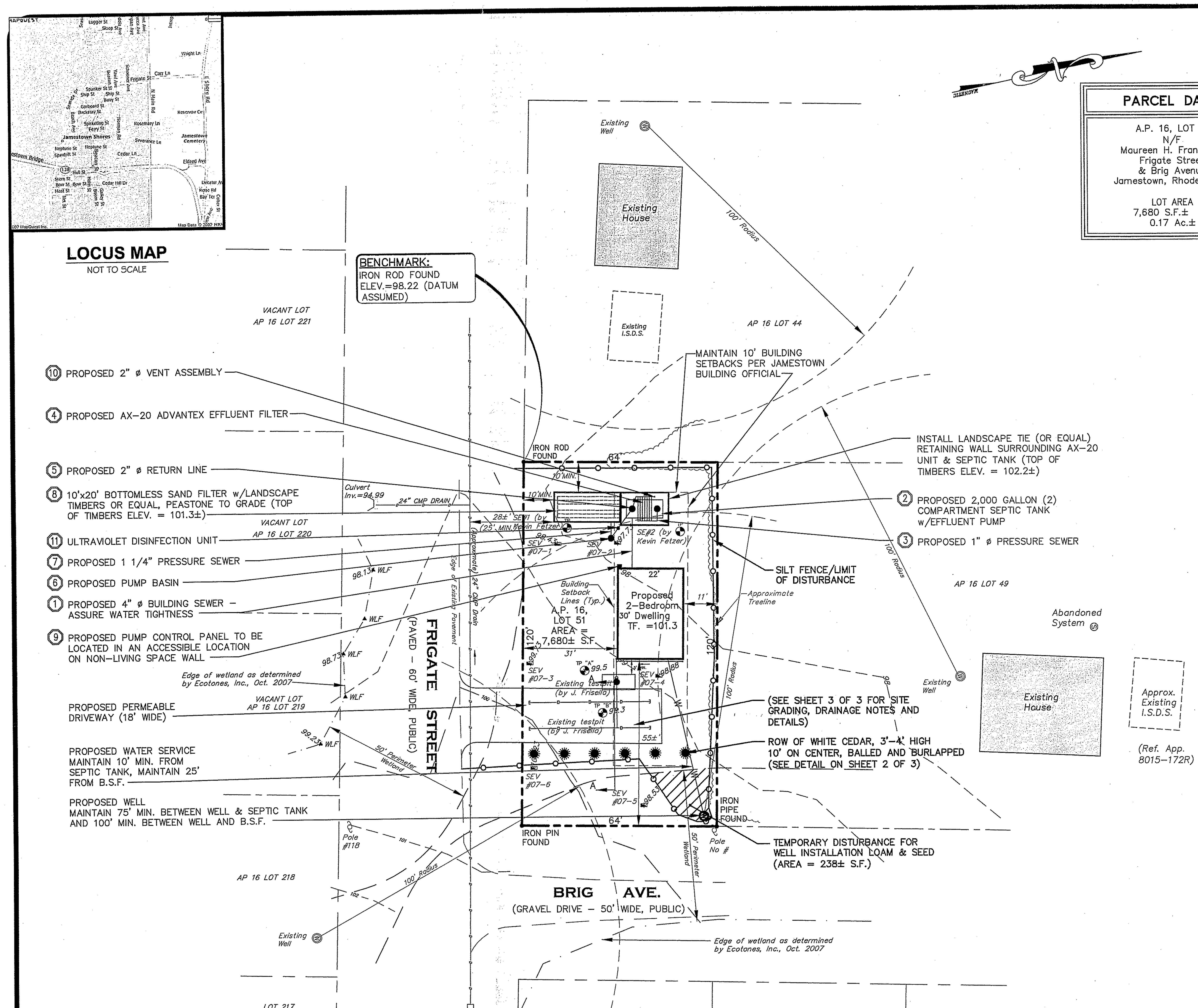


PARCEL DATA

A.P. 16, LOT 51
N/F
Maureen H. Francoeur
Frigate Street
& Brig Avenue
Jamestown, Rhode Island

LOT AREA
7,680 S.F.± OR
0.17 Ac.±

ZONING DATA

ZONING – R-40
* SETBACKS:
FRONT – 30' (FRIGATE ST.)
CORNER – 20' (BRIG AVE.)
SIDE – 10'
REAR – 30'
MIN. LOT FRONTAGE – 100'
MAX. BLDG. HEIGHT – 35'
(25' FOR ACCESSORY BLDGS.)
MIN. LOT AREA – 40,000 S.F.
MAX. LOT COVERAGE – 9% ** or 691 S.F.

*NOTE: SETBACKS AS INDICATED, ARE MINIMUMS REQUIRED FOR EXISTING NON-CONFORMING LOTS OF RECORD PER JAMESTOWN BUILDING OFFICIAL. OWNER SHALL VERIFY, PRIOR TO CONSTRUCTION AND OBTAIN ALL NECESSARY VARIANCES/EXCEPTIONS ** LOT COVERAGE BASED ON THE MAXIMUM IMPERVIOUS COVER FOR LOTS LOCATED WITHIN HIGH WATER TABLE OVERLAY SUB-DISTRICT "A" AS DICTATED BY CHAPTER 82 AS AMENDED BY THE JAMESTOWN CODE OF ORDINANCES.

SOILS DATA

TEST HOLE "A"
by J. FRISELLA, P.E.
USED FOR DESIGN PURPOSES AND SUPPLEMENTED BY SOIL EVALUATIONS BY KEVIN FETZER

EXT. TEST HOLE "A"

0–6"	F (SL)
6"–2'4"	F (ST,FS,DS)
2'4"–2'9"	SL
2'9"–3'	1ST,5F,MS
3'–5'	SF–MS
5'–10'	5ST,2FS

12" WATER TABLE
TEST HOLE EXCAVATED ON 3/19/97
(SEE REPORT #9715–1080)

I.S.D.S. NOTES: CIRCLE APPLICABLE NUMBERS

(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 Individual Sewage Disposal Systems, December 1, 1980 by the R.I. Dept. Of Environmental Management, Authority Sections 42-17.1-2(1) (m),(r),(s) & Section 23-19.5-4 & Chapter 42-35 of the General Laws Of Rhode Island, 1956(1977 Re-Enactment) as amended.

