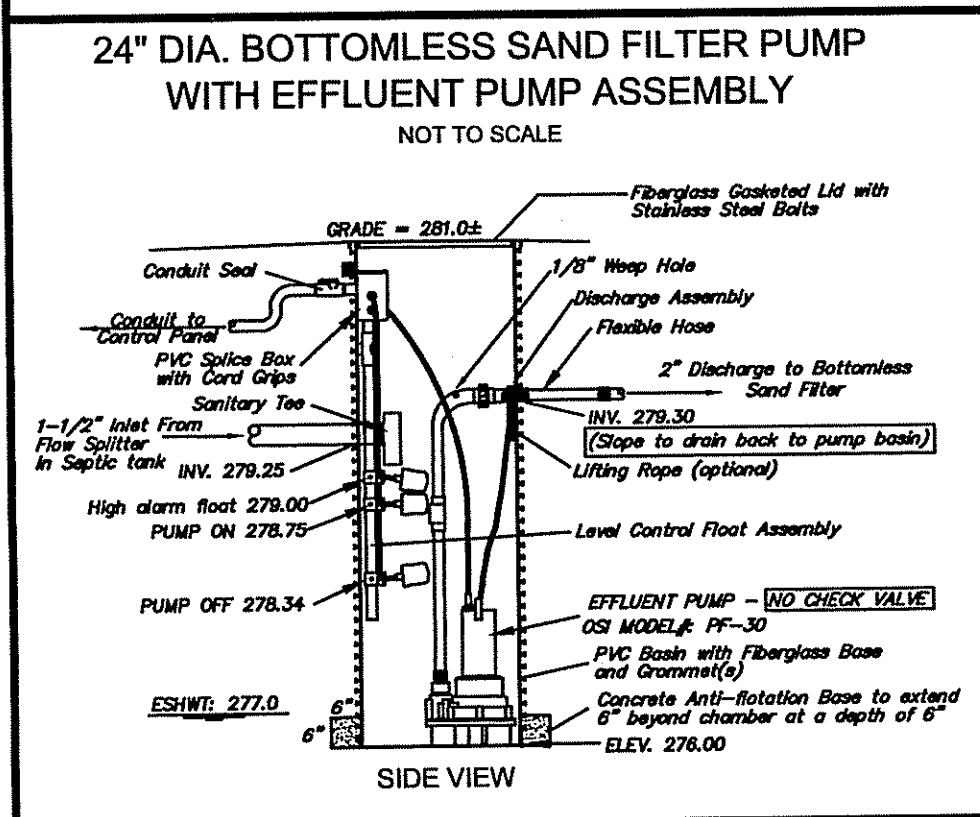
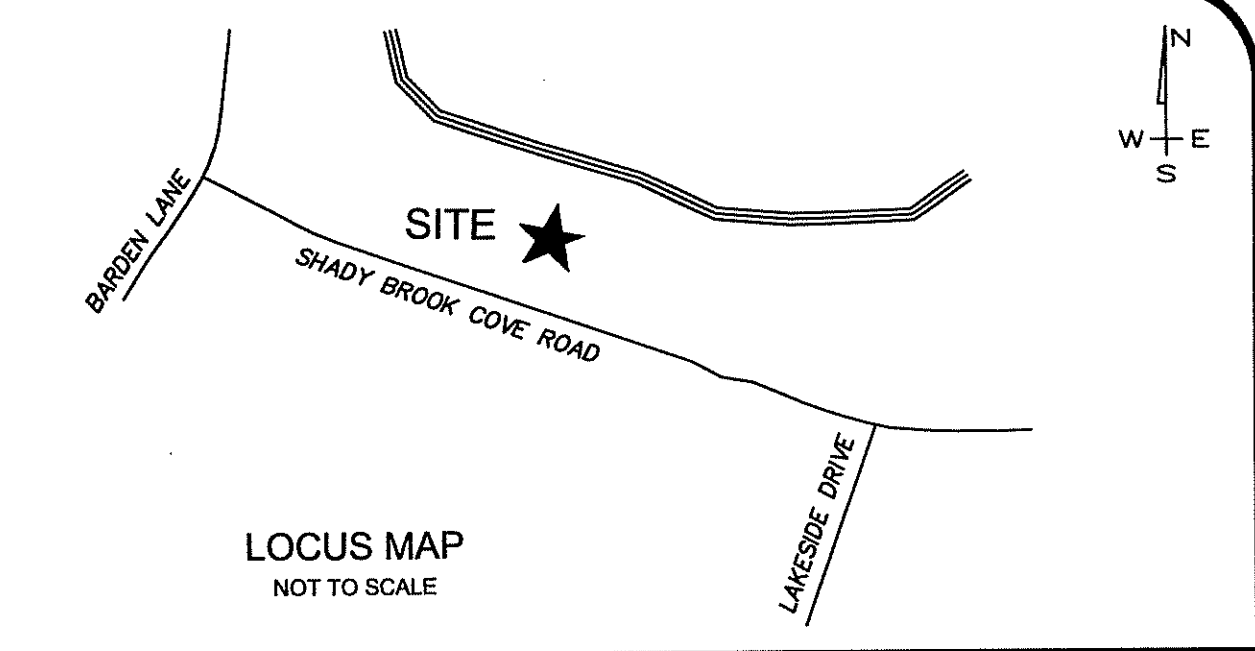
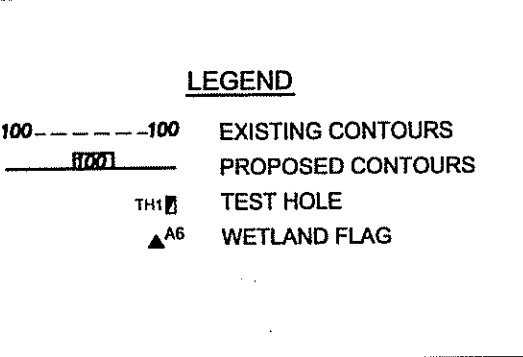


