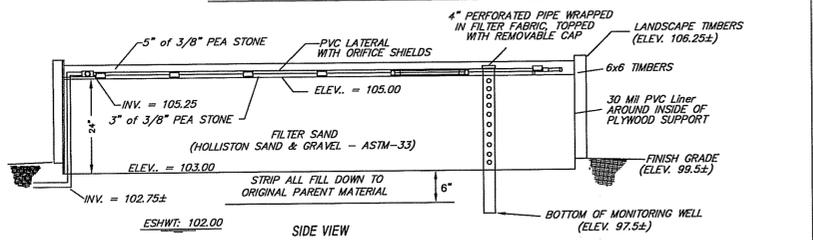
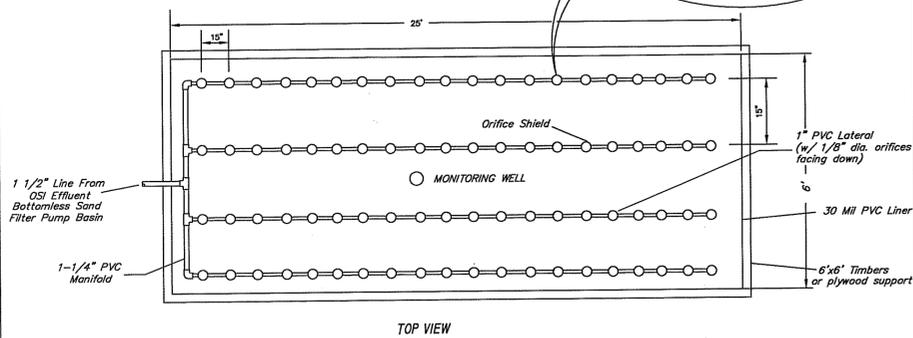


BOTTOMLESS SAND FILTER NOT TO SCALE

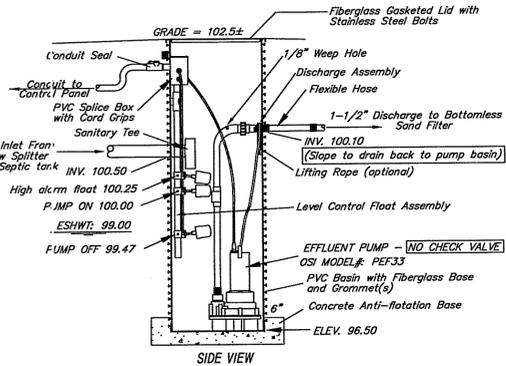


NOTE: TWO ORIFICES WITHOUT SLOTS TO BE PLACED ON TOP OF EACH LATERAL AT HALFWAY AND END OF LATERAL LENGTH.

20 ORIFICES PER LATERAL
80 ORIFICES TOTAL



24" DIA. BOTTOMLESS SAND FILTER PUMP BASIN WITH EFFLUENT PUMP ASSEMBLY NOT TO SCALE



LIST OF SYSTEM COMPONENTS

- 1,500 GALLON 2-COMPARTMENT CONCRETE SEPTIC TANK WITH PUMP VAULT AND RECIRCULATION SPLITTING VALVE, W/OSIP3005 (6 STAGE) PUMP TANK WITH PUMP VAULT AND RECIRCULATION SPLITTING
- 6" DEEP - 24" DIAMETER PUMP BASIN, W/OSI MODEL# PEF33
- AX-20 ADVANTEK TEXTILE FILTER.
- 6' LONG X 25" WIDE BOTTOMLESS SANDFILTER
- ORENCO SYSTEMS, INC. CONTROL PANEL.

TEST HOLE DATA

DATE: 6/28/07

TH1

- 0'-6" A, SIL, 10YR 3/2
- 6"-18" Bw, SL, 10YR 5/6
- 18"-48" C2, VFSL, 2.5YR 6/3
- 48"-120" C2g, VFSL, 5YR 5/2

ESHW: 12"

NO LEDGE AT 120"

TH2

- 0'-6" A, SIL, 10YR 3/2
- 6"-26" Bw, SL, 10YR 5/6
- 26"-58" C2, VFSL, 2.5YR 6/3
- 58"-120" C2g, VFSL, 5YR 5/2

ESHW: 16"

NO LEDGE AT 120"

