DRILLER'S SERVICE INC.
1792 HIGHLAND AVE. NE. HICKORY, NC 28601
828-322-1103 877-246-7896

April 4, 2013

Mr. Justin Henderson, REHS
Iredell County Environmental Health Dept.
Statesville, NC 28677

RE: Darrell Horny Property
135 Kaywood Lane
Statesville, NC

Dear Mr. Henderson:

This letter serves as notification that the On-site Anaerobic Drip System installed at the above referenced location has been completed and is functional. To the best of my knowledge, the system has been installed in accordance with all State and local codes and regulations, and in accordance with the manufacturer's recommendations. The system will be checked once again once the permanent power to the house has been turned on and the house is occupied, and the system will be left in automatic mode of operation.

If you have any questions, please feel free to contact me at any time. Thank you.

Sincerely:

Tim Barbee
System Designer
DSI Wastewater
704-589-0595

NORTH CAROLINA WORKSHEET - Dispersal system design worksheet for residential systems.

line #	INPUTS				
		Select One			You must be able to answer **YES** to both questions in order to continue.
		yes			Are supply and return pipes 1"?
		yes			Is the lift to the HU <8' and the run to the HU<30' with 1-1/2" pipe?
1	**Anaerobic**	**Select One: Anaerobic or Aerobic?**			Aerobic may use either ASD 15 or QM Zone Details. Anaerobic may only use ASD 15 Zone Details.
2	**Soil Group III.**	**Select One: Soil or Saprolite Group?**			Found in column 1 on the Loading Rate Chart. (given by site evaluator)
3	**240**	**Select One**			Design quantity of wastewater to disperse. This row equals the total number of GPD. **Remember to multiply # Bedrooms by 120.**
		# Bedrooms x 120			
4	**50**	**Contour Run Length**			Enter the tubing length along contour. If run length is not on table, use the actual run length. Example: 85 ft.
5	**150**	**Supply LF**			Length of supply line between hydraulic unit and farthest zone.
6	**4**	**Lift Ft.**			Vertical lift from off level in the pump chamber and highest zone elevation.
7	**0.2**	**Area (gpd/ft^2) per code**	Tab over from **Perc Rate** Soil Group III. on **Loading Rate Chart**		Area loading rate required to treat and disperse wastewater. This line is to be input from Loading Rate Chart. (See Loading Rate Chart)
8	**1200**	**Area Calculation**			Total land area needed to disperse wastewater.
9	**600**	**Total LF Tubing**			**Required** total linear feet of tubing to treat and disperse wastewater.
10	**12.00**	**Calculated Runs**			Determines number of runs (Total LF / Contour RL). **Rounds up to the next whole number**. Found on Zone Detail Table.
	12	**Min. # Runs**			
11	Z: **1** L: **3** R: **4**	**Zone Detail**	**ASD 15:** Z134 **QM 12:** 0 Input the appropriate Zone Detail # into the drop-down list to the left.	On **Zone Detail Table**, cross the next highest **Run Length** (ft) from 50 with the row for at least 12 **runs**	**You may use:** only the ASD 15 Zone Detail Table. Select zone detail from column with next higher **Contour Run Length** and with equal or greater **# Runs**. You may input your Zone Detail # in the indicated cell next to the chart. It will then appear in the second column to the left on this worksheet.
12	**61**	**Max. Lift Allowed**	**ASD 15:** 61 **QM 12:** 0	On **Lift & Distance Table**, cross the **Supply/Return** 150 with the column for 3 **laterals**	**You may use:** only the ASD 15 Lift & Distance Table. You may input your Lift in the indicated cell next to the chart. It will then appear in the second column to the left on this worksheet.
		ASD 15 gpm	Select which Lift & Distance table you used in the box to the left.		
13	**600**	**LF Provided**			Total linear feet of tubing **Provided** to disperse wastewater.
14	**600**	**LF/Zone**			Total linear feet per zone.
15	**YES**	**Will zone flush?**			Reference Lift & Distance Table for pump capacity determined by the length of run to the farthest field and the number of laterals. For 1" supply and return only.
	57	**Residual TDH Available**			

*In line **# 11**, **Z** = # of zones, **L** = laterals per zone, **R** = runs per lateral

