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 #11 and 12 Davidson Ridge Subdivision, Iredell County, North Carolina.

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July 3, 2006
Design By: Rollans Soil and Environmental Services

Gravity 25% Reduction
FOR WASTEWATER TREATMENT

Owner: JASON ENDERS

Address: 116 Gasoline Alley
Mooresville, NC 28115
Phone: 704-664-2277
County: Iredell
Location: Davidson Ridge Subdivision Lot 11 and 12

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 480 gpd
System Flow: NA

Design Specifications

Drainfield Size: 480
Loading Rate: 0.25
Depth of Gravel in Trench: NA (25% reduction)
Gravel Size: NA (25% reduction)
Trench Depth: 18 in.
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: N/A

Estimated Supply Line Length: 20
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 3.48
Dosing Volume: NA
Supply Manifold: True Flow Splitter
Supply Manifold Length: NA
Supply Manifold Volume: N/A

Recommended Float Controls: NA

Recommended Control Panel: NA

Pressure Head: NA
Friction Head: NA
Elevation Head: NA
Total Dynamic Head: NA

Threaded Union: NA
Gate Valves: NA
NA
Check Valves: NA
Anti-Siphon Hole: NA
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services.

DAVIDSON RIDGE SUBDIVISION LOT 11 AND 12

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.25
TOTAL AREA TRENCH BOTTOM:	1440
TOTAL LATERAL LENGTH:	480
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	480
SUPPLY LINE LENGTH:	20
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

DAVIDSON RIDGE LOT #11 AND 12

LAYOUT FOR 4 BEDROOM HOME

July 3, 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	***PINK***			***N/A***	***N/A***	***96***	***96***
2	***BLUE***			***N/A***	***N/A***	***96***	***96***
3	***RED***			***N/A***	***N/A***	***96***	***96***
4	***ORANGE***			***N/A***	***N/A***	***96***	***96***
5	***PINK***			***N/A***	***N/A***	***96***	***96***
6	BLUE			N/A	N/A	96	80
7	RED			N/A	N/A	94	80
8	ORANGE			N/A	N/A	96	80
9	PINK			N/A	N/A	87	80
10	BLUE			N/A	N/A	80	80
11	RED			N/A	N/A	80	80
					Total	**1013**	**960**

	LINE LENGTH	LTAR GPD/FT²	SYSTEM TYPE	SOIL LTAR GPD/FT²	TRENCH SYSTEM	DISTRIBUTION
**** System***	***480***	***0.25***	***ACCEPT.***	***0.25***	***25% RED.***	**GRAVITY DISTRIBUTION**
Repair	480	0.25	*ACCEPT.*	0.25	25% RED.	GRAVITY DISTRIBUTION

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