

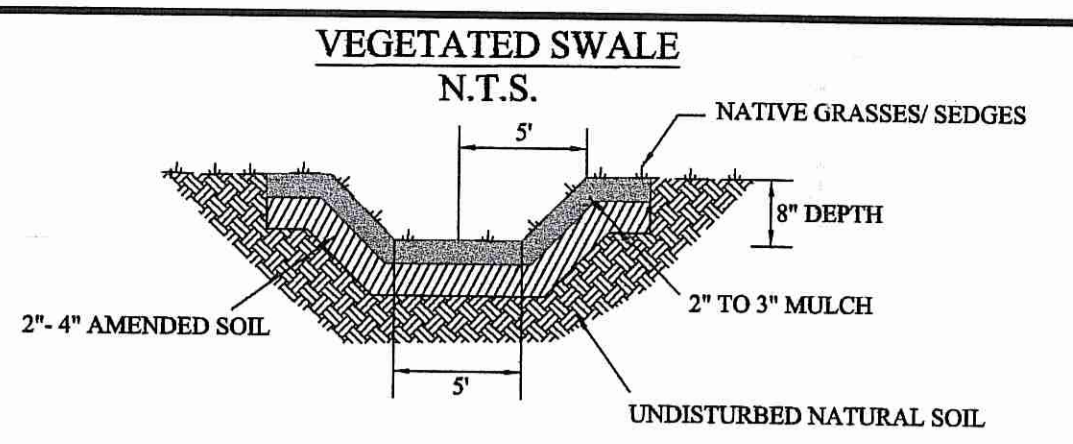
**CRITICAL NOTE:**  
This system has been designed by a licensed sewage disposal system designer, Richard A. Greene, PLS (Designer License D2008), and must be installed under the supervision of the designer and inspected by the designer. Please read the application form that accompanies this plan carefully. The installer must notify the designer at least 72 hours prior to the installation of the approved septic system. The designer will contact RIDEM to give notification of the installation date at least 24 hours prior to the installation of the septic system. The designer can be contacted at (401) 364-9405.

**IMPORTANT NOTE:**  
The RIDEM-ISDS permit (approved application) for the installation of the septic system along with an Operation and Maintenance Agreement for servicing the septic system must be recorded in the Land Elevation Records of the Town of New Shoreham. Copies of these recorded documents must be forwarded to RIDEM-OWTS Section along with a Certificate of Construction in order to receive a Certificate of Conformance for the installation of the septic system.

