

SCHEDULE OF INVERTS

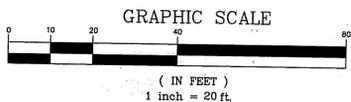
PROPOSED BUILDING SEWER GARAGE.....	101.00±
INVERT INTO 1500 GAL. RECIRCULATION TANK.....	100.00'
OUTLET OF 1500 GAL. RECIRCULATION TANK.....	102.25±
INLET TO ADVANTEX UNIT.....	103.75±
OUTLET OF ADVANTEX UNIT.....	101.25±
INVERT SPLITTER VALVE.....	101.50±
INVERT PUMP CHAMBER INLET.....	101.25±
INVERT OF PUMP CHAMBER OUTLET.....	100.50'
INVERT MANIFOLD LINE.....	103.00'

SAND FILTER DESIGN :

Design Soil Category per Soil Evaluation
Use category 8 soils,
Bottomless Sand Filter Loading Rate
See Bottomless Sand Filter Sizing Calc's
(Information Sheet on the New Onsite Wastewater
Treatment System (OWTS) Rules, dated March 2008.)
Design Flow:
115 Gallons per Bedroom per Day.
115 x 4 (Bedrooms) = 460 gallons per day
460 Gals. Divided by 1.90 Gal/Sq.Ft./Day = 242.11 Sq.Ft. REQUIRED
Sand Filter as Designed 11' x 23' has 253 Sq.Ft.
Elevation:
Design water table elevation at 24' below existing grade
15D5 Separation to Peastone/Sand Interface = 3.0'
Highest elevation in area on BSF = 101'±
101'± - 24" = 99'± + 3" = 102' Minimum Interface Elevation.
System as designed sand/peastone interface elevation = 102.50'

- NOTES:**
1. ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH RULES & REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ON-SITE WASTEWATER TREATMENT SYSTEMS, DATED JANUARY 1, 2008, AND THE GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS, DATED NOVEMBER, 2001.
 2. SEE OWTS SPECIFICATIONS AND COMPUTATIONS ATTACHED.
 3. CLEAR ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
 4. A FOUNDATION DRAIN IS PROPOSED THE BSF SHALL BE 25' MIN. AWAY FROM DRAIN PIPING. BUILDING SOWER SHALL BE INSTALLED WITH A 6" SDR35 SEAMLESS SLEEVE WITH WATER TIGHT SEALS AT EACH END.
 5. COMPLY WITH ALL ADDITIONAL TERMS OF APPROVAL AS MAY BE REQUIRED BY RIDEN.
 6. SEE ATTACHED PUMP CALCULATION FOR SPECIFIED PUMPS.
 7. BENCHMARK IS SET WITHIN 150' OF PROPOSED ISDS. (SEE SITE PLAN.)
 8. THERE ARE NO EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 100' OF THE PROPOSED OWTS EXCEPT AS SHOWN ON THE PLAN.
 9. THERE ARE NO KNOWN EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE PROPOSED OWTS.
 10. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
 11. PROPOSED GRADE IS 102' FOR 5' PERIMETER OF BSF.
 12. SCH-40 PVC PIPE OR EQUAL FROM BUILDING TO SEPTIC TANK.
 13. PROPERTY LINE DETERMINED AS SHOWN BY PROPERTY SURVEY COMPLETED BY NORBERT THERIEN P.L.C. EXISTING PINS LOCATED IN FIELD BY TOPOGRAPHIC SURVEY COMPLETED JANUARY 2014. PROPERTY LINE SHOWN IS APPROXIMATE. PLAN IS NOT A PROPERTY SURVEY.
 14. THE SAND FILTER SHALL BE COMPOSED OF ONE CELL WITH SEVEN LATERALS.
 15. THE ADVANTEX - AX TREATMENT SYSTEM USES SPECIALLY DESIGNED TEXTILE MATERIALS WITHIN A PRE-ASSEMBLED FILTER UNIT.

