ROLLANS *SOIL & ENVIRONMENTAL SERVICES*

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Attached is a proposed design for an Accepted (25% reduction) Septic System with Gravity distribution for a 4 bedroom single family residence on Lot #6 THE ORCHARDS Subdivision, Iredell County, North Carolina.

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August 7, 2006
Project No. 01-1195
Design By: Rollans Soil and Environmental Services

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- Design precludes use of foundation drains on the residence.
- System is specified as an innovative 25% reduction installation.
- Repair is specified as a PPBPS installation.
- Rake trench walls, lime sidewalls, install trenches 36" wide level but have no more than 1/4" fall in 10 feet.

THE ORCHARDS SUBDIVISION Lot #6

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	1200
TOTAL LATERAL LENGTH:	400
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	400
SUPPLY LINE LENGTH:	15
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	NA

THE ORCHARDS LOT 6

Project #: 01-1152

LAYOUT FOR 4 BEDROOM HOME

August 7, 2006

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		N/A			100.00		
TANK		N/A	N/A				
HOUSE		N/A	N/A				
INSTR. 1			N/A				
1	ORANGE			N/A	N/A	30	30
2	***BLUE***			***N/A***	***N/A***	***104***	***100***
3	***PINK***			***N/A***	***N/A***	***108***	***100***
4	***RED***			***N/A***	***N/A***	***104***	***100***
5	***ORANGE***			***N/A***	***N/A***	***107***	***100***
6	BLUE			N/A	N/A	108	108
7	PINK			N/A	N/A	100	100
8	RED			N/A	N/A	58	58
9	ORANGE			N/A	N/A	37	37
					Total	**756**	**733**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	***400***	***0.30***	***ACCEPT.***	***0.30***	***25% RED.***	**GRAVITY**
Repair	333	0.25	*MOD.*	0.25	PPBPS	**DISTRIBUTION** LOW PRESSURE

Notes:

** TBM NOT REQUIRED

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings