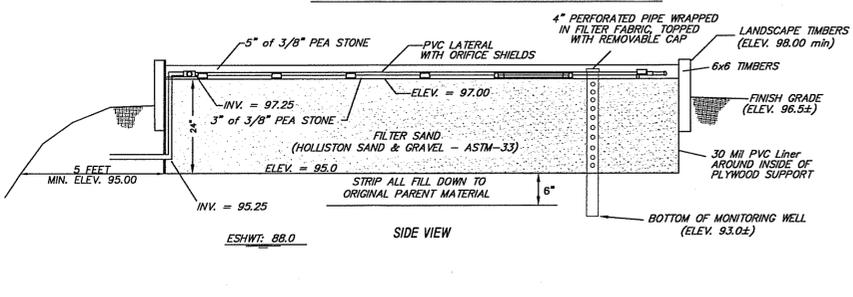
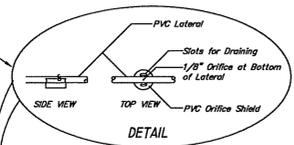


BOTTOMLESS SAND FILTER NOT TO SCALE



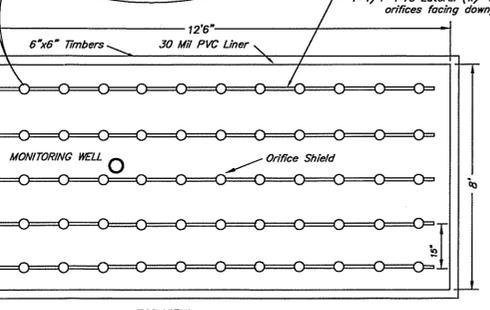
SIDE VIEW

ESHW: 88.0



DETAIL

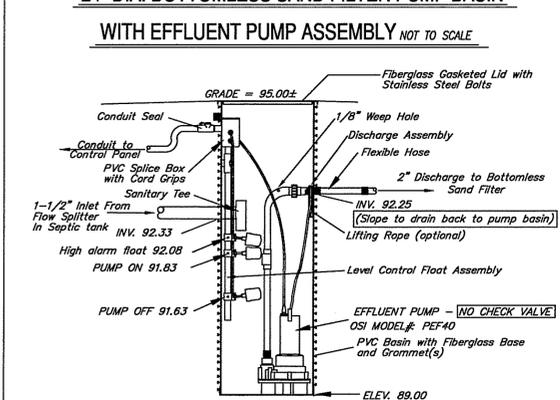
ESHW: 88.0



TOP VIEW

ESHW: 88.0

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



SIDE VIEW

ESHW: 87.0

SYSTEM COMPONENTS

- 1,500 GALLON 2-COMPARTMENT CONCRETE SEPTIC TANK WITH PUMP VAULT AND RECIRCULATING SPLITTER VALVE AND W/O SIP3005 (6 STAGE) PUMP TANK.
- 6" DEEP - 24" DIAMETER PUMP BASIN.
- AX-20 ADVANTEX TEXTILE FILTER.
- 12.5' LONG x 8' WIDE BOTTOMLESS SAND FILTER
- ORENCO SYSTEMS, INC. CONTROL PANEL.

LEGEND

- 100-100 EXISTING CONTOURS
- 1000-1000 PROPOSED CONTOURS
- WG ⊙ WATER GATE
- ⊙ TEST HOLE
- STAKED HAYBALES OR LIMIT OF DISTURBANCE
- ~ SILKY DOGWOOD (Vaccinium corymbosum)
- * Highbush Blueberry (Cornus amomum)

TEST HOLE DATA

DATE: 10-20-10
(TRENCH)
0"-4" A, SIL, 10YR 4/3
4"-30 Bw, G, SL, 10YR 5/6
30"-108" C, ST, CB, G, SL,
2.5YR 6/3

NO LEDGE AT 108"
ESHW: 108"

DESIGN DATA

SOIL CATEGORY: 6
DESIGN LOADING RATE: 2.3
SYSTEM SIZE: 51 SF

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 EXCEPT AS SHOWN.
- 4) NO LEACHING SYSTEM EXISTS WITHIN 100' OF THE PROPOSED WELL EXCEPT APPLICANTS PROPOSED SYSTEM.
- 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 EXCEPT APPLICANTS PROPOSED WELL.
- 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 ADVANTEX-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 SEPERATE 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 NEGLIGENT 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 95.00.
- 19) SITE IS NOT LOCATED WITHIN THE SCITUATE RESERVOIR WATERSHED.

