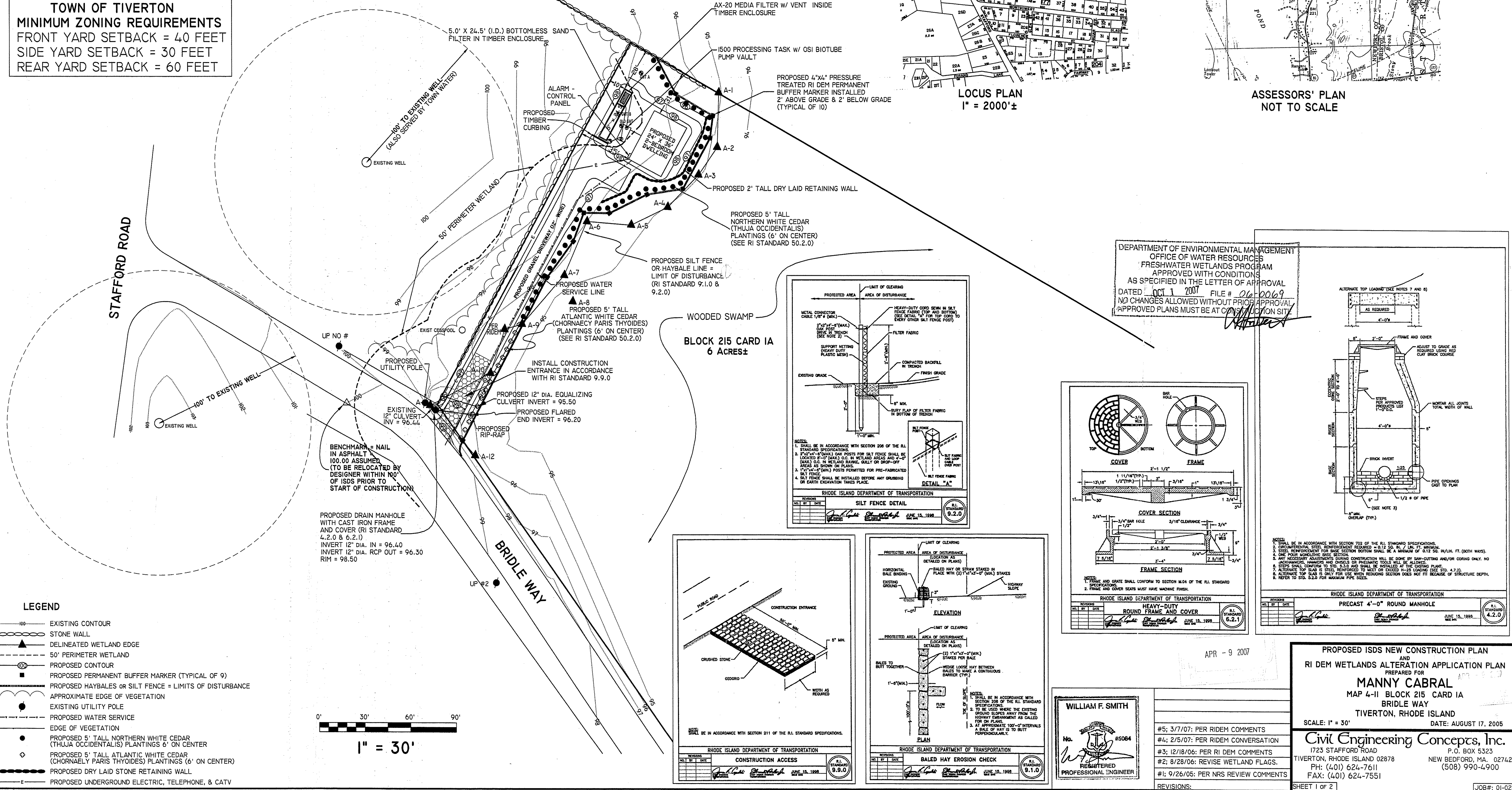
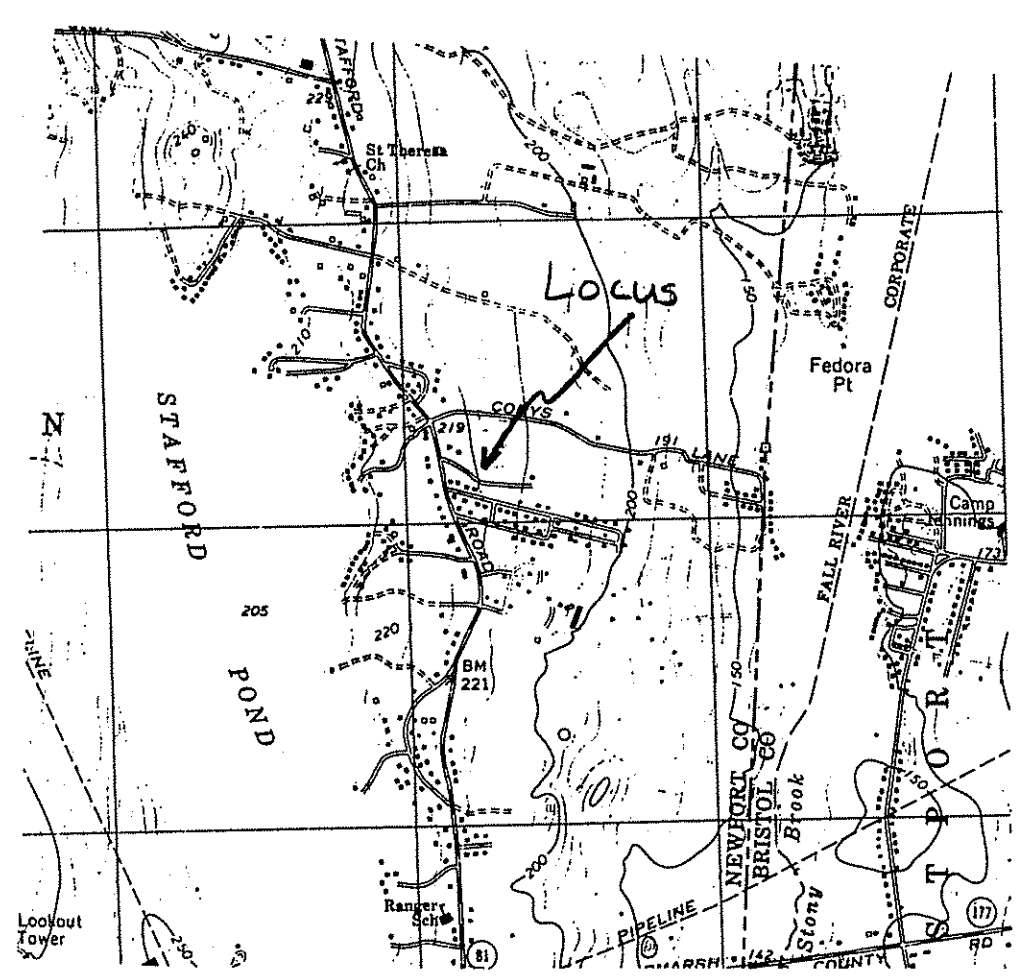
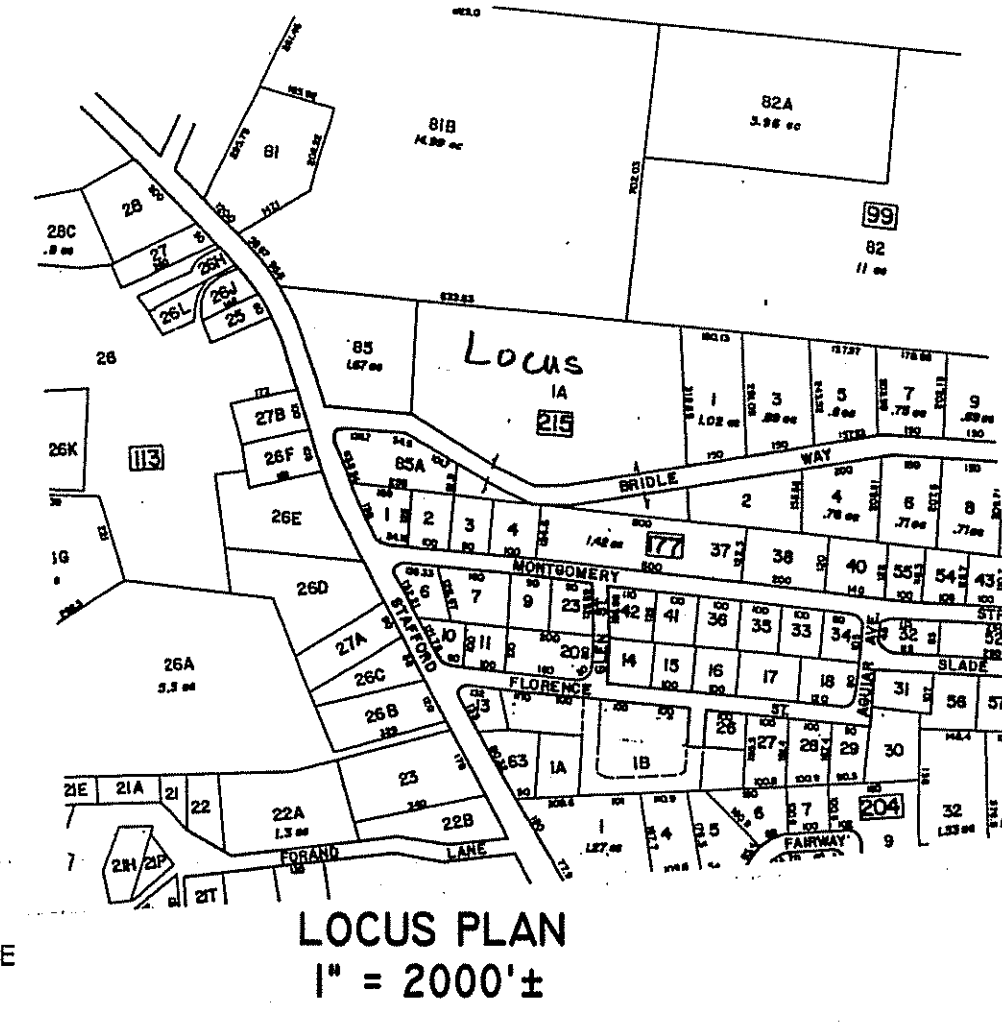
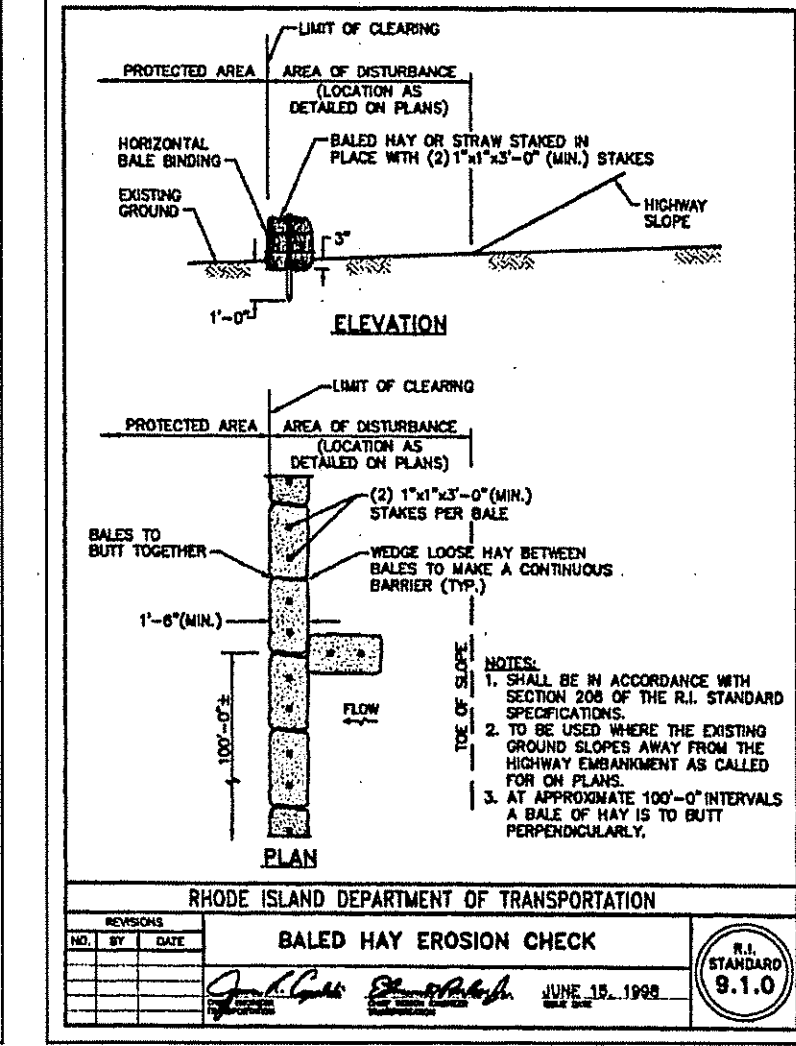