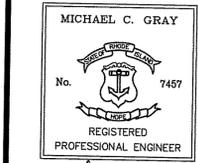
16. PUMPS FOR THE ADVANTEX AND THE PUMP CHAMBER SHALL BE AS MANUFACTURED BY ORNCO SYSTEMS, INC. OR APPROVED EQUAL PUMP - Advantex Pump P3005 & PKP350 RESPECTIVELY.
17. ALL PUMPS SHALL BE EQUIPPED WITH A HIGH WATER LEVEL VISIBLE AND AUDIBLE ALARM POWERED BY A CIRCUIT SEPARATE FROM THE PUMP POWER. THE ALARM AND CONTROL PANEL SHALL BE LOCATED IN A NORMALLY OCCUPIED AREA OF THE FACILITY AND HAVE VISIBILITY OF TANK AND PIPES.
18. THE SEPTIC TANK SHALL BE A WATER TIGHT, 1,500 GALLON 2-COMPARTMENT TANK WITH 24" DIAMETER INLET AND OUTLET ACCESS RISERS ALL INLETS AND OUTLETS SHALL BE CAST-IN-PLACE WITH CAST-A-SEAL OR EQUIVALENT W/STAINLESS STEEL ADJUSTABLE CLAMPS. ALL RISERS SHALL BE PVC WITH SECURED FIBERGLASS LIDS. ABS TANK ADAPTER SHALL BE CAST INTO PLACE DURING TANK MANUFACTURING. THE PROPOSED SEPTIC TANK SHALL BE PROVIDED WITH A PVC INLET TEE AND A SCREENED PUMP VAULT IN THE OUTLET END.
19. THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE ISDS APPLICATION LABELED-IMPORTANT AND NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
20. THE CONTRACTOR MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLERS LICENSE NUMBER. DESIGNER MUST NOTIFY DEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH RULE 43.6.
21. THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, PREPARE THE CERTIFICATE OF COMPLETION AND PROVIDE 0.4 M INFORMATION AND RECOMMENDATIONS TO THE OWNER, IN ACCORDANCE WITH RULE 43.6.
22. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
23. CONTRACTOR TO NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
24. THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.
25. THE CONTRACTOR IS TO COORDINATE THE SYSTEM START-UP WITH THE MAINTENANCE CONTRACTOR, ELECTRICIAN, AND THE ENGINEER PRIOR TO START-UP.



- LEGEND**
- (103) PROPOSED CONTOUR
 - 100' - EXISTING CONTOUR
 - — — PROPERTY LINE
 - TEST HOLE "A"
 - WELL
 - — — PROPOSED SILT FENCE
 - — — STONE WALL
 - EXIST TREE
 - — — EXISTING TREE LINE
 - - - - - EXISTING DRAIN

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 15 2014 FILE # 14-0077
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



SCALE: AS SHOWN

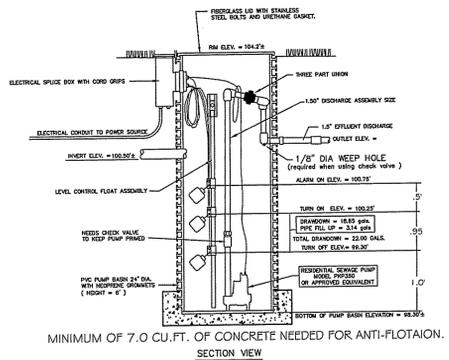
TITLE: **PROPOSED SITE PLAN**
PROJECT: **JEFFREY D. STEERE**
PLAT 10 LOT 164
PUTNAM PIKE & ADELAIDE ROAD
GLOCESTER, R.I.