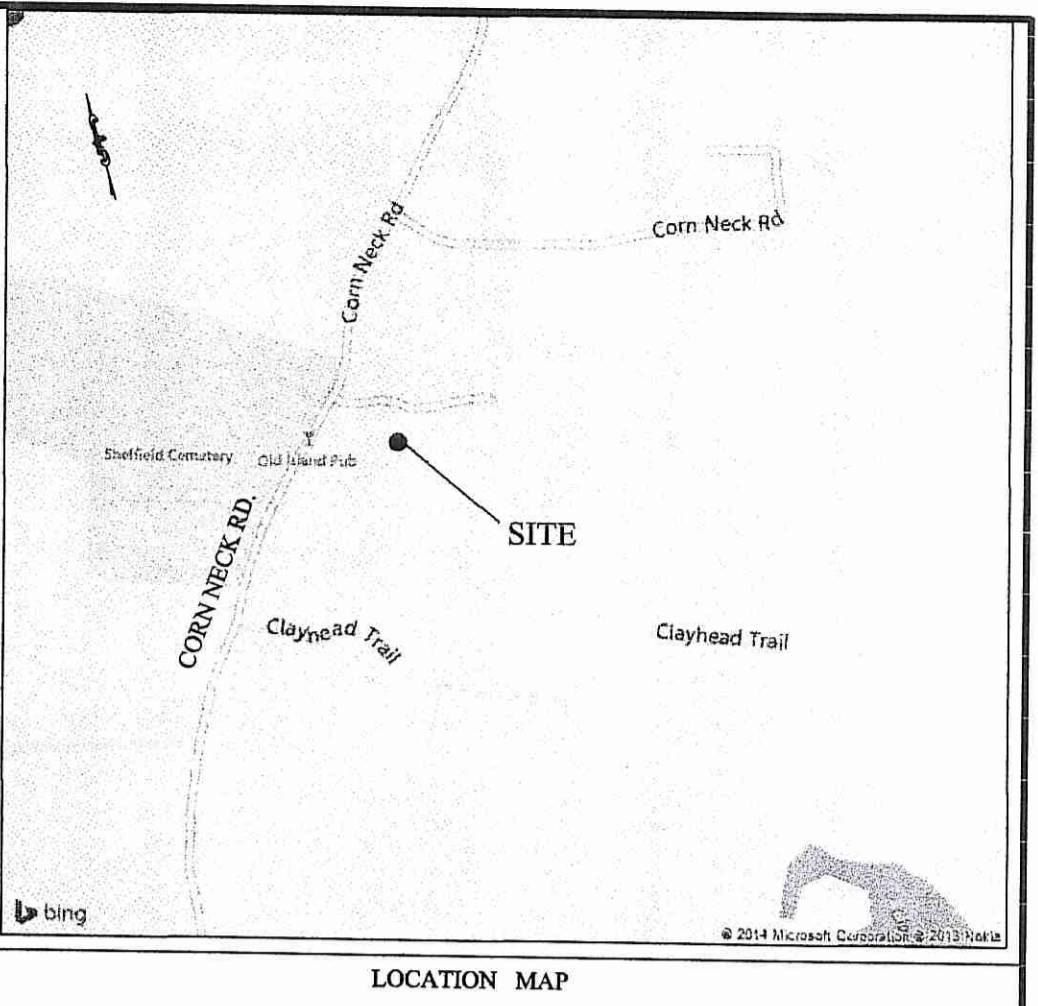
**MAINTENANCE & WARRANTY NOTES:**  
The installer shall provide the owner and designer with copies of the Advantex System components warranty and maintenance requirements. The owner shall be responsible for maintaining all septic system components in accordance with the manufacturer's recommendations. The effluent filter media and septic system components shall be maintained as required for the septic system to properly operate.

**PROPOSED SYSTEM:**  
ADVANTEX TREATMENT SYSTEM  
AX20 SERIES - MODE 3B CW - OSI  
PUMP CHAMBER 24" DIA., 84" (7.0') HT, OSI  
PUMP TO BSF - OSI PF 5005 1/2 HP OR EQUAL  
CONTROL PANEL VCOM ADVANTEX AXB PANEL, 115V  
RECIRCULATING PUMP PF 300511  
12' x 18.5' - BOTTOMLESS SAND FILTER (BSF), SEE SHEET 2 FOR DETAILS

**SIZING OF BOTTOMLESS SAND FILTER (BSF)**  
4 BEDROOMS x 115 GALS. PER BEDROOM = 460 GALS. (DAILY FLOW RATE)  
460 GALLONS PER DAY / 2.1 GALS./SF/DAY (CATEGORY 7) = 219.05 S.F. (MIN. REQ'D)  
PROPOSED BSF AREA = 222 S.F. (12' W x 18.5' L)



- INSPECTION/MAINTENANCE OF WATER QUALITY AND STORMWATER STRUCTURES**
- VEGETATED SWALE**
- INSPECT SWALES AT THE END OF MAJOR STORM EVENTS, CORRECT EROSION GULLIES AND MAINTAIN A HEALTHY STAND OF VEGETATION.
  - REMOVE ANY SEDIMENT BUILD-UP WITHIN THE BOTTOM OF THE SWALE.
  - MAINTAIN AVERAGE GRASS HEIGHT OF 6 INCHES.



