S&ME

To: Iredell County Environmental Health Department

From: Kathleen Saunders, LSSIT
Paul Penninger, LSS

RE: Georgia Mills Plantation – Pilot Development – Lot 54 Fast Track

Date: January 2, 2008

Attached is the Fast Track information required to place Lot 54 Georgia Mills Plantation on your individual work list to review the septic system layouts. Please call when you are ready to review the lot and we will meet you on the site.

The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist the Iredell County Environmental Health Department (ICHD) with the site evaluation. The ICHD has to approve each lot and only the ICHD can issue these permits. The system should be installed according to the ICHD permits, policies, and NC rules. If the ICHD wishes to change tank locations, distribution devices, etc., this can be shown on the Improvement Permit.

All information and specifications were prepared in conjunction with the Fast Track Program for Iredell County and are for the sole use of Pilot Development in acquiring permits under the Fast Track Program. It is ultimately the Iredell County Health Department's responsibility to verify all specifications before permitting and/or septic system installation.

S&ME, INC. / 385 Timber Road, Suite 104 / Mooresville, NC 28115-7899 / p 704.662.8625 f 704.662.8735 / www.smeinc.com

Lot 54 GA. Mills Plantation Fast Track Septic System Information

Number of Bedrooms	**3**
Basement or Crawl	**Crawl Space**
Design Flow (gpd)	**360**
Primary System LTAR (gpd/ft2)	**0.3**
Primary System Type	**25% Reduction**
No. Lines	3 (See Table)
Total Linear Feet	300
Trench Width	3' min.
Trench Spacing	9' min.
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	520' of 2" SCH 40 PVC
Flow Rate through the system	16.5 gpm
Elevation head	Approx. 13.9'
Pressure head	2.0'
Friction head	4.0'
20% Contingency	4.0'
Total Head	23.9'
Pump Requirements	16.5 gpm @ 23.9' of head To be designed by installer.
Maximum Dosing Volume	240 gal -2.0 doses/day @ design flow
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 14.5 min.
Check Valve	Yes
Siphon Break hole	Yes
Repair System	**LP PPBPS**
Total Linear Feet	230
Repair Loading Rate	0.3

Table: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Elevation (Ft.)
1	System	Blue	25% Reduction	100 endfed	861.9
2	System	White	25% Reduction	100 endfed	
3	System	Pink	25% Reduction	100 endfed	
4	Repair	Blue	LPPPBPS	93	
5	Repair	White	LPPPBPS	70	
6	Repair	Orange	LPPPBPS	67	855.8
				Total System: 300'	
				Total Repair: 230'	

Tank	Red	1000 gal (2 compartment)	866.4
Pump Tank	Red	1000 gal.	866.4
House	Pink	Right Rear	865

Manifold Information	
Tap Size (In.)	1/2
Tap Material	SCH 80 PVC
No. Taps	3
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	5.5

Note: Fill all minor gullies in septic area. Elevation at top of supply line easement is 872.3 ft.

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Pilot Dev
ADDRESS: _____ APPLICATION DATE _____
PROPOSED FACILITY: _____ DATE EVALUATED: 1/14/08
LOCATION OF SITE: QA Mills #52 PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
WATER SUPPLY: ☒ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____ PROPERTY RECORDED: _____
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

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	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	5-25	0-22	Rd/Brn CL	w/SBK FR, SS, SP		w/ Inclus of SAP			PS .4
		22-55	L/SL	SAP FR, SS, SP					
2	52-2	0-9	Br SL/SCL	FR, GR, NS, NP					PS .3
		9-28	C	m SBK FR SS, SP					
		28-48	Rd CL	w/SBK FR SS, SP		Inclus of yel w. Rock & SAP			
3	52-3	0-19	Rd CL	w/SBK	FR, SS, SP		w/ Inclus of SAP		PS .35 .4
		19-60	L	SAP massive	FR, SS, SP				
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: _____
OTHER(S) PRESENT: _____

COMMENTS: _____

EPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IVISION OF ENVIRONMENTAL HEALTH
N-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

WNER: _____ APPLICATION DATE
DDRESS: _____ DATE EVALUATED: 11/7/07
OPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
OCATION OF SITE: _____ PROPERTY RECORDED: _____
ATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____
ALUATION METHOD: ☐ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

.1949 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
		.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
54-5 L	0-24	WK SBK SCL	FR SS/SP	Red				US
	24-37	WK SBK SCL	FR SS/SP	Red, f-4/or,		f-Chroma 2	(5Y 6/2)	
	37-50	WK SBK C	FR SS/SP	Red, C-4/or				
54-4 L	0-18	Mo SBK CL	FR SS/SP	Red; F yel Br	16"-16"	Fsap		0.3
	18-48	WK SBK SCL	FR SS/SP	Red;				
55-1 L	0-6	Mo GR SL	FR ns/np	Br				0.3
	6-35	Mo SBK C	FR SS/SP	Red; F/C	yel Br	6"-12"	F sap	
	35-60	WK SBK CL	FR SS/SP	Red		C sap		
55-2 L	0-26	Mo SBK C	FR SS/SP	Red; C yel Br +	10YR 5/3 4 5/4			US
	26-54	WK SBK CL	FR SS/SP	Red; F/C 2 Chroma				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
le Space (.1945)		
Type(s)		
LR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: Kathleen Saunders, Karen Wallace
OTHER(S) PRESENT: _____
ITS: _____

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Georgia Mills Plantation — APPLICATION DATE: _____
ADDRESS: _____ — DATE EVALUATED: 11/7/07
PROPOSED FACILITY: House — PROPOSED DESIGN FLOW (.1949): _____ — PROPERTY SIZE: _____
LOCATION OF SITE: Lot 52 — PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☐ Auger Boring ☐ Pit ☐ Cut — TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