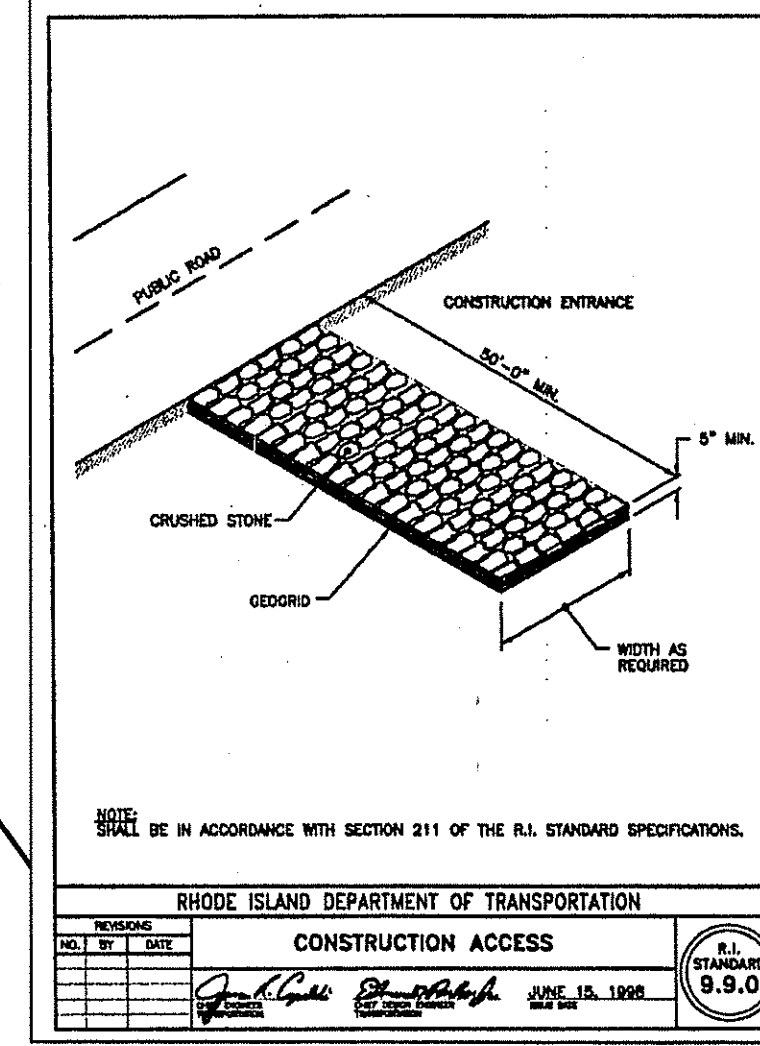
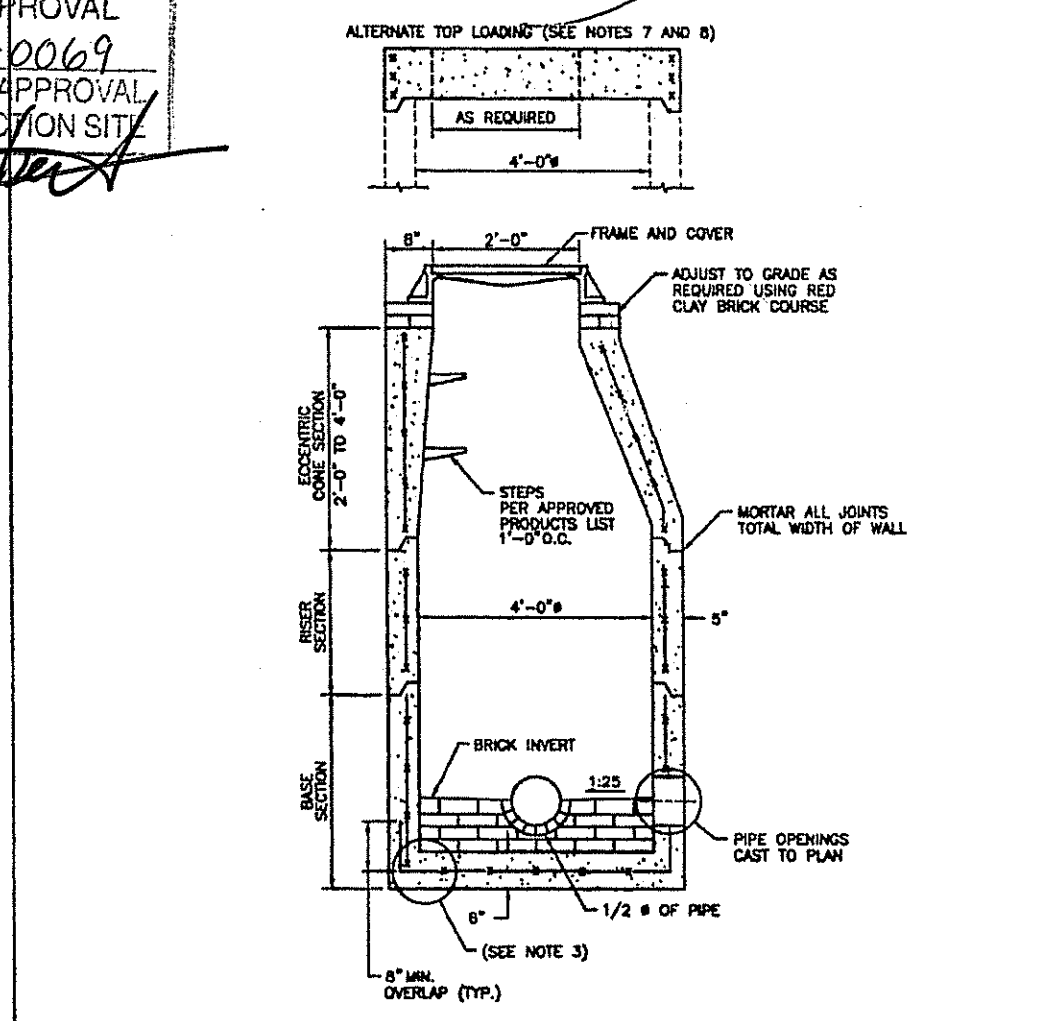
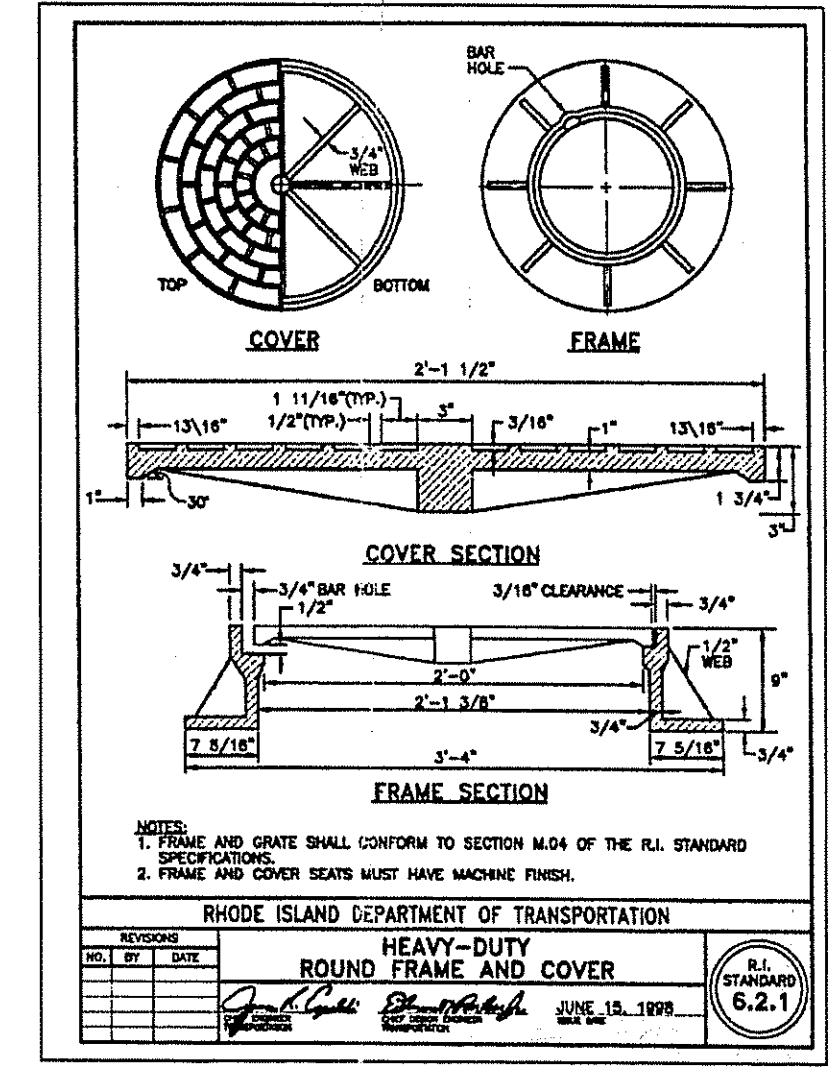
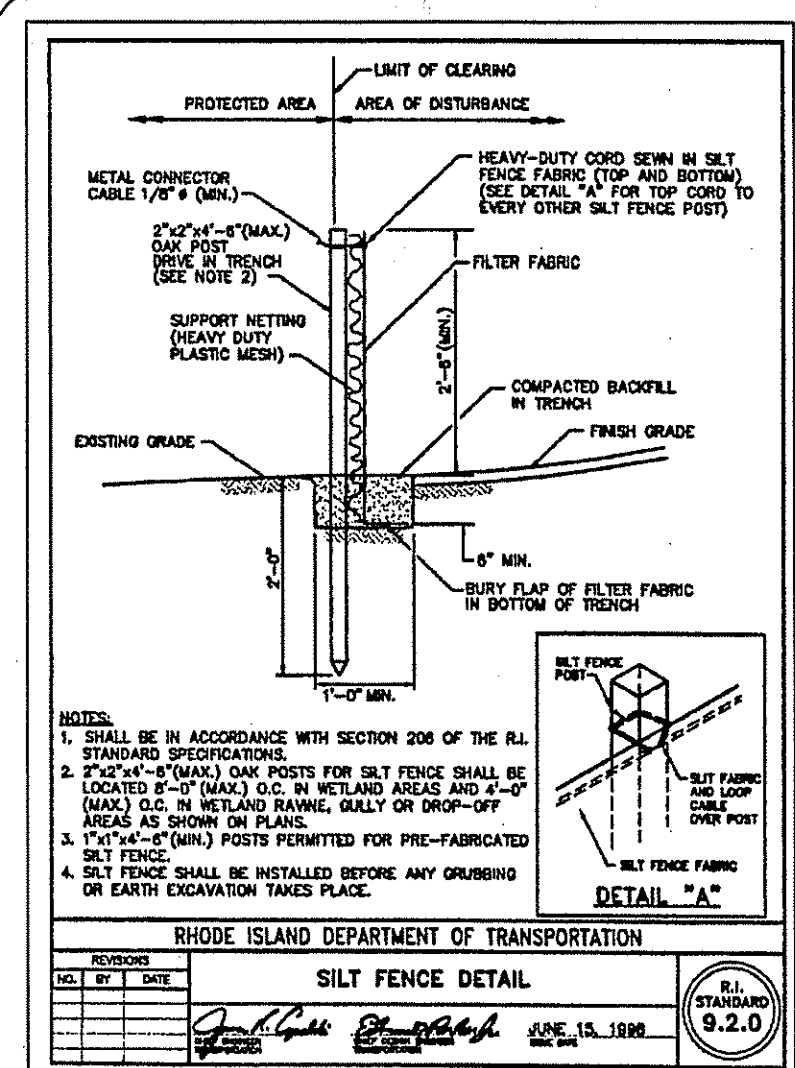


