

● I. S. D. S. P E R M I T ●
TO INSTALL, CONSTRUCT, ALTER OR REPAIR
AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM

Permit: EH-09-051

New: N
Repair: Y
Alteration: N
Addition: N

ROUTT COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH ● P.O. BOX 770087 ● STEAMBOAT SPRINGS, CO ● 970-870-5588

This permit effective only on premises located at: **60880 COUNTY ROAD 129 C**

Legal description of property: A Tract of Land in Sections 28 and 29, T10 N, R85W

Parcel Id.: 912282003 Lot No.:

Owner: STEAMBOAT LAKE OUTFITTERS, LLC

Applicant: COWBOY, INC.

Address: 7626 BRIGHTON RD

Address: ATTN: ANDY VOLK BOX 775111

COMMERCE CITY CO 80222-1529

STEAMBOAT SPRINGS CO 80477

Phone: 970-879-4404

Phone: 970-846-9753

As authorized and required by Chapter 25, Article 10 C.R.S., permission is hereby granted to the owner or a Routt County licensed ISDS installer to construct or repair an I.S.D.S. system at the property indicated above. All work must comply with the specifications on this permit and the Guidelines on Individual Sewage Disposal Systems - Revised 1988 - Colorado State Board of Health, 5 CCR 1003-6. This permit expires one year from date of issue.

SPECIFICATIONS

N Residential Y Commercial Other:

Number of bedrooms:

Percolation Rate: 0 MPI

Minimum Septic Tank Capacity:

Tank Material: Y Concrete N Polyethylene

Design: 1: Routt County EH Department shall certify that construction complies with permitted design.

Comments: SG 09/15/2009 THIS PERMIT IS TO REPLACE OLD TANK

WITH 2 - 1,500 GALLON TANKS.

Notice: All Sewage *HOLDING* Tanks must be Concrete. Inspections required (24 hour advanced notice required).

Environmental Health Specialist:

Date of Issue:

9/15/09

The above individual sewage disposal system installed by _____ has received a final inspection. The system is hereby approved for use.

Environmental Health Specialist:

Date

9/22/09

Fee: Percolation

Permit

State fee

\$0.00

\$0.00

\$0.00

\$100.00

See attached letter from Ed Chruska PE

RECEIPT

RECEIPT NUMBER:

R090001357

Routt County Environmental Health Department

P.O. Box 770087 Phone 970-870-5588

Steamboat Springs, CO 80477

APD #: EH-09-051
SITE ADDRESS: 60880 COUNTY ROAD 129 C
PARCEL: 912282003

TYPE: EH-Ind. Sewage Disp Sys

May include fees collected within the jurisdiction.

TRANSACTION DATE: 09/15/2009	TOTAL PAYMENT:	100.00
	TOTAL PAID FROM TRUST:	.00
	TOTAL PAID FROM CURRENCY:	100.00

TRANSACTION LIST:

Type	Method	Description	Amount
Payment	Check	#1166	100.00
TOTAL:			100.00

ACCOUNT ITEM LIST:

Description	Account Code	Current Pmts
Loan Inspection Fee	01-20-22-000-564	100.00
TOTAL:		100.00

RECEIPT ISSUED BY: SG

INITIALS: SAG

ENTERED DATE: 09/15/2009

TIME: 08:51 AM

BUILDING PERMIT #

EH-09-051

PERMIT PD

100.00 P&H

PERC PD

APPLICATION FOR INDIVIDUAL SEWAGE SYSTEM PERMIT

Cowboy Inc

NEW

REMODEL

REPAIR

EMERGENCY USE 9/10/09

Name of Owner Stanboat Lake Outfitters

Mailing Address

Phone 879-4404

Name of Applicant Cowboy Inc

Mailing Address Box 775111

Phone 846-9753

LOCATION OF PROPOSED SYSTEM:

Street Address 600880 RCR 129 1/2 W 1/4 4ND 1/4 W 1/4 846 9587 Widley Peak

Legal Description

Parcel ID#

912282023

(Lot# and Subdivision if applicable)

(this# can be found in the Assessor's Office)

Size of Lot 1/2 Acre

() Residential

(X) Commercial

() Other (Describe)

Number of:

Bedrooms

Restaurant bldg

Water Supply:

(X) Private Well

() Public (give name of supply)

An appropriate plot plan must accompany this application showing required information. inspection must be arranged with the Routt County Department of Environmental Health a plot plan. The permit, upon approval of this application may be obtained at the Routt County Health with payment of the required fee.

Application for an individual sewage disposal system is hereby submitted. The individual system constructed, installed and operated in accordance with the regulations governing individual Routt County and will comply with applicable State Regulations adopted pursuant to Article amended. The undersigned acknowledges that the above information is true and that false application or subsequent permit. The owner assumes all responsibility in case of failure or disposal system. (*Hot tubs and Jacuzzis shall not be connected on-site sewage disposal systems.)

Signature of Applicant

Arvid C. Voss

Date

9-10-09

Permit to

replace

2-1500 gold ST.

