SEPTIC SYSTEM ELEVATION SCHEDULE (FT.)

Proposed Building Sanitary Invert = 95.08'

Septic Tank / Advantex System:
Septic Tank Inv. In = 94.50

Top of Advantex Pod = 98.46'
Bottom of Advantex Pod = 95.87'
RSV Inv. = 95.50'

High Water Alarm = 94.50'
Override Timer = 94.33'
Top of RSV Cage = 94.17'
Top of Filter Cartridge = 93.17'
Normal Low Liquid Level =93.75'
Low Water Alarm/Redundant Off = 93.34'

Pump Chamber:
Invert In = 93.50
Invert Out = 93.50

GeoMat :
Invert for Laterals = 99.58'
Bottom of GeoMat = 99.50'

Field Design Depth: TH-2 WT Depth = 3.18',
excavated at El. 100.5 (WT El. = 97.33)

PROPOSED SYSTEM:
ADVANTEX TREATMENT SYSTEM
AX20 SERIES - MODE 3B CW - OSI
PUMP CHAMBER 24" DIA., 72" (6.0') HT, OSI
PUMP TO GeoMAT - OSI PF 5005 ½ HP
CONTROL PANEL VCOM ADVANTEX AXB PANEL, 115V
RECIRCULATING PUMP PF 3005
3.25' x 32' (2 LINES)- GeoMat 3900, SEE SHEET 2 FOR DETAILS

SIZING OF GeoMat 3900

4 BEDROOMS x 115 GALS. PER BEDROOM = 460 GALS. (DAILY FLOW RATE)
460 GALLONS PER DAY / 2.3 GALS./SF/DAY (CATEGORY 6) = 200 S.F. (MIN. REQ'D)
200 S.F. /3.25 S.F. PER L.F. (GeoMat 3900) = 61.54 L.F. /2 Lines of GeoMat 3900 = 32 L.F. PER LINE
OVERALL GeoMAT 3900 AREA = 3.25' W x 32' L / 2 Lines 208 S.F. PROVIDED

SOIL NOTES:
BY CLAIRE MCELDERRY
NOVEMBER 15, 2016
TEST HOLE #1 (Elev. 99.2)
0–9" Ap, 10YR3/4, vfsl, 1sbkf, vfr
9–17" Bw1, 10YR4/6, vfsl, 1sbkf, fr
17–37" Bw2, 10YR5/6, vfsl, 1sbkf, fr
37–46" C1, 2.5Y5/4, fsl, 0–m, fr
46–62" 2C2, 2.5Y6/2, vfs, 0–m, fr
62"+ 3C3, 10YR5/6, sl w/pkts lcos, fr
DEPTH TO GROUNDWATER TABLE = 49"
GROUNDWATER ELEV. = 95.12

TEST HOLE #2 (Elev. 98.6)
0–8" Ap, 10YR3/4, vfsl, 1sbkf, vfr
8–20" Bw1, 10YR4/6, fsl, 1sbkf, fr
20–32" Bw2, 10YR5/6, fsl, 1sbkf, fr
32–55" 2Cg1, 2.5Y5/1, vfs, 0–m, fr
55–72" 3C2, 2.5Y5/3, sl, 0–m, fr
72"+ 4Cd3, 2.5Y4/2, sil, 0–m, fl
DEPTH TO GROUNDWATER TABLE = 40"
GROUNDWATER ELEV. = 95.27

TEST HOLE #3 (Elev. 100.5)
0–7" Ap, 10YR3/4, vfsl, 1sbkf, vfr
7–12" Bw1, 10YR4/6, fsl, 1sbkf, fr
12–21" Bw2, 10YR5/6, fsl, 1sbkf, fr
21–30" C1, 2.5Y5/3, sl, 0–m, fr
30–60" 2Cg2, 2.5Y5/1, sil, 0–m, fr
60"+ 3C3, 2.5Y5/3, sl, 0–m, fr
DEPTH TO GROUNDWATER TABLE = 38"
GROUNDWATER ELEV. = 97.33

DIGSAFE:
THE CONTRACTOR SHALL CONTACT "DIG–SAFE" AND/OR OTHER APPROPRIATE UTILITY COMPANIES TO ASCERTAIN THE EXACT LOCATION OF THE RESPECTIVE UTILITY PRIOR TO CONSTRUCTION.

DRIVEWAY:
CRUSHED FOR DRIVEWAY SHALL BE 3/4 INCH TO 1 1/2 INCH DIAMETER, WASHED, ANGULAR CRUSHED STONE INSTALLED TO A MINIMUM DEPTH OF 3 INCHES. THE GRADE OF THE DRIVEWAY SHALL NOT BE HIGHER THAN THE ADJACENT GROUND ELEVATION.

GENERAL WETLAND NOTES:

1. Map is compiled from on-site fieldwork completed by John P, Comeau, P.L.S.
2. Topography as represented is based on an assumed datum.
3. The wetland edge on subject parcel was field delineated (flagged) by REMA Ecological Services, LLC George Logan Soil Scientist .
4. 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 Town of New Shoreham, Map Number 44009C0354J Effective Date: October 16, 2013".
5. Prior to commencement of any site alterations, permanent buffer zone markers (posts) must be installed along the limit of disturbance at the locations indicated.
6. 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.

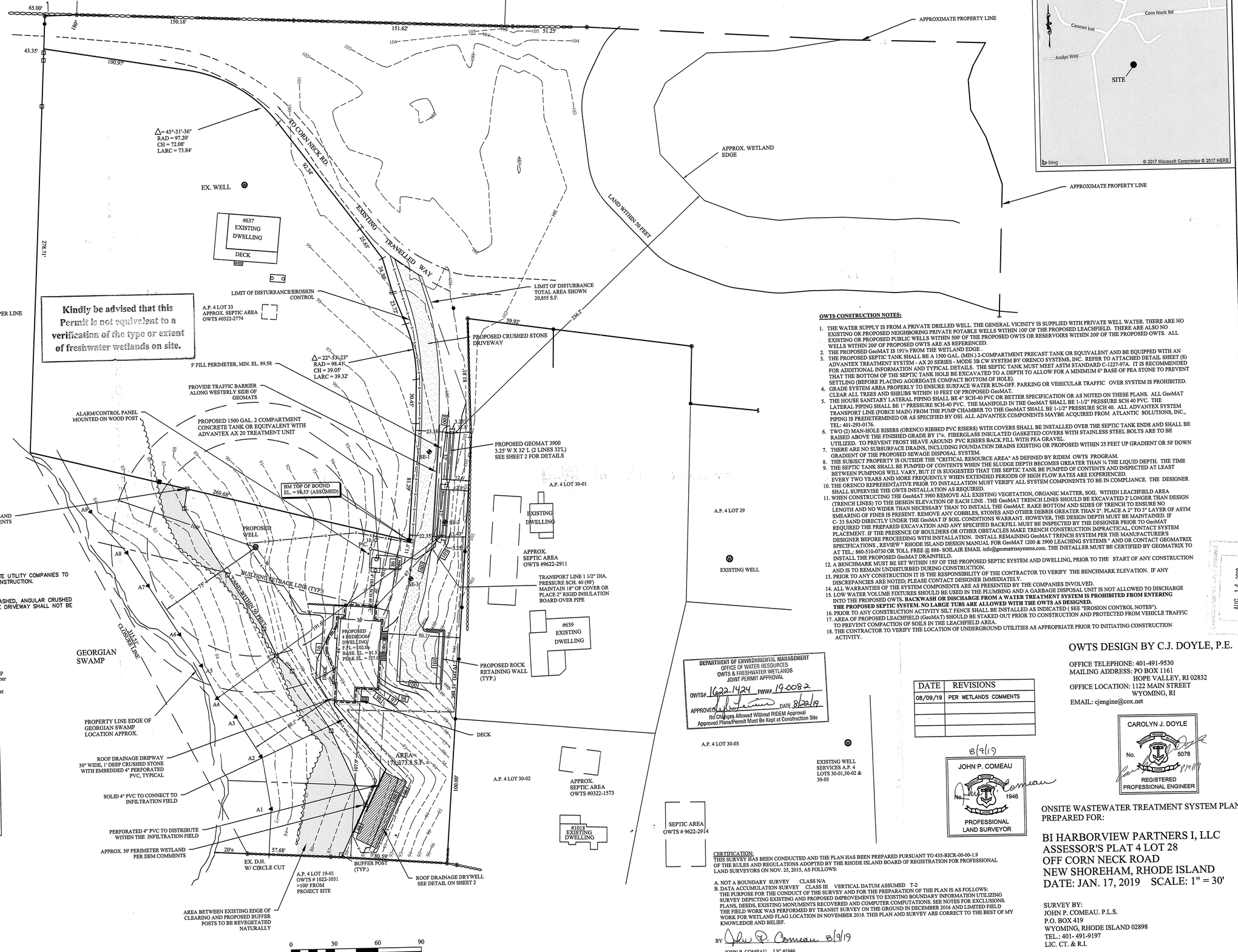
ITEM	REQUIRED	PROVIDED
MIN. LOT AREA	120,000 S.F.	178,373.8 S.F.
FRONTAGE	200'	>200'
MAX. LOT COVERAGE	10%	3.72%
MAX. LOT BUILDING COVERAGE	4%*	1.38%
MAX. HEIGHT PRINCIPAL BUILDING	32'	32.0'
FRONT YARD SETBACK	50'	50.1'
SIDE YARD SETBACK	50'	50.0' (N) 107.9' (S)
REAR YARD SETBACK	50'	60.0'

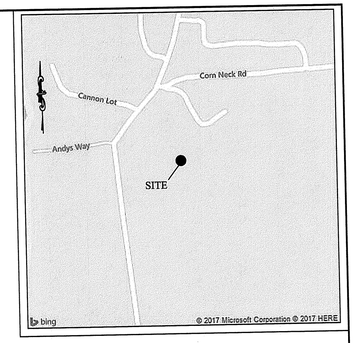
*3% FOR MAIN BUILDING WITH LOT >34,000S.F. (MAIN BUILDING = 2,464 S.F. WITH DECKS; DRIVEWAY = 4,172 S.F. AS SHOWN)

LEGEND

These standard symbols will be found in the drawing.