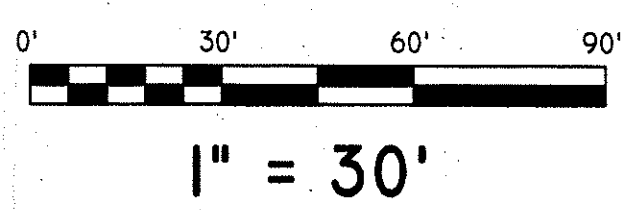
TOWN OF TIVERTON
MINIMUM ZONING REQUIREMENTS
 FRONT YARD SETBACK = 40 FEET
 SIDE YARD SETBACK = 30 FEET
 REAR YARD SETBACK = 60 FEET



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED 06/11/2007 FILE # 06-0069
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



- LEGEND**
- 100' - EXISTING CONTOUR
 - - STONE WALL
 - ▲ - DELINEATED WETLAND EDGE
 - - 50' PERIMETER WETLAND
 - - PROPOSED CONTOUR
 - - PROPOSED PERMANENT BUFFER MARKER (TYPICAL OF 9)
 - - PROPOSED HAYBALES OR SILT FENCE = LIMITS OF DISTURBANCE
 - - APPROXIMATE EDGE OF VEGETATION
 - - EXISTING UTILITY POLE
 - - PROPOSED WATER SERVICE
 - - EDGE OF VEGETATION
 - - PROPOSED 5' TALL NORTHERN WHITE CEDAR (THUJA OCCIDENTALIS) PLANTINGS 6' ON CENTER
 - ◇ - PROPOSED 5' TALL ATLANTIC WHITE CEDAR (CHORNAEY PARIS THYOIDES) PLANTINGS 6' ON CENTER
 - - PROPOSED DRY LAID STONE RETAINING WALL
 - - PROPOSED UNDERGROUND ELECTRIC, TELEPHONE, & CATV

