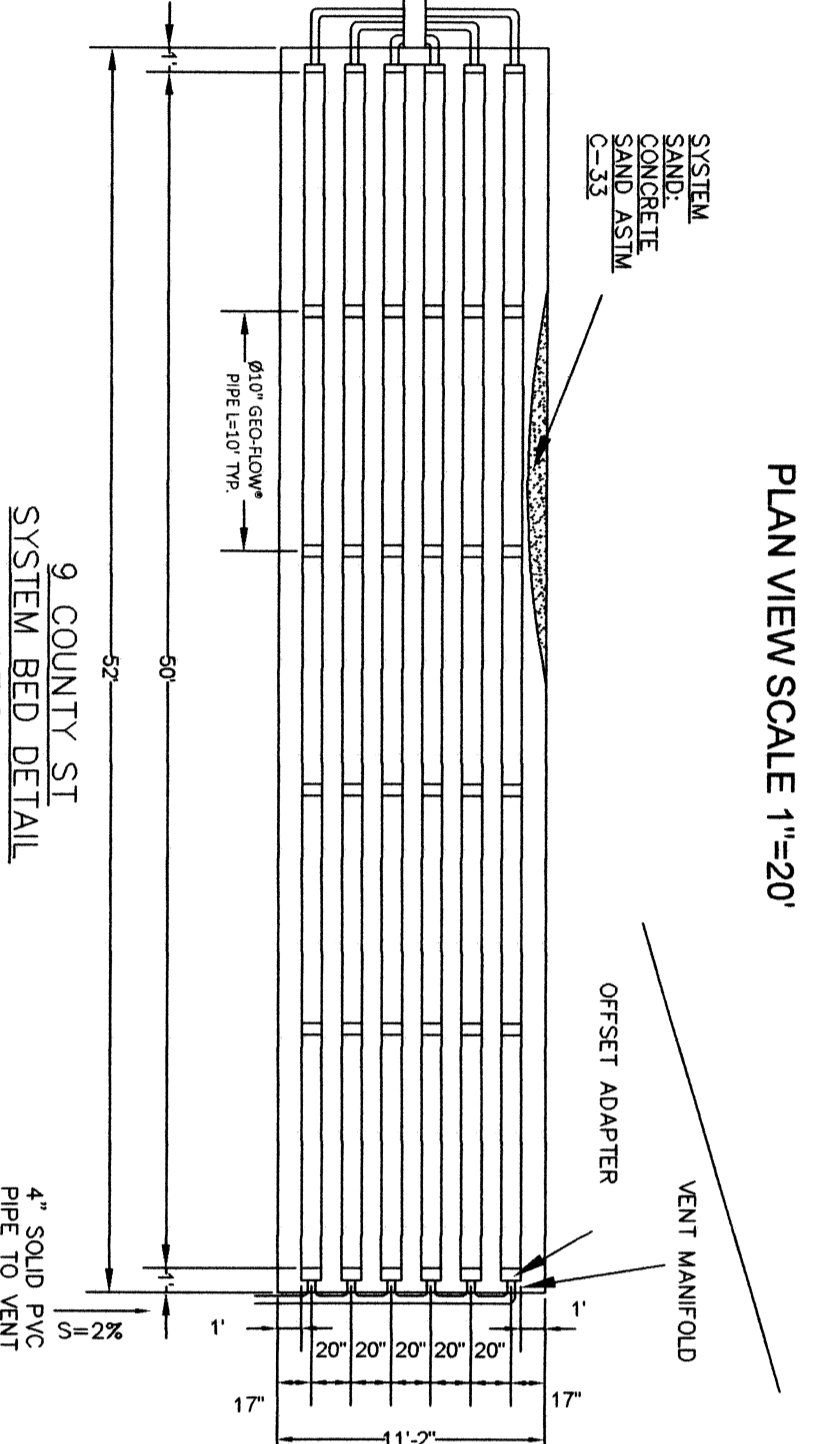


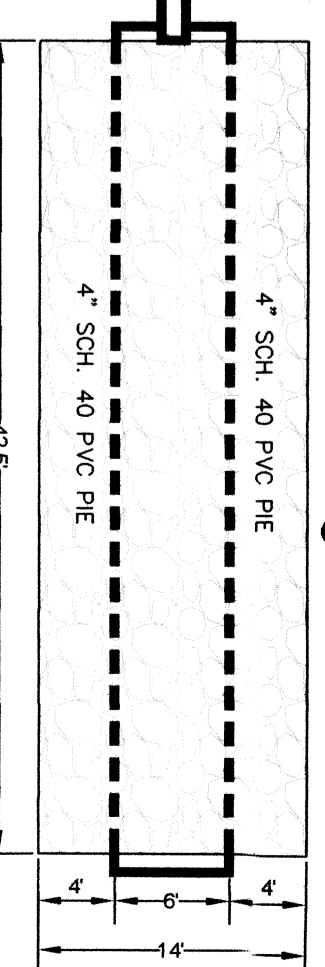
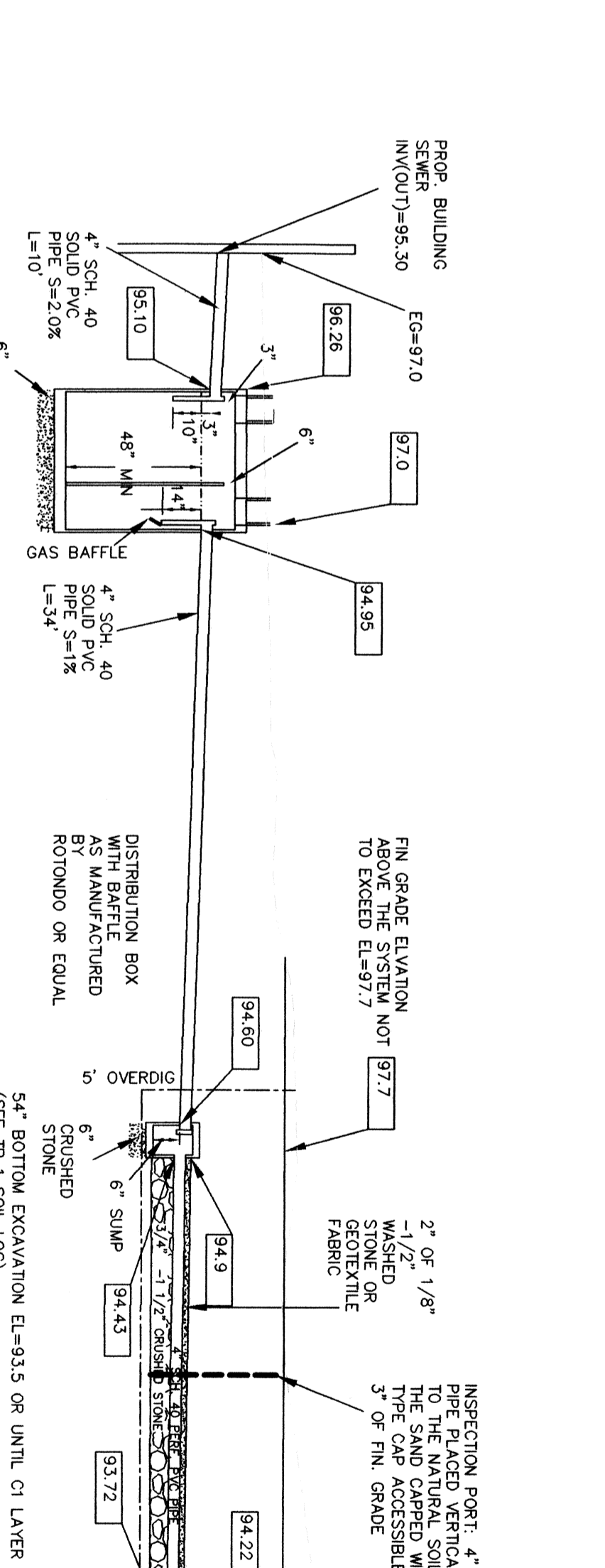
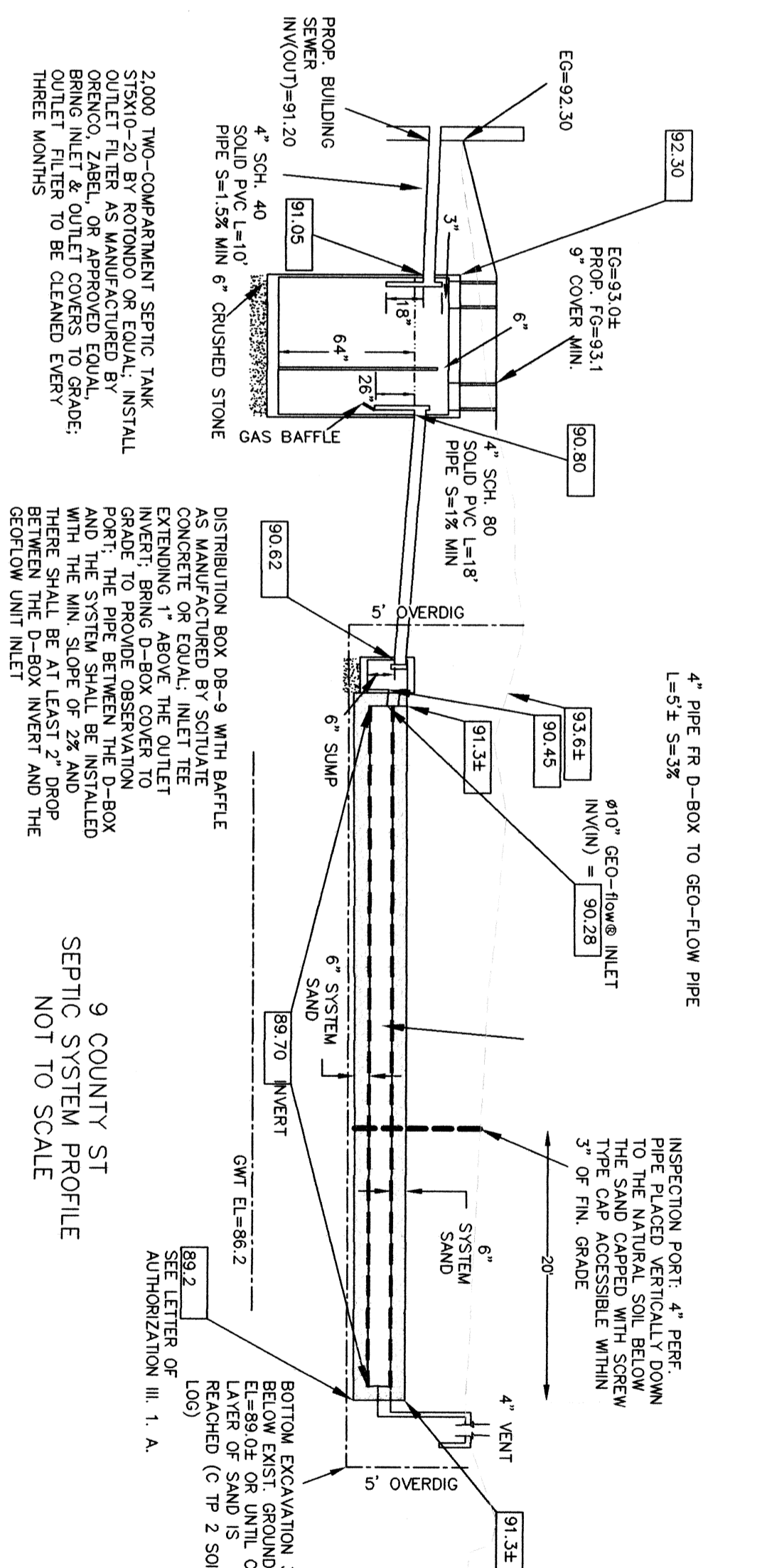
Test Pit #	Soil	Soil Description	Soil Depth (ft)	Soil Permeability	Soil Classification
TEST PIT 1	A	SANDY LOAM	0-1.0	1.0	SP-1
	B	SANDY LOAM	1.0-1.5	1.0	SP-1