(2.) Maintain a minimum 3"-4" of pea stone over pipes in pressurized drainfield/sand filter.

(3.) See I.S.D.S. specifications & details on sheets 1 & 2 of 2 attached.

(4.) Clear all trees and stumps within 10' of system. System shall be placed in a sunny location of the site to prevent freezing during cold periods.

(5.) There shall be %%uno%%u waterlines, subsurface, foundation or storm drains within 25' of system, except as shown.

(6.) Comply with any additional terms of approval as may be required by R.I.D.E.M.

(7.) Cast iron pipe, schedule 40 PVC pipe, or equal from building to septic tank. Sch. 40 PVC pipe to be used in system unless otherwise noted.

(8.) All soil containing fines below and 5' around the proposed bottomless sand filter, shall be stripped and back filled with ASTM 33 sand. Strip to elevation 96.0 or as requested by D.E.M.

9. Benchmark to be set within 150' of the proposed I.S.D.S. prior to construction.

(10.) There are no known wells existing or proposed within 200' of the proposed I.S.D.S. except as shown.

(11.) Proposed wells are shown in suggested location. Placement of wells shall conform to applicable R.I.D.E.M., I.S.D.S. and Well Regulations or the owner shall obtain any necessary variances.

(12.) There are no known existing or proposed public wells within 500' of the proposed system.

(13.) There are no known existing or proposed public sewers or drains within 200' of the proposed system unless otherwise noted or shown.

(14.) All stages of ISDS installation must be supervised by a R.I.P.E., Class III designer.

(15.) The septic tank and pump basin (see details) are to have inspection covers as noted to finish grade. These covers are to be installed so as to divert surface water runoff away for the covers. The tank is to be pumped out at least every four years and the pump systems & sand filters shall be inspected at least annually & maintained as per manufacturers recommendations. Tank must meet ASTM 1227-97A standards & shall be subject to vacuum testing.

(16.) The contractor shall maintain a copy of the approved plan on-site at all times.

(17.) Bottomless sand filter media: shall be Holliston sand & gravel (O-DAMP)ASTM-33 sand. Less than 1 % passing the 10 sieve with an effective size of .25 - .40 mm and with a uniformity coefficient of 2.0±. (Holliston sand & gravel: 401-766-5010). Contractor to supply engineer with samples of all media to be used in the sand filter. Contractor shall also supply engineer with sieve analysis.

(18.) It is highly recommended that Atlantic Solutions, LTD. of Portsmouth, R.I., Tel. 1-401-293-0176, or another qualified representative of Orenco Systems, Inc. (OSI) provide construction oversight to insure proper installation of Advantex, sand filter & components.

(19.) It is required that low flow water devices be installed and that NO garbage disposals area allowed per conditions of ISDS approval dated 1/3/03, Application No. 9715-1080.

LIST OF COMPONENTS – SEE DETAILS NEXT SHEET

NOTE: OSI SHALL REFER TO ORENCO SYSTEM INCORPORATED, SUTHERLIN, OR – (541) 459–4449

(1) BUILDING SEWER – 17 LF – 4" SCH40 PVC SEWER PIPE (S=0.02 FT/FT)

(2) 2000 GAL. TWO-COMPARTMENT SEPTIC TANK WITH RECIRCULATING EFFLUENT PUMP SYSTEM & SPLITTER VALVE(SEE DETAILS)
(TANK MANUF. BY JOLLEY PRECAST, OR EQUAL)
(PUMP – O.S.I. P3005)

(3) 1" CLASS 200 PVC PRESSURE SEWER WITH SOLVENT WELDED JOINTS – LENGTH AS REQUIRED BY FIELD CONDITIONS.

(4) OSI-AX 20 ADVANTEX TEXTILE FILTER (SEE DETAILS)

(5) 15 L.F.± 2" SCH. 40 PVC RETURN LINE THROUGH SPLITTER VALVE.

(6) 24" DIA. OSI PUMP BASIN w/PUMP – PEF 50 HH

(7) 1 1/4" CLASS 200 PVC PRESSURE SEWER WITH SOLVENT WELDED JOINTS – LENGTH AS REQUIRED BY FIELD CONDITIONS.

(8) 10' x 20' BOTTOMLESS SAND FILTER (ASTM 33, 0 DAMP) MEDIA SAND SHALL BE OBTAINED FROM HOLLISTON SAND CO., TIFFT ROAD, P.O. 1168, SLATERSVILLE, R.I. 02876. PHONE 401–766–3144 OR ANOTHER MATERIAL PROVIDER AS APPROVED BY R.I.D.E.M.

(9) PUMP CONTROL PANEL (TO BE LOCATED AS SHOWN) OSI MODEL NO. VCOMM – RXB-1 PANEL REQUIRES CONNECTION TO PHONE SERVICE.

(10) OSI-ADVANTEX 2"ø VENT ASSEMBLY.

(11) ULTRAVIOLET DISINFECTION UNIT

NOTES

1.) 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 SHALL BE LOCATED IN A NORMALLY OCCUPIED AREA OF THE FACILITY TO BE DETERMINED BY OWNER.

2.) ALL PUMPS SHALL BE EQUIPPED WITH A ELAPSED RUN TIME AND CYCLE COUNT READOUTS. THE SYSTEM SHALL BE CALIBRATED IN THE FIELD TO DETERMINE ACTUAL RATE (GALLONS) PER CYCLE.

3.) ALL TANKS AND APPURTENANCES SHALL BE CONSTRUCTED SUCH THAT ALL ELEMENTS ACT AS A SINGLE WATERTIGHT UNIT, WHICH SHALL DEVELOP A FACTOR OF SAFETY AGAINST BUOYANT UPLIFT. CONTRACTOR SHALL SUITABLY COMPACT COHESIVE OVERBURDEN MATERIAL AND/OR PROVIDE SUITABLE BALAST SURCHARGE AND/OR ANCHORING MEASURES WHEN NEEDED TO MEET THIS REQUIREMENT.

