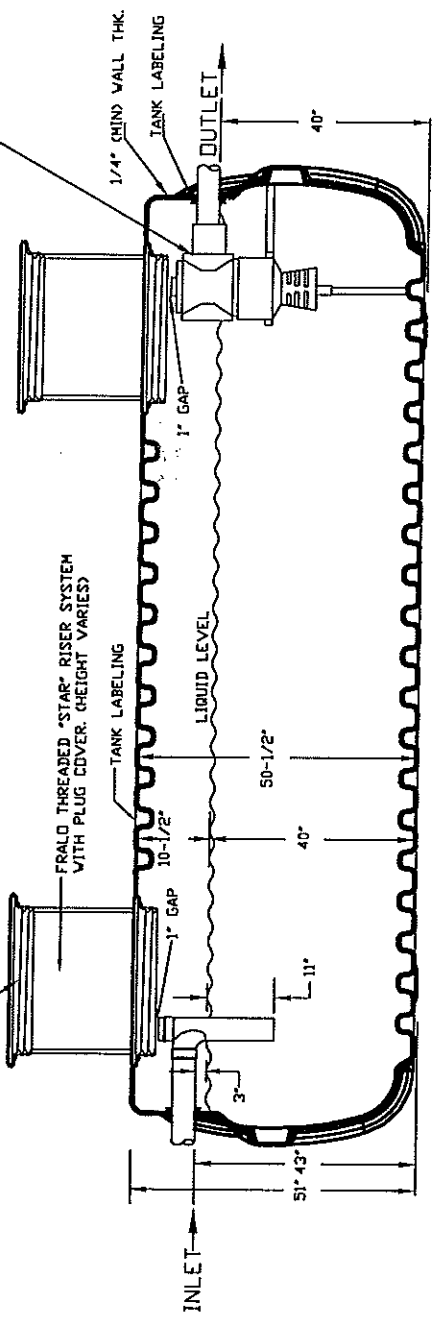
DATE

DISTRIBUTION BOX DETAIL (10 OUTLET)

NOT TO SCALE



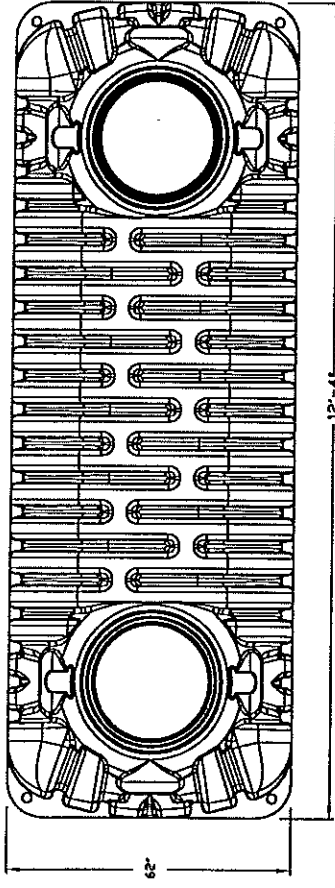
PREMIER TECH ENVIRONMENT EFT-080 EFFLUENT FILTER TO BE INSTALLED AND MAINTAINED PER LATEST APPLICABLE MANUFACTURES INSTRUCTIONS.



1250 GALLON SEPTTECH TANK CROSS SECTION

- NOTES:
1. MINIMUM TANK WALL THICKNESS IS 1/4".
 2. LABELING WILL INCLUDE: MANUFACTURER NAME, LIQUID CAPACITY, DATE, BURIAL DEPTH AND MODEL NUMBER.
 3. THE STANDARD LIQUID LEVEL IS 40", BUT MAY BE INCREASED TO 42" FOR SOME STATES.
 4. RISER COVER CONTAINS THE FOLLOWING 6" X 3" WARNING: "DANGER DO NOT ENTER POISON GAS"
 5. WRITTEN IN ENGLISH, FRENCH & SPANISH.
 6. MAXIMUM BURIAL DEPTH IS 36".
 7. DIMENSIONS SUBJECT TO CHANGE DEPENDING UPON STATE/LOCAL REQUIREMENTS.