	C	SAND	1.5-2.0	1.0	SP-1
	D	SAND	2.0-2.5	1.0	SP-1
	E	SAND	2.5-3.0	1.0	SP-1
	F	SAND	3.0-3.5	1.0	SP-1
	G	SAND	3.5-4.0	1.0	SP-1
	H	SAND	4.0-4.5	1.0	SP-1
	I	SAND	4.5-5.0	1.0	SP-1
	J	SAND	5.0-5.5	1.0	SP-1
	K	SAND	5.5-6.0	1.0	SP-1
	L	SAND	6.0-6.5	1.0	SP-1
	M	SAND	6.5-7.0	1.0	SP-1
	N	SAND	7.0-7.5	1.0	SP-1
	O	SAND	7.5-8.0	1.0	SP-1
	P	SAND	8.0-8.5	1.0	SP-1
	Q	SAND	8.5-9.0	1.0	SP-1
	R	SAND	9.0-9.5	1.0	SP-1
	S	SAND	9.5-10.0	1.0	SP-1
	T	SAND	10.0-10.5	1.0	SP-1
	U	SAND	10.5-11.0	1.0	SP-1
	V	SAND	11.0-11.5	1.0	SP-1
	W	SAND	11.5-12.0	1.0	SP-1
	X	SAND	12.0-12.5	1.0	SP-1
	Y	SAND	12.5-13.0	1.0	SP-1
	Z	SAND	13.0-13.5	1.0	SP-1