MICHAEL C. GRAY, PE
146 DOUGLAS HOOK ROAD
CHEPACHET, RI 02814

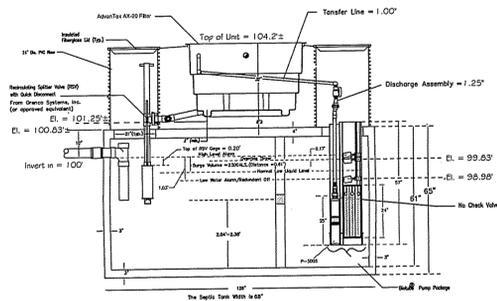
PROJ. NO: 14-2

DATE: APRIL 2014

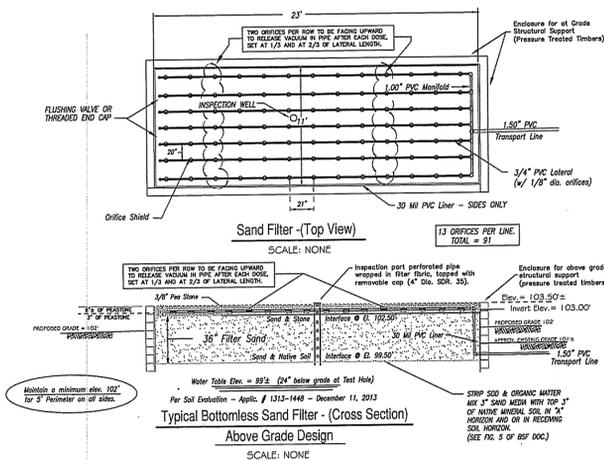
1/2



Typical Pump Basin Detail



Septic/Recirculating Tank Detail



SOIL DATA

Test Hole "1"

- Grade @ T.H. = 101'
- 0' - 15" - (Ap) - 10 YR 3/3 Fine Sandy Loam (granular, friable)
 - 15" - 26" - (BW1) - 10YR 4/6 Fine Sandy Loam (subangular blocky, friable)
 - 26" - 30" (BW2) - 2.5Y 5/6, FINE SANDY LOAM (subangular blocky, friable)
 - 30" - 36" - (BC) - 2.5 Y 5/4 Sandy Loam (medium subangular blocky, firm)
 - 36" - 120" - (C) - 2.5 Y G/2 gr.sandy loam, cobbles (massive, firm)

Test Hole "2"

- Grade @ T.H. = 101'
- 0' - 14" - (Ap) - 10 YR 3/3 Fine Sandy Loam (granular, friable)
 - 14" - 21" - (BW1) - 10YR 4/6 Fine Sandy Loam (subangular blocky, friable)
 - 21" - 27" (BW2) - 2.5Y 5/6, FINE SANDY LOAM (subangular blocky, friable)
 - 27" - 35" - (BC) - 2.5 Y 5/4 Sandy Loam (medium subangular blocky, firm)
 - 35" - 120" - (C) - 2.5 Y G/2 gr.sandy loam, cobbles (massive, firm)

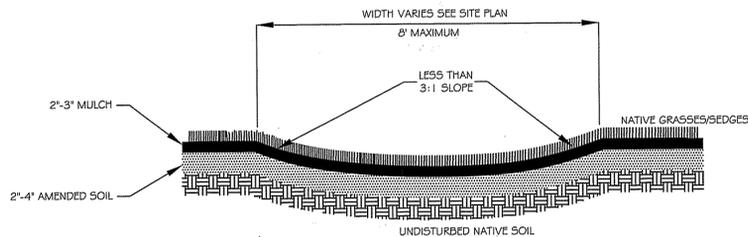
Test Hole "3"

- Grade @ T.H. = 101'
- 0' - 13" - (A) - 10 YR 3/3 Fine Sandy Loam (granular, friable)
 - 13" - 23" - (BW1) - 10YR 4/6 Fine Sandy Loam (subangular blocky, friable)
 - 23" - 33" (BW2) - 2.5Y 5/6, FINE SANDY LOAM (subangular blocky, friable)
 - 33" - 38" - (BC) - 2.5 Y 5/4 Sandy Loam (medium subangular blocky, firm)
 - 38" - 120" - (C) - 2.5 Y G/2 gr.sandy loam, cobbles (massive, firm)

DECEMBER 11, 2013 By: Susan B. Capasso Lic.# D4028 Appl.#1313-1448
ESTIMATED SEASONAL HIGH WATER TABLE 24" FROM ORIGINAL GRADE