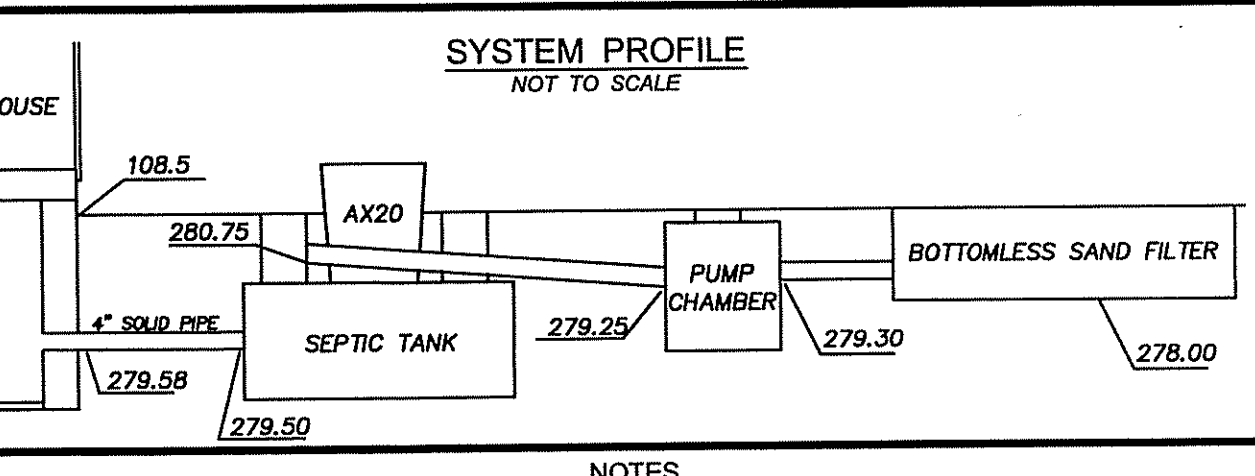
- REQUIREMENTS:
- 22.1 Minimum setback distances - General
 - 25' required from leach field to water supply line - 20' provided from own water supply line
 - 15' required from leach field to foundation (without a drain) - 9' provided
 - 50' required to wetland - 16.5' provided
 - The distance between the septic tank and the edge of the leachfield shall be a minimum of ten (10) feet.
 - 10' required - 5' provided
 - 24.2 Minimum setbacks from drinking water wells
 - 100' required from leach field to well - 57' provided from OWTS to own well
 - 86' provided from OWTS to Lot 129 well
 - 59' provided from OWTS to Lot 130 well
 - 50' provided from OWTS to Lot 135 well
 - 52' from own well to OWTS Lot 135
 - 80' from own well to cesspool Lot 134
 - 75' required from septic tank to well - 70' provided from proposed septic tank to own well
 - 51' provided from proposed septic tank to Lot 130 well
 - 71' provided from own well to Lot 134 septic tank
 - 10' from groundwater from original ground surface 20' required - 0'0" provided

- SYSTEM COMPONENTS
- 1,500 GALLON 2-COMPARTMENT CONCRETE SEPTIC TANK WITH PUMP VAULT AND RECIRCULATING SPLITTER VALVE AND P3005 PUMP.
 - 5' DEEP - 24" DIAMETER PUMP BASIN.
 - AX-20 ADVANTEX TEXTILE FILTER.
 - 20' LONG x 5' WIDE BOTTOMLESS SAND FILTER
 - ORENCO SYSTEMS, INC. CONTROL PANEL.