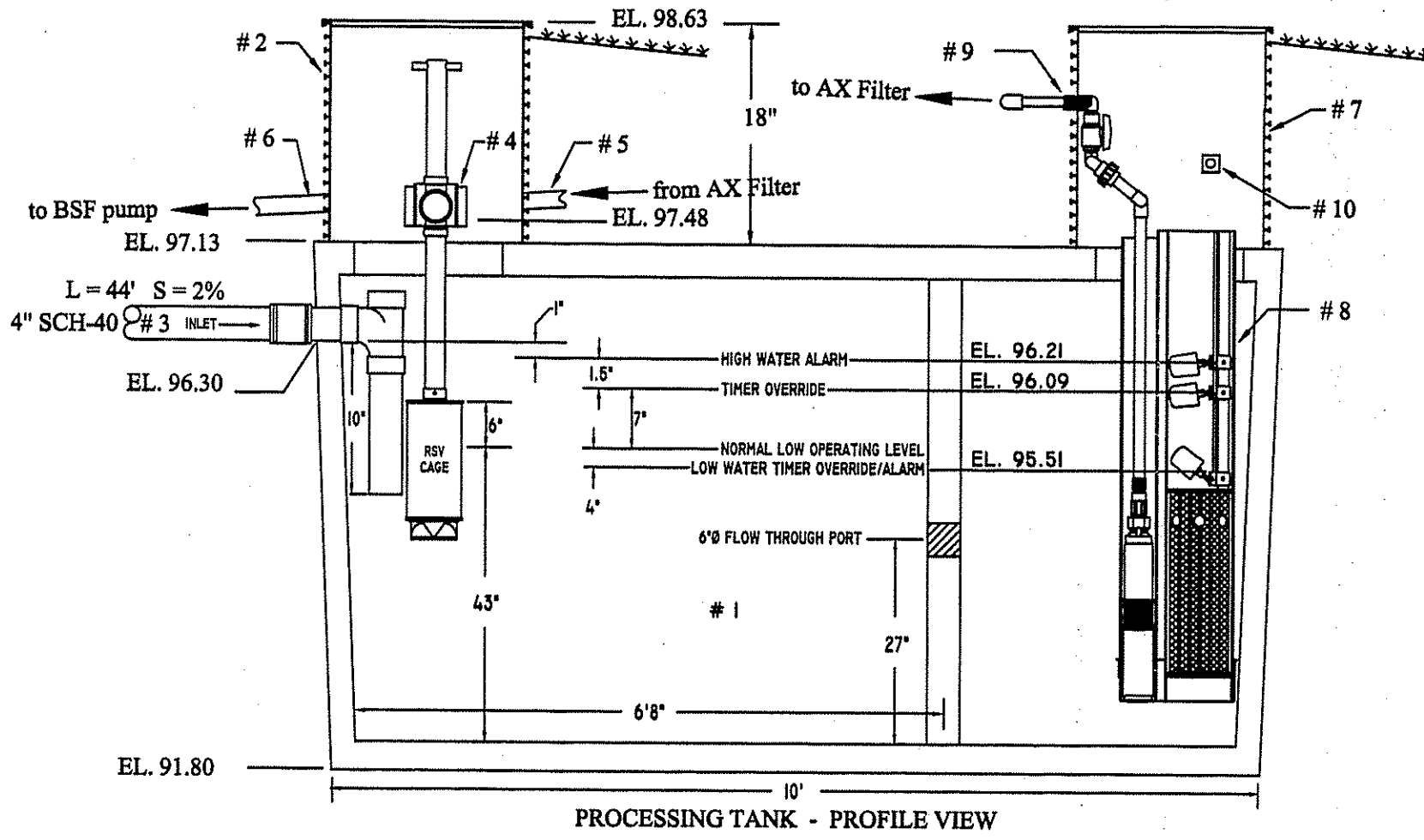


WILLIAM F. SMITH
 No. #5084
 REGISTERED PROFESSIONAL ENGINEER

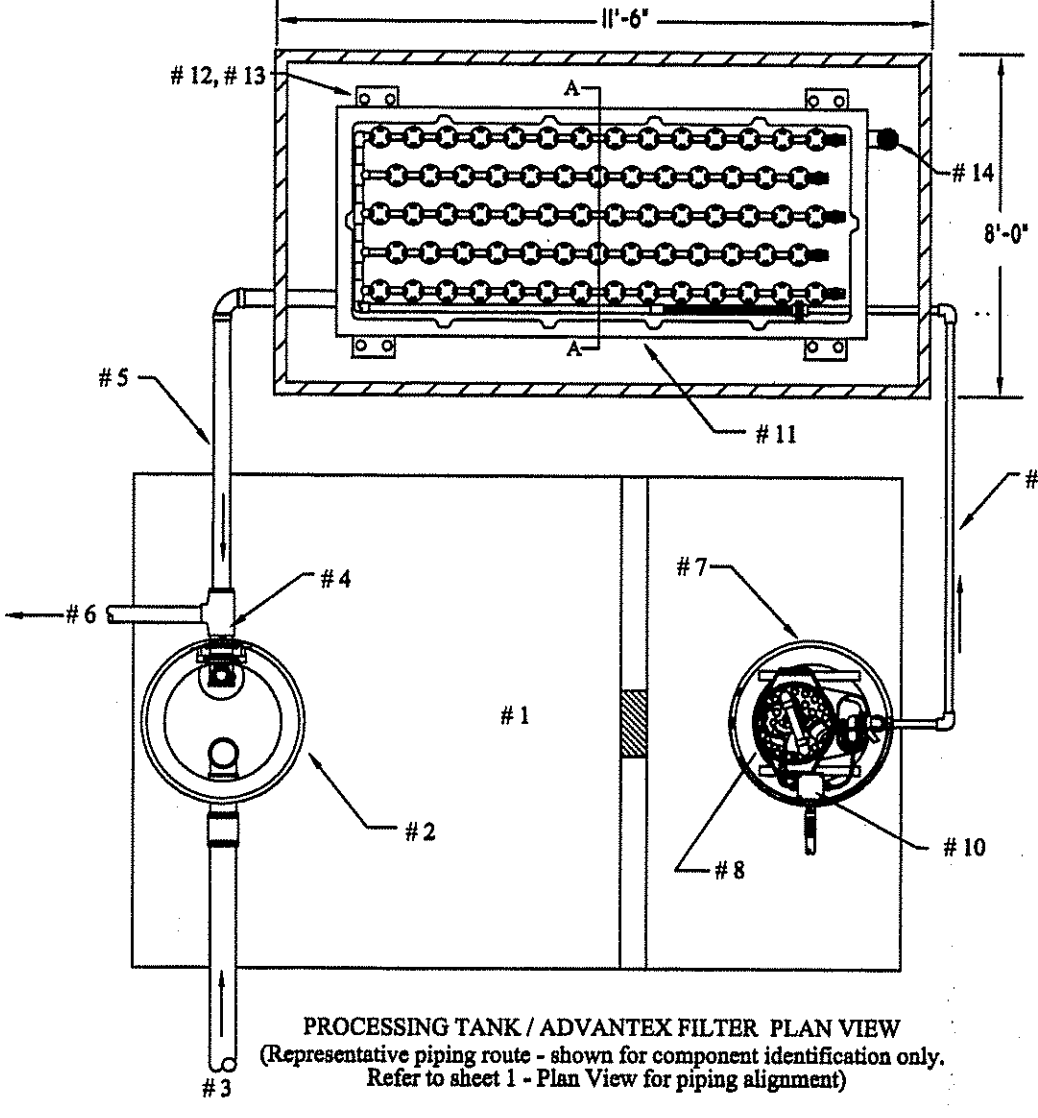
- REVISIONS:
- #5; 3/7/07: PER RIDEM COMMENTS
 - #4; 2/5/07: PER RIDEM CONVERSATION
 - #3; 12/18/06: PER RI DEM COMMENTS
 - #2; 8/28/06: REVISE WETLAND FLAGS.
 - #1; 9/26/05: PER NRS REVIEW COMMENTS

PROPOSED ISDS NEW CONSTRUCTION PLAN
AND
RI DEM WETLANDS ALTERATION APPLICATION PLAN
 PREPARED FOR
MANNY CABRAL
 MAP 4-11 BLOCK 215 CARD 1A
 BRIDLE WAY
 TIVERTON, RHODE ISLAND
 SCALE: 1" = 30' DATE: AUGUST 17, 2005