Test Pit #	Soil	Soil Description	Soil Depth (ft)	Soil Permeability	Soil Classification
TEST PIT 2	A	SANDY LOAM	0-1.0	1.0	SP-1
	B	SANDY LOAM	1.0-1.5	1.0	SP-1
	C	SAND	1.5-2.0	1.0	SP-1
	D	SAND	2.0-2.5	1.0	SP-1
	E	SAND	2.5-3.0	1.0	SP-1
	F	SAND	3.0-3.5	1.0	SP-1
	G	SAND	3.5-4.0	1.0	SP-1
	H	SAND	4.0-4.5	1.0	SP-1
	I	SAND	4.5-5.0	1.0	SP-1
	J	SAND	5.0-5.5	1.0	SP-1
	K	SAND	5.5-6.0	1.0	SP-1
	L	SAND	6.0-6.5	1.0	SP-1
	M	SAND	6.5-7.0	1.0	SP-1
	N	SAND	7.0-7.5	1.0	SP-1
	O	SAND	7.5-8.0	1.0	SP-1
	P	SAND	8.0-8.5	1.0	SP-1
	Q	SAND	8.5-9.0	1.0	SP-1
	R	SAND	9.0-9.5	1.0	SP-1
	S	SAND	9.5-10.0	1.0	SP-1
	T	SAND	10.0-10.5	1.0	SP-1
	U	SAND	10.5-11.0	1.0	SP-1
	V	SAND	11.0-11.5	1.0	SP-1
	W	SAND	11.5-12.0	1.0	SP-1
	X	SAND	12.0-12.5	1.0	SP-1
	Y	SAND	12.5-13.0	1.0	SP-1
	Z	SAND	13.0-13.5	1.0	SP-1

1. NO INSTALLER SHALL INSTALL THE SYSTEM UNLESS THE INSTALLER HAS BEEN TRAINED BY THE COMPANY REPRESENTATIVE(S).



PLAN VIEW SCALE 1"=20'