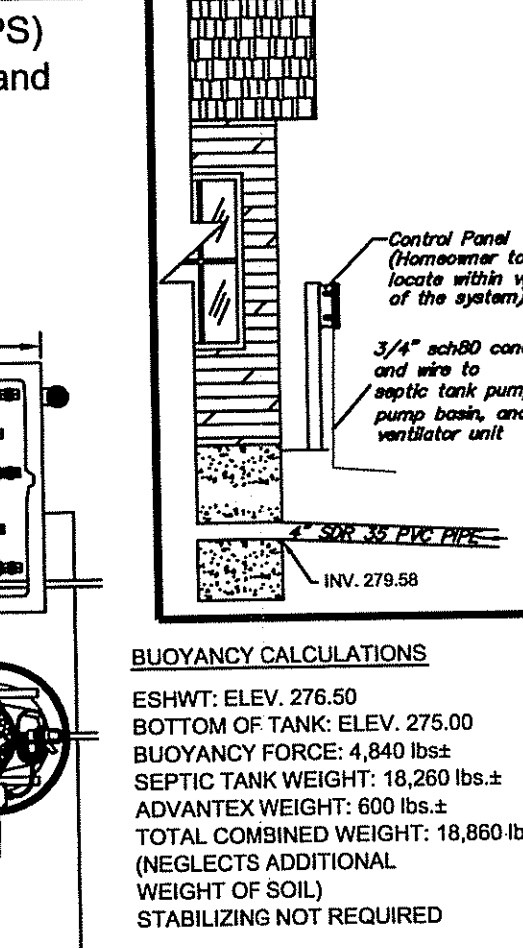
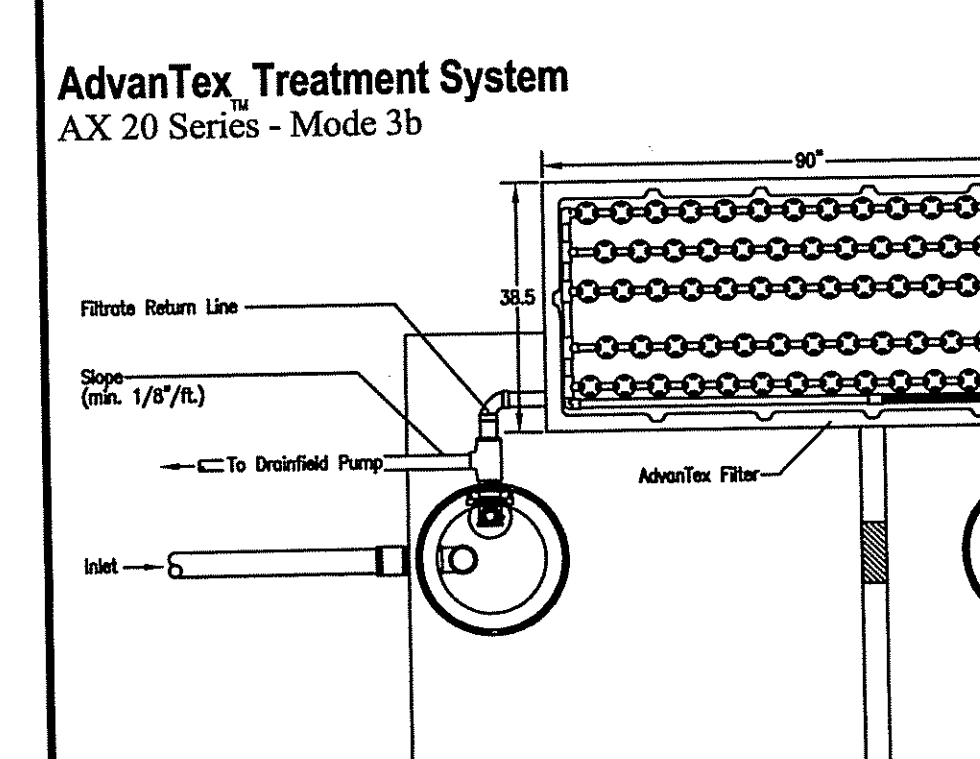
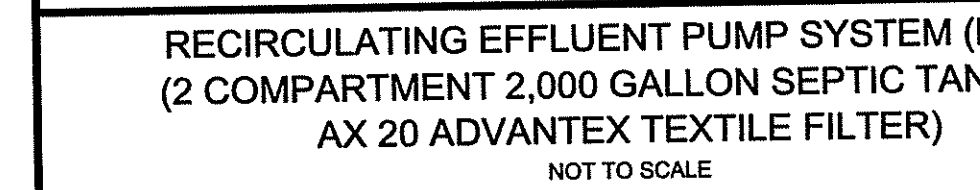