MULTI PORT OUTLETS



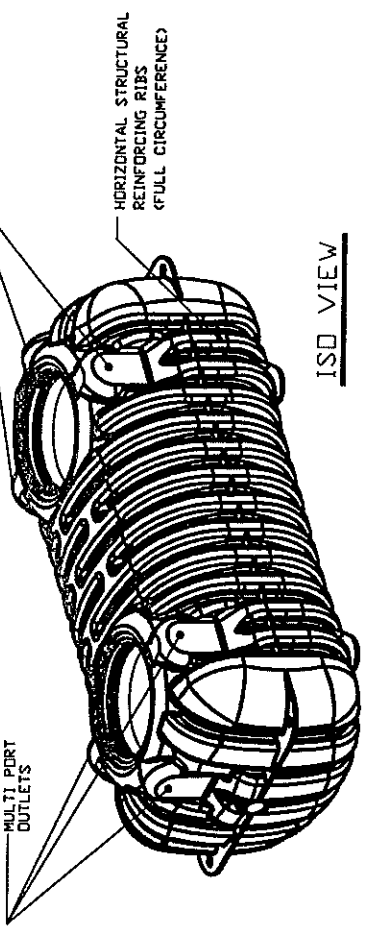
TOP VIEW

MANUFACTURED BY:
FRALO PLASTECH
ONE GENERAL MOTORS DRIVE
SYRACUSE NY 13206

DISTRIBUTED BY:
DEL VEL CHEM CO.
250 OLD MARLTON PIKE
MEDFORD, N.J. 08055
609-714-2424

- NOTES:
1. TANK CERTIFIED FOR IAPMO #4622, CAN/CSA CERT. #1506690, AND ASTM STANDARDS.
 2. TANK MATERIAL OF CONSTRUCTION IS HMW-HDPE.
 3. MAY BE SUBSTITUTED WITH AN APPROVED EQUIVALENT CONCRETE TANK AS MANUFACTURED BY J.F. GILLESPIE INC. (609) 692-2233.

TANK MODEL	ST-1250
TOTAL TANK CAPACITY	1464 G/5541 L
LIQUID TANK CAPACITY	1250 G/4731 L
TANK LENGTH (L)	148"/3759mm
TANK WIDTH	62"/1575mm
TANK HEIGHT	51"/1295mm
LIQUID LEVEL (LL)	40"/1016mm
FREEDBOARD	10.5"/266mm
INVERT DROP	3"/76mm
INLET COMPARTMENT	99"/2515mm



SOUTH JERSEY ENGINEERS
P.O. BOX 1406, VORHEES, N.J. 08043
Ph (856) 651-9050 Fax (856) 651-9051
N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA28095400