	given by engineer	1
	auto-computed	1
	looked up on tables	3

user select

Back to top of page

OPERATING PARAMETERS

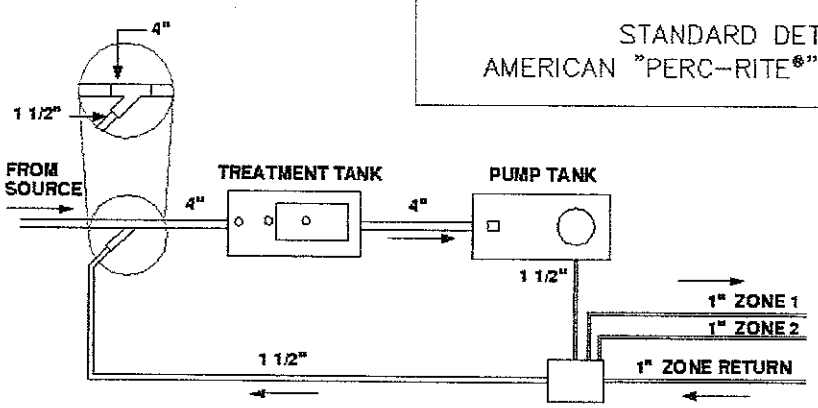
16	240		Peak Gallons per day	Maximum or design gallons per day.
17	144		Average Gallons per day	Average gallons per day. (calculated as 60% of Peak)
18	3.05		Dosing Flow (gpm)	Based on .61 gph per emitter.
19	7.85		Flushing Flow (gpm)	Flow to generate 2 fps at the distal end of each lateral.
20	39		Gallons per dose	The zone dose volume is 5 times the volume of the pipe.
21	6.15		Peak Design Doses per day	The total number of zone doses. Individual zone doses is this number divided by the number of zones.
22	656.6		Run Time (Seconds)	Estimated run time for dose gallons based on filtration capacity, flushing flow, and dosing rate
23	Zone	min	Default Standard Rest Time	This is the rest time at average flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
	1	160		
24	Zone	min	Default Peak Rest Time	This is the rest time at peak flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
	1	90		
25	Zone	min	(Recommended) Calculated Standard Rest	This is the rest time at average flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
	1	390		
26	Zone	min	(Recommended) Calculated Peak Rest Time	This is the rest time at peak flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
	1	234		
27	Zone	doses/ day	(Recommended) Calculated Standard doses per day	This is the total number of doses per day independent of the number of zones. The rest time is independent of run time. (450 gal. per day / 50 gal per dose = 9 doses per day) for a 2, 3, or 4 zone system.
	1	3.7		
28	Zone	doses/ day	(Recommended) Calculated Peak doses per day	This is the total number of doses per day independent of the number of zones. The rest time is independent of run time. (450 gal. per day / 50 gal per dose = 9 doses per day) for a 2, 3, or 4 zone system.
	1	6.2		

Copyright ©, American Manufacturing Company, Inc., 2008

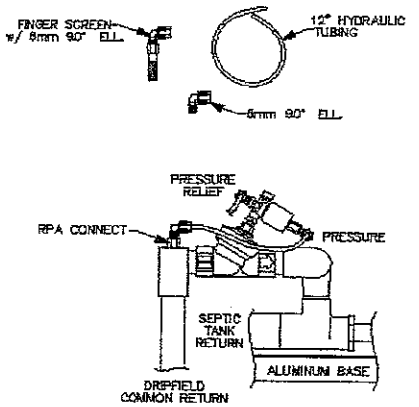
Back to top of page

PERC-RITE®
DESIGN SUBMITTAL
STANDARD DETAILS

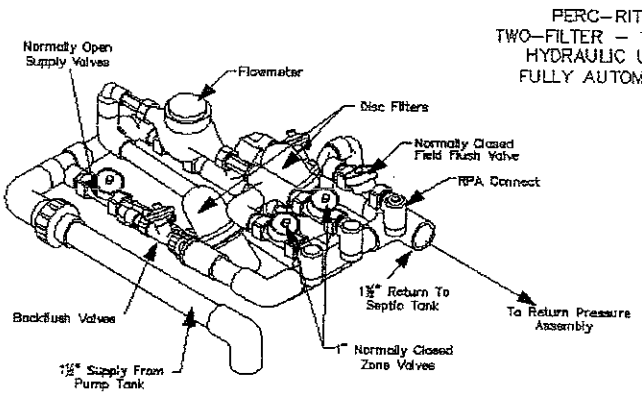
STANDARD DETAILS
AMERICAN "PERC-RITE®" DRIP SYSTEM



TANK EQUIPMENT AREA
SCHEMATIC PLAN



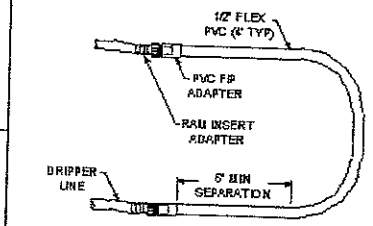
RETURN PRESSURE ASSEMBLY (RPA)
NTS



NOTE:
IN THE EVENT THE DRIP ZONES ARE OVER 10 FEET IN VERTICAL ELEVATION ABOVE THE HYDRAULIC UNIT, INSTALL A "RETURN PRESSURE ASSEMBLY." THE ASSEMBLY IS TO BE USED TO PREVENT THE RETURN LINE FROM DRAINING AFTER OR DURING A DOSE. REMOVE THE ZONE RETURN CONNECTION AND REINSTALL A SHORT 1" NIPPLE IN THE RETURN VALVE. INSTALL ASSEMBLY AS SHOWN TO THE LEFT. THE HYDRAULIC TUBING PROVIDING PRESSURE FOR THE REST OF THE UNIT MUST BE PLUGGED AND THE NEW TUBING FROM THE ASSEMBLY CONNECTED TO THE PRESSURE SIDE OF THE SILENOID.