SOIL CATEGORY: 4

GENERAL NOTES

- 1) SYSTEM INSTALLATION TO BE SUPERVISED BY THE DESIGNER.
- 2) ALL TREES AND/OR STUMPS WITHIN 10 FEET OF PROPOSED SYSTEM TO BE CLEARED.
- 3) NO WELL EXISTS WITHIN 100' OF THE PROPOSED LEACHING SYSTEM.
- 4) NO LEACHING SYSTEM EXISTS WITHIN 100' OF THE PROPOSED WELL.
- 5) ANY PRIVATE WELLS, EXISTING & PROPOSED, WITHIN 200' OF ISDS ARE SHOWN.
- 6) ANY PUBLIC WELLS, EXISTING AND PROPOSED, WITHIN 500' OF ISDS ARE SHOWN.
- 7) SEPTIC TANK TO BE A MINIMUM OF 75' FROM ALL WELLS.
- 8) NO DRAINS OF ANY KIND SHALL BE LOCATED WITHIN 25' OF THE PROPOSED LEACHING SYSTEM.
- 9) ALL SOIL AT LEAST 6"± BELOW EXISTING GRADE AT BOTTOMLESS SAND FILTER SHALL BE STRIPPED AND BACKFILLED WITH FILTER SAND.
- 10) THE SEPTIC TANK SHALL BE A WATERTIGHT, 1,500 GALLON 2-COMPARTMENT TANK WITH 24" DIAMETER INLET AND OUTLET ACCESS RISERS. RISERS SHALL BE PVC WITH SECURE FIBERGLASS LIDS. IF CONCRETE TANK IS USED, ABS TANK ADAPTER SHALL BE CAST IN PLACE. TANK SHALL BE VACUUM TESTED WHEN CONSTRUCTED (W/CERTIFICATE) OR WATER TESTED/VACUUM TESTED ON SITE PRIOR TO ACCEPTANCE FROM THE ENGINEER.
- 11) THE ADVANTEK-AX TREATMENT SYSTEM CONTAINS A PACKED BED FILTER THAT USES SPECIALLY DESIGNED TEXTILE MATERIALS WITHIN A PRE-ASSEMBLED FILTER UNIT.
- 12) ALL PUMPS SHALL BE EQUIPPED WITH A HIGH WATER LEVEL VISABLE AND AUDIBLE ALARM POWERED BY A CIRCUIT SEPARATE FROM THE PUMP POWER. THE ALARM SHALL BE LOCATED IN A NORMALLY OCCUPIED AREA OF THE DWELLING OR SHALL BE INSTALLED AT A LOCATION TO BE DESIGNATED BY THE HOMEOWNER.
- 13) THE SEPTIC TANK SHALL BE PROVIDED WITH A PVC INLET TEE AND SCREENING PUMP VAULT IN THE OUTLET END. AN ACCESS RISER SHALL BE INSTALLED DIRECTLY ABOVE THE SCREENED PUMP VAULT AND INLET TEE.
- 14) BOTTOMLESS SAND FILTER MEDIA: HOLLISTON SAND & GRAVEL ASTM-33 SAND, LESS THAN 1% PASSING THE SIEVE WITH AN EFFECTIVE SIZE OF .25mm-.45mm AND WITH A UNIFORMITY COEFFICIENT OF 2.0±.
- 15) IF CONTRACTOR ENCOUNTERS ANY CONDITIONS DURING CONSTRUCTION WHICH INDICATE THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, CONSTRUCTION SHALL CEASE AND DESIGNER NOTIFIED.
- 16) THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENCE ACT OF OMISSION OF AN ISDS USER, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE SYSTEM.
- 17) LOCAL SUPPLIER OF OSI EQUIPMENT: ATLANTIC SOLUTIONS, 2417 EAST MAIN ROAD, PORTSMOUTH, RI 02871 TEL: (401) 293-0176.
- 18) 5 FEET FROM SAND FILTER NOT TO BE LOWER THAN ELEVATION 103.00.

DESIGN INFO:

DAILY FLOW: 300 GPD
SOIL CATEGORY: 4
APPLICATION RATE: 3 GPD/SF
AREA REQUIRED: 300/2 = 150 SF
AREA SUPPLIED = 150 SF

TIMER INFO:

SET ADVANTEK TIMER TO 24 DOSES/DAY
300 GPD/24 DOSES/DAY = 12.5 GAL/DOSE
12.5/22.1 GPM = 0.57 MIN.
TOTAL PUMP RUN TIME = 13.68 MIN./DAY
TOTAL PUMP OFF TIME = 1426.32 MIN./DAY
TIME OFF PER CYCLE = 59.43 MIN.
TIME ON PER CYCLE = 0.57 MIN.