- EXISTING STONE BOUND
- EXISTING REBAR OR IRON PIPE
- EXISTING UTILITY POLE
- EXISTING OR PROPOSED WELL
- BUILDING SETBACK LINE
- OVERHEAD UTILITIES





OWTS CONSTRUCTION NOTES:

1. THE WATER SUPPLY IS FROM A PRIVATE DRILLED WELL. THE GENERAL VICINITY IS SUPPLIED WITH PRIVATE WELL WATER. THERE ARE NO EXISTING OR PROPOSED NEIGHBORING PRIVATE POTABLE WELLS WITHIN 100' OF THE PROPOSED LEACHFIELD. THERE ARE ALSO NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS OR RESERVOIRS WITHIN 200' OF THE PROPOSED OWTS. ALL WELLS WITHIN 200' OF PROPOSED OWTS ARE AS REFERENCED.
2. THE PROPOSED GeoMAT IS 191± FROM THE WETLAND EDGE .
3. THE PROPOSED SEPTIC TANK SHALL BE A 1500 GAL. (MIN.) 2-COMPARTMENT PRECAST TANK OR EQUIVALENT AND BE EQUIPPED WITH AN ADVANTEX TREATMENT SYSTEM - AX 20 SERIES - MODE 3B CW SYSTEM 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 HOLE 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).
4. GRADE SYSTEM AREA PROPERLY TO ENSURE SURFACE WATER RUN-OFF. PARKING OR VEHICULAR TRAFFIC OVER SYSTEM IS PROHIBITED.
5. CLEAR ALL TREES AND SHRUBS WITHIN 10 FEET OF PROPOSED GeoMAT.
6. THE HOUSE SANITARY LATERAL PIPING SHALL BE 4" SCH-40 PVC OR BETTER SPECIFICATION OR AS NOTED ON THESE PLANS. ALL GeoMAT LATERAL PIPING SHALL BE 1" PRESSURE SCH-40 PVC. THE MANIFOLD IN THE GeoMAT SHALL BE 1-1/2" PRESSURE SCH 40. ALL ADVANTEX SYSTEM TRANSPORT LINE (FORCE MAIN) FROM THE PUMP CHAMBER TO THE GeoMAT 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.
7. 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 COVERS WITH STAINLESS STEEL BOLTS ARE TO BE UTILIZED. TO PREVENT FROST HEAVE AROUND PVC RISERS BACK FILL WITH PEA GRAVEL.
8. THERE ARE NO SUBSURFACE DRAINS, INCLUDING FOUNDATION DRAINS EXISTING OR PROPOSED WITHIN 25 FEET UP GRADIENT OR 50' DOWN GRADIENT OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.
9. THE SUBJECT PROPERTY IS OUTSIDE THE "CRITICAL RESOURCE AREA" AS DEFINED BY RIDEM OWTS PROGRAM.
10. THE SEPTIC TANK SHALL BE PUMPED OF CONTENTS WHEN THE SLUDGE DEPTH BECOMES GREATER THAN ¼ 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.
11. THE ORENCO REPRESENTATIVE PRIOR TO INSTALLATION MUST VERIFY ALL SYSTEM COMPONENTS TO BE IN COMPLIANCE. THE DESIGNER SHALL SUPERVISE THE OWTS INSTALLATION AS REQUIRED.
12. WHEN CONSTRUCTING THE GeoMAT 3900 REMOVE ALL EXISTING VEGETATION, ORGANIC MATTER, SOIL WITHIN LEACHFIELD AREA (TRENCH LINES) TO THE DESIGN ELEVATION OF EACH LINE. THE GeoMAT TRENCH LINES SHOULD BE EXCAVATED 2' LONGER THAN DESIGN LENGTH AND NO WIDER THAN NECESSARY THAN TO INSTALL THE GeoMAT. RAKE BOTTOM AND SIDES OF TRENCH TO ENSURE NO SMEARING OF FINES IS PRESENT. REMOVE ANY COBBLES, STONES AND OTHER DEBRIS GREATER THAN 2". PLACE A 2" TO 3" LAYER OF ASTM C- 33 SAND DIRECTLY UNDER THE GeoMAT IF SOIL CONDITIONS WARRANT. HOWEVER, THE DESIGN DEPTH MUST BE MAINTAINED. IF REQUIRED THE PREPARED EXCAVATION AND ANY SPECIFIED BACKFILL MUST BE INSPECTED BY THE DESIGNER PRIOR TO GeoMAT PLACEMENT. IF THE PRESENCE OF BOULDERS OR OTHER OBSTACLES MAKE TRENCH CONSTRUCTION IMPRACTICAL, CONTACT SYSTEM DESIGNER BEFORE PROCEEDING WITH INSTALLATION. INSTALL REMAINING GeoMAT TRENCH SYSTEM PER THE MANUFACTURER'S SPECIFICATIONS , REVIEW " RHODE ISLAND DESIGN MANUAL FOR GeoMAT 1200 & 3900 LEACHING SYSTEMS " AND OR CONTACT GEOMATRIX AT TEL.: 860-510-0730 OR TOLL FREE @ 888- SOILAIR EMAIL info@geomatrixsystems.com. THE INSTALLER MUST BE CERTIFIED BY GEOMATRIX TO INSTALL THE PROPOSED GeoMAT DRAINFIELD.
13. A BENCHMARK MUST BE SET WITHIN 150' OF THE PROPOSED SEPTIC SYSTEM AND DWELLING, PRIOR TO THE START OF ANY CONSTRUCTION AND IS TO REMAIN UNDISTURBED DURING CONSTRUCTION.
14. 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.
15. ALL WARRANTIES OF THE SYSTEM COMPONENTS ARE AS PRESENTED BY THE COMPANIES INVOLVED.
16. LOW WATER VOLUME FIXTURES SHOULD BE USED IN THE PLUMBING AND A GARBAGE DISPOSAL UNIT IS NOT ALLOWED TO DISCHARGE INTO THE PROPOSED OWTS. **BACKWASH OR DISCHARGE FROM A WATER TREATMENT SYSTEM IS PROHIBITED FROM ENTERING THE PROPOSED SEPTIC SYSTEM. NO LARGE TUBS ARE ALLOWED WITH THE OWTS AS DESIGNED.**
17. PRIOR TO ANY CONSTRUCTION ACTIVITY SILT FENCE SHALL BE INSTALLED AS INDICATED (SEE "EROSION CONTROL NOTES").
18. AREA OF PROPOSED LEACHFIELD (GeoMAT) SHOULD BE STAKED OUT PRIOR TO CONSTRUCTION AND PROTECTED FROM VEHICLE TRAFFIC TO PREVENT COMPACTION OF SOILS IN THE LEACHFIELD AREA.
19. THE CONTRACTOR TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES AS APPROPRIATE PRIOR TO INITIATING CONSTRUCTION ACTIVITY.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL
OWTS# 1622-1424 FWW# 19-0082
APPROVED DATE 8/29/19
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

AUG 14 2019

OWTS DESIGN BY C.J. DOYLE, P.E.

OFFICE TELEPHONE: 401-491-9530
MAILING ADDRESS: PO BOX 1161
HOPE VALLEY, RI 02832
OFFICE LOCATION: 1122 MAIN STREET
WYOMING, RI
EMAIL: cjengine@cox.net

DATE	REVISIONS
08/09/19	PER WETLANDS COMMENTS

CAROLYN J. DOYLE
RHODE ISLAND
No. 5078
REGISTERED PROFESSIONAL ENGINEER

8/9/19
JOHN P. COMEAU
RHODE ISLAND
No. 1946
PROFESSIONAL LAND SURVEYOR

ONSITE WASTEWATER TREATMENT SYSTEM PLAN PREPARED FOR:

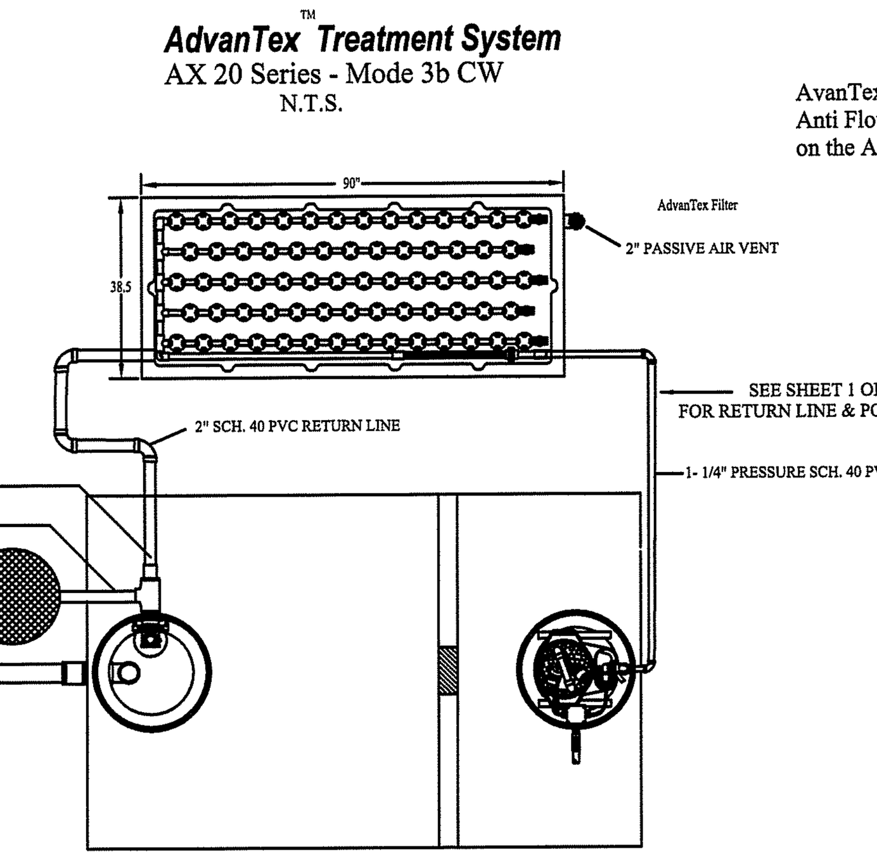
BI HARBORVIEW PARTNERS I, LLC
ASSESSOR'S PLAT 4 LOT 28
OFF CORN NECK ROAD
NEW SHOREHAM, RHODE ISLAND
DATE: JAN. 17, 2019 SCALE: 1" = 30'

SURVEY BY:
JOHN P. COMEAU. P.L.S.
P.O. BOX 419
WYOMING, RHODE ISLAND 02898
TEL.: 401- 491-9197
LIC. CT. & R.I.

CERTIFICATION:
THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOV. 25, 2015, AS FOLLOWS:

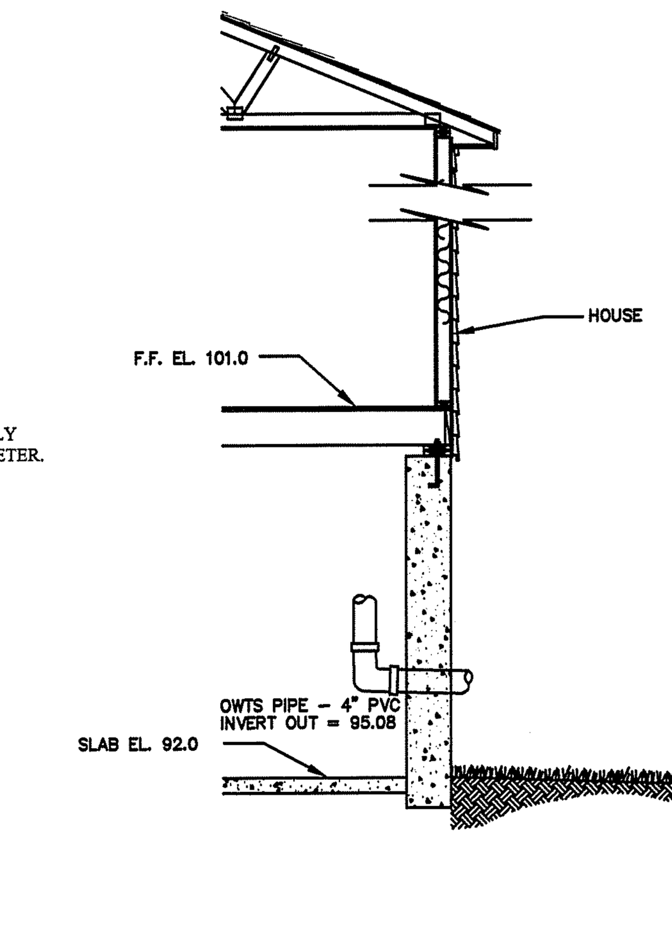
A. NOT A BOUNDARY SURVEY CLASS N/A
B. DATA ACCUMULATION SURVEY CLASS III VERTICAL DATUM ASSUMED T-2
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: SURVEY DEPICTING EXISTING AND PROPOSED IMPROVEMENTS TO EXISTING BOUNDARY INFORMATION UTILIZING PLANS, DEEDS, EXISTING MONUMENTS RECOVERED AND COMPUTER COMPUTATIONS. SEE NOTES FOR EXCLUSIONS. THE FIELD WORK WAS PERFORMED BY TRANSIT SURVEY ON THE GROUND IN DECEMBER 2016 AND LIMITED FIELD WORK FOR WETLAND FLAG LOCATION IN NOVEMBER 2018. THIS PLAN AND SURVEY ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY John P. Comeau 8/9/19
JOHN P. COMEAU LIC #1946
COA L.S. 000A426



Top View

NOTE: PRECAST CONCRETE SEPTIC TANK SHALL BE A TWO COMPARTMENT TANK, SHALL HAVE A 1500 GALLON MINIMUM CAPACITY AND SHALL BE COMPLETELY WATERTIGHT (ASTM- C1227-97A). COVERS SHALL BE A MINIMUM OF 20" DIAMETER.

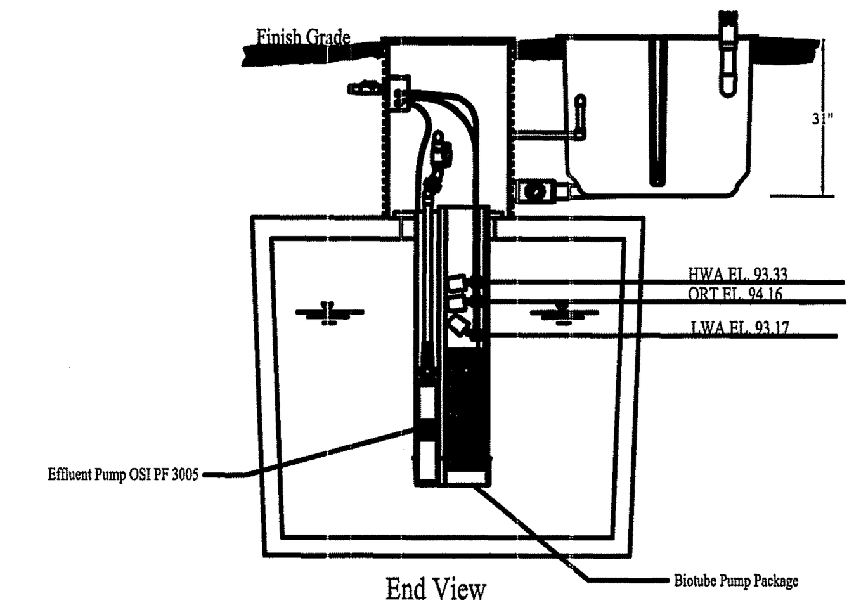


DETAIL OWTS BUILDING SEWER

NO SCALE

ADVANTEX SYSTEM/PRESSURIZED SHALLOW NARROW DRAINFIELD CONTROL PANEL REQUIREMENTS

NOTE: CONTROL PANEL SHALL BE OSI VCOM ADVANTEX AXB PANEL, 115V AND SHALL BE CAPABLE OF CONTROLLING TWO (2) PUMPS, CONTROL PANEL SHALL ALSO BE CAPABLE OF RUNNING ELASPED TIME METERS, DIGITAL FLOAT SWITCH DATA AND USE ONE FLOAT TYPE FOR ALL FUNCTIONS.