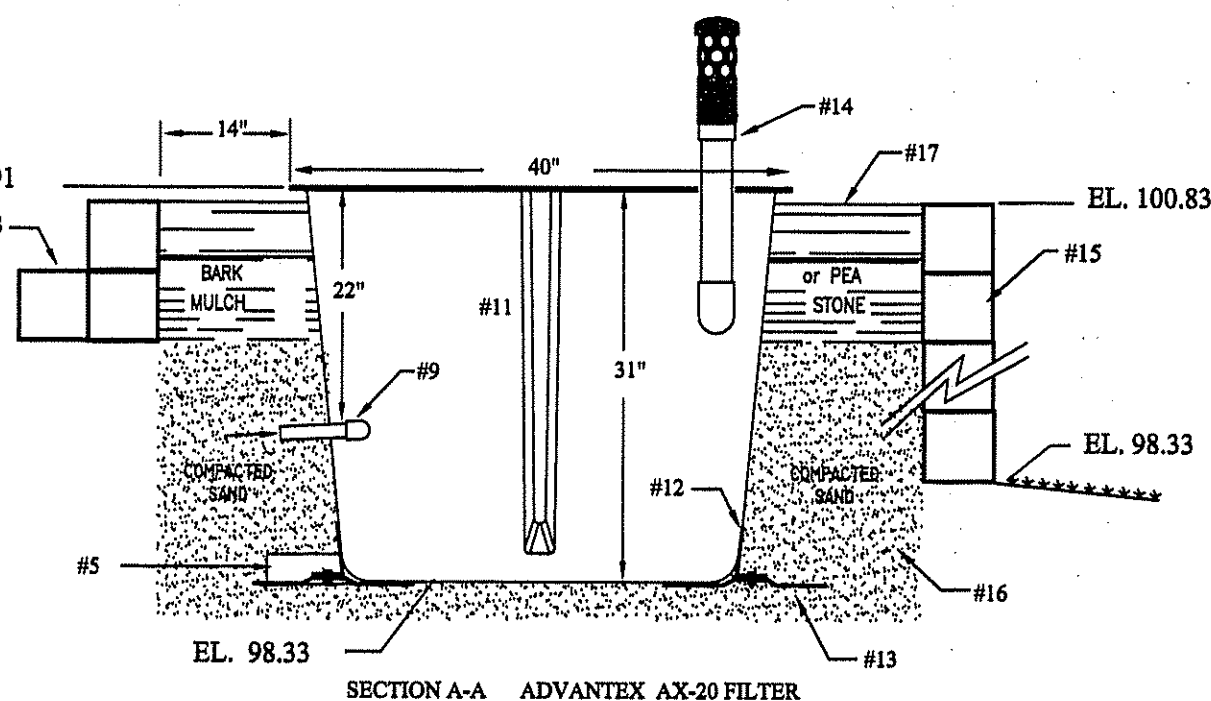
Civil Engineering Concepts, Inc.
 1723 STAFFORD ROAD P.O. BOX 5323
 TIVERTON, RHODE ISLAND 02878 NEW BEDFORD, MA 02742
 PH: (401) 624-7611 FAX: (401) 624-7551
 SHEET 1 OF 2 JOB#: 01-024



PROCESSING TANK - PROFILE VIEW



PROCESSING TANK / ADVANTEX FILTER PLAN VIEW
(Representative piping route - shown for component identification only. Refer to sheet 1 - Plan View for piping alignment)

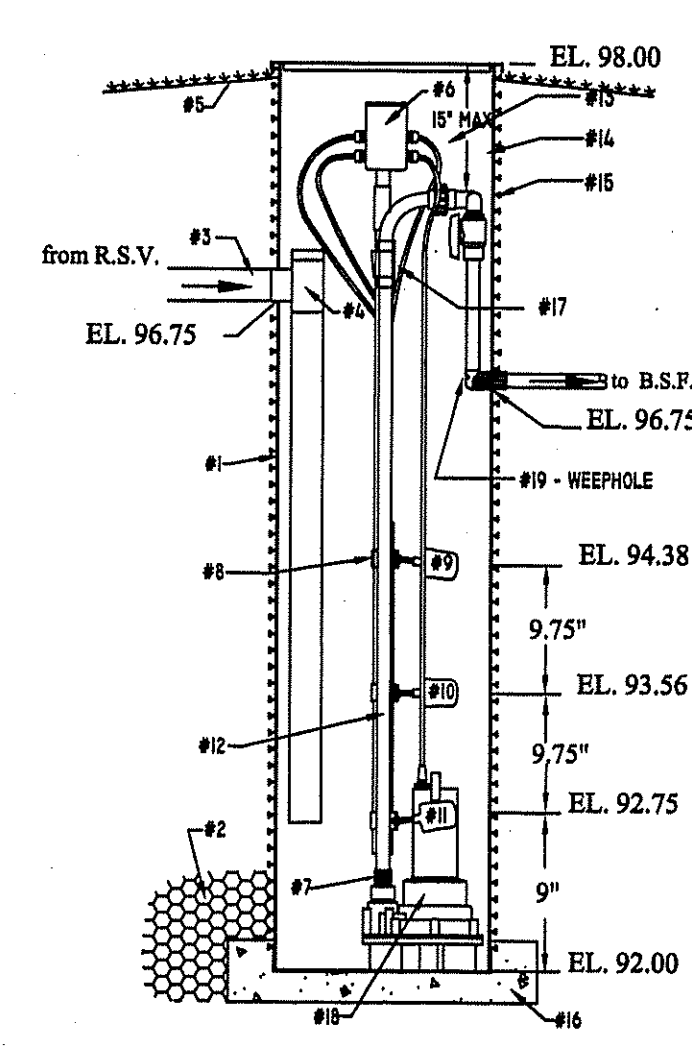


SECTION A-A ADVANTEX AX-20 FILTER

- *1. 1500 gallon H-10 rated Processing Tank with baffles
- *2. 18" high, 24" dia. PVC inlet riser / fiberglass cover, watertight tank adapter
- *3. 4" SCH-40 PVC bldg. sewer inlet pipe w/ tee
- *4. Recirc. Splitter Valve (manufacturer specified)
- *5. 2" SCH-40 (gravity) pipe from AX-20 pod to R.S.V.
- *6. 2" SCH-40 (gravity) pipe from R.S.V. to B.S.F. pump chamber
- *7. 18" high, 24" dia. PVC riser / fiberglass cover, watertight tank adapter
- *8. Biotube Recirc. Pump Package w/ OSI P3005, 1/2hp, 1" discharge.
- *9. 1" Class 200 (SCH-40) PVC from Biotube AX pump to AX pod. Pressure rated fittings required - DWV fittings not permitted
- *10. Waterproof / Vapor-proof junction/splice box & elec. conduit
- *11. Advantex AX-20 Recirc. Media Filter pod
- *12. Factory installed bracket (1 of 4)
- *13. Contractor installed, factory provided Anti-Floatation Flanges (1 of 2) with stainless steel thru-bolts.
- *14. OSI Passive Air Vent (ventilation assembly to extend 18" min. above adjacent finished grade)
- *15. One course of 6" x 6" P.T. Timber wall (same const. method as B.S.F. timber wall) ABOVE THE B.S.F. timbers. Refer to Advantex AX general note #14 (right side of sheet).
- *16. Compacted, well draining, granular (sandy) material. 5" minimum under pod.
- *17. Clean bark mulch (or pea stone) spread from top of sand up to 1" below top of AX pod.

PROCESSING TANK - BUOYANCY CALCULATIONS
 Tank type: 1500 Gallon H-10 Tank Wt.: 12,400 lbs.
 Weight of Earth Cover (limited to 2' of soil on tank): 9,100 lbs.
 Upward lift (neglecting soil friction):
 10.5' (length) x 5.66' (width) x 3.6' (max. submerged depth) x 62.4 lbs/c.f. = 13,350 lbs.
 Safety factor: $\frac{12,400 + 9,100}{13,350} = 1.61$

PROCESSING TANK / ADVANTEX FILTER DETAILS
NOT TO SCALE



- *1. 24" dia. PVC water tight basin w/ 24" fiberglass cover
- *2. Backfill material to be compacted (1" lifts) granular (sandy) fill
- *3. 2" SCH-40 PVC (gravity) from R.S.V. Pressure rated fittings required
- *4. 2" x 2" x 2" SCH-40 tee with drop pipe extending to lowest float
- *5. Finished grade to be 1" min. below cover
- *6. Waterproof / vapor-proof PVC junction / splice box & elec. conduit (junction box, shut off, and disconnect shall be accessible from surface)
- *7. SCH-40 reducer required: 1-1/2" to 1-1/4"
- *8. Level Control Float Assembly - removable w/o entry into chamber
- *9. "ALARM" Float
- *10. "ON" Float
- *11. "OFF" Float
- *12. Discharge piping: 1-1/4" Class 200 psi (SCH-40 w/ pressure rated fittings)
- *13. Threaded Disconnect - accessible from surface w/o chamber entry
- *14. Drainback-type assembly required - not required
- *15. Fully ported Shut-off
- *16. CONCRETE BALLAST REQUIRED - 13 CU. FT. (min)
- *17. Checkvalve not required. Anti-siphon valve not required.
- *18. OSI Effluent Pump with 1-1/2" discharge outlet - O.S.I. # PKP350 / PEF33
- *19. 3/16ths inch Weephole (directed away from floats)

B.S.F. PUMP CHAMBER - BUOYANCY CALCULATIONS
 Tank type: OSI 24" dia. PVC unit Tank Wt.: 200 lbs.
 Weight of Earth Cover: 0 lbs.
 Concrete ballast: 13 / 20 cu. ft. x 87.6 lbs/c.f. = 1138 / 1752 lbs. (submerged conc. weight)
 Upward lift (neglecting soil friction):
 Assume maximum water table at 1.5' below rim
 1.0' x 1.0' x 3.14 x 4.5' x 62.4 lbs/c.f. = 882 lbs.
 Safety factor: $\frac{200 + 1138}{882} = 1.51$