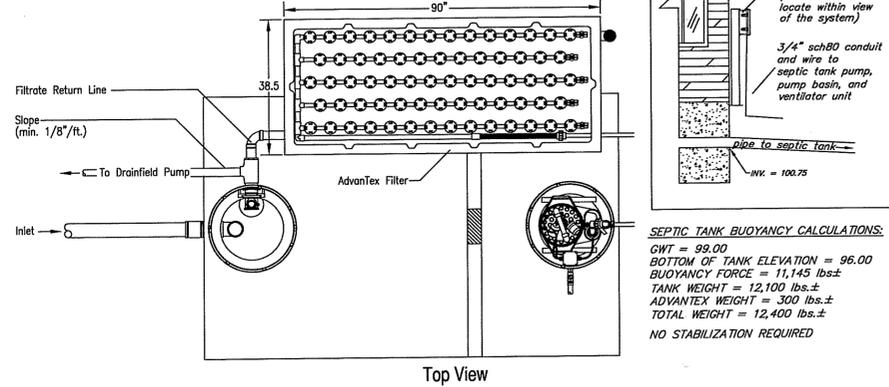
DOSING RATE:

12.5 GAL/DOSE
PUMP CHAMBER CAPACITY = 23.5 GAL./FT OR 1.96 GAL./INCH
PUMP CHAMBER DEPTH @ 12.5 GAL. = 6.4 INCHES = .53'
DOSE PER CYCLE = 300 GPD/(24 DOSES/DAY)/80 ORIFICES = .156 GAL/ORIFICE/DOSE

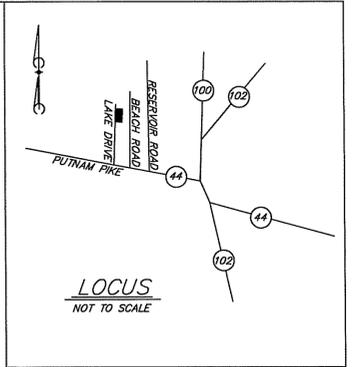
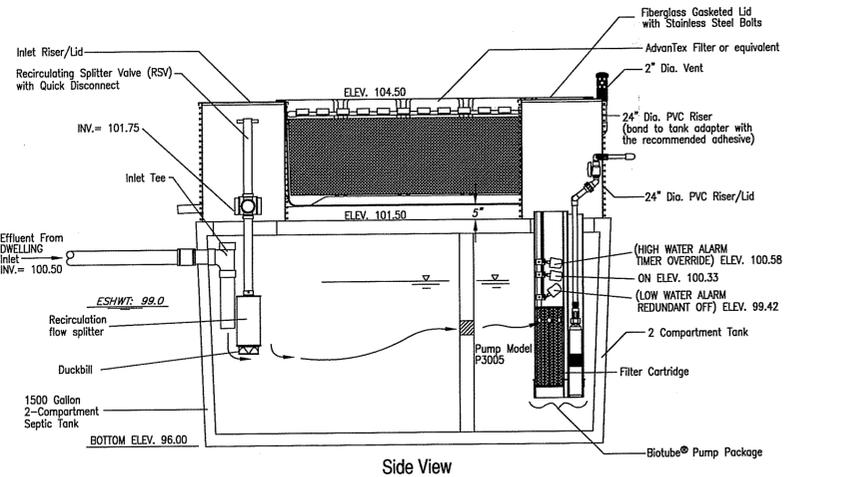
**RECIRCULATING EFFLUENT PUMP SYSTEM (REPS)
(2 COMPARTMENT 1,500 GALLON SEPTIC TANK
AX 20 ADVANTEK TEXTILE FILTER)**