**SEPTIC SYSTEM ELEVATION SCHEDULE (FT.)**

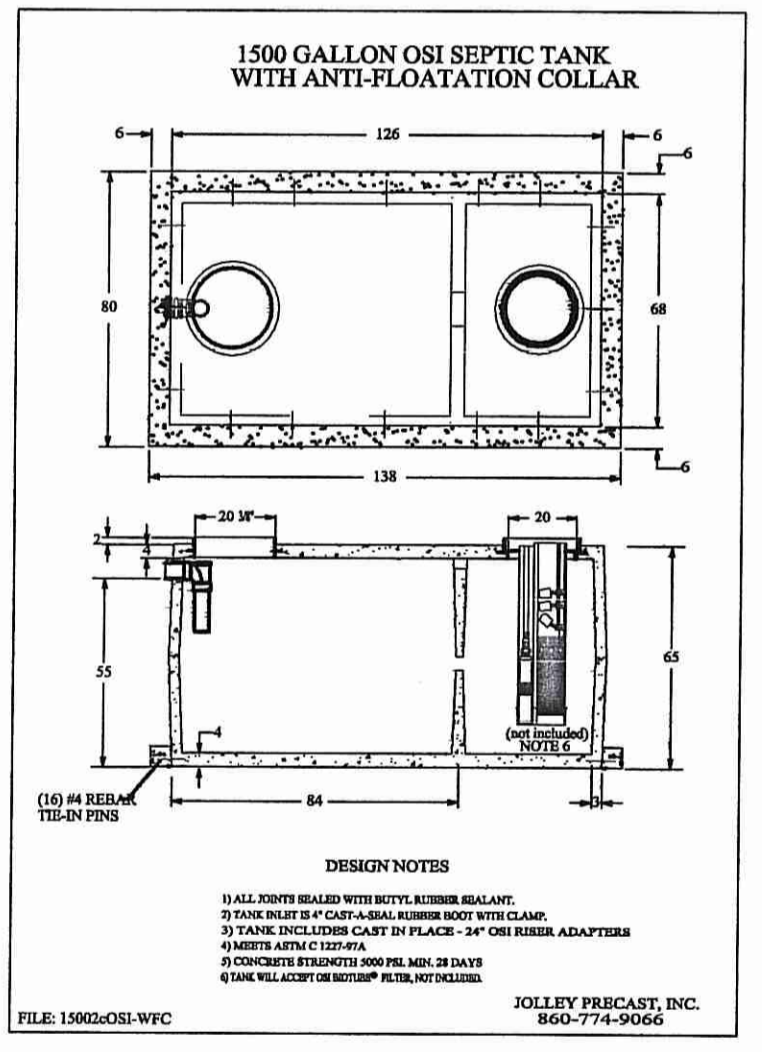
HOUSE SANITARY INVERT = 96.91'  
SEPTIC TANK / ADVANTEX SYSTEM:  
SEPTIC TANK INV. IN = 96.17'  
TOP OF ADVANTEX POD = 100.10'  
BOTTOM OF ADVANTEX POD = 97.52'  
RSV INV. = 97.32'  
HIGH WATER ALARM = 96.17'  
OVERRIDE TIMER = 96.00'  
TOP OF RSV CAGE = 95.92'  
TOP OF FILTER CARTRIDGE = 94.84'  
NORMAL LOW LIQUID LEVEL = 95.50'  
LOW WATER ALARM/REDUNDANT OFF = 95.00'

**PUMP CHAMBER:**  
INVERT IN = 96.86' (FROM ADVANTEX UNIT)  
INVERT OUT = 97.50' ±

**DISTRIBUTION LATERALS (BSF - LEVEL PIPES)**  
PIPE INVERT = 99.25'

Field Design Depth: TH 2 (OWTS No. 0722-1284) - WT = 40" (3.33') From Existing Grade  
Excavated @ El. 99.20', Water Table El. 95.87' as Measured From Existing Grade  
TH 1 - WT = 36" (3') From Existing Grade;  
Excavated @ El. 100.80' Water Table El. = 97.80' as Measured From Existing Grade

Interface of Top of Concrete Sand/Bottom of Pea Stone Layer = 99.00'  
This Elevation Provides 3.0± of Vertical Separation to the Water Table.  
Top of Pea Stone = 99.83'; Bottom of Concrete Sand = 97.00'  
BSF Set at Existing Average Grade El. 99.3±