SYSTEM SIZING:

2 BEDROOM: 115 GPD x 2 = 230 GPD
SOIL CATEGORY: 6
APPLICATION RATE: 2.3 GPD/SF
AREA REQUIRED: 230/2.3 = 100 SF

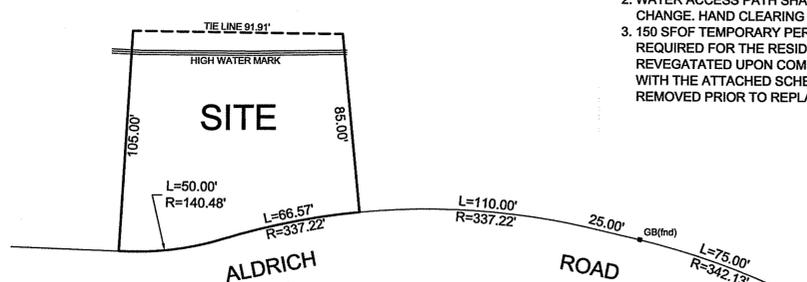
TIMER INFO:

SET ADVANTEX TIMER TO 24 DOSES/DAY
115 GPD/24 DOSES/DAY = 4.79 GAL/DOSE
4.79/15.1 GPM = .32 MIN.
TOTAL PUMP RUN TIME = 7.68 MIN./DAY
TOTAL PUMP OFF TIME = 1432.32 MIN./DAY
TIME OFF PER CYCLE = 59.68 MIN.
TIME ON PER CYCLE = 0.32 MIN.

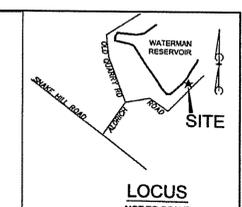
DOSE RATE:

4.79 GAL/DOSE
PUMP CHAMBER CAPACITY = 23.5 GAL./FT OR 1.96 GAL./INCH
PUMP CHAMBER DEPTH @ 4.79 GAL = .20 FEET
DOSE PER ORIFICE = 115 GPD/(24 DOSES/DAY)/35 ORIFICES = .14 GAL/ORIFICE/DOSE

WATERMAN RESERVOIR



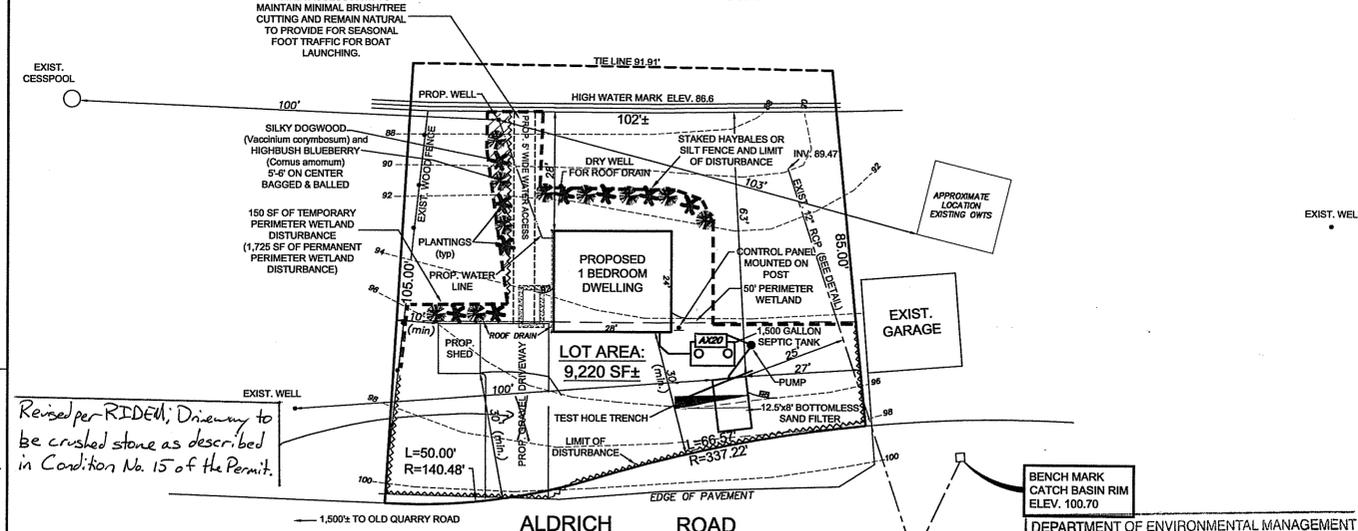
- WETLAND NOTES:**
1. PLANTINGS TO BE 2'-3' HIGH BAGGED AND BALLED, 5'-6" O.C.
 2. WATER ACCESS PATH SHALL REQUIRE NO FILL OR GRADE CHANGE. HAND CLEARING ONLY OF VEGETATION IS PROPOSED.
 3. 150 SF OF TEMPORARY PERIMETER WETLAND DISTURBANCE IS REQUIRED FOR THE RESIDENTIAL WELL. THIS AREA SHALL BE REVEGETATED UPON COMPLETION OF WORK IN ACCORDANCE WITH THE ATTACHED SCHEDULE. ALL WELL SPOILS SHALL BE REMOVED PRIOR TO REPLANTING.