NOT TO SCALE

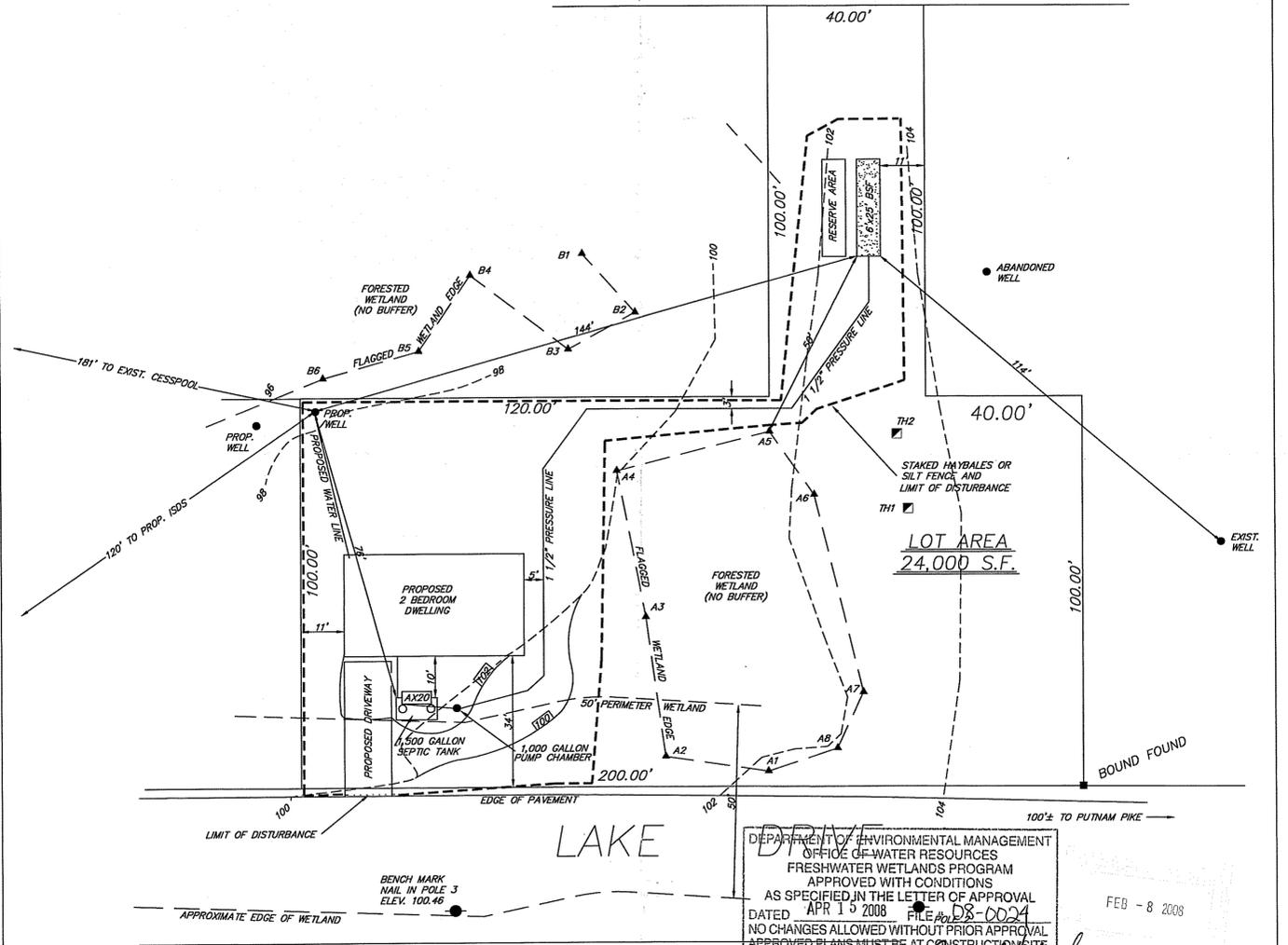
**AdvanTex Treatment System
AX 20 Series - Mode 3b**



SEPTIC TANK BUOYANCY CALCULATIONS:
GWT = 99.00
BOTTOM OF TANK ELEVATION = 96.00
BUOYANCY FORCE = 11,145 lbs±
TANK WEIGHT = 12,100 lbs±
ADVANTEK WEIGHT = 300 lbs±
TOTAL WEIGHT = 12,400 lbs±
NO STABILIZATION REQUIRED

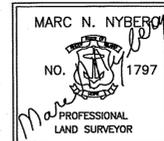


BEACH ROAD



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 15 2008 FILE # DS-0024
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**PROPOSED LEACHING SYSTEM
DESIGN FOR
SUBURBAN LAND COMPANY
ECHO LAKE PLAT - SECTION 1
LOT 159
LAKE DRIVE, GLOCESTER, RI
DATE: DECEMBER, 2007
SCALE: 1" = 20'
REVISED: 2/7/08 LOT AREA**



MARC N. NYBERG ASSOCIATES, INC.
LAND SURVEYORS and PLANNERS
501 GREAT ROAD, UNIT 104
NORTH SMITHFIELD, RHODE ISLAND 02896
TEL: (401) 762-2870 FAX: (401) 762-2871

LEGEND
100 --- 100 EXISTING CONTOURS
100 --- 100 PROPOSED CONTOURS
■ TEST HOLE