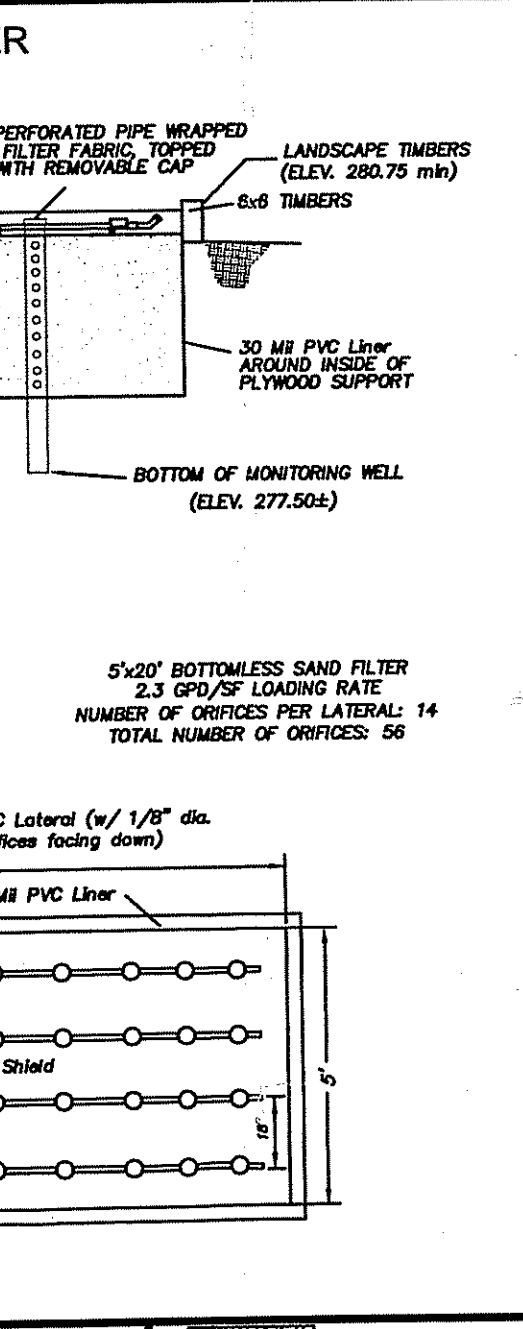
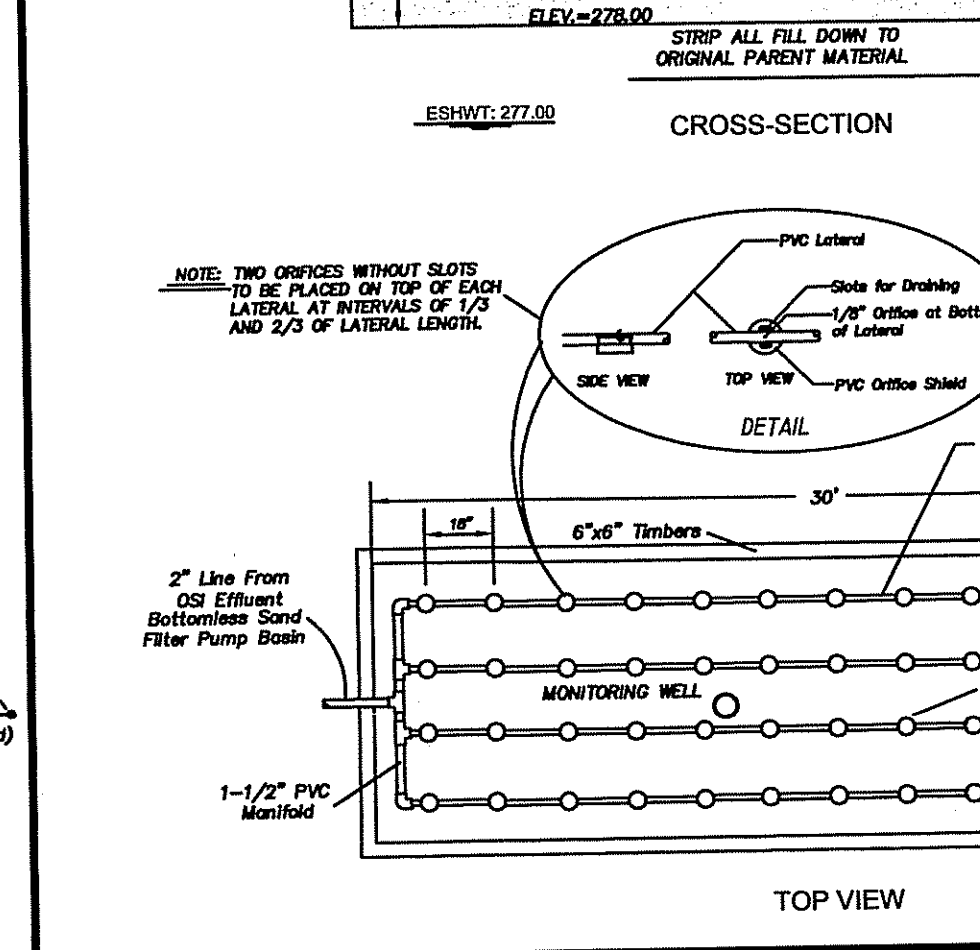
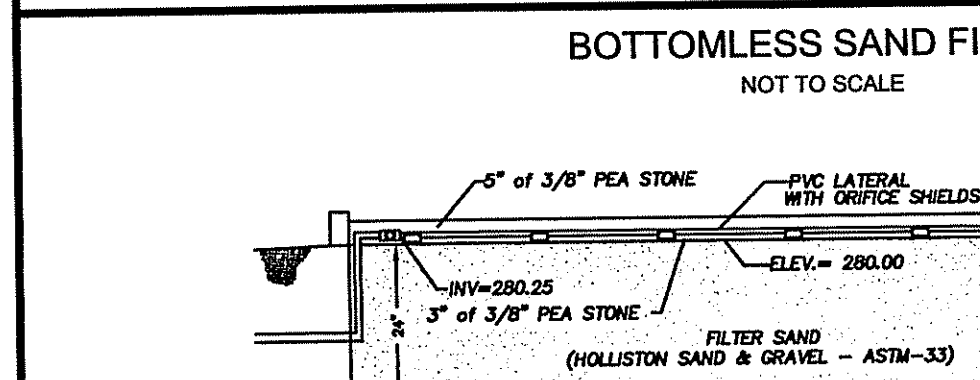