PLOT PLAN

Name _____

Location of proposed system: _____

Address _____

Street Address _____

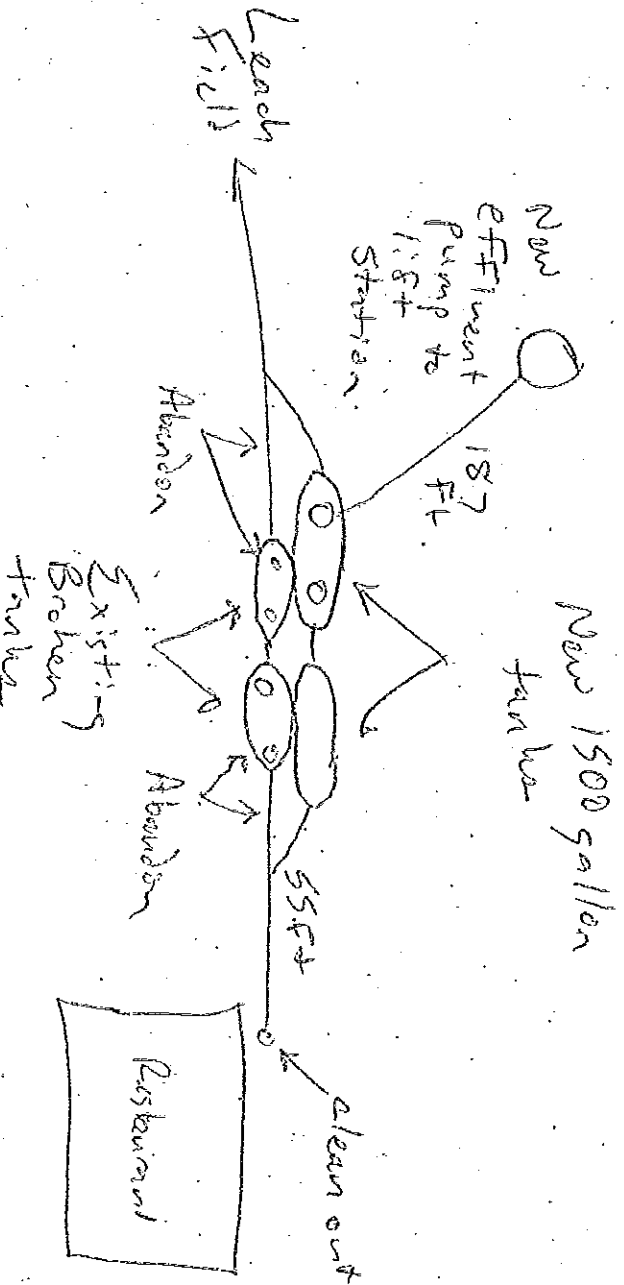
Legal Address _____

PLOT PLAN MUST INCLUDE THE FOLLOWING INFORMATION:

(LOCATE BY MEASURED DISTANCES)

1. Property lines and dimensions.
2. Proposed and existing water wells on subject property and adjacent property.
3. Domestic water service lines.
4. Proposed and existing building, driveways and other structures.
5. Streams, lakes, ponds, irrigation ditches and other water courses.
6. Proposed and existing waste disposal facilities.

SUBMIT A REVISED PLOT PLAN TO CONSTRUCTION IF INSTALLATION IS TO BE CHANGED FROM ORIGINAL PLAN.



CHURCH OWC, LLC

Onsite Wastewater Consultants

June 29, 2009

Steamboat Lake Outfitters, LLC
Attn: Russ Lambert
P.O. BOX 749
Clark, CO 80428

Subject: Steamboat Lake Outfitters, LLC
Restaurant drainfield surfacing
Routt County, Colorado
Job No. B708

Mr. Lambert,

This letter is in response to your call of June 25, 2009. It is understood Steamboat Lake Outfitters, LLC (SLO) received a call from the Routt County Environmental Health Department (RCEH) in regard to surfacing of effluent at the restaurant drainfield to the north of the restaurant. On June 29, 2009 I talked to Mike Zopf of RCEH, Andy Poirot of the Colorado Department of Health and Environment (CDPHE) and you. Based on the conversations, a diversion of effluent is proposed from the restaurant system to the existing Site Approved system to the southwest.

The conversation with Mike Zopf included that: 1) the surfacing needs to cease and 2) CHURCH Onsite Wastewater Consultants (COWC) is proposing the redirecting of effluent from the restaurant drainfield to the Site Approved Drainfields. The conversation with Andy Poirot was more informational about the proposed redirecting of effluent. Andy Poirot asked about the metering of effluent. COWC indicated the meters had been ordered and were expected to be installed in the next 2 weeks, so that the busy season will be monitored.


It is understood there are two fiberglass septic tanks serving the restaurant system, at the locations indicated on the attached Figure 1. There are two options for re-directing effluent to the Site Approved system. Option A is to install an Orenco Biotube Vault with pump in the second fiberglass tank. Effluent would then be pumped to the 1000-gallon lift station to the east as indicated on Figure 2. A typical Orenco Biotube Pump Vault detail and pump curve is presented as Figures 3-5. Option B would be to install a 500-gallon tank down-gradient of the 2nd fiberglass tank as indicated on Figure 6. A pump would be installed in the 500-gallon tank to redirect effluent to the 1000-gallon lift station serving the Site Approved system, which is to the east. A typical 500-gallon tank detail is presented as Figure 7. If Option B is selected, the installer will submit a pump curve for approval prior to installation. The pump should be a Hydromatic, Gould or equivalent quality pump. With either case, floats should be set to discharge 200 gallons to the 1000-gallon lift station.

It is essential that the redirecting occur quickly. What will happen, if it is not done quickly, is that RCEH will require SLO to plug the sewer line from the septic tank to the drainfield, and pump and haul wastewater from the restaurant, or close the restaurant building.

COWC does not know the permit fee for this, but will ask RCEH. A permit from RCEH will be needed.

If there are questions, please call.

CHURCH Onsite Wastewater Consultants, LLC


Edward O. Church, P.E.



