Gravity 25% Reduction
FOR WASTEWATER TREATMENT

Owner: CORINTHIAN BUILDERS

Address: PO BOX 990
DENVER, NC 28037
Phone: 704-400-1258
County: Iredell
Location: OAK RIDGE LOT 5

Source of Wastewater Flow: 3 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 360 gpd
System Flow: NA

Design Specifications

Drainfield Size: 360
Loading Rate: 0.25
Depth of Gravel in Trench: NA (25% reduction)
Gravel Size: NA (25% reduction)
Trench Depth: 36 in.
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: NA

Estimated Supply Line Length: 40
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 6.96
Dosing Volume: NA
Supply Manifold: Drop Boxes
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.

OAK RIDGE LOT 5

DESIGN FLOW:	360
SOIL APPLICATION RATE:	0.25
TOTAL AREA TRENCH BOTTOM:	1080
TOTAL LATERAL LENGTH:	360
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	360
SUPPLY LINE LENGTH:	40
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	NA

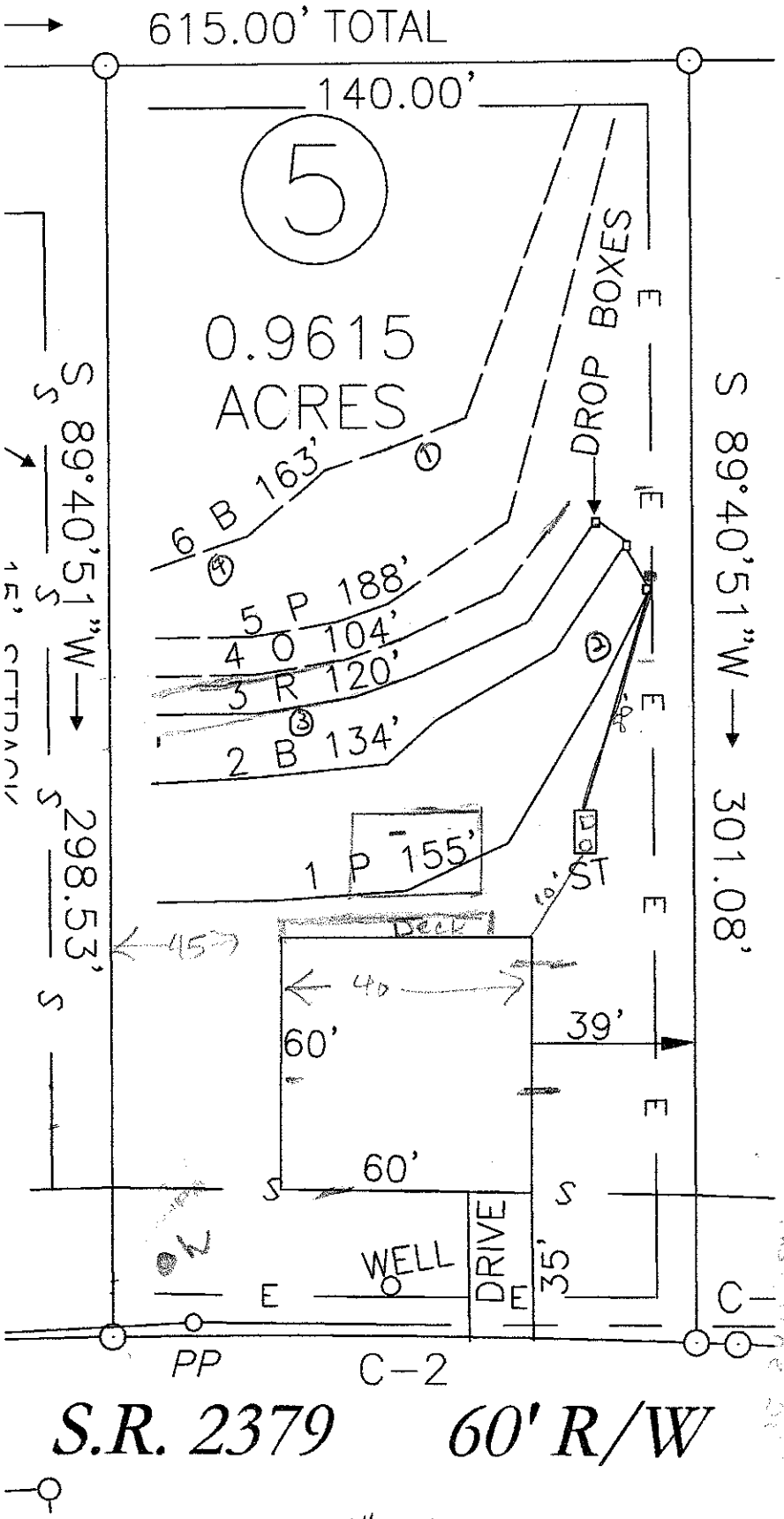
OAK RIDGE LOT 5

LAYOUT FOR 3 BEDROOM HOME 9/20/2006

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***	***155***	***120***
2	***BLUE***			***N/A***	***N/A***	***134***	***120***
3	***RED***			***N/A***	***N/A***	***120***	***120***
4	ORANGE			N/A	N/A	104	104
5	PINK			N/A	N/A	188	188
6	BLUE			N/A	N/A	163	163
					Total	**864**	**815**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	***360***	***0.25***	***ACCEPT.***	*0.25*	***25% RED.***	**GRAVITY DISTRIBUTION**
Repair	455	0.25	*MOD.*	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


615.00' TOTAL
140.00'
5
0.9615
ACRES
S 89°40'51"W
298.53'
S 89°40'51"W
301.08'
DROP BOXES
6 B 163'
5 P 188'
4 O 104'
3 R 120'
2 B 134'
1 P 155'
Deck
10'
ST
45'
40'
60'
39'
60'
35'
WELL
DRIVE
PP
C-2
S.R. 2379 60' R/W
1"=40'

CALCULATIONS

Location OAK RIDGE

Project Number

Lot No: Lot 5

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gal}/_{ft^2\ day}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	40	ft.
Supply Line Volume	6.96	gal.
Required Feet of Line	360	ft.
Amount of Line from Layout	360	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	235.08	gal.
Dosing Volume	NA	gal.

Note: Dosing Volume based on70% of lateral line volume

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