TEST HOLE DATA DATE: 3-29-18

TH1	0'-48" FILL
	48'-60" C4 VFSL, 2.5YR 5/1
	60'-90" C, GB, G, LCOS, 10YR 4/3
ESHW: 48'	
	NO LEDGE: 96"
TH2	0'-48" FILL
	48'-54" A, FSL, 10YR 2/2
	54'-60" BW, SL, 10YR 4/3
	60'-96" C, GB, G, LCOS, 2.5YR 4/2
ESHW: 48'	
	NO LEDGE: 96"
	SOIL CATEGORY: 6



- 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) 5 FEET FROM SAND FILTER NOT TO BE LOWER THAN ELEVATION 278.00.
 - 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 2'-0" FROM ALL WELLS.
 - 8) NO DRAINS OF ANY KIND SHALL BE WITHIN 25' UPGRADIENT OR 50' DOWNGRADIENT OF THE LEACHING SYSTEM.
 - 9) ALL SRS AT LEAST 1'-6" BELOW EXISTING GRADE AT BOTTOMLESS SAND FILTER SHALL BE STRIPPED AND BACKFILLED WITH FILTER SAND.
 - 10) THE SEPTIC TANK SHALL BE A WATER-TIGHT, 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 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 VISIBLE AND AUDIBLE ALARM PROVIDED 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) ALL MEDIA WITHIN THE ENCLOSURE AND BELOW THE COVER STONE SHALL HAVE AN EFFECTIVE SIZE (D₁₀) OF 0.33 mm (+/-) AND UNIFORMITY COEFFICIENT (D₆₀/D₁₀) OF 3.0 TO 4.0. THE MAXIMUM ALLOWABLE PERCENTAGE OF FINES PASSING THROUGH A NUMBER 200 SIEVE SHALL BE 1% OTHER THAN THE GRADATION AND FINE CONTENT SPECIFIED ABOVE. THE SAND MEDIA SHALL MEET OTHER ASTM C-33 SAND SPECIFICATIONS.
 - 15) IF CONTRACTOR ENCOUNTERS ANY CONDITIONS DURING CONSTRUCTION WHICH INDICATE THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, OR FIND CONFLICTING INFORMATION ON THE PLAN, CONSTRUCTION SHALL CEASE AND DESIGNER BE 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 OS EQUIPMENT: ATLANTIC SOLUTIONS, 2417 EAST MAIN ROAD, PORTSMOUTH, RI 02871 TEL: (401) 293-0176
 - 18) NO STRUCTURES, PERMANENT FEATURES, OR LARGE, HEAVY OR NUMEROUS DECORATIONS SHALL BE PLACED ON TOP OF THE BOTTOMLESS SAND FILTER THAT WOULD OBSTRUCT, PREVENT OR HINDER OPERATION AND MAINTENANCE OR ACCESS TO THE ACCESS PORTS OR MANHOLES SHALL BE REQUIRED FOR SEQUENCING VALVES AND SHALL BE SUFFICIENTLY SIZED TO FACILITATE 20" TOWER SETTINGS SHALL BE CHECKED AT EVERY ESTABLISHED MAINTENANCE AND INSPECTION VISIT AND WHEN HOME OCCUPANCY CHANGES AND ADJUSTED AS NEEDED.
 - 19) ACCESS PORTS OR MANHOLES SHALL BE CHECKED AT EVERY ESTABLISHED MAINTENANCE AND INSPECTION VISIT AND WHEN HOME OCCUPANCY CHANGES AND ADJUSTED AS NEEDED.
 - 20) THE PANEL BOX MUST BE WITHIN VIEW OF THE SYSTEM LOCATION TO HELP FACILITATE OPERATION AND MAINTENANCE.
 - 21) THE SPACE FROM THE ENDS OF THE LATERALS TO THE LINER SHALL BE CLOSED TO HALF THE ORIFICE SPACING AND BE ABLE TO ACCOMMODATE THE FITTINGS AND HAVE SUFFICIENT SPACE FOR MAINTENANCE ACTIVITIES.
 - 22) SWEEP ELBOWS SHALL BE ATTACHED TO THE DISTAL END OF EACH LATERAL TO FACILITATE MAINTENANCE AND INSPECTION.
 - 23) REFER TO OPERATION & MAINTENANCE AGREEMENT FOR PROPER MAINTENANCE OF ALL SYSTEM COMPONENTS.



