SOIL/SITE EVALUATION

(Continuation Sheet)

Sheet ___ of ___

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

SPRING MEADOWS LOT 52

PROPERTY ID #: _____
DATE OF EVALUATION: _____
COUNTY: _____

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LSS ⑥ 5-8%	0-4	BSCl GR	fri SSSPSeaP	—	48"	—	—	PS .3
		4-28	RC MFSBK	fri SSSPSeaP					
		28-48	RCl WSBK	fri SSSPSeaP					
				⑥ few YB Motels					
2	LSS 5-8%	0-6	BSCl GR	fri SSSPSeaP	—	48"	—	—	PS .275-.3
		6-48	RC MFSBK/ABK	fri SSSPSeaP					
3	LSS 5-8%	0-14	BSCl WSBK	fri SSSPSeaP	2 chroma @ 38"	48"	—	38"	PS .125 to 38"
		14-48	RAC/SC WFABK	fri SSSPSeaP					
4	LSS 5-8%	0-6	BSCl GR	fri SSSPSeaP	—	48"	—	—	PS .25
		6-48	RC MFABK	fri SSSPSeaP					
				YB Motels					

COMMENTS: _____

ROLLANS *Soil & Environmental Services, Inc.*

470 North Broad St., Suite D, Mooresville, NC 28115 *Phone: (704) 658-1723* *Fax: (704) 658-1724*

Ashley Rollans, NC Licensed Soil Scientist
Mobile: (704) 746-5046
E-mail: Rollansfortcj@aol.com

Brady Freeman, Registered Sanitarian
Mobile: (704) 746-6497
E-mail: bfree209@yahoo.com

Attached is a proposed design for an Accepted (25% reduction) Septic System with Gravity distribution for a 3 bedroom single family residence on Lot #52 SPRING MEADOWS Subdivision, Iredell County, North Carolina.

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May 15, 2007
Project #: 01-1382
Design By: Rollans Soil and Environmental Services

FOR WASTEWATER TREATMENT

Owner:	Distinctive Builders of the Carolinas, LLC
Address:	116 Angus Trail
Phone:	(704) 902 5352
County:	Iredell
Location:	SPRING MEADOWS LOT #52
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	360
System Flow:	21.33

Design Specifications

Drainfield Size:	360
Loading Rate (gpd/ft.^{2}):	0.25
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Trench Depth:	25 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	n/a
Estimated Supply Line Length:	35
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	6.09
Dosing Volume:	n/a
Supply Manifold:	d box
Supply Manifold Length:	n/a
Supply Manifold Volume:	N/A
Recommended Float Controls:	n/a n/a
Recommended Control Panel:	n/a n/a
Pressure Head:	N/A
Friction Head:	N/A
Elevation Head:	N/A
Total Dynamic Head:	N/A
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.

SPRING MEADOWS LOT #52

DESIGN FLOW (gpd):	360
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.25
TOTAL AREA TRENCH BOTTOM:	1080
TOTAL LATERAL LENGTH:	360
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	360
SUPPLY LINE LENGTH:	35
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN":	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

SPRING MEADOWS LOT #52

Project #: 01-1382

LAYOUT FOR 3 BEDROOM HOME

May 15, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		N/A			100.00		
INSTR. 1			N/A				
HOUSE CNR				N/A	N/A		
P. TANK				N/A	N/A		
1	PINK			N/A	N/A	70	70
2	***BLUE***			N/A	N/A	*161*	*120*
3	***ORANGE***			N/A	N/A	*165*	*120*
4	***DARK PINK***			N/A	N/A	*170*	*120*
5	PINK			N/A	N/A	157	157
6	BLUE			N/A	N/A	146	146
					Total	**869**	**733**

	LINE LENGTH	LTAR GPD/FT²	SYSTEM TYPE	SOIL LTAR GPD/FT²	TRENCH SYSTEM	DISTRIBUTION
** System*	*360*	*0.250*	*ACCEPT.*	*0.250*	*25% RED.*	DISTRIBUTION BOX
Repair	373	0.250	*MOD.*	0.250	25% RED.	LOW PRESSURE

Notes:

** TBM located on angle point of lot (see site plan)

**TBM is assumed to be 100'

**All measures in feet

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

**BS, HI, and FS indicate rod readings

CALCULATIONS

Location SPRING MEADOWS

Project Number 01-1382

Lot No: Lot 52

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	35	ft.
Supply Line Volume	6.09	gal.
Required Feet of Line	360	ft.
Amount of Line from Layout	360	ft.
Gallons per Minute	N/A	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	235.08	gal.
Dosing Volume	N/A	gal.

Note: Dosing Volume based on70% of lateral line volume

Tank Draw Down	N/A	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	N/A	minutes
Elevation Head	N/A	ft.
Pressure Head	N/A	ft.
Friction Factor	N/A	ft./100 ft. *(From the interpolater.)*
Friction Head	N/A	ft.
Total Dynamic Head (+15%)	N/A	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42