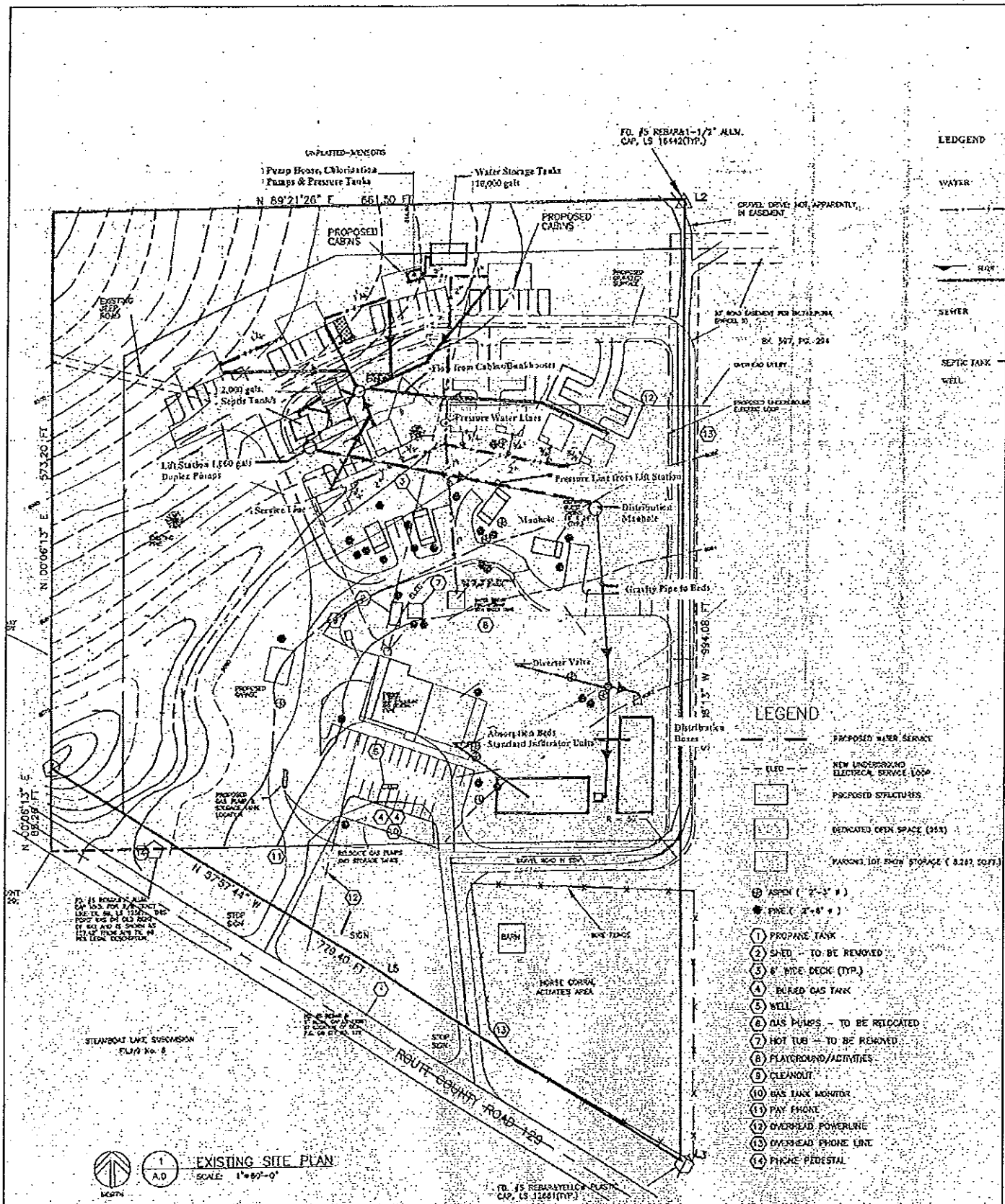
3 copies sent

Ec: russ@steamboatlakeoutfitters.com

Ec: CDPHE, WQCD, ATTN: Andy Poirot, Andrew.poirot@state.co.us

Ec: Routt County Environmental Health, ATTN: Mike Zopf, mzopf@co.routt.co.us

Ec: geidsness@transwest.com



CHURCH OWC, LLC
Onsite Wastewater Consultants
Onsite Wastewater Engineering-Geological Engineering
9590 W. 14th Ave, Suite. 100, Lakewood, CO 80215
Voice: (720) 898-3434 Fax: (720) 898-3455