**DESIGN CALCULATIONS**

**#6 BEDROOM**  
 110 GALLONS/BEDROOM & NO GARAGE DISPOSAL DAILY FLOW (GBRW)(110 GAL/BRPM)=660 GALLONS  
 DESIGN PERC. RATE: 1 INCH IN 3 MINUTES (TP 2); OBSERVED SOIL TEXTURAL CLASS I (SEE SOIL LOG)  
 EFFLUENT LOADING RATE: 0.74 GPD/SO.FT.  
 FIRST COMPARTMENT TANK  
 VOLUME IS SIZED FOR 48 HOURS HYDRAULIC DETENTION TIME OF DESIGN FLOW = 660 GPD X2 = 1,320 GAL  
 VOLUME IS SIZED FOR MIN. 24 HOURS HYDRAULIC DETENTION TIME OF DESIGN FLOW = 660 GAL  
 TOTAL REQUIRED SEPTIC TANK VOLUME = 1,320+660=1,980 GAL  
 USE ROTONDO ST5X10-20 SEPTIC TANK WITH 6" BAFITLE (TWO COMPARTMENTS) OR EQUAL  
 PROVIDE OUTLET FILTER BY ORENOVO F108S4-36 OR EQUAL

**REQUIRED LEACHING AREA**  
 (660GPD)/(0.74 GPD/SO.FT.)=892 SQ.FT.

**DESIGN GEO.-LOW PIPE LEACHING SYSTEM BY AOS**

**STEP 1:** FOR SIX BEDROOMS & PERC RATE 1-9 MPH FR TABLE 1 SELECT TOTAL LENGTH OF GEO.-LOW PIPES=300 FT

**STEP 2:** FOR SPACING OF 30 FT AND PER SYSTEM LOCATION MINIMUM TO CENTER-TO-CENTER SPACING -1.5 FT.

**STEP 3:** USE SIX PIPE LINES - 50 FT EACH US DEPS. 10' EA BEB LIND) SPACED 1'-5" O.C.

**STEP 4:** SYSTEM LAYOUT - L=50' W=1.67X5=8'-4" ADDING TWO FEET TO THE LAYOUT WIDTH AND TO THE LAYOUT LENGTH.

**9" BED LENGTH=52' WIDTH=10'-4" SAND BED AREA=52'X10.33=537.56 SQ.FT (SEE TABLE III PART B) > 60%**  
 OF 892 SQ.FT=595 SQ.FT

**#17 COUNTY ST**  
 110 GALLONS/BEDROOM & NO GARAGE DISPOSAL DAILY FLOW (GBRW)(110 GAL/BRPM)=660 GALLONS  
 DESIGN PERC. RATE: 1 INCH IN 3 MINUTES (TP 2); OBSERVED SOIL TEXTURAL CLASS I (SEE SOIL LOG)  
 EFFLUENT LOADING RATE: 0.74 GPD/SO.FT.  
 SEPTIC TANK DESIGN  
 FIRST COMPARTMENT TANK  
 VOLUME IS SIZED FOR 48 HOURS HYDRAULIC DETENTION TIME OF DESIGN FLOW = 660 GPD X2 = 880 GAL  
 VOLUME IS SIZED FOR MIN. 24 HOURS HYDRAULIC DETENTION TIME OF DESIGN FLOW = 440 GAL  
 TOTAL REQUIRED SEPTIC TANK VOLUME = 880+440=1,320 GAL  
 USE ROTONDO ST5X10-15 SEPTIC TANK WITH 6" BAFITLE (TWO COMPARTMENTS) OR EQUAL  
 PROVIDE OUTLET FILTER BY ORENOVO F108S4-36 OR EQUAL