**CONSTRUCTION DETAILS FOR
SEWAGE DISPOSAL SYSTEM**
LOT 19.51 BLOCK 1604
TOWNSHIP WINDSLOW

SANFORD S. MERSKY, P.E.
PROFESSIONAL ENGINEER'S LIC. 1 GE28106
7/17/07
DATE

07.3782

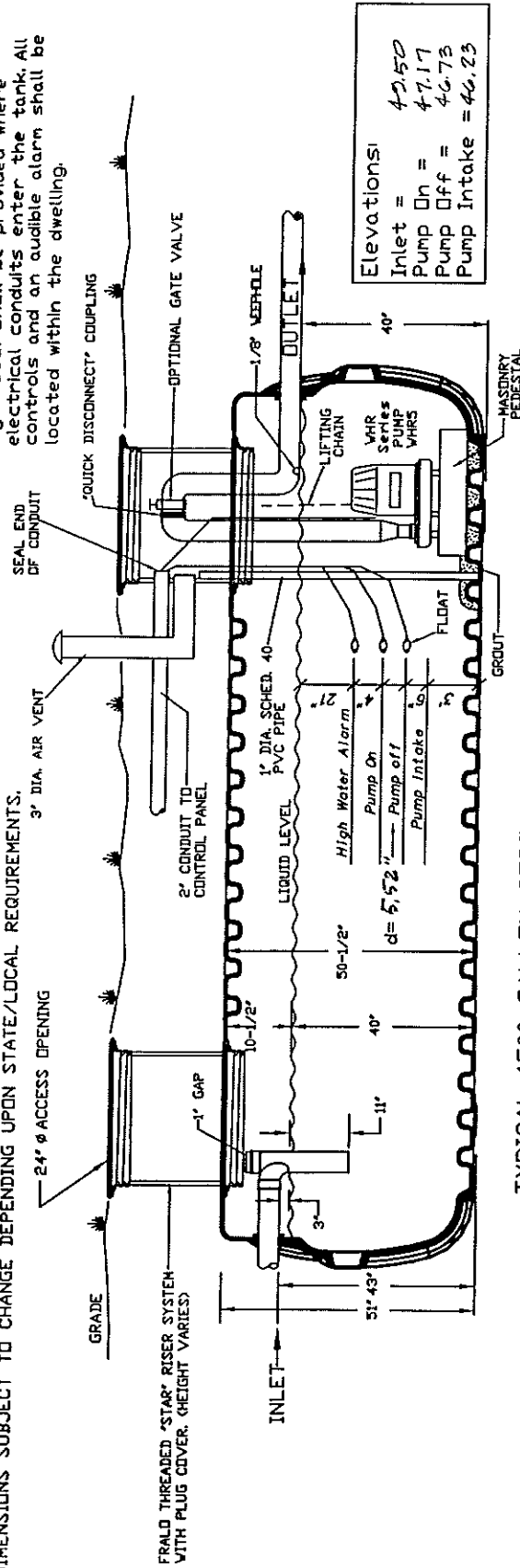
Type	Pump Model	Ht.	G. P. H.	H. P.	R. P. M.	Phase	Voltage	Hertz
Simplex	WHRS	5.71	13.87	1/2	1750	Single	110	60

NOTES:

1. MINIMUM TANK WALL THICKNESS IS 1/4".
2. LABELING WILL INCLUDE: MANUFACTURER NAME, LIQUID CAPACITY, DATE, BURIAL DEPTH, AND MODEL NUMBER.
3. THE STANDARD LIQUID LEVEL IS 40", BUT MAY BE INCREASED TO 42" FOR SOME STATES.
4. RISER COVER CONTAINS THE FOLLOWING 6" X 3" WARNING: "DANGER DO NOT ENTER POISON GAS"
5. MAXIMUM BURIAL DEPTH IS 36".
6. PRIMARY DIMENSIONS SUBJECT TO CHANGE DEPENDING UPON STATE/LOCAL REQUIREMENTS.
7. DIMENSIONS SUBJECT TO CHANGE DEPENDING UPON STATE/LOCAL REQUIREMENTS.

*PROPOSED DOSING TANK MAY BE ELIMINATED IF INSTALLER CAN ACHIEVE PROPER GRAVITY FLOW TO PROPOSED DISPOSAL FIELD.