A. NET REQUIRED (TANK AND ANCHORAGE) = 0 LBS

BUOYANCY ANCHORAGE IS NOT REQUIRED

B. NET REQUIRED (PUMP BASIN AND ANCHORAGE) = 675 LBS OF SURCHARGE CONC. OR 1,175 LBS. OF SUBMERGED CONC.

BUOYANCY ANCHORAGE IS REQUIRED

(0.29 C.Y. OF SUBMEREGED CONC. REQUIRED – 0.4 C.Y. MIN. CONCRETE ANTI FLOTATION BASE PROPOSED)

BALLAST PROVIDED FOR PUMP BASIN, SEE DETAIL ON SHEET 2 OF 3

CONSTRUCTION NOTES:

1.) THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND DESIGNER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK. NOTE; THE PROPERTY LINES SHOWN HEREON ARE BASED SOLELY ON PHYSICAL MONUMENTS/ OCCUPATION LIMITS LOCATED IN THE FIELD.

2.) THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT AND THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.

3.) THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR NON-EXISTENCE OF UNDERGROUND UTILITIES. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF, OR THE NON-EXISTENCE OF, ANY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "DIG SAFE" AT 1-800-225-4977 AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF EXCAVATION.

4.) RELOCATION OF ANY UTILITIES SHALL BE AT THE OWNERS EXPENSE AND COMPLETED WITH THE UTILITY WORK. THE OWNER SHALL DETERMINE ANY RELOCATIONS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

5.) PROPOSED SILT FENCE/ROW OF STAKED HAYBALES/ SOIL & EROSION CONTROLS TO BE INSTALLED PRIOR TO ANY SITE DISTURBANCES ASSOCIATED WITH HOUSE AND /OR ISDS CONSTRUCTION.

6.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, DRIVEWAYS, WALKS, WALLS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.

7.) CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, IDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."

8.) ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVEMENT OR OTHER GROUND COVER SHALL BE PLANTED WITH GRASS ON FOUR INCH (4") THICKNESS OF TOPSOIL. IF SEEDING CANNOT BE COMPLETED IMMEDIATELY, DISTURBED AREAS SHALL BE STABILIZED WITH A SPREAD HAY MULCH (APPROPRIATELY ANCHORED) OR EXCELSIOR EROSION CONTROL MATTING.

9.) ALL TEMPORARY SOIL STOCKPILE AREAS AND TRENCH EXCAVATION SPOILS SHALL BE PROTECTED WITH A ROW OF STAKED HAYBALES AND/OR SILT FENCE AND WITH A SPREAD HAY MULCH AND WOVEN NETTING (OR EXCELSIOR EROSION CONTROL MATTING) WHEN LEFT EXPOSED FOR LONG PERIODS OF TIME. ANY SUCH STOCKPILE AREAS SHALL BE PLACED IN AN APPROPRIATE UPLAND LOCATION AND COMPLETELY REMOVED PRIOR TO PROJECT CLOSE-OUT.

10.) THE CONTRACTOR SHALL PROPERLY GRADE SITE TO ENSURE PROPER DRAINAGE AWAY FROM SEPTIC SYSTEM, DWELLING AND ADJACENT PROPERTY OWNERS. SHALLOW DIVERSION SWALES OR EQUAL NOT SHOWN ON PLANS, MAY BE REQUIRED. CONTRACTOR SHALL INSTALL LANDSCAPE TIMBERS OR EQUAL AS NECESSARY TO PROTECT BSF AND ADVANTEX FILTER UNITS.

GROUND WATER – SITE APPLICATION NUMBER (CURRENTLY APPROVED ISDS APPL. 9715–1080)

GROUND WATER VERICATION NUMBER N/A SUBDIVISION REVIEW NO. N/A

SEE SHEET 2 OF 3 FOR I.S.D.S. NOTES AND DETAILS, AND SHEET 3 OF 3 FOR GRADING, ADDITIONAL CONSTRUCTION NOTES AND DETAILS

ABBREVIATIONS/LEGEND

CB	CATCH BASIN
WLF	WETLAND EDGE
A.R.	ASSESSORS PLAT
(1)	SYSTEM COMPONENTS
(10)	I.S.D.S. NOTES – APPLICABLE
	PROPERTY LINE
–98–	EXISTING CONTOUR
[98]	PROPOSED CONTOUR
x98.53	EXISTING SPOT ELEVATION
(100x13)	PROPOSED SPOT GRADE
TP	TEST PIT LOCATION
	SOIL EVALUATION
	PROPOSED WATER SERVICE
	PROPOSED SILT FENCE
	PROPOSED DRAIN LINE

DESIGN PARAMETERS

SYSTEM LOADING
2 BEDROOMS @ 150 GPD/BEDROOM = 300 GPD*

ADVANTEX AX 20 TREATMENT
(DESIGN LOADING RATE 29.1 GAL/SF/DAY)
REQUIRED SIZE:
GPD / 29.1 GPD/SF = 15.5 SF
PROVIDED SIZE:
20 S.F. (CAPABLE OF TREATING 600 GALS/DAY)

BOTTOMLESS SAND FILTER DESIGN
(DESIGN LOADING RATE 2.0 GAL/SF/DAY)
REQUIRED SIZE:
300 GPD / 2.0 GPD/SF = 150 SF
PROVIDED SIZE:
10'x20' = 200 SF
ACTUAL LOADING RATE = 1.5 GAL./S.F./DAY

* REF. DEED BOOK 438 PAGE 44, FOR 2 BEDROOM DESIGN RESTRICTION, RECORDED IN JAMESTOWN LAND EVIDENCE RECORDS, FOR CURRENT APPROVED I.S.D.S. APPLICATION No. 9715-1080

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 31 2008 FILE # 07-0486
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin Wencek

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

NOTICE: THE SEWAGE DISPOSAL SYSTEM AS SHOWN HEREON REQUIRES MAINTENANCE (AT LEAST TWICE DURING THE FIRST YEAR AND ANNUALLY THEREAFTER.) AN OPERATION AND MAINTENANCE CONTRACT MUST BE OBTAINED BY THE OWNER PRIOR TO START UP OF SYSTEM. IT IS RECOMMENDED THAT AN O.S.I. REPRESENTATIVE BE CONTRACTED FOR THESE SERVICES.