**EROSION CONTROL NOTES**

- Prior to any construction activity hay bales with silt fencing shall be placed as shown and maintained throughout the construction process.
- All disturbance is to be limited to the areas shown, and is to be kept to an absolute minimum.
- All excavated material (soil) to be used, as backfill shall be stockpiled upland from the hay bale/silt fence line. Silt fencing should surround this stockpile material. All excess unwanted excavated materials, construction debris etc., shall be removed from the site and disposed of in a proper manner.
- No disturbances shall occur outside of the hay bale/silt fence line during construction of the proposed improvements.
- All disturbed areas including back filled and graded areas shall be loamed and seeded as soon as possible upon completion of all construction. All slopes and exposed areas shall be stabilized with straw mulch. Jute netting or seed blankets should be utilized where the slope is 3:1 or greater.
- The hay bale/silt fence line is to remain in place until the grass has properly rooted, approximately six to eight weeks. Must be inspected by design engineer prior to removal and design engineer must provide written approval to the applicant/owner, contractor and RIDEM-Freshwater Wetlands Program.
- The following seed mix is to be used in all disturbed and exposed areas. Before seeding; however, a minimum of four inches of compacted loam is to be placed in the affected areas at a rate of 12.4 cubic yards per 1000 square feet.

**SEED MIXTURE-GENERAL PURPOSE**

SEED MIXTURE	LBS/ACRE	LBS/1000 square SF
Red Fescue	75	1.75
Kentucky Bluegrass	15	.35
Colonial Ryegrass	5	.11
Perennial Ryegrass	5	.11

The straw mulch is to be applied at a rate of 90 lbs. per 1000 square feet. The grass seed should be planted between April 1-June 15 and August 15-September 30.

AREA = 102,340 S.F. OR 2.35 AC.

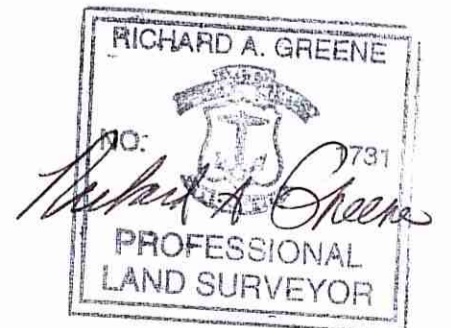
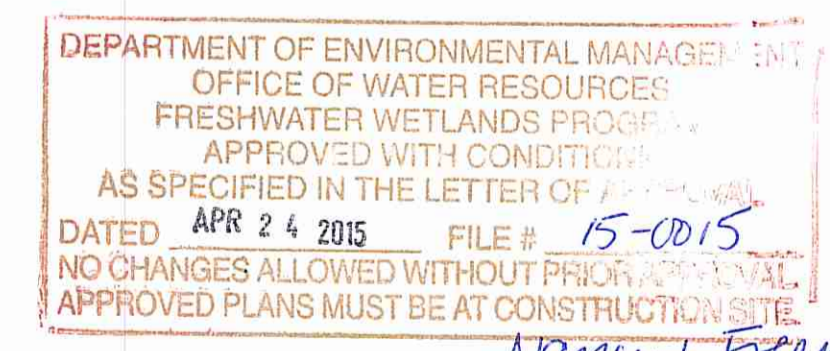
← Revised Limit of Disturbance per R-1-D.E.M.  
■ permanent markers to be installed See- Condition No. 14 of the permit Letter and Condition No. 15.