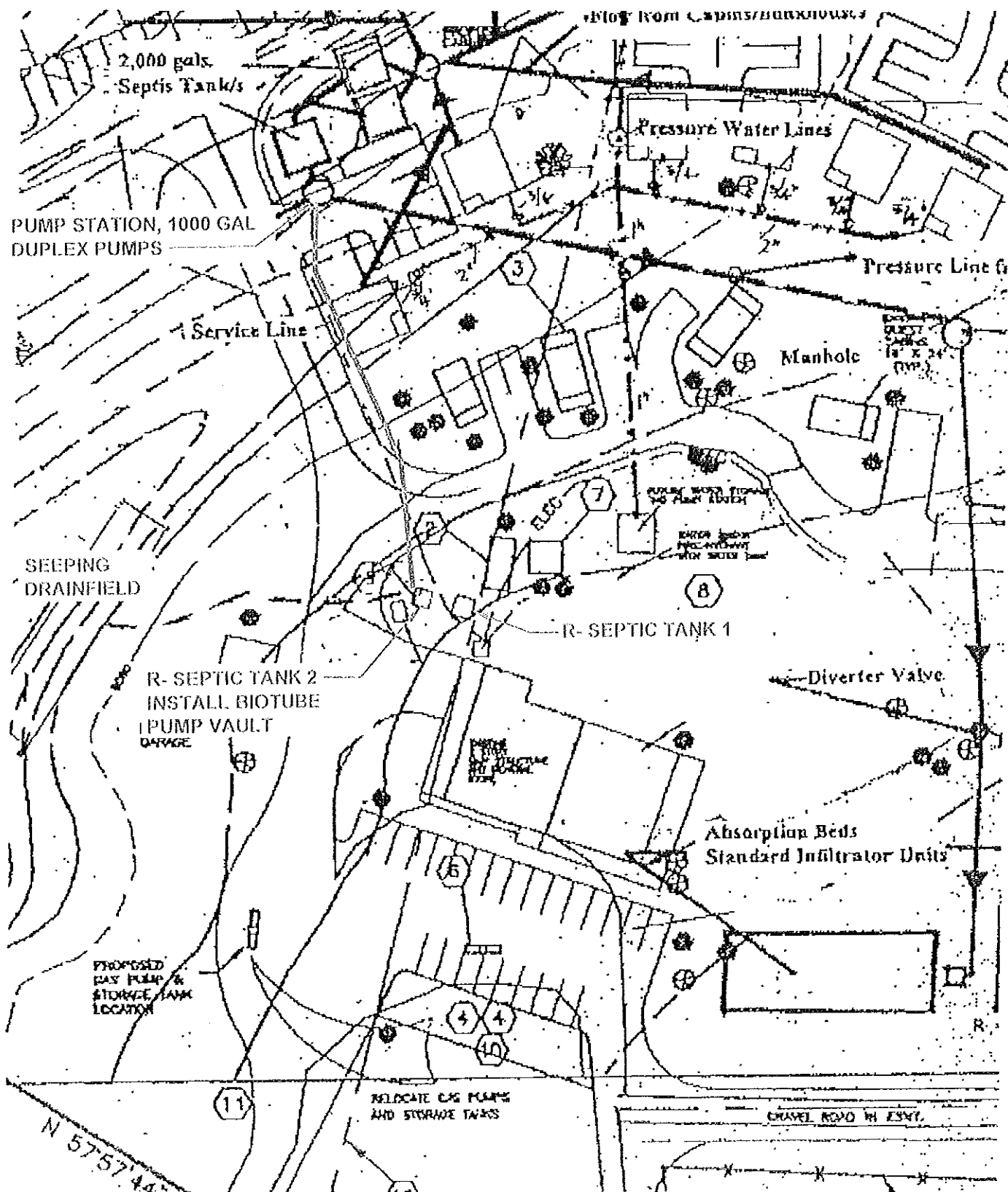
JOB NO. B708

STEAMBOAT LAKE OUTFITTERS OWS

SITE PLAN

DATE: 01/13/2009

FIGURE 1



FROM: MAPHIS INTERNATIONAL, LTD, APPLICATION FOR SITE APPROVAL, JUNE 1999

STEAMBOAT LAKE OUTFITTERS OWS

CHURCH OWC, LLC

Onsite Wastewater Consultants
Onsite Wastewater Engineering-Geological Engineering
9590 W. 14th Ave, Suite. 100, Lakewood, CO 80215
Voice: (720) 898-3434 Fax: (720) 898-3455

REDIRECTION OPTION A

JOB NO. B708

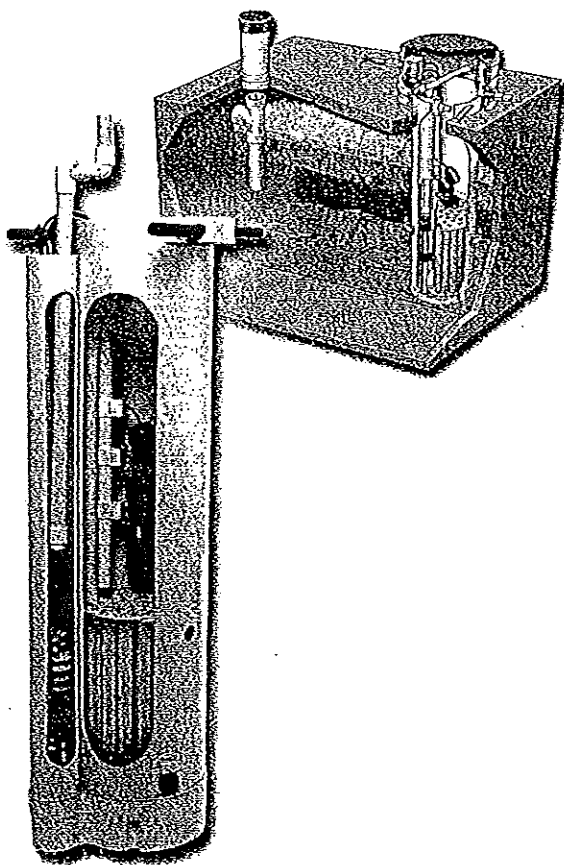
DATE: 6/29/2009

FIGURE 2

Biotube® Pump Vault

Applications

Orenco's patented* Biotube Pump Vaults in 8" and 12" diameter sizes are ideal for filtering and transporting effluent from septic tanks or separate dosing tanks in effluent pumping systems. They prevent large solids from leaving the tank, dramatically improving wastewater quality and extending the life of downstream treatment systems. Each PVC pump vault houses an Orenco High Head Effluent Pump, discharge assembly, Biotube filter cartridge, float switch bracket, and float switch assembly. Pump, float switches, and discharge assembly are ordered separately.



Orenco's Biotube Pump Vault comes with Biotube filter cartridge, float switch bracket, and support pipes. It easily drops into virtually any septic or dosing tank opening. The unique Biotube filter cartridge provides a large filter surface area (see specs. on back) in a small space, to resist clogging while providing maximum long-term protection.