SYSTEM SIZING:

2 BEDROOMS: 115 GPD x 2 = 230 GPD
 SOIL CATEGORY: 6
 APPLICATION RATE: 2.3 GPD/SF
 AREA REQUIRED: 230/2.3 = 100 SF
 AREA PROVIDED: 5' x 20' = 100 SF

TIMER INFO:

SET ADVANTEX TIMER TO 24 DOSES/DAY
 230 GPD/24 DOSES/DAY = 9.58 GAL/DOSE
 9.58/24.3 GPM = 39 MIN.
 TOTAL PUMP RUN TIME = 9.36 MIN./DAY
 TOTAL PUMP OFF TIME = 1430.64 MIN./DAY
 TIME OFF PER CYCLE = 59.21 MIN.
 TIME ON PER CYCLE = 0.39 MIN.

DOSE PER ORIFICE: 230 GPD/(24 DOSES/DAY)/80 ORIFICES = .18 GAL/ORIFICE/DOSE

ON-SITE WASTEWATER TREATMENT SYSTEM ALTERATION and WETLANDS PLAN FOR DANA MARTINELLI PLAT 59, LOT 136 10 SHADY BROOK COVE ROAD, JOHNSTON, RI DATE: JULY, 2018 SCALE: 1" = 20' REVISED: 9-17-18