CERTIFICATION:

THIS SURVEY AND PLAN CONFORMS TO THE FOLLOWING CLASS STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

BOUNDARY SURVEY – CLASS IV
TOPOGRAPHY SURVEY – CLASS III

BY: ____________________
PROFESSIONAL LAND SURVEYOR REG. NO. DATE

NOTES:

1. THE CONTRACTOR SHALL ASSURE MINIMUM GRADE REQUIREMENTS ARE MAINTAINED OVERALL COMPONENTS OF I.S.D.S. AND THAT GRADING PROVIDES FOR PROPER DRAINAGE AWAY FROM I.S.D.S., DWELLING AND ADJACENT PROPERTIES.
2. ACCORDING TO THE SOIL SURVEY OF RHODE ISLAND SOILS ON SITE CONSIST OF COMPACT GLACIAL TILL AND ARE CLASSIFIED AS BIRCHWOOD (Bc) AND RIDGEBERRY (Rf). HAVING AN ESTIMATED SEASONAL HIGH WATER TABLE RANGING BETWEEN 1.5 AND 3.5 FEET AND/OR 0 AND 1.5 FEET.
3. PROPERTY DELINEATION, TOPOGRAPHY AND FEATURES TAKEN FROM PLAN ENTITLED "INDIVIDUAL SEWAGE DISPOSAL SYSTEM, AS PROVIDED BY NICHOLAS PIAMPIANO, PE., OF ADVANCED CIVIL DESIGN, INC.", AND SUPPLEMENTED WITH SURVEYED LOCATIONS OF 2007 SOIL EVALUATIONS AND WETLAND DELINEATION.

DESIGN NOTE:

SOILS WITNESSED IN SEV CONSIST PRIMARILY OF FINE SANDY LOAM & SANDY LOAM AND ARE CLASSIFIED AS SOIL CATEGORY 9 BY THE RIDEM. A SEASONAL HIGH WATER TABLE ESTIMATED AT 12 INCHES AND A 40 MINUTE PER INCH PERCOLATION RATE WERE USED FOR DESIGN PURPOSES.

1" = 20' (0 10 20 40 80 120 feet; 0 5 10 20 30 meters)

PROPOSED SITE ALTERATIONS AND INNOVATIVE/ALTERNATIVE TECHNOLOGY PLAN OF PROPOSED SEWAGE DISPOSAL SYSTEM FOR ASSESSORS PLAT 16, LOT NO. 51 FRIGATE STREET & BRIG AVENUE JAMESTOWN, RHODE ISLAND

Prepared For: Mrs. Maureen Heneault Francoeur

DEC 26 2007

CARL J. ADAMO
No. 4211
REGISTERED PROFESSIONAL ENGINEER
Carl J. Adamo
D-3058 12-18-07

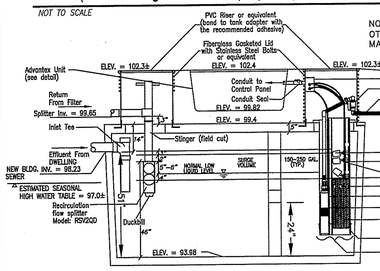
SCALE: 1" = 20' DATE: 12-18-07

GAROFALO
GAROFALO & ASSOCIATES, INC.
ENGINEERS/LAND PLANNERS/SURVEYORS
85 CORLISS STREET
PROVIDENCE, RHODE ISLAND
401-273-6000 02903

JOB NO. 6513-00

REPS (Recirculating Effluent Pump System) - SIDE VIEW

NOT TO SCALE



SIDE VIEW - 2000 GALLON 2-COMPARTMENT TANK
(JOLLEY TANK)

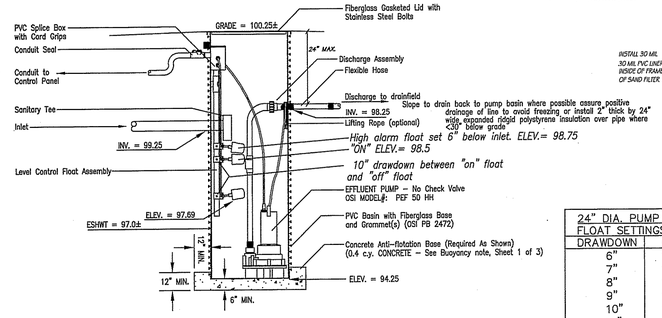
NOTE: ADVANTEX FILTER SHALL BE INSTALLED IN A LOCATION OTHER THAN SHOWN IN DETAIL PROVIDED MIN. 1/4" /FT, SLOPE IS MAINTAINED BETWEEN OUTLET & SPLITTER VALVE.

REPS

TIMER SETTINGS:
OFF – 9 Minutes, 30 Seconds
ON – 30 Seconds
OVERIDE OFF – 4Min., 45 Sec.
OVERIDE ON – 30 Seconds

Drainfield Pump Basin with Effluent Pump Assembly

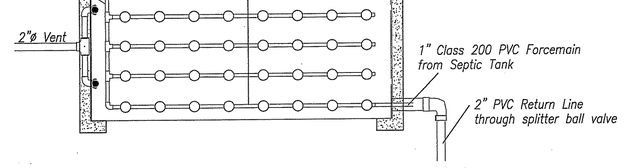
NOT TO SCALE Note: This system can also be fitted with an effluent screen that the pump and floats are installed in.



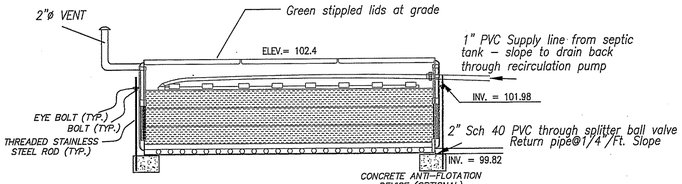
*AX 20 ADVANTEX Textile Filter

*NOTE: GRAPHIC ONLY.