APS-BPV-1
Rev. 1.0 © 2/00

JOB NO. B708

*Covered by patent numbers 5,492,635 and 4,439,323

Standard Features & Benefits

- Installs quickly in virtually any new or existing tank
- Easy access design allows filter cartridge removal without pulling the pump or vault; simplifies filter inspection and maintenance
- Patented Biotube filter has several times the filtering capacity of other pump vaults
- Removes approximately two-thirds of suspended solids, on average
- Available in Simplex or Duplex configuration, for use with one or two pumps
- Float switch bracket allows easy removal and adjustment of float switch assembly
- Corrosion-proof construction ensures long life

Biotube Filtering Process

Effluent from the relatively clear zone of the septic tank, between the scum and sludge layers, enters the Biotube Pump Vault through inlet holes in the housing. Effluent then enters the annular space between the housing and the Biotubes, utilizing the Biotubes' entire surface for filtering. Particles larger than the Biotube's mesh are prevented from leaving the tank.



Orenco Systems®
Incorporated

*Changing the Way the
World Does Wastewater®*

www.orenco.com

FIGURE 3

Model Code for Ordering

Biotube® Pump Vault

X □ □ □ □ □ - □ □ □

Indicates inlet hole height: (inches)

Cartridge height: 18", 24", 36" standard

Vault height: 48"- 96" in 6" increments

Vault diameter:

08 = 8"

12 = 12"

Indicates number of pumps:

S = simple - (1)

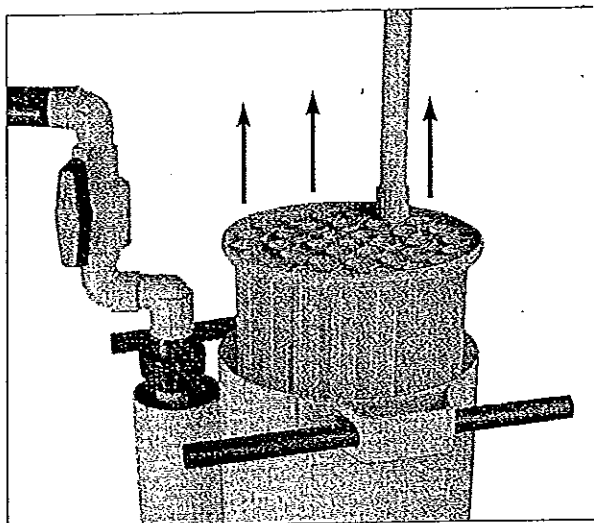
D = duplex - (2)

Indicates flow inducer diameter:

4 = 4" (up to 35 gpm)

5 = 5" (over 35 gpm)

Pump vault with external flow inducer



Easy access design allows filter cartridge removal without pulling the pump or vault; simplifies filter inspection and maintenance

To Order

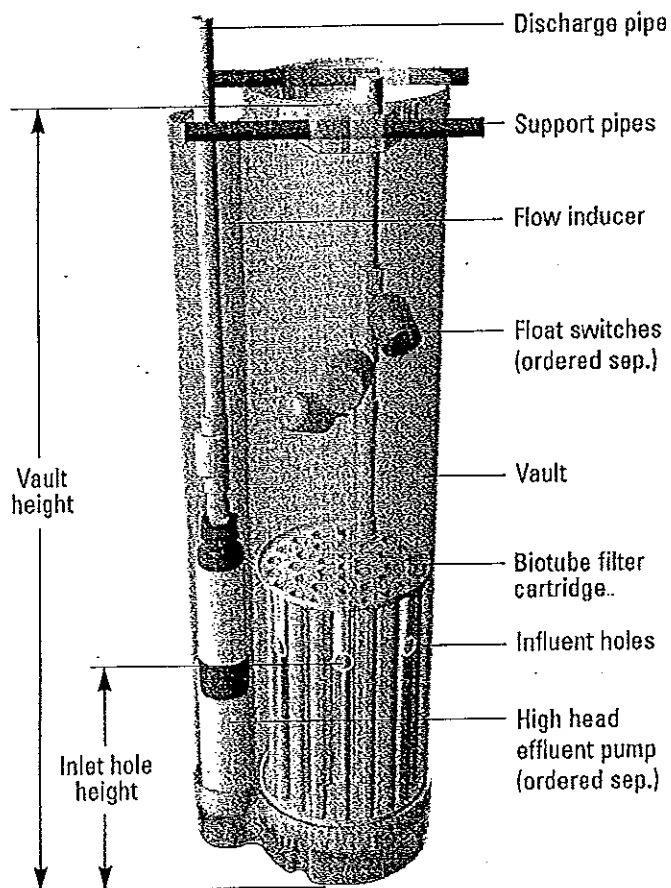
Call your nearest Orenco Systems, Inc. distributor. For nearest distributor, call Orenco at 1-800-348-9843.

www.orenco.com

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Distributed By:

Biotube Pump Vault Components



Biotube Cartridge Effective Screen Area

Cartridge Height	8" Diameter	12" Diameter
18"	8.4 ft ²	16.8 ft ²
24"	11.2 ft ²	22.4 ft ²
36"	16.8 ft ²	33.6 ft ²