B.S.F. PUMP CHAMBER DETAIL
NOT TO SCALE

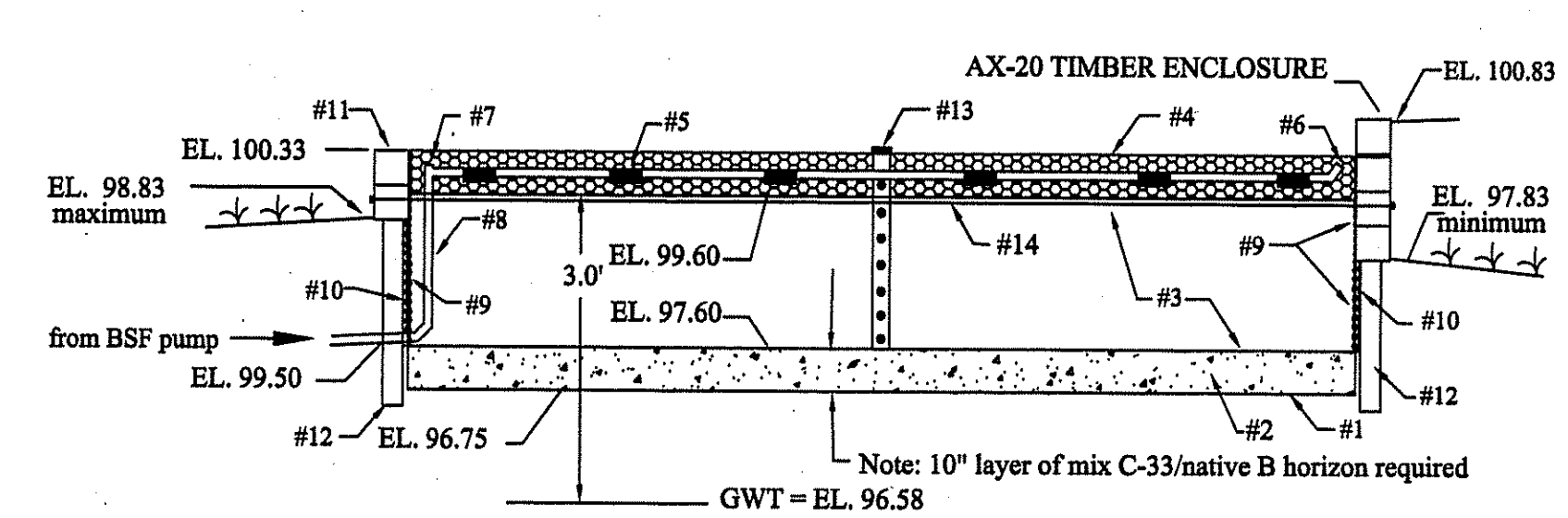
NUMBER OF BEDROOMS: 2 - Deed restriction required
 GARBAGE GRINDER: Not Allowed
 LEACHING SYSTEM USED: Bottomless Sand Filter
 SIZE OF PROCESSING TANK: 1500 gallons
 SECONDARY TREATMENT UNIT: Advantex AX-20 Recirc. Media Filter
 SOIL TYPE: Friable SIL
 APPLICATION RATE: Use Soil Category 8
 BSF LOADING RATE: 2.5 gal/sf/day, timed dose category 1 L.R.
 TOTAL SQ. FOOTAGE REQ'D: $\frac{300 \text{ GAL/DAY}}{2.5 \text{ L.R.}} = 120.0 \text{ S.F. REQ'D}$
 BSF SQ. FOOTAGE PROVIDED: $\frac{5.0' \times 24.5'}{2.5 \text{ L.R.}} = 122.5 \text{ S.F. PROVIDED}$
 BSF DOSING CYCLE: 9.75" drawdown between "OFF" and "ON"
 DOSING QUANTITY: 19.1 GALLONS/CYCLE
 BSF DISCHARGE: $\frac{19.1 \text{ gal/cycle} - 0.4 \text{ gal (drainback)}}{76 \text{ orifices}} = 0.246 \text{ GAL/ORIFICE CYCLE}$
 36.0 gpm (pump discharge) / 76 orifices = 0.47 GPM/ORIFICE

EMERGENCY STORAGE BELOW HIGH WATER ALARM: 19.1 GALLONS

BASIS OF SANITARY DESIGN

| | | | |
|--|---|---|--|
| 100.44'.....Finished First Floor | 99.35'.....Top of Foundation | 94.85'.....Finished Crawl Space | 96.74'.....Invert at Building |
| 96.5'.....Average Exist. Grade at Processing Tank | 95.28'.....Elevation of Water-Table at Tank | 96.30'.....Inlet Invert at Processing Tank | 97.48'.....Invert at Recirc. Splitter Valve |
| 96.75'.....Inlet Invert at BSF Pump Chamber | 96.75'.....Invert out of BSF Pump Chamber | 100.33'.....Elevation of Top of Pea Stone | 99.86'.....Invert at End of Distribution Lateral |
| 99.83'.....Invert at Start of Distribution Lateral | 99.60'.....Top of C-33 Filter Sand | 97.60'.....Bottom of C-33 Filter Sand | 96.75'.....Bottom of 6" layer C-33 / Native Soil (Note: 10" thick layer of mix required) |
| 96.58'.....Elev. of Water-Table at B.S.F. | 98.0'.....Existing Average Grade at B.S.F. | 98.83'.....Max. Prop. Grade Adjacent to BSF | 97.83'.....Min. Proposed Grade Adjacent to BSF |

ELEVATION SCHEDULE



- Note: 10" layer of mix C-33/native B horizon required
 GWT = EL. 96.58
1. Scarified and non-compacted native soil. Existing BSF ground surface preparation shall only consist of stripping native "A" and native "B" Horizons (if necessary) down to the specified elevation of the bottom of the sand / C-33 mix.
 2. 6" thick layer of evenly mixed Native Mineral Soil (from A/B Horizon) and ASTM C-33 Sand
 - *3. 24" minimum thick layer of non-compacted ASTM C-33 Sand
 4. 10" thick layer of 3/8ths inch Washed Pea Gravel (3" - 4" minimum pea stone layer required over top of piping / orifice shields)
 - *5. 3/4" Class 200 (SCH-40) PVC pipe with pressure rated fittings and orifices (with shields) spaced as specified in detail below.
 - *6. 45 elbow with 3/4" threaded female cap
 - *7. 1" Class 200 (SCH-40) PVC Manifold pipe
 - *8. 1-1/4" Transport pipe from BSF pump chamber. Insulation sleeved over vertical portion of transport pipe inside BSF. Install "Tee" and threaded plug at 90-degree bend / connection to Manifold (allows cleaning access to Transport pipe)
 9. 30 mil. PVC liner
 10. 1/2" non-PT plywood support frame below grade
 11. 6" x 6" PT timber support frame above ground
 12. 4" x 4" vertical non-PT vertical support timbers to brace 6" x 6" timber frame construction and plywood frame. Recommend 3 vertical timbers at each corner and every 10' o.c.
 13. 4" dia. filter fabric wrapped SDR-25 inspection well with removable cap
 - *14. 1/2 inch (min) dia. threaded tie rods required when 6" x 6" timbers exceed 2 courses in height. One tie rod required. Refer to Bottomless Sand Filter note # 28.

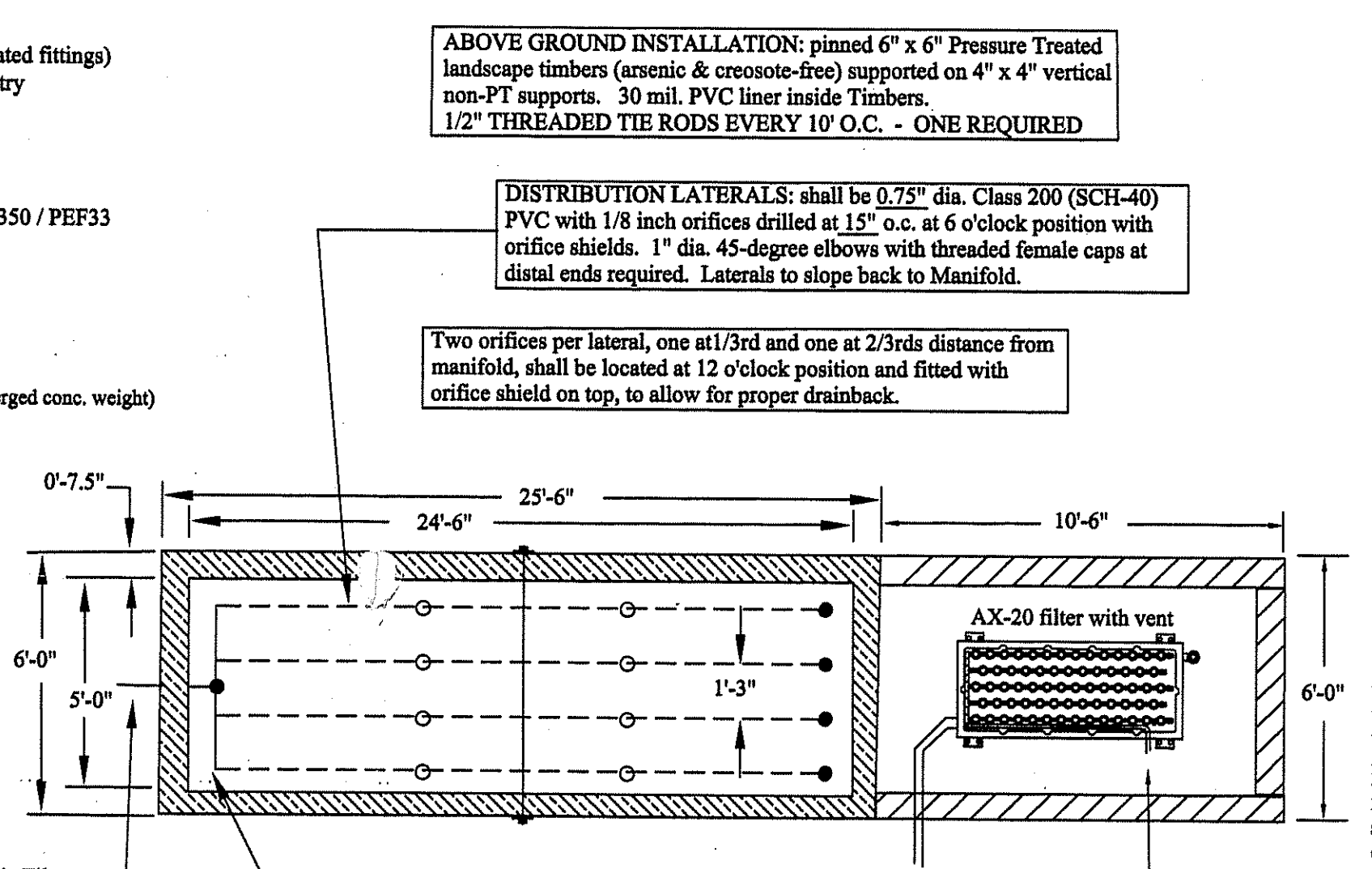
ABOVE GROUND INSTALLATION: pinned 6" x 6" Pressure Treated landscape timbers (arsenic & creosote-free) supported on 4" x 4" vertical non-PT supports. 30 mil. PVC liner inside Timbers.
 1 1/2" THREADED TIE RODS EVERY 10' O.C. - ONE REQUIRED