**REQUIRED LEACHING AREA**  
 (440GPD)/(0.74 GPD/SO.FT.)=595 SQ.FT.

**DESIGN LEACHING BED SOIL ABSORPTION SYSTEM**  
 BOTTOM=42.5'X14'-5.95 SQ. FT. SIDEWALLS=NOT INCLUDED  
 TOTAL LEACHING AREA: 595 SQ.FT. TOTAL DAILY FLOW PROVIDED: 440 GPD=440 GPD

**DATE OF PERC. TEST: JULY 5, 2012**  
 BY DEAN MOGENSEN, WITNESSED BY BETH HALLAM, SECRETARY BOARD OF HEALTH  
 PERC. TEST #4 EL=93.5; G.W. @ 14" G.W. EL=86.0  
 TP 2: PERC RATE < 2 MPH EL=92.7; DEPTH OF PERC. TEST 80' EL=87.7; MOTTLES AT 79' G.W. EL=86.2

**GENERAL NOTES:**

1. ALL PIPES SHALL BE A MINIMUM OF 10' FROM PROPERTY LINES.
2. 20' FROM CELLAR WALL, AND 100' FROM WETLAND AND NEIGHBORS' WELL.
3. ALL JOINTS BETWEEN DWELLING AND LEACHING AREA SHALL HAVE WATER TIGHT JOINTS.
4. FINISHED SURFACE AFTER SYSTEM INSTALLATION SHALL HAVE MIN. SLOPE OF 0.02 FT PER FOOT.
5. TOP OF ALL SYSTEM COMPONENTS SHALL BE INSTALLED NO MORE THAN 36" FROM THE EXISTING FINISHED FLOOR AND TO THE DISTANCE OF 5.5 FT IN ALL DIRECTIONS.
6. IN LEACHING FIELD AREA AND TO THE DISTANCE OF 5.5 FT IN ALL DIRECTIONS, CONTRACTOR TO REMOVE TOPSOIL AND ALL OTHER IMPERVIOUS SOIL TO THE DEPTH OF 36" MIN. AND REPLACE IT WITH CLEAN GRANULAR SAND.
7. CONTRACTOR TO NOTIFY SEWAGE BOARD OF HEALTH AND DESIGN ENGINEER WHEN WORK IS BEING COMPLETED.
8. IF UNDERGROUND SOIL CONDITIONS DIFFER FROM THOSE RECORDED IN THE SOIL LOG, THERE ARE NO WATER SUPPLY WELLS WITHIN 150 FT OF THE SYSTEM LOCATION.
9. THE PROPOSED SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE PROVISIONS OF 310 CMR 15.00 - STATE ENVIRONMENTAL CODE.
10. GRANULAR SAND SPOT SECTIONS, INSPECTIONS, ON THE PLAN AND PROFILE REPRESENT MINIMUM TITLE V REQUIREMENTS ONLY. ADDITIONAL SITE GRADING IF REQUIRED SHALL BE APPROVED BY THE ENGINEER.
11. ALL DIMENSIONS PRIOR TO STARTING WORK SHALL BE MEASURED AND THE ENGINEER OF ANY DEVIATIONS FROM THE PLANS IN WRITING TEN DAYS BEFORE BEGINNING THE WORK.
12. SW-35 PIPE MAY BE USED.

**BOARD OF HEALTH STAMPS**

**PERMITTED**  
 OCT 20 2012  
 SEWAGE RENOVATION

**SEWAGE DISPOSAL SYSTEMS - REPAIR**

OWNER: JMW REALTY 14 BERKLEY ST E PROVIDENCE RI 02914

ASSESSORS: PLAT & LOT MAP 9, LOT 208 STREET LOCATION 9-17 COUNTY ST SEBOK, MA

ENGINEERING FIRM: GORODETSKY ENGINEERING, LLC

SCALE 1"=20' AND AS NOTED

DATE: SEPTEMBER 20, 2012

REVISION: OCTOBER 25, 2012

CONTACT PERSON: ALEXANDER GORODETSKY, P.E.  
 ADDRESS: 162 NORTH MAIN ST FALL RIVER MA 02720  
 TEL: (508) 524-1150

69-745