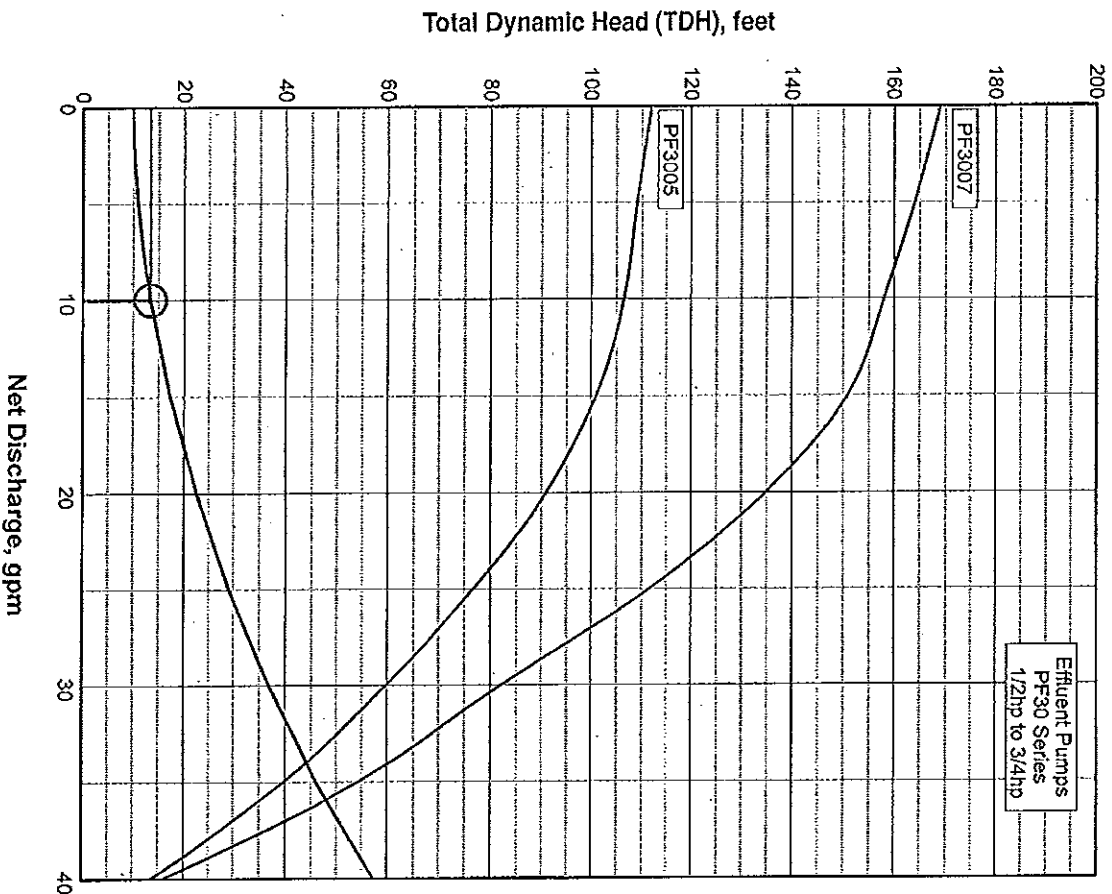
Orenco's Biotube Pump Vault is available in standard and customized configurations. Contact Orenco or your nearest distributor for sizing recommendations.

Pump Selection for a Non-Pressurized System

B708 Steamboat Lake Outfitters
Restaurant Re-direction, Figure 5

Input Parameters	
Design Flow Rate	10 gpm
Distributing Valve Model	None
Lift to Discharge	10.0 feet
Transport Line Length	200.0 feet
Transport Line Size	1.25 inches
Transport Pipe Class/Schedule	40
Discharge Assembly Size	1.25 inches
Flow Meter	None
'Add-on' Friction Losses	0.0 feet

Calculations	
Head Loss Through Distributing Valve	0.0 feet
Head Loss in Transport Pipe	2.9 feet
Head Loss Through Discharge	0.5 feet
Head Loss Through Flow Meter	0.0 feet
'Add-on' Friction Losses	0.0 feet
Total Flow Rate	10.0 gpm
TDH	13.4 feet



Oreco Systems
Incorporated

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SUTHERLIN, OREGON

97479

TOLL FREE

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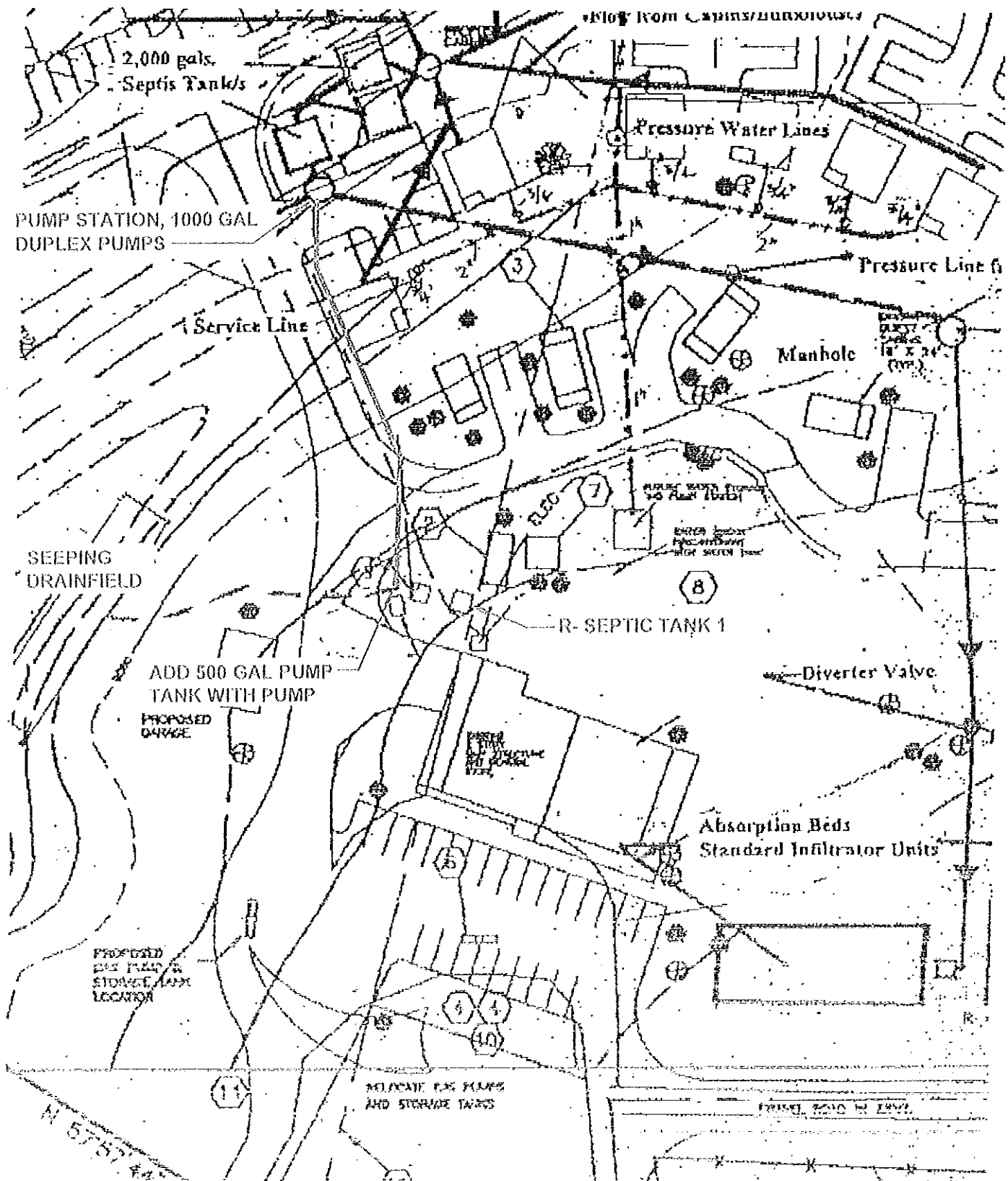
TELEPHONE