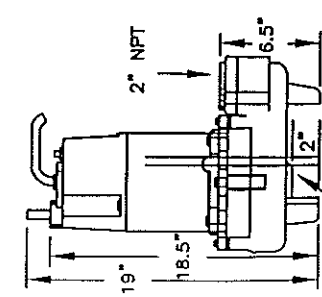
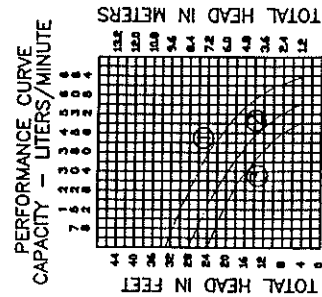
1. External tank length = 14'-9 1/2"
External tank width = 5'-2 1/2"
Internal tank maximum liquid height = 3' 4".
Gal per foot = 472.00
2. Dose volume (Vd) = 200 gallons.
Displacement volume (Vpd) = 4 gallons.
3. Reserve capacity = 826 gallons +/-.
4. No electrical junction boxes shall be located within the dosing chamber. All electrical contacts and relays shall be located outside of the tank and a gas-tight seal shall be provided where electrical conduits enter the tank. All controls and an audible alarm shall be located within the dwelling.



Elevations!	
Inlet =	42.50
Pump On =	47.17
Pump Off =	46.73
Pump Intake =	46.23

d = 5.28"

TYPICAL 1500 GALLON SEPTTECH TANK CROSS SECTION



$V_d = 200 \text{ gal}$
 $V_{pd} = 4 \text{ gal}$
 $V_{cp} = (2' \times 25') = 4.08 \text{ gal}$
 $V_t = 208.08 \text{ gal}$
 $d = 208.08 / 472.00 = .44 \text{ Ft.}$
 $d = 5.28"$

$H_e = 51.83 - 46.23 = 5.60$
 $H_f = (2' \times 25') = 11$
 $H_t = 5.71$
 $208.08 \text{ Gal} / 15 \text{ min} = 13.87 \text{ gpm}$

SEPTIC SYSTEM COMPONENTS
 AVAILABLE AT:
 DEL VEL CHEM CO.
 250 OLD MARLTON PIKE
 MEDFORD, N.J. 08055
 609-714-2424

CAPACITY - GALLONS/MINUTE
 ① WHR10 1-HP & WHR 10-DS
 ② WHR7 3/4HP & WHR7-DS
 ③ WHR5 1/2HP & WHR5-DS

WHR PUMP SPECS
 NOT TO SCALE

Note on Manhole Covers:
 Manholes extended flush constructed as shown. Optionally, manholes shall be extended to within six inches of finished grade and fitted with a precast reinforced concrete or fiber glass cover. Should the manhole shall be below finished grade, the location of the manhole shall be marked on the ground surface by means of a permanent, non-corrosive marker a minimum of three inches in diameter.

NO.	REVISION	DATE
1	REV. LOI G.W. PER CO. REVIEW	8/21/07
SOUTH JERSEY ENGINEERS, L.L.C. P.O. BOX 1406, VORHEES, N.J. 08043 ph (856) 651-9050 fax (856) 651-9051 Website: www.septics.com N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA2893400		
NEW JERSEY LICENSED PROFESSIONAL ENGINEER SANDFORD S. MERSKY LICENSE #GE28706		
1500 GALLON DOSING TANK DETAIL FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM BLOCK: 1004 LOT: 19.01 TOWNSHIP: VINELAND DATE: 7/17/07		

IMPORTANT INFORMATION FOR THE SEPTIC SYSTEM END-USER

Your septic system has been designed to provide you with many years of trouble free service. Please take the time to review the following facts and information relative to the use and operation of the system:

