LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	ABMS Development, Inc
Address:	111-B Raceway Drive Mooresville, NC 28117
Phone:	704-664-7029
County:	Iredell
Location:	Northlake LOT #61
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	31.16

Design Specifications

Drainfield Size:	330
Loading Rate (gpd/ft.^{2}):	0.25
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Trench Depth:	36 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	27
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	4.70
Dosing Volume:	183.31
Supply Manifold:	N/A
Supply Manifold Length:	N/A
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	0.64
Elevation Head:	8.70
Total Dynamic Head:	13.04
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 per lateral
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services

Northlake LOT #61

LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.25
TOTAL AREA TRENCH BOTTOM:	990
TOTAL LATERAL LENGTH:	330
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	320
SUPPLY LINE LENGTH:	27
TOTAL DYNAMIC HEAD:	13.04
MANIFOLD SIZE:	N/A
DOSING VOLUME:	183.31
PUMP TANK DRAW DOWN*:	8.7
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

LP PPBPS TAPSHEET -NORTHLAKE LOT#61

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
4	*RED*	100.6	*90*	0.156	**0.41**	270	21
5	*ORANGE*	99.3	*100*	0.156	**0.41**	300	23
6	*PINK*	98.0	*100*	0.156	**0.41**	300	23
7	*RED*	96.5	*40*	0.156	**0.41**	120	9
							76
	total	**feet =**	**330**	**gal/min =**	**31.16**		

Des. Flow	**480**
Pump Run=	**5.88**
soil LTAR	**0.25**
LTAR +5%	**0.2625**
LTAR with mod.	**0.5**
LTAR with mod.. + 5%	**0.525**

.156 equals 5/32 inch hole

CALCULATIONS

Location Northlake

Project Number 01-1391

Lot No: Lot 61

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.250	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	27	ft.
Supply Line Volume	4.698	gal.
Required Feet of Line	320	ft.
Amount of Line from Layout	330	ft.
Gallons per Minute	31.16	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	76	
Dosing Volume	183.31	gal.

Note: Dosing Volume based on 67% of # of panels times 3.6 gal/panel

Tank Draw Down	8.7	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.88	minutes
Elevation Head	8.70	ft.
Pressure Head	2	ft.
Friction Factor	2.37	ft./100 ft. *(From the interpolater.)*
Friction Head	0.64	ft.
Total Dynamic Head (+15%)	13.04	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