**GENERAL OWTS CONSTRUCTION NOTES:**

- THE GENERAL VICINITY IS SUPPLIED WITH PRIVATE WELLS. THERE ARE NO EXISTING OR PROPOSED NEIGHBORING POTABLE AND NON-POTABLE WELLS WITHIN 200' OF THE PROPOSED BSF. THERE ARE ALSO NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS OR RESERVOIRS WITHIN 200' OF THE PROPOSED OWTS.
- THERE ARE REGULATED FRESHWATER WETLANDS WITHIN 93' OF THE PROPOSED LEACHFIELD(BSF).
- THE PROPOSED SEPTIC TANK SHALL BE A 1500 GAL. (MIN.) 2-COMPARTMENT PRECAST TANK WITH AN ANTI-FLOATATION COLLAR AND BE EQUIPPED WITH AN ADVANTEX TREATMENT SYSTEM - AX 20 SERIES - MODE 3B CW SYSTEM (SHALLOW BURIAL) BY ORENCO SYSTEMS, INC. REFER TO ATTACHED DETAIL SHEET (S) FOR ADDITIONAL INFORMATION AND TYPICAL DETAILS. THE SEPTIC TANK MUST MEET ASTM STANDARD C-1227-97A. IT IS RECOMMENDED THAT THE BOTTOM OF THE SEPTIC TANK BE EXCAVATED TO A DEPTH TO ALLOW FOR A MINIMUM 6" BASE OF PEA STONE TO PREVENT SETTLING (BEFORE PLACING AGGREGATE COMPACT BOTTOM OF HOLE). IT IS RECOMMENDED THAT THE SEPTIC TANK BE INSTALLED IN THE DRY SEASON (JUNE-NOVEMBER). BSF AS THIS IS NOT ALLOWED. PARKING OR VEHICULAR TRAFFIC OVER SYSTEM IS PROHIBITED. CLEAR ALL TREES AND SHRUBS WITHIN 10 FEET OF PROPOSED BSF.
- GRADE SYSTEM AREA PROPERLY TO ENSURE SURFACE WATER RUN-OFF. DO NOT LOAM AND SEED OVER THE TANKS AND RISERS WITHIN 10 FEET OF PROPOSED BSF.
- THE HOUSE SANITARY LATERAL PIPING SHALL BE 4" SCH-40 PVC OR BETTER SPECIFICATION OR AS NOTED ON THESE PLANS. ALL BSF LATERAL PIPING SHALL BE 3/4" PRESSURE SCH-40 PVC. THE MANIFOLD IN THE BSF SHALL BE 1-1/2" PRESSURE SCH 40. ALL ADVANTEX SYSTEM PIPING IS PREDETERMINED OR AS SPECIFIED BY OSI. ALL ADVANTEX COMPONENTS MAYBE ACQUIRED FROM ATLANTIC SOLUTIONS, INC., TEL: 401-293-0176.
- TWO (2) MAN-HOLE RISERS (ORENCO RIBBED PVC RISERS) WITH COVERS SHALL BE INSTALLED OVER THE SEPTIC TANK ENDS AND SHALL BE RAISED ABOVE THE FINISHED GRADE BY 1±. FIBERGLASS INSULATED GASKETED BACK FILL WITH PEA GRAVEL.
- THERE ARE NO SUBSURFACE DRAINS, INCLUDING FOUNDATION DRAINS EXISTING OR PROPOSED WITHIN 50 FEET OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.
- THE SEPTIC TANK SHALL BE PUMPED OF CONTENTS WHEN THE SLUDGE DEPTH BECOMES GREATER THAN 1/4 THE LIQUID DEPTH. THE TIME BETWEEN PUMPINGS WILL VARY, BUT IT IS SUGGESTED THAT THE SEPTIC TANK BE PUMPED OF CONTENTS AND INSPECTED AT LEAST EVERY TWO YEARS AND MORE FREQUENTLY WHEN EXTENDED PERIODS OF HIGH FLOW RATES ARE EXPERIENCED.
- THE ORENCO REPRESENTATIVE PRIOR TO INSTALLATION MUST VERIFY ALL SYSTEM COMPONENTS TO BE IN COMPLIANCE. THE DESIGNER SHALL SUPERVISE THE OWTS INSTALLATION AS REQUIRED.
- WHEN CONSTRUCTING THE BOTTOMLESS SAND FILTER REMOVE ALL EXISTING VEGETATION, ORGANIC MATTER, TOPSOIL AND SUBSOIL TO A DEPTH OF 96.50± WITHIN THE SAND FILTER AREA. THE BOTTOM OF THIS EXCAVATION AREA MUST BE SCARIFIED. MIX 3" OF CONCRETE SAND WITH 3" OF NATIVE SOIL. NEXT CONSTRUCT THE BOTTOMLESS SAND FILTER WHERE PARTICULAR ATTENTION MUST BE GIVEN DURING THE INSTALLATION OF THE PRESSURE TREATED TIMBERS OR OTHER APPROVED RETAINING STRUCTURE IN CONJUNCTION WITH THE INSTALLATION OF THE SAND MEDIA. THE INSTALLER MUST ENSURE THAT THE BOTTOM REMAIN SCARIFIED BEFORE THE PLACEMENT OF CONCRETE SAND (ASTM-C33). IT IS IMPERATIVE THAT THE BOTTOM DOES NOT BECOME COMPACTED FROM THE USE OF EQUIPMENT OR FOOT TRAFFIC. IF WARRANTED THAT THE BOTTOM MUST BE RE-SCARIFIED BEFORE THE PLACEMENT OF CONCRETE SAND. THE CONCRETE SAND IS TO BE ACQUIRED FROM THE HOLLISTON SAND COMPANY, INC., SLATERSVILLE, RI OR DRY BRIDGE SAND & GRAVEL.
- A BENCHMARK MUST BE SET WITHIN 150' OF THE PROPOSED SEPTIC SYSTEM AND DWELLING, PRIOR TO THE START OF ANY CONSTRUCTION AND MUST REMAIN UNDISTURBED DURING CONSTRUCTION.
- PRIOR TO ANY CONSTRUCTION IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE BENCHMARK ELEVATION. IF ANY DISCREPANCIES ARE NOTED, PLEASE CONTACT DESIGNER IMMEDIATELY.
- ALL WARRANTIES OF THE SYSTEM COMPONENTS ARE AS PRESENTED BY THE COMPANIES INVOLVED.
- LOW WATER VOLUME FIXTURES SHOULD BE USED IN THE PLUMBING AND A GARBAGE DISPOSAL UNIT IS NOT ALLOWED TO DISCHARGE INTO THE PROPOSED OWTS. ALSO, BACKWASH OR DISCHARGE FROM A WATER TREATMENT SYSTEM IS PROHIBITED FROM ENTERING THE PROPOSED SEPTIC SYSTEM.
- PRIOR TO ANY CONSTRUCTION ACTIVITY A LINE OF SILT FENCE SHALL BE INSTALLED AS INDICATED (SEE "EROSION CONTROL NOTES").