GRAPHIC SCALE

CERTIFICATION

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

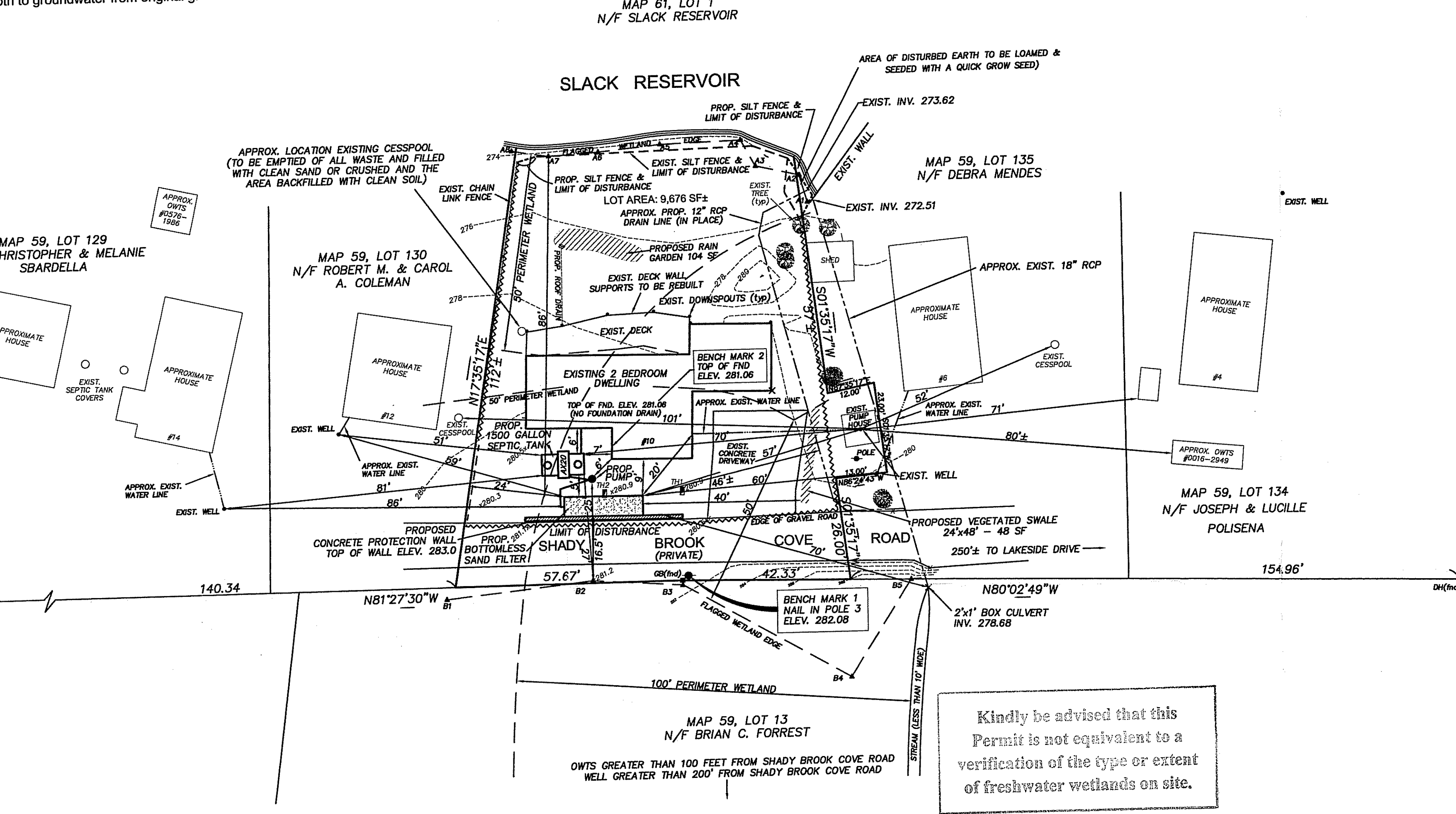
LIMITED CONTENT BOUNDARY SURVEY: CLASS IV
 TOPOGRAPHIC ACCURACY: T4

STATEMENT OF PURPOSE

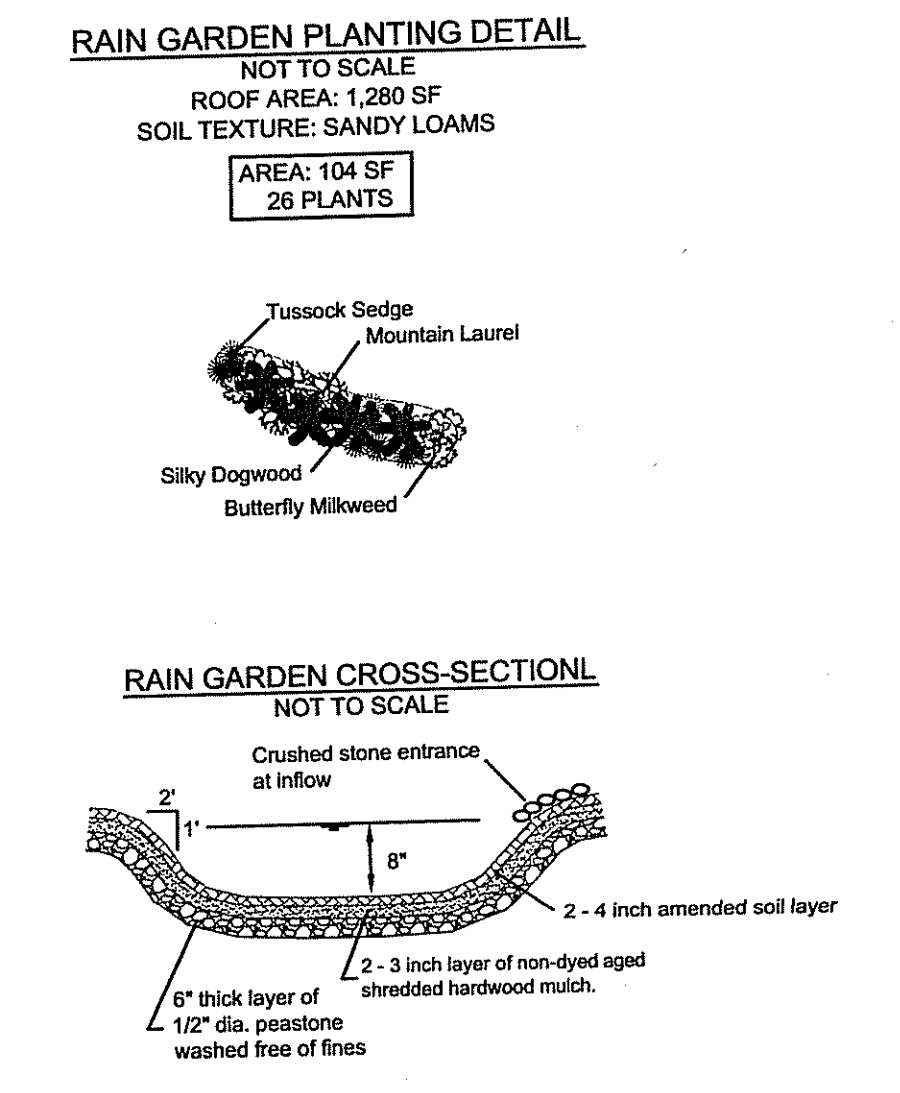
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND THE PREPARATION OF THE PLAN IS AS FOLLOWS: PROPOSED HOUSE