DISTRIBUTION LATERALS: shall be 0.75" dia. Class 200 (SCH-40) PVC with 1/8 inch orifices drilled at 15" o.c. at 6 o'clock position with orifice shields. 1" dia. 45-degree elbows with threaded female caps at distal ends required. Laterals to slope back to Manifold.

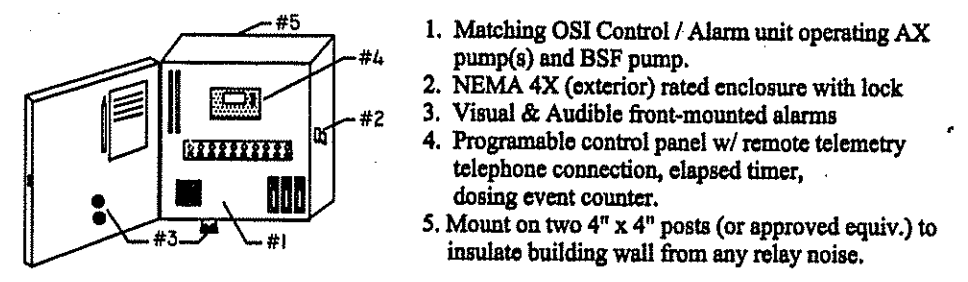
Two orifices per lateral, one at 1/3rd and one at 2/3rds distance from manifold, shall be located at 12 o'clock position and fitted with orifice shield on top, to allow for proper drainback.

MANIFOLD: shall be 1.00" dia. Class 200 (SCH-40) pressure rated PVC pipe.

TRANSPORT PIPE: shall be 1.25" Class 200 (SCH-40) pressure rated PVC piping. Vertical section of pipe within the B.S.F. shall be insulated. Tee with threaded plug required at connection to Manifold to allow for future cleaning on Transport line.



BOTTOMLESS SAND FILTER DETAILS
NOT TO SCALE



OSI CONTROL / ALARM PANEL DETAIL
NOT TO SCALE

1. Matching OSI Control / Alarm unit operating AX pump(s) and BSF pump.
2. NEMA-4X (exterior) rated enclosure with lock
3. Visual & Audible front-mounted alarm
4. Programmable control panel w/ remote telemetry telephone connection, elapsed timer, dosing event counter
5. Mount on two 4" x 4" posts (or approved equiv.) to insulate building wall from any relay noise.

GENERAL CONSTRUCTION NOTES:

1. All construction shall conform to the State of Rhode Island and Providence Plantations Department of Environmental Management - Rules and Regulations Establishing Minimum Standards Relating to Location, Design, Construction, and Maintenance of Individual Sewage Disposal Systems as most recently amended, and in accordance with the Bottomless Sand Filter Guidelines Document (as most recently amended).
2. All work shall be done in a workmanlike manner with lines laid as straight as possible and joints made watertight. All work shall be performed by an Installer licensed in the State of Rhode Island and certified for the installation of B.S.F. - type systems by RI DEM and the Vendor. Verification of installer's certification may be required by Designer prior to "start of construction" request by Installer.
3. DESIGNER TO BE NOTIFIED 72 HOURS PRIOR TO THE START OF ISDS CONSTRUCTION. CONTRACTOR IS TO ENSURE THAT DESIGNER IS NOTIFIED 2 WORKING DAYS IN ADVANCE OF ANY REQUIRED INSPECTIONS SO PROPER NOTIFICATION TO RI DEM CAN BE MADE.
4. WORK SHALL NOT CONTINUE UNTIL THE PREVIOUS STAGE IS INSPECTED AND APPROVED. CONTRACTOR OR HOMEOWNER SHALL PROVIDE DESIGNER WITH A COPY OF THE RECORDED MAINTENANCE AGREEMENT PRIOR TO DESIGNER'S ISSUANCE OF Certificate of Construction.
5. DIG-SAFE NOTIFICATION IS REQUIRED PRIOR TO ANY EXCAVATION. Any underground utilities shown are approximate only and are based on limited availability of plans, visual observation, and local knowledge. ACTUAL LOCATIONS ARE TO BE VERIFIED BY CONTRACTOR prior to excavation through Dig-Safe procedures and any local utility department as necessary.
6. AREA TO BE UTILIZED FOR B.S.F. SHALL REMAIN CLEAR OF ALL VEHICLES, EQUIPMENT, AND STOCKPILED MATERIALS. The B.S.F. area shall be marked with caution tape to restrict access. Compaction or smearing of native soil will compromise the operation of the B.S.F.
7. PROPER SIZE HOLE SAWS, IN GOOD CONDITIONS, ARE TO BE USED FOR THE INSTALLATION OF CONDUIT/PIPING GROMMETS. Refer to, and follow, required hole sizes specified in manufacturer's installation documentation. The use of incorrectly sized hole saw will result in improperly seated grommets. Any conduit/piping installed into polyethylene riser or tank that is not watertight will NOT be approved by the Designer.

SEPTIC/RECIRCULATION TANK: Gallonage as specified on Processing Tank Detail

1. Equipped with suitable cast-in-place PVC mounting flange for detail-specified diameter inlet & outlet PVC risers. Watertight bonding epoxy (or other proper adhesive) required between tank adapters and risers. ACCESS COVERS ARE NOT TO BE COVERED WITH SOIL. Final loam placement (elevation) shall be at least 1" below the access covers and graded away from tank.
2. ALL TANK SEAMS, riser connections (if any) and all plumbing joints are to be installed 100% watertight, sealed with suitable gasket material, or other bonding agent suitable for that specific component. All knock-out holes in the bottom of the tank shall remain sealed or be sealed with suitable plug and hydraulic cement. Unused inlet/outlet knock-outs shall be sealed with hydraulic cement. Static water test required on tank following attachment of risers. The life span of any system would be compromised by the intrusion of any groundwater.
3. For proper operation, the septic tank shall be inspected annually and pumped when necessary to prevent settlement and air pockets that may fill with water resulting in flotation.
4. Manufacturer's mounting hardware shall be utilized for Recirc. Splitter Valve installation and pump vault components. All materials and construction shall meet the manufacturer requirements and applicable building, plumbing, electrical, and safety codes. Third party or alternate generic parts requiring substantial field modifications to fit shall not be permitted.
5. Recirc. compartment Biotube Pump Vault shall be OSI Effluent Pumping System package specifically for discharging to the Advantex AX Filter (operating in Mode 3), and OSI control panel for operating a linked pump system (2 pumps in separate locations) unless otherwise specified on plan.
6. For additional PUMP INFORMATION, see details contained within this plan, accompanying documentation and manufacturers published information provided at the time of pump purchase. The information contained within this plan is intended to provide schematic representation and manufacturer's published information provided at the time of pump purchase, including all accessories such as alarms, floats, etc. that are compatible with the pumps. Odd components requiring extensive modification to the system are not permitted.
7. A SIGN shall be posted in the vicinity of pump manholes warning of the potential of hazardous sewer gases and the need for proper confined space entry, venting, and air monitoring prior to working on the pump assembly.
8. ELECTRICAL WIRING is to be enclosed in suitable conduit with proper fittings at each end to maintain a waterproof connection and prevent transport of vapors/gas from the components to the control panel and building. Electrical installation shall conform to all applicable local/state regulations.