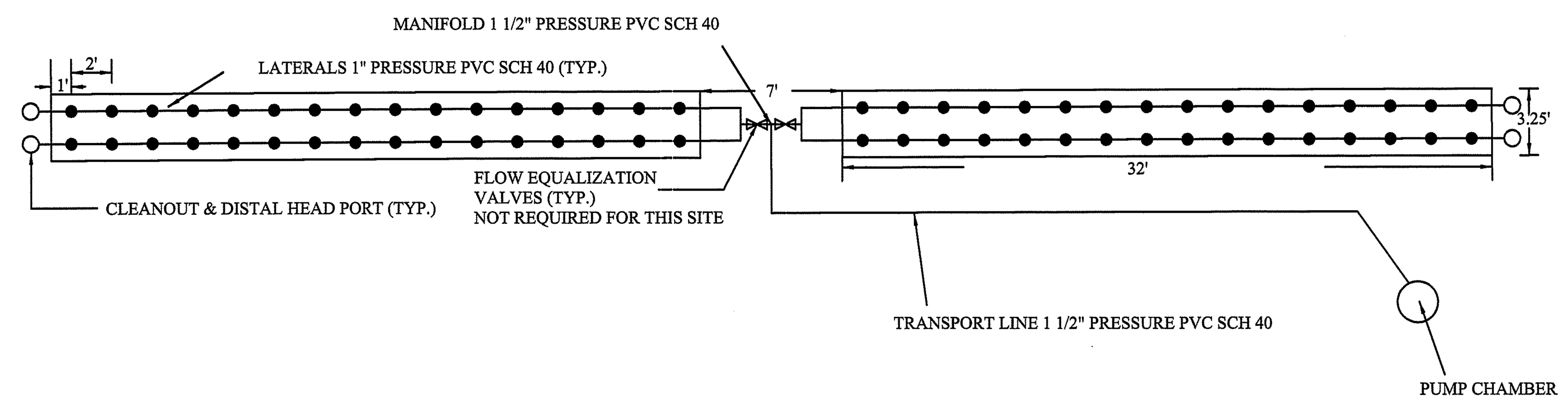
End View

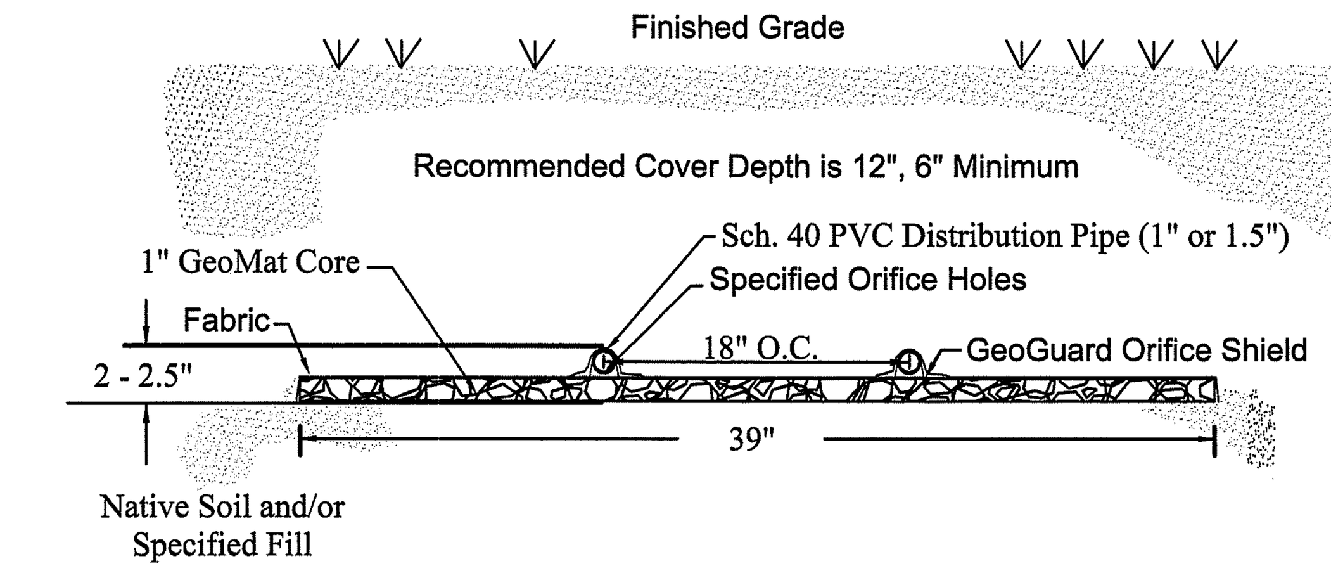
View A-A

3.25' x 64' GeoMat 3900 Detail

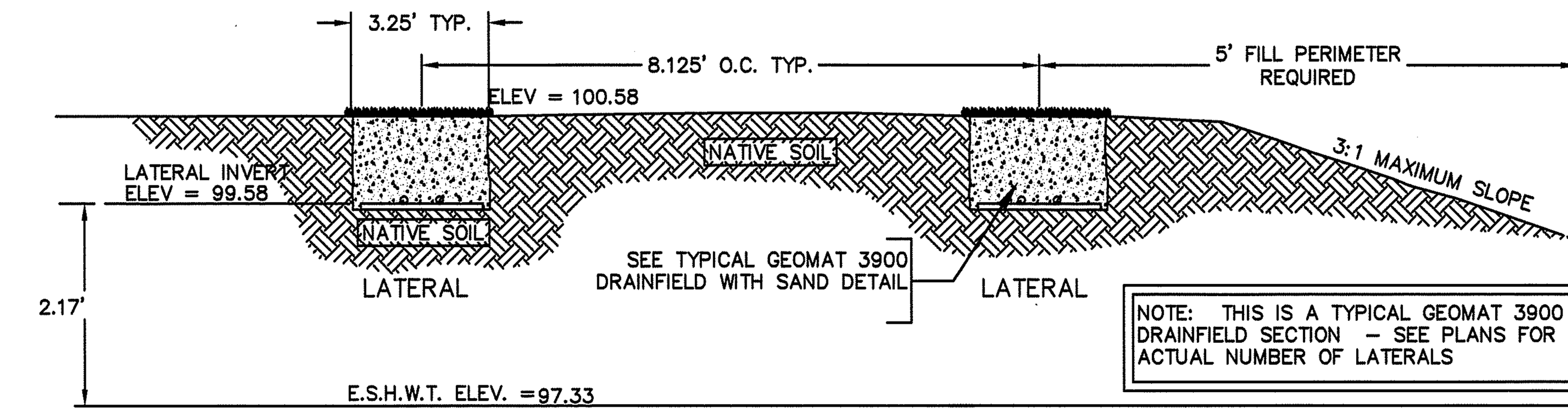
SIZING OF GeoMat 3900

4 BEDROOMS x 115 GALS. PER BEDROOM = 460 GALS. (DAILY FLOW RATE)
460 GALLONS PER DAY / 2.30 GALS./SF/DAY (CATEGORY 6) = 200.00 S.F. (MIN. REQ'D)
200.00 S.F. /3.25 S.F. PER L.F. (GeoMat 3900) = 61.54 L.F. /2 Lines of GeoMat 3900 = 32 L.F. PER LINE
OVERALL GeoMAT 3900 AREA = 3.25' W x 64' L =208 S.F.





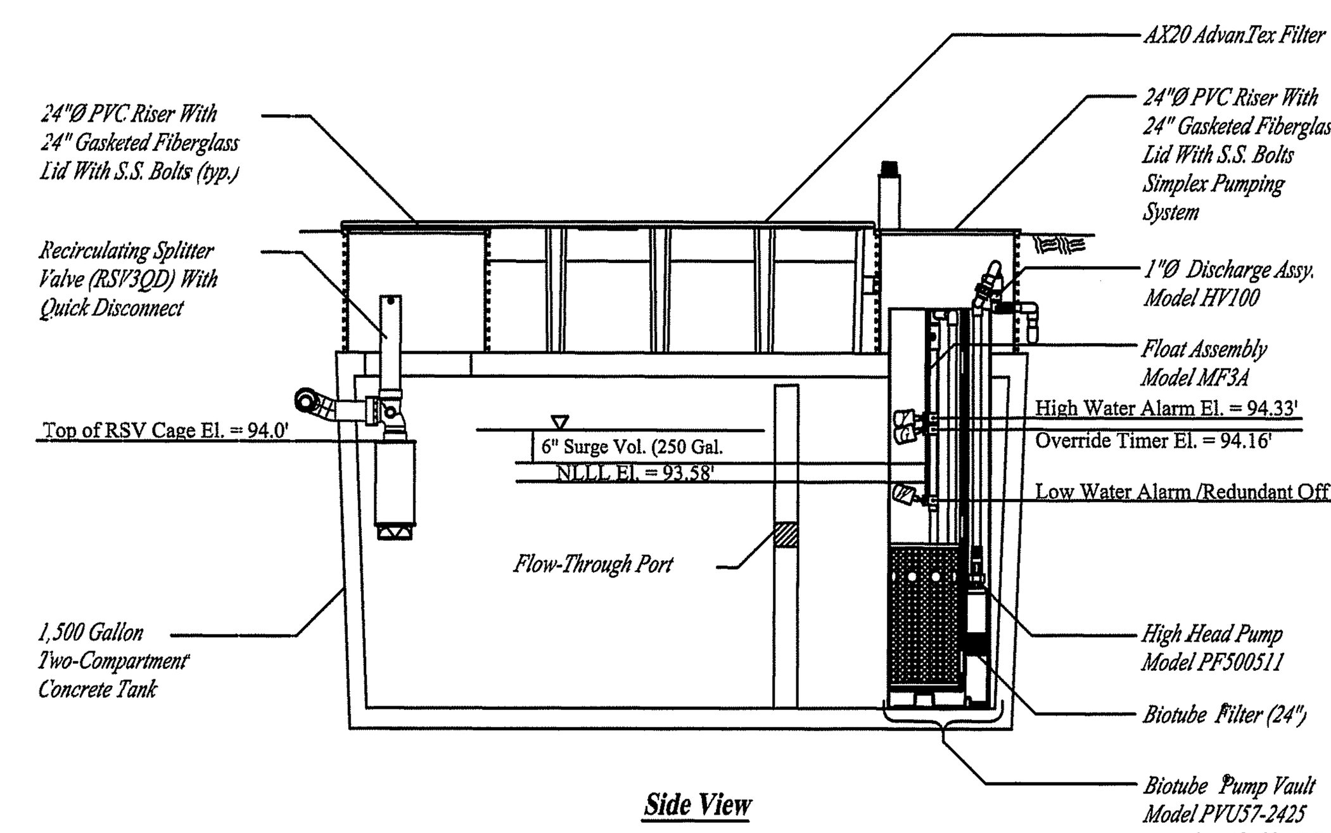
GEOMAT 3900 LEACHING SYSTEM
Cross Section
- Not to Scale -