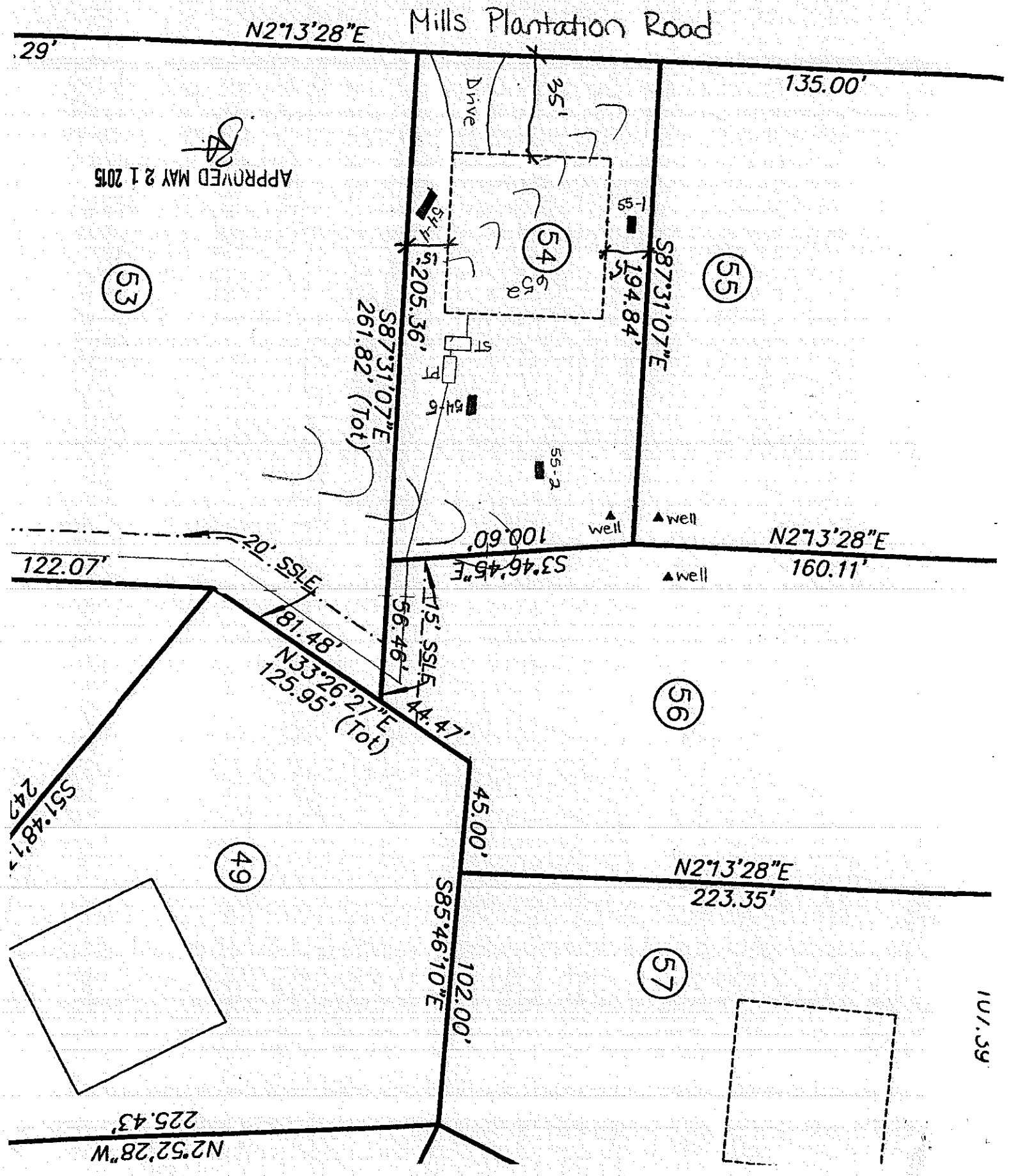
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	52-5 L OK	0-22	WK SBK CL	FR SS/SP	Red Br		C CSL	Sap inc.	0.4+
		22-55	MA L/CL Sap	FR/VFR SS/SP	multi				
2	52-2 L OK	0-9	Mo GR SL	FR NS/NP	Br		F yel WR pockets CSap, F yel WR pockets		0.3
		9-28	Mo SBK C	FR SS/SP	Red				
		28-50	WK SBK CL	FR SS/SP	Red				
	52-3 L OK	0-19	WK SBK CL	FR SS/SP	Red		C Sap		0.4
		19-60	MA L Sap	FR SS/SP	multi				
	52-4 L		2 Chroma	mottles	from surface				US

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
LTAR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: Kathleen Saunders, Karen Wallace
OTHER(S) PRESENT: _____

COMMENTS: _____

APPROVED MAY 2 1 2015


Mills Plantation Road
N2°13'28"E
.29'
135.00'
Drive
35'
APPROVED MAY 2 1 2015
53
54
55
56
49
57
S87°31'07"E
261.82' (Tot)
205.36'
194.84'
100.60'
S3°46'45"E
N2°13'28"E
160.11'
well
20' SSLE
122.07'
81.48'
N33°26'27"E
125.95' (Tot)
44.47'
15' SSLE
56.46'
45.00'
N2°13'28"E
223.35'
S85°46'10"E
102.00'
N2°52'28"W
225.43'
S51°48'1
24
55-1
55-2
St
Pl
Sh
Gar