CopyRight© 2002

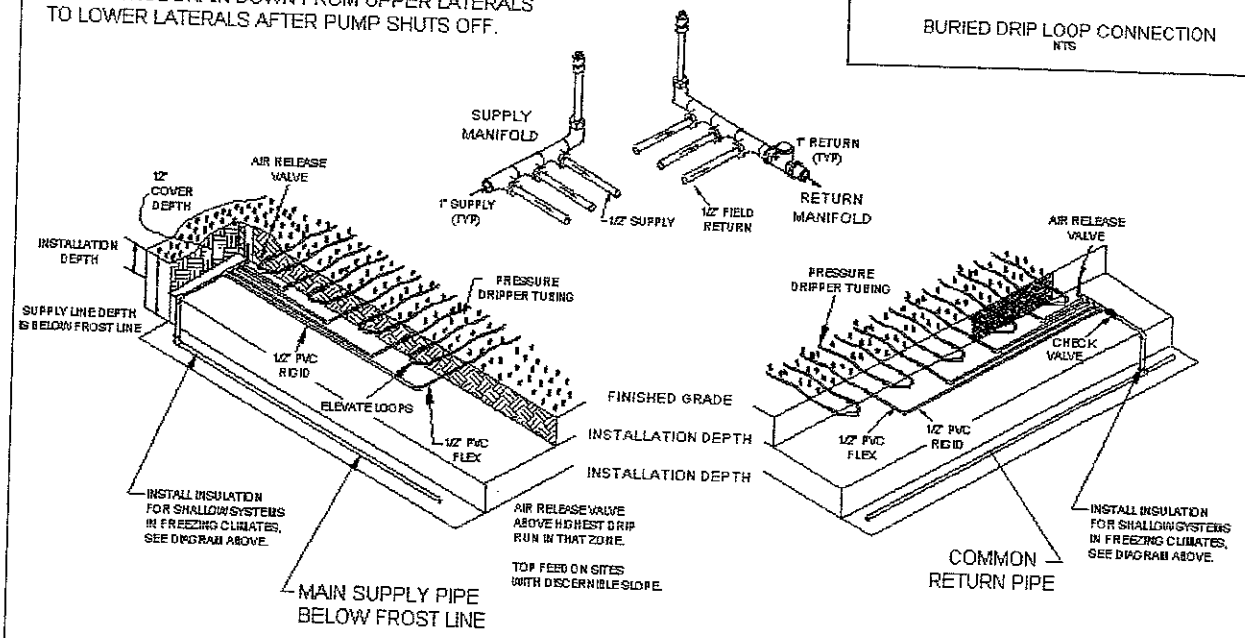
STANDARD DETAILS
AMERICAN "PERC-RITE " DRIP SYSTEM



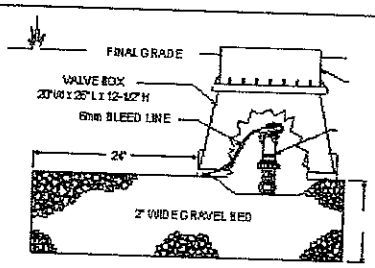
BURIED DRIP LOOP CONNECTION
NTS

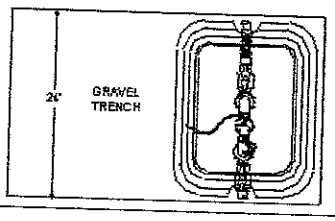
TOP FEED MANIFOLDS

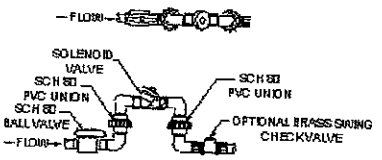
USE ON ALL SITES WITH A DISCERNIBLE SLOPE
TO CONTROL DRAIN DOWN FROM UPPER LATERALS
TO LOWER LATERALS AFTER PUMP SHUTS OFF.



RESIDENTIAL
Patent No. 5,984,574







OPTIONAL
TYPICAL REMOTE ZONE VALVE
NTS

REMOTE ZONE VALVE

TYPICALLY USED ON DRIP SYSTEMS WHEN ZONES OR PORTIONS OF ZONES ARE LOCATED AT A LOWER ELEVATION THAN THE "REDUNDANT OFF" LEVEL FLOAT IN THE PUMP TANK. 24V IS REQUIRED AT EACH "REMOTE ZONE VALVE".

CopyRight© 2002