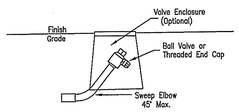
NOT TO SCALE



TOP VIEW - *AX 20 ADVANTEX TEXTILE FILTER



SIDE VIEW - *AX 20 ADVANTEX TEXTILE FILTER



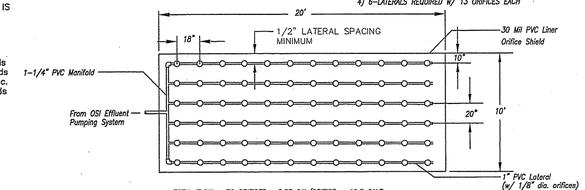
FLUSHING VALVE DETAIL

NOT TO SCALE

10' x 20' Bottomless Sand Filter (Cold Weather Design) - (GRAPHIC ONLY)

*This drawing is for a 10' x 20' bottomless sand filter
*The dosing pump shall be an PEF 50 HH
Loaded at 2.0 gpd/sf, this filter can polish up to 400 gallons per day
*SEE NOTE BELOW

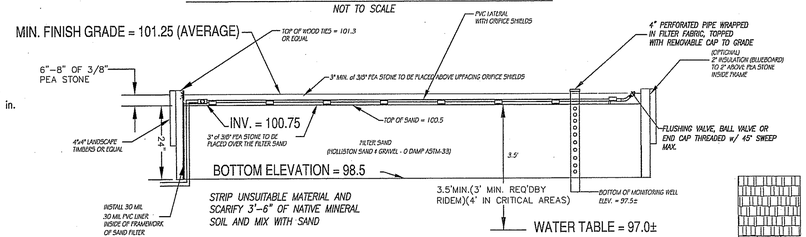
1) LATERAL SPACING = 20"
2) ORIFICE SPACING = 18"
3) LATERALS TO BE INSTALLED = 10" FROM EDGE OF FILTER
4) 6–LATERALS REQUIRED w/ 13 ORIFICES EACH



TOTAL FLOW = 78 ORIFICES x 0.25 GAL/ORIFICE = 19.5 GALS.
SEE FLOAT SETTINGS FOR DRAWDOWN

TOP VIEW - BOTTOMLESS SAND FILTER - (GRAPHIC ONLY)

NOT TO SCALE



SIDE VIEW - BOTTOMLESS SAND FILTER
NOT TO SCALE

OC @ 98.0±
@ B.S.F.

NOTE:

LOADING RATE OF 2.0 GALS/FT /DAY WAS CHOSEN BASED ON THE PREDOMINENT USDA SOIL TEXTURE OF THE MOST RESTRICTIVE RECEIVING SOIL HORIZON IN ACCORDANCE WITH THE RIDEM SAND FILTER GUIDANCE DOCUMENT.

COLD WEATHER RELATED DESIGN REQUIREMENTS:
TWO (2) ORIFICES IN EACH LATERAL SHALL BE DRILLED POINTING UP; ALL OTHER ORIFICES SHALL BE DRILLED POINTING DOWN. THE UP–POINTING ORIFICES SHALL BE LOCATED APPROXIMATELY 1/3 AND 2/3 RESPECTIVELY, ALONG THE LENGTH OF EACH LATERAL. ALL ORIFICES MUST BE COVERED WITH ORIFICE SHIELDS.

IN ADDITION TO THE 3" OF 3/8" PEA STONE INSTALLED OVER THE FILTER SAND AN ADDITIONAL 3" SHALL BE PLACED ABOVE THE UP–FACING ORIFICE SHIELDS.

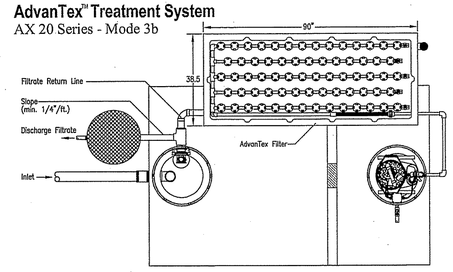
NO FILTER FABRIC OF ANY KIND SHALL BE PLACED BETWEEN THE SAND AND OVERLYING PEA STONE.

NECESSARY PRECAUTIONS WHERE POSSIBLE, MUST BE TAKEN TO LOCATE BSF WHERE IT WILL RECEIVE THE MAXIMUM DIRECT SUNLIGHT.

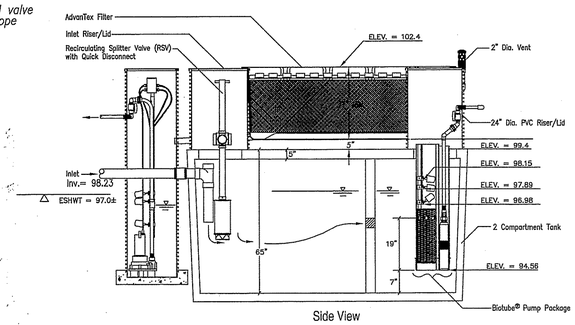
24" DIA. PUMP BASIN FLOAT SETTINGS	
DRAWDOWN	GALS.
6"	11.7
7"	13.7
8"	15.7
9"	17.6
10"	19.6
11"	21.5
12"	23.5
18"	35.25
24"	47.0

AdvanTex™ Treatment System

AX 20 Series - Mode 3b



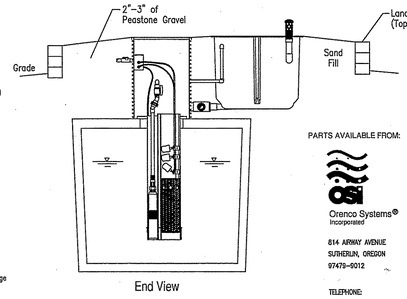
Top View



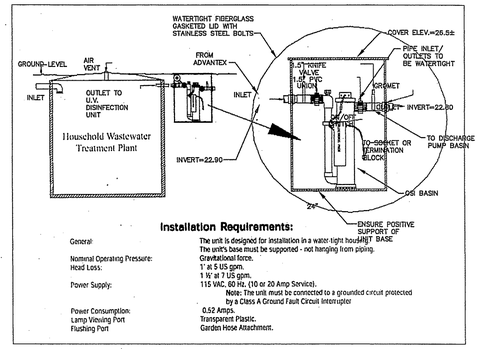
Side View

COMPOSITE SKETCH (GRAPHIC ONLY)
ADVANTEX TREATMENT SYSTEM
**AX 20 SERIES - MODE 3b (SEE DETAILS THIS SHEET)*

NOTE: ADVANTEX FILTER MAY BE INSTALLED IN A LOCATION OTHER THAN SHOWN IN DETAIL PROVIDED MIN. 1/4" /FT, SLOPE IS MAINTAINED BETWEEN OUTLET & SPLITTER VALVE.