CROSS SECTION

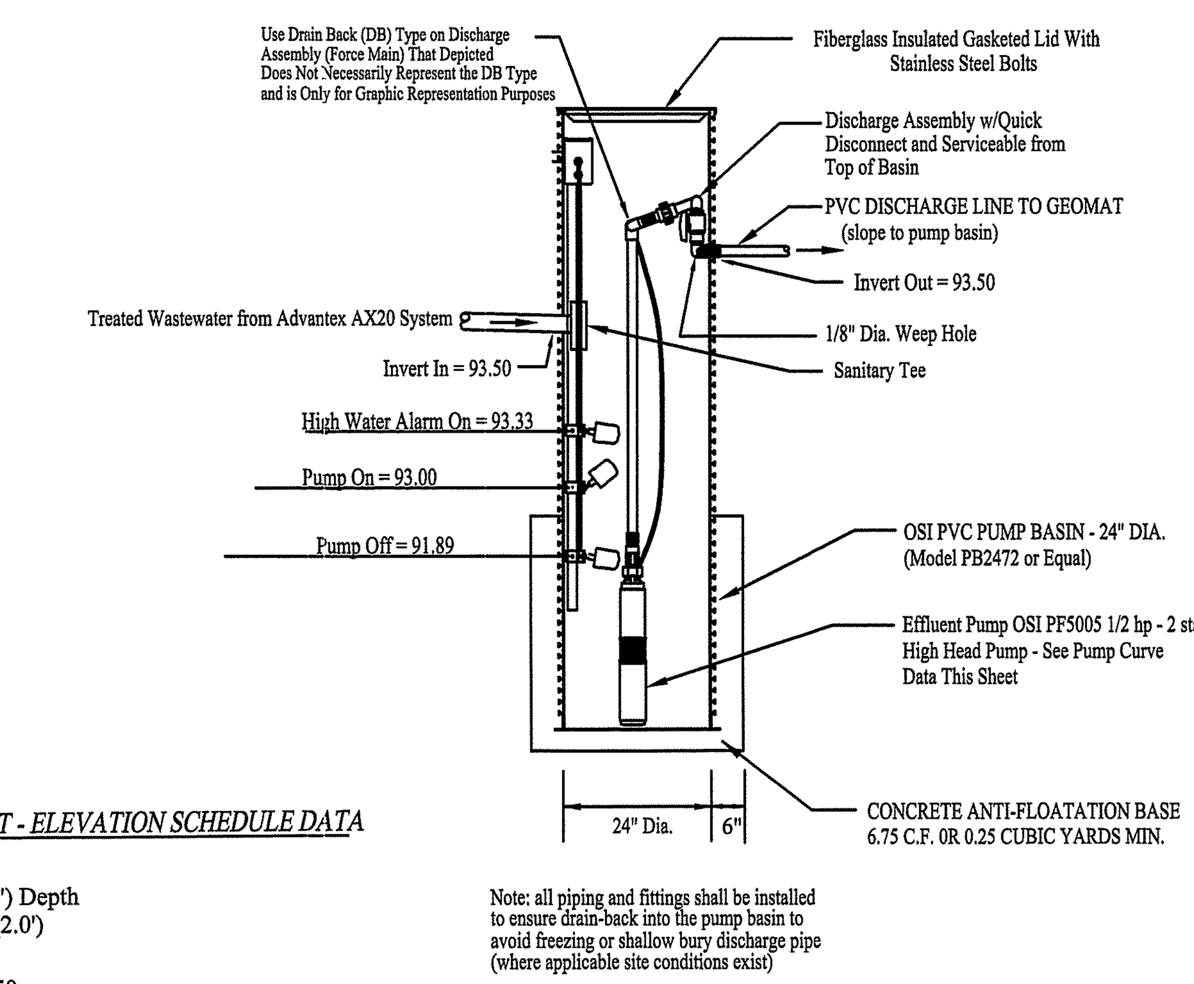
GEOMAT 3900 DRAINFIELD (SECTION)

NOT TO SCALE



Side View

Float Functions	
Y	High Level Alarm
G	Override Timer ON/OFF
W	LLA/RO



PUMP BASIN DETAIL
N.T.S.

PUMP BASIN FOR TREATED EFFLUENT - ELEVATION SCHEDULE DATA

Chamber Top = 95.70
Chamber Height = 72"(6.0') Depth
Chamber Diameter = 24" (2.0')
Chamber Inv. In = 93.50
Chamber Invert Out = 93.50
High Water Alarm = 93.33
Pump On = 93:00; Pump Off =91.89
Dosing Per Cycle = 17.70 Gallons
Chamber Bottom = 89.0

ADVANTEX TREATMENT SYSTEM GENERAL NOTES:

1. VENDOR INFORMATION: TECHNICAL INFORMATION OR VENDOR SERVICE MAY BE OBTAINED FROM THE FOLLOWING ORENCO SYSTEMS INC. 814 AIRWAY AVENUE SUTHERLIN, OR 97479 TEL. 1-800-348-9843 FAX. 1-541-459-2884, or ATLANTIC SOLUTIONS, INC., PORTSMOUTH, RI TEL. 1-401-737-7810. FOR START-UP AND MAINTENANCE SERVICE CONTACT ATLANTIC SOLUTIONS, INC. AT THE NUMBER NOTED ABOVE.

2. THE TREATMENT SYSTEM PROVIDED (ADVANTEX TREATMENT SYSTEM -AX20 SERIES) MEETS THE REQUIREMENTS OF A CATEGORY 1 SYSTEM: ADVANCED TREATMENT UNIT THAT IS TIMED DOSED AND HAS BEEN CLASSIFIED BY RIDEM AS MEETING EFFLUENT STANDARDS LESS THAN OR EQUAL TO 20 mg/L FOR BOTH BOD AND TSS; AND FOG OF LESS THAN OR EQUAL TO 5 mg/L.

3. THE SEPTIC TANK AND PUMP CHAMBER FOR THE ADVANTEX TREATMENT SYSTEM SHALL CONSIST OF WATER TIGHT CONSTRUCTION AND SHALL BE PROVIDED WITH WATERTIGHT PLASTIC OR FIBERGLASS RISERS ABOVE FINISHED GRADE. THE INLET PIPE TO THE CONCRETE SEPTIC TANK SHALL HAVE A FLEXIBLE RUBBER SEAL SECURED BY STAINLESS STEEL BAND TO FORM A WATERTIGHT CONNECTION. WATERTIGHT RUBBER GROMMETS SHALL BE USED AT INLET AND OUTLET PIPES TO PLASTIC OR FIBERGLASS PUMP CHAMBERS/BASINS.

4. THE PUMP CHAMBER SPECIFIED AFTER THE TREATMENT SYSTEM DISCHARGING TO THE GEOMAT SHALL PROVIDE A MINIMUM STORAGE VOLUME EQUAL TO THE DESIGN VOLUME DOSED ONTO THE GEOMAT DURING ONE PUMP RUN TIME AS INDICATED ON THIS SHEET.

5. A LICENSED ELECTRICIAN SHALL INSTALL ALL ELECTRICAL COMPONENTS, WIRING, CIRCUITS, CONTROL & ALARM PANELS, AND ELECTRONIC CONTROL PANELS PER STATE/NATIONAL ELECTRIC CODE REQUIREMENTS.

6. THE ADVANTEX TREATMENT SYSTEM SHALL INCLUDE A PROGRAMMABLE TIMER TO PROVIDE SMALL DESIGN DOSES OF TREATED EFFLUENT TO THE GEOMAT THROUGHOUT THE DAY. THE SYSTEM DESIGN DOSE WILL TYPICALLY OCCUR TWICE PER HOUR, BUT WILL VARY BASED ON ACTUAL FLOW. THE DESIGNER SHALL VERIFY THAT INSTALLER HAS FIELD-SET THE TIMER AND PUMP CHAMBER FLOAT SWITCHES AT THE TIME OF SYSTEM START-UP. THE SERVICE/MAINTENANCE PROVIDER SHALL INSPECT THE SYSTEM AFTER SUFFICIENT USE HAS OCCURRED (4 WEEKS±) TO ENSURE THAT THE PROGRAMMABLE TIMER IS RESET, AS NEEDED, AND ADJUSTED FOR ACTUAL FLOW CONDITIONS ANY CHANGES ARE TO BE FORWARDED TO THE SYSTEM DESIGNER.

7. THE INSTALLER SHALL PROVIDE A HIGH LEVEL WATER ALARM AND LOW WATER ALARM/REDUNDANT OFF FLOAT SWITCHES AS PART OF THE ADVANTEX SYSTEM TO OVERRIDE THE PROGRAMMABLE TIMER IN THE EVENT OF TIMER MALFUNCTIONS OR TEMPORARY EXCESSIVE WATER USE. THE PUMP CHAMBER SHALL PROVIDE A HIGH LEVEL WATER ALARM, PUMP ON/OFF AND A LOW WATER ALARM /REDUNDANT OFF FLOAT SWITCHES AS INDICATED. THE PUMP ON RUN TIME INTERVAL MAY BE PROGRAMMED THROUGH THE VCOM CONTROL PANEL UPON ACTIVATION OF THE ON FLOAT SWITCH (SEE PUMP CALCULATIONS FOR GPM ON THIS SHEET).

8. AN IMPULSE COUNTER SHALL BE PROVIDED ON THE TIMER OVERRIDE OR HIGH WATER ALARM FLOAT (WHICHEVER IS APPLICABLE BASED ON ESTIMATED FLOW CONDITIONS) FOR THE ADVANTEX TREATMENT SYSTEM AND PUMP CHAMBER/BASIN PUMP.

9. PUMP CONTROL PANELS SHALL BE PROVIDED WITH AN ELAPSED TIME RUN METER AND A DOSING EVENT COUNTER (PUMP IMPULSE COUNTER) FOR EACH PUMP IN THE SYSTEM. THE ELAPSED TIME RUN METER AND DOSING EVENT COUNTER SHALL BE NON-RESETTABLE. PUMP CONTROL PANELS SHALL BE MOUNTED ON A 4 X 4 PRESSURE TREATED POST AWAY FROM THE DWELLING FOR EASE OF SERVICE OF THE SYSTEM. IT IS RECOMMENDED THAT THE PANEL BOX(ES) BE PLACED IN A MANNER WITHIN VIEW OF THE SYSTEM LOCATION IF POSSIBLE TO HELP FACILITATE OPERATION AND MAINTENANCE.