LOCUS
NOT TO SCALE

Environmental Management
APR 13 2011
Office of Water Resources

WATERMAN RESERVOIR



Revised per RIDEM; Drawings to be crushed stone as described in Condition No. 15 of the Permit.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 4 2011 FILE # 11-0016
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

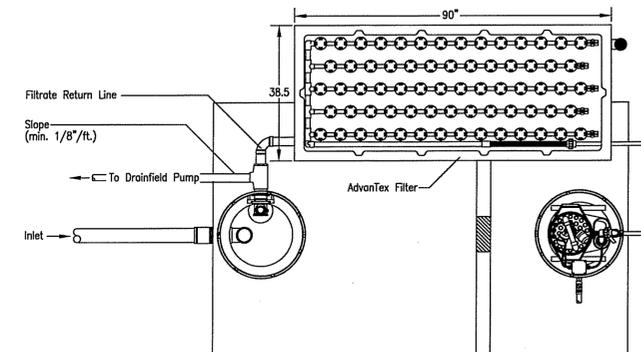
RECIRCULATING EFFLUENT PUMP SYSTEM (REPS)

(2 COMPARTMENT 1,500 GALLON SEPTIC TANK
AX 20 ADVANTEX TEXTILE FILTER)

NOT TO SCALE

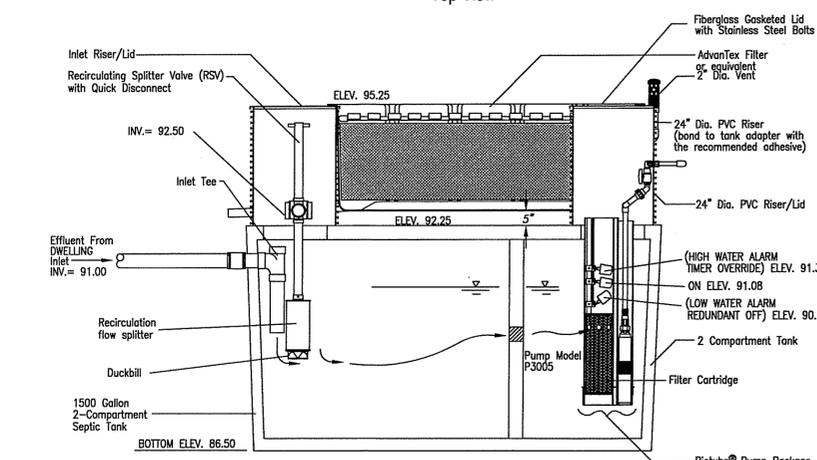
NOTE: LANDSCAPE TIMBERS TO BE USED TO BUILD UP EARTH TO ALLOW FOR PROP. GRADE TO BE FLUSH WITH AX-20 COVER.

AdvanTex Treatment System
AX 20 Series - Mode 3b



Top View

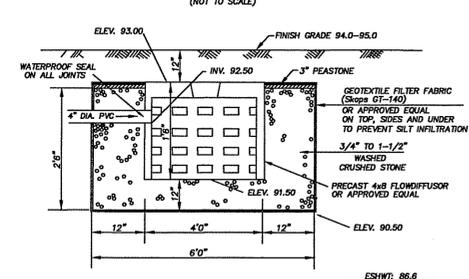
NO STABILIZATION REQUIRED



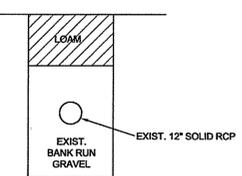
Side View

ESHW: 86.5

4x8' DRY WELL FOR ROOF DRAINS



EXIST. DRAIN LINE DETAIL
NOT TO SCALE

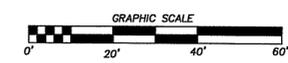


ONSITE WASTEWATER TREATMENT

DESIGN for
DAVID SCHAFER

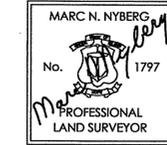
CHECKERBERRY HILL PLAT, LOT 19
ALDRICH ROAD, GLOCESTER, RHODE ISLAND

DECEMBER, 2010
SCALE: 1 INCH EQUALS 20 FEET



REVISED: 2/22/11 - REMOVE DOCK
4/5/11 - WETLAND COMMENTS

THIS SURVEY AND PLAN CONFORM TO CLASS 1 STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.
MARC N. NYBERG
REG. PROFESSIONAL LAND SURVEYOR



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