End View

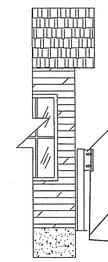


Installation Requirements:

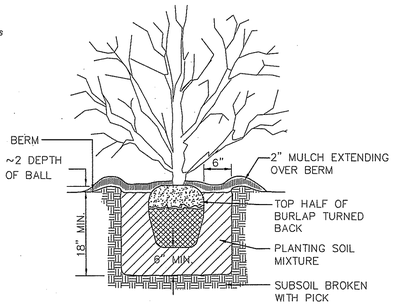
General:	The unit is designed for installation in a water-tight housing. The unit's base must be supported - not hanging from piping.
Nominal Operating Pressure:	Gravitational force.
Head Loss:	1' at 5 US gpm. 1 ½' at 7 US gpm.
Power Supply:	115 VAC, 60 Hz. (10 or 20 Amp Service). Note: The unit must be connected to a grounded circuit protected by a Class A Ground Fault Circuit Interruptor
Power Consumption:	0.52 Amps.
Lamp Viewing Port	Transparent Plastic.
Flushing Port	Garden Hose Attachment.

ULTRAVIOLET DISINFECTION UNIT "INTERNATIONAL WATERGUARD WG-1-LV-WW" (OR APPROVED EQUAL)

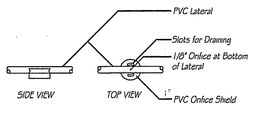
NOT TO SCALE



HOME



SHRUB PLANTING 3'-4'
NOT TO SCALE



COLD WEATHER ORIFICE DETAIL
NOT TO SCALE

INVERT SCHEDULE

LOCATION	ELEVATION
OUT OF HOUSE AT GRADE	98.6 (GRAVITY)
INTO SEPTIC TANK	98.23 (GRAVITY)
OUT OF SEPTIC TANK TO ADVANTEX FILTER	99.75 (PRESSURE)
INTO ADVANTEX FILTER LATERAL	101.98 (PRESSURE)
INVERT OF ADVANTEX OUTLET	99.82 (GRAVITY)
INVERT THROUGH SPLITTER VALVE	99.65 (GRAVITY)
INVERT INTO PUMP BASIN	99.25 (GRAVITY)
OUT OF PUMP BASIN	98.25 (PRESSURE)
INVERT OF BSF LATERALS	100.75 (PRESSURE)

PARTS AVAILABLE FROM:

Orenco Systems®
Incorporated
814 ARIVY AVENUE
SUTHERLIN, OREGON
97479-9012
TELEPHONE:
(541) 459-4449
FACSIMILE:

NOTES:

1. THE SEPTIC TANK SHALL BE A WATERTIGHT, 2,000 GAL. 2–COMPARTMENT TANK WITH 24" MIN. DIAMETER INLET AND OUTLET ACCESS RISERS. RISERS SHALL BE PVC WITH SECURED FIBERGLASS LID. IF CONCRETE TANK IS USED, ABS TANK ADAPTER SHALL BE CAST INTO PLACE. TANK SHALL BE VACUUM TESTED WHEN CONSTRUCTED OR WATER TESTED/VACUUM TESTED ON SITE. (CONCRETE TANK MAY BE PURCHASED FROM JOLLY PRE CAST, INC. AT 1–800–582–4638.)

2. 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).

3. 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 SD 27.00 (g).

4. IF CONTRACTOR ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATE THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION IN ACCORDANCE WITH SD 27.00 (c).

5. THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, PREPARE THE CERTIFICATE OF COMPLETION AND PROVIDE O & M INFORMATION AND RECOMMENDATIONS TO THE OWNER, IN ACCORDANCE WITH SD 27.00 (h) THROUGH (m).

6. THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN ISDS, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE ISDS.

7. PUMPS SHALL BE AS MANUFACTURED BY ORENCO SYSTEMS, INC. OR APPROVED EQUAL.
SEPTIC TANK PUMP TO ADVANTEX FILTER– O.S.I. P 3005
PUMP BASIN PUMP TO BOTTOMLESS SAND FILTER – PEF 50 HH

8. 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).

9. ALL TANKS AND APPURTENANCES SHALL BE CONSTRUCTED SUCH THAT ALL ELEMENTS ACT AS A SINGLE WATERTIGHT UNIT & SHALL BE CONSTRUCTED ACCORDING TO ASTM STANDARD C–1227–97A OR ANY SUPERSEDING UPGRADING OF THIS STANDARD. ALL RISER ADAPTERS SHALL BE CAST IN PLACE DURING TANK MANUFACTURING. ALL INLETS AND OUTLETS SHALL BE CAST IN PLACE WITH CAST–A–SEAL OR EQUIVALENT W/STAINLESS STEEL ADJUSTABLE CLAMP.

10. THE PROPOSED SEPTIC TANK SHALL BE SEALED TO ENSURE WATER TIGHTNESS AND SHALL BE A TWO COMPARTMENT MONOLITHIC TANK WHICH CAN BE PURCHASED FROM JOLLEY PRE CAST, INC. @ 1–800–582–4638 OR EQUAL.

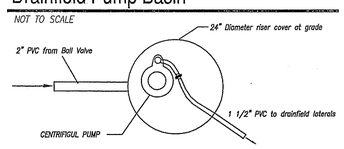
11. THE INSTALLER SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.

12. BOTTOMLESS SAND FILTER MEDIA: SHALL BE HOLLISTON SAND & GRAVEL OR EQUIVALENT ASTM–33 SAND. LESS THAN 1% PASSING THE 10 SIEVE WITH AN EFFECTIVE SIZE OF .25 – .40mm AND WITH A UNIFORMITY COEFFICIENT OF 2.0±. (HOLLISTON SAND & GRAVEL: 401–768–5010) CONTRACTOR TO SUPPLY ENGINEER W/SAMPLES OF ALL MEDIA TO BE USED IN THE SAND FILTER. CONTRACTOR SHALL ALSO SUPPLY ENGINEER WITH SIEVE ANALYSIS SHOWING THAT THE FILTER MEDIA MEETS THE CRITERIA AS SHOWN ON PLAN.