10. INSTALLATION OF THE ADVANTEX TREATMENT SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE ADVANTEX TREATMENT SYSTEM INSTALLATION GUIDE.

11. IF THE ADVANTEX-AX FILTER IS PLACED OVER THE TOP OF THE TANK, A MINIMUM 5" THICK LAYER OF COMPACTED PEA STONE OR GRAVEL MUST BE PLACED ON TOP OF THE TANK IN ORDER TO ACHIEVE THE REQUIRED SLOPE ON THE FILTRATE RETURN LINE (MIN. 2" DROP TO RSV). REFER TO INSTALLATION GUIDELINES FOR SPECIAL LENGTH REQUIREMENTS. THE ADVANTEX FILTER SHOULD BE SLOPED ½" TO 1" TOWARDS THE DISCHARGE TO MINIMIZE PONDING IN THE BOTTOM OF THE FILTER. DO NOT SLOPE EXCESSIVELY, AS THIS WILL MAKE THE TOP OF THE FILTER LOOK "OUT OF KILTER."

12. RISER TANK ADAPTERS AND ACCESS RISERS SHALL BE CONSTRUCTED TO BE WATERTIGHT. CARE SHALL BE TAKEN TO ORIENT RISERS TO CORRECT POSITIONS BEFORE REQUIRED ADHESIVE CURES. RISER-ADAPTER JOINTS SHALL ALSO BE SEALED BETWEEN THE ADAPTER AND RISER JOINT WITH A CONTINUOUS FILLET OF ADHESIVE SEALER. INSTALLER SHALL WATER TEST TANK AND RISER CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SAFETY GUIDELINES. INSULATED LIDS OR COVERS SHALL BE UTILIZED OVER THE RISERS AND ARE AVAILABLE THROUGH ORENCO SYSTEMS, INC OR LICENSED VENDOR.

13. INSTALLATION OF THE RECIRCULATING SPLITTER VALVE (RSV) SHALL BE INSTALLED WITHIN THE RISER OVER THE SEPTIC TANK'S INLET AND MUST BE INSTALLED SO AS NOT TO INTERFERE WITH THE INLET TEE.

14. THE HIGH-HEAD PUMP AND RESPECTIVE FLOAT LEVELS FOR THE ADVANTEX FILTER POD WITH THE TWO COMPARTMENT SEPTIC TANK SHALL BE INSTALLED PER THE INSTALLATION GUIDELINES DOCUMENT AND MANUFACTURER'S SPECIFICATIONS.

15. CONTROL PANEL, ELECTRICAL JUNCTION BOXES, AND WIRING RUNS SHALL BE INSTALLED BY A LICENSED ELECTRICIAN.

16. PUMPS AND FLOAT LEVELS SHALL BE MANUALLY AND AUTOMATICALLY TESTED. DESIGNER SHALL BE PRESENT DURING TESTING OF SYSTEM COMPONENTS. MANUAL AND AUTOMATIC TESTING SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

17. WHENEVER AN ALARM CONDITION OCCURS, THE RED LIGHT ON THE FRONT OF THE ALARM PANEL WILL COME ON, ALONG WITH THE AUDIBLE HORN. THE AUDIBLE PORTION OF ALL ALARMS CAN BE SILENCED BY PUSHING THE ILLUMINATED LIGHT.

ADVANTEX TREATMENT SYSTEM OPERATION & MAINTENANCE (O&M) REQUIREMENTS

1. WARNING - BEFORE DOING ANY WORK ON EITHER THE WIRING TO THE LEVEL CONTROL FLOATS AND PUMPS IN THE VAULT, TANKS, OR ON THE CONTROL PANEL, PULL THE FUSE AND/OR SWITCH ALL THE CIRCUIT BREAKERS SERVING THE CONTROL PANEL TO THE "OFF" POSITION. DO NOT ENTER A CONFINED SPACE WITHOUT USING PROPER EQUIPMENT AND FOLLOWING STANDARD CONFINED SPACE SAFETY PRECAUTIONS.

2. THE INSTALLER AND SYSTEM SERVICE PROVIDER SHALL BE FAMILIAR WITH THE ADVANTEX TREATMENT SYSTEM O&M MANUAL REQUIREMENTS AND PROCEDURES FOR THE SYSTEM TO BE INSTALLED.

3. THE OWNER (S) SHALL BE PROVIDED WITH A 3-YEAR LIMITED WARRANTY FOR THE ADVANTEX TREATMENT SYSTEM FROM ORENCO SYSTEMS, INC. OR A LICENSED VENDOR. THIS WARRANTY REQUIRES THE OWNER (S) OF THE SYSTEM TO OBTAIN A 3-YEAR SERVICE CONTRACT BY AN ORENCO AUTHORIZED SERVICE PROVIDER, AS SPELLED OUT IN THE SALES CONTRACT.

4. THE INSTALLER SHALL PROVIDE THE OWNER (S) WITH PUMP WARRANTY INFORMATION - TYPICALLY 5 YEARS FOR THE OSI PUMPS.

5. REGULAR INSPECTION AND MAINTENANCE OF THE ADVANTEX TREATMENT SYSTEM COMPONENTS SHALL BE PERFORMED TWO (2) MONTHS AFTER SYSTEM START-UP AND THEN EVERY 12 MONTHS THEREAFTER, OR MORE FREQUENTLY, IF NECESSARY. PUMP OPERATIONS, CONTROL PANELS, PUMP ALARMS AND TIMER SETTINGS SHALL BE TESTED IN ACCORDANCE WITH THE O&M MANUAL REQUIREMENTS. ALL OUTLINED SAFETY PRECAUTIONS SHALL BE TAKEN DURING TESTING AND SERVICING OF THE SYSTEM.

6. MEASUREMENT OF SOLIDS ACCUMULATION SHOULD BE PERFORMED SO THAT THE PROCESSING TANK (SEPTIC TANK) PUMPING RECOMMENDATIONS CAN BE GIVEN TO THE OWNER (S). A RECOMMENDATION FOR PUMPING SHALL BE MADE WHEN THE BOTTOM OF THE SCUM LAYER IS WITHIN 3" OF THE FLOW-THROUGH PORTS OF THE PUMP VAULT (2nd TANK COMPARTMENT) OR WHEN THERE IS AN ACCUMULATION OF SLUDGE WITHIN 6" BELOW THE FLOW-THROUGH PORTS.

7. TEXTILE FILTER MEDIA (AX - HANGING SHEETS) WITHIN THE RECIRCULATING FILTER POD SHALL BE CLEANED/REPLACED AS NECESSARY IN ACCORDANCE WITH THE ADVANTEX O&M MANUAL AND MANUFACTURER'S RECOMMENDATIONS.

8. THE BIOTUBE SHALL BE HOSED OFF ON A YEARLY BASIS, AND WHENEVER THE SEPTIC TANK IS PUMPED. SYSTEMS OPERATING ABOVE THEIR DESIGN FLOWS MAY REQUIRE MORE FREQUENT CLEANING. WHEN CLEANING THE BIOTUBE COMPLETE THE FOLLOWING:
Turn circuit breaker off at service panel
Switch MOA and circuit breakers in control panel to "Off"
Slide cartridge out of vault
If necessary, the RSV2Q valve may be removed to allow room in the riser for cleaning the Biotube
Pull RSV2Q out of its Quick Disconnect holster and place it in a plastic trash can
Hose off trash can into the tank after replacing the RSV2Q
Hold Biotube cartridge over open inlet of tank or primary compartment
Carefully spray build-up into tank with garden hose
If there are significant solids in vault, remove and clean it too
Pull pump, place it on a clean riser lid and clean as needed be sure to check intake screen; wash off particles as necessary.

9. ALL TANKS AND BASINS SHALL BE VISUALLY INSPECTED FOR WATER-TIGHTNESS AND STRUCTURAL SOUNDNESS WHEN MAINTENANCE IS PERFORMED.

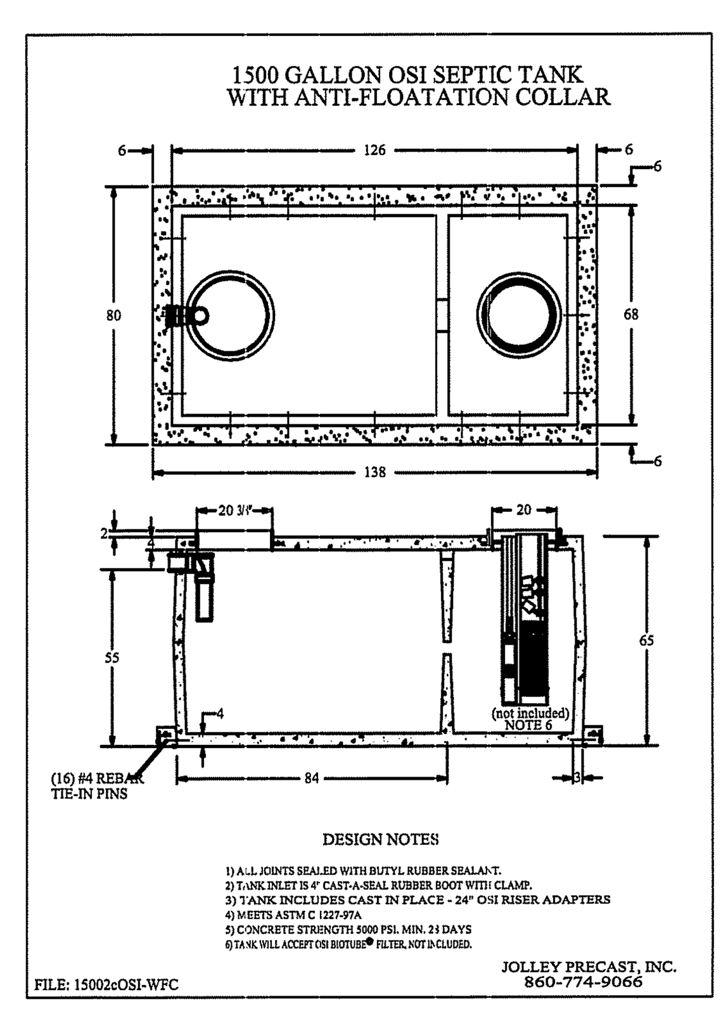
10. WHEN PERFORMING MAINTENANCE WORK REVIEW THE "ADVANTEX O & M MANUAL" FOR SPECIFIC DETAILS. ALL MAINTENANCE IS TO BE PERFORMED BY AN AUTHORIZED VENDOR.