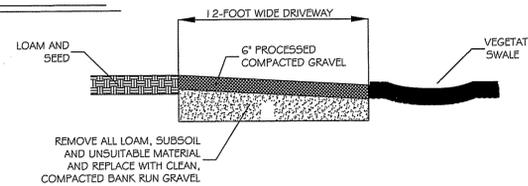
- STORMWATER MANAGEMENT PLAN:
- THE RUN-OFF FROM THE PROPOSED 12-FOOT GRAVEL DRIVEWAY IS TO BE SHEET (UNCONCENTRATED) FLOW TO PROPOSED VEGETATIVE SWALE #4.
 - THE PROPOSED DWELLING ROOF RUN-OFF IS TO BE DIRECTED TO VEGETATIVE SWALE #1.
 - THE PROPOSED GARAGE ROOF RUN-OFF SHALL BE DIRECTED TO VEGETATIVE SWALE #2 AND #3. THE PARKING AREA SHALL BE SHEET FLOW TO PROPOSED VEGETATIVE SWALE #3.
 - REQUIRED SETBACKS FOR VEGETATIVE SWALES:
PRIVATE DRINKING WATER WELLS = 50 FEET
ON-SITE WASTEWATER TREATMENT SYSTEMS = 15 FEET
BUILDING STRUCTURES = 10 FEET
 - ANY CHANGES TO THE PROPOSED DWELLINGS AND DRIVEWAY ARE TO REQUIRE A NEW STORMWATER MANAGEMENT PLAN.

- MAINTENANCE PLAN FOR THE VEGETATIVE SWALES:
- THE OWNER IS RESPONSIBLE TO INSURE THAT THE STORMWATER MEASURES ON SITE ARE MAINTAINED PROPERLY AND FUNCTIONING AS DESIGNED.
 - THE STORMWATER MEASURES ON-SITE ARE TO BE INSPECTED ON AN ANNUAL BASIS OR AFTER ALL LARGE STORM EVENTS AND REPAIRED AS NEEDED.
 - THE INSPECTION OF THE STORMWATER MEASURES WILL INCLUDE:
 - BUILDING GUTTERS AND DOWN SPOUTS
 - ERODED SLOPES AND BOTTOMS
 - ACCUMULATED SEDIMENT
 - ANY OTHER ITEMS THAT DO NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY.
 - THE STORMWATER MEASURES ARE TO BE REPAIRED IF THE FOLLOWING IS ENCOUNTERED DURING THE INSPECTION PROCESS:
 - CLOGGED GUTTERS AND/OR DOWN SPOUTS ARE TO BE CLEANED.
 - IF THE SURFACE OF THE SWALE BECOMES CLOGGED TO THE POINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD-PACKED SEDIMENT, AND THEN RESEDED.
 - ALL OTHER ISSUES THAT WILL NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY ARE TO BE REPAIRED AS NEEDED.
 - GENERAL MAINTENANCE
 - VEGETATIVE SWALES SHALL BE MOWED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4-6 INCH RANGE.
 - EVERY FIVE YEARS, THE CHANNEL BOTTOM OF DRY SWALES SHOULD BE SCRAPPED TO REMOVE SEDIMENT AND TO RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE, AND SHOULD BE SEEDED TO RESTORE GROUND COVER, WHERE NECESSARY.



- NOTES:
- AMENDED SOIL LAYER IS A 50/50 MIXTURE OF EXCAVATED NATIVE SOILS AND MATURE ORGANIC COMPOST
 - THE AVERAGE PONDING DEPTH SHALL BE NO MORE THAN 8 INCHES DEEP.
 - SEE SITE PLAN FOR DIMENSIONS OF EACH VEGETATIVE SWALE (#1 - #4)

VEGETATIVE SWALE TYPICAL CROSS SECTION NOT TO SCALE



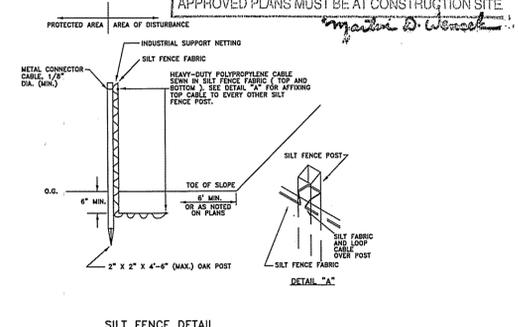
TYPICAL DRIVEWAY CROSS-SECTION NOT TO SCALE

- SEDIMENTATION AND EROSION CONTROL:
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY SEDIMENTATION & EROSION CONTROL.
 - EMBANKMENT SLOPES & ALL DISTURBED AREAS ARE TO RECEIVE A LAYER OF TOPSOIL (LOAM) AND SEED.
 - IMMEDIATELY UPON COMPLETION OF THE CLEARING AND GRUBBING AND PRIOR TO ANY ROUGH GRADING, A TEMPORARY SILT FENCE OR HAY BALES SHALL BE PLACED AT THE LIMIT OF PERMANENT DISTURBANCE PER PLAN.
 - ALL EROSION & SEDIMENTATION CONTROL SHALL BE PERIODICALLY MAINTAINED DURING BUILDING CONSTRUCTION BY THE CONTRACTOR.