ADVANTEX AX RECIRCULATING MEDIA FILTER:

9. THE AX POD SHALL BE LAID LEVEL on a 5" (min) thick bed of compacted sand/gravel. When installed above the processing tank, it is recommended that a frame of non-P.T. 2" x 6" lumber be constructed on top of the processing tank to support the sand/gravel, preventing material washout from under the AX pod.
10. PROPER CURTAINING OF WELL-DRAINED GRANULAR MATERIAL under, along side, and above the four anti-floatation flanges is recommended to ensure the pod will not float. If concrete ballast is specified on plan, compacted material under and along sides of the flanges is required to support the concrete.
11. HAND COMPACTION OF COMPACTED MATERIAL around the AX pod and backfilled material around the AX pod and backfilled material around the AX pod (where DWV-type fittings permitted).
12. All piping connected to the AX unit shall be Class 200 (SCH-40 or SDR-21) pressure rated piping with pressure rated fitting (no DWV-type fittings permitted).
13. The Passive Air Vent must be located less than 20' from the AX pod. 2" SCH-40 PVC connector pipe shall slope down from vent to pod to allow draining. Bottom of the perforated air intake shall be 12" minimum above finished grade.
14. Any specified courses of 6" x 6" P.T. timbers surrounding the pod shall be constructed the same as the B.S.F. timber frame. Compacted well-drained granular soil required below timbers. Timbers shall extend past the sides & ends of pod to allow for vent, plumbing, and flanges.
15. Mulch or pea stone covered with mulch shall be placed between the pod and the timbers, extending to the top of the timbers.
16. Finished grade shall slope down and away from all exposed covers to prevent surface water from flooding and ponding along sides of the pod and tank.

B.S.F. PUMP SYSTEM:

17. OSI 6" deep PVC secondary pump chamber. Any weepholes shown shall not be directed toward floats. Pump floats shall be controlled by the septic/recirculation tank Biotube Pump Vault Control Panel. Discharge piping shall be equipped with an anti-siphon valve only when B.S.F. is located below the pump chamber "OFF" float elevation. Final loam placement (elevation) shall be at least 1" below the fiberglass PVC access cover and graded away from chamber.
18. TRANSPORT LINE shall be Class 200 (SCH-40) pressure piping (with pressure rated fittings) laid at consistent slope up to the B.S.F. allowing drainback, unless entire transport pipe is laid a minimum 3' deep below finished grade. A minimum of 18" earth cover over pipe is required unless insulation is specified. Transport pipe shall be threaded onto pump basin's flexible discharge pipe. 1 cu. ft. (min) concrete thrust blocks required at all angle points.
19. B.S.F. PUMP(S) shall be as specified, with indicated discharge diameter, for pressurizing the B.S.F. Any pump substitution shall require the Designer's review of the substitute pump does not extend to the far edges of the B.S.F. filter box.

ELECTRICAL CONTROL / ALARM PANEL: w/ telephone line remote telemetry connection

21. CONTROL PANEL shall be an OSI pump-matched NEMA-4 rated waterproof lockable unit with visual alarms and programmable timer that operates both OSI AX Media Filter pump unit and BSF pump ON SAME CIRCUIT. Panel to be mounted adjacent to EXTERIOR WALL of the building within view of the tanks. Outside face of panel shall be equipped with high-intensity alarm light and alarm silence button that shall automatically reactivate after 12 hours.
22. A START UP TEST is required to be performed by the installer / maintenance provider and witnessed by Designer of the AX pumping system, the B.S.F. pumping system, and pressure (head) testing of the B.S.F. laterals. Any subsequent electrical work shall include the Electrician's verification that the electricity is properly restored to the Control Panel.

BOTTOMLESS SAND FILTER (B.S.F.):

23. B.S.F. shall be constructed as shown with materials as specified in the details. Installation of a 4" dia. perforated (filter fabric wrapped) inspection well required.
24. Sand media material shall conform to ASTM C33 sand (equivalent) with less than 1% fines passing number 200 sieve. Bank run sand or conventional ISDS sand/gravel is not permitted. DESIGNER REQUIRED SIEVE ANALYSIS FROM SAND SUPPLIER WITHIN 14 DAYS PRIOR TO SAND DELIVERY.
25. MANIFOLD: Dia. as specified on detail and shall be Class 200 (SCH-40) PVC. All fittings shall be pressure rated (DWV fittings not recommended).
26. DISTRIBUTION LATERAL: Dia. specified on detail and shall be Class 200 (SCH-40) PVC with 1/8" orifice holes (drilled with new bit) and fitted slotted cold weather orifice shields spaced at intervals specified. Laterals shall be laid with slight pitch back to the manifold. Distal ends of laterals shall be equipped with a 45-degree elbow and 3/4" or 1" threaded female end cap. Sweep elbows extending to the surface are not to be installed on ends. All fittings shall be pressure rated (DWV fittings not acceptable).
27. LEACHING AREA EXCAVATION shall be level and scarified as shown on B.S.F. cross-section detail. Care shall be taken to avoid compaction of remaining soil. Excavation of native material below the B.S.F. shall only be to the extent designated on the plan. Where the B.S.F. is located completely above ground, material removal shall only consist of stripping grass / thatch layer and A horizon. PREPARED NATIVE SOIL SURFACE (BOTTOM INSPECTION) SHALL BE INSPECTED BY DESIGNER PRIOR TO PLACEMENT OF 6" THICK LAYER OF SAND/SOIL MIX.
28. ABOVE GROUND B.S.F. SUPPORT FRAMING shall consist of 6" x 6" pressure treated timbers drilled and pinned to the soil with #3 or #4 rebar and screwed/nailed together at the vertical 4" x 4" timbers (to support 6" x 6" timbers from bowing out), evenly placed along the length of B.S.F. (approximately 12' o.c.).
29. Where more than two courses of 6" x 6" timbers are exposed, 1 1/2" dia. THREADED GALVANIZED RODS with 2" dia. galvanized washers and nuts shall be installed in the second timber down from the top (to support timbers from bowing out), evenly placed along the length of B.S.F. (approximately 12' o.c.).
30. TREES OR SHRUBS shall not be planted within 10' of the B.S.F. without vertical placement of a suitable root barrier fabric installed at least 3' beyond the B.S.F. and extending from 4' below finished grade to 1' below the bottom of the native soil/B.S.F. sand interface.
31. HEAVY EQUIPMENT shall not be operated over the components or the prepared leaching area during installation. RUBBER Tired MACHINERY is NOT to be driven over the prepared natural soil base or sandstone bed during system installation.
32. B.S.F. IS NOT TO BE COVERED WITH topsoil or any other type of cover material that will restrict air flow. Any accumulated weeds, grass, or foreign material on the filter shall be removed by hand labor. Pea gravel surface must remain fully exposed to atmosphere.
33. ALL EXISTING OR PROPOSED (if any) WELLS within 200' of proposed ISDS are shown.
34. ALL EXISTING OR PROPOSED (if any) PUBLIC WELLS within 500' of proposed ISDS are shown.
35. ALL EXISTING OR PROPOSED SEPTIC SYSTEMS within 100' of any proposed or existing on-site well are shown. Site is (to be) serviced by Town Water.
36. NO PARKING is permitted in the vicinity of the ISDS.
37. NO DRAINS ALLOWED WITH 2' of proposed ISDS.
38. A BACKUP GENERATOR (adequate for supplying the pumps in case of electrical failure) is strongly recommended.
39. PROPERTY LINES as depicted on this plan are approximate only based on Assessor Tax Maps and are not the result of a boundary survey.
40. A MANUFACTURER-APPROVED MAINTENANCE CONTRACT for the pump/filter systems is required to be filed in the applicable Town Hall Land Evidence records office. Contract must be kept current as a condition of approval.

41. A TWO-BEDROOM DEED RESTRICTION is required to be filed in the town's Land Evidence Records office.

42. ANY SILT FENCING OR HAYBALE CHECKDAMS shown on the plan are to be installed prior to any site activity and shall remain in place and be maintained until all activities are completed, inspections performed, and vegetation established.

43. ANY SUBSTANTIAL SILT ACCUMULATION against the haybales or silt fencing is to be removed in a manner that will not compromise the effectiveness of the erosion control device.

44. ALL CONSTRUCTION LITTER AND DEBRIS is to be removed from the vicinity of the haybales or silt fencing on a daily basis.

APPROVED WITHIN THE LETTER

DATED OCT 1 2007 FILE # 06-0069

NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL

APPROVED BY [Signature]

REVISIONS:

| |
|--------------------------------------|
| #5: 3/7/07: NO REVISIONS THIS SHEET |
| #4: 2/10/07: NO REVISIONS THIS SHEET |
| #3: 1/18/06: NO REVISIONS THIS SHEET |
| #2: 8/28/06: NO REVISIONS THIS SHEET |
| #1: 9/26/05: NO REVISIONS THIS SHEET |

PROPOSED ISDS NEW CONSTRUCTION PLAN
 AND
 RI DEM WETLANDS ALTERATION APPLICATION PLAN
 PREPARED FOR
MANNY CABRAL
 APR - 9 2007 MAP 4-II BLOCK 215 CARD 1A
 BRIDLE WAY
 TIVERTON, RHODE ISLAND
 SCALE: AS NOTED DATE: AUGUST 17, 2005

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 SHEET 2 OF 2