(541) 459-4449

FACSIMILE

(541) 459-2884

WWW.ORECO.COM



FROM: MAPHIS INTERNATIONAL, LTD, APPLICATION FOR SITE APPROVAL, JUNE 1999

CHURCHOWC, LLC

Onsite Wastewater Consultants
Onsite Wastewater Engineering-Geological Engineering
9590 W. 14th Ave. Suite. 100, Lakewood, CO 80215
Voice: (720) 898-3434 Fax: (720) 898-3455

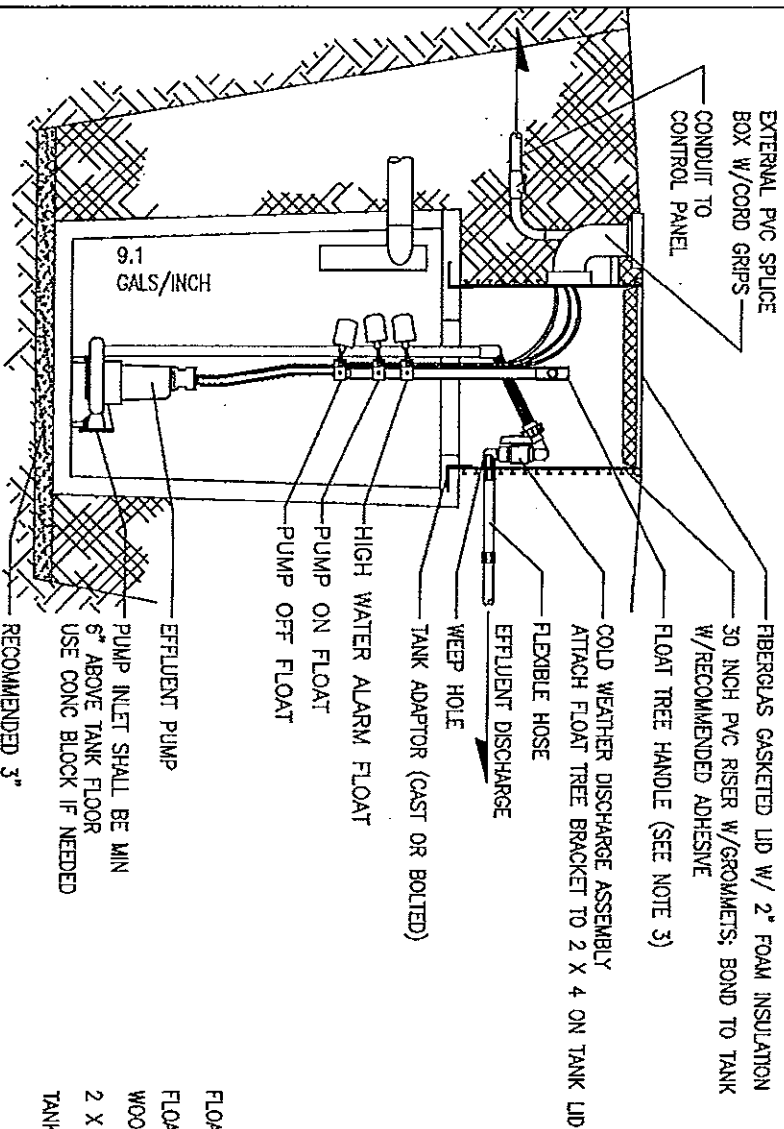
STEAMBOAT LAKE OUTFITTERS OWS

REDIRECTION OPTION B

JOB NO. B708

DATE: 6/29/2009

FIGURE 6

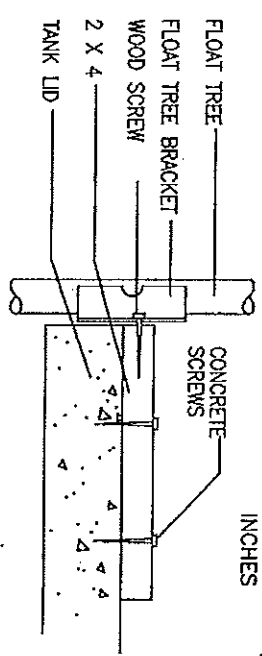


FLOAT ELEVATION SETTINGS:
 SET THE HIGH WATER ALARM FLOAT ACTIVATION ELEVATION 1-INCH BELOW THE TANK INLET ELEVATION.
 SET THE PUMP ON FLOAT ACTIVATION ELEVATION 3-INCHES BELOW THE HIGH WATER ALARM ACTIVATION ELEVATION.
 SET THE PUMP OFF FLOAT ACTIVATION ELEVATION 23.4-INCHES BELOW THE PUMP ON ACTIVATION ELEVATION.