CONFINED SPACE SIGNS:

PERMANENT DURABLE CORROSION RESISTANT SIGNS INDICATING "CONFINED SPACE – ENTRY BY PERMIT ONLY" SHALL BE PLACED AT EACH TANK AND PUMP CHAMBER SIDEWALL OF RISER. SIGNS SHALL MEET O.S.H.A. REQUIREMENTS FOR SIZE, MARKINGS AND LOCATION.

ELECTRICAL:

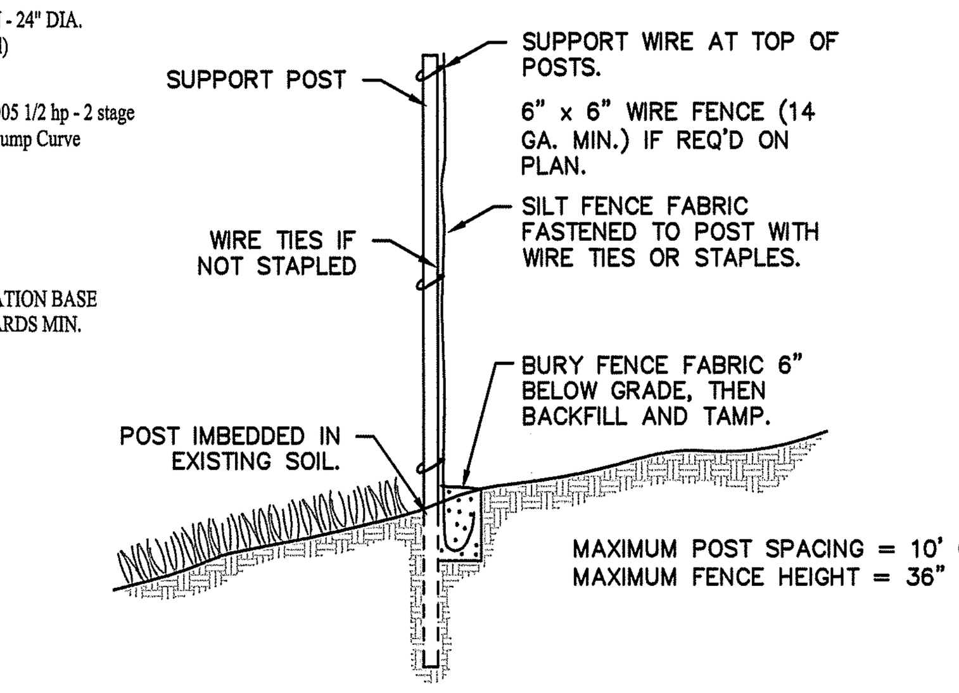
ALL WIRING REQUIRED FOR PUMPS, ALARMS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND MANUFACTURER'S INSTRUCTIONS. CONDUITS ENTERING THE PUMP CHAMBERS SHALL BE PROPERLY INSTALLED WITH CONDUIT SEALS TO PREVENT SEWAGE GASES FROM LEAVING THE BASIN. CONDUITS ENTERING THE FAN CHAMBER SHALL BE PROPERLY INSTALLED WITH CONDUIT SEALS TO PREVENT WATER FROM ACCESSING THE CHAMBER.



NOTE: OWTS PERMITS ISSUED BY RIDEM FOR INSTALLATION OF THE SYSTEM INCLUDING OPERATION AND MAINTENANCE REQUIREMENTS, SHALL BE RECORDED IN THE LAND EVIDENCE RECORDS OF THE TOWN OF NEW SHOREHAM PRIOR TO THE RIDEM ISSUANCE OF A CERTIFICATE OF CONFORMANCE FOR THE INSTALLATION.

IMPORTANT NOTE: This system has been designed by a licensed sewage disposal system designer, CAROLYN J. DOYLE, PE (Designer License D3067) 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 installaion of the approved system. The designer will contact RIDEM to give notification of the installation date at least 24 hours prior to installation of the system. The designer may be contacted at (401) 491-9530.

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 system components in accordance with the manufactorer's recommendations. The effluent filter media and system components shall be maintained as required for the System to properly operate.



SILT FENCE DETAIL

NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL NOTES:

TEMPORARY AND/OR PERMANENT EROSION CONTROL DEVICES SUCH AS BALED HAY, SILT FENCING, ETC. SHALL BE INSTALLED PRIOR TO ANY CLEARING OR EXCAVATION. HAY BALES OR SILT FENCING SHALL BE PLACED IMMEDIATELY DOWN SLOPE AND ADJOINING AREAS OF SOIL DISTURBANCE AND STOCKPILES. INSTALLATION OF ALL EROSION CONTROL DEVICES SHALL BE CONDUCTED IN ACCORDANCE TO DETAIL SPECIFICATIONS.

CLEARING OF EXISTING VEGETATION SHALL BE DONE IN A CONTROLLED MANNER SO AS TO AVOID EXTENSIVE AREAS OF DEFOLIATED TERRAIN SUBJECT TO EROSION. AREAS SO DISTURBED SHALL BE BROUGHT TO FINAL GRADES AND STABILIZED AS SOON AS POSSIBLE.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.

ALL EROSION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS DURING CONSTRUCTION, ESPECIALLY AFTER EACH RAINFALL.

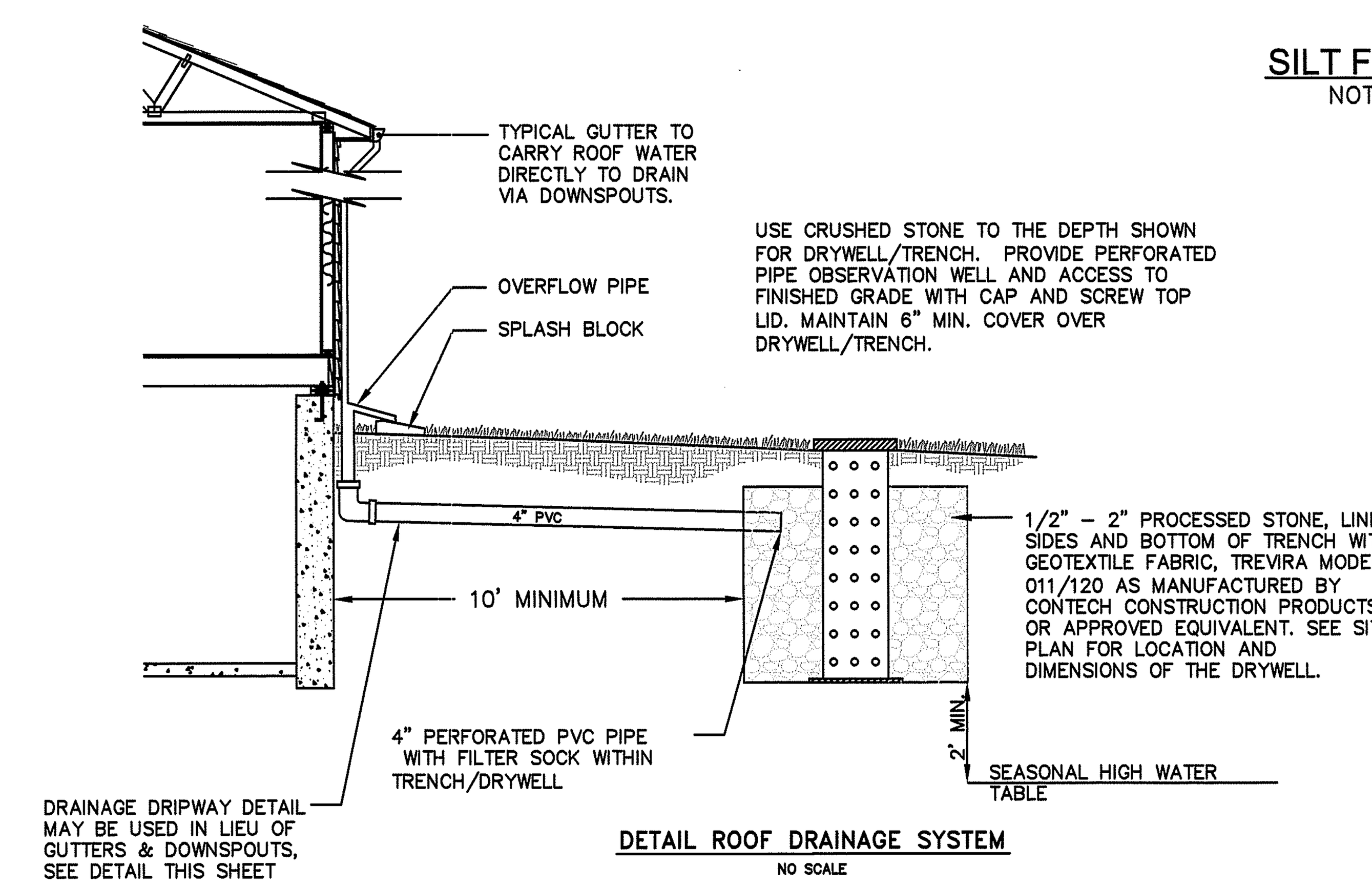
DUE TO CHANGING CHARACTERISTICS OF THE SITE CAUSED BY AND DURING CONSTRUCTION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE CONDITIONS WARRANT.