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

Drainfield Pump Basin

NOT TO SCALE



TOP VIEW - 24" DIAMETER PUMP BASIN FOR DOSING TO DRAINFIELD

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 31 2008 FILE # 07-048
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin Vencek

SCHEDULE OF PVC PIPE SIZES	
BUILDING TO SEPTIC TANK	4" SCH 40
SEPTIC TANK TO TEXTILE FILTER	1" CLASS 200
TEXTILE FILTER MANIFOLD	1" CLASS 200
TEXTILE FILTER LATERALS	3/4" CLASS 200
TEXTILE FILTER TO PUMP BASIN	2" SCH 40
PUMP BASIN TO BSF	1 1/2" CLASS 200
BSF MANIFOLD	1 1/4" CLASS 200
BSF LATERALS	1" SCH 40

CARL J. ADAMO
No. 4211
REGISTERED PROFESSIONAL ENGINEER
D-3058 12-18-07

PROPOSED SITE ALTERATIONS AND INNOVATIVE/ALTERNATIVE TECHNOLOGY PLAN OF PROPOSED SEWAGE DISPOSAL SYSTEM FOR ASSESSORS PLAT 16, LOT NO. 51 FRIGATE STREET & BRIG AVENUE JAMESTOWN, RHODE ISLAND

Prepared For: Mrs. Maureen Heneault Francoeur

DEC 26 2007

SCALE: AS SHOWN DATE: 12-18-07

GAROFALO
GAROFALO & ASSOCIATES, INC.
ENGINEERS AND PLANNERS/SURVEYORS
85 CORLISS STREET
PROVIDENCE, RHODE ISLAND
401-273-6000 02903

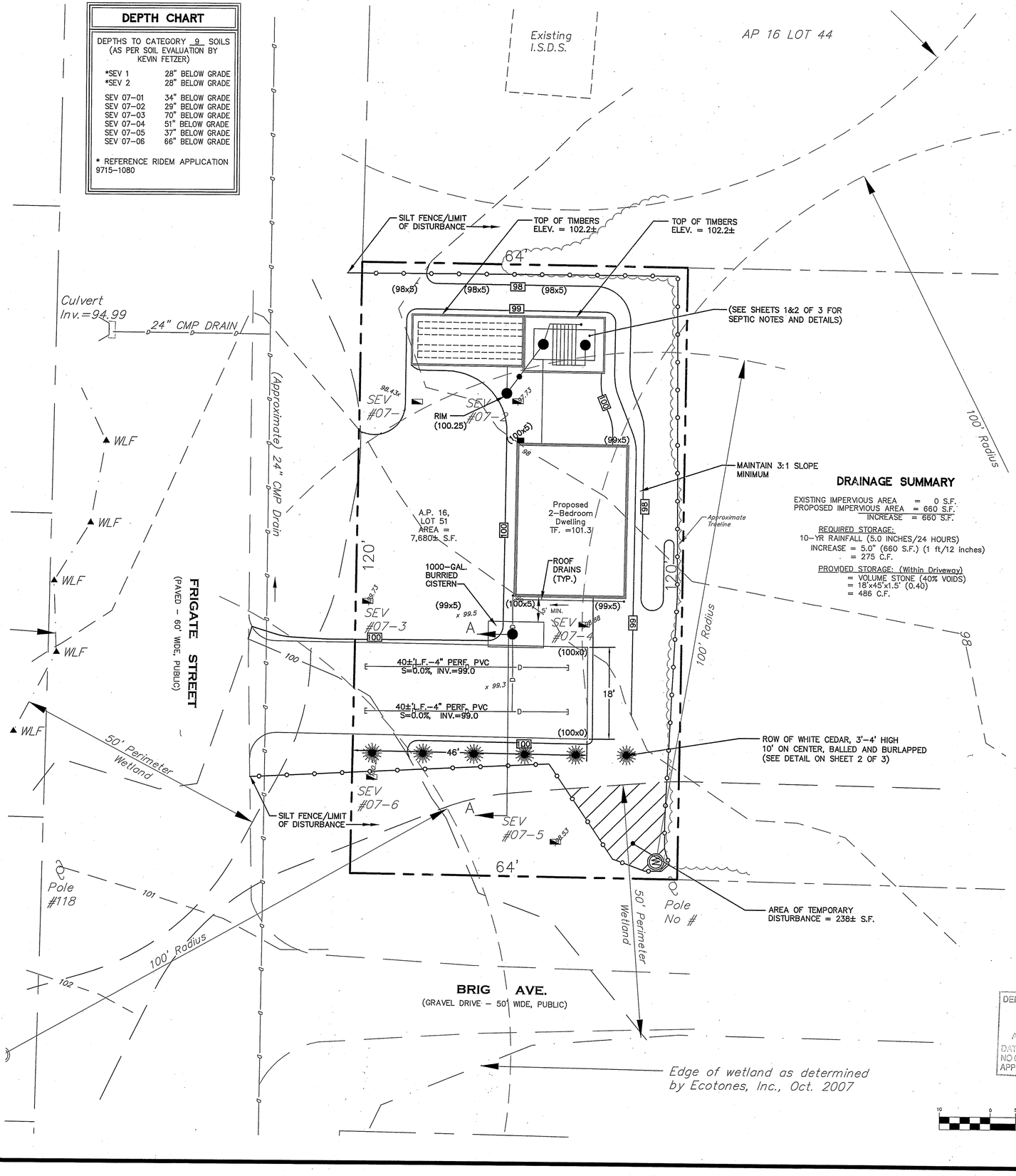
JOB NO. 6513-00

DEPTH CHART

DEPTHS TO CATEGORY 9 SOILS (AS PER SOIL EVALUATION BY KEVIN FETZER)

*SEV 1	28" BELOW GRADE
*SEV 2	28" BELOW GRADE
SEV 07-01	34" BELOW GRADE
SEV 07-02	29" BELOW GRADE
SEV 07-03	70" BELOW GRADE
SEV 07-04	51" BELOW GRADE
SEV 07-05	37" BELOW GRADE
SEV 07-06	66" BELOW GRADE

* REFERENCE RIDEM APPLICATION 9715-1080



DRAINAGE SUMMARY

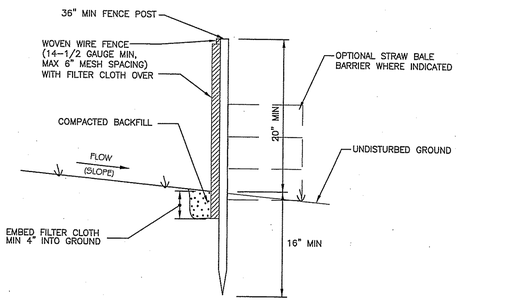
EXISTING IMPERVIOUS AREA = 0 S.F.
PROPOSED IMPERVIOUS AREA = 660 S.F.
INCREASE = 660 S.F.