ELECTRICAL REQUIREMENTS	
ONE 115V, 20-AMP CIRCUIT FOR PUMPS	
ONE 115V, 10-AMP CIRCUIT FOR CONTROLS	

DOSING CALCULATIONS

1. DOSE GALLONS = 200 GALS
2. DRAINBACK VOL = 210 LF X 0.064 GALS/FT = 13.5 GALS
3. TANK GPI = 9.1
4. FLOAT SEPARATION = 200 GALS + 13.5 GALS / 9.1 GPI = 23.4 INCHES



- GENERAL DOSING TANK NOTES:**
1. CONTRACTOR SHALL FURNISH AND INSTALL AN EXTERNAL SPLICE BOX.
 2. ALL EQUIPMENT ACCESS HANDLES SHALL BE EXTENDED TO A MAX OF 12" BELOW BOTTOM OF RISER LID.
 3. DISCHARGE PIPE SHALL HAVE AN AIR/VACUUM RELEASE VALVE AT HIGH POINT BETWEEN THE ADV AND THE PUMP OUTLET.
 4. PUMP SHALL HAVE A COLD WEATHER DISCHARGE ASSEMBLY. WEEP HOLE IN DISCHARGE ASSEMBLY SHALL DRAIN BACK INTO SEPTIC TANK.
 5. ALTERNATE TANK CONFIGURATIONS ARE POSSIBLE WITH PRIOR WRITTEN APPROVAL OF DESIGN ENGINEER.
 6. SLOPE FINISHED GRADE AWAY FROM TANK LIDS AT MIN 5% FOR 5-FEET. MIN SLOPE THEREAFTER IS 2% AWAY FROM TANK.
 7. FLOAT SEPARATION CALCULATIONS BASED ON A VALLEY PRECAST CONCRETE TANK. IF OTHER MFG. TANK IS USED, CONTACT DESIGN ENGINEER FOR VERIFICATION OF DOSE VOLUME. NO MID-SEAM OR MID-FLOW THROUGH BAFLE TANKS SHALL BE ALLOWED.
 8. PROOF ROLL SUBGRADE PRIOR TO PLACING BEDDING. COMPACT BEDDING TO MIN 95% MAX DRY DENSITY.
 9. PROVIDE EXCAVATION FOR TANK IN ACCORDANCE W/OSHA REGULATIONS TO FURNISH A SAFE WORKING ENVIRONMENT FOR INSTALLERS.
 10. FASTEN FLOAT TREE RETAINER TO FACE OF TANK LID ACCESS HOLE.
 11. INSULATE TANK LIDS AND RISERS W/2" CLOSED CELL FOAM INSULATION AT SITES WHERE FROST PENETRATION EXCEEDS 36".

CHURCH OWC, LLC

Onsite Wastewater Consultants
 Onsite Wastewater Engineering-Geological Engineering
 9590 W. 14th Ave., Ste. 100, Lakewood, CO 80215
 Voice: (720) 898-3434 Fax: (720) 898-3455

STEAMBOAT LAKE OUTFILTERERS OWS

500-GAL PUMP TANK & PUMP

DESIGNED BY: RMW
 DRAWN BY: RMW
 CHECKED BY: KEK
 DATE: 6/29/2009

CHURCH OWC, LLC

Onsite Wastewater Consultants

September 20, 2010

SEP 22 2010

Steamboat Lake Outfitters LLC

Attn: Russ Lambert

P.O. BOX 749

Clark, CO 80428-0749

Subject: OWS Design Installation Observation
60880 County Road 129
Interim Invoice - through 12-31-2008
Routt County, Colorado
Job No. B708

Mr. Lambert,

As requested, CHURCH Onsite Wastewater Consultants, LLC (COWC) performed site visits to observe the installation of the onsite wastewater system (OWS) at the subject site. COWC prepared OWS design documents under Job No. B708 dated April 22, 2010.

A site visit was performed on July 8, 2010 at the request of Rick Mewborn of Nordic Excavating, the contractor of record. At the time of the site visit, the system layout was discussed.

A site visit was performed on August 28, 2010. At the time of the site visit, at the time of the site visit a 500-gallon concrete dosing tank was installed with an Orenco biotube pump vault containing two pumps. The 4-inch SDR 35 pipe was installed from the existing septic tank to the dosing tank.

The 1.5-inch Schedule 40 PVC pipe to the ADV was installed with greater than 1% slope back to the dosing tank. The 4-outlet ADV was installed at the high point in a 30-inch riser. The piping was plumbed for an air-vacuum relief valve, but the valve was on back-order. The outlet piping was connected to manifolds that did not contain ball valves. Mr. Mewborn indicated he would send pictures when the ball valves and air-vacuum relief valve were installed.

The drainfields were installed in three separate areas, one 12-foot by 100-foot section, five 10-foot by 100-foot sections and four 10-foot by 50-foot sections. Observation pipes were installed on the downhill pipe of each section.

COWC received pictures of the air-vacuum relief valve and ball valves installed on September 17, 2010 from the excavator.

The observed components of the OWS appear to be installed in general conformance with the CHURCH OWS design, plans and specifications.