BY: *Marc N. Nyberg*
 MARC N. NYBERG License No. 1797 COA No. A52

Marc N. Nyberg Associates, Inc. Land Surveyors Planners
 501 Great Road Unit 104 North Smithfield, RI 02896
 Tel: (401) 762-2870 Fax: (401) 762-2871 Email: mail@marcnyberg.com



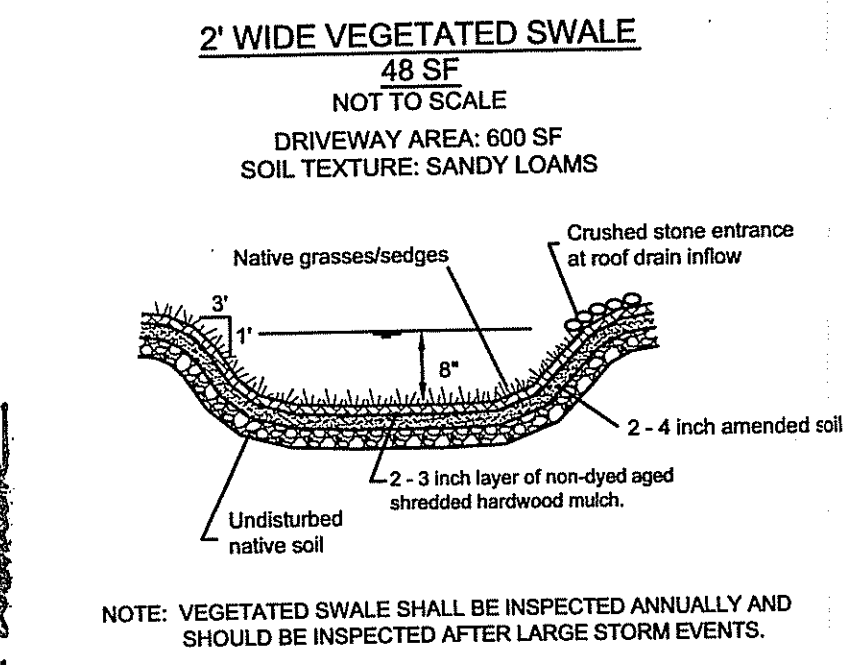
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



- RAIN GARDEN TREATMENT
- Rain garden to be 8" deep with a 2 - 4 inch amended soil layer (50/50 mixture of the excavated native soils and mature organic compost) and a 2 - 3 inch layer of non-dyed aged shredded hardwood mulch.
- CONSTRUCTION
1. A crushed stone entrance should be constructed along the downhill side of the rain garden, perpendicular to the slope of the lawn.
 2. Be sure that the soil within the rain garden area does not become compacted by construction activities (i.e. heavy machinery). If soil becomes severely compacted it may need to be tilled and amended to maintain proper
- MAINTENANCE
1. The rain garden shall be inspected following at least the first two precipitation events of at least 1.0 inch to ensure that the system is functioning properly.
 2. Thereafter, the rain garden shall be monitored and maintained to assure proper functioning, plant growth and survival. Plants shall be replaced on an as-needed basis during the growing season.
 3. Silt/sediment shall be removed from the rain garden when the accumulation exceeds one inch, or when water ponds on the surface of the rain garden for more than 48 hours). The top few inches of material shall be removed and shall be replaced with fresh soil mixture and mulch.
 4. Pruning or replacement of woody vegetation shall occur when dead or dying vegetation is observed.
 5. Soil erosion gullies shall be repaired when they occur.
 6. Fertilizer or pesticides shall not be applied to plants within rain gardens.
 7. Perennial plants and ground covers shall be replaced as necessary to maintain an adequate vegetated ground cover. Annual plants may also be used to maintain ground cover.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 OFFICE OF WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 FILE # 18-079
 DATE NOV. 03, 2018
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Christopher D. Lawrence



- VEGETATIVE SWALE MAINTENANCE
1. The vegetated swale shall be inspected annually and after large storm events.
 2. Eroded side slopes and channel bottom shall be stabilized as necessary.
 3. If the surface of the dry swale becomes clogged to the point that standing water is observed on the surface 48 hours after precipitation events, the bottom shall be rototilled or cultivated to break up any hard-packed sediment, and then reseeded.
 4. Vegetation in dry swales shall be mowed as required to maintain minimum grass heights in the 4-6 inch range.
 5. Every five years, the channel bottom of dry swales should be scraped to remove sediment and to restore original cross section and infiltration rate, and should be seeded to restore ground cover, where necessary.

SHEET NUMBER 1 of 1

JOB NUMBER 18-030