**GENERAL WETLAND NOTES:**

- Map is compiled from on-site fieldwork completed by Richard A. Greene & Associates, Inc. The map meets Class III Standards as adopted by the Rhode Island Society of Professional Land Surveyors, Inc.
- Topography as represented is based on an assumed datum.
- The wetland edge on subject parcel was field delineated (flagged) by Island Environmental, Claire McEliderry Biologist.
- The proposed dwelling, OWTS and associated improvements are outside the 100 - Year Floodplain as referenced on the following maps entitled, "FIRM Flood Insurance Rate Map Washington County, Rhode Island Panel 354 of 368 Community New Shoreham, Town of Number 440036 Panel 0354 Suffix J Map Number 44009C0354J Effective Date: October 16, 2013".
- Prior to commencement of any site alterations, permanent buffer zone markers (posts) must be installed along the limit of disturbance at the locations indicated.
- The buffer zone markers (posts) are to consist of 4" x 4" pressure treated or cedar timber posts. These markers must extend a minimum 24" above grade.



PLAN SHOWING PROPOSED ON-SITE WASTEWATER TREATMENT SYSTEM AND SITE IMPROVEMENTS FOR:

**LEE M. HELTERLINE**  
ASSESSOR'S PLAT 2, LOT 2-2  
OFF CORN NECK ROAD  
NEW SHOREHAM, RHODE ISLAND

SCALE: 1" = 30' DATE: APRIL, 2014

RICHARD A. GREENE & ASSOCIATES, INC.  
220 RICHMOND TOWNHOUSE ROAD  
CAROLINA, RI 02812  
TEL: (401) 364-9405  
FAX: (401) 364-9403

DATE	REVISION
4/14/15	Redesign driveway, added swale per RIDEM comments

**LEGEND**

- These standard symbols will be found in the drawing.
- EXISTING DRILL HOLE
  - EXISTING CONCRETE BOUND
  - EXISTING UTILITY POLE
  - ⊕ SOIL EVALUATION/TEST HOLE
  - ⊙ EXISTING OR PROPOSED WELL
  - EXISTING CONTOUR ELEVATION
  - PROPOSED CONTOUR ELEVATION
  - W—W PROPOSED WATERLINE
  - STONEWALL
  - FLAGGED WETLAND EDGE
  - SILT FENCE/LIMIT OF DISTURBANCE
  - SETBACK LINE
  - BRUSH LINE
  - ⊠ BUFFER POST