IF CONSTRUCTION IS SUSPENDED, ALL DISTURBED AREAS SHALL BE SEEDED AND ALL NECESSARY EROSION CONTROL DEVICES SHALL BE IN PLACE AND IN GOOD WORKING ORDER. IF SEEDING IS NOT POSSIBLE THEN EROSION CONTROL MATS SHALL BE PLACED OVER ALL DISTURBED SOIL.
EROSION CONTROL BLANKETS (MATS) SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. EROSION CONTROL BLANKETS (MATS) SHALL BE MANUFACTURED BY NORTH AMERICAN GREEN) OR APPROVED EQUIVALENT AND INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

ALL EROSION CONTROL METHODS, MATERIALS AND MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK".

ALL AREAS WHICH ARE DISTURBED DURING CONSTRUCTION ARE TO BE BROUGHT TO FINISHED GRADE WITH AT LEAST 6" MINIMUM DEPTH OF GOOD QUALITY LOAM AND ALL SOIL AMENDMENTS DEEMED NECESSARY. THE AREA SHALL BE SEEDED WITH A QUICK GERMINATING GRASS SEED SUCH AS URI #2 OR APPROVED EQUIVALENT.

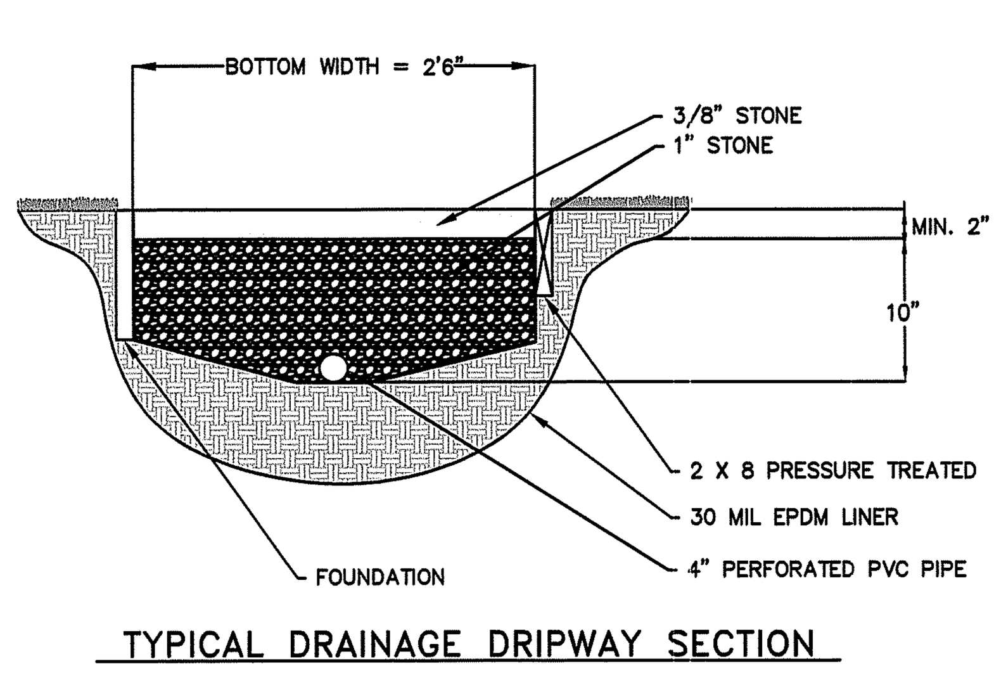
THE CONTRACTOR SHALL PROVIDE FOR ALL SEEDED AREAS TO BE WATERED AND IN GOOD CONDITION UNTIL A GOOD HEALTHY AND UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA.



DETAIL ROOF DRAINAGE SYSTEM

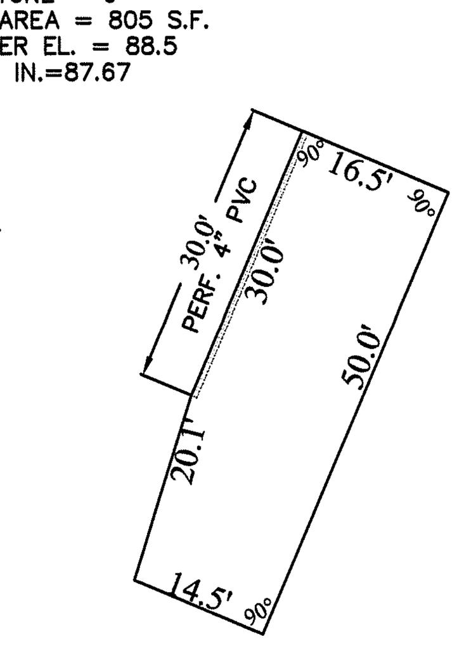
NO SCALE

NOTES:
GWT = 85.5
BOTTOM STONE = 87.5
DEPTH STONE = 6"
BOTTOM AREA = 805 S.F.
MIN. COVER EL. = 88.5
PIPE INV. IN.=87.67

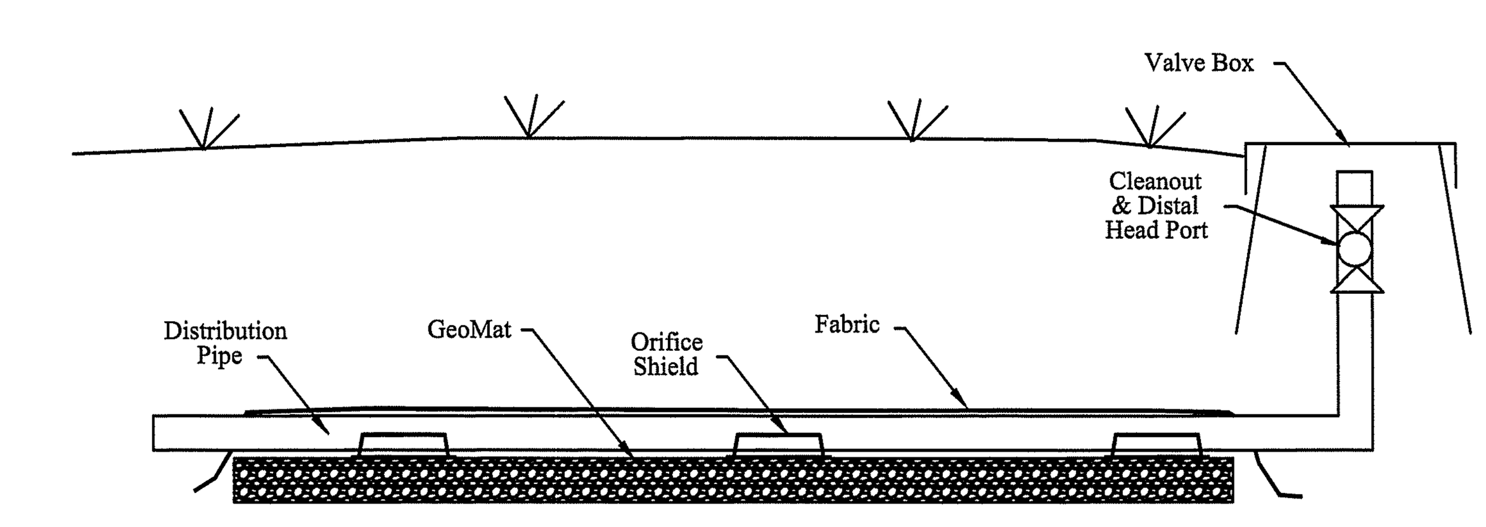


TYPICAL DRAINAGE DRIPWAY SECTION

NOT TO SCALE



DRAINAGE DRYWELL DIMENSIONS



GEOMAT LEACHING SYSTEM
Longitudinal Cross Section

DATE	REVISIONS
08/09/19	PER WETLANDS COMMENTS

OWTS DESIGN BY C.J. DOYLE, P.E.

OFFICE TELEPHONE: 401-491-9530
MAILING ADDRESS: PO BOX 1161
HOPE VALLEY, RI 02832
OFFICE LOCATION: 1122 MAIN STREET
WYOMING, RI
EMAIL: cjengine@cox.net

CAROLYN J. DOYLE
STATE OF RHODE ISLAND
No. 5078
HOPE
REGISTERED
PROFESSIONAL ENGINEER
8/14/19

DETAILS FOR ONSITE WASTEWATER TREATMENT SYSTEM
PREPARED FOR:

BI HARBORVIEW PARTNERS I, LLC
ASSESSOR'S PLAT 4 LOT 28
OFF CORN NECK ROAD
NEW SHOREHAM, RHODE ISLAND
DATE: JAN. 17, 2019 SCALE: NOT TO SCALE