REQUIRED STORAGE:
10-YR RAINFALL (5.0 INCHES/24 HOURS)
INCREASE = 5.0" (660 S.F.) (1 ft/12 inches)
= 275 C.F.

PROVIDED STORAGE: (Within Driveway)
= VOLUME STONE (40% VOIDS)
= 18'x45'x1.5' (0.40)
= 486 C.F.

GRAPHIC SCALE

1 inch = 10 ft.



SECTION

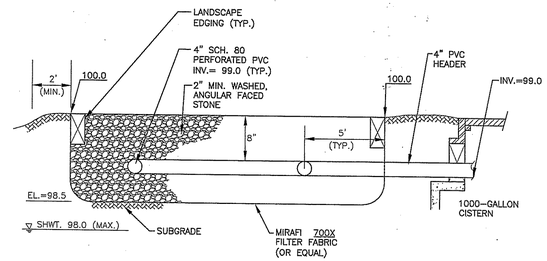
CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR DEPTH OF ACCUMULATED SEDIMENT REACHES 6".

POSTS: STEEL, EITHER "T" OR "U" TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14 GAUGE 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

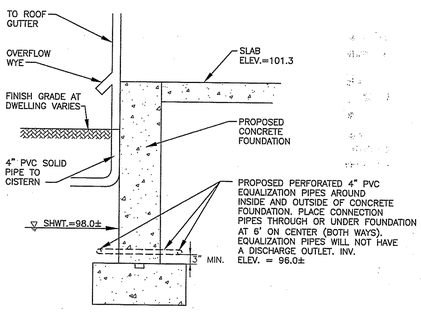
SILT FENCE DETAIL

NOT TO SCALE



DRIVEWAY / DRAINAGE SCHEMATIC SECTION A-A

NOT TO SCALE



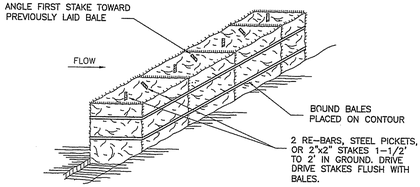
TYPICAL FOUNDATION DETAIL

NOT TO SCALE

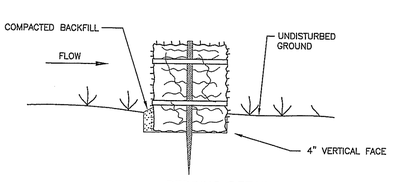
SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL BARE OR EXPOSED SOILS EXISTING FOR EXTENDED PERIODS OF TIME WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH A SPREAD HAY MULCH AND OR EXCELSIOR MATTING, OR AN APPROVED EQUAL. AN APPLICATION OF CELLULOSE FIBER MULCH MAY BE USED AT THE RATE OF 1,000 LBS./ACRE AS AN EROSION CONTROL AGENT.
2. UPON PROJECT COMPLETION ALL DISTURBED AREAS, UNLESS OTHERWISE SPECIFIED ON SITE PLANS, SHALL BE TREATED WITH PLANTABLE SOIL, THEN SEEDED WITH AN APPROPRIATE SEED MIX TO ENSURE PERMANENT SOIL STABILIZATION. DISTURBED AREAS SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX. ALL TEMPORARY SOIL EROSION/SEDIMENT CONTROLS EROSION/SEDIMENT CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL EXPOSED SOILS ARE SATISFACTORILY STABILIZED WITH VEGETATION.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT AND MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE DURATION OF THE CONSTRUCTION PERIOD.
4. ALL SILT FENCING SHALL BE PROPERLY SUPPORTED BY STURDY STAKES AND WIRE FENCING AND TOED INTO EXISTING SUBSTRATE SOILS. ALL HAYBALES SHALL BE TOED INTO EXISTING SUBSTRATE SOILS AND STABILIZED WITH STURDY STAKES (TWO PER HAYBALE). SEE SOIL EROSION AND SEDIMENT CONTROL DETAILS ABOVE.
5. ALL TEMPORARY SOIL STOCKPILE AREAS SHALL BE PROTECTED WITH A ROW OF STAKED HAYBALES AND/OR SILT FENCE AND MUST BE COVERED WITH A SPREAD HAY MULCH AND WOVEN NETTING (OR EXCELSIOR EROSION CONTROL MATTING) WHEN LEFT EXPOSED FOR LONG PERIODS OF TIME. ANY SUCH STOCKPILE AREAS SHALL BE PLACED IN AN APPROPRIATE UPLAND LOCATION, OUTSIDE OF ANY REGULATED WETLAND AREAS.
6. ALL REFERENCED SOIL EROSION AND SEDIMENT CONTROLS INCLUDING MATERIAL USED, APPLICATION RATES, AND INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK", DATED 1989, WITH ALL CORRECTIONS AND ADDENDA, PUBLISHED BY THE R.I.D.E.M. AND THE U.S. SOIL CONSERVATION SERVICE.

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



ANCHORING DETAIL



BEDDING DETAIL

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR, AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL, A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE, AT AN ANGLE, TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. REMOVE ACCUMULATED SEDIMENT PROMPTLY.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE BARRIER DETAIL

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 31 2008 FILE # 07-0486
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

CARL J. ADAMO
No. 9291
REGISTERED PROFESSIONAL ENGINEER
D-3058 12-18-07

PROPOSED SITE ALTERATIONS AND INNOVATIVE/ALTERNATIVE TECHNOLOGY PLAN OF PROPOSED SEWAGE DISPOSAL SYSTEM FOR ASSESSORS PLAT 16, LOT NO. 51 FRIGATE STREET & BRIG AVENUE JAMESTOWN, RHODE ISLAND

Prepared For: Mrs. Maureen Heneault Francoeur

RECEIVED DEC 26 2007

SCALE: AS SHOWN DATE: 12-18-07

GAROFALO
GAROFALO & ASSOCIATES, INC.
ENGINEERS/LAND PLANNERS/SURVEYORS
86 CORLISS STREET
PROVIDENCE, RHODE ISLAND
401-273-0200 02903

SHEET 3 OF 3

JOB NO. 6513-00