1. Your system has been designed to accommodate a specific number of bedrooms and occupants. Be sure to contact your county board of health or the design engineer prior to expanding the living area of your home to insure that your system continues to comply with regulations.
2. Your county board of health has issued you an operational permit which is valid for three (3) years. At the end of this period, your system must be pumped and inspected in order to continue to legally operate. For all purposes, your individual system is now treated under the law in a similar manner to a municipal sewer system. Fines and penalties may be imposed upon users who have malfunctioning systems.
3. Pumping of the system every three (3) years is highly recommended in order to prevent system failure. System inspections should be performed on an as-needed basis.
4. The use of acid-based cleaning solutions and/or biological additives are not recommended. The system will function properly without the use of additives as long as scheduled pumping is maintained.
5. Water conditioners and other similar devices should not be introduced into the system. The system has not been designed for use with garbage disposal systems, and the use of such can lead to premature pumping requirements or system failure.
6. Trees or other rooted plants should not be placed in the vicinity of the disposal field, as the roots will eventually destroy the piping network. A grass covering is recommended. Exposure to the sun and wind, while not necessary, will enhance the operation of the system.
7. The use of water conservation devices is highly recommended. Excess water flow, faucet drips, leaking toilet components, etc. are cause for system failure.
8. Disposal of any toxic wastes into the system is prohibited and can cause ground water pollution. The end effect can be contamination of your well and those of your neighbors. Severe fines can be imposed in these cases. Paints, thinners, chemicals, photo developers, etc. are examples of items that can cause ground water pollution.
9. All modifications to the system must be approved by your county board of health (and the Pinelands Commission, when applicable). Emergency repairs shall be reported immediately.
10. A **HOMEOWNER'S GUIDE TO SEPTIC SYSTEMS** is available from the State of New Jersey, Division of Water Resources, CN031, Trenton, NJ 08625. A similar publication (EB-10) is available from Rutgers University, Cook College, New Brunswick, NJ. Please contact the design engineer should you have any difficulty in obtaining these publications.

DESIGN CRITERIA AND LIMITS OF LIABILITY

The ISDS design is primarily based upon soil profile pits and testing performed in accordance with N.J.A.C. 7:9a, improvements readily identifiable at the surface, inputs and surveys from the applicant and adjacent property owners, and public records (if provided by the applicant). The location of subsurface improvements which are not readily visible from the surface, such as existing wells, ISDS, and underground utilities may be estimated if written records are not available to support an exact location.

Prior to installation, it is the applicant's, installer's and well driller's responsibility to verify that all proposed and existing improvements, wells and ISDS, subsurface or otherwise, are as shown on this plan. If this plan is in error,

South Jersey Engineers, L.L.C.'s sole liability shall be to correct or revise the plan as required to the extent allowable by N.J.A.C. 7:9a. South Jersey Engineers, L.L.C. shall not be liable in any way for installations which proceed without this required verification, or systems which cannot be installed due to unknown or undiscovered subsurface improvements.

Soil conditions may vary from those observed in profile pits and used as a basis for design. In the event that soil conditions observed during installation are not as predicted, South Jersey Engineers, L.L.C.'s sole liability shall be to correct or revise the ISDS plan as required. South Jersey Engineers, L.L.C. shall not be liable for any additional ISDS cost or expense incurred by the applicant as a result of revisions, or any other determinations relative to overall site suitability as a result of varying soil conditions.

Elevations of existing building sewer lines, if applicable, are estimated. Accordingly, it may be determined during installation that pumping is required when not originally specified on ISDS plans, or that pumping can be eliminated when originally specified. In either case, South Jersey Engineers, L.L.C. will revise ISDS plans without additional charge (excepting new construction). However, the cost of county fees and any additional equipment required during installation shall be borne by the applicant.

Soil testing performed for the ISDS design are for ISDS applications only, and shall not be utilized for any other purpose, including but not limited to determination of dwelling elevations. Upon request by the client, additional soil testing will be performed at the proposed dwelling location for an additional fee. The "regional zone of saturation", also known as the "estimated seasonal high water table (ESHWT)", is an estimate of the high ground water level at the test location. However, this is an estimated value and other factors, such as lack of soil mottling, may preclude an accurate reading. Accordingly, South Jersey Engineers, L.L.C. shall not be held liable in the event that the ESHWT is later determined to be at an elevation higher than that originally estimated.

Soil testing for the ISDS must be performed by backhoe per N.J.A.C. 7:9a. The backhoe is a large machine and can possibly cause damage to the property, above and beyond that caused by the test pit excavations. While South Jersey Engineers, L.L.C. and/or their backhoe subcontractors will call for an underground utility markout, it is possible that the markout may not be accurate or that private subsurface utilities may not be located. Also, the applicant is aware that excavations performed by the backhoe may settle over a period of time. Accordingly, South Jersey Engineers, L.L.C. shall not be held liable for damage to the property or any subsurface utilities. The applicant represents that they have the legal right to authorize soil testing performed by backhoe on the property.