- EROSION & SOIL STABILIZATION PROGRAM:
- TEMPORARY TREATMENTS SHALL CONSIST OF A SILT FENCE, HAY BALES OR PROTECTIVE COVERS SUCH AS FABRIC MATS.
 - THE SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED COVER IS ESTABLISHED.
 - NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCT. 15.
 - ALL FILL, IF REQUIRED, SHALL BE CLEAN AND THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RIDPW STANDARD SPECIFICATION SECTION 202.

- SEDIMENTATION CONTROL PROGRAM:
- A TEMPORARY SILT FENCE, HAY BALES OR PROTECTIVE COVER SHALL BE INSTALLED PRIOR TO CONSTRUCTION & SHALL BE MAINTAINED ON A REGULAR BASIS. IN ADDITION TO THE LINE OF THE SILT FENCE AT THE LIMIT OF PERMANENT DISTURBANCE, TEMPORARY BARRIERS SHALL BE CONSTRUCTED AT THE TOE OF THE DISTURBED (CUT OR FILL) SLOPES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED.
 - DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE FLOW DURING STORMS AND PERIODS OF RAINFALL.
 - SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
 - BANKS AND SLOPES NOT RECEIVING RIP RAP PROTECTION SHALL BE SEEDED AND PROTECTED WITH A FIBER MULCH.

- SLOPE STABILIZATION AND VEGETATION:
- THE SILT FENCE OR HAY BALES SHALL BE PLACED AT THE TOE OF ALL DISTURBED SLOPES. THIS SHALL BE MAINTAINED AS A SEDIMENT BARRIER UNTIL THE SLOPES ARE STABILIZED WITH GRASS.
 - THE DISTURBED SLOPES (CUT OR FILL) SHALL BE IMMEDIATELY MULCHED AS AN EROSION PROTECTION MEASURE.
 - MAINTAIN MULCH UNTIL THE SLOPES ARE STABILIZED WITH A SATISFACTORY GROWTH OF GRASS.
 - VEGETATION REMOVED MAY BE SHREDDED AND CHIPPED ON SITE FOR USE AS MULCH, OR IT MAY BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
 - THE RESEEDING OF THE DISTURBED SLOPES SHALL BE CONDUCTED WITH SEED MATERIALS SELECTED FOR PRODUCTION OF A QUICK COVER AND HARDY STAND. PARTICULARLY A CONSERVATION GRASS SEED OR COMPARABLE. THE SEEDING SHALL BE IN ACCORDANCE WITH COMMON NURSERY PRACTICE IN THE RHODE ISLAND AREA.
 - PROVIDED THAT THE PROVISIONS OF THE SEDIMENTATION & EROSION CONTROL PLAN ARE IMPLEMENTED, THERE WILL BE NO ADVERSE ENVIRONMENTAL EFFECTS FROM THE PROPOSED CONSTRUCTION.

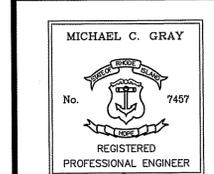


SILT FENCE DETAIL NOT TO SCALE

- SOIL EROSION CONTROL MEASURES:
- THE PROPOSED SILT FENCE IS TO BE INSTALLED BEFORE THE START OF ANY CONSTRUCTION AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE REVEGETATED.
 - THE SILT FENCE IS TO BE INSPECTED ONCE A MONTH OR AFTER ALL STORM EVENTS AND REPAIRED AS NEEDED.

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Designers Lic. D2104



TITLE: PROPOSED SITE PLAN
PROJECT: JEFFREY D. STEERE
PLAT 10 LOT 164
PUTNAM PIKE & ADELAIDE ROAD
GLOCESTER, R.I.

PROJ. NO: 14-2
DATE: APRIL 2014

MICHAEL C. GRAY, PE
146 DOUGLAS HOOK ROAD
CHEPACHET, RI 02814

2/2

SCALE: AS SHOWN