South Jersey Engineers, L.L.C. shall not be liable in any way for the performance, schedule or quality of the applicant's installer. It shall be the applicant and/or installer's responsibility to contact South Jersey Engineers, L.L.C. prior to installation to discuss specifics of the installation. Unless agreed to otherwise, installation support, inspections and certifications by South Jersey Engineers, L.L.C. are not part of this design and shall be billed to the applicant.

South Jersey Engineers, L.L.C. has designed this ISDS to either be (1) in conformance with N.J.A.C. 7:9a, or (2) to be in as close conformance as conditions will allow. ISDS life and performance is primarily dependent upon proper usage and maintenance by the applicant, which cannot be controlled by South Jersey Engineers, L.L.C.. Also, soil conditions may vary from those tested or observed, and may even be inadequate in the case of existing buildings. Accordingly, South Jersey Engineers, L.L.C. shall not be liable in any way for future system operation or performance.

Additional Notes - General

All construction practices and procedures are to be in compliance with N.J.A.C. 7:9a (adopted July 28, 1989).

The installer shall contact the design engineer as prescribed in N.J.A.C. 7:9a or whenever consultation, clarification or inspections are required.

The installer shall contact the engineer prior to excavation to discuss specific requirements relative to excavation,

placement and certification of fill, etc.

The installer shall immediately notify the design engineer should conditions other than those noted be encountered during installation.

Drainage from basement floors, footings, roofs, gutters, sumps and water conditioners shall not enter the disposal system.

Garbage disposal units shall not be used or installed in the premises.

The installer shall verify that finished elevations of the premises and sewerage lines leaving the premises will provide proper flow to the system.

The installer shall verify that the proposed or existing dwelling will not exceed the design capacity of the system. When possible, the installer shall recommend the use of water saving fixtures to the homeowner.

The installer shall verify the location of all dwellings, septic systems and wells within a 150 foot radius of the installation. Any discrepancies from the plans shall be reported to the design engineer and the administrative authority immediately. Special attention shall be paid to new construction which may have occurred subsequent to the design.

The installer shall insure that the homeowner is aware of the location of all system components.

The installer shall instruct the end-user on the operation, maintenance, inspection and permit renewal requirements of the sewage disposal system. Most system failures are due to improper maintenance by the user.

Disposal Fields

The installer shall verify that soil conditions are as described on the soil logs. The installer shall perform a percolation test at the bottom of any excavated area to insure proper drainage.

The flow of surface water over the disposal field shall be minimized.

Select fill utilized in the zone of treatment shall meet the requirements of N.J.A.C. 7:9a-10.1(f)4 and Pinelands Commission standards when applicable. Fill utilized in the zone of disposal shall meet the requirements of N.J.A.C. 7:9a-10.1(f)5. All fill, and the compaction thereof, must be tested and certified by an engineer. Fill shall be installed and compacted per N.J.A.C. 7:9a-10.4(f)3, except that fill shall be compacted by hand only and not by the use of heavy vehicles.

Excavations and fill material shall not be exposed to rain, heavy winds or other extreme conditions. Excavations that have been exposed to rain may have smeared surfaces which must be raked and/or roughened by hand prior to installation of fill which has been exposed to rain or wind may lose uniformity of silt and clay content, and must be thoroughly mixed and retested prior to installation.

Inspection ports shall be provided near the end of each lateral per N.J.A.C. 7:9a-9.5(a)6 in disposal field corners. Check with local authority for specific requirements.

South Jersey Engineers LLC
P.O. Box 1406
Voorhees, NJ 08043
856-651-9050 - Fax 856-651-9051
www.septics.com